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Technical Sciences

ОЦЕНКА ПРОИЗВОДИТЕЛЬНОСТИ РАБОТЫ КАРЬЕРНЫХ АВТОСАМОСВАЛОВ

ЕСБОСЫНОВ КАЙРАТБЕК ТУЛЕУОВИЧ

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1.1 Цель работы и методика проведения исследований.

Целью настоящей работы является повышение эффективности использования карьерных автосамосвалов особо большой грузоподъемности, работающих в суровых климатических условиях Западного Казахстана, за счет оценки уровня эксплуатационной надежности машин и отдельных агрегатов, анализа причин отказов.

Повышение эффективности работы проводилось при исследованиях и разработке эффективности работы карьерных автосамосвалов на руднике «Донской» Донского горно-обогатительного комбината АО «ТНК «КазХром» непосредственно в условиях Западного Казахстана. При сборе данных по оценке надежности машин учитывались требования ГОСТов. Обработка исходных данных производилась с использованием методов математической статистики и теории вероятностей. Проведение хронометражных наблюдений для получения достаточного объема информации о работе машин требует больших затрат времени и средств. Поэтому нами принята система сбора информации, которая максимально использует уже имеющиеся источники информации и обеспечивает достижение поставленных целей.

Система сбора и обработки данных о надежности машин и должна обеспечивать:

- получение сопоставимых и объективных данных о надежности однотипных машин;
- возможность обобщения результатов обработки;
- возможность организации централизованной обработки информации о надежности деталей, узлов и машин в целом.

С этой целью в качестве исходной информации были использованы отчетные данные горных предприятий: отчеты диспетчерских и механических служб, книги нарядов, сменные журналы, акты аварий, сведения производственно-технического отдела.

Все это обеспечило получение достаточно полных и точных данных об отказах карьерных автосамосвалов, их причине, продолжительности простоя в ремонте и трудоемкости ремонта. Кроме того, исходными данными служили: время машинной работы оборудования и его продолжительность по различным периодам эксплуатации выбранное по отчетным данным.

При сборе информации о надежности использовались первичные формы, формы-накопители информации и формы записи результатов количественного и качественного анализа надежности.

Первичные формы учитывают несистематизированную информацию о работе карьерных автосамосвалов. Заполнение их производится по месту эксплуатации машин.

Журнал первичного учета информации отражает следующие сведения:

- паспортные данные машины;
- условия эксплуатации и режимы работы;

- дату и время пуска и остановки машины;
- характер отказа деталей или узлов;
- наработку с начала эксплуатации (в часах или километрах пробега);
- время отыскания и устранения отказа;
- причину отказа;
- формы-накопители позволяют систематизировать информацию по необходимому признаку. Например, из автосамосвала как системы нами выделялись следующие подсистемы: механическое оборудование, электрооборудование, ходовое оборудование, гидрооборудование и т.д.

Основными формами записи результатов анализа надежности является:

- перечень показателей надежности машин;
- перечень показателей надежности составных частей машин;
- перечень видов повреждений и отказов;
- ведомость трудоемкости и стоимости технического обслуживания и ремонта.

В качестве нормируемых показателей для оценки надежности машин, согласно действующей методике и ГОСТам приняты:

- K_d - коэффициент готовности;
- $W(t)$ - параметр потока отказов, ч;
- T - наработка на отказ, ч (т.км);
- T_k - среднее время восстановления, ч;
- $K_{ти}$ - коэффициент технического использования.

В установленном режиме эксплуатации коэффициент готовности определяется из выражения:

$$K_d = \frac{T}{T + T_k} \quad (1)$$

где T - величина наработки на отказ, ч.;

T_k - среднее время восстановления, ч.

В целом предлагаемые показатели охватывают как производственную работу машин, так и отражают приспособленность их к проведению работ по техническому обслуживанию и ремонту.

Важное значение для условий Западного Казахстана приобретает вопросы холодостойкости металлоконструкций машин. В связи с этим расчет показателей надежности производится отдельно для зимнего и летнего периодов эксплуатации. За границы зимнего периода приняты месяцы, когда месячная средняя минимальная температура наружного воздуха достигает -20°C .

1.2 Состояние вопроса по диагностике, техническому обслуживанию и ремонту отечественных и зарубежных карьерных автосамосвалов.

Наиболее распространенным видом транспорта на открытых горных работах является автомобильный. Около 60% горной массы на карьерах СНГ и более 85% на зарубежных карьерах перевозится средствами автомобильного транспорта. В ближайшем будущем, с увеличением объемов открытых разработок, грузооборот карьерного транспорта еще более возрастет. Несмотря на то, что автомобильный транспорт является сравнительно дорогим и трудоемким, неоспоримые достоинства и широкий диапазон применения позволяет считать его наиболее универсальным и прогрессивным видом транспорта на открытых горных работах. Основные достоинства автомобильного подвижного состава: высокая маневренность и мобильность, особенно хорошо проявляется в сложных условиях эксплуатации.

Использование автосамосвалов в качестве карьерного транспорта предопределяет необходимость наличия цепочки технологических процессов следующего плана:

- подготовительные работы (подготовка к запуску и запуск двигателя, ежедневный уход, заправочные операции и др.);
- техническое обслуживание;
- текущие ремонты;
- хранение исправных автомобилей в нерабочее время.

Все эти процессы выполняются в карьерных автохозяйствах. Капитальные ремонты автомобилей и наиболее сложных узлов и агрегатов, как правило, осуществляется на авторемонтных предприятиях.

Повышение производительности карьерных автосамосвалов является важной задачей особенно сейчас, когда на открытых горных работах используются мощные дорогостоящие автомобили.

Увеличение эффективности использования самосвалов возможно при проведении следующих мероприятий:

- создания до поступления на карьеры автомобилей производственно-технической базы, обеспечивающей проведение технического обслуживания и ремонта большегрузных автосамосвалов;
- применение погрузочных механизмов с ковшом емкостью, соответствующей объему кузова автосамосвала;
- выбора рационального режима работы автосамосвалов;
- оснащения карьеров комплексом вспомогательных машин, и механизмов для содержания и ремонта дорог;
- обеспечения строительства предусмотренных проектом карьера магистральных автодорог в течение первых лет работы карьера, строгого соблюдения при строительстве внутрикарьерных дорог допустимых уклонов, в соответствии с технической характеристикой эксплуатируемых в карьере автосамосвалов;
- создания подъездов к экскаваторам и местам разгрузки на отвалах в состоянии, обеспечивающем полное использование скоростных возможностей автосамосвалов и безопасность движения;
- создания резерва шин и замены их на линии без возвращения самосвалов в гараж;
- организации заправки автомобилей непосредственно в карьере;
- проведение несложного ремонта автосамосвалов на местах возникновения неисправностей с помощью передвижных автомастерских;
- внедрение современных методов диагностики технического состояния, улучшение качества технического обслуживания и ремонта;
- рациональная организация управления техническим состоянием и возрастной структурой автопарка и своевременное списание изношенных автомобилей;
- совершенствование существующих нормативов на запасные части для автосамосвалов и дифференциация их по климатическим зонам и трудности условий эксплуатации автотранспорта.

1.3. Эксплуатационная надежность и разработка нормативов технического обслуживания и ремонта автосамосвалов БелАЗ-7547 и БелАЗ-75131.

Для анализа работы машин за прошедший период была использована отчетная информация о работе оборудования. В целом, были собраны и обработаны данные по оценке надежности машин. Анализ надежности производился для всего парка карьерных автосамосвалов по усредненной машине. Такое усреднение вполне правомерно, поскольку автосамосвалы эксплуатировались в идентичных условиях.

Данные, характеризующие работу машин были обработаны и усреднены за весь период наблюдения, а также отдельно для зимнего и летнего периодов. Это позволило определить влияние погодно-климатических условий на работу оборудования. Выбор параметров оценки надежности машин производился по методике, приведенной выше.

С целью установления характера распределения уровня надежности между основными узлами и агрегатами карьерных автосамосвалов и выявления наименее надежных из них, рассчитана средняя величина наработки на отказ по основным узлам и деталям машин. Результаты расчета представлены в виде диаграммы (рис. 1, 2), при этом наработка рассчитывалась как в мото-часах так и в километрах пробега. На диаграммах приведена средняя величина наработки на отказ по наименее надежным узлам в порядке нарастания. Данные позволяют сравнить надежность отдельных узлов, выявить наименее надежные из них.

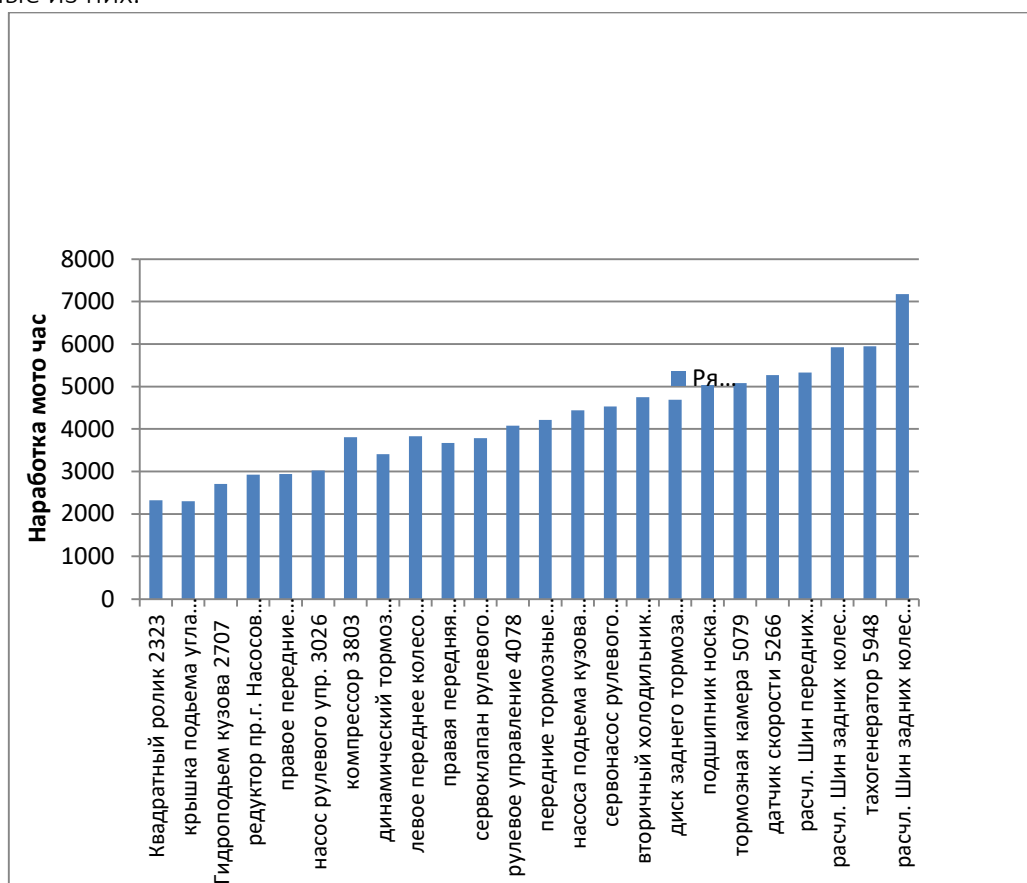


Рис. 1. Диаграмма распределения наработок на отказ основных узлов и агрегатов автосамосвалов БелАЗ-7547 и БелАЗ-75131

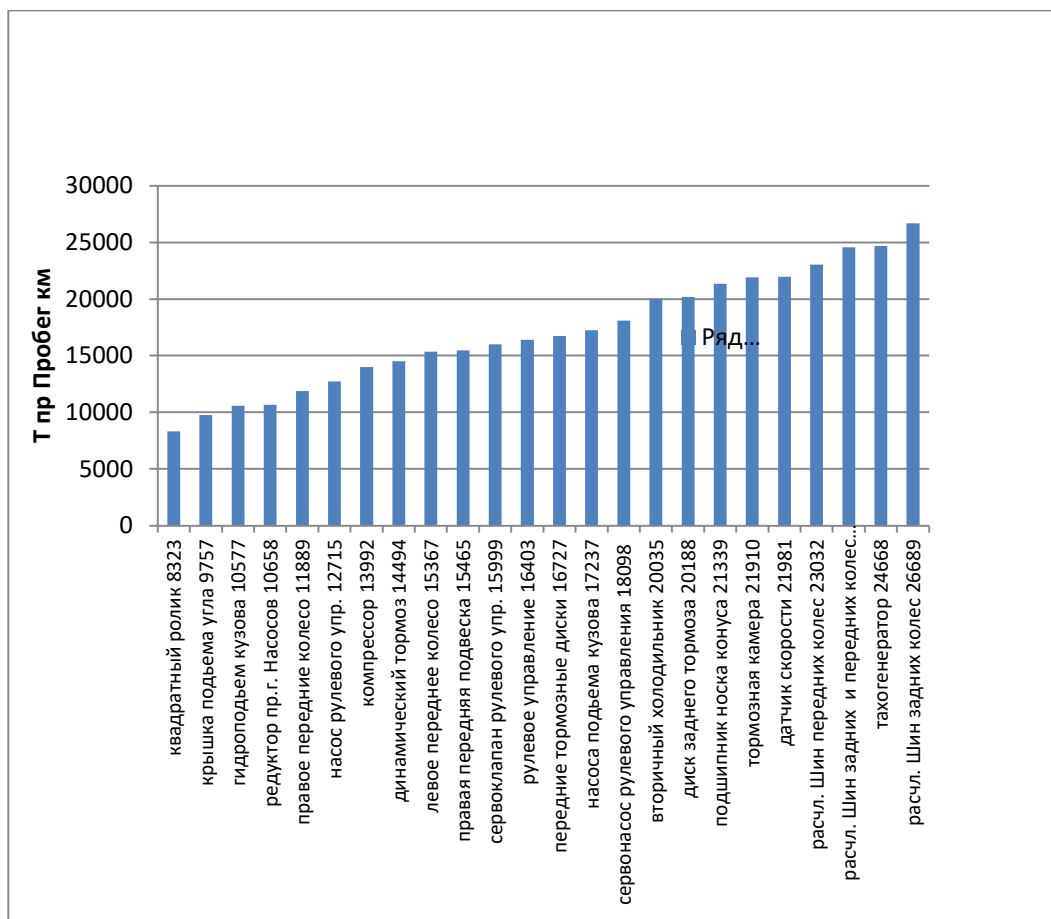


Рис. 2. Диаграмма распределения наработок на отказ основных узлов и агрегатов автосамосвалов БелАЗ-7547 и БелАЗ-75131

Приведенные данные (рис. 1, 2) характеризуют значительный разброс величин наработки на отказ и времени восстановления между отдельными узлами машин. Наименьшей надежностью обладают квадратный ролик, клапан подъема кузова, редуктор привода главных насосов, средний интервал между очередными отказами которых составляет соответственно 2223, 2299 и 2928 мото-часов. Низким уровнем надежности отличаются диски колес, насос рулевого управления, компрессор, динамический тормоз, подвеска передних колес, срок безаварийной работы которых не превышает 3660 мото-часов.

С целью анализа приспособленности автосамосвалов к ремонту рассчитаны величины среднего времени восстановления и трудоемкости восстановления, результаты расчета представлены на диаграмме (рис. 3). Анализ диаграммы показывает, что наибольшая величина времени восстановления приходится на следующие узлы: задние и передние шины и подшипник носка конуса (соответственно 18, 24 и 64 часа). Максимальные значения трудоемкости приходятся так же на эти узлы (соответственно 48, 72 и 168 чел-часов). Все это указывает не только на недостаточный уровень ремонтпригодности выше указанных узлов, но и на невысокий уровень их надежности.

На основании расчетных данных построены диаграммы распределения между отдельными видами оборудования машин. В основу диаграммы положены средние величины параметра потока отказов (рис. 4). Из автосамосвала как системы выделялась следующие подсистемы: электрооборудование, гидрооборудование, ходовая часть, подвеска, двигатель, механическая часть, пневмооборудование и вспомогательное оборудование.

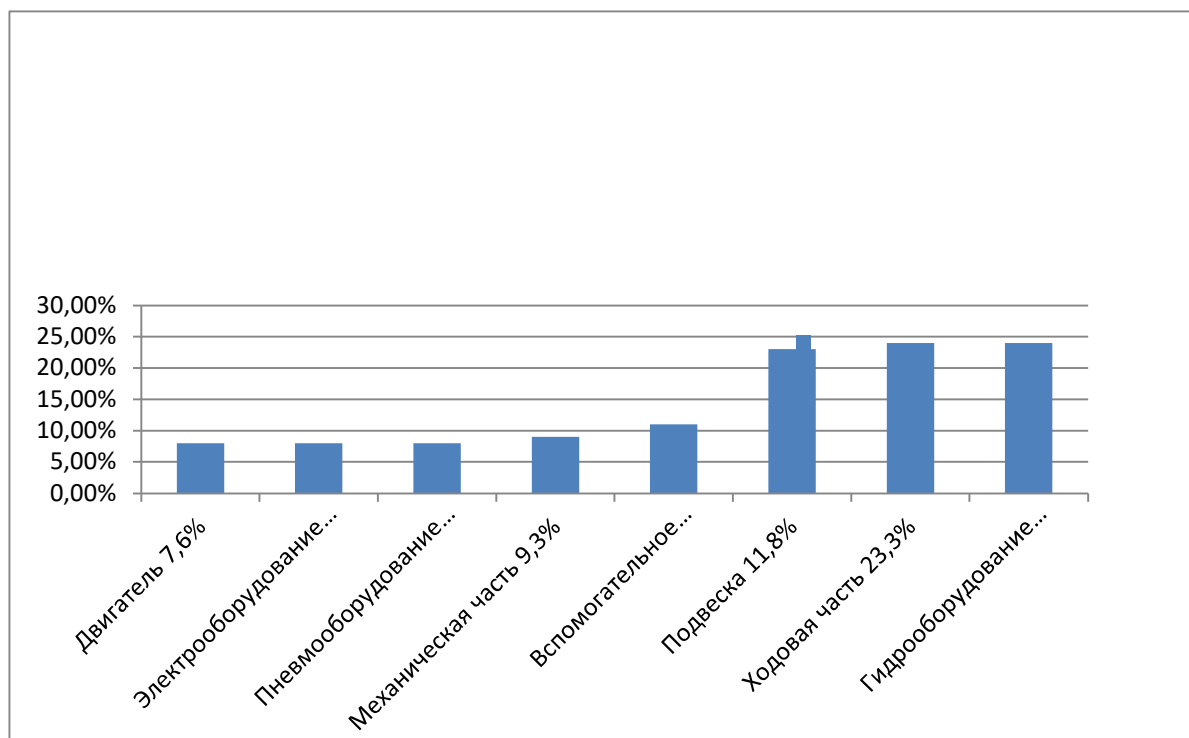


Рис. 3. Диаграмма распределения параметра потоков отказов между подсистемами автосамосвалов БелАЗ-7547 и БелАЗ-75131

Данные диаграммы показывают, наибольшее значение параметра потока отказов приходится на узлы ходовой части автомобиля и гидрооборудование (соответственно 23.3% и 24%). Следует особо отметить, что суммарное значение количества отказов по ходовому оборудованию и элементов подвески, составляет более 1/3 общего числа отказов по автосамосвалу.

С целью установления влияния климатических факторов на эксплуатационную надежность машин произведен отдельный расчет параметра потока отказов по всем видам оборудования автосамосвалов с учетом зимнего и летнего периодов эксплуатации.

Возрастание числа отказов механического оборудования автосамосвалов в зимний период связано с увеличением числа хрупких разрушений металлоконструкций машин и изменением пластических свойств сталей при низких отрицательных температурах окружающего воздуха.

Причиной снижения уровня надежности узлов электрооборудования автомашин в летний период, видимо, следует считать ухудшение условий охлаждения электрического оборудования, что вызывает перегрев отдельных элементов и агрегатов, снижение диэлектрической прочности изоляции и как следствие - выход агрегата из строя.

Одной из основных причин резкого снижения уровня надежности элементов подвески автосамосвалов в летний период являются неудовлетворительные дорожные условия.

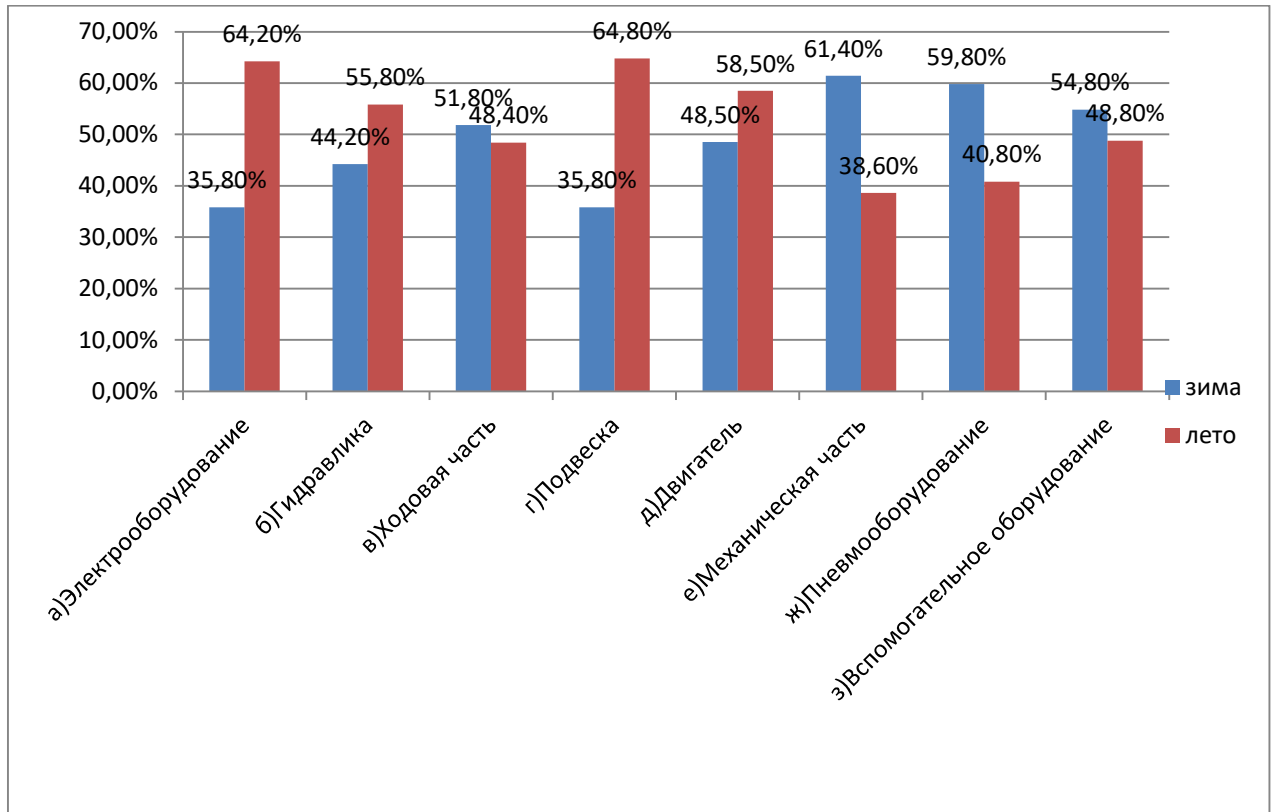


Рис. 4. Диаграмма распределения параметра потоков отказов автосамосвалов БелАЗ-7547 и БелАЗ-75131 по периодам эксплуатации

Анализ надежности работы системы рулевого управления автосамосвалов БелАЗ-7547 и БелАЗ-75131 (рис. 5) показывает, что низким уровнем надежности обладают сервоклапан и насос рулевого управления, имеющие наработку соответственно (3783 и 3020 мото-часов). На этой же диаграмме приведены трудоемкость и время восстановления элементов системы рулевого управления, позволяющие судить о ремонтпригодности системы.

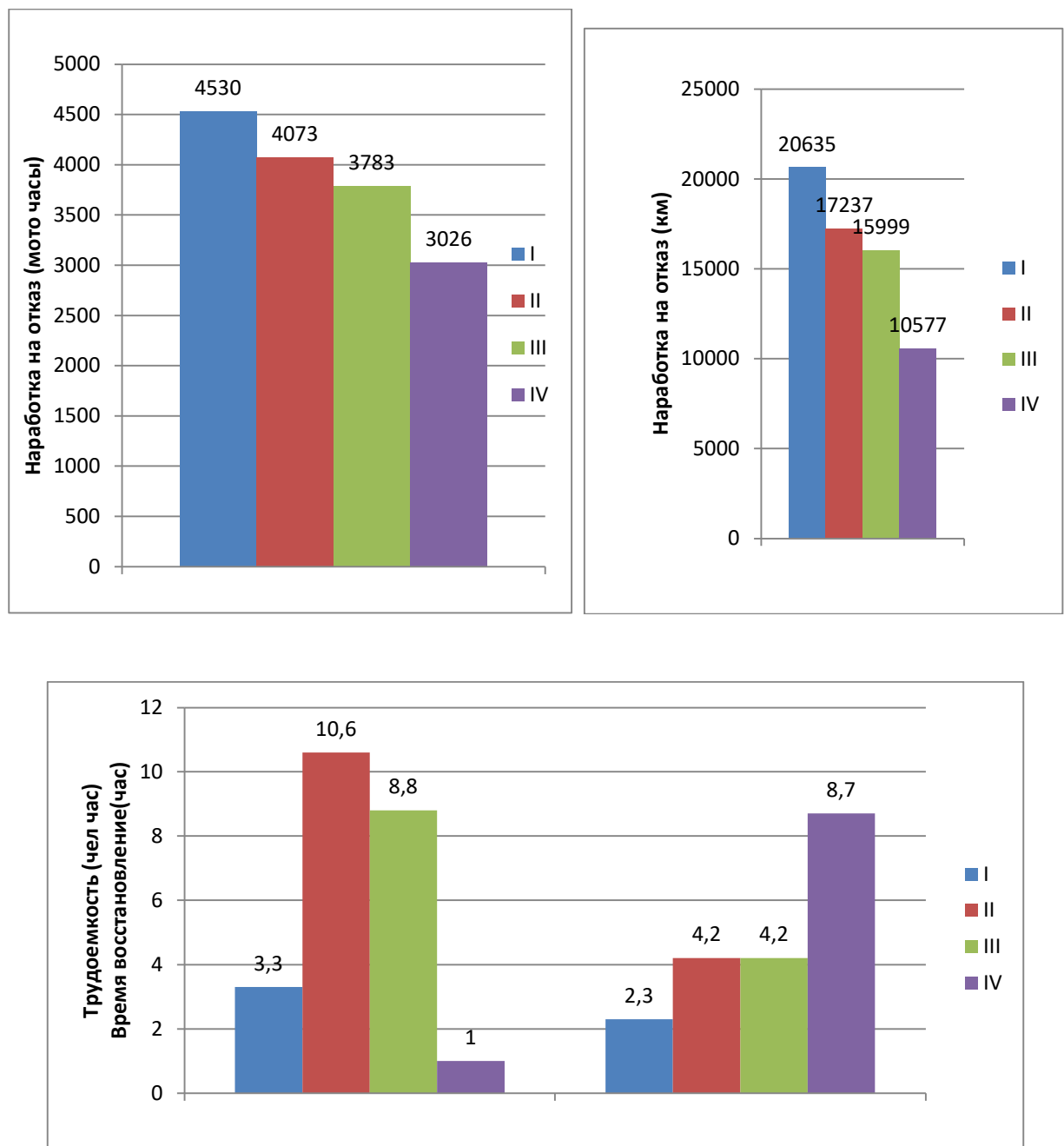


Рис. 5. Надежность системы рулевого управления.

I - Сервонасос рулевого управления. II - Рулевое управление. III - Сервоклапан рулевого управления. IV - Насос рулевого управления.

Вывод

Разработана методика сбора и обработки первичной информации по оценке производительности работы карьерных автосамосвалов.

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Применение беспилотных летательных аппаратов в картографии

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В настоящее время возникла необходимость получения большого объема информации и оперативной ее обработки для получения различных характеристик исследуемых объектов и явлений. Решение таких задач осуществляется путем широкого использования аэрофотосъемки.

Аэрофотосъемка позволяет в сжатые сроки получать изображения с высоким разрешением и полный спектр необходимой информации.

Аэрофотосъемка -это фотографирование поверхности определенной территории с привязкой к координатным данным и создание серий снимков рельефа, которые формируются с небольшим перекрытием.

Возможности беспилотных аппаратов (БПЛА) и оборудования позволяют получить широкий ряд разнообразных продуктов аэрофотосъемки, в число которых входит:

- 1) Ортофотоплан местности - воссоздающий реальное отображение земной поверхности план местности на точной геодезической основе.
- 2) NDVI съемка - ортофотоплан местности, отображающий степень здоровья растений и посевов.
- 3) Цифровая модель местности - 3D модель рельефа с учетом всех находящихся на нем объектов.
- 4) Цифровая модель рельефа – это карта высот поверхности земли без учета находящихся на ней объектов.
- 5) 3D-модель местности представляющая собой реалистичную трехмерную модель местности или объектов с привязкой на точной геодезической основе.

Помимо перечисленного, для аэрофотосъемки характерны и другие, не менее важные преимущества:

- повышенная детальность полученных данных с разрешением до 1 см на пиксель;
- простота выполнения съемки без необходимости выезда и присутствия заказчика на обследуемом участке;
- производительность от 2 квадратных километров за один полет БВС;
- возможность одновременного сбора информации в разных спектральных диапазонах;
- высокая скорость камеральной обработки результатов аэрофотосъемки.

Материалы, полученные с помощью аэрофотосъемки, необходимы в самых разнообразных сферах:

- геодезии для создания ситуационных и топографических планов;
- маркшейдерских изыскания с целью получения точной информации о выборке, расположении ценных горных пород, размещении крупных объектов с подземным размещением;
- кадастровых служб для получения детальных планов участков;
- природоохранной сфере, чтобы отслеживать развитие и передвижение популяций, качество роста зеленых насаждений, контроля пожаров и экологического состояния природных объектов;

- сельском хозяйстве для мониторинга развития посевов и хранения корнеплодов;
- строительстве, где съемка с БВС позволяет грамотно провести планировку территории и визуально увидеть, как возводимые объекты впишутся в окружающий ландшафт;
- военной сфере для съемки полигонов, определения удобных локаций и др.

Главные преимущества беспилотной съемки и трехмерного моделирования является относительная недороговизна и высокая точность материалов. Затраты на создание БПЛА, его обслуживание несравнимы с малой авиацией. Спутниковые GPS/ГЛОНАСС приемники позволяют работать на объекте небольшому количеству геодезистов. Эти факторы приводят к тому, что себестоимость работ по аэрокартографированию и трехмерному моделированию местности существенно отличается от стоимости традиционной аэросъемки.

Применение беспилотных летательных аппаратов в картографии, обусловлено тем, что космическая съемка не позволяет обеспечить достаточную точность и возможность получения фотоснимков труднодоступных объектов местности из-за облачности. Космоснимки имеют разрешение около 50 см/пикс, что недостаточно для составления карт местности крупного масштаба. Материалы «Сервис Гео» имеют разрешение ортофотопланов от 1 см/пикс. Это дает возможность создавать 3D-модели (ЦММ и ЦМР) высокой точности. Аэрофотосъемка с летательных пилотируемых аппаратов требует существенных затрат финансового ресурса. Это вызвано тем фактором, что на обслуживание и заправку самолётов и вертолётов уходит немало средств. В конечном итоге это существенно повышает стоимость самой аэрофотосъемки. К тому же съемка незначительных по площади территорий с применением пилотируемых летательных объектов нецелесообразна. Тем более если заданный участок местности находится на значительном расстоянии от аэродрома.

Основные преимущества топосъемки с БПЛА:

- Высокая рентабельность в сравнении с традиционными методами съемки;
- Быстрота получения фотоснимков, ЦММ и ЦМР;
- Возможность съемки в труднодоступных местах;
- Съемка в местах техногенных катастроф;
- Получение фотоснимков высокого разрешения за счет возможности облета с незначительных высот.

Стимулом к развитию фотосъемки с использованием БПЛА послужило её успешное применение в военных целях, а также разработки в области конструирования новых типов аккумуляторных батарей. Что сразу же переняли изобретатели в гражданских отраслях и коммерческих направлениях в десятках стран мира. Сегодня существует множество программ и инструментов для 3D моделирования, и тем не менее оно не утрачивает свою тенденцию к развитию и становится все актуальней и популярней для различных направлений.

В настоящее время масштабные работы ведутся по созданию 3D-модели города Нур-Султана. Данная модель позволяет видеть нагрузки на инженерные сети, прогнозировать и моделировать процессы градостроительства, создавать актуальную базу по свободным земельным участкам, рациональному использованию, изъятию участков, не используемых по назначению и так далее. Проводимые работы как никогда актуальны. На бумажных носителях не всегда совпадают данные с реальной картиной. Когда специалисты приступают к ремонту дорог, строительству канализаций и так далее, то повреждают кабели, которых, казалось бы, на бумагах там быть не должно.

"Оцифровка же в реальном режиме позволит видеть город как сверху, так и снизу – со всеми инженерными сетями. К примеру, оцифровка инженерных сетей позволит видеть

нагрузки на сети, что позволит своевременно увеличивать мощность, планировать ремонт и упростит процесс подключения новых объектов к инженерным сетям. Также цифровизация предоставляет возможность прогнозировать и моделировать процессы градостроительства, данные о потребности в обеспечении школами, детсадами, больницами, школами те или иные районы", создание геоинформационного центра позволит разрешать спорные вопросы по границам земельных участков между владельцами, выявлять нарушения самозахвата земель, участков, не используемых по назначению.

Новая система также позволяет моделировать природные и техногенные ситуации и поведение инфраструктуры города: это порывы канализации, аварии, паводкоопасные участки города. В этой связи путем моделирования можно заранее подготовиться к разного рода ЧС

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50.43.19

Relevance of temperature control of the fuel preparation process in boiler plants

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Annotation

The article is devoted to the dust preparation process. The article provides a justification for the need for the process of crushing coal to a pulverized state. The process of dust preparation is considered and the peculiarities of the process are described. A simulation model of the process of temperature change at the mill outlet was built, and a temperature control system was built within the specified limits.

Keywords: heat and power complex, boiler plant, dust preparation systems, temperature regime, control, explosion safety, modeling, simulation model.

1. Introduction

Almost all powdered types of energy fuels, when mixed with air, form an explosive mixture that can explode in the dust preparation system if there is an ignition source. In addition to the ignition source, a number of operational and design factors are necessary for an explosion to occur: a sufficient concentration of explosive dust at low humidity, oxygen content, temperature level of drying and transporting gases, etc.

In the operation of dust preparation systems, the drying and ventilation processes of mills are also of great importance, maintaining the normalized temperature of the drying agent behind the mill. If it rises (for example, when a high-temperature dehumidifier is over-supplied, the dehumidifier or fuel supply is stopped), a fire or explosion may occur. Ignition occurs mainly in coal dust deposits on the walls and horizontal sections. When loosening deposits, if significant amounts of fresh air get into them, an explosion or rupture may occur. Therefore, it is forbidden to open drains and hatches on devices operating in dust-collecting installations. Because this can lead to the ignition of dust deposits in the boiler room.

Most of the existing dryers and crushers of thermal power plants operate under conditions of dust concentration close to optimal for the occurrence of an explosion, and in the presence of various combinations of other factors contributing to its occurrence. Therefore, despite the strict regulation of norms and rules aimed at improving the explosion safety of dust installations, both

at the design stage and at the operation stage, fuel dust explosions in these installations are a relatively common phenomenon.

A dust explosion is not a detonation with the formation of shock waves, but a very rapid combustion of volatile gaseous fuels, in which a huge surface area of particles causes an almost instantaneous lifting process, which leads to an intense increase in the pressure of the mixture. In case of a local explosion in the flow of the resulting flame front due to convection, radiation, turbulent diffusion, etc., heat is transferred to the "cold" mixture, causing its ignition and further propagation of the pressure wave throughout the volume of the vacuum system.

The study of dust preparation problems has shown that this process is very complex and dynamic. In this regard, a literature review and collection of information was carried out.

The process of monitoring scientific publications on the process of retraining management has shown that this process is not of scientific interest today. This increases the value of this work. Among the materials considered on this topic, the most popular is the article [1]. It examines the process of dust preparation, performs thermal and thermodynamic calculations.

The work [2] on the presentation of the results of monitoring the state of explosion and fire safety of technological processes of coal mining is an overview without calculations and dynamic characteristics.

Work [3] is devoted to thermal, aerodynamic and thermodynamic calculations of the coal processing system at the CHP, the possibilities of improving the technological scheme through the use of waste condensate and desiccant, which allowed to increase the thermodynamic efficiency of the system.

2 Solid fuel preparation process

Solid fuel enters the power plant in the form of pieces of various sizes (from fractions of a millimeter to 100÷200 mm or more). Contains a small amount of wood chips and scraps. During the cooking process, the fuel turns into a dry powder (pulverized coal) with linear dimensions from fractions of a micron to fractions of a millimeter.

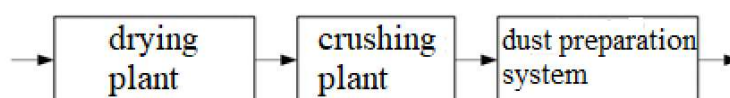


Figure 1 – Solid fuel preparation schemes

Preparation of solid fuel usually takes place in two stages: removal of metal and chips with primary coarse crushing in a crusher; drying and grinding in a powder preparation system. [4].

In an expanded form, the solid fuel preparation scheme can be presented in Figure 2.

The fuel purified from metal is sent to a sieve, where small fractions are sorted. This frees the crusher from small pieces of fuel, which increases its efficiency and reduces energy consumption for crushing.

The remaining large pieces of coal are poured into the crusher. The sifted and fragmented fuel is transported by conveyors to the dust preparation system, which has previously passed through the chip collector. If the chips are not removed, they can clog the mechanisms and channels in the dust cleaning systems.

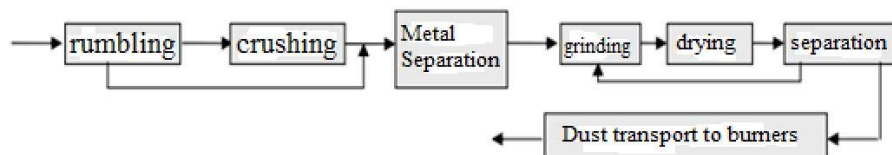


Figure 2 – Extended solid fuel preparation scheme

Supplying the boiler with fuel in the required quality and quantity is one of the most important measures during the operation of the boiler. This is due to the efficiency and reliability of the boiler.

From an economic point of view, it is necessary to ensure such a mode of complete combustion of fuel so that there is no increase in costs associated with underburning of fuel.

The completeness of combustion depends on the size of the fuel particles, the temperature regime in the furnace, the availability of the required amount of air, the intensity of mixing of volatile substances with air, the speed of air supply to the solid particles of the furnace. fuel, fuel, the residence time of combustible compounds in the furnace, etc. All this indicates a very high complexity of furnace processes.

The process of burning fuel in chamber furnaces can be represented as divided into several stages. In the case of solid fuels, such stages are: heating, evaporation of moisture, release of volatile substances, burning of volatile substances, burning of coke particles.

Such an interruption of the gorenje process is conditional, since these stages proceed sequentially, but partially overlap. For example, the release of volatiles from solid fuels begins before the complete evaporation of moisture; the formation of volatile decomposition products of fuels occurs simultaneously with the process of their combustion; similarly, the beginning of oxidation of solid coke particles precedes the end of combustion of volatiles.

Fine dust ignites and burns faster than coarse dust, which reduces fuel consumption. However, its production is associated with high energy consumption, increased wear of grinding media and repair costs.

Therefore, during the tests, the optimal (with minimal total costs) crushing of dust and methods of its production are determined for each fuel.

The fuel entering the furnace is first heated. In this case, if there is moisture in the fuel, it evaporates and then dries the fuel.

The task of organizing processes in the furnace is to maximize the use of the heat of combustion of fuel and, as a result, to achieve the maximum possible heat release in the furnace. The fulfillment of this requirement depends on many factors, the main of which are the temperature regime in the furnace, excess air, primary and secondary mixing.

Heating of fuel and sublimation of volatile substances during their subsequent ignition leads to the coating of a solid particle with a fire shell extended in the direction of the gas air flow. Gorenje solid residues does not begin until the end of the combustion of volatile substances. During this time, the coke molecule heats up to a high temperature, and when the amount of volatile substances decreases, and then the thickness of the boundary layer gorenje decreases, oxygen begins to flow to the hot surface of coal.

The residence time of coal dust in the chamber furnace is very short, 1÷4 seconds. Gorenje gorenje volatiles in this case is only about 10% of the total burning time. Thus, the combustion of solid coke residues is the longest stage of the process of burning fine coal. Therefore, for the complete combustion of fuel in the combustion chamber, it is necessary to create conditions for early ignition and good mixing.

In flame and rotodynamic furnaces, dust from solid fuel is supplied to the burners by a desiccant or hot air. When the dryer is fed, the fuel temperature is low - it usually ranges from

70÷100 ° C. Transportation by hot air with a temperature of 300÷400°C leads to more heating of the fuel before entering the furnace.

Rapid heating of the fuel also facilitates the supply of the entire mass of high-temperature air supplied to the furnace.

The process of ignition of the dust-air mixture is also influenced by the properties of the fuel, the degree of fragmentation, the concentration of dust in the mixture, the consumption of the dust-air mixture, etc.

Brown coal, which is very volatile, ignites at relatively low temperatures. However, when burning very wet fuels, an increased heat supply is required to heat the ballast removed from the dust preparation system (steam and inert gases). Coal with a low volatile content, especially anthracite, has higher flash points.

The ignition process is positively affected by an increase in the degree of dust grinding, since the total reaction surface increases with a constant concentration of mass in the mixture.

The flash point and flame propagation speed also depend on the dust concentration in the mixture. At very low dust concentrations, little heat is released during the oxidation of volatile substances, and the mixture is heated to ignition at a relatively large distance from the firing chamber. With excessive dust concentration, the heat costs for heating the mixture increase, and due to lack of oxygen, the flame propagation rate decreases. Therefore, the amount of air used to produce a dust-air mixture (primary air) should be chosen based on the conditions for creating the dust concentration required for this fuel in the mixture. The amount of primary air in refractory fuels (anthracite, semi-anthracite, skinny) is significantly less than in coals with a high yield of volatile substances.

3. Simulation model of the temperature at the outlet of the mill

Studies of the grinding process have shown that it is important to observe the temperature regime in the mill itself when drying fuel. The temperature control at the mill outlet is carried out by regulating the flow of hot air at the mill inlet using a valve.

Below is a temperature control system at the mill outlet in the Simulink Matlab environment (fig. 3).

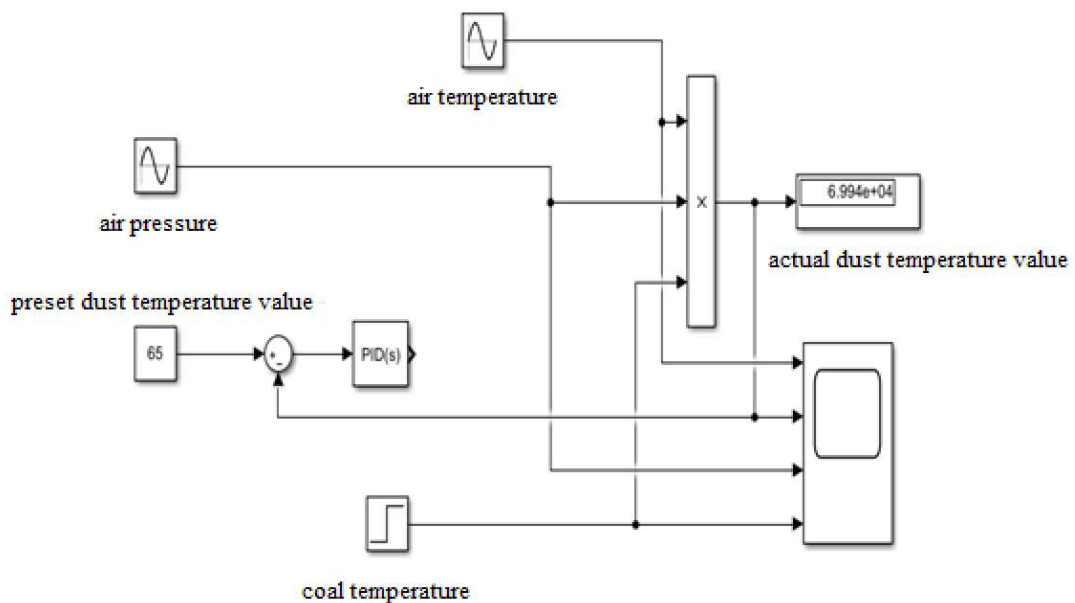


Figure 3 – Simulation of the process of temperature change at the outlet of the mill

As the control object, we take the temperature of the dust-air mixture, which should be 65°C. According to the technology, the adjustment of this parameter is carried out by regulating the pressure of hot air, preheated in two stages of the airflow blows.

The warm air pressure for CDW ranges from 150 to 190 Pa. Adjustment is made by changing the position of the valve.

The temperature of the hot air supplied to the entrance is 370-390 ° C. Let's take the temperature of coal as 1 °C.

Figure 4 shows a graph of the dependence of the temperature and pressure of the heated air on the temperature at the outlet of the mill. The graphs show that the exhaust gas temperature tends to increase without regulation.

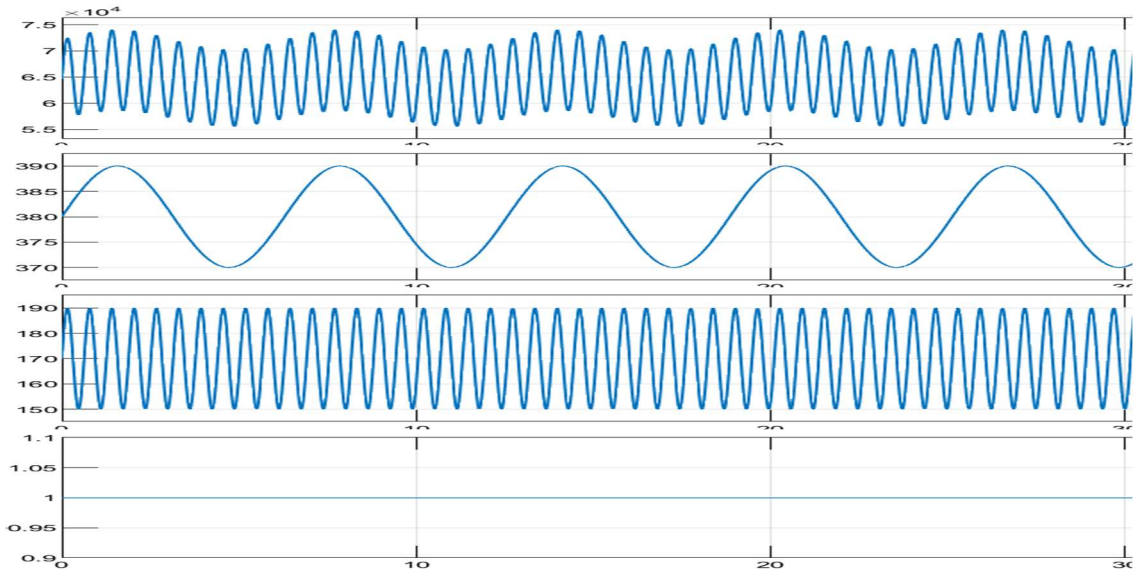


Figure 4 – Simulation of the process of temperature change at the outlet of the mill

When creating an automated control system, the main parameter that ensures the temperature regime is the air pressure behind the airborne, and other parameters, such as the air temperature at the entrance to the mill and the temperature of coal, are interpreted as interfering.

The disturbing effect amplifies the difference between the desired and actual temperature, i.e. the effect is multiplied.

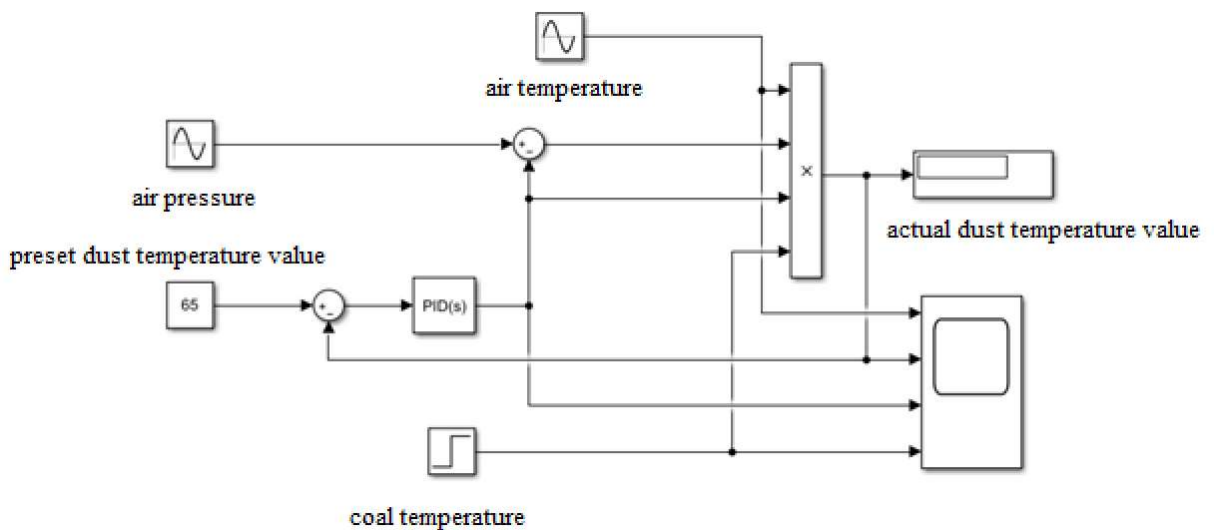


Figure 5 – Simulation of the process of temperature change at the outlet of the mill

The PID controller was chosen as the control controller because the temperature is regulated by the pressure change. Since the process is very fast, P, PI, PD controllers do not cope with this task.

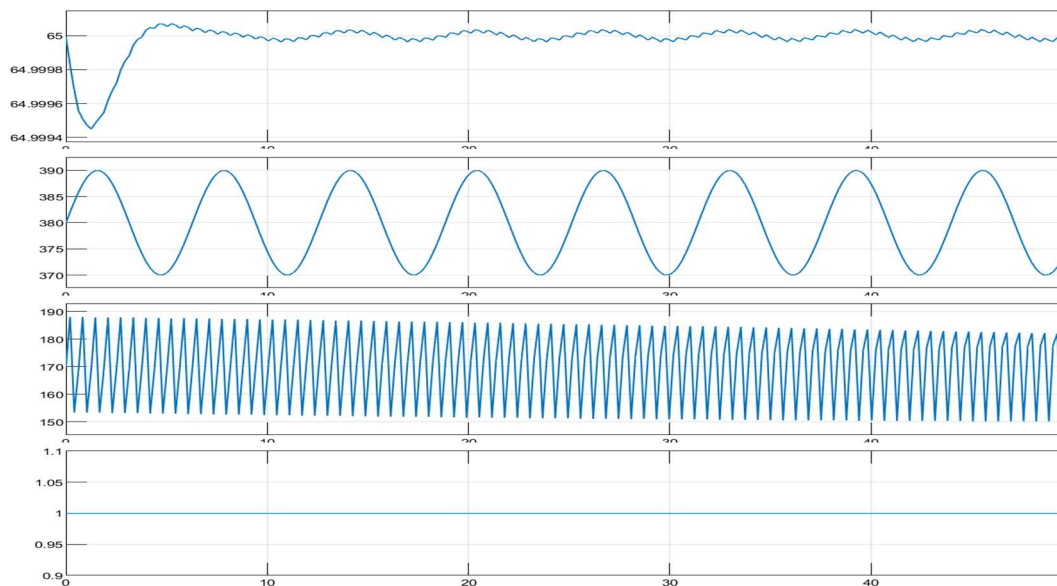


Figure 6 – Simulation of the temperature control process at the mill outlet

As a result of modeling the process of temperature control at the outlet of the mill, we see that the PID controller provides the set temperature with the same input and output parameters.

Conclusions

Examining the process of preliminary preparation of fuel in boiler plants, it is possible to draw a conclusion about the importance of the process. In an attempt to find the rational use of exhaustible natural resources, a method of crushing and drying coal was created. The features of this process have shown the importance of controlling and regulating the temperature of the pulverized mixture at the outlet of the mill in order to avoid explosions and fire. The article collected simulation models of temperature changes in two cases: without regulation and with regulation.

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FEATURES OF MEASURING THE RADIATION PATTERN AT THE P-18M RADAR

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Annotation. The article presents the results of measuring the antenna tilt at different frequencies. An example of the course of a direct and «mirror» radio wave is given. The questions of the dependence of the angle of inclination on the characteristics of the antenna of the P-18M radar station are revealed. This article is useful for radio engineers.

Keywords: radar station, troposphere, antenna, antenna pattern, signal.

The radiation pattern of radar antennas largely determines their tactical and technical characteristics. The main measured parameters of antenna systems that should be checked are the width of the radiation pattern, the directional coefficient, the maximum level of side lobes and the level of back radiation (figure 1) [1, 2].

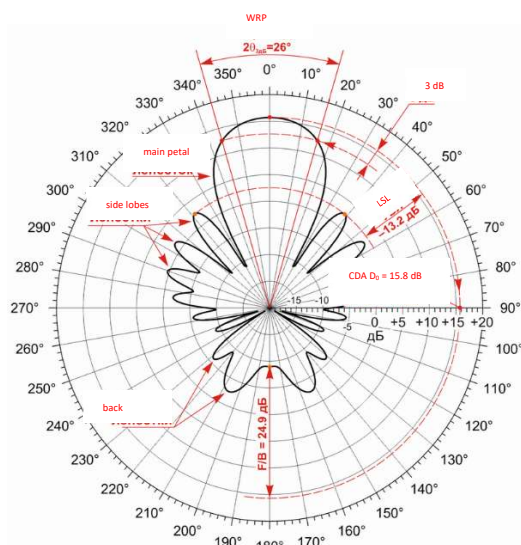


Figure 1. Example of an antenna pattern

Usually, when measuring the radiation pattern of radar antenna systems, only the requirements for the distance from the antenna of the radiation source (ensuring the far zone) and the coincidence of the polarization of the emitting and test antenna are determined. However, the antenna system of the P-18 series radars should have an additional requirement for the angle of inclination of the antenna, since this parameter can change.

In connection with the use of the P-18 M radar station as a measuring device for receiving tropospheric signals, information on changes in the characteristics of the antenna system depending on its angle of inclination was required as part of the research work of the grant funding of the Ministry of Education and Science of the Republic of Kazakhstan. However, there is no such information in the product form [3]. In this regard, special measurements of the characteristics of the radiation pattern were carried out at the measuring range [4].

When receiving signals by the P-18M radar antenna system, 2 signals come to each of its tiers. The first signal is a direct signal coming along the shortest path from the source to the receiving antenna, and the second signal comes from the source "mirrored" reflected from the surface of the earth (figure 2).

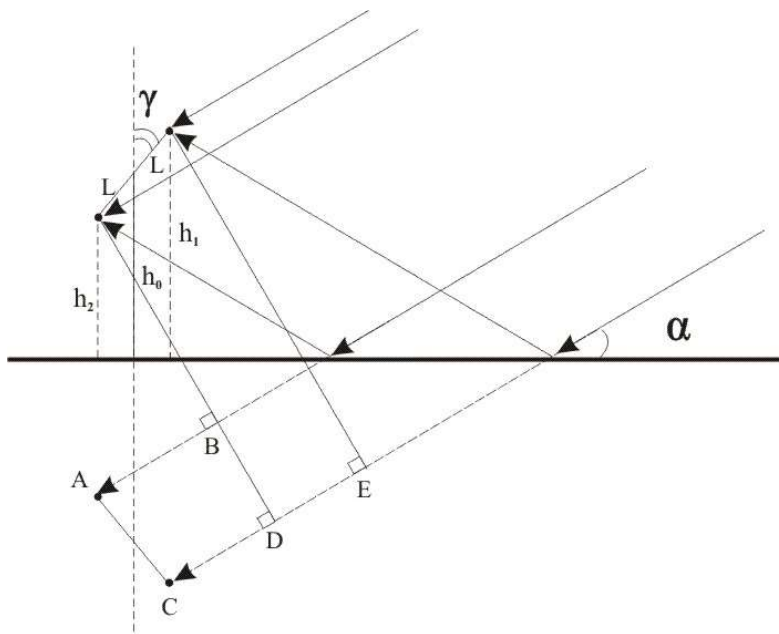


Figure 2. The course of a direct and "mirror" radio wave

From this figure it can be seen that the stroke length of the direct and reflected signal are different and the stroke difference changes with a change in the angle of inclination γ and the angle of reflection α . At the same time, at the reflection point, the signal undergoes additional attenuation compared to a straight wave and changes its phase by 180° .

But as the theory shows, with a mirror reflection, the angle of reflection is equal to the angle of incidence. This kind of reflection takes place when reflected from a flat surface. However, when reflected from an uneven surface, a mirror reflection may also occur under certain conditions.

Let there be an unevenness of height h on the reflecting surface (figure 3).

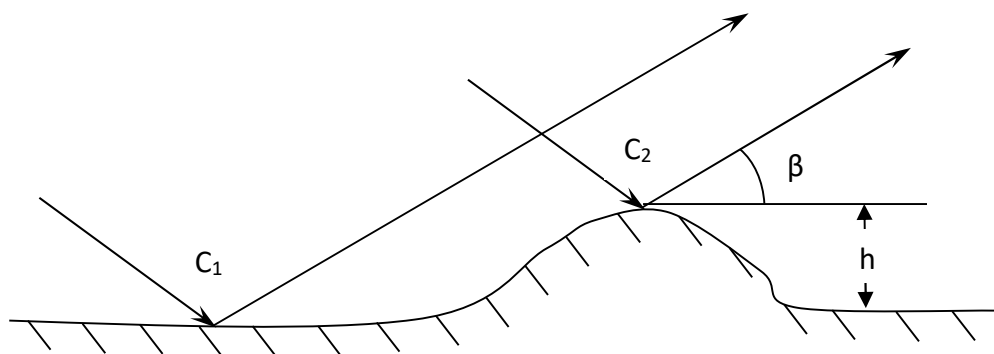


Figure 3. The occurrence of a difference in the course of the radio beams due to the different height of the reflection point

Then the difference in the course of the rays reflected from the top of the roughness and from the flat surface at the base of the roughness will be

$$l = 2h \sin\beta$$

and the phase shift of the fields of these rays will be

$$\Delta\varphi = \frac{2\pi}{\lambda} 2h \sin\beta$$

If

$$\Delta\varphi < \frac{\pi}{4},$$

then, by analogy with optics, such a phase difference can be neglected and the real surface can be considered smooth.

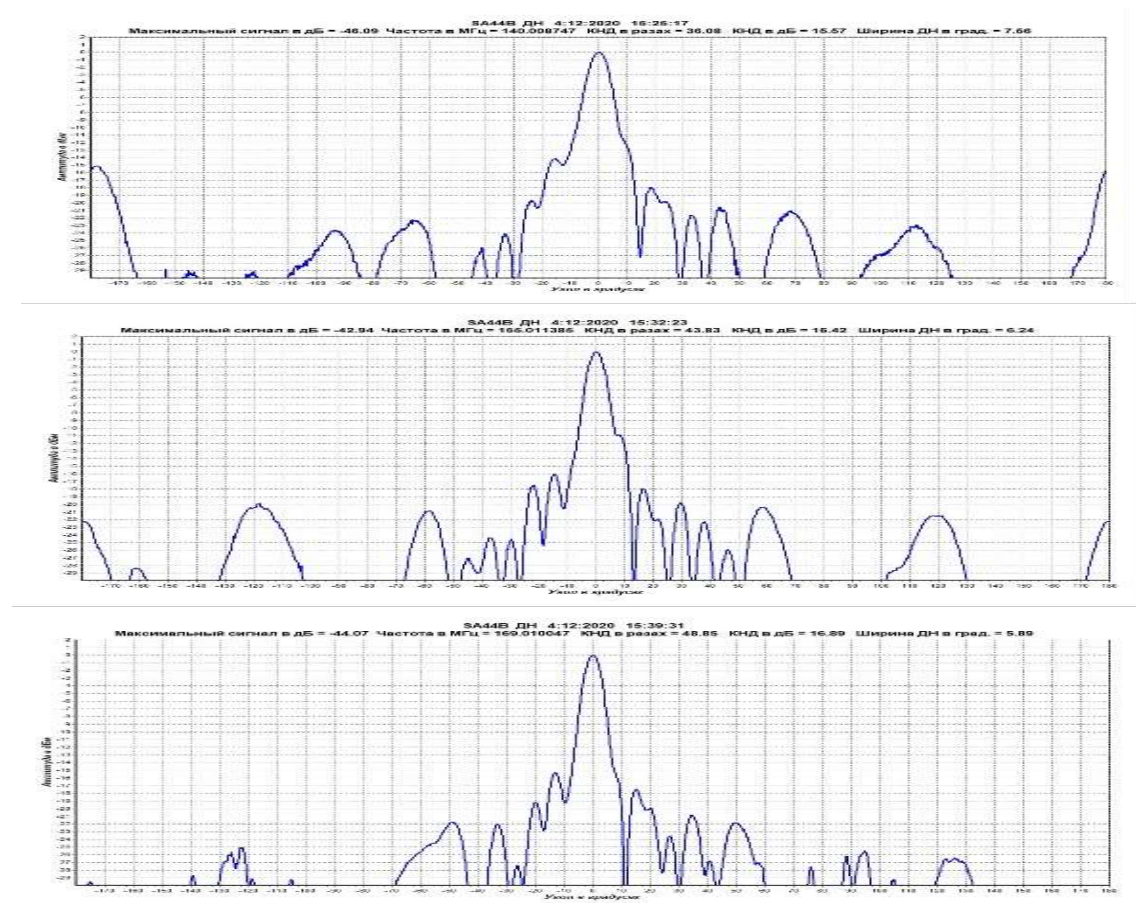
Thus, when

$$h < \frac{\lambda}{16\sin\beta}$$

there will be a mirror image.

Although the issues of reflection from the earth's surface have been studied in general, nevertheless, scientific research in this area continues [5]. To carry out measurements at the landfill, measurements of the radiation pattern were carried out using a certified meter (spectrum analyzer SA-44). Measurements were carried out twice. Repeated measurement was required in order to make sure that nothing happened during the measurements that could affect their results, for example, whether extraneous objects that could be additional reflectors appeared in

the



measurement area. Only if the measurements are repeated, then their results can be considered acceptable.

Figure 4. Examples of the radiation pattern of the radar station P-18 M at different frequencies and angles of inclination

Measurements were carried out at three frequencies (140, 155 and 170 MHz), which corresponded to the beginning of the frequency range of the radar station, its middle and the end of the range. The slope of the antenna varied from -50 to +150, in increments of 2-3 degrees. Examples of the received radiation patterns are shown in figure 4. The measurement results are shown in table 1.

According to the data obtained, it can be seen that, depending on the angle of inclination, the variations in the width of the radiation pattern reach 0.53 degrees, the levels of the side lobes are 2.24 dB, and the directional coefficient is 2.34 dB.

Therefore, it is advisable to fix the angle of inclination of the antenna when taking measurements at a given value. The most optimal angle for measurements should be considered an angle of 0 degrees to ensure comparison with a radar station that does not have the ability to tilt antenna systems.

*Table 1
Frequency dependence on the angle of inclination of the antenna of the radar station P-18M*

	140 MHz			155 MHz			170 MHz		
	WRP, degree	CDA, dB	LMSL, dB	WRP, degree	CDA, dB	LMSL, dB	WRP, degree	CDA, dB	LMSL, dB
- 5°	7.56	15.57	-14.5	6.24	16.42	-16.5	5.62	16.89	-15.2
- 2°	7.47	15.23	-14.6	6.33	16.24	-16.6	5.98	16.77	-15
0°	7.73	15.00	-14.5	6.33	16.17	-16.5	5.80	16.59	-15
+ 3°	7.47	14.27	-14.2	6.33	16.03	-15.9	5.98	16.34	-14.9
+ 6°	7.47	13.21	-13.5	6.33	15.77	-14.5	6.06	15.91	-13.7
+ 9°	7.73	13.52	-12.9	6.59	15.27	-12.5	6.06	14.65	-14.5
+ 12°	7.47	14.78	-12.3	6.77	16.17	-9.4	5.80	15	-14.1

WRP - width of the radiation pattern.

CDA - the coefficient of directional action.

LMSL - the level of maximum side lobes.

Gratitude. *This article is based on the results of research on the topic: "Creation of a mock-up sample of a single-channel tropospheric station of the meter range" No. 00012/GF.*

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Medical Sciences

ПРОБЛЕМЫ ПОДБОРА АДЕКВАТНОЙ ТЕРАПИИ КОМОРБИДНЫХ БОЛЬНЫХ РЕВМАТОИДНЫМ АРТРИТОМ

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Аннотация: *Цель исследования* – изучить структуру и частоту коморбидной патологии у пациентов с РА, их взаимосвязи с эффективностью терапии.

Материал и методы. Был проведен ретроспективный анализ 294 архивных историй болезни пациентов кардиоревматологического отделения УГ НАО «Медицинский университет Семей» с установленным диагнозом ревматоидного артрита за период 2019-2021 гг. Для верификации диагноза использовались Классификационные критерии ревматоидного артрита ACR/EULAR 2010 г.

Результаты и обсуждение. Коморбидные состояния выявлялись у 88,7% больных; у 52,4% пациентов имелось сочетание двух и более коморбидных заболеваний. У 51,5% больных РА выявлялся остеоартроз, у 57,7% – артериальная гипертензия, у 29,3% – ишемическая болезнь сердца. Из воспалительных заболеваний наиболее часто встречалось поражение желудочно-кишечного тракта (80,3%), инфекции мочевыводящих путей (13,5%).

Заключение. Учитывая высокую частоту встречаемости коморбидной патологии у больных ревматоидным артритом, в особенности патологии сердечно-сосудистой системы, болезней желудочно-кишечного тракта, необходима тщательная диагностика сопутствующей патологии у данного контингента больных, комплексный подход в лечении, оценка риска и пользы от назначения лекарственных препаратов для контроля за осложнениями.

Ключевые слова: ревматоидный артрит; коморбидность; мультиморбидность; кардиоваскулярная патология; эффективность терапии.

Ревматоидный артрит (РА) – иммуновоспалительное ревматическое заболевание, характеризуется хроническим эрозивным артритом и системным поражением внутренних органов, приводит к ранней инвалидности и сокращению продолжительности жизни пациентов [1]. Смертность пациентов с РА на 54% выше, чем в общей популяции [2], частота сердечно-сосудистых событий в 2 раза больше по сравнению со здоровыми лицами [3]. Интерес к коморбидным состояниям при РА обусловлен их влиянием на течение и прогноз самого заболевания, выбор тактики лечения и на качество жизни больных. Сопутствующие заболевания могут появиться до появления клинических признаков РА, в период обострения или ремиссии, а также могут быть осложнением хронического аутоиммунного воспаления и (или) его терапии [4]. Необходимо также понимать, что наличие у пациента нескольких коморбидных заболеваний зачастую ведет к вынужденной полипрагмазии, что само собой отрицательно влияет на продолжительность жизни [5].

Цель исследования: Изучить структуру и частоту коморбидной патологии у пациентов с РА, их взаимосвязи с эффективностью терапии.

Материалы и методы исследования: Был проведен ретроспективный анализ 294 архивных историй болезни пациентов кардиоревматологического отделения УГ НАО «Медицинский университет Семей» с установленным диагнозом ревматоидного артрита за период 2019-2021 гг. Для верификации диагноза использовались Классификационные критерии ревматоидного артрита ACR/EULAR 2010 г. (American College of Rheumatology/European League Against Rheumatism Rheumatoid arthritis classification criteria). Рентгенологическая стадия определялась по модифицированной классификации РА по Штейнброкеру. Оценка активности РА проводилась по индексу DAS28 – (Disease Activity Score) для 28 суставов. У всех обследуемых согласно протоколу проводились клинико-лабораторные исследования (ЭКГ, ОАК, ОАМ), определялись биохимические показатели (АсАТ, АлАТ, общий белок, липидный профиль, мочевины, креатинин, мочевая кислота, щелочная фосфатаза, глюкоза крови, РФ, АЦЦП).

Результаты исследования и их обсуждение: Демографические показатели и клиническая характеристика пациентов представлены в таблицах 1 и 2 соответственно

Таблица 1

Демографические показатели

Признак	Показатель
Средний возраст, лет	53,36
Мужчины (%)	65 (22,1)
Женщины (%)	229 (77,9)
Средняя продолжительность заболевания, лет	8,65

Клиническая характеристика пациентов n=294

Признак	Стадия	Частота встречаемости n (%)
Стадия заболевания	Очень ранняя стадия	0
	Ранняя стадия	89 (30,3)
	Развернутая стадия	134 (45,7)
	Поздняя стадия	71 (24)
Форма заболевания	Без системных проявлений	211 (71,78)
	Системные проявления	83(28, 2)
Рентген-стадия	I	16 (4, 6)
	II	143 (48, 6)
	III	122 (41, 3)
	IV	13 (4, 2)
Активность заболевания	1	7 (2,4)
	2	140 (47,6)
	3	147 (50,0)
Индекс DAS (среднее значение)	5,23	
Иммунологическая характеристика	АЦЦП-положительный	260 (88,4)
	АЦЦП- отрицательный	22(7,5)
	АЦЦП не опред	12 (4,1)
	РФ-положительный	214 (72,7)
	РФ- отрицательный	53 (18,0)
	РФ не опред	27 (9,3)

Среди пациентов с ревматоидным артритом коморбидная патология встречалась у 260 (88,7 %) больных, причем 154 (52,4 %) из них имели более одного сопутствующего заболевания (табл. 3).

По результатам исследования, ведущее место в структуре коморбидности занимает кардиоваскулярная патология (87,4%), которая встречается у мужчин в 100% случаев, что соответствует данным полученным в раннее проведенных исследованиях [4,5,6,7]. Артериальная гипертензия (АГ) имела у 57,7% пациентов. По данным анамнеза, у большинства (92,6%) больных она развилась на фоне уже диагностированного РА, у 3,1% диагноз АГ предшествовал постановке диагноза РА, у 4,3% она была выявлена приблизительно одновременно с развитием суставного синдрома. Частота ишемической болезни сердца (ИБС) составила 29,3%, преобладали стенокардия напряжения (СН) III–IV функционального класса (ФК).

Следующей по частоте у больных РА является патология желудочно-кишечного тракта (ЖКТ) – 80,3%. Наиболее часто встречались заболевания желудка и двенадцатиперстной кишки – у 39,8% больных. Как известно, наличие хронического воспаления в ЖКТ, прежде всего эрозивного или язвенного поражения, является сдерживающим фактором при назначении симптоматической и базисной терапии у больных РА и затрудняет лечение. [8,9]. Следует отметить, что 76,9% больных с воспалительными заболеваниями желудка и двенадцатиперстной кишки, были диагностированными до дебюта РА.

Остеоартроз (ОА) выявлялся у 51,5% больных РА, в основном у пациентов старше 45 лет. У 70% больных ОА развился через 1–5 лет после дебюта РА и носил вторичный характер. В 4,6% случаев РА сочетался с подагрическим артритом.

У 26,9% больных РА выявлялась эндокринная патология, представленная СД 2 типа. Хронические воспалительные заболевания мочевыводящих путей, обострения которых создают проблему подбора базисной терапии, регистрировались у 13,5% больных РА.

Заболевания органов дыхания (бронхиальная астма, ХОБЛ) в представленной группе пациентов выявлены только у женщин в 6,5% случаев. Железодефицитная анемия также встречалась исключительно у женского пола в 13,0% случаев

Таблица 3

Структура коморбидной патологии у больных РА (n=294)

Показатель	Число больных, n (%)
Пациенты, имевшие сопутствующие заболевания, всего	260 из 294 (88,7)
Пациенты с наличием двух и более коморбидных состояний	154 из 294 (52,4)
Патология сердечно-сосудистой системы: ИБС АГ Ишемический инсульт	227 из 260 (87,4) 75 (29,3) 150 (57,7) 2 (0,8)
Патология пищеварительной системы: заболевания желудка и двенадцатиперстной кишки хронический холецистит хронический панкреатит	208 из 260 (80,3) 102 (39,8) 68 (26,2) 38 (16,5)
Заболевания суставов: генерализованный ОА подагрический артрит	146 из 260 (56,1) 134 (51,5) 12 (4,6)
Эндокринная патология: СД 2-го типа	70 из 260 (26,9)
Заболевания мочевыводящих путей	35 из 260 (13,5)
Заболевания органов дыхания	17 (6,5)
Железодефицитная анемия	34 (13,0)
Другое (варикозная болезнь вен, онкопатология, остеохондроз и т.д.)	30 (11,5)

Таким образом, в результате исследования, коморбидные заболевания были выявлены в 88,7% случаев, что является достаточно высоким показателем.

Необходимо отметить, что у обследованных пациентов зафиксировано 49,6 % эпизода временного прекращения приема либо отмены БПВП с последующей заменой на другой препарат. В 11,7% случаев это было обусловлено тяжестью сопутствующей патологии и согласовано с лечащим врачом, у 11 больных – обострением эрозивного гастрита и язвенной болезни двенадцатиперстной кишки; у 2 больных – обострением хронического холецистита; у 2 больных – обострением хронического панкреатита, у 3 больных – впервые выявленным гепатитом В, С, у 1 больного – обострения желчекаменной болезни, потребовавшей оперативного лечения.

Сопутствующая патология оказывают существенное влияние как на течение основного заболевания, в частности ревматоидного артрита, так и на выбор тактики лечения таких пациентов, а как итог на долгосрочный прогноз и качество жизни. Недостаточная оценка коморбидных заболеваний делает невозможным достижение основной цели в лечении ревматоидного артрита – Treat to Target [4]. Поэтому основным моментом современной стратегии лечения ревматоидного артрита в реальной клинической практике должен стать принцип «лечим больного, а не болезнь», то есть с учетом мультиморбидного фона [9]. Назначаемая терапия должна быть направлена на достижение ремиссии как основного заболевания - ревматоидного артрита, так и на сопутствующие заболевания.

Выводы: Учитывая высокую частоту встречаемости коморбидной патологии у больных ревматоидным артритом, в особенности патологии сердечно-сосудистой системы, болезней желудочно-кишечного тракта, необходима тщательная диагностика сопутствующей патологии у данного контингента больных, комплексный подход в лечении, оценка риска и пользы от назначения лекарственных препаратов для контроля за осложнениями.

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Sociological Sciences

DEVELOPMENT OF PSYCHOLOGICAL THOUGHTS IN KAZAKHSTAN

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Abstract: Interest in the Kazakh soul, mentality, national psychology arose from an early time. Psychology in Kazakhstan is developing rapidly. There are problems that have not yet found a solution in the history of Kazakh psychology, and therefore require attention.

Speaking about the formation of a psychological opinion in Kazakhstan, it is necessary to remind, first of all, that its history is rooted in the distant past. Even before psychology became an independent science, Kazakh thinkers, akyns, zhyrau, bii tried to solve the mysterious human soul through their works.

Keywords: psychology, thinkers, knowledge, science.

The Kazakh people have always had thoughts about the soul and inner world of a person, even when psychology as a science was not formed. In the XV-XIX centuries, these were the thoughts of Kazakh enlighteners, scientists. Moreover, even earlier, akyns, zhyrau in their poems, in the words of the edification of biys, in proverbs and sayings, in folk art shared their thoughts about the human soul and passed their ideas from generation to generation.

In the study of the history of the formation and development of psychological science in Kazakhstan from a methodological point of view, guided by the stages proposed by Professor K. B Zharykbayev, we will add the results of our own observations and logical judgments. The history of the formation and development of psychological science in Kazakhstan consists of three stages. The first stage-Kazakh psychology before the establishment of Soviet power-is the origins of psychological science, i.e. until the 20th century. . the second stage is called the period of Soviet psychology (1920-1990), the third is the stage of development of scientific psychology, formed in the conditions of sovereign, independent Kazakhstan.

Kazakh thinkers who lived at different times spoke about the phenomena of the soul (psyche). In the works of Asan kaiga, Shalkiiz, Muhammad Haidar Dulati, Uteyboydak Tleukabyluly, Aktamberdy, Bukhar, Shal, Dulat, Makhambet and other poets-zhyrau, scientists-thinkers, the versatility of nomadic ancestors is observed.

Abu-Nasir al-Farabi is one of the founders of philosophical and psychological thought, not only in Kazakhstan, but also in the Near and Middle East and Asia. There is almost no branch of knowledge in which he has not left deep judgments, accurate observations and ingenious guesses. Al-Farabi is recognized by the world as the second teacher, after Aristotle. Farabi left a huge multifaceted scientific legacy of about 200 scientific treatises written in Arabic and translated into various languages of the world. He also did not leave questions about the human soul without his attention. He wrote numerous treatises on psychology. Such as: "A treatise on the essence of the soul", "A word about a dream", "About the power of the soul", "Mind and concept", "A word about the mind of the young", "A word about the mind of adults", "About temperament", etc.

Their well - aimed thoughts were left by Sh . Valikhanov, Y. Altynsarin, Abai, Shakarim. In their works they described the spirit of the people, the human soul, ethnic characteristics of the Kazakhs, child psychology.

Zh Aimauytov is not only a multi-genre writer, the founder of drama and romance, a playwright, a publicist, he also wrote two textbooks on psychology. He is the author of the first textbook on psychology in the Kazakh language. Zh Aimauytov is the founder of the national Kazakh psychological science. His work "Psychology" is one of the first and valuable textbooks in this field in the Kazakh language, and not only in Kazakhstan, but also in the Turkic world. Zh Aimauytov made an invaluable contribution to the development of psychology in Kazakhstan. Despite the tremendous work on the organization of public education in the most difficult conditions of the post-war devastation and civil war, Zh. Aimauytov during these years conducted scientific research, experimental research quite deeply and thoroughly and created a number of original works.

According to the author, psychology is a deep thought, deep knowledge and much that seems to be a mystery to a person can be explained by psychology. First of all, Zh Aimauytov devoted his work to teachers. However, he gave advice to everyone who has public relations, to everyone who can read - to study psychology in view of its exceptional usefulness. In the first chapter, entitled "Psychologiya of neni soyleidi?" (What does psychology study?), the author told about the 2000-year history of psychological science.

In the second chapter, the author describes the methods of psychological research: observation, questionnaire, conversation, etc. For the first time, Kazakhs were explained how mathematical and statistical research methods are used.

The third chapter entitled "Psyche and Consciousness" describes the general characteristics of living beings. The author gave an analysis of psychophysical and psychophysiological phenomena, in particular irritability, sensitivity of living organisms, differences in the psyche of animals and humans, instincts.

The fourth section of the textbook, entitled "Body parts and their functions" contains information about anatomical and physiological mechanisms, i.e. the nervous system and its function, excitation, inhibition, nervous processes, brain areas and their work, sensory organs (eyes, mouth, ears, nose, skin).

The fifth section tells about emotions and feelings. Talking about emotions, facial expressions, the author reinforced with examples from everyday Kazakh life.

The book also discusses the most pronounced feelings and moods (love, ambitions, fears, etc.) and their occurrence. Sensation, perception, associations, memory, imagination and creativity are the main topics of the sixth and eighth chapters. And all this is clearly explained in their native language.

The main problem of psychology is the analysis of complex scientific categories, such as thinking and speech, concept and word, imagination and forms of thinking (concept, opinion, conclusions) in the context of logic and psychology.

The ninth chapter talks about the education of will, courage, and in the tenth about sleep and dreams, hypnosis, and paranormal phenomena.

Chapters 11 and 12 deal with the role of traditions and customs, culture and art, geographical environment in the formation of the human psyche in a socio-social context. The author gives an explanation with clear and attractive examples of how language and oral folk art affect the human soul.

The textbook "Psychology" contains drawings, tables and diagrams and other illustrations. All this increases the effectiveness and value of the textbook.

In 1962, the work of Zh Aimauytov was published in Moscow under the title "Psychology and choice of profession", written as a result of long psychological research, in addition, taking into account the national characteristics of the Kazakhs. The main purpose of the study is to help young people choose the right profession. In it, the author argued that when choosing a profession, it is necessary to take into account the psychological properties of a person and his

innate characteristics (for example, temperament, abilities, character), and also that a person should manage them and improve himself. In other words, a person must know himself.

Zh. Aimauytov's contribution to the creation of Kazakh psychological terminology deserves high appreciation. The works of zh. Aimauytov contributed to the formation of National Mental terminology and its systematization. Their terms were translated and explained as association, apperception, tropism, reflex, Instinct, Intelligence, and they became available for understanding to a simple Kazakh. These and other terms introduced by them are still used in science without changes, and they can be found in modern psychological textbooks. It has enriched the national vocabulary. For example, aldanu (illusion), Arman (ideal), Amal (action), adet (habit), belsengish (activity), zhetkinshek (boy), zhigittik (youth), zerektik (ability), zatshyldyk (materialism), Iman (persuasion), kishkentai Mi (cerebellum), kozgalys (reflex), Kural (manual), Ozat (talent), ontai (reception), siniru (assimilation), Taldar (fiber). From the pen of J. Aimauytov came such psychological terms as: Aser-impression, "aestik — curiosity, balalyk — childhood, tilek — desire, zhan kuattary — soul forces, Amal — action, kyzmet — activity, kilyk — behavior, konil Kuyi — mood, magyna — meaning, Maksat — goal, Meirimdilik — humanity, Erik — will, eligu — attraction, elikteu — imitation, niet — intention, u gym — concept, movement — spirit, etc.

However, the author encountered the following problems on his way:

- analysis of the term and search for a decent and as close as possible to the native language, translation of a foreign word;
- taking into account the peculiarities of pronunciation and spelling of the Kazakh language;
- taking into account the etymology of a foreign word;
- the use of this term in context.

The terms introduced by Zh Aimauytov to this day are widely used in psychology.

Tulegen Tazhibayev, a well-known scientist, a well-known statesman and diplomat and the first psychologist in Kazakhstan, followed in the footsteps of his great ancestors. He was the first Kazakh to defend his dissertation on the topic "K.D. Ushinsky – the founder of pedagogical psychology" in 1939. Tulegen Tazhibayev wrote several monographs devoted to the study of psychological and pedagogical thoughts of Kazakh enlighteners Ch Valikhanov, Abai, and Altynsarin. In 1962, he defended his doctoral dissertation on the history of pedagogy in Kazakhstan.

It is worth to note that Tazhibayev's book "Psychology and pedagogical psychology of Ushinsky" is the first large study in Kazakhstan. The book consists of 4 large sections. In different years, Tazhibayev published articles in republican pedagogical publications. These scientific articles and lectures contribute to the systematic training of students and teachers in psychology. In these works, he repeatedly studied and systematized the terms of national psychology. The textbook "General Psychology" by T. Tazhibayev published in 1992 sets out in detail the theoretical foundations of psychological science.

Salken Balaubayev (1902-1972) can also be attributed to the number of outstanding psychologists who have their place in the formation of Kazakh psychological science.. The works of S. Balaubayev occupy an important place in the history of Kazakh psychology. For many years he lectured students on psychology, was engaged in scientific work. In 1966, together with Abdolla Temirbekov, he wrote a textbook "Psychology" for pedagogical institutes and universities.

E. Sufiev studied the psychological foundations of learning Russian for Kazakh students for many years.

Mazhit Mukanov (1920-1985) can also be attributed to the number of Kazakh psychological scientists who have made a special contribution to the development of Kazakh psychological science. He graduated from the postgraduate course of the Kazakh University in 1949, in 1950, under the scientific supervision of T Tazhibayev, he defended his scientific thesis in psychology. In 1953-1960 he worked as the head of the Psychology department of the Alma-Ata Pedagogical

Institute of Foreign Languages, in 1960-1985 - the head of the psychology department of the Kazakh Pedagogical Institute named after Abai. In 1980, M. Mukanov defended his doctoral dissertation for the first time in Kazakhstan in psychology, and then received the academic title of professor. M. Mukanov worked hard in writing psychological literature, thanks to which he became a professor and doctor of psychological sciences. For more than thirty years he conducted research in the field of ethnopsychology, the history of psychology, psycholinguistics and military psychology. Books from his hands are presented: "Brain and Psyche" (Almaty, 1956), "Terminology manual on psychology" (Almaty, 1957), "Observation and Thinking" (Almaty, 1959), "Education of attention of schoolchildren" (Almaty, 1960), "Individual approach to students" (Almaty, 1961), "Essays of pedagogical psychology" (Almaty, 1962), "Mysterious phenomena of the human psyche" (Almaty, 1960), "Individual approach to students" (Almaty, 1961), "Essays of pedagogical psychology" (Almaty, 1962), "Mysterious phenomena of the human psyche" (Almaty, 1964), "Psychological aspects of programmed learning" (Almaty, 1966), "Thinking in the field of ethno-linguopsychology" (Almaty, 1971), "Basic ideas and concepts of programmed learning" (Almaty, 1973), "Thinking and Intelligence" (Almaty, 1980), "Age and pedagogical psychology" (Almaty, 1982). "Observation and Thinking" (1959) is the first monograph in the Kazakh language.

Doctor of Pedagogical Sciences, Professor K. B. Zharykbayev also promoted research work in the study of the history of the formation and development of psychological and pedagogical thought in Kazakhstan, author of several monographs, a prominent scientist-psychologist.

The main areas of research of Professor K. Zharykbayev: psychology and pedagogy in Kazakhstan, the history of the development of psychological thought, problems of ethnopsychology. His works comprehensively analyzed the concepts of the centuries-old psychology of the Kazakh people. Works: A short bibliographic index on psychology (1917-1967), The development of psychological thought in Kazakhstan (1968); History of Kazakh psychology (1996); Ethnopsychology (1998); psychological views of Zhusupbek Aimautuly (2000).

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Legal Sciences

ВПЛИВ ЕПОХИ РЕВОЛЮЦІЙ НА САНІТАРНО-ЕПІДЕМІОЛОГІЧНЕ ЗАБЕЗПЕЧЕННЯ У XVIII СТ.

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Найчастіше люди змушені жити в умовах скученості та примітивних санітарно-гігієнічних умовах, що може спровокувати епідемії.

Кожна катастрофа унікальна в тому сенсі, що постраждалий регіон має свої соціальні, медичні та економічні характеристики.

Після закінчення революційних перетворень в Англії та встановленні монархічного правління. Англійський уряд сфокусувався на боротьбі з епідеміями. Так, перші англійські карантинні правила, були складені у 1663 році. Ці правила детально описували механізм утримання (у гирлі річки Темзи) суден, а разом з ними і пасажирів, екіпаж та вантажі з підозрою на зараження чумою.

Кількома роками пізніше англійська корона ввела в дію королівські укази, спрямовані на запровадження постійного карантину. Проблема того часу полягала в тому, що, незважаючи на наявність низки офіційних актів щодо карантину, цей медичний захід сприймався більшістю населення з роздратуванням і, що ще гірше з громадської та санітарної точок зору, часто ігнорувався. Карантин встановлювався переважно на 40 днів, іноді цей термін продовжувався до 80 днів.

Така гнучкість щодо тривалості карантину, власне, і була причиною невизначеності та антагонізму, з яким такі заходи сприймалися. Відсутність чіткого та спільного визначення тривалості карантину спотворювала сприйняття корисності та наукової обґрунтованості карантину з боку резидентного населення різних країн Європи, а ще більше - з боку мандрівників, що подорожували. Крім того, карантинні правила іноді застосовувалися як привід для репресивних заходів, а дезінфекція кореспонденції, наприклад, використовувалася як привід для політичного шпигунства.

На початку XVIII століття чума, холера, жовта лихоманка, віспа все ще були страшними інфекційними хворобами, що вимагали карантину. У 1710 році в Англії був прийнятий Карантинний акт, який передбачав смертну кару для осіб, які не дотримувалися обов'язкового 40-денного карантину для людей і товарів, що прибували на острів і підозрювалися або про яких було відомо, що вони були в контакт з хворими на чуму. Подібні закони були прийняті і в США: у 1738 році міська рада Нью-Йорка оголосила карантинну стоянку біля острова Бедлоу з метою запобігання розповсюдженню жовтої лихоманки та віспи. У 1797 році в штаті Массачусетс був прийнятий закон про громадське здоров'я, який встановив повноваження штату щодо запровадження карантину.

У 1893 році як у США, так і в Європі було досягнуто згоди щодо принципового питання

нотифікації хвороб. Цю дату прийнято вважати переломним моментом для ефективної стандартизації стандартів карантинних заходів.

Так, все більш широке застосування карантину та ізоляції вступало в протиріччя з утвердженням прав громадян і зростаючими настроями особистої свободи, породженими Великою французькою революцією 1789 року. В Англії ліберальні реформатори оскаржували як карантин, так і обов'язкову вакцинацію проти віспи.

Історія карантину - як він виник, як використовувався в минулому і як використовується в сучасну епоху - є темою в історії санітарії. Протягом століть, від часів Чорної смерті до перших пандемій XXI століття, заходи громадського здоров'я були важливим способом зменшення контакту між хворими на хворобу та особами, сприйнятливими до неї. За відсутності фармацевтичних втручання такі заходи допомагали стримувати інфекцію, затримувати поширення хвороби, запобігати терору і смерті, підтримувати інфраструктуру суспільства.

Карантин та інші практики громадського здоров'я є ефективними і цінними способами контролювати спалахи інфекційних захворювань і занепокоєння громадськості, але ці стратегії завжди викликали багато суперечок, сприймалися як нав'язливі і супроводжувалися в усі часи і при всіх політичних режимах підводною течією підозрливості, недовіри і заворушеннями.

Ці стратегічні заходи піднімали (і продовжують піднімати) різноманітні політичні, економічні, соціальні та етичні питання. В умовах драматичної кризи у сфері охорони здоров'я права особистості часто зневажалися в ім'я суспільного блага. Використання сегрегації або ізоляції для відокремлення осіб, підозрюваних у зараженні, часто порушувало свободу зовні здорових людей, найчастіше з нижчих класів, а етнічні та маргіналізовані групи меншин піддавалися стигматизації і стикалися з дискримінацією. Ця особливість, майже невід'ємна від карантину, простежується як лінія спадкоємності від часів чуми до Covid-19.

Так, зв'язок між революціями і холерою існує. Французькі реакціонери свідомо називали революцію "заразою", а холеру - "революційно-революційною інфекцією". Французькі республіканці скаржилися на те, що повсюдно в Європі епідемії холери не змогли усунути тиранів з їхніх тронів. Однак, хоча епідемії холери були пов'язані з революційними потрясіннями XVIII століття, інша причина виникнення епідемій була набагато важливішою - рух народних мас.

Наприклад, закони про інспекцію фабрик, про запобігання поширенню холерної холери, кілька законів про міське і громадське здоров'я (вони передбачали заходи щодо поліпшення умов праці на фабриках, водопостачання, каналізації, поховання, житлових умов), а також Закон про усунення санітарних небезпек і запобігання хворобам.

Після закінчення революційних перетворень, європейські держави почали систематично ухвалювати спільні рішення з найважливіших питань міжнародної політики. Довелося перейти від боротьби з "революційною заразою" до пошуку адекватних заходів проти холери.

Таким чином, революції зміни завжди будуть в історії кожної країни, де країна буде сама по собі вирішувати питання внутрішніх перетворень, але боротьба з епідеміями це вже діло усіх країн. Лише об'єднавши зусилля та сфокусувавшись на збереженні здоров'я та життя населення країни досягли такого рівня санітарного забезпечення.

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ШЕТЕЛДІК ЗИЯТКЕРЛІК МЕНШІК ИНВЕСТИЦИЯЛАРЫНДАҒЫ ДАУЛАРДЫ РЕТТЕУ САЛАСЫНДАҒЫ ЮРИСДИКЦИЯ ЖӘНЕ БАҚЫЛАУ ҚЫЗМЕТІ

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Халықаралық инвестициялық құқық режимі мен зияткерлік меншік режимі арасындағы айырмашылықтарды талдау (Дүниежүзілік сауда ұйымы (бұдан әрі ДСҰ) құқығын қоса алғанда), бірқатар құқықтық мәселелерді түсіндіруге көмектесетін қызықты нәтижелер береді деп ойлаймын.

Алдын ала юрисдикциялық мәселе ретінде инвесторлар мен мемлекет арасындағы даулардағы бастапқы мәселе қаралып отырған зияткерлік меншік құқығын реттеуші инвестициялық келісімге сәйкес «инвестициялар» анықтамасына кіретінін білдіреді. Бұл юрисдикциялық кедергі жойылғаннан кейін ғана трибунал зияткерлік меншік құқығын, қорғаудың негізгі стандарттарын қозғайтын мемлекеттік шараларды бұзғандығы туралы мәселені қарастырады. Басқа жерде біз зияткерлік меншік құқығы басқа елдерде қамтылатын инвестициялар ретінде қаралуы мүмкін бе және қандай жағдайларда қарастырылатыны туралы мәселені қарастырдық. Мұнда қолданылатын Ішкі аудиторлар институтына және (егер қолдануға болатын болса) Инвестициялық Дауларды Реттеу жөніндегі халықаралық орталықтың Конвенциясына сәйкес зияткерлік меншік құқығы қорғалған инвестициялар деп санауға болатынын талдау үшін тұтас тәсіл қажет екенін атап өту жеткілікті. Барлық зияткерлік меншік құқығы инвестицияның сапасына ие емес. Қабылдаушы мемлекетте зияткерлік меншік құқығы жай иелену осы талаптардың өзін қанағаттандырмайды. Мәселен, бұл «Bridgestone v Panama» ісінде жеделдетілген қарсылықтар жөніндегі шешімде тікелей көрсетілген, онда сот «тіркелген тауар таңбасы оның иесі тауар таңбасының өзімен бірге инвестициялардың қалыпты сипаттамалары бар қызметте пайдаланған жағдайда сараланатын инвестиция болып табылады» деген [1].

«Philip Morris v Uruguay» ісінде трибунал «Уругвайдағы өтінім берушілердің инвестициялары», соның ішінде тауар таңбаларына, «Екі жақты инвестициялық шарттың 1 бабына сәйкес» сауда белгілері немесе қызмет көрсету белгілері, сауда атаулары, тауар шығарылған жердің көзі немесе атауын көрсету» терминінің анықтамасына жатады деген қорытындыға еш қиындықсыз келді [2].

Жоғарыда айтылғандардың маңызды тәжірибесі – зияткерлік меншік құқығы ішкі құқықтық тәртіпке бағынышты болмаған. Халықаралық құқық (ТРИПС немесе Ішкі аудиторлар институтын қоса алғанда) зияткерлік меншік құқығын құрмайды. Инвестициялық шарт инвестор өзінің мүддесі туралы мәлімдей алатын жаңа ережелерді жасамайды, сондай-ақ жаңа «зияткерлік меншік құқықтарын» немесе «қаржылық құндылығы бар келісім- шарт бойынша орындауға қойылатын талаптарды» жасамайды. «Бұл нәрселерге құқықтар олардың жеке құқығы - оларды құрған ұлттық құқық жүйесіне сілтеме жасай отырып ғана әрекетете алады. «Бұл зияткерлік меншік құқығына қатысты шараларды қарау кезінде халықаралық инвестициялық трибуналдар үшін бірнеше маңызды салдарға

ие. Жалпы, ішкі және халықаралық құқықтан зияткерлік меншікпен байланысты құқықтар нақты осы негізде мүдделердің тепе-теңдігін талап ететіндігі анық. Бұл зияткерлік меншік құқығының утилитарлық негіздемесіне байланысты болады. Сондықтан, ТРИПС бойынша келісім ТРИПС-тің икемді мүмкіндіктерін қарастырады және мемлекеттік саясат шараларының ажырамас заңдылығын мойындайды [3, 29 б.].

Зияткерлік меншік құқықтарының ішкі сипаты нақты зияткерлік меншік құқығы шеңберінде «инвестициялармен» Ішкі аудиторлар институтын қамту туралы мәселені шешу үшін маңызды мәнге ие. Тек тиісті ішкі заңнама нақты зияткерлік меншік құқығы бар ма деген сұраққа жауап бере алады. Егер ұлттық заңнама нақты зияткерлік меншік құқығын мойындамаса, онда ол Ішкі аудиторлар институтына сәйкес инвестиция ретінде қарастырылмайды. Бұл, егер ұлттық заңнама тіркеуге байланысты нақты құқықтарды бермесе, зияткерлік меншікке деген өтінімді тіркеу жабылған инвестиция ретінде қарастырылмайды дегенді білдіреді. Бұл сондай-ақ зияткерлік меншік құқығының күшін жою, шектеу және ұсыну Халықаралық инвестициялық трибуналдар емес, ұлттық соттардың юрисдикциясына жататын мәселелер болып табылатынын білдіреді. Ұлттық соттардың шешімдері бірінші кезекте зияткерлік меншік құқығының өмір сүруінің негізін қалыптастырады. Ұлттық заңнамада ешқандай негізі жоқ төрелік шешімдер айқын ерекшелік болып табылады [4, 28 б.].

Енді, инвесторлар мен мемлекет арасындағы дауларды реттеуге қатысты соттық бақылау тұрғысынан шағын құқықты талдауға тоқталып өтелік. Инвестициялық трибуналдардың зияткерлік меншікпен байланысты сот шешімдерін қайта ойластыру өте күрделі. Мысалы, ұлттық соттардың патенттерді қайтарып алуы туралы мәселені қарастырайық. Лидделл мен Вайбель осы мәселе бойынша өз зерттеулерінде атап өткендей, патенттерді соттардың қайтарып алу себебі патенттік ведомстволардың ешқандай ресурстары жоқ немесе оларға сотта ешқашан табысты дау айтылмайтын шешімдер қабылдауға кедергі келтіретін уақыт бойынша шектеулерге тап болып отыр. Тіпті патенттік ведомстволардағы бақылаудың жоғары деңгейі де мүмкін емес – және құндық талдау тұрғысынан, олардың шешімдерін кейін сотта жою мүмкіндігін болдырмауы тиіс емес. Лидделл және Вайбель патенттерді беру әрқашан шартты сипатта болады деген келесідей қорытындыға келеді. Яғни, Канада - ЕО Жалпыға ортақ экономикалық және сауда келісімінде қабылданған соңғы келісім тұжырымының осы сәттілігін одан әрі атап көрсетеді ЕО келісімінің 8.12.6- бабы бойынша бірлескен өтініште Келісімнің тараптары былай мәлімдейді: «Инвесторлар мен мемлекеттер арасындағы дауларды реттеу жөніндегі соттар екенін еске ала отырып, ... ұлттық соттардың шешімдеріне шағымдану тетігі болмаса да, Тараптар әрбір Тараптың ұлттық соттары зияткерлік меншік құқықтарының бар-жоғы мен шынайылығын анықтау үшін жауапты болатынын еске салады. Тараптар сондай-ақ әрбір Тарап өзінің құқықтық жүйесі мен тәжірибесі шеңберінде зияткерлік меншікке қатысты осы Келісімнің ережелерін жүзеге асырудың тиісті әдісін дербес айқындауға құқылы екенін мойындайды. Тараптар осы Келісім күшіне енгеннен кейін үш жыл ішінде немесе Тараптардың бірінің өтініші бойынша зияткерлік меншік құқықтары мен инвестициялық пәндер арасындағы арақатынасты қайта қарауға келіседі. Осы шолуға қосымша және талап етілетін шамада тараптар 8.31.3-баптың ережелеріне және осы Келісімге сәйкес инвестицияларды қорғау саласын тиісті түсіндіруді қамтамасыз ету үшін міндетті түсіндірулер бере алады. Яғни, оған сәйкес Жалпыға ортақ экономикалық және сауда келісімінің Біріккен комитеті міндетті түсіндірулер қабылдай алады» [5, 1496.]. Бұл сипаттама инвестициялық трибунал патенттердің бар болуы мен шындыққа қатысты ұлттық соттардың шешімдерін қайта қарау тетігі ретінде жұмыс істемеуін түсіндіреді.

Зияткерлік меншік құқығын ерекше құқық ретінде қарастыратын болсақ, онда мәнді мәселелеріне қатысты, біз зияткерлік меншік құқығының абсолютті емес екенін көрдік

және тек ерекше (теріс) құқықтарды ұсынады. Бұл әсіресе тауар белгілері үшін өзекті. ДСҰ прецеденттік құқығында және ЕО құқығында анықталғандай, Париж конвенциясы және ТРИПС жөніндегі келісімнің 16-бабы үшінші тараптардың (тіркелген) тауар таңбасын рұқсатсыз пайдалануына ғана кедергі келтіреді. Мәселен, «Philip Morris v Uruguay» ісі бойынша инвестициялық трибунал «тауар белгісі» - бұл басқа тұлғаларға қатысты қолданылатын пайдалану құқығы, айрықша құқық, бірақ салыстырмалы. Бұл мемлекеттік реттеуші ретінде пайдалануға қарсы болуы мүмкін абсолютті құқық емес. Осылайша, сот «тауар таңбасының иесінің реттеуден тыс пайдаланудың абсолюттік құқығы жоқ және де үшінші тұлғаларды нарықтан алып тастауға да айрықша құқығы жоқ, сондықтан тек тауар таңбасының иесі ғана мемлекеттің реттеуші өкілеттіктеріне бағынып, саудада тауар таңбасын пайдалануға мүмкіндігі бар деген қорытындыға келді» [2].

Зияткерлік меншік құқығының айрықша құқықтар ретінде танылуы, сондай-ақ экспроприация туралы талаптардың зияткерлік меншікпен байланысы үшін маңызды. Себебі, жалпы экспроприация туралы заңды реттейтін стандарттар зияткерлік меншік құқықтарының болжамды экспроприациясына қолданылады. Бұлай шамалауға зияткерлік меншік құқығын қарапайым меншік құқығы ретінде қарау сияқты пікір қалыптастыру керек. Бұл жөнінде Маргрет Баррет былай деді: «Инвестиция жүретін жерде, әдетте, меншік құқығының қатысы бар болады» [6, 2 б.]. Халықаралық инвестициялық Арбитражда мұндай талаптар «Wena v. Egypt» ісінде дәлелсіз болып табылды. Бұл жағдайда трибунал атап өткендей, «экспроприация материалдық мүліктік құқықтармен шектелмейді» [7]. Алайда трибунал шарттық құқықтарға негізделген және зияткерлік меншік құқығы экспроприацияға жата ма деген мәселені ескермеген деп ойлаймыз.

«Филип Моррис v. Уругвай» ісінде трибунал қаралып отырған тауар белгілері экспроприациялануы мүмкін мүліктік құқықтар болып табылады деген қорытындыға келді. Сот «тауар таңбасына меншік құқығы белгілі бір жағдайларда оны пайдалануға құқық береді, бірақ одан әрі осы мән- жайларды түсіндірмеген» деген қорытындыға келді. Сот айрықша құқық пайдалану құқығын қамтиды және бұл құқық негізінде экспроприацияға қабілетті болуы тиіс екенін негізге алды [2]. Алайда, жоғарыда айтылғандай, бұл зияткерлік меншік құқығын дұрыс түсінбеу болып табылады: тауар таңбасын пайдалануға кез келген құқық осы мемлекеттегі тиісті реттеуге негізделеді. Шынында да, бұл зияткерлік меншікті халықаралық деңгейде қорғаудың іргелі ерекшелігі. ДСҰ-ның Тауар белгілері немесе ЕО тауар белгілері жөніндегі сарапшылар тобы ТРИПС өз мәні бойынша ұйым мүшелеріне мемлекеттік саясаттың заңды мақсаттарын қудалауға еркіндік беретіндігін көрсетеді, өйткені мемлекеттік саясаттың мақсаттарына қол жеткізу жөніндегі көптеген шаралар зияткерлік меншік шеңберінен шығады және ТРИПС жөніндегі келісімге сәйкес алып тастауды талап етпейді. Мұның бәрі жоғарыда көрсетілгендей, ТРИПС бойынша Келісімнің 7 және 8 баптарының аясында қарастырылуы тиіс. Бұдан басқа, Париж конвенциясы да, ТРИПС жөніндегі келісім де мемлекеттің тауар таңбаларын экономикалық емес негізде пайдалануды шектеуге, әсіресе адамның өмірі мен денсаулығын қорғауға қатысты егемен құқықтарына нұқсан келтірмейтіндігін байқаймыз.

Тағы бір тәжірибеде орын алған мысал мәжбүрлеу лицензияларын беруге қатысты. Мысалы, мәжбүрлеп лицензия беру (жанама) экспроприация болып табыла ма деген мәселені қарастырайық. Соңғы Ішкі аудиторлар институтының көпшілігі, әдетте, осы мәселеге қатысты нақты тұжырымдарды қамтиды. Мысалы, 2012 жылғы АҚШ-тың үлгілік екі жақты инвестициялық келісімі (2004 жылғы АҚШ-тың үлгілік екі жақты инвестициялық келісімімен қатар) өзінің 6 (5) бабында «оның бабы «экспроприация туралы» ТРИПС жөніндегі келісімге сәйкес зияткерлік меншік құқығына қатысты берілген мәжбүрлеу лицензияларын беруге қолданылмайды» деп түсіндіреді [8].

Қорытындылай келе, патенттік құқықтардың табиғатынан мәжбүрлі лицензия патентті экономикалық пайдалану мүмкіндігін жоққа шығармайтыны анық, атап айтқанда бұл шара тұрақты сипатқа ие емес. Осы себептер бойынша Еуропалық парламент ЕО-ның болашақ инвестициялық саясатын талқылай отырып, зияткерлік меншік құқығы инвестициялық келісімнің қолданылу аясына енгізілген жерде «не» екенін талап етті. Бұл ережелер патенттелмеген дәрілік заттарды өндіруге теріс әсерден аулақ болуы тиіс және қоғамдық денсаулық сақтау үшін ТРИПС-тен алып тастауларды ескеруі тиіс. Бұл нәтиже патенттік қорғауды негіздеу тұрғысынан да мағынаға ие. Мәжбүрлеу лицензиясы денсаулық сақтау саласындағы дағдарыстар мен төтенше жағдайлар кезінде беріледі және осылайша әлеуметтік қамсыздандырудың нақты мақсаттарына айқын қызмет етеді. Патенттік қорғаудың ең негізі әлеуметтік әл-ауқатқа жәрдемдесу болып табылатындықтан, мұндай шараларды қарау кезінде жанама экспроприация зияткерлік меншік нормалары мен халықаралық инвестициялық құқық арасындағы қайшылықты білдіреді.

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Historical Sciences

VICTORY IS YOURS AZERBAIJAN SOLDIER

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Abstract: Wars are important in all stages of history. After gaining its independence in the 1990s, Azerbaijan faced the threat of Armenia's occupation of Karabakh. On September 27, 2020, the Azerbaijani army rose to fight to end the 30-year longing. On November 8, 2020, the Azerbaijani army won a victory by raising our tricolor flag in Shusha. In this article, the historical victory of the Azerbaijani people is highlighted and analyzed.

Keywords: Azerbaijan, Victory, Karabakh, Shusha, history

Introduction.

November 8, two years ago, was one of the ordinary days written on the calendar in history. The people of Azerbaijan, who gave a special status to this day and recorded it as a glorious day in history, answered not only the pain of 30 years, but the aggression that continued for centuries. Azerbaijan, whose economic and geographical position is particularly different in every sense, has always been invaded by its near and far neighbors. We can read this on the pages of history.

The interpretation of the main material.

In the modern era, in a time when civilization is advancing and democracy is established, the state of Azerbaijan, which throughout history has acted on the principles of noble neighborliness, was exposed to the unexpected aggression of its insatiable neighbor, who could not control his soul, who had various patrons behind him, and who lived with the fantasy of "Great Armenia" 30 years ago. . In a moment, the hearths went out, families were torn apart, thousands of people, young and old, were expelled from their homes and killed mercilessly. The rich lands of Karabakh, the heart of Azerbaijan, were watered with the blood of innocent people. I find it difficult to describe the horrors that happened there. But let me also note that there are proofs of every written word. For 30 years, as a citizen, I could not stop hearing the cries of the people killed in the land of Karabakh - elderly people, teenagers, babies, brides and grooms. I considered myself and my people to be in debt not to dead bodies, but to restless souls.

In the news of the world and country that I watched, I was looking for the price that history will give to this bloody massacre. The world was silent. It was as if everyone wanted to make the visible invisible, pretending not to see what he saw.

Azerbaijan, which has rich natural resources, is developing with this pain in its heart, saying in its statements that it will not pass even an inch of those lands.

The President of the Republic of Azerbaijan, Ilham Aliyev, while implementing his internal and foreign policy at a high level, was preparing for this day without showing off. And "FORWARD!" The Commander-in-Chief who gave the order was already sure that he would end this war with victory. He was sure of his people, his children who would die for the Motherland, the military strength of his army, which he had formed at a high level physically and technically at the expense of national resources, and the politics he was conducting.

Without even a moment's hesitation, in the light of 30 years of preparation, the order "FORWARD" was given not only to the army, but to the entire Azerbaijani people. And without looking at the losses of the Army and the People, he wrote this order in history with Victory Day. The Supreme Commander-in-Chief and the people's wisdom cleared this black spot that was smeared on the forehead of the Azerbaijani people 30 years ago.

The war decision shook everyone, young and old. But the clenched fist of the Commander-in-Chief, in whose eyes we see will and determination, was directed in one direction - Karabakh. There were countless volunteers who flocked to the military commissariats. The whole nation was united in one fist - intellectuals, hard-working workers, teachers, doctors, all strata of society understood the importance of this day and repeated the same slogan: "Either Karabakh or death, there is no other way!"

Reserve officers, officials sitting in the cabinet, doctors coming out of the operating room, students standing behind the desk - they made the ranks of the Azerbaijani army even tighter. They filled the thin ranks of our army, which suffered heavy losses. They shielded their chests from the shells and bullets that hit the Motherland. The whole world, perhaps even the people themselves, did not expect this. Maybe mothers did not expect this kindness from their husbands and sons. The whole world watched in amazement the roar of the wounded people.

The people who lost several sons and daughters in that land still held their bowed heads high before the souls who were captured in Karabakh as they cleansed those lands from the hateful enemy due to the blood and wisdom of their sons and daughters. This meant the victory of the Azerbaijani people in both worlds.

When the corpses wrapped in the tricolor flag arrived at the door, the white-haired fathers and mothers shouted "Thank you to the motherland!" he says, he sent his other son to the army again to take revenge. Every day, the news of the victory given by the Commander-in-Chief on television reduced, at least partially, the fire of the losses we received.

30 years in history - the life of a brave man, was the period of preparation for Victory of a nation. Preparing Azerbaijani eagles using the preparation tactics of the strong armies of friendly countries in the military units, diverting all the energy and finances to the military industry, saving investments in the economy and social sphere, was to ensure this Victory. The people and the head of our state prepared for this victory in 3 days, not 30 days, but 30 years.

All these and other factors that served to increase the military power that we did not write in this article were the foundation stones for our Army's Victory that day.

As in the Soviet era, our sons are no longer involved in the construction and demolition of buildings in the military, but in the maintenance of tanks, cannons, snipers, drones, etc. he took part in live military exercises where military equipment was used, and prepared for war without telling anyone. Various units of the Special Forces, whose names are kept secret, made their presence known to the whole world in the conquest of Shusha. The capture of Shusha was a victory for every family and individual of the Azerbaijani people, including the Commander-in-Chief.

44-day war... Victory... Karabakh is now Azerbaijan!!! Just as every dark night has a bright morning, recognize the sons who opened the morning of Victory in Karabakh. We bow in front of our people who gave thousands of martyrs, who today have a large army of veterans, parents who sacrificed their sons for the Motherland, teachers who taught them and instilled a sense of patriotism, and everyone whose names I cannot list. We bow before the souls of fighters, Polads, Samirs, Agababas, Arifs, Elgins, Hikmets and all the martyrs.



Fig 1. The Azerbaijani army won victory in Karabakh

From the first days of the war for the homeland, I know two sons who said, "I have to go too" - Zeynalov Nazar Mahir son and Hamzabayov Rovshan Rashid son. These brave men, who are the children of hardworking and intelligent families, voluntarily stood up for the defense of the Motherland. They knew that this path was the path to Victory. After graduating from high school, Nazar studied at the Azerbaijan State University of Economics, and Rovshan studied at the Baku State Communication and Transport College. Although they completed their military service, they returned to the battlefields again with the command of the Supreme Commander "FORWARD". From the first days to the Victory Day, they bravely participated in the battles for Fuzuli, Jabrayil, and Shusha, passing through a difficult but honorable war.

Hamzabayov Rovshan, who served in the military as the commander-calculator of electronic calculating machines and computer equipment in the "Artillery" specialty, was awarded with honorary orders and finished his service with the rank of junior sergeant, participated in the position of platoon commander with the rank of ensign in artillery during the war.

Like all soldiers' relatives, the family members of these two heroes waited impatiently for every dawn with them at the rear. Two loves - the love of motherland and children. God made the faces of these mothers who searched for the names of their children in every news of victory and martyrdom received. Nazar and Rovshan tasted the sweetness of Victory Day with the Azerbaijani flag in their hands and returned with the name of Veteran.

In this war, the 30-year wounds on our chest were erased, but new wounds were also opened. People will heal these wounds together hand in hand, because this time bowed heads stand up with honor. I want to answer in one sentence to those who do not believe in the Victory of our people, who look down on the people of Azerbaijan in this war. If they look at the pages of history, they will clearly see the warlords of our people, such as Atropat, Babek, Shah Ismail, Javad Khan, Ali Agha Shikhlinski, Jamshid Nakhchivanski, Hazi Aslanov, who settled in these places from the earliest times, and their struggles and victories for the Motherland. Our brave women of this nation, whose husbands are zealous like Tomris, who play swords on horseback like Hajar and Nigar, have written their names in history with honor.

Today, the people of Azerbaijan are preparing for the next anniversary of the Victory - the Day of Victory, which they got from 30 years of aggression. On this day of victory, Martyr parents and children, veterans, who proudly walk on the lands bought at the cost of their lives, all the people commemorate the Martyr souls who look at them proudly in the sky.

"Karabakh is Azerbaijan!" We express our gratitude to our President, Commander-in-Chief Ilham Aliyev, who resolutely and fearlessly spoke his words on the high platform, to the Martyr parents who spared their dearest child for the sake of the Motherland, and to the Veterans who were ready to give their lives in the trenches at any moment.



Fig 2. Rovshan Hamzabayov



Fig 3. Nazar Zeynalov

Art History

THE VICTORY OF KARABAKH IN THE CREATION OF AZERBAIJAN PAINTERS

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Abstract. If we pay attention to the history of Azerbaijan, it has always fought against foreign invaders. For 30 years, Armenia's occupation of Karabakh, mining of territories, and tragedies prevented the war from ending peacefully. On September 27, 2020, the struggle of the Azerbaijani army for territorial integrity became the center of attention of the world for 44 days. On November 8, 2020, the tricolor flag of Azerbaijan was raised in Shusha. In this article, the works of Mir Azer Abdullayev "Meeting", "Shusha", Eldar Hajiyev "Karabakh Map", Asmar Narimanbeyova "Shusha", Imran Karimov "Karabakh Chronicle", Nigar Helmi "Aghdam Bridge" are analyzed in the context of art criticism.

Keywords: Azerbaijan, Karabakh, Shusha, Victory, history, art

There have been wars since the beginning of mankind. The struggle of the countries against each other, the wars for the possession of new territories are observed in all stages of history. Azerbaijan has been attacked by foreign invaders with the rich wealth of its territories. After Azerbaijan regained its independence in the 90s, rich corner faced the occupation of Karabakh by Armenia. For 30 years, the crimes committed by Armenia, the mining of territories, the destruction of mosques prevented the war from ending peacefully. On September 27, 2020, as a result of Armenia's violation of the ceasefire once again, the Azerbaijani army fought for the defense of its territories. The liberation of villages, towns, and cities within 44 days was recorded in history with the victory of the Azerbaijani army in Shusha on November 8. The historical victory created a particularly new page in our art. Our artists turned to the iconography of the image of Victory by presenting interesting works from each other.

Mir Azer Abdullayev in his work "Meeting" (fig 1) brings together with colors the homesickness of people who have been separated from their homeland for many years. Rhythmically repeating colors are resolved pointwise. The central part of the work serves to reveal the idea. A resident of Shusha embraces his native land after many years of separation. The historical part of Shusha is in the hands of a man who has lost his homesickness, who proudly embraces his land.



Fig 1. Mir Azer Abdullayev "Meeting" (canvas, oil paint, 100x100 cm)

"Shusha" (fig 2) was executed by Mir Azer on canvas with oil painting technique. In the struggle for the capital of culture, the dynamism of the horse is surrounded by buta patterns.



Fig 2. Mir Azer Abdullayev "Shusha" (canvas, oil paint, 75x130 cm)

Eldar Hajiyev draws attention to our lands freed from occupation in the "Map of Karabakh" carpet. Famous architectural monuments of each part of Karabakh are highlighted with patterns. The edges of the carpet are filled with carpet ornaments. (fig 3)



Fig 3. Eldar Hajiyev "Map of Karabakh"

After Armenia occupied Shusha on May 8, 1992, the city was destroyed. They tried to present Shusha as an "Armenian city". The cultural capital of Azerbaijan was liberated from foreign invaders on November 8, 2020. After Shusha was freed from occupation, reconstruction began. In the composition "Shusha", Asmar Narimanbeyova presents to the audience the ruins of our cultural heritage, which were subjected to the Armenian vandalism of history. The contrast of colors against each other is the struggle of good and evil. (fig 4)

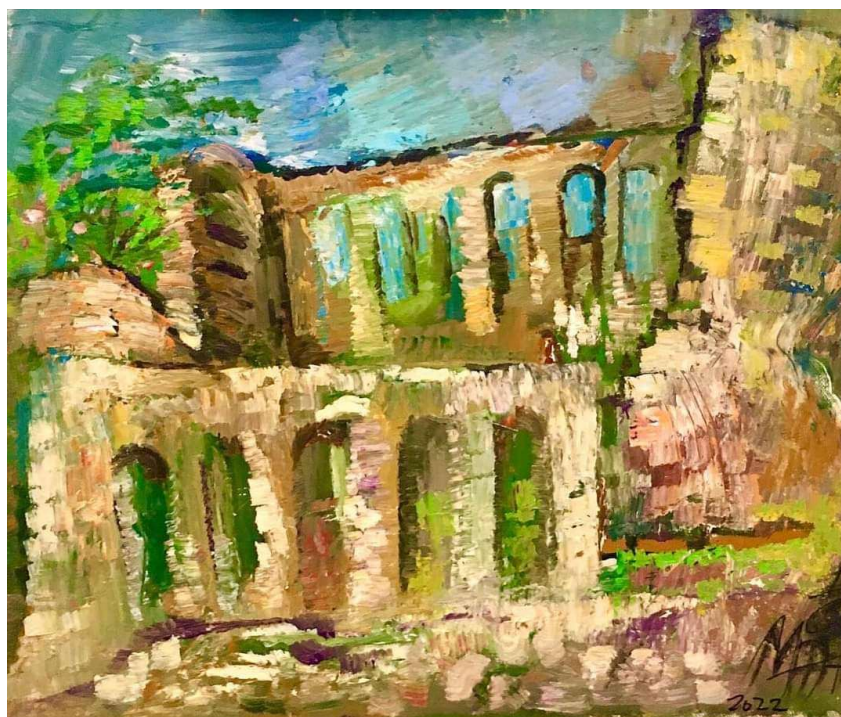


Fig 4. Asmar Narimanbeyova "Shusha" (2022) (canvas, oil paint)

Imran Karimov's "Chronicle of Karabakh" brings the national wealth of his homeland to the fore in the example of ceramics. Mugam performance of tar and kamancha sounds over the architectural heritage of Karabakh. (fig 5)



Fig 5. Imran Karimov "Karabakh Chronicle" (2021) (ceramic, 90x32x32 cm)

A part of the destroyed "ghost city" in the work "Aghdam Bridge" was revived by Nigar Helmi's brush. (fig 6)



Fig 6. Nigar Helmi "Aghdam bridge" (canvas, oil paint, 110x110 cm)

The historical Victory of the Azerbaijani people in Karabakh has been passed on to future generations and has gained eternity.....

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Philological Sciences

ИСПОЛЬЗОВАНИЕ ВЭНЬЯНИЗМОВ В ПОЛИТИЧЕСКОМ ДИСКУРСЕ

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Данное исследование актуализировано фактом частого обращения авторов-современников публицистических текстов в китайской периодике к классическому языку вэньян (китайский: 文言 wényán, «культурная речь» или «письменная речь»), или вэньянизмов (文言词语).

Карапетьян А.М, китаист-публицист, рассматривает вэньян в качестве нормативного традиционного китайского литературного языка, отличающегося лаконичностью, лексическим запасом и речевыми оборотами.

Автор данной статьи полагает, что данный факт может быть связан с постепенным возрождением к традиционной культуре Китая, где вэньян благодаря своей сухости и одновременной выразительности позволяет автору-современнику не только передать одним иероглифом того, что непросто выражается в речи, но и задать тренд во всех функциональных стилях китайского языка.

Курдюмов В.А. описывает специфичность традиционного литературного языка вэньянь, а также выделяет некоторые аспекты:

1. Наличие односложных лексических единиц.
2. Скудность грамматических указателей, недостаточность аффиксов, флексий итд.
3. Суховатая, разнообразная подборка внешних (аналитических) грамматических показателей.
4. Аморфная часть речи принадлежит иероглифам-словам.
5. Отсутствие контекстуальной опоры (другими словами, лица и объекты вводятся только в начале, а затем действия и знаки автоматически подразумевают их присутствие).
6. Фонетическое и графическое представление слов, имеющие форму одного и того же слова.

Помимо упомянутого выше, необходимо отметить, что специфичность вэньяня выражается также в исключительности трактовки лексического значения иероглифа, так как конкретный смысл доносится при помощи местного контекста.

В текстах авторов-современников О.П. Попов провел анализ употребления элементов вэньяня и привел некоторые метафоры:

1. Например, служебная часть речи 于 является достаточно часто используемой частью речи китайского языка. Однако по сравнению в данном синонимичном узкопрофильном ряду служебных частей речи 在, 给, 对, считается более универсальной. Она несет в себе ряд функций и служит в качестве связки слов в предложении. Стоит отметить, неизменность значения данной служебной части речи как в древней средневековой, так и в современной литературе.

Пример: 难于分开.

Перевод: трудно отделить одно от другого.

2. Другая служебная часть речи 之 активно используется в различных функциональных стилях китайского языка и отличается атрибутивностью. Данная служебная единица в

современном понятии используется исключительно для выражения сложных числительных, например, дробей или процентов. Но вэньян предполагает выражение атрибутивной функции 之 с помощью замены позиции между определением и определяемым словом, которую можно проследить в выделительной конструкции (一个)... 之一.

Пример: 西部有世界最高大的青藏高原 ..., 有«世界屋脊»之称.

Перевод: на западе страны расположено самое высокое в мире Цинхайско-Тибетское нагорье, имеющее название «крыша мира».

Специфичность вэньяня также определяется грамматической синонимией, другими словами, существование параллельных возможностей формального выражения одних и тех же грамматических значений. Например:

1. Наряду с показателем множественности 尔 (chái), характерного для уходящей эпохи китайской культуры, активно используется 等 (děng), более характерный для текстов современной эпохи.

Например: 尔尔.

Перевод: вы.

2. Оба указательных местоимения 此 (cǐ) и 之 (zhī) могут быть независимыми в предложении, так и могут выполнять функцию определения, т.е. в форме, впервые наблюдаемой в современной литературе.

Например: 由此往南.

Перевод: отсюда на юг.

Рассматривая использование вэньянизмов в аспекте политического дискурса, представляется необходимость изучения выступлений политических и государственных деятелей, парламентских дебатов, общественно-политических речей и реклам, предвыборных платформ, СМИ, а также публицистических материалов.

В данной статье представлен анализ наличия вэньянизмов в публицистических статьях электронных изданий газеты «Жэньминь жибао», информационного агентства «Синьхуа», а также газеты China Daily.

Материал для исследования отбирался исходя из наличия содержащейся в нем актуальной информации. Также параметрами для отбора материала стали следующие критерии: наличие вэньянизма, экспрессивность, метафоричность. Помимо этого, возникающие трудности перевода вэньянизмов, связанные с их специфичностью, также предоставлены ниже.

По результатам выборки, были отобраны следующие примеры с использованием вэньянизмов:

Пример 1:

Оригинал:

全党同志一定要永远与人民同呼吸、共命运、心连心，永远把人民对美好生活的向往作为奋斗目标，以永不懈怠的精神状态和一往无前的奋斗姿态，继续朝着实现中华民族伟大复兴的宏伟目标奋勇前进。

Перевод:

«Все партийные товарищи всегда должны дышать с народом одним дыханием, делить с ним одну судьбу и жить одними думами. Неизменно рассматривая реализацию мечты народа о прекрасной жизни как цель борьбы, абсолютно не допуская ни малейшего намека на нерадивость и лень и ни перед чем не останавливаясь, мы продолжаем смело двигаться вперед к достижению нашей грандиозной цели - реализации великого возрождения китайской нации».

Данный вэньянизм требовал описательного перевода, так как, с нашей точки зрения была необходимость объяснения смысла целой фразы. В случае если был бы использован дословный перевод, вэньянизм потерял бы исходный смысл.

Пример 2:

Оригинал:

自“一带一路”倡议提出3年多来，习近平的出访路线和关切，在“一带一路”的宏大叙事中铺展，绘制一幅跨越万里海域，牵起亚欧非多个经济圈的恢宏画卷。“一带一路”建设从无到有、由点及面，进度和成果超出预期。

Перевод:

«С тех пор, как более трех лет назад была выдвинута инициатива «Один пояс, один путь», маршруты заграничных поездок и заботы Си Цзиньпина раскрываются в грандиозном повествовании «Один пояс, один путь», рисуя великолепную картину, охватывающую водную акваторию, площадью тысяча морских миль, и ведет к многочисленным экономическим кольцам в Азии, Европе и Африке. Строительство «Пояса и пути» началось с нуля, продолжалось от начала до конца, и прогресс и результаты превзошли все ожидания».

Данный пример взят из газеты «China Daily». 从无到有 - «развиться с нуля, не имея ничего стать успешным», где 从 – «от», 无 – «не иметь», 到 – «до», 有 – «иметь», где также применяется метод описательного перевода. 由点及面 означает «от малого до великого, от начала до конца», где 由 – «от», 点 – «точка», 及 – «достигать», 面 – «поверхность».

Пример 3:

Оригинал:

同志们！伟大的事业必须有坚强的党来领导。只要我们党把自身建设好、建设强，确保党始终同人民想在一起、干在一起，就一定能够引领承载着中国人民伟大梦想的航船破浪前进，胜利驶向光辉的彼岸！

Перевод:

«Товарищи! Для реализации великого дела необходимо иметь руководство со стороны сильной партии. Только при условии мощного и эффективного партийного строительства, только при условии, что партия будет всегда жить с народом одними думами и вместе с ним трудиться, мы непременно сможем, рассекая волны, привести корабль, несущий великую мечту китайского народа, к сияющему берегу победы!»

Вэньянизм 破浪前进, имеет лексическое значение как «бороздить море», где 破浪 – «рассекать волны», 前进 – «идти вперед». В приведенном примере так же был применен метод описательного перевода. При осуществлении перевода на русский язык вэньянизму придали новый смысл «привести корабль», что сохранило лексическое значения выражения в целом.

Полученные данные данного исследования позволяют подтвердить, наличие вэньяна в современном китайском языке. Элементы вэньяна продолжают активно функционировать современной письменности, однако их наличие также может приносить трудности при осуществлении перевода.

Говоря о прагматическом контексте политического дискурса, большое внимание уделяется стилистическим средствам, служащие для усиления значения. Поэтому вэньянизмы можно нередко встретить в политическом дискурсе, именно они являются средством выражения экспрессии с целью прояснить свою позицию, донести ее до публики и добиться обратной реакции.

AVROPA ÖLKƏLƏRİNDƏ DİL SİYASƏTİ MƏSƏLƏLƏRİ (XIX-XX ƏSRLƏR)

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Avropada, ölkələrin böyük əksəriyyətində dil azlığı mövcuddur. Bu dillərə regional və ya az istifadə olunan dillər deyilir. İnsan hüquqlarının qorunması proseslərinin intensivləşməsi ilə əlaqədar olaraq, bütün digər əsas insan hüquq və azadlıqlarının qorunması məsələləri ilə yanaşı, bir şəxsin dil hüquqlarının dəstəklənməsi problemləri də aktuallaşır. XX əsrin ikinci yarısında Avropa sosiolinqistləri dil siyasəti və dil planlaşdırması məsələlərinə çox diqqət yetirirdilər. Bu dövrdə ikidilli və çoxdilli fenomenlərə elmi maraq artırdı.

Dil vəziyyətinə hüquqi, iqtisadi, sosial-mədəni, psixoloji təsir amilləri araşdırılır. Alimlər və siyasətçilərin birgə işinin nəticələri həm Avropa qitəsinin ayrı-ayrı çoxmillətli ölkələrində dil əlaqələrini tənzimləyən qanunlar və digər sənədlər, eyni zamanda ortaq Avropa statuslu konvensiya və müqavilələrdir.

Avropada demokratik prinsiplərə əsaslanan dil planlaşdırmasında əldə olunan nəzərəcarpacaq irəliləmənin və müsbət nəticələrin səbəblərindən biri də əksər Avropa ölkələrində mövcud olan geniş elmi sosiolinqvistik bazadır. Bu mövzuda ən vacib elmi işlərdən biri də S.Romeynin Oksfordda ingilis dilində nəşr etdirdiyi "İki dilli" (Bilingvizm) əsəridir. Kitabda həm dilçilik, həm sosiolinqvistik, həm də psixolinqvistik aspektlərdə ən çox yayılmış problemlərdən bəhs olunur. Müəllif, müasir sosial linqvistikada müxtəlif şərhlər tapan ana dili konsepsiyasına öz tərifi verir. Müəllif ana dilini danışanın ən yaxşı bildiyi dil hesab edir. Avropada dilçilik vəziyyətini təhlil edən S.Romeyn dövlətlərdəki milli azlıqların dil hüquqlarına zülm fenomenini daxili müstəmləkəçilik, dil azlıqlarının özlərini isə dördüncü dünya adlandırır. Müəllif ikidilliliyin psixoloji tərəfini, ağılla əlaqəsini və insan şüurundakı iki dilin qarşılıqlı təsirini ayrıca araşdırır.

1990-cı ildə alman dilində nəşr olunan "Siyasətdəki dil - dildə siyasət" məqalələr toplusunda dil siyasətinə, milli azlıqların dilləri üzərində aparılan araşdırmalara və siyasi danışıqlara həsr olunmuş bir sıra sosiolinqvistik problemlər araşdırılmışdır.

XX əsr dünya və xüsusilə Avropa siyasətində cəmiyyətin regional və ya az istifadə olunan dillərə münasibətində bir dönüş nöqtəsi oldu. Əsrin əvvəllərində Avropa cəmiyyətinin onları ayrışdırılmaqdan qorumaq istəkləri ortaya çıxdı. Növbəti mərhələ, 1948-ci ildə İnsan Hüquqlarının Ümumdünya Bəyannaməsinin elan olunmasından bəri, dil hüquqlarının bərabərlik əsasında həyata keçirilməsinə çalışıldığı dövr və XX əsrin son on illiyində başlayan üçüncü mərhələnin bir əlaməti idi. Avropa ictimaiyyəti xalqların dil müxtəlifliyini və şəxsiyyətlərini tanımağın və dəstəkləməyin lazım olduğunu vurğuladı və bu, Avropa təşkilatları tərəfindən dil azlıqları da daxil olmaqla milli azlıqların hüquqlarının qorunmasına dair bir sıra sənədlərin qəbul edilməsində öz əksini tapdı. 1948-ci ildə BMT tərəfindən elan edilmiş "Ümumdünya İnsan Haqları Bəyannaməsi" ilk əhəmiyyətli beynəlxalq qanunvericilik sənədi idi. Qeyd edək ki, bu Bəyannamədə dillər haqqında çox şey danışılmadı, ancaq bununla belə xatırlandı ki, dil kiminsə hüquqlarını inkar etmək üçün əsas əlamət olmamalıdır (Maddə 2). Növbəti onilliklərdə bu prinsip insan hüquqları və azadlıqları ilə əlaqəli bir çox digər BMT və UNESCO sənədlərində inkişaf etdirildi.

Xarici ölkələrdə dil qanunvericiliyinin öyrənilməsinə sosiolinqvistik yanaşmanın nümunəsi kimi R.Haasin "Fransız dili və Avropaya inteqrasiya" (1991) kitabını göstərmək olar. Müəllif bu işin yalnız Fransa üçün deyil, digər Avropa dövlətləri üçün də aktual olduğunu vurğulamışdır. Müasir fransız qanunlarını tam başa düşmək üçün müəllif tarixə ekskursiya etməyi təklif edir. Artıq XVI əsrdə Kral I Fransisk məhkəmə və ofis işlərində latın deyil, fransız dilinin istifadəsinə dair fərman

verir. Fransız dilinin funksiyalarının daha da genişlənməsi XVII əsrin sonlarına qədər dil fəaliyyətinin bütün sahələrində latın dili ilə bərabər mövqe tutmasına imkan verdi. XVIII əsrin sonunda Fransanın dil siyasətində növbəti mərhələ başlayır. Belə ki, Taleyran qanunların yazıldığı dili öyrənməyin lazım olduğunu və əhalinin 20% -dən çoxunun, əsasən kənd yerlərində olan insanların danışdığı ləhcələri feodal quruluşunun qalıqları adlandırır və onların yox edilməsi vaxtının çatdığını göstərir.

Müasir Fransanın dil siyasətini müəyyənləşdirən əsas sənəd, xaricdə istehsal olunmuş malların və müxtəlif növ xidmətlərin reklamı zamanı xarici avadanlıqların istismarı üçün dizayn və dərsliklərdə fransızca terminlərin istifadəsini ciddi şəkildə tənzimləyən və təyin edən 31 dekabr 1975-ci il tarixli "Fransız dilinin istifadəsi haqqında" qanundur. Müasir Fransadakı dil vəziyyəti Fransa dövləti vətəndaşlarının həyatın bütün sahələrində, istisnasız olaraq, fransız dilindən istifadə etməsi ilə xarakterizə olunur. Bununla yanaşı, ölkə əhalisinin üçdə birinin ikidilli olduğunu, yəni Fransada yaşayan milli azlıqların (oksitən, katalon, bask, breton, flaman, alman və italyan) dilində danışdıqlarını qeyd etmək lazımdır. 1951-ci ildən bəri regional dilləri yalnız təlim (öyrənmə) prosesində araşdırmaq mümkün olmuşdur.

Ən aktual çağdaş nəşrlərdən biri, 2006-cı ildə irlandiyalı sosiolinqvist Donal O'Riaqan tərəfindən ingilis dilində çap edilmiş "Müxtəlif səslər: Avropada az istifadə olunmuş dillərdə təhsil" adlı məqalələr toplusudur. Kitabda Avropanın müxtəlif ölkələrində və bölgələrində azlıqlar və regional dillərdə təhsilin inkişafına dair materiallar öz əksini tapmışdır: Basklar ölkəsi, Macarıstan, Estoniya, Malta, Sloveniya və s. Rusiya bu topluda Kalmıkiya, Xakasiya və Tatarıstandan olan alimlərin məruzələri ilə təmsil olunurdu. 2006-cı ildə ingilis dilində "Dünya dilləri haqqında Hesabat" adlı bir kitab çap edilmişdir. Burada bütün dünya dillərinin vəziyyəti ilə bağlı məqalələr və məruzələr yer almışdır.

Bu nəşr 1998-ci ildə fəaliyyətə başlayan UNESCO-nun eyni adlı layihəsinin bəhrəsidir. Hesabatın əsas məqsədi dünya dil irsinə zəmin yaratmaq üçün dünyada mövcud olan dillərlə bağlı sosiolinqvistik vəziyyətin tam sənədli təsvirini verməkdir.

İspaniya "qurucu dövlətlər" adlanan kateqoriyaya daxildir. Bu konsepsiya vasitəsilə konstitusiyasında siyasi gücün ərazi bölgüsünü şərtləndirən dövlətlər müəyyənləşdirilir. Daha çox yayılmış terminologiyada bu əyalətlərə "federal əyalətlər" deyilir, baxmayaraq ki, başqa variantlar da mümkündür. İspaniyanın siyasi formasının "muxtariyyət dövləti" ifadəsi ilə adlandırıldığı da məlumdur. 1984-cü ildə İspaniya Avropa Birliyinin üzvü oldu. İspaniyanın dövlət sistemi konstitusiyalı monarxiyadır. İnzibati cəhətdən İspaniya 17 vilayətdə birləşmiş 52 əyalətə bölünür və bu bölgələr əsasən öz inkişaf məsələlərini həll edirlər. Hər bölgənin öz parlamenti və hökuməti vardır. İndi isə İspaniyanın bəzi bölgələrinin və daha ətraflı Kataloniya və Bask ölkələrinin milli dillərinin tətbiqi yollarını nəzərdən keçirək. Kataloniya, İspaniya dövlətinin şimal-şərqində yerləşən İber yarımadasının əhəmiyyətli bir hissəsini tutan muxtar bir bölgə və İspaniya ilə Fransanı ayıran sərhəddir. Kataloniyanın paytaxtı Barselonadır. Kataloniyanın təxminən yeddi milyon əhalisi var. İspaniya Konstitusiyası bunu ispan milləti içərisindəki "millət" olaraq təyin edir. Bununla birlikdə, əksər katalonlar bunu çoxmillətli İspaniya daxilində bir millət hesab edirlər. Katalon dili ispan, fransız və italyan kimi neo-romantik dillər qrupuna aiddir. Katalon dilinin seçilməsi və inkişafı birbaşa Kataloniya xalqının müstəqil bir etnik icma kimi formalaşması ilə əlaqəli idi və bu da öz növbəsində həmin bölgədə baş verən tarixi proseslərlə bağlılıq təşkil edirdi.

1936-38-ci illərdə İspaniyada vətəndaş müharibəsi zamanı Kataloniyada əhali arasında kütləvi milli kimliyin partlayışlı bir inkişafı yaşandı. Hökumət tərəfindən elan edilmiş bir federal dövlətin yaradılması və milli azlıqların, o cümlədən onların öz müqəddəratlarını təyin etmə hüquqlarının tanınması ideyası sayəsində Kataloniya respublikaçılarının əsas qalalarından birinə çevrildi.

Hökumətin məğlubiyyətindən sonra katalon dilinin təhsil, ofis işləri və media da daxil olmaqla ictimai həyatın bütün sahələrində istifadəsi tamamilə qadağan edildi. Vəziyyət yalnız 70-ci illərin sonlarında– Frankonun ölümündən sonra demokratik bərpaların başlaması ilə dəyişdi.

EFFECTIVENESS OF FOREIGN LANGUAGE TEACHING MAIN CONDITIONING FACTORS

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Abstract

This article deals with organization and planning an efficient lesson and writing outlines. For planning an interesting lesson a teacher must choose very interesting and actual articles. But that articles must not be full of difficult grammar rules.

Keywords: efficiency, foreign language, lessons, knowledge, skills, software

It is known that the globalization observed in modern times, the expansion of international political and economic relations has greatly increased the interest in teaching foreign languages. The teaching of a foreign language and its practical mastery are of great importance and play a decisive role in a number of cases, for example, international communication and interstate relations. Therefore, a foreign language teacher should plan his work in such a way that all aspects of the language (phonetics, grammar, vocabulary and all types of language activity (oral speech, reading, writing)) complement each other and take their place in the pedagogical process. In order to achieve the correct planning of his work, the teacher must make certain preparations in advance. This preparatory work should consist, first of all, of the teacher thoroughly studying the foreign language program and the classroom textbooks he will teach.

In the study of the program, the main attention should be paid to the explanatory sheet, the guiding requirements for all groups, the distribution of the language material for each group by aspects. This can create a clear idea in the teacher about the purpose of foreign language training, what is the final demand for the program.

In addition to the program, accurate and thorough study of the textbook plays a big role in planning the foreign language material. For this, the teacher should review not only the textbook of the group he is teaching, but also other textbooks.

While studying the textbook, the teacher should familiarize himself with the subject of all the texts given there, carefully study the grammatical and lexical material, determine the total volume of the dictionary, distribute the texts, reflect the lexical and grammatical material in the studies, etc. must learn. In-depth study of textbooks during planning is of great importance. For this purpose, the teacher should pay special attention to the following issues:

1. Which area of the language does it serve to strengthen according to the nature of the work?
2. What is the goal of the studies (strengthening or checking of the material, repetition)?
3. At what stage of the educational process should this or that work be used (before a new lesson, after the material is interpreted, in the classroom or at home)?

After the teacher has mastered the teaching material of the foreign language subject, he should move on to planning lessons and extracurricular activities. It is clear that these forms of work are organically related to each other, and each of them has its own characteristics. Therefore, each of these should be planned separately.

When planning the educational work, the classroom and homework, which are its components, should be taken in connection, they should be divided independently so that the group or students are not overloaded at home.

In order to achieve solidity of knowledge, skills and habits acquired by students in foreign language, a great place should be given to repetition and systematization in the planning of teaching work.

The following types of plans are usually used in the subject of a foreign language:

Thematic plan is prepared based on the material and hours given in the program. First of all, the features of the foreign language program should be taken into account in order to design the thematic plan appropriately.

The content of each lesson is indicated in the thematic plan.

Lesson planning is a necessary and important part of a teacher's work. This also means that the teacher teaches in a systematic way. In this case, the daily lesson plan is very important.

In the daily lesson plan, the teacher should consider the following points:

1. the topic of the lesson;
2. the purpose of the lesson;
3. lesson equipment;
4. plan and time division of the lesson by stages;

1. The topic of the lesson. In the plan, the topic is specified in terms of aspects of the language.

- a) unit 1
- b) phonetics – diphthongs;
- c) vocabulary - Text "My favorite sport";
- ç) grammar – Present Simple tense.

2. The purpose of the lesson. Several goals can be set before each lesson in the subject of a foreign language.

1. Creating foreign language skills and habits;
 - a) creating pronunciation habits;
 - b) creating reading habits;
 - c) creation of oral speech habits;
 - ç) creating writing habits;
2. Giving knowledge;
 - a) providing new material from grammar;
 - b) imparting new knowledge of phonetics;
 - c) imparting new knowledge from the lexicon;
3. Strengthening of knowledge, skills and habits;
4. Systematization and repetition of the passed language material;
5. Checking the degree of mastery of knowledge, skills and habits:
 - a) oral examination;
 - b) written examination.

Each of these goals plays an indispensable role in the learning process.

3. Lesson equipment - plays an important role in making the lesson process interesting, saving time, and activating the group. Therefore, the teacher should try to equip each lesson with different resources.

The equipment of the lesson includes the following:

a) control the provision of textbooks to students;

b) visual resources: objects, pictures, tables and schemes, lingaphone, tape recorder, slide film, etc.;

c) additional reading books (for synthetic reading and oral speech);

The plan of the lesson varies depending on the type of lesson.

Now let's talk about the general components of the lesson. The main components of the lesson, that is, the stages, are as follows:

1. Organization of the lesson;
2. Checking and evaluating homework;
3. Explanation of the new lesson;
4. Primary reinforcement;
5. Development of reading and oral speech;
6. Homework.

1. Organization of the lesson - it is important for the successful completion of the lesson. In foreign language classes, students should start speaking a foreign language from the time of organization. Here, after listening to a short report by the group in charge, a five-minute conversation is organized (around pre-planned topics such as weather, seasons, sports, etc.).

2. Checking and evaluating homework – depending on the purpose and content of each lesson, includes several points:

a) in checking and evaluating written or oral works, the teacher should determine how the task will be checked;

b) in order to check the oral task, the teacher should determine the areas of knowledge, skills and habits to be checked, and how to check them, and prepare appropriate questions for this purpose;

c) should consider in advance whether to conduct the survey in a general or individual way, or organize them in a related manner;

Experience shows that in the current assessment of knowledge, when both surveys are conducted in a related manner, students' activity is ensured in the entire learning process, and the knowledge of most of them is assessed.

3. Explanation of the new lesson

a) explanation of phonetic material - information about sounds, their articulation, comparison of sounds with their counterparts in Azerbaijani language, pronunciation rules, use of sound-letter table, selected examples for explanation and initial reinforcement of the material passed can be included;

b) new words to be used in the explanation of the lexical material, their translation, the way to reveal the meaning of each word, possibilities of combination with other words, processing in a sentence, etc. includes;

c) familiarization with grammatical material, study of rules, analysis of examples, etc. includes.

4. The stage of strengthening the new material includes work on various types of work, including translation, question-and-answer, etc. includes.

5. At the stage of development of reading and oral speech, reading the text, translating and analyzing relevant sentences, the selected work form for oral study of the text, etc. is covered.

6. At the homework assignment stage, written or oral work (with the page and number noted), reading the text, telling a story, or the part to be memorized, phonetic, lexical and grammatical material to be learned, if additional material needs to be read for repetition, its page, the work may include a solution and an example.

The time distribution of the stages of the lesson depends on the purpose of the lesson, the volume of the material being tested with the new language material and the level of difficulty.

Checking the knowledge and skills of students in the organization of the lesson can be done by 1) a general survey or 2) an individual survey.

Following all these, the foreign language teacher should take into account the requirements of the program. The purpose of the foreign language material passed is to improve students' knowledge and skills related to phonetics, i.e. correct pronunciation; related to grammar, i.e. reading and writing skills, and related to lexis - means to develop the ability to explain one's thoughts.

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ПРОБЛЕМЫ ЯЗЫКОВОГО РАЗВИТИЯ ЛОКАЛЬНЫХ ЦИВИЛИЗАЦИЙ И СПОСОБ СОЗДАНИЯ СПИСКА СВОДЕША ЯЗЫКА ОРТАТЮРК, МНОГОЯЗЫЧНОГО СЛОВАРЯ С НЕГО НА НАЦИОНАЛЬНЫЕ ТЮРКСКИЕ ЯЗЫКИ И АНГЛИЙСКИЙ ЯЗЫК

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Аннотация. В статье рассматриваются пути развития локальной цивилизации в процессе глобализации (на примере Тюркской цивилизации), формирования единого информационного пространства тюркских народов и Мировой цивилизации посредством использования ойкуменической теории нации, концепций этносизма, этнолингвопанизма, создания системы усредненных языков для групп родственных языков, среднемирового языка и глобальной единой системы письменностей, предложен способ создания списка Сводеша для среднетюркского языка ортатюрк и многоязычного словаря с него на национальные тюркские языки и английский язык.

Ключевые слова: глобализация, Тюркская цивилизация, язык ортатюрк, список Сводеша языка ортатюрк, многоязычный словарь.

Abstract. The article discusses the ways of development of a local civilization in the process of globalization (on the example of the Turkic civilization), the formation of a single information space of the Turkic peoples and the World civilization through the use of the oikumenic theory of the nation, the concepts of ethnosism, ethnolinguapanism, creating a system of averaged languages for groups of related languages, a averaged world language and a global unified writing system, a method for creating a Swadesh list for the averaged Turkic language Ortaturk and a multilingual dictionary from it into the national Turkic languages and English is proposed.

Key words: globalization, Turkic civilization, language Ortaturk, Swadesh list of Ortaturk language, multilingual dictionary.

В процессе глобализации актуализировались этнические и лингвистические проблемы развития многих локальных цивилизаций Востока и Запада, в том числе тюркской, романской, германской, индийской, дравидийской, индонезийско-малайзийской, славянской, семитской, иранской, уральской и других цивилизаций.

Процессы развития языков, особенно проблемы изменения языковой идентичности, целесообразно оценить с точки зрения соотношения прав человека и прав наций и языковых групп личностей. В индивидуалистической концепции личности личность отрывается от сформировавшего её социума и рассматривается как независимое априорно самодостаточное исходное начало для оценки всех процессов происходящих в мире. Права

социума, общности, коллектива, который сформировал данного человека, при этом учитываются в недостаточной мере. Целесообразно достичь большей гармонизированности в соотношении прав личности и прав социума. Для этого необходимо учесть социальную сущность человека и нации. В этой связи целесообразно использовать ойкуменическую теорию нации, концепции этносизма, этнолингвопанизма, усредненных языков и среднемирового языка [1; 2; 3; 4; 5; 6; 7, 8], которые в целом составляют лингвокультурологическую концепцию, ведущую к синтезу языков Востока и Запада, к оптимизации межцивилизационного взаимодействия в системе мировой цивилизации.

Концепции этносизма и этнолингвопанизма основываются на ойкуменической концепции нации [5; 6; 7]. Они дают основу для конвергентного развития цивилизаций, наций и культур Востока и Запада, так как эти концепции показывают, что такие характеристики нации, как общность территории, экономики, языка, культуры, социально-психологических черт являются акциденциями, но не атрибутами. В этих вопросах целесообразно достичь оптимального сочетания общечеловеческих и национальных интересов. Для обеспечения единства Человечества и сохранения его многообразия целесообразно создание системы усредненных языков для групп генеалогически родственных языков [1; 2; 3; 4], а в дальнейшем создание среднемирового языка посредством усреднения в многообразии усредненных языков и изолированных языков на основе ностратической (борейской) концепции, концепции языковых универсалий и статистических методов усреднения языковых феноменов [1; 2; 3; 4]. Создаваемый таким путем всемирный вспомогательный язык межкультурного, межнационального общения, накопления мировой информации и глобального обучения способствовал бы решению многих глобальных проблем мировой цивилизации и духовному взаимообогащению всех локальных цивилизаций и народов. Создание среднемирового языка могло бы выступить как путь языковой и культурной конвергенции Востока и Запада в рамках системы единого Человечества [8].

В современную эпоху глобализации и формирования мировой информационной цивилизации важно решение проблем формирования единого информационного пространства для каждой из групп родственных по языку народов. Рассмотрим это на примере алтайских народов. Языковые барьеры, как обусловленные различием языков, так и различием их письменностей, являются препятствиями развитию данного единого информационного пространства. Для алтайской семьи в целом, включающей в себя тюркские, монгольские, тунгусо-маньчжурские, корейский и японский языки, проблему языкового барьера между алтайскими языками предлагается преодолеть посредством использования метода создания усредненных языков для соответствующих групп родственных языков, то есть путем создания среднеалтайского языка на основе создания среднетюркского, среднемонгольского языков и усредненного тунгусо-маньчжурского языка. Для создания среднеалтайского языка целесообразно усреднить следующие пять языков: среднетюркский, среднемонгольский, усредненный тунгусо-маньчжурский, японский и корейский языки. При этом предлагается использовать метод усреднения в меру его применимости, используя также достижения современной алтаистики и борейской, ностратической теории. При таком построении среднеалтайский язык не будет достаточно целостным. Поэтому для дополнения недостающих компонентов целесообразно использовать теорию языковых универсалий, статистические методы переработки баз данных. При создании усредненного языка для других семей и групп языков (романской, германской, индийской, дравидийской, индонезийско-малайзийской, славянской, семитской, иранской, уральской и др.) целесообразно применять метод аналогичный методу, примененному в отношении алтайской семьи языков [8].

Целесообразно также создать глобальную единую всемирную систему письменности [9], охватывающую как письменности на основе алфавитов, так и иероглифические и силлабарийные системы письменности [10].

В процессе формирования мировой информационной цивилизации для каждого тюркского языка целесообразно создание компьютерных программ, которые преобразуют тексты на одном алфавите в тексты на другом алфавите. Целесообразно создание компьютерных программ для перевода с одного тюркского языка на другой. При этом перевод на язык ортатюрк мог бы служить основным этапом для последующего перевода на другие тюркские языки. Необходимо увеличить информационные ресурсы в Интернет на национальных тюркских языках и на языке ортатюрк. Осуществление этих предложений способствовало бы развитию Тюркской цивилизации в системе мировой информационной цивилизации.

Острыми проблемами современности стали проблемы Славянского мира. Ойкуменическая теория нации и концепция усредненных языков может служить основой для мирного решения этих проблем [11]. В этой ситуации представляется целесообразным создание среднеславянского языка [11]. Возможно также создание средневосточнославянского языка на основе усреднения русского, украинского и белорусского языков. Статус этих языков должны определять сами славянские народы своим волеизъявлением. При соответствующем волеизъявлении, может быть целесообразно, создать конфедерацию (федерацию) Славия (Славянская федерация) со среднеславянским языком как добровольно используемым языком межгосударственного и межнационального общения, накопления общей локально-цивилизационной информации Славянского мира и информации мировой цивилизации. Национальные славянские языки сохранялись бы как государственные языки в соответствующих государствах [11].

Радикализация языкового пуризма и жестокие требования высокой языковой культуры ведут Человечество к катастрофическим кровопролитным лингвоцидам, этноцидам, геноцидам. Лучше быть человеком, живущим в гуманистическом социуме со смешанным, деформированным интерференцией языком (языками) и формально «низкой языковой культурой», чем быть бесчеловечным фашистом с формально «высокой языковой культурой», убивающим людей с «низкой языковой культурой», живущим в антисоциуме с фашистскими преследованиями, погромами, геноцидами, крематориями в отношении социальных групп объявляемых «недочеловеками» по языку и другим формальным признакам.

Реализация этих проектов выступила как фактор инновационного модернизационного развития мировой цивилизации. Развитие системы информации обеспечивается при преодолении языковых барьеров и формировании единого мирового информационного пространства, использующего алфавитный принцип и единую координированную и унифицированную систему алфавитов [9; 10].

Предлагаемые преобразования соответствуют тенденциям развития и расширяют горизонты развития межкультурной коммуникации в процессе формирования мировой информационной цивилизации в XXI веке. Они направлены на решение проблем в данной сфере на основе общепризнанных в системе норм международного права принципов равноправия, суверенитета государств, обеспечения прав и свобод человека и коллективных прав социальных групп (национальных, языковых, этнических, расовых, конфессиональных, локально-цивилизационных и др.).

Для создания списка Сводеша усредненного тюркского языка ортатюрк [2, 3, 4] и словаря с него на другие тюркские языки и на английский язык используем существующую таблицу списков Сводеша для тюркских языков [12]. Эту Таблицу 1 списков Сводеша для тюркских языков разместим в Приложении 1. В тюркских языках используются алфавиты,

созданные на основе кириллицы (узбекский (наряду с латиницей), казахский, киргизский, уйгурский (наряду с арабицей), татарский, чувашский, башкирский, каракалпакский (наряду с латиницей), язык саха, крымскотатарский, кумыкский, карачаевско-балкарский, тувинский, алтайский, хакасский, ногайский, долганский), и, алфавиты, созданные на основе латиницы (турецкий, азербайджанский (наряду с арабицей), туркменский, узбекский (наряду с кириллицей), каракалпакский (наряду с кириллицей)).

Для осуществления процедуры усреднения лексических единиц из списка Сводеша необходимо, чтобы все эти лексические единицы были написаны на основе одного алфавита. Поэтому сначала осуществим транслитерацию с кириллицы на латиницу слов из этой таблицы для языков использующих кириллицу. При этом используем компьютерную программу для такой транслитерации, работающую по стандарту ISO 9 [13].

ISO 9 — международный стандарт, определяющий систему транслитерации слов написанных кириллическим алфавитом посредством латиницы. Главным преимуществом ISO 9 перед другими подобными системами является его полная однозначность. Каждой кириллической букве соответствует одна буква латинского алфавита, или сочетание буквы латинского алфавита с различными диакритическими знаками. Это позволяет точно передавать кириллический оригинал и производить обратную транслитерацию, даже если язык не распознан. Ранние версии стандарта (ISO/R 9: 1954, ISO/R 9: 1968, ISO 9: 1986) были основаны на международной системе для образования по языкознанию (научная транслитерация), и отличались применением односторонней транслитерации, в пользу фонетического представления. ISO 9 обеспечивает изоморфизм преобразования с кириллицы на латиницу, и обратного преобразования [13].

Таблицу 2, полученную после вышеуказанной транслитерации посредством использования компьютерной программы, работающей по стандарту ISO 9, приведем в Приложении 2.

К словам этой Таблицы 2 применим программу синхронического усреднения по формуле (2), приведенной в следующих книгах [2, 3, 4]. В результате создадим таблицу, в которой после столбцов, содержащих списки Сводеша тюркских языков, приведем столбец, содержащий список Сводеша среднетюркского языка ортатюрк, при этом слова этого списка будут написаны с использованием латинского алфавита. Эту таблицу дополним ещё одним столбцом, в который внесем оригинальный Список Сводеша на английском языке [14], в итоге получится многоязычный словарь для понятий из списка Сводеша, включающий слова национальных тюркских языков, транслитерированные по стандарту ISO 9 с кириллицы на латиницу, среднетюркский язык ортатюрк на латинице и английский языки. Эту таблицу обозначим как Таблицу 3 и разместим её в Приложении 3. Эта таблица удобна для личностей, привыкших к латинскому алфавиту.

Для того чтобы получить список Сводеша среднетюркского языка со словами написанными кириллицей произведем аналогичные преобразования. То есть преобразуем Таблицу 1 в Таблицу 4, в которой слова всех списков Сводеша тюркских языков использующих латиницу транслитерированы в кириллицу. Эту Таблицу 4 представим в Приложении 4. Затем к словам этой Таблицы 4 применим программу синхронического усреднения по формуле (2), приведенной в следующих книгах [2, 3, 4]. В результате создадим таблицу, в которой после столбцов, содержащих списки Сводеша тюркских языков, приведен столбец, содержащий список Сводеша слов среднетюркского языка ортатюрк, написанных с использованием кириллического алфавита. Эту таблицу дополним ещё одним столбцом, в который внесем оригинальный Список Сводеша на английском языке [14], в итоге получится многоязычный словарь для понятий из списка Сводеша, включающий слова национальных тюркских языков, транслитерированные с латиницы на кириллицу по стандарту ISO 9, среднетюркский язык ортатюрк на кириллице и английский

языки. Эту таблицу обозначим как Таблицу 5 и разместим её в Приложении 5. Эта таблица удобна для личностей, привыкших к кириллице.

На основе полученных результатов создадим многоязычный словарь для понятий из списка Сводеша, включающий оригинальный английский список Сводеша, списки Сводеша национальных тюркских языков, написанные в том алфавите, который они официально используют, список Сводеша среднетюркского языка на кириллице и латинице. Эту таблицу обозначим как Таблицу 6 и разместим ещё в Приложении 6. Таблица 1 служила для фиксации исходных данных, таблицы 2-5 для получения и фиксации промежуточных результатов, одновременно они могут быть использованы личностями, привыкшими к одному из алфавитов – латинскому или кириллическому алфавиту. Таблица 6 является итоговой, так как в ней представлены основные результаты. Но объем вышеуказанных шести таблиц и даже одной Таблицы 6 очень большой и даже она не может быть размещена в данной статье, поэтому в этой статье ограничились описанием алгоритма, процедуры, способа создания списка Сводеша среднетюркского языка ортатюрк и многоязычного словаря с него на национальные тюркские языки и английский язык.

Анализируя полученные в процессе исследования результаты, приходим к выводу, что:

1) Есть возможность продолжить аналогичный процесс вычисления лингвистических норм среднетюркского языка ортатюрк за пределы списка Сводеша и охватить не только основную лексику, но и другие уровни языка;

2) среднетюркский язык ортатюрк не совпадает ни с одним из тюркских языков, и, в этом смысле, вступает как нейтральный язык;

3) среднетюркский язык ортатюрк достаточно близок к большинству тюркских языков и может быть понят носителями этих языков на основе знания своего родного национального тюркского языка.

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Technical education prosperity

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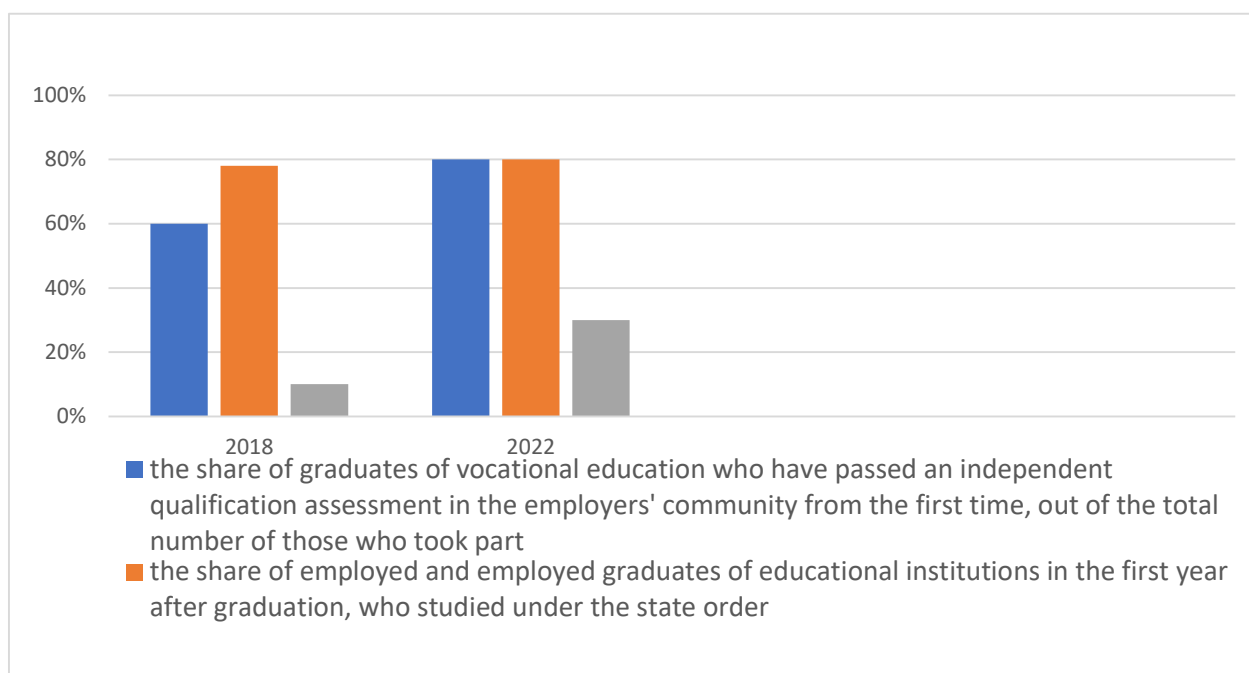
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The creation of a modern highly effective education system in Kazakhstan is one of the most important conditions for achieving the strategic goal set by President Nursultan Nazarbayev to become one of the 50 most competitive countries in the world. In his speeches, the Head of State stressed the need to awaken the intellectual potential of our nation. "Our task is to change the attitude of Kazakhstanis and, first of all, young people, to education, to intelligence, service to the Motherland and the people. We need to create a core of national intelligence, we need erudite people capable of competing internationally," the President said. And in this regard, the system of vocational and technical education should play an important role, the purpose of which is to modernize the system in accordance with the demands of society and the industrial and innovative development of the economy, integration into the world educational space. The objectives of vocational and technical education are:

1. Updating the content structure taking into account the demands of industrial and innovative development of the economy;
2. Development of personnel training infrastructure for economic sectors;
3. Increasing the prestige of training.

The target indicators include:



On the basis of National and sectoral qualification Frameworks, the structure of personnel training will be streamlined. The training of specialists will be carried out in accordance with the forecast needs of the labor market.

Vocational and technical education should be based on professional standards and strictly interrelated with the needs of the economy. The quality of higher education must meet the highest international requirements. The country's universities should strive to enter the rankings of the world's leading universities.

To develop the practical skills of students in the curricula, the share of professional practice will be increased to 60%. To do this, the practice base will be expanded through partnership with employers. Modern educational technologies will be introduced into the educational process, forming students' in-demand competencies.

Based on the best international experience and applied research, the scientific and methodological support of the vocational education system will be improved. Republican and regional educational and methodological offices will function, libraries of organizations will be replenished with the necessary educational literature. To ensure the availability of vocational education for young people, the number of student places will be increased through the construction of vocational lyceums and dormitories. There will be 4 interregional professional centers in the cities of Atyrau for the oil and gas industry, Ekibastuz - fuel and energy, Shymkent - manufacturing and Ust-Kamenogorsk - engineering.

Educational institutions on a contractual basis will be assigned to basic enterprises for practical training, internships.

More than 70% of state educational institutions of vocational education will be re-equipped with modern educational, production and technological equipment, information technologies. Funds from the local, republican budget, employers, at the expense of borrowed funds from international organizations will be attracted to upgrade and re-equip educational institutions with modern educational, production and technological equipment.

To increase the attractiveness and prestige of training in the system of vocational education, career management centers (structural divisions of educational organizations) will be created at educational institutions where there are no social and pedagogical services; republican contests "The best educational institution", "The best by profession" among students, masters of industrial training and teachers of special disciplines will be held; the best students will participate in international competitions of professional skills; talented students who are inclined to inventive and innovative activities, technical creativity will be identified and supported (through grants and nominal scholarships of employers, competitions organized and funded by employers).

To facilitate employment, a database of certified graduates will be created, interconnected with the database of vacancies in the labor market. The interaction of the Republican, regional and sectoral councils for the development of vocational education will ensure the active participation of business and the professional community in the development of this type of education, training and employment, through the conclusion of contracts between the educational organization, the enterprise and the student. By 2023, the following tasks are planned:

- personnel training based on the national qualification system will fully meet the demands of the labor market;
- educational and production workshops and laboratories of educational institutions will be equipped with modern educational and production and technological equipment, information technologies;
- cooperative training will be widely implemented taking into account the actual demand of enterprises;
- training in vocational education institutions will be attractive and prestigious for young people;

- business and professional communities will take an active part in the development of this education and training;
- independent qualification certification centers with the participation of employers will operate in the sectors of the economy.

Technical and vocational education, designed to provide the country's economy with professional technical personnel in order to further transition to a highly efficient innovation model. Large-scale work is currently being carried out in Kazakhstan to modernize vocational and technical education, taking into account the staffing needs of the Industrialization Program. Kasipkor Holding JSC was established to develop a network of world-class colleges in partnership with the business community and the world's leading educational institutions in Singapore, Germany and the Netherlands. Memoranda, agreements have been concluded between the Ministry of Education and Science of the Republic of Kazakhstan and large companies, akimats; JSC "KazMunayGas", "Kazakhstan Temir Zholy", "Kazakhtelecom", "Kazakhmys", "Kazpost", "Asia Auto" Oil "Soyuz Atameken", Akimat of Aktobe region, West Kazakhstan, Akimat of the city Almaty. Within the framework of these agreements (memoranda):

- - 12 training centers have been established on the basis of enterprises;
- - more than 3,000 jobs were provided for practical training;
- - employer scholarships awarded to 300 students;
- - the material and technical, educational and methodological base of vocational education organizations has been strengthened in the amount of 360 million tenge.

It is worth noting that Kazakhstan was the first among the CIS countries to create a system of technical and vocational education on the basis of the former primary and secondary vocational education, which made it possible to give technical orientation to personnel training and assign several skill levels.

Should children with disabilities be mainstreamed in regular classes?

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Introduction

Imagine yourself in the wheelchair, physically impaired and somebody always supports you. Imagine that a person escorts you to the restroom and support in every activity like eating and not being able to do simple things that other people can easily do. Somebody manipulates your hands, head, or other parts of the body. Imagine that you can't walk from the door of the classroom or drop everything because your hands are weak. How uncomfortable living can be for you?

There are many challenges in life for a person with a disability. One of the biggest challenges of the people with special needs is a school. According to The Convention of the Rights of a Child and the Convention on the Rights of Disabled people (CPRD), all children with disabilities have rights for the same conditions of happy and fulfilling life as children without disabilities. Particular terms have to be defined for inclusion of students in mainstream school, review of scientific articles and survey have to be made for the topic of "mainstreaming"

Inclusive classrooms are defined as places where all students are the central key figures, feel a connection to their peers, have access to meaningful general education curricula and receive collaborative support so that they will succeed. The purpose of including students with disabilities in inclusive classrooms is to help all students (students with disabilities and without) to live and play together in order they could successfully live and work in the community of the adults. For students with disabilities, inclusive classes promote intellectual growth, independence, and interaction with peers.

Mainstreaming is the practice of teaching students with special needs in regular classes during a particular time based on their skills. (1) This means regular education classes are combined with special education classes. The alternatives of mainstreaming for children with special the needs are separation, inclusion, excluding from the school. Mainstreaming is such a process that does not involve putting a child full-time in the special school or putting inclusive in regular school, it is much more to that. A student who spends the entire day in the regular classroom with non-disabled peers is considered (such students dyslexia, attention deficit disorder, non-cognitive disabilities) fully included. A student who is taught in an institution (such as hospital) or at home (while recovering from severe illnesses) is excluded. Such students may receive one-on-one-instruction or may attend small group institution. A student who is excluded from school may or may not have been expelled from the school

There are following research questions and objectives:

- 1)What advantages does this practice bring to children with disabilities and healthy children?
- 2) What disadvantages of mainstreaming could influence on children with disabilities?
- 3) How will the practice of mainstreaming affect classes at school? Positively or negatively?

I had two cases in my teaching of having disabled children in the regular course. Since June,2013, I worked in a private school founded by Korean businessperson in Kazakhstan. One student in my class had cerebral palsy. I had a real challenge to teach him in my class. That is why I was interested in researching the topic because I faced up with it in real life.

I will implement the following procedure and research design. If it is possible, I will have an interview with the boy's mother from Kazakhstan about challenges she has as a parent in bringing up and educating the boy.

If it is possible, I will have an interview with professional in Special Education school, in Almaty, who has a better grasp of a problem than me. I will do a survey for KIMEP students using the set of questions about mainstreaming. I will interview the specialists from Higher Education and secondary school teachers who had cases of inclusion in their practice. I would like to present the situation abroad on inclusion and mainstreaming at schools abroad researching what positive and negative effects it has on teachers (general educators and special educators), children with special needs, healthy children and their parents. I want to explore whether American style mainstreaming could be incorporated in Kazakhstan schools.

I expect from this research to obtain information about mainstreaming from educational articles. Based on this data, interview, and questionnaire I will come to the solution whether mainstreaming can be included in Kazakhstan on the large scale. Besides, I will be able to determine what kind of setbacks can happen while doing that in Kazakhstan and how it will affect Kazakhstan nation in the future.

Literature review

By one, widely used estimate, some 93 million children –or 1 on 20 of those aged 14 or younger–live with moderate or severe disability of some kind (The state of the World children, UNESCO, 2013). To be disabled in childhood is a double challenge. Life of the disabled child is very restricted in many areas, he or she can't play as ordinary children do, and a boy or a girl can't go to regular school and receive education so that in the future he would have a decent income and life. One can understand such children don't have many chances in their present life and may will not have in the future. That's why this issue is very important to allow all children have equal rights in their life. For disabled children, the practice of inclusion into mass school is called mainstreaming. It is crucially sensitive and necessary for many people problem which I intend to study.

Some special terms have to be defined concerning this topic and review of the literature has to be made. In the study of Runswick-Cole, there is discussion about two models of disability, and it gives some definitions: "Impairment –lacking part of a limb or having a defective limb organism or mechanism of the body. Disability is a disadvantage or restriction of an activity caused by a contemporary social organization which takes no account of people who have physical impairments and thus excludes them from mainstream social activities.

A medical model supposes that children with special needs are deficient as society has limited capacity or desire to change. Special education and practice of segregated education is based on the medical model of disability. While social model determines disability as a result of particular and economic structures, it has a purpose to help against discrimination of disabled people, which caused by cultural or institutional forms of exclusion. (Runswick-Cole, K.,2008) According to UNESCO report (2013), exclusion deprives children with disability the life-long benefits of education: a better job, social position and economic security, and possibilities for full participation in society structure. Therefore, investment into the education of children with disabilities can contribute to their future effectiveness as members of the labor force. Thus, a person's potential earnings can increase as much as 10 % with each additional year of schooling. (The state of the World children, UNESCO 2013) The article of Couston-Theoharis (2009) clarifies "inclusion is the way of thinking–deeply held belief that all children, regardless of disability are valued members of the classroom community." (Julie.N –Couston-Theoharis, 2009)

According to the U.S Government policy, the principles of an inclusive education services are defined as:

- Inclusion is defined to be a process in which schools, local education authorities and others develop their cultures, policies, and practices to include pupils with limited abilities having in mind future model of society of comfortable society for every grown-up child
- With the right training, strategies, and support, nearly all children with special needs can be successfully included in mainstream education

- An inclusive education service gives thorough excellence and choice to incorporate the views of parents and children, aligned with idea of uniting children under one purpose of future social model of equality

- The interest of all pupils must be safeguarded
- Schools should actively seek to remove barriers to learning and participation within classrooms inviting best professionals to lead little children towards better social collaboration
- All children should have full access to an appropriate and excellent education that may afford them the opportunity that achieves their personal potential (Runswick-Cole, K. 2008.)

In the research of Causton –Theoharis (2009) 54 % of the 6 million students with a disability spend more than 80% of the school day in GE classroom; a general maintenance strategy is one - to -one support. The current ratio is one special education paraprofessional for every 17 students with disabilities. But as schools integrate more services in the classroom, adult support will also involve a special educator, speech therapist, occupational therapist, physical therapist etc.

The article explains that there are 3 levels of disability according to necessity of outside help:

- Profound disability when the person requires constant outside help, guidance, support around the clock.
- Severe disability when the person needs outside help, guidance. supervision every day and night.
- Moderate disability when the person needs regular outside help and guidance in his place of residence at least once a week. (Kallovas,2010)

As it states in the article of Godovnikova, inclusion requires preparation: preparing public opinion in relation to the need of inclusive education, preparing community of teachers of mainstream school, instructing ordinary children's parents, making sure that teachers command methodology to work with children with special need, providing of schools with the material basis, staffing with specialists, organizing cooperation between special education teacher and general education teacher, on the foundation of some cases of hidden inclusion receiving recommendation for working with special children in the condition of mainstream school. (Godovnikova, L. V, 2009).In Wehmeier, it is found that students, studying in GE mainstream school have a better approach to the general education curriculum, thus more focused on studying than children in SEd schools. Studies show they have a positive response studying in the class. (J.H.Soukup et al,2007).The articles by Gospel, Gable, Mackenzie, Richards clarify the issues in relation to teachers, special educators and children. Goldthorp believes that sometimes personal plans of teachers fail because there is no clear consensus about the child's difficulty or strategies, which should be used (Goepel.J, 2013). Gable et al study shows that at least 82% of G.E teachers and special teachers choose very significant following practices' as curricular modifications, systematic approach to cooperative learning, anger management, behavior support, conflict resolutions programme. Teachers in this study acknowledge importance of behavior support and academic supports as well as good preparation. However, numbers of GE teachers and SE teachers indicate that they were not prepared to perform it on the classroom level. (R.A.Gable,2012) .Divehi and Rouse (2010) highlight that relationship between teaching

assistant and teacher in the study are full of tension, misunderstandings, antagonism. They experience ambiguities and conflicts around inclusion. Teaching assistants appear to have medical approach to children, which is reflected in their language and the view of the importance of special education. Schools should examine the ways how to promote collaborative approach (McKenzie, 2011). Julie Causton-Theoharis suggests fading support. She proposes to ask, listen, and step back. She asserts that students prefer unhindered access to their peers, and support must be faded because children feel stigmatized and lonely. All these articles show that the inclusion is a very delicate system yet. A lot of things have to be done, and gaps should be researched. (Causton-Theoharis, 2012). The system is fragile because still public opinion is not prepared towards mainstreaming, teachers and neither methods are not prepared, parents of ordinary children may be against of the the system, material basis is weak in many schools, there is no collaboration between special education and general education teachers. All these factors show that the school systems are not prepared enough to achieve inclusion in significant scale. I came to the conclusion that the inclusion is a necessary part of our life. We need to go through this complicated process to make children with special needs included in our school systems. However, this problem is not researched enough, and school systems are not prepared yet to implement the excellent idea into life. Thus, future of 93 million children depends on whether inclusive system may be perfect to incorporate it on a large scale. Therefore, our society worldwide depends on a great number. 93 million adults who cannot care and earn a living for themselves or at least some part of this number of in spite of disability could be part of working society structure, could invent, and create our future together with everyone else if inclusion system does work.

The main purpose of this research paper was to find out if mainstreaming could be implemented in Kazakhstan on a large scale, whether public opinion is prepared towards inclusion of disabled children in Kazakhstan. The solutions that were discovered through conducting a survey interview are following: mainstreaming is an answer for disabled children who cannot receive education in the general school with better curriculum and more opportunities in the future. It should be implemented for children and students who are able to study but because of disabilities reason couldn't have a chance to study with their peers. Actually, the school could become a model of our future society where people with limitations could receive normal treatment in spite of disability, in society where people with special needs are respected and supported because it is an important matter to create good living environment for all citizens equally. Certainly, each case of a child with a disability being mainstreamed should be thoroughly investigated, because each case is very individual as an interviewee teacher pointed out. And as the teacher told me those ordinary children helped a lot to children with special needs that weren't neglected and been cared of in school. I want to imagine a future where people with disabilities have more opportunities than these days that we could bring up in our school such scientists as Hawkins's leaders as Helen Keller, Abraham Lincoln, artists as Vincent van Gogh, presidents as Roosevelt and others who in spite of their disabilities could become a part of leading society.

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Opportunities to apply SOLO taxonomy in biology teaching

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Summary: The article is devoted to the opportunities of applying SOLO taxonomy in biology teaching. The SOLO taxonomy is presented as a structured model for students to develop their own thinking and learning activities. The theoretical issues of taxonomy application rules are interpreted on the basis of samples.

Keywords: biology, taxonomy, integration, simple concepts, abstract thinking, training results.

As an alternative to Bloom's taxonomy, SOLO-taxonomy, a new conceptual model of learning objectives proposed by J.Biggs and K.Collis, was developed. Noted that SOLO-taxonomy is more modern and has a number of advantages compared to Bloom's classification:

- based on scientific facts and research;
- based on learning theories;
- has a more logical hierarchy as it is based on the "simple to complex" type;
- high reliability of the application of this taxonomy in the educational process;

The range of cognitive activity levels presented in the SOLO taxonomy is quite wide: from the formation of facts and simple algorithms to various intellectual and practical skills based on the theory of J.Piaget, about the phases of cognitive activity development. This taxonomy has a hierarchical structure, so it is convenient to use for the development of instruments and interpretation of the results of pedagogical measures.

SOLO taxonomy provides a structured model for students to develop their own thinking and learning activities. The model consists of five levels.

- Lack of understanding
- Simple concepts
- Unsystematic concepts
- Integration
- Abstract thinking

The verbs corresponding to each level of SOLO taxonomy are shown in the table below. Noted that there are no comprehension verbs for the first level.

Simple concepts	To remember, to imitate, to identify, to determine
Unsystematic concepts	To classify, to combine, to describe, to enumerate, to list
Integration	To analyze, to coordinate, to differentiate, to apply, to generalize, to predict
Abstract thinking	To hypothesize, to compile, to create, to prepare, to invent

The first phase concerns the direct reproduction and recognition of the content of the material studied from memory. The second phase consists of understanding and applying knowledge in a familiar situation pursuant to the model and performing actions with well-defined rules. The third phase involves the usage of knowledge in a changed or unfamiliar situation. In the fourth phase, the student moves to a higher level of thinking and can explain several ideas by

making connections between facts about a topic. At this phase, the student has a systematic and deep understanding. In the third phase, the student can create new ideas by connecting many facts with concepts. At this phase, the student demonstrates the connection between concepts at an abstract level.

SOLO taxonomy allows students to identify, analyze, connect and evaluate ideas and facts from different perspectives. In the example below, all the facts, ideas, and concepts related to the 8th grade "Pillars of Our Body" topic are classified in accordance with the levels of SOLO taxonomy. Let's group the facts, ideas, and concepts connected with the topic and note the verbs, training outcome, and evaluation criteria.

	Simple/ Unsystematic concepts	Integration	Abstract thinking
Content	skull part ribs waist pelvis thigh shin	bone composition bone structure bone and joint diseases	connective tissue bone growth nervous and humoral regulation of a musculoskeletal system
Verbs	to enumerate	to analyze	to evaluate
Training result	It lists bones of different shapes and sizes.	It analyzes the functions of the skeleton.	It evaluates the participation in the formation of most of the formed elements of blood.
Evaluation criteria	enumeration	analysis	evaluation

Through SOLO, a teacher may plan on phases in biology teaching:

- To identify the facts, ideas, and concepts connected with the content;
- To classify content-related facts, ideas, and concepts pursuant to levels;
- To determine contexts classified at the level of abstract thinking;
- To group facts, ideas, and concepts;
- To choose verbs in accordance with SOLO levels;
- To record training results;
- To note the evaluation criteria.

By the application of SOLO taxonomy in biology teaching, it lays the ground for the development of students' research activities, the rise of cognitive activity, and the formation of metacognitive knowledge.

Биология сабағында оқушылардың шығармашылық қабілеттерін арттырудағы дамыта оқытудың рөлі

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Аңдатпа

Бұл мақалада білім беру үдерісінде биология сабағынан оқушылардың шығармашылық қабілетін дамыту жолдары қарастырылды. Жаңа білім беру жүйесі оқытушы мен оқушыға шығармашылықпен жұмыс жасауға итермелейді, себебі оқушы білімді өздігінен іздену арқылы алады. Ал мұғалім оқушының шығармашылық қабілетін дамыта отырып, сапалы білім алуына себептер мен жағдайлар тудыруға ықпал жасайды. Сондықтан мұғалім сабаққа жан-жақты дайындалып, сабақ үстінде қойылатын кез келген сұрақтарға және ситуациялық жағдайларда оқушыға қажетті бағдар беруге дайын болуы керек. Мұғалімнің басты міндеті – оқушылардың биологиядан білім мен біліктерін жүйелі байланыстыра отырып, оны дағдыға айналдыру арқылы сапалы білім үйрету болып табылады. Жаңа технологияларды биология сабағын оқытуда тиімді қолдану көмекші оқу құралдар арқылы жүзеге асады. Көмекші оқу құралдарының атқаратын қызметі, негізінен, оқыту үдерісін жеңілдете отырып, оқу уақытын үнемдеу, сондай-ақ сабақ мазмұнының интерактивтілігін күшейту, мол ақпарат беру, оқытушы мен оқушының оқу әрекетінің тиімділігін қамтамасыз ету болып табылады. Мұғалім күнделікті сабағын түрлендіріп, ғаламтор желісін пайдаланып, әр түрлі әдіс-тәсілдерді қолданса, оқушыны ойлантуға жетелеу мен бірге, өз ойын ортаға салуға, басқалар мен пікір таластыра алуына көмектеседі.

Түйін сөздер: білім беру, шығармашылық қабілет, биология сабағы, дамыта оқыту, әдіс-тәсілдер, жаңа технология

Аннотация

В данной статье рассмотрены пути развития творческих способностей учащихся на уроках биологии в образовательном процессе. Новая система образования заставляет преподавателя и ученика работать творчески, так как ученик получает образование самостоятельно. А учитель, развивая творческие способности ученика, создает причины и условия для получения качественного образования. Поэтому учитель должен быть всесторонне подготовлен к занятию и мог ответить на любые поставленные вопросы умело ориентируясь в ситуационных условиях. Главная задача учителя – это получение качественного образования через систематическое сочетание знаний и умений по биологии, превращение его в навыки. Эффективное использование новых технологий в преподавании биологии осуществляется с помощью вспомогательных учебных пособий. Функции вспомогательных учебных пособий являются, в основном, экономией учебного времени, облегчая процесс обучения, а также усилением интерактивности содержания занятий, предоставлением обширной информации, обеспечением эффективности учебной деятельности преподавателя и ученика. Учитель использует различные методы и приемы, используя ежедневные уроки, применяя интернет-ресурсы, помогает научить ученика мыслить вместе с собой, строить свои мысли, обмениваться мнениями и другими.

Ключевые слова: образование, творческие способности, биология, развивающие обучения, методы и приемы в обучении, новая технология

Бүгінгі таңда білім беру үдерісінде бәсекеге қабілетті мамандар дайындау әлемдік мәселеге айналып отыр. Тұңғыш Елбасымыз Н. Ә. Назарбаевтың Қазақстан халқына жолдауында: «Ұлттық бәсекелестік қабілеті бірінші кезекте – оның білімділік деңгейімен айқындалады» деп айтылған болатын. Қазақстанның әлемдік өркениетке жетуінің алғашқы қадамы – білім жүйесі. Мектеп – білім жүйесінің ең басты нысаны, сондықтан мектепте қаланған білім негізі оқушының болашағына жол ашады [1]. Жаңа білім беру үдерісі оқытушы мен оқушыға шығармашылықпен жұмыс жасауға итермелейді, себебі оқушы білімді өздігінен іздену арқылы алады. Оқушының шығармашылық қабілетін ашу, оны алға қарай дамыту үшін жоспарлы істің мақсаты мен міндетін айқындап алу қажет.

Мақсат — оқушылардың іскерлігі мен дағдыларын қалыптастыра отырып, шығармашылық жұмысқа баулу, ой-өрісінің дамуына мүмкіндік тудыру. Міндет-оқушылардың шығармашылық қабілетін дамыту, жан-жақты дамуына көңіл бөлу, ғылыми- зерттеу дағдыларын қалыптастыру. Алға қойған мақсат пен міндетті орындау үшін оқушы жастардың танымдық, шығармашылық әлеуетін жан-жақты өсіруге, дамытуға ден қою қажет. Ал мұғалім оқушының шығармашылық қабілетін дамыта отырып, сапалы білім алуына себептер мен жағдайлар тудыруға ықпал жасайды. Сондықтан мұғалім сабаққа жан-жақты дайындалып, сабақ үстінде қойылатын кез келген сұрақтарға және ситуациялық жағдайларда оқушыға қажетті бағдар беруге дайын болуы керек.

Мұғалім күнделікті сабағын түрлендіріп, ғаламтор желісін пайдаланып, әр түрлі әдіс-тәсілдерді қолданса, оқушыны ойлантуға жетелеу мен бірге, өз ойын ортаға салуға, басқалар мен пікір таластыра алуына көмектеседі. Сонда өз ойымен тұйықталған баланың, шығармашылық ойлау қабілеті еркін дамиды. Сабақ барысында оқушымен мұғалімнің арасындағы қарым-қатынас тығыз байланыста болу қажет. Бұл оқушының қиялын, өзіндік көзқарасын еркін айтып, ұстаз тарапынан нұсқау алуына мүмкіндік береді. Оқытушы сабақ жоспарын дайындаған кезде, оқушыларды жаңа сабақпен таныстырып қана қоймай, олардың ойлау және шығармашылық қабілеттерін де дамытуды қарастыруы қажет. Жалпы оқушының шығармашылық қабілетін түсіндіру үшін ең алдымен «шығармашылық» сөзіне анықтама берілуі қажет. Шығармашылық терминінің педагогикалық анықтамасы көптеген педагог ғалымдардың еңбектерінде кездеседі (1-кесте) [2,3].

Кесте – 1. «Шығармашылық» сөзіне анықтама

1	Шығармашылық дегеніміз – адамның өмір шындығында өзін-өзі тануға ұмтылуы, ізденуі. Өмірде дұрыс жол табу үшін адам дұрыс ой түйіп, өздігінен сапалы, дәлелді шешімдер қабылдай білуге үйренеді.
2	Шығармашылық туынды өмірге келгенге дейін ұстаз шәкірттің өнеге тұтар ақылшысы, пікірлес досы, бапкері болуға тиіс. Оқушы шығармашылығы үнемі ұстаз, сынып ұжымы, ата-аналар тарапынан қолдау тауып отыруы керек.
3	Л.В. Выготский шығармашылық туралы былай дейді: «Шығармашылық дегеніміз - онымен шұғылданушы адамға үнемі жаңаны әкелмесе де, бәрібір сол адам үшін жан дүниесіне, ойы мен сезіміне әсер етіп, шығармашылық толғаныс арқылы сыртқа шығатын саналы әрекет.
4	В.В. Давыдов: «Шығармашылық бастауы жеке тұлға негізінде жатыр: жеке тұлғаның маңызы оның жасампаздыққа мұқтаждығына және қабілеттілігіне байланысты», – деп айтқан. Оқушының шығармашыл тұлға болып қалыптасуын Давыдов «Дамыта оқыту теориясы» еңбегінде көрсеткен болатын.

Сонымен, шығармашылық ол – оқушының білім алу кезіндегі тапсырмаларды орындау қабілетінің көрсеткіші. Биология сабағы барысында оқушылардың шығармашылық қабілетін дамытудағы негізгі мақсат: оқушылардың ой – қиялын жетілдіріп, сабақ жайлы өз ойын еркін жеткізуге, сөздік қорын молайтуға, өз ойына қорытынды жасап, сөз саптауын дұрыстап, жүйелі сөйлеуге және ізденімпаздыққа, тапқырлыққа, сауатты оқу мен жазуға үйрете отырып, дағдыландыру болып табылады. Оқушылардың шығармашылық белсенділігін қалыптастыруда биологиядан сабақтарды түрлендіріп өткізудің маңызы ерекше. Мұндай сабақтардың тиімділігін атап өтсек: сабақ құрылымының ұйымдастырылуы, сыныптағы оқушылардың іс-әрекетін бақылауға қолайлылық, оқу - танымдық тапсырмаларды орындаудағы ұжымдық бірлескен әрекеттің жүзеге асуы, оқыту уақытының үнемді пайдалануын айтуға болады.

Шығармашылық сабақтарды өткізу білім алушының танымдық іс-әрекетін арттырудың құралы, сапалы білім берудің шарты, оқу үдерісін ұйымдастыру факторы, оқытудың жекелік бағдары болып табылады. Оқушылардың шығармашылық қабілетін дамытуда сыныптан тыс жеке ұжымдық жұмыстар ұйымдастырудағы: шығармашылық ай, пәндік апталықтар мен ғылыми апталық, жобалар, пәндік үйірмелермен факультатив сабақтарының маңызы зор. Барлық жұмыстар оқушылардың деңгейі бойынша жүргізіледі, оған әртүрлі сынып оқушылары қатыстырылуы мүмкін. Осындай жүргізген жұмыстар арқылы оқушылар өздерінің әртүрлі танымдық және шығармашылық сұраныстарын қанағаттандырады. Сонымен қатар, мектеп ішіндегі оқушылардың арасынан дарынды балалардың шығуына ықпал етеді.

Баланың шығармашылық қабілетін ашу, оны алға қарай дамыту үшін, ең бастысы, жағдайлар жасау қажет. Оқушының дарындылығының дамуы, шығармашылық қабілетінің ашылуы көбінесе мұғалімнің кәсіби құзыреттілігіне, білім алушымен ара-қатынасына және оның тұлғалық қасиетіне байланысты. Қазіргі кезде мектеп оқытушылары арасында «дарынды оқушы – бұл жақсы оқитын оқушы» деген жаңсақ пікір қалыптасқан. Белгілі ағылшын психологы П.Торренстің зерттеулер жүргізуінің нәтижесінде бұл пікірдің мұғалімдер арасында жиі кездесетіні анықталды. Мұғалімдерге оқуда қиыншылық

туғызбайтын, тәртіпті, ұйымшыл, білімді, тұрақты, ұғымтал, өз ойын нақты және түсінікті жеткізе алатын оқушылар көбірек ұнайды. Ал қисынсыз сұрақ қоятын, өз жұмысымен ғана айналысатын, тәуелсіз, көбіне түсініспеушілік туғызатын, қияли, әр нәрсеге көзқарасы бөлек оқушылар ұнамайды. П. Торренстің зерттеулері нақ осы қасиеттер оқушының шығармашылық дарындылығын көрсететін және оның нашар оқитын оқушылардың арасында да аз емес екендігін айқындаған болатын [4]. Сол себепті оқытушылар осы зерттеулердің нәтижесін есте ұстап, кез келген оқушыда қызығушылық және шығармашылық қабілет болатынын ұмытпағаны жөн. Мұғалім оқушының сол қызығушылығын, қабілетін өз сабағында тиімді қолдануды білуі қажет.

Шығармашылыққа үйрету тұлғаның интеллектуалдық аспектісі ғана емес, оның психологиялық, мінез - құлық ерекшеліктерін де көздейді. Оған жігерлілік, жаңа жағдайларға бейімделуге икемділік, қаржылық пен табандылық, тәуелсіздік пен адамгершілік сезімі, ынтымақтастық, қажырлы еңбекке қабілеті, белгісіз жағдайдағы өзіне сенімділік, ақиқаты іздеудегі және қарым-қатынастағы адалдық жатады. Оқытушы білім алушылардың шығармашылық қабілетін дамыту арқылы оларды жоспарлы жұмыс істеуге және өз жұмысының нәтижесін өзі тексеруге, оларды тапсырманы орындаудың тәртібі мен әдістерін анықтай білуге, сабақта: бір күнгі, апта ішіндегі, ай ішіндегі өз жұмысын жоспарлай білуге ұсынылған критерийлер негізінде өз жұмысының нәтижесін талдау мен бағалауға, сондай - ақ мұндай критерийлерді өздері жасауға үйретеді.

Мұғалім бәсекеге қабілетті жеке тұлға дайындау үшін оқушыларға білімді жаңа технологияларды қолдану арқылы беруі қажет. Сондықтан биология сабақтарында оқушының шығармашылық қабілетін дамыту мақсатында жаңа ақпараттық-коммуникативтік технологияларды қолдану өзекті мәселе болып табылады. Биология сабақтарында жаңа технологияны қолдану оқушылардың пәнге деген қызығушылығын арттырып қана қоймай, оларды үлкен ізденіспен, шығармашылыққа жетелейді. Нәтижесінде оқушының тіл байлығы жетіледі; оқушы еркін ойлауға және өз ойын еркін жеткізуге бейімделеді; ақпараттық сауаттылығы мен ақпараттық мәдениеті қалыптасады; оқыту процесінде жаңа техникалық құралдармен жұмыс жасауды үйренеді, білімін шыңдай отырып, жаңа оқыту үрдісін қалыптастырады; жан-жақты іздену арқылы өздігінен ізденімпаздық қабілеті артады; шығармашылық белсенділігі артады; ұжыммен жұмыс жасауды үйренеді.

Оқушының шығармашылық қабілеттерін дамыту үшін төмендегідей тапсырмалармен жұмыс жасатуға бейімдеу керек:

1. Шығармашылық жұмыстар;
2. Жобалау-зерттеу қызметтері;
3. Рөлдік және зияткерлік ойындар;
4. Биологиялық шығармашылық тапсырмаларды шешу;
5. Дидактикалық ойындар;
6. Презентация, слайд жасау;

Шығармашылық жұмыстар – оқушылардың, ең алдымен, өзін-өзі тануына, ішкі түйсіктеріне сүйене отырып, шығармашылық қабілеттерін дамытуға және ойлаған ісін жүзеге асыру үшін жағдай жасауға, сондай-ақ дербестік пен белсенділікті дамытуға мүмкіндік береді. Оқушылардың шығармашылық тапсырмаларды компьютерлік презентациялар, кроссвордтар, криптограммалар, ребустар және викториналық сұрақтар түрінде беруге болады. Белсенділік – туа біткен және тұрақты қасиет емес, қарқынды және үдемелі дамидын қасиет. Баланың шығармашылық және танымдық белсенділік деңгейіне мұғалімнің қарым-қатынасы, сөйлесу стилі, сондай-ақ оқушының көңіл-күйі қатты әсер етеді. Егер оқушы шығармашылықта жетістікке жетсе және сол ортада жақсы нәтиже көрсетсе, бұл оның пәнге деген қызығушылығын арттырады [5, 6].

Білім алушының оқу үлгерімі, білім сапасының жоғары болуы, оқытушының өз міндетін орындау деңгейіне, кәсіби шеберлігіне байланысты. Оқушы мектепке оқып, үйренуге деген үлкен ынтасымен, ықыласымен келеді. Оқушыны «қабілетті» және «қабилетсіз» деп бөле қарауға болмайды. Себебі әр оқушының өзіндік көзқарасы мен қабілет деңгейі әр түрлі. Мұғалім күнделікті сабағын түрлендіріп, ғаламтор желісін пайдаланып, әр түрлі әдіс-тәсілдерді қолданса, оқушыны ойлантуға жетелеу мен бірге, өз ойын ортаға салуға, басқалар мен пікір таластыра алуына көмектеседі. Сонда өз ойымен тұйықталған баланың, ойлау қабілеті еркін дамиды. Сабақ барысында оқушымен мұғалімнің арасындағы қарым-қатынас тығыз байланыста болу қажет. Бұл оқушының қиялын, өзіндік көзқарасын еркін айтып, ұстаз тарапынан нұсқау алуына мүмкіндік береді.

Белгілі педагог К.Д. Ушинский « ... қызығушылық тұғызбайтын оқу бірте-бірте оқушының білімге деген құмарлығын жояды, ал тек қызығушылыққа негізделген оқу оқушының еркін, күш-жігерін тәрбиелемесе мәнін жоғалтады» деп айтқан болатын. [7]. Осы қағидаға сүйене отырып, биология пәнін оқыту үдерісінде төмендегідей бағыттарды ұстануға болады:

- Білім берудің балама жолдарын қалыптастыру;
- Оқытудың тиімді әдіс-тәсілдерін қарастыра отырып, сабақ барысында уақытты тиынақты және ұтымды пайдалану;
- Оқулықтан тыс қосымша оқу материалдарын жүйелеп, оқу үдерісінде қолдану;
- Оқушылардың білімін бағалауда бағаның рөлін жете ойластыру;
- Оқушыларға берілетін үй тапсырмасын ұтымды қарастырып, оқушылардың өз бетімен ізденуін қалыптастыру.

Аталған талаптарды орындауда мұғалім тоқтаусыз жаңа білімді алып жүруімен қатар ұдайы ізденісте болуы қажет. Бүгінгі таңда сабақ өткізудің түрлері көбеюде. Биология сабағында оқушылардың пәнге деген қызығушылықтарын арттыратын, шығармашылыққа баулитын сабақ түрлерін қолдануға болады. Мысалы, сайыс сабағы, кіріктірілген сабақ, саяхат сабағы, лекция сабағы, конференция сабағы, семинар сабақ, пікір-талас сабағы, және т.б. әдіс-тәсілдерді қолдана отырып, сабақты қызықты өткізуге болады.

Мұндай сабақтар пәнге деген қызығушылықтарын арттырып, биология сабағында оқушылардың шығармашылық қабілеттерін дамытады. Оқыған материалдарын бекітуге, терең білім алуға, оқушылардың дербес ойлануын жан-жақты дамытып мұғалімнің көмегінсіз оқып үйренуге қалыптасады.

Қорыта айтқанда, тез өзгермелі заманда білім беру үдерісінде теория мен практиканы ұштастыру арқылы, оқушылардың шығармашылық және танымдық қабілеттерін арттыруға болады. Мұғалімнің басты міндеті – оқушылардың білім мен біліктерін жүйелі байланыстыра отырып, оны дағдыға айналдыру арқылы сапалы білім үйрету болып табылады. Жаңа технологияларды биология сабағын оқытуда тиімді қолдану көмекші оқу құралдар арқылы жүзеге асады. Көмекші оқу құралдарының атқаратын қызметі, негізінен, оқыту үдерісін жеңілдетте отырып, оқу уақытын үнемдеу, сондай-ақ сабақ мазмұнының интерактивтілігін күшейту, мол ақпарат беру, оқытушы мен оқушының оқу әрекетінің тиімділігін қамтамасыз ету болып табылады. Биологияны оқытуда оқушылардың шығармашылық қабілетін дамытуда жаңа техникалық құралдарды қолдану оқушылардың өзіндік қызметінің түрлі формаларын жан – жақты қарастыратын зерттеу, жобалау және проблемалық әдістерді тәжірибе жүзінде кеңінен қолдануға мүмкіндік береді. Ақпараттық технологияны енгізу арқылы білім алушылар компьютерді пайдалануды және онымен жұмыс жасауды, биологияны оқу барысында, жасушалардың және т.б. тірі ағзалардың 3D моделдерін көре алады. Сонымен қатар, электрондық оқулықтарды және интерактивті оқулықтарды ғаламтор желісі арқылы пайдалануға бейімделеді. Қазіргі кезде биология пәні

сабақтарында оқушының қызығушылығын көтеру негізінде электронды оқулықты қолдану олардың танымдық белсенділіктерін арттырумен қатар ойлау жүйелерінің қалыптасуына және шығармашылықпен білім алуына ықпал жасайды. Яғни, биологияны оқытуда жаңа технологиялардың қолданылуы – тек қана дәстүрлі сабақтың аясында тұрып қалмай, оқушылардың шығармашылық қабілетін дамыта отырып, өзіндік қызметінің түрлі формаларын жан – жақты қарастыратын зерттеу, жобалау және проблемалық әдістерді тәжірибе жүзінде кеңінен қолдануға мүмкіндік береді.

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ELEMENTARY DURING THE READING OF LITERARY TEXTS IN PRIMARY GRADES WORKS CARRIED OUT ON

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Reading is very important in human life. Every book read enriches a person's spiritual world and affects his outlook. A person gets acquainted with the surrounding world, people's characters, history, geography, and generally all fields of science. Read in a person friendship, companionship, respect for elders, men, love for country, people, etc. instills such positive qualities as But even before reading a book, speech develops in every person from the first days of birth. The foundation of speech development is laid in the family from lullabies sung over the baby's head, coaxing and caressing. As the child begins to ask the question "what is this" about what he sees around him and receives various answers to these questions, his vocabulary begins to enrich. But the answer to the questions depends on the level of the family, the environment, etc. varies depending on.

Therefore, when every child comes to the 1st grade as a schoolboy, he has his own individual speech. As mentioned above, the richness and purity of the speech depends on the environment in which the student grew up before coming to school. Norms such as naturalness, correctness, logic, purity, expediency, purposefulness, richness, clarity, simplicity, fluency, conciseness, expressiveness, imagery, emotionality, beauty, delicacy, and consistency should be expected in the speech.

Professor Y. Karimov points out the importance of the teacher to achieve a conscious approach of students to their speech and the speech of others.

It is known that when students come to 1st grade, their speech is inactive and passive. Their vocabulary is not rich, their speech is lexically and grammatically incorrect. The student cannot express his opinion correctly. They do not have the necessary speech reserve to explain their opinion. Therefore, the teacher should study the speech of each student and systematically work on the development of their speech.

The following works are mainly carried out on the students' speech. 1. Work on the content of the speech; 2. Work on the logic of speech; 3. Work on clarity of speech; 4. Work on accuracy of speech; 5. Work on expressiveness of speech; 6. Work on speech accuracy. 7. Work on purity of speech, etc.

However, work on speech development should be mutual and systematic, and while conducting all these works, the teacher should also try to enrich the student's vocabulary. Because work on vocabulary is an integral and most important part of speech development.

It is known that all topics covered in reading lessons should be directly related to vocabulary work. The works of art show the words in front of the student, unfolding them thoroughly. students the richness, clarity, polysemy, etc. of our language. they learn such features during the reading of literary texts in reading classes.

The following features of vocabulary work in reading lessons attract more attention.

The work of the dictionary, above all, serves to reveal the ideas and content of the text. In addition, while working on the text, students once again deeply understand the richness, purity, and accuracy of the language. Vocabulary work conducted during the reading of literary texts helps students to learn new words and to understand the meaning given under the pronunciation of these words (within the context).

There are various methods and principles related to teaching the meaning of words. Let's take a look at some of them.

1. If the word is completely unfamiliar to the child, if it is not familiar, the object and its picture can be shown to the students.

2. Excursions can be organized in order to visually present and demonstrate that item.
3. The teacher's comment about that event and object.
4. Broad explanation of words and phrases
5. Item description
6. To indicate the species into which the genus is divided, etc.

Sometimes during dictionary work, you come across words that, if they are taken alone, that is, they do not have any meaning outside of the text. But within the text, the word is clarified with its full meaning.

But sometimes it happens that the word is not familiar to children, it is difficult to reveal its meaning even within the text. Then it is possible to give the meaning by using the polysemy, synonym or antonym of that word.

Among these works, working on polysemous words is preferred. It is known that by working on polysemous words, the teacher achieves that students use these words more accurately, more fully, and in place.

The use of synonyms also gives significant results. If the teacher uses its synonyms when explaining the word to the student, the student's vocabulary will become more accurate, and the student will understand why that particular word is used in the text. For example, during the explanation of the anecdote called "Bless the Master", the synonymy of the word "master" with the word teacher and why the word master is used in this text can be explained. In fact, although students understand the word teacher easily, the word master is difficult for them to understand in most cases.

The given meaning can be explained by giving the antonyms of the difficult word. Many teachers use this method. For example, it is better to explain the words old, old, poor in the tale "Poor Fisherman" through their antonyms.

It is actually not correct to devote special time to vocabulary work during the reading of literary texts. During the course of the lesson, the teacher conducts vocabulary work as necessary so that all students' attention is focused on one word or phrase. Often, if the teacher does not dwell on these words in the right place, after the lesson, students start asking questions about those incomprehensible words.

Vocabulary work can be done throughout the lesson, that is, at all stages of the lesson.

1. Before reading the text
2. In the reading process
3. After reading.

1. Vocabulary work done before reading the text.

The teacher keeps a list while preparing for the lesson. He chooses such words in the list that the topic would be incomprehensible if their interpretation was not given in advance. In order for the students to fully understand the content of the text, the teacher gives the explanation of such words in advance. Difficult words are selected from the text, among these words there are words that must be explained before reading the text. The explanation of these words should also be given widely. If those words are explained during the reading of the text, the students' attention will be diverted from the text and its content. The remaining words can be gradually explained during the reading of the text or after the reading process.

However, more new words can be introduced if the reading process is conducted in an excursion or object lesson. First, because students can learn the names and properties of each of the events and objects they see around them. Also, at this time, they can remember the names of

all the objects they see visually. Because they accept the new word by reviving it not only in speech, but also in thinking. During the excursion, the students visually get to know new words related to spring and the changes that occur in nature in spring. During the object lesson, students carefully examine the objects. They list general, basic, or all properties of an object. By seeing the object with their own eyes and knowing what it is and what it is used for, students can discover its full meaning for themselves. However, at this time, it is not correct to ask children to give the full definition of that object. During this process, the teacher himself should help the students.

Let's take a look at other methods of vocabulary work carried out at the stage of preparation for reading the text.

If the process of preparation for reading is carried out by the teacher's interpretation method, the teacher should directly connect the words he chooses for vocabulary work with the content of the text. If the process of preparation for reading is carried out by an illustrative method, the teacher tries to reveal the meaning of the word by showing the picture of the object to which the word he has chosen for the vocabulary work belongs.

Reading preparation is often carried out by the interview method. At this time, the teacher can organize the interview in such a way that the students find the meaning of the word that is difficult to understand by searching for the answers to the questions. The teacher organizes the interview around the words he has chosen for vocabulary work in advance. By opening the meaning of the words, the students master the word and the content of the text is opened for them.

2. Vocabulary work during the reading of the text.

Vocabulary work during reading is mainly done depending on the teacher's wishes. It is known that the fact that the read text is literary or scientific-massive also has an effect on the work on the dictionary.

In order to conduct vocabulary work during the reading of literary texts, the teacher first reads the text expressively. Students roughly understand the meaning of the text. During re-reading, the teacher creates conditions for students to express their opinions after each sentence or paragraph. They try to analyze every word they come across in a sentence or paragraph. At this time, the teacher should provide opportunities for them to express their opinions as much as possible, and also help them.

Certain methodical requirements are imposed on the vocabulary work during the reading of literary texts. This work is mainly done during rereading.

1. It is known that the exact meaning of the word becomes clear only within the text. Words that have a similar meaning outside the text often have completely different meanings within the text. If a word is given alone outside the text, students often have difficulty deciphering its meaning. Because our language is rich in polysemous words. For example, eye - the eye of a wound, the eye of a spring, the eye of a deer; It is a polysemous word used in other meanings or homonyms such as ball, ball, gas, root, goal and . it is difficult to understand in what sense the words are used outside the text. The word appears more prominently within the text. However, if this word is explained to the students before reading, the idea may be a bit confusing.

2. It is not important to explain all the difficult words while doing vocabulary work during the reading of the text. During the reading of the text, it is appropriate to dwell only on figurative expressions in order to make the author's idea fully clear to the students. In addition, if there are words in the text that are directly involved in the understanding of the ideas and content of the text, without which it is impossible to understand this text, it is necessary to focus on those words.

3. The works carried out during the reading of literary works do not end only with the explanation of words with difficult meaning. The teacher should draw the student's attention to what words the author uses to characterize his hero, explain his opinion, and how he expresses

his attitude to the heroes of the work. Therefore, all the work done during the reading of the text only serves to analyze the description of the text in artistic language.

4. Control of the expressiveness of speech should not be neglected when conducting vocabulary work during reading. The teacher should organize the vocabulary work in such a way that both the reading process does not take an incomplete picture, and every word read is pronounced with conscious understanding. In the process of reading, working with figurative expressions is part of vocabulary work. The main work on figurative expressions is carried out according to the following principles.

It is known that the main purpose of working on such expressions is to understand and understand the topic being read. Each word used with figurative expressions serves to clarify the character of the heroes, the situation of the events, place, time and the author's attitude to all this.

However, explaining these statements out of context often does not give the right result. Their pronunciation is not done correctly, it loses its image. Therefore, when working on figurative expressions, it is necessary to choose very simple, easy words that students can understand.

3. Vocabulary work after reading literary texts.

The teacher analyzes key words before reading the text and during the reading process. However, there are words that require a lot of time to explain. It is better to save the explanation of such words after reading the text. Let's take a look at the dictionary work done in this way.

1. After reading the text, the teacher explains to the students that this text was written many years ago. Let's choose the words here that we hardly understand, that are not used now, that are little familiar to us. Old words in the text are selected and students understand that these words are old words.

The form of vocabulary work after reading the text is an explanatory dictionary provided by the author at the end of the page. The teacher instructs the students to write those words in the dictionary and memorize them. The last form of vocabulary work after reading the text also serves as text analysis. This includes the questions and exercises given at the end of the text. Students use the new words they have learned throughout the lesson when answering the questions at the end of the text. The set questions play a big role in both clarifying and activating the student's vocabulary.

In addition to enriching the student's vocabulary during the reading of literary texts, systematic work should also be done on activating it. Vocabulary activation is an integral part of dictionary work.

Thus, during the entire reading process, by explaining new words, the teacher tries to reveal the ideas and content of the text, as well as to include these words in the students' active vocabulary.

In general, the teacher can use different methods and principles for vocabulary work, regardless of the genre of literary texts.

Orthoepic norms are a speech requirement of all native speakers

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Abstract

Orthoepic norms are also called literary pronunciation norms, because they serve the literary language, that is, the language spoken and written by cultured people. Literary language unites all speakers of Azerbaijani language, literary language is necessary to eliminate language differences between them. This means that it must have strict norms: not only lexical - norms of word usage, not only grammatical, but also orthoepic norms. Pronunciation differences, like other language differences, interfere with people's communication, shifting their focus from what is said to how it is said.

Keywords: orthography, orthography, norm, literary pronunciation, speech, culture

In the process of teaching the mother tongue, the main focus is on enriching the student's vocabulary, feeling and understanding the differences and similarities in the meaning of words, correct pronunciation and writing, building sentences from words, building texts from sentences, finding and correcting semantic and grammatical errors in sentences and logical errors in texts, correcting someone else's opinion. operations such as understanding, expression of the same idea in different forms, restoration of the continuation of the interrupted idea, correct assessment, speech condition, forming and improving the habits of using language capabilities in an appropriate form are given. By the way, the culture and education of every person is measured by his words and speech. Through speech, the inner world of a person, his abilities, human qualities are expressed: humanity, truthfulness, etc. The great thinker and statesman Alishir Navai did not say for nothing: "Attention to the language is attention to the people." [1] Correct pronunciation, first of all, indicates the cultural perfection of the personality. In oral speech, sounds and words with different pronunciations are accepted as the norm for literary language.

Orthoepic norms are determined by scientists - specialists in the field of phonetics. On what basis do linguists decide which option to reject and which to approve? Codifiers of orthography weigh all the pros and cons of each of the encountered variants, taking into account various factors: the prevalence of the pronunciation variant, its compliance with the objective laws of language development (ie, they look at which variant is doomed and which variant is future.). They determine the relative strength of each argument for pronouncement. For example, the spread of a variant is important, but this is not the strongest argument in its favor: there are common mistakes. In addition, orthographic experts are in no hurry to approve the new version, adhering to reasonable conservatism: literary pronunciation should not change often, it should be stable, because the literary language unites generations, unites people not only in space, but also in the literary field. Therefore, it is necessary to recommend a traditional, although not the most common, living norm. Therefore, we often have to turn to orthoepic dictionaries.

The idea of oral speech culture is connected with broader concepts: culture - cultured person - speech culture - communication culture. In the dictionary-information book "Pedagogical speech science" (T. A. Ladyzhenskaya), this relationship is reflected in the article dedicated to the explanation of the concept of "speech culture". Due to its ambiguity, it "includes two stages in the acquisition of literary language: the correctness of speech, i.e., compliance with the norms of oral

and written literary language (pronunciation rules, accent, word usage, vocabulary, grammar, style) and speech skills, i.e., only the norms of the literary language not only to follow, but also the ability to choose the most accurate, appropriate and expressive of the available options, etc. A high culture of speech conditions a high general culture of a person, culture of thinking, conscious love for language" [3, p. 98]. Adherence to the norms of literary pronunciation in the process of communication is a factor determining its success. Recently, the level of mastering the normative rules of oral speech culture of a person is considered as a certain indicator of the development and formation of linguistic personality. It follows from this that in the teaching of the Azerbaijani language, serious attention is paid to the issues of teaching the norms of the literary language, starting from the norms of literary pronunciation.

We see that Azerbaijani speakers pronounce the same words differently. Some say *gələcəm*, *gəlicəm*, and some say *gələjəm*.

And when a person is faced with such a discrepancy in pronunciation, the question inevitably arises: how to speak correctly? Are there uniform rules for pronunciation? What pronunciation is sampled for the literary norm?

In recent years, many of the old pronunciation norms have undergone significant changes for various reasons. Usually, the old pronunciation variant is supported in theater speech, and in the speech of radio and television announcers. This can also be found in poems. Among the social causes of orthoepic changes in the 20th century, and especially towards its end, the influence of the visual perception of the graphic appearance of the word (printed or written word) comes to the fore.

In addition, orthoepy gives rise to normative and non-normative, non-literary pronunciation. Non-orthoepic pronunciation "scratches" the ear, causes condemnation in any cultural environment, and often acts as a means of creating a comic effect. Non-observance of uniform pronunciation rules can lead to the complete impossibility of speech communication, as well as significant difficulty. Deviation from orthoepic norms becomes an obstacle in communication with the audience: it distracts attention from the content of the speech. It is traditionally believed that ignorance of orthoepic rules indicates a fairly high cultural level of a person. In addition, the unity of the pronunciation norms is also supported by the spelling rules, thereby ensuring an adequate understanding of the written text.

Everyone who knows the Azerbaijani language, even those who consider the Azerbaijani language as their mother tongue, sometimes have difficulty in how to pronounce this or that word, where to put the accent. Therefore, orthoepic rules and norms should be worked with children starting with Azerbaijani language classes in kindergarten and primary school.

The section devoted to pronunciation rules and accent is called orthoepy in linguistics. The word orthoepia itself comes from the Greek words *orthos* (*orphos*) "straight, correct" and *epos* (*epos*) - "speech". Literally, orthoepy means "correct pronunciation". The uniformity of the sound design of spoken speech contributes to quick and easy language communication. Orthoepia sets rules for literary pronunciation and stress.

Orthoepy is a part of literary language. The task of orthoepy is to bypass the individual features of speech, as well as the features of local dialects, to turn the literary language into a means of communication as wide as possible.

Therefore, the importance of teaching orthoepic norms to all Azerbaijani speakers, the necessity of promoting these norms in theater, cinema, radio and television should be in the center of attention.

Orthoepy is closely related to phonetics: pronunciation rules cover the phonetic system of the language, i.e., the composition, quality, and change of phonemes selected in a given language under different phonetic conditions. The subject of orthoepy is pronunciation norms. An orthoepic

norm is the only possible or preferred language variant that conforms to the pronunciation system and the basic laws of language development.

Orthoepia covers the following sections: [2]

1. Orthoepic norms in the field of vowels and consonants;
2. Pronunciation features of borrowed words;
3. Pronunciation features of individual grammatical forms;
4. Understanding of pronunciation styles and their characteristics.

Pronunciation rules (norms) in the literary language of Azerbaijan can refer to individual sounds in certain phonetic positions, as part of certain sound combinations, different grammatical forms, phonetic word and rhythmic structure (correct accent).

The process of mastering the orthoepic norms of the language takes place mainly in preschool and primary school age. Therefore, the role of the school in the formation and development of correct oral speech skills is great. In primary school, a lot of attention is paid to filling and enriching the vocabulary of schoolchildren, but little time is devoted to teaching literary pronunciation norms - the orthography of the Azerbaijani language. Work on the pronunciation (sound) side of speech plays an important role in the system of students' speech development. For a long time, due attention was not paid to this direction. It was believed that children entering the first grade have sufficient pronunciation skills to allow them to freely perform speech activities. However, the study of the pronunciation skills of young schoolchildren shows that the majority of first-graders have significant defects in this aspect of speech: many of them have weak speech, the speech apparatus works slowly, breathing and voice are not correct, many have physiological disorders of diction, students are unable to speak their own words. they don't know how to use it. All this greatly affects the student's speech activity. The first is work on speech technique, which is understood as the result of correct breathing, clear diction: speech is achieved when the ability to control the muscles of the speech-motor apparatus is acquired. The principle of paying attention to the issue of language and the physical development of speech organs emerges from this example of teaching speech.

Strengthening of sounds, development of clear diction is also carried out in the process of drawing illustrations. When the child calls the objects and toys depicted in the drawings, the teacher makes sure that the student clearly pronounces the practiced sounds. Work is being done in parallel to develop the correct and clear pronunciation of sounds and to improve phonemic perception. Images and speech material are selected in such a way that at the same time as improving the pronunciation side of speech, the child is taught to separate certain pairs of sounds (deaf and ringing, hard and soft consonants, l and r sounds) with his ear. While looking at the illustration, the child is suggested to find and list various objects, toys, which have certain sounds in their names (for example, first find and list the objects with the sound s in their names, then those with the sound sh in their names) [5, p. 6].

After guessing riddles, memorizing small poems in which certain pairs of sounds are often found, the student is asked to name words with different sounds. In the process of memorizing poems, riddles, proverbs, as well as when repeating individual words, attention should be paid to the child's adherence to literary pronunciation norms. Therefore, the second direction of the work on the development of speech activity at the level of pronunciation is the organization of practical mastering of the orthoepic norms of the literary language of young students. In a preschool child who hears and perceives only the oral form of speech, speech skills develop unconsciously under the influence of the natural speech environment.

Young schoolchildren, observing the laws of pronunciation in ordinary oral speech, which are objective for everyone, violate them in the process of reading when the literal form of the word directly affects the pronunciation.

For a successful work on the development of the vocal aspect of students' speech, it is important to reveal the mechanisms of mastering the Azerbaijani literary pronunciation of primary school children, to show the examples and features of the mastering of orthoepic norms at the initial stage of education. A preschool child perceives and reproduces only one form of speech - the oral form, his pronunciation is always compared with the pronunciation of adults "without taking into account the connection with spelling, written language." [6, p. 53]

With admission to school, the process of mastering children's pronunciation continues under the significant influence of writing. This is the specificity of mastering the norms of literary pronunciation in primary school age. At school, children begin to master two completely new types of speech activities for them: reading and writing, which involve the visual analyzer at work, which leads to a significant restructuring of the previously established mechanisms in the auditory and speech-motor analyzers.

It is at the primary school age that the tendency to approach pronunciation with spelling becomes relevant, which is considered by many linguists as the leading trend in the development of the orthoepic norm today.

The influence of the book has affected the pronunciation of sounds before. But now, when oral speech skills are built not only by imitating the speech of adults, but also by visual assimilation of the graphic representation of the printed word, the effect of writing on pronunciation increases immeasurably.

Thus, the pronunciation habits of elementary school students are formed and developed under the influence of the graphic form of the word, so we should not pay attention to this during the organization of orthoepic work in elementary schools. However, it is not enough to understand the general rules and features of pronunciation in primary school age to teach children orthography. It is important to represent the specific level of orthographic literacy of elementary school students, to know their typical pronunciation errors, as well as the nature of the manifestation of errors in two types of children's speech activity: speaking and reading.

In this way, reading and writing, which are the main link in the education of students' pronunciation culture, are included in the chain of all speech processes: listening - reading and writing - speaking. The first place is listening, because the acquisition of pronunciation norms mainly begins with the understanding of the model pronunciation presented by the teacher. In addition, by mastering literate reading, children learn to follow the pronunciation rules known to them in their speech. Thus, the way to achieve orthoepic literate oral speech of young students is through the organization of correct reading.

In order for students to successfully master literary pronunciation, it is necessary to develop and strengthen a number of skills:[4]

- the ability to listen to spoken language;
- the ability to hear what is being said, to find deviations from orthoepic and accentological norms in other people's and own speech;
- the ability to correctly repeat what they heard based on an example;
- the ability to clearly express sounds, sound combinations, words;
- the ability to connect the heard and spoken word with the visible one: to determine the compatibility of sound and letter composition, to find a contradiction between the literary pronunciation and spelling of the word;
- the ability to independently use orthoepic and accentological examples in one's own speech and reading.

The formation and development of the listed skills in elementary school children determines the content of orthoepic work in primary grades, the minimum that is mandatory for the mastering of the Azerbaijani language. It includes the orthoepic rules of the modern Azerbaijani literary language, as well as words and grammatical forms that are important in terms

of literary pronunciation and emphasis. There are no universal recipes for drawing up the pronunciation minimum. The minimum should be specific to each learner, for example: foreigners who are fluent in literary pronunciation; students of national schools; Schoolchildren whose mother tongue is Azerbaijani (here we can talk about children who grew up in dialect and non-dialect conditions), for each stage of education (primary classes, middle, upper, university).

What selection criteria should be followed and what should be included in the scope of the pronunciation minimum?

The first criterion is the importance of the material for the communication process. Following this criterion, on the one hand, it implies the selection of the most common, frequent and productive pronunciation material for speech communication. On the other hand, it is important to select not only communicatively important linguistic phenomena, but also those that are characteristic of a particular learner and a particular stage of learning.

Thus, the second criterion is the specificity of the volume of language material and its forms of presentation in the process of increasing children's speech culture. According to the second criterion, the pronunciation minimum should be accessible for mastering by children of primary school age and should include cases that cause the greatest difficulty in independent practical mastering; available educational material (texts of tasks of the Azerbaijani language textbook, works of books for reading).

The composition of the pronunciation minimum does not include the phonetic laws of pronunciation and the rules of using literary pronunciation variants, which require certain interpretations.

The second case, which explains the great opportunities of the primary school teacher in improving the pronunciation culture of students, is the uniqueness of the primary education process. Almost all subjects (Azerbaijani language, mathematics, mathematics, technology) are taught by one teacher, therefore, in primary classes, the teacher can easily implement the orthoepic mode, provided he knows the norms of the Azerbaijani literary language. Otherwise, the mentioned case becomes negative rather than positive: the students of the elementary school teacher who says birdhouse instead of bird nest, overcoat instead of coat, comfortable instead of easy (for 3-4 years of education), even if they hear only exemplary speech at home, from the pronunciation of non-literary speech they use.

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НАПОВНЕННЯ ПРОЦЕСУ ФОРМУВАННЯ ГОТОВНОСТІ МАЙБУТНІХ ФАХІВЦІВ З ФІЗИЧНОЇ РЕАБІЛІТАЦІЇ ДО ЗАСТОСУВАННЯ ЗДОРОВ'ЯЗБЕРЕЖУВАЛЬНИХ ТЕХНОЛОГІЙ

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Формування особистісних мотивів і потреб – це процес, зазначає Є. Ільїн, це складне психологічне утворення, яке повинен вибудувати сам суб'єкт. У процесі виховання та соціалізації особистості формується будівельний матеріал, який у майбутньому буде використано для мотивації тієї чи іншої дії чи вчинку. Цим матеріалом є такі особистісні утворення, як інтереси і схильності, моральні принципи, установки і самооцінка, формування яких і є завданням педагогіки. Тому ззовні формуються не мотиви, а мотиватори. Це передбачає підготовку майбутніх фахівців з фізичної реабілітації до поєднання з базовими та використання таких технологій, які сприяли б активізації клієнта, формуванню відповідних принципів життєдіяльності, формували б бажання вдосконалюватися, а також слугували б засобом самовдосконалення особистості. самих спеціалістів з фізичної реабілітації.

Першою такою соціально-психологічною здоров'язберігаючою технологією, на яку варто звернути увагу під час підготовки майбутніх фахівців з фізичної реабілітації, є емпauerмент. Розширення можливостей можна назвати технологією управління здоров'ям, оскільки воно передбачає обмін інформацією, стимулами та владою в процесі реабілітації між реабілітологом і клієнтом, щоб клієнт міг проявляти ініціативу, приймати рішення та вирішувати проблеми. Це базова концепція, яка полягає в наданні клієнтам навичок, ресурсів, повноважень, можливостей, мотивації, а також у тому, щоб вони відповідали за результати своїх дій.

Майбутніх фахівців з фізичної реабілітації необхідно орієнтувати на розуміння емпauerменту як технології, що означає активізацію життєвої позиції клієнта під впливом реабілітолога, а також це технологія, яка може бути використана для особистісного вдосконалення, для створення особистісного активного життя. позиція, яка є необхідною складовою у формуванні готовності до професійної діяльності. Більш того, в результаті такої діяльності відбувається усвідомлення та/або посилення відповідальності людини за стан вирішення власної проблеми, а також формуються навички самодопомоги. У цьому аспекті важливо пам'ятати про потяг, мотивацію до змін як один із найважливіших факторів «включення» активності особистості клієнта.

Водночас емпauerмент – це надання клієнтам можливості брати участь у вирішенні своїх проблем разом із фахівцями, а також заходи для набуття впевненості в собі та особистих сил впливати на життєві обставини.

Паралельно з поняттям емпайермент існує поняття, без якого неможливий процес особистісного вдосконалення, само-емпайермент (self-empowerment). Саморозвиток полягає в набутті досвіду позитивних можливостей, що призводить до позитивних змін у житті людини, але лише за наявності особистого бажання змінюватися. Майбутні спеціалісти з фізичної реабілітації мають навчитись застосовувати зазначену здоров'язберігаючу технологію за такими етапами:

1. Фаза виникнення і прояснення нового бажання передбачає допомогу в мобілізації «Я» суб'єкта, у виникненні та усвідомленні свого бажання, а також у втіленні його в дію. На цьому етапі важливо навчити клієнта визначати правильні бажання. Якщо клієнт формулює бажання, в якому зазначається певна негативна інформація або не має чітких планів на майбутнє, наприклад, я хочу позбутися хвороби, болю тощо, то це свідчить про те, що клієнт не усвідомлює, що він підійде, коли больовий ефект відсутній. І протилежний приклад: я хочу навчитися вільно пересуватися, щоб допомогти близьким або поїхати в якусь країну. Головне, щоб клієнт бачив свої позитивно сформульовані життєві перспективи. На цьому етапі потрібно зрозуміти бажання клієнта, звернути увагу на конкретні дрібниці та деталі. Необхідно зібрати всі ознаки, що вказують на появу бажання, особливо у клієнтів, у яких функція бажання виражена слабо, внаслідок придушення важкою життєвою ситуацією. Фахівець з фізичної реабілітації повинен виконувати функцію нейтральності, пунктуального та уважного, некритичного вислуховування клієнта. Необхідно розуміти, що основне значення для саморозвитку має лише бажання клієнта, тому слід утримуватися від вираження власних бажань. Основною функцією фізіотерапевта на цій фазі роботи з клієнтом є лише збір інформації, характеристика «Я» клієнта, яке має бажання, і «Я» клієнта, яке має проблеми, пошук і розуміння справжньої ситуації, в якій знаходиться клієнт. Щоб знайти шляхи повернення клієнта до повноцінного життя, іноді необхідно глибоко дослідити особисту історію суб'єкта і сформулювати позитивно спрямоване бажання.

2. Фаза конструювання нового позитивного мислення. Дуже часто людині важко уявити ситуацію вже реалізованого бажання, уявити себе в ситуації подоланої проблеми і повноцінного життя. Це спостерігається навіть за умови усунення всіх перешкод: гнітючого відчуття нестачі ресурсів, критики оточуючих, невіри у власні сили і т. д. Завдання цієї фази саморозвитку - формування позитивного «Я» клієнта на основі побудови уявлень про те, що бажання вже реалізовано, абстрагування від необхідних ресурсів. Іноді це передбачає формування нової моделі життя. Тут головне навчити клієнта жити по-новому, але відчувати радість існування, насолоду, задоволення, як і до появи проблеми. Для цього необхідно допомогти випробуваному уявити себе режисером, сценаристом і автором фільму, в якому клієнт є головним героєм, що живе в реалізованій бажаній ситуації. Якщо клієнт демонструє наявність ряду бар'єрів, брак ресурсів і здатності реалізувати бажану ситуацію, слід спланувати поступовий процес позбавлення від бар'єрів, що обмежують можливості клієнта. Людина в цій фазі повинна подолати всі перешкоди, відсутність чого-небудь, неспроможність.

3. Фаза переходу від мислення до можливостей. Це основний етап роботи з клієнтом за вказаною технологією. У саморозширенні перехід від мислення до реальної можливості реалізувати своє бажання відбувається завдяки використанню різноманітних методичних ресурсів: внутрішньої обробки, отримання ресурсів, експериментування.

Внутрішня обробка може бути двох видів: мобілізація енергії та позитивних ресурсів, необхідних для реалізації нового бажання та нового мислення; виявлення, виділення та подолання внутрішніх особистісних бар'єрів (внутрішніх «кілерів»), які заважають і уповільнюють реалізацію бажання. Щоб мобілізувати енергію і позитивні ресурси, ви повинні дати клієнту позитивну оцінку, проявити деяку увагу і допомогти клієнту подолати особисті перешкоди. Тому в процесі повноважень, насамперед, слід визначити внутрішні перешкоди

та по черзі на них реагувати. Дуже часто суб'єкт намагається їх приховати, пропонуючи раціоналізацію своїх рішень і дій, щоб створити більш позитивний образ в очах фахівця.

Також стратегію подолання внутрішніх бар'єрів можна представити як боротьбу позитивної і корисної частини особистості з негативною; як уявлення про те, що перешкоди не існують, так і здійснення відповідної дії. В результаті таких стратегій людина поступово накопичує позитивний досвід, і внутрішня проблема вже не є тією призмою, через яку сприймається все життя. Головне завдання фахівців з фізичної реабілітації – допомогти людині створити внутрішні позитивні ресурси, які дозволяють долати перешкоди. Деякі ресурси, які людина використовує в процесі розширення можливостей, можна знайти в її оточенні. Фахівець з фізичної реабілітації повинен активізувати дії суб'єкта для пошуку та накопичення таких ресурсів. З цією метою доцільно надавати інформацію, яка дозволяє суб'єкту орієнтуватися на нові можливості, які допомагають контролювати власні бажання; формувати компетентності; включати клієнта в міжособистісні стосунки з іншими особами, які можуть підтримати суб'єкта в його діях.

Використання емпатерменту та самоемпатерменту потребує вміння фахівців з фізичної реабілітації правильно будувати комунікативні процеси. Тому наступною здоров'язберігаючою технологією, за допомогою якої можна вплинути на активність клієнта, сформувавши бажання змінюватися, вести здоровий спосіб життя, а головне – зміцнити віру у власні сили, є технологія нейролінгвістичного програмування (НЛП).

Основними принципами НЛП є принцип асиміляції, тобто бути схожим на співрозмовника, а точніше, думати як він; коригування – співвіднесення швидкості мовлення, гучності, тональності; копіювання нюансів міміки; калібрування контакту, тобто спостереження за реакцією співрозмовника, наскільки він реагує на ваші реакції і чи відбивається це на ефективності спілкування та, при необхідності, зміна засобів впливу.

Фахівці з фізичної реабілітації можуть використовувати техніки НЛП з метою більш детального вивчення поглядів, принципів, системи цінностей клієнта, для виявлення внутрішніх психологічних бар'єрів і з метою переорієнтації внутрішнього світу, налаштування на позитивні зміни. Єдиним правилом використання технік НЛП є їх правильний підбір відповідно до ситуації спілкування, інакше ці техніки легко перетворюються на техніки маніпулювання людиною. Щоб уникнути таких ситуацій, варто пам'ятати про основну мету використання НЛП у процесі реабілітації – програмування клієнта на позитивні зміни у власному житті, навчання клієнта бачити ці позитивні зміни та використовувати їх як життєвий потенціал.

THE WRITTEN AND ORAL SPEECH OF THE STUDENTS DEVELOPMENT

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The development of students' speech in primary grades is one of the main directions. Teaching students their mother tongue is primarily determined by the role that language plays in society and in the lives of every individual. The formation of the student as a personality, the formation of self-awareness, cognitive abilities, the development of speech takes place in the process of communication. Usually, oral speech of students in primary classes is richer than their written speech. Students acquire new knowledge through oral speech. Oral speech gradually builds a solid foundation for written speech. The more the student's oral speech develops, the higher his written speech will be. The development of written speech in turn affects the enrichment of oral speech. Therefore, the teacher should take care of the mutual development of both aspects of speech. It is extremely important to make students speak correctly and express their thoughts accurately in written form. At the same time, the curriculum of primary classes, the study of phonetics, grammar, spelling and the development of speech activity determine the formation of students' speech skills and habits during the four-year education period.

In methodical literature (Y. Karimov, A. Rahimov, N. Abdullayev, A. Abbasov, N. Jafarova) the tasks of students' speech are interpreted as follows: nominative function - learning the language of each person by learning the names of objects and events in life and their related expressions is started. Communicative function - this function fulfills the task of language communication. Cognitive function - With the help of this function, students study the events happening in the surrounding world, acquire knowledge about nature and society. Regulatory function - with the help of speech, the student controls himself, manages himself, regulates his actions, performs thoughtful activities.

Let's take a look at some ideas about types of speech: (N.Abdullayev "Basics of speech culture", V. Gurbanov, F. Khaligov, S. Abbasova "Azerbaijani language and speech culture"):

External speech is a speech marked by sounds or a graph, which implies a monologue or dialogue addressed to others.

Internal speech - that is, speech that is not spoken or written, "mental" speech, that is, speech addressed to oneself is meant.

- Oral speech – voice characterized by objectivity, means of information (speech rate, raising and lowering the voice, pausing, etc.) are considered.

The directions that promote the development of speech of primary school students are: to expand the scope of the student's speech, to ensure his initial acquaintance with the language system he is in contact with, to teach him to choose sentences suitable for the content he wants to say; to learn to accept what is said and heard correctly and accurately.

All these are speech situations related to the daily communication process of children. These situations can occur at any time and place.

At this pronunciation level, it ensures the correct pronunciation of words, the construction of diction, and the formation of intonation skills. During the lexical work on the dictionary, work on increasing and enriching the vocabulary is envisaged.

Of the requirements for students' speech, content and logic should be specially mentioned. The content of the story or essay should be based on well-known facts and personal observations of the student, it should be a writing reflecting life experience based on information obtained from books, paintings, the Internet, and the surrounding world. At this time, the age level and interests of students should be taken into account. And logic is determined by knowing the subject well. In order for this work to be effective, a number of requirements such as consistency, reliability of presentation, omission of any part and absence of repetitions, not using sentences and expressions unrelated to the topic, drawing conclusions from the content should be expected. For example:

1. Accuracy implies not only the speaker's or writer's ability to convey observational facts and feelings in accordance with reality, but also the ability to choose the best language tools for this (the ability to choose words, phrases, phraseological units, artistic representation tools).

2. The richness and variety of language means means the ability to choose different synonyms in different situations, in different sentence structures, in order to convey the content in the best way.

3. Clarity of speech, i.e., accessibility and understanding of speech for listeners and readers. According to its purpose, speech should be communicative depending on the current situation.

4. Expressiveness - the speech should be bright, beautiful and convincing, "parasites" and vulgar words should not be used.

5. Correctness is the compliance of the speech with the literary norm. For written speech, spelling and punctuation are basic, and for oral speech, pronunciation and spelling norms are the main ones.

It is also important to inculcate a number of skills in order to develop the communicative speech of schoolchildren at the primary education level. Communicative speech refers to parts aimed at meeting the need for pronunciation, conveying any topic (that is, representing a single whole), organized according to the laws of logic and grammar, having independence, completeness and interconnectedness. As a speech unit, a story, article, novel, monograph, report, report, etc. can be considered. In the classroom, the student's detailed oral answer to the teacher's question, written composition or presentation, etc. It is intended.

In primary classes, the following types of work that serve the development of communicative speech are accepted:

- providing detailed answers to questions (including during the conversation);
- various oral or written works (analysis of read works, study of grammatical material, works on the text related to the activation of grammatical forms and vocabulary);
- systematic observation records, daily records about nature and weather);
- retelling of readings in different versions orally;
- students build oral stories on a given topic, picture, observation, plan or plot;
- reading, memorizing literary texts, writing down the text based on memory;
- oral improvisation of fairy tales, writing poems and stories as the beginning of literary and artistic creativity;
- writing expressions according to the text (for artistic, journalistic and scientific porous texts);
- both oral and written reconstruction of the texts given by the teacher (retelling and presentation by selection method, creative forms of retelling, dramatization of stories, etc.)
- different types of dramatization, oral (verbal), drawing, description of read stories, imaginary screen version of read works or own stories;
- different types of written essays;
- giving reviews about read books, plays, movies.

In order to optimally organize the work on speech development, it is necessary to take into account the general development and individual characteristics of students. The development of students' speech depends on its enrichment and how to master phonetics, vocabulary and grammar.

Based on our observations in schools, we can say that it is difficult for children to master the correct writing skills, to listen to speech and to express their thoughts correctly in written and oral form. School experience shows that teachers use different types of work to develop students' speech. One of them is the use of support schemes related to the development of speech by teachers. As a result, even weak readers can start writing spellings, expressions, essays and presentations with enthusiasm. In class, when writing an essay collectively, the technique of co-creation is used.

The teacher suggests that everyone work on creating the text together. The collective essay is structured according to the order of the first sentence, taking into account the first sentence, the subsequent sentences are drawn up, etc. At the same time, deficiencies in the content are corrected in time, further development of the topic is strictly monitored. After the work is done, the text created by common efforts is read expressively. In this case, the value of collective writing as a type of activity is that it helps the student to find a form of self-expression: if it is difficult for someone to express what he sees and feels in words, his friends will help him. To do this, you need to find the same object of description or narration, the same nature pictures or the same life events that everyone notices. Then, each student will bring his own colors, his own feelings, his own attitude and views to such a collective writing.

If the content of the expression text is not consciously mastered, the students cannot write it. Each presented topic should make students think, make comparisons, make generalizations, and draw conclusions.

The analysis of methodological literature allows to classify various methods and tools for the development of speech

Methods and techniques for the development of speech in elementary school students:-
imitative

- analysis of sample texts; - synthesis of own language structures, search activity; generalization, creative work, all kinds of repetition; works related to understanding and explaining the subject of an essay or essay; combining the essay around a specific plan; collect material; compose text

- improvement of writings; creation of communicative speech situations; role-playing games, oral drawing; keeping a diary; create plots in the imagination according to different literary genres; creative endeavors.

Building a text: vocabulary work; work on word combinations; works on sentences; logical work; studies based on textual theory.

There are many techniques and types of teaching speech based on examples: these are numerous types of rewriting the read text, various types of written expressions.

The advantage of the imitation method is that it prepares the students' speech development for other methods. The second group of speech development methods comes from the communicative function of language - communication methods. This group of methods is based on the theory of speech activity, especially the analysis of the speech act. This method takes into account both the situation, motivation, understanding and opinion of the other party. Communication methods have their own techniques and types of exercises: creating speech situations, speech games, walks and excursions, oral drawing, keeping a diary, creating plots based on imagination and creative attempts in the genres of prose, poetry, drama.

This method forms various skills in students and serves their application. For example: understanding essays or essays related to the topic and explaining it; to subordinate the composition to a certain idea; collect material; compose text; to improve what is written.

Speech development methods are new methods of activity arising from a didactic attitude, which are formed on the basis of new skills, rules and examples, based on language laws. This method has many types of techniques and speech exercises that perform preparatory or auxiliary functions. Dictionary work - interpreting the meaning of words, their nuances, working with synonyms, antonyms, paronyms, phraseological units, working with dictionaries, correcting mistakes when using words.

Work on word combinations - build word combinations with given words, check the compatibility of words, insert phrases into the text, detect and correct mistakes in phrases, do exercises to prevent mistakes.

Work on the sentence - using the given words to construct sentences related to a certain topic, construct sentences according to model schemes, expand sentences, change the structure of the sentence, express the same idea in different syntactic options, construct free sentences and phrases, etc.;

Logical work - working with concepts and building their definitions, comparing natural objects according to their characteristics, making generalizations and reasoning, correcting logical errors;

Exercises based on text theory - modeling the structure of the text, working out the types of connections in the text, composing texts in different genres, transferring the plot in the form of a dialogue.

These trainings based on constructive techniques are educational and training in nature. All three groups of methods are briefly combined in the work of students and teachers, closely related to the Azerbaijani language and literature, and at the same time to the social activities of children, creating a favorable ground for the development of students' speech.

Communicative speech is considered to be speech that is aimed at meeting the need for pronunciation, conveys a complete topic (that is, represents a single whole), is organized according to the laws of logic and grammar.

Appropriate speech units are a story, an article, a novel, a monograph, a report, a lecture, and in a school setting - a detailed oral response of a student to a question posed by a teacher, a written composition, or a presentation.

In some cases, in coherent speech, a separate sentence can be equated if it meets the requirements of completeness, integrity (for example, a riddle).

U-learning: assessment and current issues

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Abstract: The article describes a new learning paradigm, known as ubiquitous learning. It then focuses on assessment as a part of u-learning to identify whether the current assessment matches the learning outcomes, the use of Web 2.0 tools in new assessment practices and the necessity of acquiring new skills by teachers which are a consequence of the rapid technology integration.

Keywords: u-learning, traditional assessment, alternative assessment, digital technology, Web 2.0 tools

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ПОВСЕМЕСТНАЯ КОМПЬЮТЕРИЗАЦИЯ ОБУЧЕНИЯ: ОЦЕНИВАНИЕ И АКТУАЛЬНЫЕ ПРОБЛЕМЫ

Аннотация: В статье описывается новая парадигма обучения, известная как повсеместное обучение. Затем рассматривается оценивание как часть обучения, чтобы определить, способна ли текущая система оценивания адекватно проводить анализ результатов обучения, использование инструментов Web 2.0 в новых методах оценивания и необходимость приобретения новых навыков учителями в следствии быстрой технологической интеграции.

Ключевые слова: повсеместное обучение, традиционная форма оценивания, альтернативная форма оценивания, цифровые технологии, инструменты Web 2.0.

The rapid development of technology and the steady growth of its use for educational purposes eventually lead not only to facilitating the teaching/learning processes, but also to reforming education paradigm and pattern.

Over the last two decades there have been fundamental shifts in the way of teaching and learning. One is a move from teacher-centered to student-centred education, and another is a move from the traditional to the virtual classroom [1, p.16-17].

The real consequence of the rapid development of information and communication technology (ICT) is the emergence of the concept of learning that can be done anywhere and anytime. In the past, information technology products such as mobile phones, electronic devices (gadgets), cloud computing, wireless networks, etc. had become the main promoters and accelerators of the application of the concept of mobile learning [2, p.108-112].

According to recent researches, there have been observed the progress of wireless communication and sensor technologies; therefore, e-learning has advanced to m-learning (mobile learning), and from m-learning to u-learning (ubiquitous learning). This new wireless Internet-ready environment which has been called a ubiquitous computing environment enables

many people to seamlessly utilize huge amount and various kinds of “functional objects” through network connections anytime and anywhere [3, p.304-312].

Awareness about a ubiquitous learning is steadily increasing, which characterizes a new generation of learning from a new perspective. Ubiquitous learning will cause an emerging of new teaching practice and teaching reform, which can transform into an essential way of learning in 21st century.

Learning is not complete if it is not complemented by assessment [4, p.385-405]. The shift in the learning concept has become an issue for more thorough research due to the need to match assessment and the U-learning of 21st –century learners. Hence, in this paper discussed what challenges can be encountered within the process of linking technology and assessment. The first is that teachers need to acquire a “technology fluency” competence [5, p.11] in order to use digital tools for assessment in general, and the second challenge is that the use of technology in language learning is leading to a number of new skills and knowledge areas, that need to be assessed [6, p.272].

Specifically, the issues of this paper are the following:

1. 21st –century learners and technology (u-learning); 2. The use of technology for traditional and alternative assessment; 3. New skills and knowledge resulting from the integration of technology in education.

1. 21st –century learners and technology (u-learning).

In the first part of the paper the brief information about e-learning evolution will be outlined which will provide some background to technology use in language learning.

Electronic learning (e-learning) has become widely accepted in both entirely online learning environments and in blended learning contexts [7, p.85-89]. In a broad sense, e-learning is used to describe the way people use an electronic device (usually a computer) with learning technology [8, p.198-233] to develop new knowledge and skills individually or collaboratively. Mobile devices, such as PDAs, smartphones and portable computers, constitute various forms of wireless environments that foster two-way, real-time communications among users, as well as between the user and their context, and can have many functions to promote mobile learning (m-learning: [9, p.709-710]). Since the early 2000s, new forms of mobile technology containing additional sensor devices have been providing new directions for technology-assisted learning, and this has led to context-aware ubiquitous learning (u-learning: [10, p.1-4].)

According to Hwang [11, p.1], there is no clear definition of u-learning due to rapid changes of the learning environments. Until now, researchers have different views in defining the term “ubiquitous learning”.

Study by D. Casey [12, p.2864-2871] formulated the view of “u-learning = e-learning + m-learning” as an integration of m-learning into e-learning environment with the purpose of creating u-learning environment. According to S. Yahya et al. [13, p. 118] “U-learning is a learning paradigm which takes place in a ubiquitous computing environment that enables learning the right thing at the right place and time in the right way”.

The success of u-learning depends on the environmental awareness of both the teachers and the students. These circumstances create some challenges such as searching for appropriate technology tools and effective teaching approaches which will support the process of education in building a context-based ubiquitous learning. Moreover, as the assessment should always match teaching and learning, the following question arise: How should teachers design assignments for u-learning? How should these assignments be assessed?

2. The use of technology for traditional and alternative assessment.

In this part the current trends in technology and assessment of language learning will be investigated. The following questions will be addressed: the definition of assessment, how technology can be used for assessing and how technology widens the teachers' opportunities to assess in different ways, particularly in u-learning environment. These encompass the use of technology to improve traditional assessment, to contribute alternative assessments of language learning and skill developing.

Assessment is a general item, which consists of methods and techniques used to gather information about student ability, knowledge understanding and motivation. Assessment is, on the whole, considered as one of the essential elements of teaching, by this means, teachers can define the level of skills or knowledge of their students [14, p. 466-478]. Wojtczak [15, p. 357] claims that it helps teachers assess the strengths and weaknesses of their students and increasing their motivation. In addition, assessments also give teachers helpful and informative feedback about student learning acquisition [14, p. 466-478]. This procedure allows teachers the opportunity to evaluate learning, and then use that information to improve student knowledge.

Conventionally, there are two kinds of assessments – traditional and alternative, sometimes called as authentic. Selection of the assessment type depends on preferences among available alternatives to assess. It can be stated that, according to teacher and student preferences, assessment type can either reduce stress and anxiety or increase it [16, p. 164].

The main characteristics of traditional assessment [17, p. 26-47] are the following: it is considered a standardized test with decontextualized test items, the focus is on discrete answers, it tends to be a summative test which is oriented towards the product, and it evaluates non-interactive performance, so it fosters extrinsic motivation. Examples of traditional assessment types are true-false, matching, and multiple-choice formats.

Digital technologies have been widely used in traditional assessment, automated marking of computer tests and quizzes speeds up the process of assessing and provide teachers with valuable information about students' progress which can be used for grading and planning future lessons [6, p. 274].

However, the recent researches point out that the focus of learning has moved from mere accumulation of knowledge to skills acquisition by students. This resulted in a shift from a content-based approach to a learning-centred approach, a change from teaching objectives to students' learning outcomes. Learning outcomes are becoming fundamental for structuring of assessment [18, p. 1].

Since the traditional methods do not correspond well with the current English language learning trends, the demand of searching for alternative methods of assessment has increased.

Technology can be useful in assessing of learning outcomes, for example, e-portfolios which contain a range of evidences of language skills. An e-portfolio [19, p. 36-50] is a digital version of these language portfolios where learners create projects adding videos and blogs which can be stored and shared on a wiki or any other website. Here, students are evaluated on what they integrate and produce rather than what they are able to recall and reproduce [16, p. 165].

One more example, Stannard R. and Basiel A. [20, p. 145-174] suggest to use the Tricider tool (<http://tricider.com/en/t>) allowing students to contribute a collaborative brainstorming, the technologies create a learning environment where students and teachers are able to communicate without time and location constraints.

In conclusion, we can see that integration of digital technologies is beneficial for both traditional which is mostly targeted to grammar and vocabulary acquisition and alternative assessments where students' products are created and shared collaboratively. It means that the future of assessment should empower learners to locate and access the proper information that can be applied in the current context.

3. New skills and knowledge resulting from the integration of technology in education.

The third part of this paper will analyze several cases with examples of alternative learning outcomes and will endeavor to define assessment criteria. In addition to this, the issue of the teachers' technology awareness is also significant one will be discussed.

The first study, conducted by Terrel J., Richardson J., and Hamilton M. [21, p. 846-862], describes the case of using Web 2.0 tools such as wikis, blogs, and social media for assessment of information management students. The authors highlighted five main assessment criteria which considered as essential features of Web 2.0 use; these are participation, communication, execution, persistence, and reflection.

The next study was conducted among online US-based students [22, p. 781-797] who participated in a small-group collaborative concept mapping project using Web 2.0 tool (Webspiration). After completing the task, the students asked to take a survey about their and their peers' contribution to this collaborative activity. The authors state that the more sophisticated map belonged to the group who enjoyed team work the most. This research shows possible connection between the quality of group collaboration and the quality of their learning outcome.

Another article is by Kimber and Wyatt-Smith [23, p. 607-625], it aims to investigate the following issues: 1) how to authenticate sources; 2) how to present knowledge with creativity; 3) how to show empathy and ethics in academic work. The authors determined the quality of the project work, based on 3 criteria (cohesion, content, design) and prepared descriptors on five-point scale (outstanding performance, accomplished, developing, limited, and lack of evidence of performance).

The above brief survey demonstrates that the alternative assessment has not been sufficiently studied yet. Therefore, many teachers consider it as a challenging process. The reasons for this situation are the time-consuming character of alternative assessment, lack of specific guidelines for its application in educational practice, lack of criteria for the interpretation of such assessment. There is still a significant gap between contemporary theoretical approaches and existing practices.

As for limitations of integrating technology in teaching process is an insufficient digital fluency of teachers. All these innovations in technology, pedagogy, and assessment have contributed to changing of teacher's role. Godwin-Jones R. [5, p.11] suggests the following recommendations which can help teachers to adapt in technology environment: 1) to learn to code in order to be able to use new software; 2) to learn how to integrate mobile applications in teaching/learning process; 3) to learn to use technology in a context-based way and be able to apply appropriate criteria for assessment; 4) to use technologies for participation in global learning.

Language teachers who intent to apply alternative assessment by means of technology tools should be provided special trainings. After courses there should be given opportunities for teaching practice, observed by teacher educators and provided feedback for improving [24, p.11].

Conclusion

In conclusion, drawing from a number of research articles about digital technologies, education, and foreign language learning this paper discovers the two issues concerning the use of technology for the assessment of language learning: 1) the ubiquitous learning focuses on collaborative and creative projects; 2) there are many digital tools that can be implemented in traditional and alternative assessment procedures, however, the expansion of digital technology requires from the teachers to master new skills and learn how to assess effectively.

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ДӘРУМЕНДІ ӨСІМДІК-ҚАРАҚАТ

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I. Кіріспе

«Бала өз бетімен зерттеуге мүмкіндік туғызған сайын одан әрі дами түседі.»

ПитерКлайн.

Табиғат алуан түрлі өсімдіктерге бай. Өсімдіктердің көбі дәрі. Біз дәрінің әлемінде өмір сүреміз. Үнді тәуіпкерлері табиғаттағы барлық өсімдіктер дәрі де, тіпті олармен емделсе жазылмайтын ауру жоқ, - дейді екен. Табиғат ол бізді қоршаған орта, байлықтың көзі. Табиғат - күллі тіршілік атаулының құтты қоныс-мекені, алтын ұя тал бесігі. Ерте кездерден бастап халқымыз табиғаттың кейбір туындыларын киелі, қасиетті деп ұғып, оларды өлтіруге, жоюға болмайтынын уағыздаған. Сонымен бірге табиғат пен адам біртұтас, бір-бірінен бөлуге болмайды деп қараған. Сондықтан адам табиғаттан өз керегін ғана алып, қалғанына еш уақытта зиян тигізбеген.

Барша адамзат өкіліне ауа, су, жер ортақ. Сондықтан жердің қадірін, байлығын бағалай білу, жалпы табиғатты қорғау - баршамыздың міндетіміз.

Халқымыздың мақтанышы болып саналатын ғалым, этнограф, зерттеуші Ш.Уәлиханов былай деген екен: "Табиғат пен адам егіз! Өзіңіз айтыңызшы, тіршілікте одан жазап, олардан құпия не бар?! Қазақтар дүниеге үлкен мән берді. Табиғаттағы кейбір жануарлар мен құстарды, өсімдіктер мен шөптерді, ағаштарды, көшпелі тұрмысқа қажетті заттарды киелі деп қастерледі. Осы айтылғандарды құрмет тұту адам баласына байлық пен бақыт, құт әкеледі". Шынында да халқымыз табиғаттағы өздері қастерлеген жерлерді "әулие бұлақ", "әулие ағаш" деп бағалаған. Осындай қасиетті "әулие бұлақта", "әулие ағашта", адамға пайдасын тигізетін емдік өсімдіктер мен шөптерде біздің жергілікті жерімізде кездеседі [1].

Қазіргі заманда адам денсаулығын сақтау жайындағы күрес, бүкіл елдің қасиетті парызы. Өсімдік- тіршілік көзі, өзегі. Дәрілік өсімдіктермен айналысу денсаулықты сақтауға, отбасының қаражатын үнемдеуге, табиғат байлығын қорғауға көмектеседі. Қазіргі уақытта өз жергілікті жерімізде өсетін өсімдіктерді дер кезінде жинап, кептіріп, шөп қайнатпаларын дайындасақ жанға шипа, дертке дауа болары сөзсіз.

Табиғат - асыл қазына, адамға баға жетпес байлық. Осы байлықтарды қорғап, оны мұқият сақтай білу бәріміздің міндетіміз.

Дайын дәріні сатып алмай жергілікті жердің өсімдігімен емдеуге болатынын үйрене отырып, өз ауылымның байлығын Мен зерттеу жұмысы барысында қарақаттың ерекшеліктерін, шипалық қасиеттерін зерттедім. Ұқыпты пайдалануға болатынын білдім [5].

II. Негізгі бөлім

2.1. Сипаттамасы

Қарақат (*Ribes*) – тасжарғандар тұқымдасына жататын бұта. Биіктігі 60 см-ден 2 м-ге дейін жетеді. Бұтағы тікенекті, жапырағы жалпақ, 3 – 5 қалақшасы болады. Гүлі ұсақ, екі үйлі, көбінесе қос жынысты кейде дара жынысты. Маусым – шілде айларында гүлдеп, шілде – тамызда жемісі піседі. Жемісі – жидек. Жеміс шоғында 2 – 18 түйір жеміс болады. Жеміс құрамында 12 – 20% құрғақ зат, 78 – 83% су, 5 – 10% қант, 2 – 4% түрлі қышқылдар,

дәрумендер (В₁, С, Р), сондай-ақ пектин, илік заттар, минералды тұздар бар. Қара қарақат С,В,Р дәрумендеріне өте бай жидек [3].

С дәрумені (аскорбин қышқылы). Ағзаның жұқпалы ауруларға қарсы тұра алу әрекетін арттырады. Сүйекке және тіске беріктік қасиет береді. С Ағзамыздың жақсы жұмыс істеуі үшін дәрумендер керек екендігін білеміз. С дәрумені адамдарға күнделікті өмірде қажет. Өйткені дене қызымын қалыпты ұстап, көңіл-күйімізге керемет әсер етеді. С дәрумені көптеген аурудың алдын алып, өзіңізді сергек ұстауға көмектеседі. Сондықтан осы дәруменді күн сайын тұтыну керек.

В₁ дәрумені (тиамин) ағзада дұрыс зат алмасуы үшін (әсіресе көміртегінің) аса қажет. дәрумен жетіспегенде шаршағандық сезіліп, ас қорыту процесі бұзылады. ағза тиаминге зәру болған жағдайда жүйке жүйесі үлкен ауруға шалдығуы мүмкін [3].

Р дәрумені (биофлавоноидтер) — жіңішке қан тамырларының беріктігін арттырып, қызметін қалыпқа түсіріп отыратын биологиялық заттар тобы. Бұл С дәруменімен араласқанда анағұрлым тиімді. Р дәрумені шайдың (әсіресе көк шайдың) құрамында, сондай-ақ итмұрын, лимон, құрма, қара қарақат, жүзім, өрікте және қарақұмық ұнтағында өте көп [6].

Қара қарақатты халық медицинасында кеңінен қолданады. Жидегі тәбет ашады, тер шығаратын және несеп жүргізетін қасиеті бар. Жидегі организмде дәрумен жетіспеген жағдайда, қан азайғанда және жүдеген кезде пайдалы. Қызыл және жабайы қарақат тек жемісін жинау үшін емес, будандастыру арқылы жаңа сорттар шығару үшін де пайдаланылады. Жидек ретінде қара, қызыл және ақ қарақат көп өсіріледі. Негізгі зиянкестері: бұршік кенесі, өрмекші кенесі, жылтыр көбелектер; ауруы: ақұнтақ кеселі.

2.2. Табиғатта таралуы

Қарақат (қой қарақат, аю қарақат деп екі түрге бөлінеді) барлық жерде кездеседі деуге болады. Қолдан өсірілетін қарақат сорттары осы жабайы қарақаттан шығарылған. Республикада — Жалпы сырт қыратында, Ертіс, Есіл, Тобыл өзендерінің бойында, Алтай, Сауыр, Тарбағатай, Қарқаралы, Жоңғар Алатаулары мен Мұғаджар төңірегінде өседі. Көбінесе орманды дала, өзен-көл жағалаулары мен тау беткейлерінде, ылғалды жерлердің көбінде тамыр жайып, жемістене береді [6].

2.3. Жидегінің құрамы, пайдасы

Жидегінің құрамында 7—11% қант (4% органикалық қышқыл), 0,68—1,02% пектиндік заттар, кальций тұзы, темір, фосфор бар. С дәрумені—300—400 мг %, Р дәрумені —500, А провитамины —0,7, В дәрумені —0,06 мг % Қарақат құрамындағы С дәруменінің мөлшері бүлдіргеннен 5, таңқурай, қарлыған (тұшала) және цитрустік дақылдардан (мандарин, лимон, апельсин) — 7—8, алма мен ал мұрттан —10—12, шие мен еректен —20—40, жүзімнен —100 есе көп. Қарақатты өңдегеннің өзінде оның құрамындағы С дәрумені сол күйінде (80—90%) сақталады деуге болады. Мысалы, қайнатпа мен компот даярлағанда С дәрумені 42 — 100%, жартылай мұздатылғанда 40—70% сақталады. Ұрығында 16,5 процентке дейін май болады. Оны жас күйінде кептіріп те, консервілеп те тамаққа пайдалынады. Жидегінен қайнатпа, қақ (пастила), конфет, мармелад, кисель, ликер және салқын су сындар даярланып, шырын алынады. Бүршігі мен жапырағы 109 ондигер және дәрумен өндірістерінде кеңінен қолданылады [9].

2.4. Ерекшелігі

Қарақат көктемде ерте көктейді. Гүлдеу мерзімі 10-20 күнге созылады. Гүлдегеннен кейін, шамамен айтқанда екі айдан кейін бұл өсімдіктердің жидегі піседі. Қуаңшылыққа төзімділігі және күтімді соншалықты керек етпейтіндігі жағынан жидектік бұталардың ішінде қарақат ерекше көзге түседі. Бұл өсімдік тіпті ең қолайсыз болған жылдың өзінде де жыл сайын тұрақты өнім береді. Қарақат егілетін жерді белгілеу және учаскені әзірлеу. Қарақат-ылғалды сүйетін өсімдік. Қарақат сәл көлеңкені де онша елемейді, оған ылғалдың шамадан

тыс артық болуы аса зиян келтірмейді. Жазғы температураның өте ыстық болуы бұл өсімдікке қолайсыз келеді. Қызыл қарақат қуаңшылыққа мейлінше төзімді келеді, жарықты көп керек етеді, бұл Орталық және Солтүстік-Шығыс Қазақстан жағдайында қарақатқа қарағанда қысқа төзімді келеді. Қарақатты егу үшін ылғалды учаскені таңдап алу керек. Бұл үшін ойпат жерді де пайдалануға болады. Ашық учаскеге отырғызылған қарақаттың түйіндері жаппай түсіп қалатындығы байқалады. Жидегі өте ұсақ болады. Жеміс беретін бүршіктері үсіп кетеді, өнімі шұғыл кемиді.

2.5. Қолданылуы

Халық медицинасында қарақатты ежелден тер шығаратын, зәрді айдап, ісікті қайтаратын, іштің өтуін тоқтататын дәрі ретінде қолданып, атап айтарлықтай нәтижелерге қол жеткізген. Жапырақтарымен ревматизмді, шор бұынды, лимфа бездерінің туберкулезін де емдеген. Қарақаттың жаңа сығылған шырынымен адам ағзасындағы зат алмасуды реттеу үшін күн сайын бір стақаннан 2-3-ке бөліп ішіп отырса, пайдалы екенін уақыттың өзі көрсетті [7].

1. Қызылқат және қарақаттан жасалған қоймалжың тұнбамен асқазан-ішек жолдарының ауруларын, асқазан сөлінің кеміп кетуін күн сайын 200-300 грамм таза шырынмен емдейді [2].

2. Жапырақтары мен жас бұтақтары өт жолының тасын түсіретін шөптерге қосылады. Бұл жемістердің ешқандай уыты болмағандықтан қалағанынша жеп, қалағаныңызша істетуге болады [2].

3. Бүйрек ауырып, зәр жүрмей қалған кезде бір ас қасық қарақат жапырағын 300 г қайнап тұрған суға салып, 30 минут бұқтырады. Осыдан ас алдында жарты стақаннан ішеді [2].

4. Құлақтан ірің аққан кезде 2 ас қасық кептірілген жапырақты 500 г қайнап тұрған суға салып, 30 минут бұқтырады. Осыны жарты стақаннан төрт мезгіл қабылдайды [4].

5. Сусамырға 1 ас қасық кептірілген жапырақты бір стақан қайнап тұрған суға салып, 5 минут ақырын қайнатып, 2 сағат жабық ыдыста бұқтырады. Осыны әр жолы 2 ас қасықтан астан соң, күніне 3 рет ішеді [4].

III.Зерттеу бөлімі

Суықтан тұмау тиіп, тыныс жолдарының жұмыс қабілеті төмендеп кеткен жағдайда 2 ас қасық қарақат жемісін 300 г қайнап тұрған суға салып, тағы да 10 минут ақырын қайнатады. Жарты сағат бұқтырады. Осыны астан 15-20 минут бұрын әр жолы 2 ас қасықтан күніне үш рет ішкізіп анамның емдегені мені ауламда өсіп тұрған қарақатты зерттеуіме түрткі болды.

Қарақат жапырақтары - теріні және шашты күтуге арналған ерекше табиғи құрал [5].

Теріні ағарту:

- қарақаттың туралған жаңа жапырақтары - 1,5 ас қасық;
- қышқыл сүт - 150 мл.

Компоненттер мұқият араластырылған, артық сұйықтықты дәке арқылы қысып, қалған қоспаны 20 минут бойы бетіңізге жағыңыз, масканы сумен шайыңыз [5].

Шаш өсуі:

- қара және қызыл қарақат жапырақтары - 1 ас қасық;
- қайнаған су - 1 л.

Тәулігіне бір рет қайнатылған сүт, күніне 4 рет 200 г ішеді. Құрғақ шашқа және олардың өсуіне оң әсер етеді [5].

Қорытынды

Табиғат барша адамзаттың ортақ үйі. Табиғат - тіршіліктің өзегі. Сондықтан оны қорғау, сақтап қалу әрбір адамзат баласының міндеті. Адамдар жергілікті жерді игере

отырып, өздеріне тағамдық және емдік қасиеттері бар өсімдіктерді пайдаланады. Зерттеу арқылы мен қарақаттың шын мәнінде таңғажайып жеміс екенін білдім. Оның адам денсаулығына деген пайдасы шексіз. Сондықтан қарақатты тағам және емдік қасиеті жағынан пайдалансаңыз денсаулығымыздың мықты болатынын білдім.[8]

Қарақаттың пайдасы, қарақат түрлері туралы материал жинақтай жүріп, сыныптың оқушылары арасында осыған байланысты сауалнама жүргіздім [6].

Сыныпта 12 оқушы бар. Барлығы 5 сұрақ.

1. Қарақатты білесің бе?

«иә» - 12;

1. Қарақаттың түрлерін білесің бе?

«иә» - 4, «жоқ» - 8;

1. Қарақаттың пайдасы туралы білесің бе?

«иә»-6, «жоқ» -6.

1. Қарақаттың пайдасы туралы кімнен білдің?

Анамнан – 5, мұғалімнен – 4, «білмеймін» -3

1. Қарақат туралы қосымша білгілерің келе ме?

«иә» -12

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Сүтқышқылды бактерия штамдарының биомассасының жинақталу көрсеткішіне сараптама

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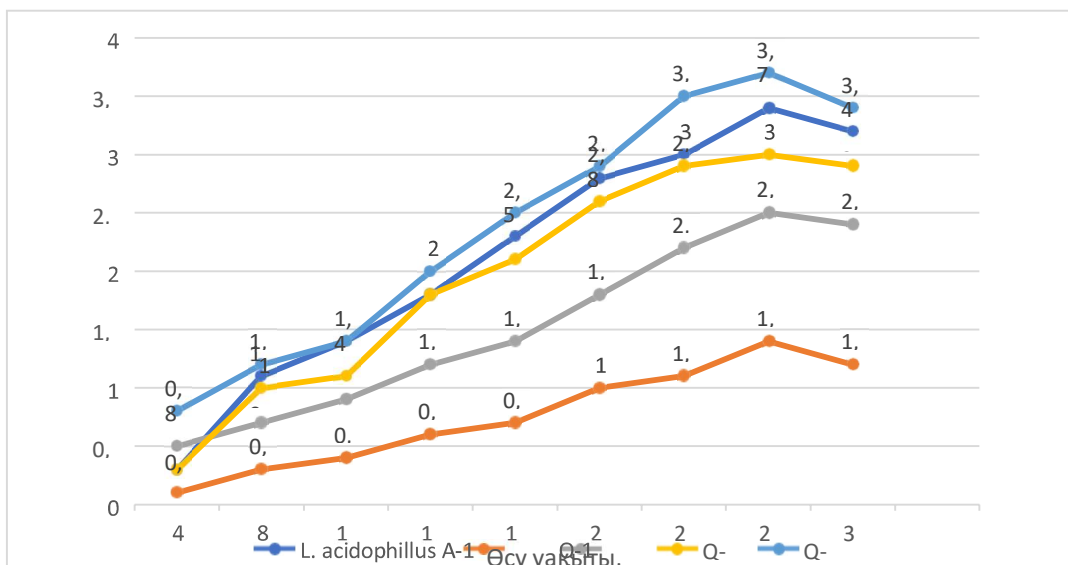
Тақырыптың өзектілігі. Сүтқышқылды бактериялар антимикробты қасиеті мен антагонистикалық әсері қазіргі уақытта көптеген медицина және биология ғалымдарының қызығушылықтарын тудыруда. Сол себепті оларды көп мөлшерде өндіру және сақтау үшін сүтқышқылды бактериялардың биомасса жинақтауға белсенді өсінділерін бөліп алып, оларды сақтау тиімді әдістердің бірі болып отыр.

Зерттеу жұмысының міндеттері:

1. Сүт өнімдерінен сүтқышқылды бактерияларды бөліп алу;
2. Биомассаны ең белсенді жинақтайтын штамдардың консорциумын құрастыру.

Зерттеу әдістері: Биомассаны жинақтау әдісі, спектрофотометриялық әдіс, агарлы блок әдісі, ПТР амплификациялық және идентификациялық әдіс, 10 морфологиялық – культуралық және физиология – биохимиялық қасиеттерін анықтау, биосәйкестік әдісі.

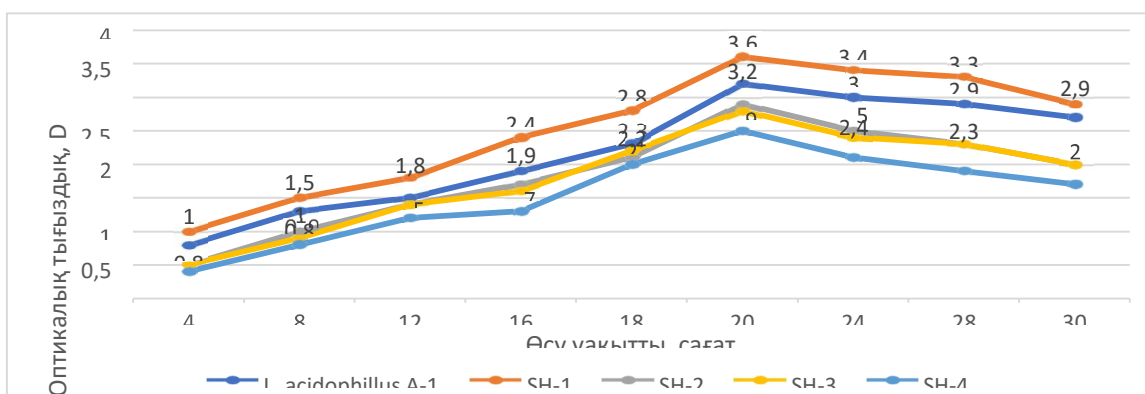
Сүтқышқылды бактерияларды тереңдік өсіру (37, 38) ° С температурада тұрақты түрде араластыру барысында жүргізілді, өсірудің ұзақтығы 30-36 сағатты құрады. Енгізілген инокуляттың мөлшері қоректік орта көлемінен 10% құрады. Қоректік ортаның рН-ы 5,5-6,0, және оны осы деңгейінде тұрақтандыру үшін 10% аммиак ерітіндісі қолданылды. Көмірсу қоспасы ретінде 40%- дық глюкоза ерітіндісі пайдаланылды.



Сурет 1. Қымыздан бөлініп алынған сүтқышқылды бактерияштамдарының биомассасының жинақталу динамикасы

Қымыз өнімінен бөлініп, іріктеліп алынған өсінділердің биомассасын жинақтаудың типтік динамикасы 1 – суретте график түрінде көрсетілген. Тәжірибе жасау барысында бақылау штамы ретінде *Lactobacillus acidophilus* A–1 өндірістік штамы салыстырып бақылау ретінде пайдаланылды. Тәжірибеде алынған Q-4 өсіндісінің биомассаны жинақтау деңгейі 24 сағат ішінде ең жоғарғы өсу көрсеткішіне жетті. Максималды өсу көрсеткішінде өсу тығыздығы 3,7-ге тең болды. Бұл алынған көрсеткіштің деңгейі өндірістік штамға қарағанда, Q-4 штамы 8,1 %-ға жоғары белсенді екенін көрсетті. Тәжірибені жалғастырған кезде Q-4 штамы 28-30 сағатта өсу деңгейі 3,4-ке дейін төмендеді, бұл жерде өсу фазасының төмендегені байқалды. Q-3 штамы Q-4 штамына қарағанда 19%-ға өсу деңгейі төмен болды, ал Q-1 мен Q-2 штамдары шамалас деңгейде өсу жылдамдықтарын көрсетті, алайда Q-2 штамы Q-1 штамына қарағанда әлдеқайда белсенді биомасса жинақтайтынын көрсетті. Сонымен, қымыздан таңдалып алынған 4 штамды өндірістік штамен салыстыра отырып, өсу деңгейін зерттеу барысында біз Q-4 штамын белсенді штам ретінде таңдап алдық. Өйткені Q-4 штамының биомасса жинақтау белсенділігі өндірістік штамның биомасса жинақтау белсенділігіне қарағанда 8,1%-ға жоғары екенін көрсетті.

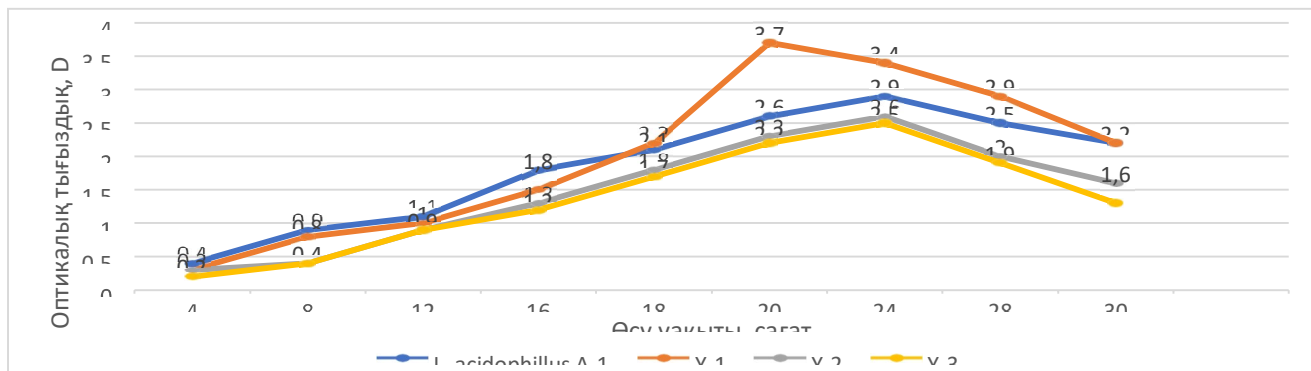
Әрі қарай тәжірибе барысында біз шұбат өнімінен алынған штамдардың биомасса жинақтау белсенділігін анықтадық.



Сурет 2. Шұбаттан бөлініп алынған сүтқышқылды бактерия штамдарының биомасса жинақтау динамикасы

Таңдап алынған штамдардың биомасса жинақтауының типтік динамикасы 2 - суретте көрсетілген. Тәжірибе барысында бақылау штамы ретінде *Lactobacillus acidophilus* A– 1 өндірістік өсіндісі салыстырмалы өсінді ретінде пайдаланылды. Тәжірибе қорытындысы бойынша SH-2 штамының биомасса жинақтау деңгейі 20 сағатта ең жоғарғы өсу көрсеткішіне ие болды. Максималды өсу кезінде жасушалардың өсу тығыздығы 3,6-ға тең болды. Бұл дегеніміз SH-1 штамы өндірістік штамға қарағанда 11,1 %-ға жоғары белсенді деген сөз. Тәжірибені жалғастыру кезінде SH-1 өсіндісінің өсу қарқыны 30-сағатта 2,9-ға дейін төмендеді, яғни өсу фазасы төмендеді. Ал SH-2, SH-3, SH-4 штамдары шамалас көрсеткіш көрсетті. Ең төмен дәрежені көрсеткен штам SH-4 штамы болды. Тәжірибе нәтижесі бойынша, шұбаттан таңдалып алынған 4 штамды өндірістік штаммен бірге өсу деңгейін салыстыру кезінде SH-1 штамы биомасса жинақтау белсенділігі жоғары деп таңдалды, Өйткені, SH-1 штамының өсу қарқыны мен биомасса жинақтау белсенділігі өндірістік штамға қарағанда 11,1 %-ға жоғары.

Келесі тәжірибеде йогурт өнімінен бөлініп алынған штамдардың биомасса жинақтау белсенділігін анықтадық. Нәтижелер келесі суретте көрсетілген.

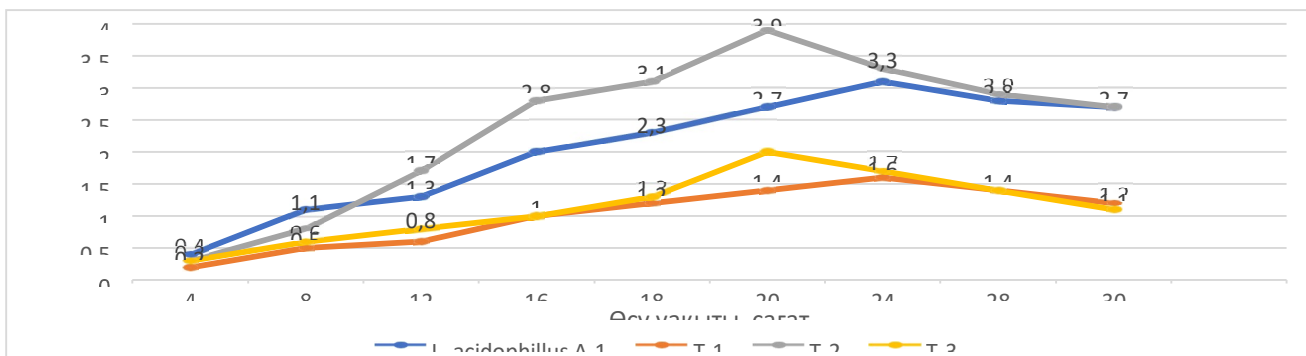


Сурет 3. Йогурттан бөлініп алынған сүтқышқылды бактерияштамдарының биомасса жинақтау динамикасы

Йогурттан таңдалып алынған штамдардың биомасса жинақтауының типтік динамикасы 4- суретте график түрінде көрсетілген. Тәжірибе барысында бақылау штамы ретінде *Lactobacillus acidophilus* A– 1 өндірістік өсіндісі салыстырмалы өсінді ретінде пайдаланылды. Тәжірибе қорытындысы бойынша Y-1 штамының биомасса жинақтау деңгейі 20 сағатта ең жоғарғы өсу көрсеткішіне ие болды. Максималды өсу кезінде жасушалардың өсу тығыздығы 3,7-ге тең болды. Бұл дегеніміз йогураттан бөлініп алынған Y-1 штамы өндірістік штамға қарағанда 8,1 %-ға жоғары белсенді деген сөз. Тәжірибені жалғастыру кезінде Y-1 өсіндісінің өсу қарқыны 30-сағатта 2,1-ге дейін төмендеді, яғни өсу фазасы төмендеді. Ал Y-2 және Y-3 штамдары шамалас көрсеткіш көрсетті.

Тәжірибе нәтижесі бойынша, айраннан таңдалып алынған 3 штамды өндірістік штаммен бірге өсу деңгейін салыстыру кезінде Y-1 штамы биомасса жинақтау белсенділігі жоғары деп таңдалды. Өйткені, Y-1 штамының өсу қарқыны мен биомасса жинақтау белсенділігі өндірістік штамға қарағанда 8,1%-ға жоғары.

Келесі тәжірибеде сүзбе өнімінен бөлініп алынған штамдардың биомасса жинақтау белсенділігін анықтадық. Нәтижелер келесі суретте көрсетілген.



Сурет 4. Сүзбеден бөлініп алынған сүтқышқылды бактерия штамдарының биомасса жинақтау динамикасы

Сүзбеден таңдалып алынған штамдардың биомасса жинақтауының типтік динамикасы 5 суретте график түрінде көрсетілген. Тәжірибе барысында бақылауштамы ретінде *Lactobacillus acidophilus* A– 1 өндірістік өсіндісі салыстырмалы өсінді ретінде пайдаланылды. Тәжірибе қорытындысы бойынша T-2 штамының биомасса жинақтау деңгейі 20 сағатта ең жоғарғы өсу көрсеткішіне ие болды. Максималды өсу кезіндегі жасушалардың өсу тығыздығы 3,9-ге тең болды. Бұл дегеніміз йогураттан бөлініп алынған T-2 штамы өндірістік штамға қарағанда 20%-ға жоғары белсенді деген сөз. Тәжірибені жалғастыру кезінде T-2 өсіндісінің өсу қарқыны 30-сағатта 2,7-ге дейін төмендеді, яғни өсу фазасы төмендеді. Ал T-1 және T-3 штамдары шамалас көрсеткіш көрсетті.

Тәжірибе нәтижесі бойынша, сүзбеден таңдалып алынған 3 штамды өндірістік штаммен бірге өсу деңгейін салыстыру кезінде T-2 штамы биомасса жинақтау белсенділігі жоғары деп таңдалды. Өйткені, T-2 штамының өсу қарқыны мен биомасса жинақтау белсенділігі өндірістік штамға қарағанда 20%-ға жоғары.

Қорытынды

1. Әр түрлі сүт өнімдерінен сүтқышқылды бактериялардың 20 түрі бөлініп алынды.
2. Сүт қышқылды бактериялардың жоғарғы биомасса жинақтау белсенділігі келесі штамдарға тән: Q-4, SH-1, A-3, T-2, Y-1.
3. Биомасса жинақтау бойынша ең белсенді Q-4+SH-1+A-3+T-2+Y-1 өсінділерінің композициясы құрастырылды.

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The study of peroxidase and phenoloxidase from the leaves of stevia (*Stevia rebaudiana*) introduced to Georgia

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Phenoloxidase (EC 1.14.18.1; monophenol, dioxyphenylalanine: O₂-oxidoreductase) and peroxidase (EC 1.11.1.7; donor: H₂O₂-oxidoreductase), the oxidizing enzymes of stevia introduced to Georgia, have been studied in order to obtain a sweetener, food additive with a sharp dark color, enriched with biologically active compounds from the aforementioned plant raw material. The pH-optimums for the activity of these enzymes and other principle kinetic characteristics have been investigated. The quantitative content of polyphenolic compounds, natural substrates for phenoloxidases and peroxidases, was investigated in stevia raw material and found to be quite high, accounting for almost a third of the total amount of the extracted substance. It has been established that the stevia varieties introduced to Georgia have quite strong oxidative enzymatic systems, enabling the production of a food sweetener that is enriched with biologically active compounds and has a sharp dark color for use in the production of chocolate and other dark-colored products.

Keywords: non-calorigenic sweeteners, stevia, phenoloxidase, peroxidase, polyphenolic compounds

Most of the sweeteners used in the food industry are artificial sweet compounds, which can only be consumed in small amounts and have a number of negative side effects, including occasionally cancer. A wide range of naturally derived sweeteners (such as sucofin, recardio, astrolin, cardiol, hypertol, bettinat, chitosan, coronal, etc.), with stevia-derived sweeteners holding a prominent position, are primarily sold in pharmacies or only in extremely prestigious retail chains. The majority of them are safe and high-quality products, despite being distinguished by a relatively high price [1, 2, 3, 4]. Therefore, creating a new, commercially available natural sweetener with a high level of sweetness for dietary-prophylactic purposes is extremely important and pertinent.

Our new stevia-based special natural sweetener is intended to be used in the production of chocolate and other dark-colored products, enabling us to create a simple, innovative, low-cost technology that won't focus on isolating the sweetening agent (stevioside, etc.) in a crystalline, refined form and separating it from biologically active compounds naturally existing in the raw material. Contrarily, a variety of beneficial substances that are already present in the extract as well as their oxidation products, which may be formed as a result of fermentation under suitable conditions, will further enrich the extract with compounds, giving the produced product the ability

of complex activity: along with non-calorigenic sweetening, blood vessel cleaning, anti-carcinogenic, antioxidant, antibacterial properties and also coloring.

The oxidative conversions carried out by the activity of phenoloxidase and peroxidase during the production of various food products entirely determine the depth and degree of darkening [5, 6, 7, 8]. During the technological processing of plant raw materials, the mentioned enzymes interact with phenolic compounds under conditions of cellular integrity breach, and as a result of the functioning phenoloxidase and peroxidase systems, color, taste, and aroma are formed [9].

The current work deals with the study of phenoloxidase and peroxidase, oxidizing enzymes derived from stevia raw material.

Materials and Methods

The raw material used in the study was derived from stevia (*Stevia rebaudiana*) varieties that were introduced to Georgia in the Tkibuli district; particularly, material was taken from above groundmass that is suitable for processing and of which 65-69% falls on leaves [10].

The method developed by N. Omiadze et al. [11] was used to isolate total enzymatic solutions of phenoloxidase and peroxidase.

The catechol oxidase activity of phenoloxidase was determined spectrophotometrically by measuring pyrogallol or pyrocatechine oxidation rates at 430 and 420 nm, respectively [12].

The peroxidase activity was determined by measuring the guaiacol oxidation rate at 470 nm using a spectrophotometric method [13].

The study and elaboration of kinetic characteristics of phenoloxidase and peroxidase was carried out according to [14] and [15].

The quantitative content of protein was determined by Bradford method [16].

The quantitative determination of phenolic compounds, dry substances, and extractive substances in raw material of stevia was conducted using the methods described in the Guidance for Tea Chemistry [17].

Results and Discussion

From raw material of stevia, a total enzyme solution was obtained and some kinetic characteristics of peroxidase and phenoloxidase were investigated.

The study of the dependence of peroxidase and phenoloxidase activity on the concentration of hydrogen ions showed that the pH-optimum for stevia peroxidase activity is 5.3 (Fig. 1, a); the maximum activity of stevia phenoloxidase is revealed in the strongly expressed neutral medium (pH 7.0) (Fig. 2, a).

In the studied range of enzyme concentration (Fig. 1, b; Fig. 2, b), increasing the protein concentration leads to rise in the rate of the enzymatic reaction both in the case of stevia peroxidase and stevia phenoloxidase.

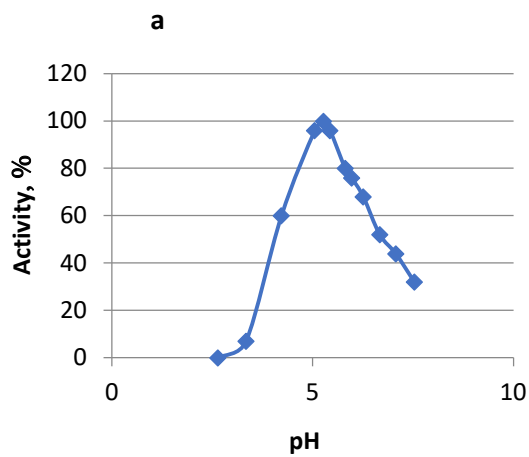
While studying the dependence of enzyme activity on the substrate concentration, it was found that increasing the substrate (guaiacol) concentration increases the activity of stevia peroxidase; however, as the substrate concentrations ($4E-12$ mol) increase, the rate of the enzymatic reaction essentially stops growing. The dependence of the initial reaction rate on the substrate concentration is hyperbolic, and the reaction kinetics (Fig. 1, c) follows the Michael-Menten equation, which is evident when presenting the data in the double reciprocal Lineweaver-Burke coordinates (Fig. 1, d). The low value of the Michaelis constant ($K_m = 1.37E-11$ mol) calculated by the Leinuvier-Burke plot method indicates a high enzyme affinity for the substrate. The maximum reaction rate, or V_{max} , is 13.7 E/mg protein*/min.

In the case of stevia phenoloxidase, the curve of the enzyme dependence on the substrate (pyrocatechin) concentration is sigmoid (S-shaped) (Fig. 2, c). When presenting the data in double

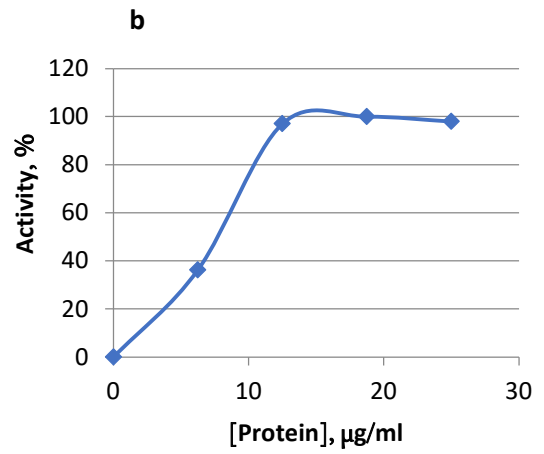
reciprocal coordinates, it is confirmed that the reaction catalyzed by stevia phenoloxidase does not follow the classic Michael-Menten kinetics; in this case, the enzyme is characterized by cooperation with the substrate. When presenting the dependence of the enzyme reaction rate on the substrate concentration in double reciprocal values, the concave upward curve (Fig. 2, d) indicates the positive kinetic cooperativity of the enzyme with respect to the substrate.

The content of natural substrates (polyphenolic compounds) for stevia phenoloxidase and peroxidase [18] was found to be quite high, accounting for nearly a third of the total extractable substance of stevia (Table 1).

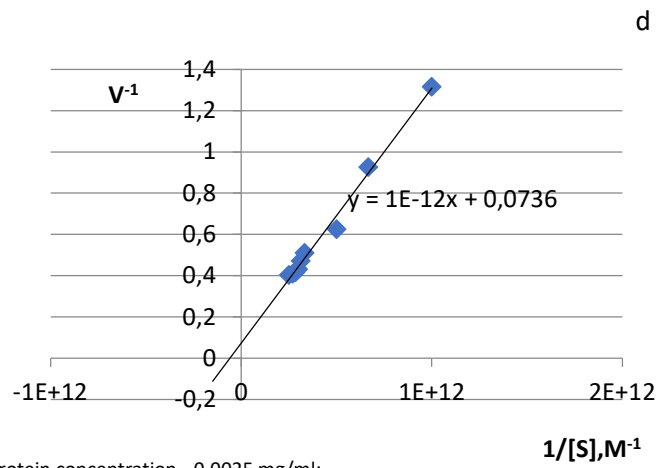
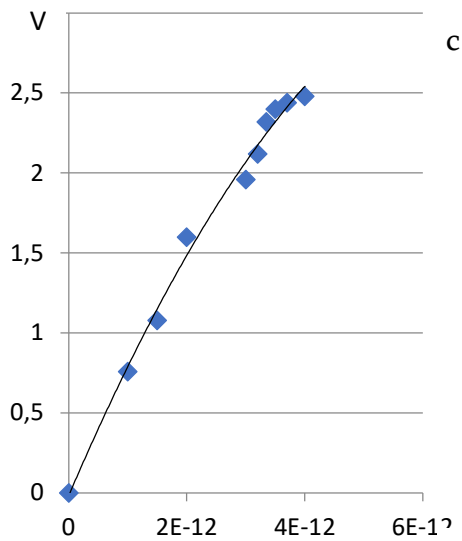
Thus, it can be concluded that the stevia varieties introduced to Georgia have quite strong oxidative enzyme systems, allowing for the production of a food sweetener enriched with biologically active compounds with a sharp dark color, as well as for use in the production of chocolate and other dark-colored products.



Substrate (guaiacol) concentration in the reaction medium - 3×10^{-6} μmol ,
 Protein concentration in the reaction medium - $10 \mu\text{g/ml}$



The pH of the reaction medium: 5.3,
 Substrate (guaiacol) concentration in the reaction medium - 3×10^{-6} μmol



Protein concentration - 0.0025 mg/ml;
 The pH of the reaction medium: 5.3,
 $K_m = 1.36986 \times 10^{-11} \text{M}$, $V_{max} = 13.7 \Delta\text{E/mg protein/min}$

Fig. 1. Dependence of peroxidase activity in stevia on hydrogen ion (a), enzyme (b) and substrate (guaiacol) (c,d) concentrations

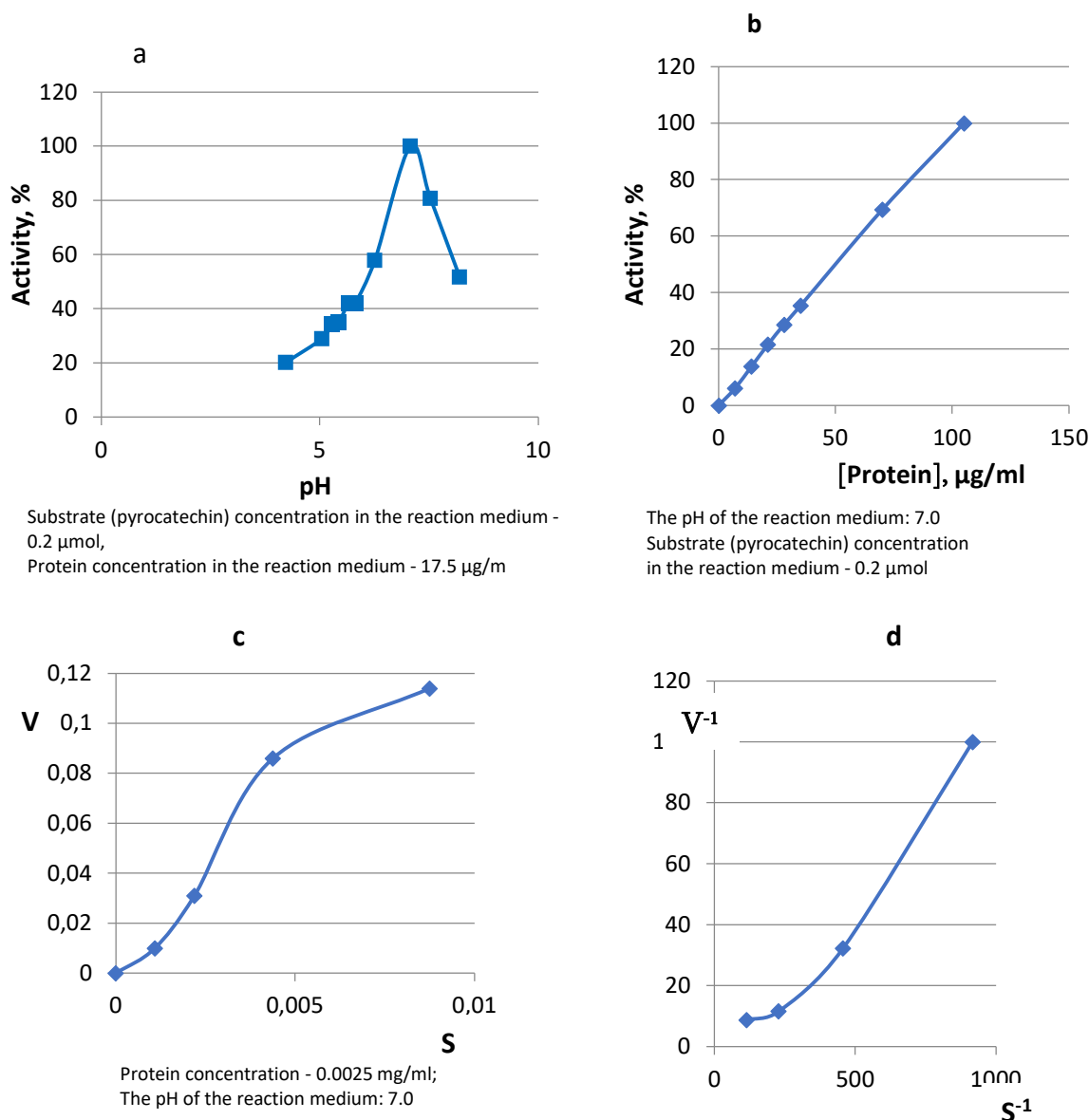


Fig. 2. Dependence of phenoloxidase activity in stevia on hydrogen ion (a), enzyme (b) and substrate (pyrocatechin) (c, d) concentrations

Table 1

Some physico-chemical characteristics of raw material of stevia

Sample name	Dry substance, %	Extractive substance, % (in terms of dry weight)	Phenolic compounds, %	
			In terms of dry substance	In terms of extractive substance
Raw material of stevia	89	44	12.2	27.6

PREPARATION OF FOOD, MEDICAL AND INDUSTRIAL PRODUCTS FROM PERSPECTIVE RADIOMUTANT SEA-BUCKTHORN VARIETY “SARAY”

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Sea buck (syn: sallow-thorn) concerns to *Hippophae L.* variety of the oleaster (*Elaeagnaseae A.L. de Juss.*) Genus *Elaeagnus*, family *Elaeagnaceae* It has three species. One species of them *Hippophae L.* widely spread in nature. All spread cultivars have been established on the base of this species. Sea buck grows on the high lands & mountains where there are no thick forest lines & it is solar demandable plant. It can't survive in such shady areas(1;2;4). In the Transcaucasia sea buck grows in Georgia, Azerbaijan, Zangezur & Daralayaz. The species of sea buck which grow in Azerbaijan is like a tree & its height is 3 to 6 meters. In Ordubad Region of Nakhchivan AR new species of sea buck was discovered with 12 to 15 meters height in Saggarsu Basin(4). Majority of the sea buck species in Europe looks like to bushes (with 1,5 meter height) & they are water demandable as well resistant to cold & moisture. Sea buck does not demand soil too much. They grow in soils with phosphorus, sandy lands & good aeration. Sea buck is very valuable plant & it was widely used in Azerbaijan folk medicine before the B.C. Its fruits are widely used in medical & different food production.

Zafarani sea-buckthorn sortunun tumurcuqları irradiated with 50Gy qamma şüalarla şüalandırılmışdır. Shoots of Zafarani sea-buckthorn variety were irradiated with 50Gy gamma rays, a new variety Saray was selected from them. (pic.1)

The advantages of Sea-buckthorn:

- 3-4 years old (plant) trees produce a normal product.
 - Each year it provides a stable product.
 - As trees are resistant to disease and pests, their being stained is not required.
 - Ecologically clean product is produced.
 - Resistant to various stress and abiotic factors.
 - It develops well in dry and wet soils.
 - As there is nitrifying bacterium in its roots, there is no need for fertilizer, and it enriches the soil with nitrogen. Each year it forms 2-4cm humus in soil.
 - It is highly productive, its output per hectare is more than 60 tons.
 - Fruit remains fresh on tree for a long time, and so it makes enable the fruit to be collected.
 - It produces high biomass by developing rapidly. (3)
- Production of medical aimed products:
- Production of pure (100%) sea-buckthorn oil (for curing infarction, carcinogen and ulcers of digestive system)
 - Surgical-purpose (after eye, cardiovascular and other operations as ulcer-curing, sedative and disinfectant), production of oils without oil acid composition.
 - Obtainment of ointments, which are used for preventing extremity tissue damages in radiotherapy.

- Preparation of ointments with radioprotector properties together with other plant extracts against radioactive radiation burns.
- Preparation of liquid soaps in order to wash and neutralize radioactive substances on external surface.
- Preparation of aerosol for curing respiratory system burns and for disposal of radionuclides from the respiratory system.
- Preparation of pills (tablets) and syrups that develop immunity.
- Preparation of medicated suppository and tampons (against piles).
- Production of vulnerary cosmetic remedies for restoring skin elasticity, for healing and smoothing out wrinkles and scars on face.
- Preparation of medically useful pomades (lipsticks).
- Production of aromatic balsams, which develop immunity.
- Preparation of medically useful liqueur. Usage technology from 6 kinds of plants as an aromatizing and dye has been developed for its production.
- Preparation of polyvitaminous and immunity developing food products (cheese, yogurt, etc.) for soldiers and officers to use in extreme conditions.
- Preparation of substances with radioprotector properties and which quench thirst of soldiers and officers in extreme conditions (during war).
- From its leaves it has been obtained and applied the oil with fat+carotene+chlorophyll.
- It has been studied the methods of use from its leaves as galena preparation against dysentery.
- It has been studied the use of its leaves with other plant mixtures as blood-stopping and wound-healing in stomach-intestinal and internal wounds.
- In folk medicine its dried fruit is used to cure infarction. It has been developed fast drying technology, which doesn't lose its quality for 3 years and without loss of biologically active substances in its content.
- Fruit juice is used as polyvitamine to treat more than 50 diseases.
- A substance with alcohol property, which is in its roots, is used against rodents.
- Balsams, which are prepared with essential oils of sea-buckthorn and tarragon, basil, mountain mint, thyme and etc., give a positive result in diseases like tuberculosis, influenza and etc.
- The biologically active matter (BAM), prepared with sea-buckthorn oil and extract together with other oils, has been dental initially tested and has given positive results.
- Oil fraction has been obtained to treat hemorrhages. Treatment period of the most serious patients is 5 days.
- A special substance has been produced from its leaves in order to stop bleeding in teeth.
- Furokumarin in leaves and fruit is used in treatment of albinism (pellagra) in skin.
- Pills for reducing blood pressure.(5)

Application in industry :

- Production of different colors for dyeing food products in confectionery.
- Production technology of alcohol-free soft drinks has been prepared.
- Tooth pastes and balsams
- It has been developed production technology of natural colors (yellow, green, gold, black and etc.) for dyeing cloth.
- Alcoholic drinks - (saldofos products) vodka and cognac are produced.
- Pure sea-buckthorn liqueur is obtained.

It has been developed production technology of vodka and liqueur from its mixture with hawthorn, dog-rose and mulberry.

Application in Food:

- Pasteurized thick juice;
- Jam, compote, fruit jelly, candy, etc.
- It is added to more than 70 polyvitaminous and aromatic food products, like biscuit, cake and etc.
- Its dried fruits are used in plov, soup instead of barbery.
- Production of tinned food and polyvitaminous drink (by water dilution) for tourists.
- Pills (polyvitamins) for cosmonauts.

Ecological Importance:

- The afforestation of alternative forest-belt in river's bank and river basin, prevents both landslip and erosion during floods.
- It develops well in contaminated air territories.
- It enriches air with oxygen more than other plants.
- Selection of beautiful decorative plants has been carried out for parks' and avenues' decoration.
- Wood forms may be used to make shadow.
- As fruits and leaves are rich with essential oils, it has disinfectant effect.
- Can be used on the purpose of natural aromatherapy.
- Hybrid forms have been created to establish natural alternative forests.
- As fruits remain on trees for a long time, it is source of polyvitamin for birds' feeding.
- The leaves are fodder source for animals.

Products For Cosmetics:

- Natural cosmetics and food colors
- Leaves and young shoots may be used as natural colour against hair-loss and for dying them in black;
- Natural lipsticks (pomades) of different colors ;
- Nourishing creams and masks for wrinkles to be smoothed ;
- Soaps, used in shaving;
- Lotion preparation (ointment, used after shaving) .

Economic importance:

It has been tested in the territory of the Nakhichevan Autonomous Republic and in Saray, Ramana zones of Absheron region in an area of 2 hectares. The sea-buckthorn sorts **Saray** in Absheron territory gives 30kg products on average from each tree 25-40kg. It is possible to plant 50 male and 1500 female plants in one hectare territory. If the area is square and large, pollination probability of plants increases and productivity rises. The amount of oil is 8.2% in fruit in Absheron conditions.

The highest productivity in Nakhchivan is 50-60tons per hectare, and it has not been observed in either of world countries. The existing sorts and forms have been tested in different areas of Nakhchivan, Ordubad, Shahbuz, Sharur and plants, suitable for each climatic zone and with different maturing period have been selected. Quantity of oil in the content of forms, selected for Nakhchivan's mountainous areas, is 5-6,8%, but for lower zones is 12%.

In Nakhchivan from per hectare is obtained minimum 40 tons fruit, from it 88% clot and juice, 10-12% seeds and bark, that is there is 35-40% fatty oil in the content of seeds and bark, and by press suppression oil is obtained from seed and bark.

40-60g pure oil is obtained from 1 kg fruit's clot in laboratory conditions by press suppression. Sentrofuga 3500 ob/min-60ml oil is obtained from newly decomposed clot and juice. Thus, if it is possible to get minimum 50 ml pure oil from 1 kg fruit

50000kg fruit x 50 ml oil = 2, 500 000ml = 2500litres of oil

1kg fruit - 750ml juice; from 50 000kg = 35 000 liters of juice + sugar per kilogram 350-500qr = 65-70 000 pieces. 1 liter of thick juice = dilution ratio of 1:5 70000 x 5 = 350 000
| Net income per hectare on the basis of wasteless technology is more than 300 000\$.

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Sea-buckthorn sorts Saray

Analysis of mallow viruses

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Viral diseases of plants are the cause of agroecological and economic problems. Phytovirus infections cause deterioration decorative qualities, physiological state, immunity and adaptation properties of plants. Plant viruses include 49 families currently known.

With the advent of improved sequencing methods, the number new types of viruses is increasing every year. Among the recently discovered diseases plants, viral infection accounts for 47% of cases. Viruses are the most dangerous plant pathogens, since there are no effective chemical or biological means of combating them. The danger of a viral infection lies in the difficulty of controlling the spread of viruses, the presence of natural vectors leads to the need for a comprehensive diagnostics of plant material, soil to prevent primary and secondary infection [1].

Diagnosis of plant viral diseases is a combination of various stages and methods for determining the type of virus that is the cause of the disease under study [2]. Successful fight against viruses is impossible without timely detection of the disease and correct identification of the type of virus. The range of technologies used to detect and identify viruses is extremely wide. Modern diagnostic methods are improved or modified by generally accepted phytopathological methods, and are also borrowed from related fields of science (molecular biology, biochemistry, immunology). The development of new methods for detecting and identifying viruses is a constantly evolving, active process[3].

The main methods for diagnosing phytoviruses include enzyme immunoassay of viroses.

The principle of ELISA methods

ELISA is based on the adsorption of antibodies specific for a particular type of virus on plastic plates with 96 wells. ELISA is used in several different modifications. Let's get acquainted with the "sandwich" method, the general scheme of which is as follows:

- An antiserum solution is added to the wells of the plastic plate.
- Incubation is carried out for 1 hour at +37°C or at +4°C during the night.
- Non-adsorbed antibodies are washed off and the juice of the plant under study is added to the wells. The presence of the virus in the juice leads to its reaction with adsorbed antibodies and the formation of a connection with the tablet.
- Performs another incubation and washing.

Conjugate (a solution containing antibodies bound to an enzyme) is added to the wells. The following enzymes are commonly used: alkaline phosphatase, horseradish peroxidase. In the presence of a virus, its binding to the enzyme is observed.

The third incubation is carried out for two hours at +37°C and washing to remove unbound conjugant. An enzyme substrate (chromogen) is added to the cells. Its appearance depends on the enzyme used. In particular, if alkaline phosphatase is used as the enzyme, then p-phenylnitrophosphate serves as the substrate. If the enzyme was peroxidase, then it was 5-aminsalicylic acid or orthophenylenediamide.

Another incubation is carried out and the activity of the enzyme is measured. The amount of reagent is directly proportional to the amount of virus. The intensity of its color is proportional to the concentration of the virus.

The results of the reaction are determined visually or measured using a special scanning device.

Methods of molecular biological diagnostics of viroses including the method of molecular hybridization, the method of polymer chain reaction with reverse transcription.

The method of polymerase chain reaction (PCR) is based on multiple copying of a certain section of DNA with the help of an enzyme - thermostable DNA polymerase and specific primers in the process of repeated temperature cycles. There is a multiple increase in the number of specific DNA fragments of the pathogen. The PCR method has high analytical sensitivity and specificity. Speed of research is also an advantage.

The main stages of PCR:

I. *Isolation of DNA*

The clinical sample is treated with a lysing solution in the presence of silica sorbent particles. As a result, DNA is released, which binds to the sorbent particles. Other components of the lysed clinical material remain in the solution and are removed during sedimentation of the sorbent by centrifugation and subsequent washing. When the DNA elution solution is added to the sorbent, DNA passes from the silica surface into the solution, which is separated from the sorbent particles by centrifugation.

As a result of this procedure, a highly purified DNA preparation is formed, free of amplification reaction inhibitors, which ensures high analytical sensitivity of the PCR study.

II. *DNA amplification*

– the process of multiple copying of a specific DNA region limited by primers. Amplification requires the presence of a number of components in the reaction mixture and a device that can accurately reach and maintain a certain temperature in a short period of time.

The composition of the reaction mixture:

A DNA template containing the DNA region to be amplified. Primers are short synthetic oligonucleotides complementary to opposite ends of different chains of the required DNA fragment. Thermostable DNA polymerase is an enzyme that catalyzes the reaction of DNA polymerization.

Deoxyribonucleoside triphosphates (dATP, dGTP, dCTP, dTTP). A buffer solution that provides the necessary reaction conditions.

If the desired DNA is present in the reaction mixture, then amplification of a specific section of DNA, which consists of: denaturation, annealing, elongation.

In the process of amplification, there is a multiple increase in the number of specific DNA fragments. At the same time, only the part that meets the specified conditions is copied, and only if it is present in the sample under study.

III. *Detection*

Detection is carried out using a specialized device - the ALA-1/4 detector and software. The fluorimeter allows recording the fluorescent signal of individual samples after conducting PCR through the wall of the test tubes, which minimizes the risk of contamination of PCR laboratory products.

Often, a complex of methods is used for a more accurate diagnosis.

Diagnostic steps

Diagnosis is based on data on the basic properties of the virus and, to a certain extent, on monitoring the development of the disease.

For the diagnosis of plant viral diseases, it is proposed to use 10 stages:

1. Determining the type of infected plant.
2. The study of the symptoms of the disease.
3. Assessment of the prevalence of the disease, the conditions for its development and the nature of the distribution.
4. Study of infectivity by sap inoculation, transmission by vectors, grafting or dodder.

5. Inoculation or grafting of a series of indicator plants in order to determine the range of host plants of the virus and its isolation.
6. Determination of the preservation of the infectivity of the juice after storage, dilution and heating at various temperatures for 10 minutes.
7. Research using an electron microscope.
8. Serological testing.
9. Isolation, purification, determination of physicochemical properties, preparation of antiserum.
10. Inoculation of healthy plants of the same species.

Mallow is considered a popular garden plant due to its high decorativeness, resistance to diseases and ease of care, it is used in the food industry, in medicine, for the production of fiber. Viral diseases of mallow can lead to a change in the shape and discoloration of its leaves. Illuminated areas, spots and stripes of varying intensity appear on the plant. The leaves are deformed, and its growth stops.

Viruses that can affect mallow include:

- Malva mosaic virus (MalMV) is a pathogenic plant virus of the Alphaflexiviridae family. It was discovered in 2008 and affects *Malva neglecta*. MalMV infection in *Malva neglecta* plants was first detected in Canada. Plants affected by the virus have mosaic symptoms. The virus is transmitted through mechanical inoculation, but not through vectors; in addition to the typical mallow viruses, mallows can also contain viruses that are natural to other plant crops:
- -Citrus yellow vein clearing virus (CYVCV) is a causative agent of citrus disease, it was first discovered in 1988 on lemon and orange trees in Pakistan. In 2003, in Turkey, using a PCR test, the virus was also detected in 200 samples of weeds of the genus *Amaranthaceae*, *Asteraceae*, *Brassicaceae*, *Chenopodiaceae*, *Compostae*, *Graninaceae*, *Solanaceae*, in three samples of *Malva sylvestris*, in three samples of *Solanum nigrum*, in two samples of *Sinapsis arvensis* and *Ranunculus arvensis*, which had no symptoms [4].
- -Watermelon mosaic virus (WMV) is one of the most common viruses affecting the culture of pumpkins. In a 2013 survey of ginseng virus diseases in Korea, WMV was detected by PCR in 43 of 44 samples, including ginseng, *Malva verticillata*, and *Cucurbita moschata* [5].
- -Pepino mosaic virus (PEPMV) is the causative agent of the disease that occurs on protected tomato crops. To identify possible reservoir hosts for this virus, 70 specimens of *Amaranthus spinosus*, *Amaranthus viridis*, *Chenopodium murale*, *Convolvulus arvensis*, *Malva parviflora*, *Nicotiana glauca*, *Polypogon monspeliensis*, *Senecio vulgaris*, *Solanum nigrum* and *Sonchus oleraceus* were examined by electron microscopy and PCR. Plants were collected around PepMV-infected greenhouses. Only *Amaranthus spinosus*, *Malva parviflora*, *Nicotiana glauca*, *Solanum nigrum* and *Sonchus oleraceus* gave a positive result. All analyzed plants were symptomless [6].
- -Tomato torrado virus (ToTV) Tomato is the natural host for ToTV, but under experimental conditions the virus can infect eggplant and pepper systemically. Some weeds and other experimental hosts can also be infected by ToTV, including *Amaranthus spinosus*, *Atriplex spinosus*, *Chenopodium ambrosioides*, *Chenopodium spinosus*, *Halogetum sativus*, *Malva spinosus*, *Nicotiana benthamiana*, *Nicotiana clevelandii*, *Nicotiana glauca*, *Nicotiana glutinosa*, *Nicotiana occidentalis*, *Nicotiana rustica*, *Nicotiana tabacum*, *Physalis floridana* and *Senebiera didyma* [7].
- -Cucumber mosaic virus (CMV) - first described in detail in 1916 on cucumbers and other cucurbits, but now known to occur worldwide in both temperate and tropical climates, affecting about 1,200 species in more than 100 plant families. Because of the wide host

range, numerous weeds can serve as reservoirs for CMV. Perennial, biennial, and winter annual weeds harboring CMV in roots, tubers, and underground organs throughout the winter include milkweed, yellow ragweed, watercress, yellow flax, and mallow [8].

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Biotesting of Radiofrequency Electromagnetic Radiation on *Photobacterium phosphoreum* Luminescence

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Bacterial bioluminescence is a reaction of luminous bacteria that involves a luciferase-catalyzed oxidation caused by action of an enzyme called bacterial luciferase, encoded by *lux* gene [1]. Bioluminescence intensity of luminous bacteria is an integral parameter of their metabolism which makes this phenomenon a very attractive for the use as a potential very sensitive indicator of changing environment and the presence of toxic pollutants [2]. The advantages of the bioluminescent assays are high sensitivity, rapid response times and easy instrumental record [3].

There are express methods of quantitative determination of toxicity based on measuring a decrease in luminescence intensity of bacteria after addition of toxic compounds in water samples [4-6]. One of the perspective directions of expansion of bioluminescent analysis is its use to assess the degree of biological action of radiofrequency electromagnetic radiation (RF-EMR) [7, 8].

The relevance of this problem is growing due to the constant increase in the number and diversity of sources of RF-EMR which leads to almost overall exposure of RF-EMR on living organisms.

This requires simple, high-sensitivity biological test systems that provide reproducibility of the results and are suitable for mass analyzes. Such systems include bacterial luminescent test systems that are already being used to evaluate the toxicity of various chemicals [9].

The IMV B-7071 strain of the luminous marine bacterium *P. phosphoreum* from the culture collection of the D.K. Zabolotny Institute of Microbiology and Virology of the National Academy of Sciences of Ukraine was used as an object of the study.

Bacterial biomass was grown for 8 hours in liquid medium composed of (g/l): peptone - 5.0, yeast extract - 1.0, NaCl - 30.0, Na₂HPO₄ - 5.3, KH₂PO₄ x 2H₂O - 2.1, (NH₄)₂HPO₄ - 0.5, MgSO₄ x H₂O - 0.1, glycerol - 3.0 ml x L⁻¹ [10] in 750 ml flasks with 100 ml of medium at 145 rpm and 22°C. The bacterial suspension of the same volume and concentration (V = 1 ml, 10⁷ cells/ml) was exposed to irradiation from different RF-EMR sources.

As a source of RF-EMR we used the commercial devices: "Ray-11" (Medical Equipment Factory, Russian Federation), The distance between the emissivity antenna and object of influence was 5 cm. RF-EMR effect was estimated by the change in the intensity of luminescence. The control tests were carried out in the same conditions without irradiation. The exposure duration of 5 and 15 min was chosen as the most affected on bacteria luminescence changes.

Experimental luminometer setup based on photomultiplier tube (FEU-115M, 1400 V) was used to register the bioluminescence intensity. The luminescence intensity changes of the sample

described as bioluminescence index - BI [11]. BI was calculated as a ratio of the luminescence intensity of the test sample (I_t) to the luminescence intensity of the control sample (I_c):

$$BI = I_t/I_c.$$

To assess influence of RF-EMR on *Photobacterium phosphoreum*, luminescence intensity was analyzed after irradiation (under different RF-EMR bands). Bacterial cells were exposed to VHF EMR, UHF EMR power of 15 W and EHF EMR power of 100 μ W for 15 min. The results of the impact of RF-EMR on bacteria luminescence showed the luminescence intensity dependence on the power and exposure duration

Exposure to power of 15 W (VHF and UHF EMR) led to nonlinear dependence between the luminescence intensity and the exposure duration. Luminescence intensity analysis of 5 min of irradiation of VHF EMR 15 W power revealed an increase in the intensity of luminescence by 22% in comparison with control. The 15 min treatment with VHF EMR resulted in significant decrease up to 68% the luminescence intensity in comparison with control.

The similar tendency was observed after exposure to UHF. 5 min UHF EMR influence with 15 W power on bacterial cells led to an increase in luminescence intensity by 45% from the baseline. Upon further UHF EMR irradiation after 15 minutes from the start, it was observed a decrease in bioluminescence by 67% in comparison with control.

The marked dependence demonstrated the effects of stimulation and inhibition of luminescence intensity under RF-EMR influence on bacteria. These data demonstrate significant changes in the luminescence intensity under the action of power 15 W due to heating of the medium.

The use of a solid medium for the cultivation of *P. phosphoreum* IMV B-7071 made it possible to monitor changes in the intensity of bacterial luminescence under optimal conditions for their development. The results obtained in the course of this work indicate that the dependence of luminescence characteristic of *P. phosphoreum* cells can be expressed through the equation of a linear curve:

$$BI = 1.18 - 0.04 * \text{EMR Energy},$$

The dynamic range of the biosensor was the distance between 4.5 kJ and 23.0 kJ of energy load in which it is possible to determine the impact of RF-EMR.

The sensitivity coefficient was determined as the ratio of the absolute change in the bioluminescence index to the increase in the energy load of the impact:

$$\alpha = 0.04 \text{ kJ}^{-1}$$

At the specified exposure, the EMF detection limit was defined as the energy load that causes a change of 0.20 units of the bioluminescence index. For EMR VHF and UHF bands with a power of 15 W, the detection limit was 4.5 kJ.

In the study, the shortest time to measure a significant change in BLI was 5 minutes. Long-term stability is a characteristic of the receptor element itself and depends on the physiological state and method of cell immobilization. Long-term stability characterizes the stability of the sensor's operation over a long period of time.

Thus, as shown in our study, luminescence intensity of *P. phosphoreum* IMV B-7071 bacterial cells is an indicator of the RF-EMR biotropic impact that can be used to create a biosensor device for biological evaluation of non-ionizing electromagnetic radiation.

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Economic Sciences

Trend of Madagascar`s Trade Flows in COMESA: A Gravity Model Approach

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Abstract

Very little is known about the impact of Madagascar joining the COMESA FTA on the country exports. This study addressed this issue by developing a gravity model to examine Madagascar's trade flow with COMESA member States. The empirical results suggest, as expected, that distance is the first major constraint to Malagasy exports. The results also show that non-tariff barriers have a statistically significant impact on the flow of Madagascar's exports. One basic lesson that can be drawn from this paper is that, contrary to what some researchers think, gravity models can perfectly explain Africa trade.

Key words: Gravity Model, Regional Integration, Madagascar, Free Trade Area, COMESA

Introduction

Many decision makers in Africa see regional integration as a means of achieving industrialization and modernization through trade by securing economies of scale and market access. As a result, more and more countries have joined regional economic communities. (Aryeetey, 1997) Madagascar made no exception to the rules by joining the Common Market for Eastern and Southern Africa (COMESA)¹ in 1981 with the aim of reducing poverty by increasing trade. Although Soloaga and Winters (2002) argues in their research that there can't be simple generalized conclusion about the relationship between trade liberalization and poverty, it is the aim and objectives of the Common Market *to attain sustainable growth and development of the Member States by promoting a more balanced and harmonious development of its production and marketing structures* (COMESA Treaty, chapter 3, article 3). Because many economists believe that the border effect found in gravity model matches up to a trade impediment, one way to analyze the importance of trade is then to examine to which extent this factor is accountable as far as trade flows are concerned.

The objective of this study is threefold:

- To conduct empirical research and develop an econometric gravity model, specifically for analyzing the trade potential of Madagascar.
- To analyze what trade flows ought to be, given certain conditions.
- To develop a working tool that the Malagasy Trade Ministry can use to conduct research and formulate policy as far as Madagascar's multiple memberships are concerned.

¹ Members states of COMESA, are Angola (ANG); Burundi (BUR); Comoros (COM); Djibouti (DJI);DR Congo (DRC); Egypt (EGY), Eritrea (ERI) Ethiopia (ETH); Libya (LIB), Kenya (KEN); Madagascar (MDG); Malawi (MWI); Mauritius (MAU); Namibia (NAM); Rwanda (RWA); Seychelles (SEY); Swaziland (SWA); Uganda (UGA); Zambia (ZMB); Zimbabwe (ZWE); and. The acronyms used in this paper describing those countries are in parenthesis

The paper proceeds as follows. Firstly, section 1 presents a review of literature then discusses the data and methodology. Then estimation results are provided in section 2. In section 3, we discuss those results and examine other factors that can explain the dynamics of Madagascar trade in COMESA. The objective is to determine whether distance only places Madagascar exports at a competitive disadvantage. Finally, we try to present in the final section what should be noted as meaningful conclusions for our paper.

1. Literature Review

Huge literature has addressed the influence of regional agreements on trade patterns using gravity model to study international trade. Tinbergen (1962) is credited to be the first economist to study trade flows using a gravity model.

There are two major classes of empirical studies of the national border effect using gravity equation. The first one calculates it by comparing international and interregional trade (Helliwell, 1996 and 1998). Helliwell's conclusion is that: interregional trade is twenty times larger than international one. The second type studies the border effect by comparing foreign trade and transactions in a country, by using country data but not the interregional one (Wei, 1996). Wei's main finding, among others, is that transactions in the home-country market are about 2.5 times as large as imports from foreign countries. What those two studies have in common is that border effects exist, but is diminishing as time goes by. Before a deeper analysis, one point should be made concerning those studies. Wei's analysis is limited to a certain point because his analysis is at country-level not region-level. Therefore, we suggest to apply Helliwell's model [which is the extension of McCallum's model (1995)] to Madagascar by focusing on Madagascar's interregional trade in COMESA.

Before we discuss the data and methodology, for understanding purpose here is a brief review of five recent papers particularly linked to this investigation.

When testing the determinants for trade in COMESA, Geda (2002) found that financial deepening and infrastructure development are important determinants of trade in the region. The results showed that regional arrangements failed to affect intra-regional trade in a positive manner. Finally, he found that COMESA intra-trade was not much different from its trade with non-member countries.

Martinez-Zarzoso (2003) used the gravity equation to bilateral exports between 19 countries. His results as regard to transport infrastructure, suggest that the latter significantly promotes trade. In the same year, Filippini (2003) applied a gravity model to analyze trade flows between East Asian industrializing countries and some developed countries. The author found that all signs of coefficients were consistent with model assumptions.

To analyze Bangladesh trade flows with its trading partners, Rahman (2004) applied a generalized gravity model. He used the panel data estimation techniques. The results showed that transportation cost was a significant factor in influencing Bangladesh's trade.

Achay L. (2006) studied the determinants of trade flows between 146 countries for the periods between 1970 and 2000. His findings show that all estimated coefficients were statistically significant and their signs met up with expectations. Moreover, He found that GDP, common frontier, common official language, common currency and common colonial past positively impact the volume of trade. On the contrary, the distance factor had a negative effect on the volume of trade.

Jean Jacques Hallaert (2007) investigated the prospects of the Malagasy economy in the Southern African Development Community (SADC) by using a general equilibrium model. His main findings are that non-tariff barriers posed as a major factor to impede Madagascar import.

Thus the level of welfare in the country will be unchanged with Madagascar adhesion to SADC.

1-1 Methodology and data

The data on interregional trade between Madagascar and the COMESA are from the COMESA Secretariat database (COMSTAT) backed up by some statistics from The Inter Agency Task Force on international merchandise trade statistics. GDP data are from Development Indicators 1998 of the World Bank. Data on trade restrictions and openness to trade are taken from the perception of imports restrictions published in World Competitiveness Report 2004 (Sala-i-Martin, 2004). Data relating to distance which is measured in kilometre are from John Haveman's International Trade data website backed up by those from the CEPII website.

Whenever data-conflict occurred we have taken the average. The sample consists of the current member of the COMESA. However, Libya the newcomer is excluded from the study due to data constraints.

The period under study stretches from 1997 to 2004. To shed more light on the impact of the COMESA FTA on Madagascar intraregional trade, we break up the time period into two; "before the FTA" and "after the FTA". It is worth noting that the FTA was launched in October 2000 and Madagascar with eight other members formed it.

1-2 The gravity model origin

When Isaac Newton worked on his law of gravitation in the seventeenth century, he had never thought of the fact that he had given economist one significant new tool to examine and discuss the trade pattern. Newton's law of gravity in mechanics says that two bodies are subjected to an attraction force which depends positively on the product of their masses and negatively on their distance. Here is the formula: $F_{ij} = G.M_i M_j / D_{ij}^2$

With F representing the attractive force, M the mass, D the distance, and G the gravitational constant.

And the basic Newton's Law-based normal trade model is as follows:

$$\ln(X_{ij}) = C + a \ln(Y_i) + b \ln(Y_j) + c \ln(\text{dist}_{ij}) + U_{ij}$$

With Y , the economic size (GDP, POP); X_{ij} the exports from country i to country j or total trade (i.e. $X_{ij} + X_{ji}$), dist_{ij} the distance between i and j and a, b, c constant and U_{ij} the error margin. It is worth noting in this stage of discussion that standard proxies for trade costs in gravity equations are distance, adjacency, common language, colonial links, common currency, island or landlocked country, institutions, infrastructures and migration flows. Surprisingly, bilateral tariff barriers are often missing and studies taking account this variable are scanty in the literature. As we know, Madagascar is an island which had no colonial links with other COMESA member countries. We also know that no common currency exists in the COMESA.

Consequently, we will ignore those proxies to lighten the model. However, to have meaningful results we will add the tariff barrier variable into the model.

According to Isaac Newton's Law of Gravitation, a basic gravity model can be written as:

$$X_{ij} = A Y_i^\beta Y_j^\gamma D_{ij}^\delta \quad (1)$$

With

- A, β, γ and δ are coefficients to be determined empirically.
- X_{ij} represents the exports of country i to country j
- Y_i and Y_j are the national gross domestic products of countries i and j
- D_{ij} is distance between country i and country j

For estimation purposes, equation (1) in log-linear form for one year is expressed as:

$$\ln X_{ij} = \alpha + \beta \ln Y_i + \gamma \ln Y_j + \mu \ln D_{ij} \quad (2)$$

As we mentioned earlier, GDP and distance only don't reflect the real situation. The size of the population, trade policies and openness to trade are also important factors to be taken into

consideration. We represent those factors by T_{ij} , and an error term ε_{ij} representing other variables.

All these factors entail the following change in equation (2):

$$\ln X_{ij} = \alpha + \beta \ln Y_i + \gamma \ln Y_j + \mu \ln D_{ij} + \lambda T_{ij} + \varepsilon_{ij} \quad (2a)$$

$$\ln X_{ij} = \alpha + \beta \ln GDP_j + \gamma \ln DIS_{ij} + \mu \ln POP_j + \varepsilon_{ij} \quad (2b)$$

$$\ln X_{ij} = \alpha + \beta \ln GDP_j + \gamma \ln DIS_{ij} + \mu_1 \ln POP_j + \mu_2 OTT + \mu_3 FTA + \mu_4 WART + \mu_5 NTB + \varepsilon_{ij} \quad (2c)$$

With:

- OTT is the measure of openness to trade calculated by trade in goods taken as proportion of the GDP.
- FTA is a dummy for participation in the COMESA FTA. It takes the value zero when one country doesn't take part in the FTA, otherwise it takes the value one.
- WATR is the weighted average tariff rate.
- NTB stands for Non-Tariff Barriers and is scaled from one to seven where lower value indicates higher non-tariff barrier.
- And ε_{ij} represents the term of error.

2- Econometric results

The econometric results are displayed in tables 1 and 2 (see Appendix). Table 1 shows the main results before the launching of the COMESA FTA. Table 2 presents the estimated coefficients after the launching of the FTA. The model shows that Madagascar's (the exporter) income elasticity remains relatively constant, declining from 0.541 before the FTA to 0.411 after the FTA. The population coefficients of the exporting country are positively signed before and after the FTA formation. The coefficient of the distance variable has a negative sign and is significant at one percent level. Joining the FTA does not influence trade. In fact, the dummy variables for membership in the FTA show mixed results (0.139 before the FTA and -0.155 after the FTA).

The results from calculations of the coefficients before and after the FTA show a positive sign. From 0.357 (significant at 5 percent level) before the FTA it remains exactly the same (0.355) after the FTA. Openness to trade (OTT) and tariff rate (WART) show a positive and negative sign respectively. At one percent level the OTT coefficient is close to the value zero before and after the FTA.

Finally, both tables display the Ordinary Least Squares (OLS) estimation of the total effects of the gravity model variables. Test statistics for overall significance of the model follow the F-distribution. It appears that the test is highly significant meaning that the null hypotheses of all coefficients simultaneously equal to zero are rejected. The sign of all but one of the estimates of variables are as expected and are in line with economic theory.

Results implications

We have found that the exporter income elasticity remains relatively constant, declining from 0.541 before the FTA to 0.411 after the FTA. The declining level of the coefficients indicates a growing inelasticity of bilateral trade with respect to the income of the importing country. This also indicates that the income elasticity of bilateral trade is more elastic with respect to the exporting country's income than it is to that of the importing country. It then enhances the importance of a country's production capacity in fostering exports.

The population coefficients of the exporting country are positively signed before and after the FTA formation. The positive sign implies that the country size is directly related to trade. It doesn't meet our expectations. Our review of literature suggests that large countries have a bigger capacity to absorb imports than smaller ones do. Does this result point to an uneven distribution

of costs and benefits of integration in favor of big countries in the long run? There is no straight answer.

The coefficient of the distance variable has the expected negative sign and is significant at one percent level. Unexpectedly, joining the FTA does not influence trade. In fact, the dummy variables for membership in the FTA show mixed results (0.139 before the FTA and -0.155 after the FTA). The explanation may be due to the fact that distance and FTA dummy variables are already accounting for proximity between exporting and importing countries.

The results from calculations of the coefficients before and after the FTA show the expected positive sign. It remains exactly the same before the FTA and after the FTA. The only explanation we can give is that Non-Tariff Barrier is still high among COMESA countries even after the formation of the Free Trade Area. As we will see later, NTB is one of the main hindrances of trade (Malagasy) exporters face when trading with other COMESA countries.

Openness to trade (OTT) and tariff rate (WART) variables show the expected positive and negative signs respectively. Further study in the next section will show that general tariff rate is high in the COMESA despite the removal and suppression of many tariffs.

3- Deepening the analysis

Although this study is focused on the gravity model approach of Madagascar's trade flow in COMESA, in this section, we evaluate on one hand the prospects for expansion of Madagascar intraregional trade in COMESA and on the other hand, we analyse the obstacles to Madagascar's exports. To better understand the evolution of Madagascar trade within the COMESA, it is important at this stage to make a brief summary of the FTA of the COMESA. As a matter of fact, we have found a decrease in Madagascar's exports after the country has joined the FTA. What's behind this finding?

3-1 The Free Trade Area of the COMESA

To date, nine countries members of the COMESA, namely: Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia and Zimbabwe, have joined the FTA. They trade on duty-free terms for all goods meeting the rules of origin criteria. The rates of preference applied in the FTA are as follows:

(Insert BOX 1 here)

The definition of Charges of Equivalent Effect (CEE) is open to interpretation. However, it is largely agreed that any taxes, duties or surcharges levied on foreign goods but not levied on domestic ones are common CEE. Under the FTA, Value Added Tax (VAT), Sales Tax and Excise Duty continue to be charged provided that domestic goods as well as foreign goods are charged the same amount. Needless to mention, all NTBs are expected to be removed.

3-2 Madagascar trade in the COMESA

COMESA intraregional trade amounts to 3.05 billion U.S dollars in 1999. Although Madagascar has been among the first to join the FTA, its trade volume within the COMESA is weak. In 2000, 17 million worth of goods are exported to Mauritius against 66 million imported from the same country. Data shown in Table 1 and 2 imply that intra-COMESA trade accounts for 2.92 % of Madagascar total exports and 6.56 % of Madagascar total imports. The reader should keep in mind when analyzing what follows that the data in this section comes from the Malagasy Trade Ministry and the national statistics office (INSTAT) For cross-reference purpose, data from COMESA Secretariat database are shown in appendix.

(Insert Table 1 here)

3-2-1 Country wise examination of trade trend

When trade pattern is examined country wise, the following picture emerges:

- Mauritius is the main trade partner of Madagascar with 89 % of export goods and 73.4 % of import goods.
- 13.5 % of Madagascar imports from COMESA come from Zambia.
- Between 1999 and 2002, Madagascar imports from Kenya rises from 7.25 % in 1999 to 24.38 % in 2002. Imports from Egypt increase from 1.64 % in 1999 to 9.32 % in 2002.
- Madagascar exports to COMESA region is highly concentrated on seven countries namely Egypt, Mauritius, Zimbabwe, Seychelles, Kenya, Malawi and Comoros. With the exception of Seychelles and Comoros, all these countries are members of the COMESA FTA. Of these five countries, Mauritius by itself represented 55 % in 2000.

(Insert Table 2 here)

A further analysis of the trend in trade indicates the following picture:

- Imports from Mauritius increased steadily over the period under study.
- Exports to the top six countries soared by 41.2 % in three years from 87.5 billion of Malagasy Francs (FMG) (1999) to 123.6 billion (2002)
- Mauritius remains the main trade partner of Madagascar before Kenya which is however taking advantage of the decline of the first. Comoros are third before Zimbabwe and Egypt in 2002. Comoros are second in terms of Malagasy exports during 1999-2001
- Exports to Mauritius show a growing decline over the period (from 88.0 % in 1999 to 75.7 % in 2002) whereas exports to Comoros and Kenya rose respectively from 7.5 % to 9.1 %, and from 2.7 % to 10.3 %.

(Insert Table 3 here)

3-2-2 Product wise examination of trade trend

When trade pattern is examined product wise, the following picture emerges:

- Dairy products, plaster and cement are imported from Kenya
- Animal and vegetal fat are imported from Zambia
- Shrimp, livestock and textile took the large part in the 41.2 % increase in exports (from 1999 to 2002)

(Insert Table 4 here)

- Textile products rank first as far as export is concerned (except in 2001). However, the share of animal products rises steadily every year.
- The main products exported to Mauritius are: livestock, dairy products, frozen shrimp, castor bean, cloves, stationery supplies, oil, and cotton fabrics.
- The main products imported from Mauritius are: flour, chemical products such as medicines and fertilizers, sewing machines and cotton fabrics.

(Insert Table 5 here)

- The main products exported to Comoros are: livestock, rice, salt, cement, gas, petrol, oxygen, and cotton fabrics.
- Food, chemical and textile (fibers and blankets) are the main products from Kenya. Those from Egypt consist of tyres and sinks.

(Insert Table 6 here)

It should be noted that about half of Mauritian exports to Madagascar is made up of textile raw materials destined to Mauritian enterprises in Madagascar.

3-2-3 Trade balance country wise examination

When trade balance is examined country wise, the following picture emerges:

- Madagascar has been having a constant and growing balance of trade surplus with Comoros

- Mauritius is the country with which Madagascar has the biggest balance of trade deficit. This deficit has been growing steadily over the years.
- In 1999, Madagascar trade balance vis-à-vis the COMESA was positive (155 % in terms of exportation versus importation ratio)
- In 2001 this ratio dipped to 65.6 %. The decline of the textile export can explain this trend. In fact, export of textile products shares in total export to COMESA sink from 45.4 % in 2000, 17.0 % in 2001 and 26.5 % in 2002. In the same period, chemical products imports rose by 117 %. It is worth noting that the launch of the AGOA has a lot to do with this decline of textile products to COMESA.

(Insert Table 7 here)

The main key points to remember in this subsection are:

- Madagascar trade deficit with COMESA is growing, which means COMESA member is taking advantage of the Malagasy market. The opposite is not true.
- Madagascar exports are highly concentrated with one country: Mauritius. As suggest by many authors, an export diversification is mostly needed.
- Madagascar intraregional trade yearly growth is 18.1 % for imports and 36 % for exports.
- Madagascar imports from COMESA (15.8 %) are significantly small in comparison with the European Union (32.2 %), the same goes with exports (24.6 % against 56. 8 %).

The above analysis shows strong evidence that Madagascar has not yet taken full advantage of the many opportunities offered by the COMESA FTA. In order to reap the benefit of regional integration, Madagascar needs to address some major weaknesses. Firstly, businesspeople lack information due to Madagascar multiple memberships: the island is also member of the Southern African Development Community and the Indian Ocean Commission.

Secondly, not so many studies have been carried out with concerns to Madagascar regional integration. Thirdly, the majority of businesses struggled as far as rules of origin qualification are concerned. Fourth, Malagasy exporters have little or no English corporate culture and traditions; this is due in large part to lengthy relation with the past colonial power. Fifth, there is a serious lack of qualified people to attend meetings at regional level. Sixth, trade support instruments (export credit, export guarantee) are inexistent whereas major competitors have strong support on that point. And last but no least, there is no institutional support/institution to advise manufacturers on market opportunities.

We have mentioned before that the main aim of this subsection is to scrutinize Madagascar trade potentials in its trade with COMESA. The most used tools to do so are products complementarity, measure of border effects and openness to trade.

3-3 Product Complementarities

Product complementarities are key indicator of the potential for expansion of trade between two countries. As defined by Tsikata (1999), the product complementarity index between two countries a and b (C_{ab}) is as follows:

$$C_{ab} = 100 - \sum_i (| M_{ib} - X_{ia} | \div 2)$$

with X_{ia} represents the share of good i in the total exports of country a

M_{ib} represents the share of good i in the total imports of country b

The index measure similarities between the export baskets of country a and the import basket of country b. When the index equals zero there is no complementarity between exports and imports of the two countries. When the index equals one hundred it means a perfect match. In one word the higher the index, the bigger the product complementarity. Calculations of the index for COMESA members are shown in Table 8 below. Considering Tsikata's finding which states that a value of less than 25 means failure; we can draw the following conclusion. For Madagascar export, the key points reflected in Table 8 are as follows; only Mauritius (38.8), Egypt (22.2) and Seychelles

(24.6) show a little sign of product complementarity with Madagascar. On the other hand, for Madagascar import, results in Table 8 suggest that Egypt (52.1), Kenya (47.1) and Sudan (28.5) show strong sign of complementarity with Madagascar. What these numbers in parenthesis mean is that there is a scope for Madagascar to export to Mauritius, Egypt and Seychelles. There is also a scope for Egypt, Kenya and Sudan to increase their export to Madagascar.

(Insert Table 8 here)

3-4 The border effect

To assess the level of hindrance to trade, gravity model uses transport cost as a proxy for distance. It is also known as the “border effect”. Many African countries often attribute their poor export performance to foreign trade barriers. Amjadi and Yeats (1995) don’t support that view.

They think that transport costs are responsible for this poor performance. Their detailed trade analysis highlights an insufficient trade information system and an absence of strategic partnership between freight forwarders and counterparts on the continent.

In this subsection, we analyze the main transport problems reported by Malagasy exporters when they export to COMESA. Our main expectations here are, on one hand, to find that they have little or no problem with country with direct access to the sea, and on the other hand, to find that they encounter big problem with landlocked countries.

In countries with direct access to the sea, they report expensive charges in relation to double freight, forwarder fees and port dues in Alexander port (Egypt) and Saint Louis port (Mauritius). The problem is worse in the Comoros; goods first arrive at the port in Moroni, then they are transported to Anjouan in small boats.

In landlocked countries, they report that to reach Malawi, goods are transited through Mozambique and due to poor railway and road infrastructure, delays are common. To export to Zimbabwe, delays in the delivery of goods are reported. They pass through the Port of Beira before reaching their final destination in Zimbabwe. The main problem reported in dealings with landlocked countries seems to be the fact that they have to cross non COMESA member States. If such are the complaints, what does the COMESA offer to alleviate the problem and what does literature say on the subject?

A number of trade and customs facilitation measures have been implemented by COMESA. As far as transport is concerned, the trade and customs facilitation measures are:

- Harmonized Road Transit Charges
- COMESA Carrier’s License
- Yellow Card Motor Vehicle Insurance
- Overload Controls
- Maximum Vehicle Dimensions
- ACIS for Cargo tracking

The first thing which comes in mind when we see those measures is; they are not tailored for an island country like Madagascar. Exception made for the Cargo Tracking Scheme. The question “why are Madagascar’s transport costs so high” remain unanswered. The c.i.f. (cost insurance and freight) to f.a.s. (free along ship) ratio can be used to measure nominal international transport and insurance charges for exports of product i from country j (f_{ij}) from:

$$\begin{aligned} f_{ij} &= (V_{c,ij} - V_{f,ij}) / V_{f,ij} \\ &= (V_{c,ij} / V_{f,ij}) - 1 \end{aligned}$$

Where $V_{c,ij}$ represents the c.i.f. and $V_{f,ij}$ is the f.a.s. value of exports of tariff line level product i from country j . The measure stresses the importance of transportation costs for trade with landlocked countries. It should be noted that since the f.a.s. value is measured alongside the ship at the exporting country it excludes costs incurred in transiting some neighbors. Results show that payments for transport and insurance as a percentage of the total value of exports are as high as 40 % for Madagascar compared to an average of 13 % for Zambia. (See appendix) This is in line

with the view that the tariff equivalent of crossing a border outside a FTA ranges from 230 % to 120 %.

The above analysis shows that foreign partnership with providers of transport and related services (freight forwarders and shipping agents) is a must. During the course of this study, it was noted that high costs of freight are the first problem reported by Malagasy exporters. The establishment of freight forwarding companies in COMESA member States would be a significant step to tackle the issue.

3-5 Openness of trade in COMESA

As the estimation results show, COMESA intraregional trade has been hindered by a number of factors. In this sub-section we deal with trade regime restrictiveness. In fact, evidences support the view that trade openness contributes significantly to growth (Berg and Krueger, 2003). The main objective here is to give more meaningfulness to the gravity model results. We expect to find here more explanation to Madagascar's low performance in the COMESA.

The main goal of this subsection is then to make an in-depth analysis of this kind of barrier as far as Malagasy exports are concerned. The COMESA has recommended a time schedule for elimination of NTBs to intra COMESA trade, but country members are dragging their foot and no action is taken. As it is well-known, the impact of removal of tariff barriers is easily nullified by NTB. Such barriers may take very diverse forms; sanitary, phytosanitary etc.

A number of NTBs have been reported by Malagasy exporters during a conference about regional integration held at Antananarivo. For example, customs difficulties for clearing goods in Egypt and Kenya are reported. High fees are charged to obtain a Health Certificate in Egypt.

Unfair competition from products (especially soaps) from non-COMESA countries is reported as far as Mauritius exports to Madagascar are concerned. Customs duties are replaced by high excise duty in Comoros. They also reported the introduction of a 60 % custom duty on imported flour in Kenya, despite the FTA agreement.

Business executives always complain, that is well known. In a report prepared by StraConsult to The Ministry of Foreign Affairs and Regional Cooperation in Mauritius, business leaders in Mauritius complained that their export to Madagascar face the following problems; the existence of tariff protection to local producers, cumbersome customs control, Government procurement practises biased in favour of local producers, duties paid on imported wine and spirits by European countries are almost the same as theirs because Madagascar has been reducing the custom duties and increasing excise duty on imports. Many countries in the world, in order to minimize revenue loss due to tariff elimination, increase their excise duty. And it is a common practice to reduce custom duties and increase excise duty in many FTA.

In a scientific paper like this, we are not going to take sides. We are going to investigate what literatures say about NTB in general and in COMESA in particular.

A recent study by the IMF using the Trade Policy Information Database has found that there are huge disparities in the restrictiveness of trade regimes in the COMESA. Table 9 addresses this point by showing on one hand that Djibouti, Malawi, Madagascar, Rwanda, Uganda, and Zambia rank among the most open country and on the other hand that Burundi, Comoros, Egypt, Kenya, Seychelles and Sudan rank among the most restrictive trade regimes. The reader should note that the IMF's Trade Restrictiveness Index (TRI) is a combined rating of the tariff and Non-Tariff Barrier (NTB) in a country's trade regime. The tariff rating is based on simple average nominal tariffs. The NTB rating is based on product coverage of NTBs. Country with the most open tariff regime rated one and country with high tariff regime rated 10.

(Insert Table 9 here)

As table 9 reports, there are great disparities in the restrictiveness of trade regimes across the region. Only 9 of the countries have open trade regimes (rated below a 3) and these do not include

the relatively developed countries in the region (Egypt, Kenya, Mauritius). The interested reader may be keen to know that econometric studies of the relationship between trade openness reform and the rate of economic growth is well documented in Sachs and Warner (1995), and Frankel and Romer (1999).

4- Conclusion

The gravity model has been established in the literature as a popular methodology to measure potential trade between countries. This analysis of the level and evolution of Madagascar trade with COMESA members shows that it corresponds to the country's level of economic development. The results of our model regression show that approximately 70 percent of the variability of the response variable is explained by the explanatory variables. Coefficients of all variables (GDP, Distance, WART, OTT and NTB) except FTA bear expected sign, and are statistically significant. In fact, the COMESA FTA negative sign indicates that this variable does not have a positive impact on the direction of exports. Even if we consider the fact that there could be variations in the data sources and that our analysis excludes part of exports for which the destinations are not known in the official statistics, the negative impact of COMESA FTA variable needs a further study. Although the time period under consideration is relatively short to come to any definitive conclusion about the role of the FTA we can say that Madagascar opportunities for trade expansion in the COMESA might be somewhat limited due to low product complementarities, high non-tariff barriers from trading partners and high transport costs. By the way, one further research by the same authors to explain whether Madagascar is more concerned with barriers to trade rather than transport costs is under study.

The main recommendations that emerge from our analysis are for Madagascar; firstly, to choose its partner because the COMESA is too heterogeneous. Secondly, Madagascar needs to improve shipping and port infrastructure, a prerequisite for successful trade integration, in order to boost exports. More exports are associated with faster growth and more jobs. And finally, an interesting feature that comes out in our discussion is that the complementarity index used in this study reflects, to a large extent, a high concentration of export goods on a small number of products. It implies that Madagascar needs, as many analysts suggest, exports diversification.

One basic lesson that can be drawn from this analysis is that, contrary to what some researchers think, gravity models are perfectly suitable to explain Africa trade. In other words, this paper's empirical analysis doesn't back up the results of other studies that suggest that gravity models analysis of intraregional trade might be limited. Though some of the conclusions in this study are controversial, we agree that opening up the economies for export-led-growth is a crucial factor among others, which would significantly influence the growth performance.

However, Madagascar should not be under the impression that regional integration cooperation only will solve its major economic problems.

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APPENDIX

Appendix table 1: Regression Results for the gravity model (Before FTA)

Model	After FTA
Sample size	10
Constant	-12.680* (2.316)
LGDP	0.411* (0.098)
LDIS	-0.301* (0.189)
LPOP	0.589* (0.250)
OTT	0.009** (0.002)
FTA	-0.155*** (0.088)
WART	-0.029 (0.020)
NTB	0.355** (0.146)
R ² (R-square values)	0.852
Standard Error	0.761
Diagnostic Test	
Test of Normality	51.67 [0.00]
Correlation of series	0.007 [0.90]
Form of function	0.899 [0.34]
Heteroscedasticity	5.284 [0.01]

Note:

- a. Values in parenthesis are standard errors. Values in square brackets are P-values.
- b. * Significant at one per cent;
- c. ** significant at 5 per cent
- d *** significant at 10 per cent
- e. the FTA variable in this model represents all countries in COMESA except Libya.

Appendix table 2: Regression Results for the gravity model (after FTA)

Model	After FTA
Sample size	10
Constant	-12.680* (2.316)
LGDP	0.411* (0.098)
LDIS	-0.301* (0.189)
LPOP	0.589* (0.250)
OTT	0.009** (0.002)
FTA	-0.155*** (0.088)
WART	-0.029 (0.020)
NTB	0.355** (0.146)
R ² (R-square values)	0.852
Standard Error	0.761
Diagnostic Test	
Test of Normality	51.67 [0.00]
Correlation of series	0.007 [0.90]
Form of function	0.899 [0.34]
Heteroscedasticity	5.284 [0.01]

Note:

- Values in parenthesis are standard errors. Values in square brackets are P-values.
- * Significant at one per cent;
- ** significant at 5 per cent
- *** significant at 10 per cent
- the FTA variable in this model represents only those countries joining the FTA.

Appendix table 3 : Intra-COMESA Export Shares, 1997 - 2001

	1997	1998	1999	2000	2001
Angola	0.13	0.39	0.15	0.14	0.13
Burundi	0.47	0.13	0.13	0.35	0.64
Djibouti	0.87	0.47	0.36	0.30	0.85
Egypt	2.72	2.20	3.04	3.81	5.44
Eritrea	0.12	0.27	0.07	0.01	0.01
Ethiopia	5.32	4.69	4.80	4.48	5.44
Kenya	40.47	39.20	44.00	32.96	35.04
Comoros	0.04	0.03	0.01	0.01	0.00
Madagascar	0.83	1.05	1.12	1.23	0.73
Mauritius	5.28	5.30	7.27	5.69	7.05
Malawi	3.48	1.58	3.01	2.92	6.12
Namibia	3.41	8.72	3.95	4.25	6.81
Rwanda	2.95	1.82	2.77	2.46	2.41
Seychelles	0.04	0.02	0.07	0.16	0.29
Sudan	0.21	0.19	0.27	3.92	3.09
Swaziland	2.31	2.28	2.43	5.15	4.08
Uganda	4.80	2.65	2.92	5.09	7.45
Zambia	7.02	10.52	7.56	11.29	6.90
Congo DR	0.66	0.17	0.33	2.49	4.81
Zimbabwe	18.89	18.30	15.76	13.27	2.69
Total	100	100	100	100	100

Appendix table 4: Extra-COMESA Trade 2000 to 2004 Value US\$ (Millions)

	2000		2001		2002		2003		2004	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
Angola	3,029.1	7,920.9	3,166.1	6,533.7	3,778.9	7,690.7	4,160.4	9,074.7	4,146.0	9,073.6
Burundi	179.7	36.2	133.0	31.9	86.2	13.5	126.4	59.6	126.8	73.2
Comoros	30.5	7.0	31.5	7.6	33.9	9.2	34.1	5.4	55.3	7.6
Congo DR	920.0	726.3	1,067.0	878.5	1,405.0	894.6	1,489.0	1,085.9	1,489.0	1,229.5
Djibouti	196.6	70.9	181.5	65.2	209.1	65.6	199.1	57.5	269.0	76.6
Egypt	13,873.1	4,674.1	11,615.2	3,741.7	17,880.0	4,093.9	10,748.9	6,055.2	11,534.8	7,514.9
Eritrea	463.2	36.8	535.4	19.9	531.0	51.9	592.2	55.5	596.8	55.4
Ethiopia	1,154.3	327.4	1,684.9	319.7	1,450.6	332.7	2,583.4	414.4	1,336.8	314.9
Kenya	3,342.1	1,119.6	3,815.0	761.9	3,273.9	869.6	3,450.9	1,396.1	4,237.2	1,484.8
Madagascar	904.7	560.6	566.1	300.6	385.6	229.1	1,021.2	672.2	1,628.4	962.0
Malawi	479.1	330.1	509.5	412.7	589.9	375.8	621.5	383.9	619.7	592.6
Mauritius	2,058.7	1,353.9	1,955.0	1,339.2	2,092.9	1,603.6	2,229.2	1,466.1	2,676.4	1,555.8
Rwanda	112.1	23.8	107.1	31.8	64.2	29.5	91.6	22.1	131.7	53.7
Seychelles	253.6	127.5	424.2	157.8	395.2	175.7	340.7	195.5	386.4	169.0
Sudan	1,735.1	691.0	1,582.4	1,445.3	1,994.5	1,071.8	2,373.7	2,048.3	3,393.1	1,972.2
Swaziland	1,045.8	749.0	835.8	706.4	912.3	984.5	1,391.5	1,562.5	1,497.9	1,647.6
Uganda	545.8	259.9	613.0	299.8	649.0	335.5	918.7	297.5	1,326.5	456.2
Zambia	1,057.0	693.0	1,680.1	904.0	1,131.6	818.6	1,317.8	849.3	1,982.7	1,334.8
Zimbabwe	1,745.7	1,566.9	1,474.9	1,230.8	2,271.0	1,833.9	2,170.8	3,256.1	1,652.8	1,561.2
Total	33,126.2	21,274.9	31,977.8	19,188.6	39,134.9	21,479.9	35,861.1	28,957.8	39,087.6	30,135.6

Sources: COMESA Secretariat from National Statistical Offices. Intra and Extra COMESA Data for Angola, Congo DR, Djibouti and Eritrea was extracted from the WTO Website

Appendix table 5: Intra-COMESA Trade 2000 to 2004 Value US\$ (Millions)

	2000		2001		2002		2003		2004	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
Angola	10.9	0.1	12.9	0.3	16.1	0.3	14.6	0.3	29.0	1.4
Burundi	19.9	4.7	50.5	8.0	28.1	4.3	47.5	4.0	46.2	7.8
Comoros	5.0	0.1	3.6	0.1	3.3	0.1	4.5	0.2	7.7	0.1
Congo DR	107.1	33.7	47.2	61.5	134.1	214.4	143.1	174.1	277.2	30.5
Djibouti	73.4	4.1	72.5	10.8	67.9	17.4	100.9	27.5	31.0	8.4
Egypt	186.1	51.5	236.4	68.5	557.4	62.9	189.4	131.6	152.0	164.9
Eritrea	7.8	0.2	1.6	0.1	2.0	0.1	7.8	0.5	3.2	0.6
Ethiopia	107.6	155.1	125.2	96.5	130.0	116.6	90.9	95.1	47.9	18.2
Kenya	77.4	445.5	144.4	464.5	117.5	625.5	144.6	433.6	174.0	530.7
Madagascar	63.5	16.6	37.8	11.0	33.6	14.4	65.3	13.5	86.3	41.4
Malawi	52.8	39.4	53.2	76.9	65.9	47.4	83.8	68.9	74.3	101.0
Mauritius	58.3	76.9	66.7	88.8	85.7	103.1	89.7	58.6	85.3	58.0
Rwanda	28.7	33.2	13.1	30.3	12.4	14.8	11.9	20.8	33.6	26.8
Seychelles	12.5	2.2	11.4	3.6	24.6	2.8	13.7	0.5	22.6	0.2
Sudan	198.3	78.7	243.9	60.3	275.2	62.4	416.1	77.2	350.4	62.3
Swaziland	0.5	69.4	0.4	51.4	1.5	100.5	2.0	119.1	0.3	119.9
Uganda	152.4	68.7	281.4	93.8	281.9	80.9	301.0	95.2	435.8	146.7
Zambia	85.3	151.5	137.1	86.1	125.4	67.1	266.6	85.7	201.7	269.7
Zimbabwe	57.7	161.6	99.9	35.9	108.9	214.4	26.0	124.7	77.8	136.1
Total	1,305.1	1,393.2	1,639.4	1,248.4	2,071.6	1,749.3	2,019.3	1,531.1	2,136.2	1,724.6

Source: COMESA Secretariat from National Statistical Offices. Intra COMESA Data for Angola, Congo DR, Djibouti and Eritrea are derived from partner country statistics.

Appendix table 6: COMESA Market Share in 2004

Country	MDG	MAU	MAL	RWA	ETH	ZBW	DRC	EGY	SUD	ZMB	UGA	KEN	TOT
%	2	3	3	4	5	4	7	8	12	9	15	28	100

Source : COMESA Secretariat

Appendix table 7: Intra-COMESA Trade Ranking by Value (US \$) (2001)

Exports			Imports		
Rank	Country	Value	Rank	Country	Value
1	Kenya	44143	1	Uganda	281,43
2	Uganda	9382	2	Egypt	236,35
3	Mauritius	8878	3	Kenya	144,57
4	Zambia	8689	4	Zambia	139,49
5	Namibia	8571	5	Sudan	108,94
6	Malawi	7700	6	Zimbabwe	104,35
7	Ethiopia	6852	7	Angola	96,57
8	Egypt	6850	8	Djibouti	72,53
9	Congo DR	6146	9	Mauritius	66,94
10	Swaziland	5139	10	Malawi	57,83
11	Zimbabwe	4523	11	Congo DR	51,31
12	Sudan	38,94	12	Burundi	50,52
13	Rwanda	3034	13	Ethiopia	47,06
14	Djibouti	1076	14	Madagascar	29,93
15	Madagascar	923	15	Rwanda	13,07
16	Burundi	802	16	Seychelles	11,39
17	Seychelles	365	17	Namibia	7,35
18	Angola	1,62	18	Comoros	3,64
19	Eritrea	0,12	19	Eritrea	1,56
20	Comoros	0,06	20	Swaziland	0,47

Appendix table 8: Intra-COMESA Trade Ranking by Value (2000)

Exports			Imports		
Rank	Country	Value	Rank	Country	Value
1	Kenya	445,49	1	Egypt	186,32
2	Zimbabwe	179,40	2	Uganda	152,53
3	Zambia	152,56	3	Congo DR	107,29
4	Maurice	76,93	4	Sudan	101,48
5	Swaziland	69,63	5	Zambia	86,71
6	Uganda	68,86	6	Kenya	77,50
7	Ethiopia	60,59	7	Djibouti	73,44
8	Namibia	57,50	8	Angola	68,14
9	Sudan	52,95	9	Madagascar	63,47
10	Egypt	51,56	10	Zimbabwe	62,65
11	Malawi	39,42	11	Mauritius	58,56
12	Congo DR	33,69	12	Malawi	52,91
13	Rwanda	33,19	13	Ethiopia	42,20
14	Madagascar	16,60	14	Rwanda	28,65
15	Burundi	4,67	15	Burundi	19,92
16	Djibouti	4,08	16	Seychelles	12,52
17	Seychelles	2,22	17	Eritrea	7,80
18	Angola	1,89	18	Namibia	7,60
19	Eritrea	0,18	19	Comoros	5,03
20	Comoros	0,10	20	Swaziland	1,75

Source: COMESA Secretariat

Appendix table 9: Extra-COMESA Trade Ranking by Value (2001)

Exports			Imports		
Rank	Country	Value	Rank	Country	Value
1	Angola	6,693,4	1	Egypt	11,615,2
2	Egypt	3,741,7	2	Kenya	3,814,8
3	Kenya	1,502,0	3	Angola	3,589,5
4	Sudan	1,466,6	4	Mauritius	1,954,7
5	Mauritius	1,339,2	5	Ethiopia	1,763,0
6	Namibia	1,243,3	6	Sudan	1,717,3
7	Zimbabwe	1,221,5	7	Zambia	1,677,8
8	Zambia	903,2	8	Namibia	1,481,1
9	Swaziland	706,4	9	Zimbabwe	1,470,5
10	Malawi	412,6	10	Swaziland	835,8
11	Ethiopia	347,7	11	Uganda	613,0
12	Madagascar	302,4	12	Madagascar	574,0
13	Uganda	299,8	13	Malawi	504,9
14	Seychelles	157,8	14	Seychelles	424,2
15	Burundi	31,9	15	Burundi	133,0
16	Rwanda	31,8	16	Rwanda	107,1
17	Comoros	7,6	17	Comoros	31,5
18	Djibouti	-	18	Djibouti	-
19	Eritrea	-	19	Eritrea	-
20	Congo DR	-	20	Congo DR	-

Appendix table 10: Extra-COMESA Trade Ranking by Value (2000)

Exports			Imports		
Rank	Country	Value	Rank	Country	Value
1	Angola	7,800,4	1	Egypt	13,872,9
2	Egypt	4,674,1	2	Kenya	3,342,0
3	Zimbabwe	1,549,1	3	Angola	3,275,3
4	Mauritius	1,353,9	4	Mauritius	2,058,4
5	Kenya	1,119,6	5	Sudan	1,813,8
6	Namibia	1,046,5	6	Zimbabwe	1,740,8
7	Swaziland	748,7	7	Namibia	1,397,9
8	Sudan	716,7	8	Ethiopia	1,219,7
9	Zambia	619,8	9	Zambia	1,055,6
10	Madagascar	560,6	10	Swaziland	1,044,6
11	Ethiopia	422,0	11	Madagascar	904,7
12	Congo DR	416,3	12	Uganda	545,6
13	Malawi	330,1	13	Malawi	478,9
14	Uganda	259,8	14	Seychelles	253,6
15	Seychelles	127,5	15	Congo DR	212,7
16	Burundi	36,2	16	Burundi	179,7
17	Rwanda	23,8	17	Djibouti	176,6
18	Djibouti	16,0	18	Rwanda	112,0
19	Comoros	7,0	19	Comoros	30,5
20	Eritrea	-	20	Eritrea	-

Source: COMESA Secretariat

Влияние COVID-19 на стоимость жилья

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Введение

С начала пандемии прошло более двух лет, однако мир так и не смог оправиться в полной мере от последствий данного кризиса начиная от производства заканчивая повседневной бытностью. Коронавирус по-прежнему продолжает мутировать, и люди редко живут в мире. Но на рынках факторов производства и капиталов мы видим другую картину. Помимо чрезмерной реакции на ранней стадии вспышки эпидемии, рынки активов многих стран, особенно рынок недвижимости, эпидемия не затронула, а цены на жилье в развитых странах в целом превышают те, что были до вспышки. Даже в 2020 году, худшем году эпидемии, цены на жилье в разных странах не снизились от ухудшения фундаментальных показателей. То же самое и в Китае: по данным Национального бюро статистики Китая, средняя цена коммерческого жилья в Китае в 2020 году составляла 9860 юаней за квадратный метр, увеличившись в годовом исчислении на 5,9%.

Ключевые слова: жилье COVID-19 Влияние

Глава 1. Динамика цен на жилье в разных странах

Цены на жилье в Китае не снизились из-за распространения пандемии, которая полностью подорвала энтузиазм потребителей, ожидавших падения цен на жилье.

Цены на жилье в Сеуле, даже выросли в ответ на вспышку COVID-19. С момента прихода к власти президента Мун Чжэ Ина правительство получило не менее 23 золотых медалей за сдерживание высоких цен на жилье, но когда рост цен на жилье продолжился, народная поддержка Мун Чжэ Ина начала колебаться, и неоднократно возникали панические покупки. Согласно данным, опубликованным Министерством инфраструктуры и транспорта Южной Кореи, количество сделок с недвижимостью в Южной Корее в июле достигло 141 000 единиц, что на 110% больше, чем за аналогичный период прошлого года. С января по июль этого года совокупный объем транзакций достиг 762 000 единиц, что почти вдвое больше, чем за тот же период прошлого года. Ежемесячный объем торгов и совокупный объем торгов достигли самых высоких уровней с момента появления статистики. По данным KB Real Estate в Сеуле, стоимость жилья на 3 января составляла 8,68 млн вон (около 50 000 юаней) за квадратный метр, а средняя цена за квадратный метр к 31 июля — 9,5 млн вон. В июле средняя цена дома в районе Каннам составляла 17,16 млн вон за квадратный метр, особенно выросли цены на многоквартирные дома + 52%.

Не только в Южной Корее, но и в США во время эпидемии также росли цены на жилье. 22 июля Национальная ассоциация риелторов (NAR) объявила, что общий объем продаж существующих домов в июне увеличился на 20,7% по сравнению с предыдущим месяцем, что является самым высоким показателем роста почти за полвека; медианная цена на существующие дома в июне составила 295 300 долларов США, что на 3,5% больше, чем в прошлом году. Количество доступного жилья на продажу в США в июле упало на 32,6% в годовом исчислении, что является более быстрым снижением, чем падение на 27,4% в июне. Это на 440 000 домов меньше, чем в июле прошлого года. По данным Федерального агентства жилищного финансирования (FHFA), индекс цен на жилье для покупателей в США вырос на 60% по сравнению с минимумом в начале 2012 года.

Цены на жилье в Китае также растут. Согласно последним данным, опубликованным Национальным бюро статистики Китая, среди 70 городов в мае более чем в 80% городов цены на жилье выросли. Средние цены на жилые дома из выборки в 100 городах в июле показывают, что, за исключением временного снижения цен на коммерческое жилье во время эпидемии, в целом цены на жилье выросли. Хотя темпы роста цен на жилье варьируются от места к месту, средняя стоимость жилья в городах первого, второго и третьего эшелонов по стране достигла нового пика в июле. В соответствии с текущими «экономическими, инвестиционными тенденциями, тенденциями развития недвижимости» и другими условиями Центр прогнозных научных исследований Китайской академии наук провел всестороннюю и авторитетную оценку, предсказав, что цены на жилье в Китае вырастут на 6,1% в 2020 году.

Рост цен на жилье во многих странах – обычное явление. Согласно статистике, опубликованной недавно Международным валютным фондом (МВФ), глобальный индекс реальных цен на жилье в третьем квартале 2019 года составил 167, что является самым высоким показателем с начала сбора статистики в 2000 году. Среди 63 опрошенных стран и регионов цены на жилье выросли в 45.

По сути, все цены на жилье являются денежными явлениями. Когда центральные банки снизили процентные ставки и приняли политику смягчения денежно-кредитной политики, спровоцировав рост мировой ликвидности. В июле прошлого года Федеральная резервная система впервые за более чем 10 лет снизила процентные ставки, и с тех пор только во второй половине прошлого года она снижала процентные ставки три раза. В частности, пострадавшие от эпидемии в этом году Соединенные Штаты и другие страны снизили процентные ставки практически до нулевого уровня и внедрила политику количественного смягчения, что привело к резкому росту цен на различные активы, такие как акции и недвижимость в разных странах. Особенно в странах, которые были более устойчивые во время эпидемии, например, в Южной Корее.

Кроме того, рост цен на жилье также связан с быстрым ростом стоимости строительства. С 2004 года средняя стоимость строительства в США выросла почти на 24%.

Среди них быстро растут цены на основные строительные материалы: сталь подорожала на 14%, пиломатериалы подорожали на 23%, сырая нефть подорожала на 49%. Если учесть повышенные тарифы на импортные стройматериалы, вызванные торговой войной, получается еще дороже. Более того, в США также действует фактор роста заработной платы из-за нехватки строителей, вызванной жесткой миграционной политикой, что также вынуждает постепенно повышать цены на жилье.

Глава 2. Стратегия конфронтации на рынке жилья Китая

Из-за региональной диспропорции влияющих факторов, при условии, что эпидемия не исчезнет внезапно, негативное влияние эпидемии на рынок недвижимости в ряде городов в целом превысит позитивное влияние слабой денежной конъюнктуры. В основном ситуация отражается в городах третьего и четвертого уровня. В других городах ситуация может быть противоположной. Однако в целом ситуация на рынке жилья остается положительной, что в основном проявляется в городах первого уровня и некоторых городах второго уровня. Это отражено в структуре цен на жилье, которая представляет собой неравномерный рынок со смешанными взлетами и падениями.

В условиях ранга нет никаких оснований для всеобъемлющего или устойчивого роста цен на жилье. На фоне воздействия эпидемии и слабой монетарной среды будут существовать риски краткосрочного локального роста или падения. Многоуровневые города легко становятся привлекательными для инвестиций, и рынок быстро набирает

обороты. Однако при своевременном проведении регуляторной политики рынок постепенно вернется к рациональности. В небольшом числе городов третьего и четвертого уровня, экономические основы которых серьезно пострадали от эпидемии, также может наблюдаться быстрое снижение цен на жилье.

Ввиду сложной внутренней и внешней ситуации, с одной стороны, необходимо придерживаться принципа «жилье, а не спекуляция» и усилить контроль за спекуляцией жилищными инвестициями в городах с большим давлением роста цен на жилье; С другой стороны, для более пострадавших семей необходимо уменьшить нагрузку на погашение кредита, чтобы избежать крупномасштабных дефолтов или распродаж, а также стимулировать потребление домохозяйств. В то же время необходимо ускорить реформу интеграции рынка земли, стимулировать потенциал развития отрасли недвижимости и способствовать долгосрочному экономическому росту.

1. Дальнейшее совершенствование мер по контролю за инвестициями в жилье и спекуляцией в городах первого и второго уровня. Города первого и второго уровня, по мнению обычных инвесторов, имеют относительно хорошую рыночную безопасность и ликвидность. В частности, некоторые города второго уровня имеют относительно слабую политику контроля и с большей вероятностью станут объектами концентрированных инвестиций и спекуляций при особых обстоятельствах. Модернизировать меры контроля в городах первого и второго уровня и увеличить ограничения на продажу в соответствии с местными условиями; улучшить политику ограничения покупок в городах первого и второго уровня, особенно в городах с относительно свободной регистрацией домохозяйств, а также повысить условия выплаты социального обеспечения для новых натурализованных покупателей жилья в соответствии с местными условиями; создать и улучшить совместный механизм предотвращения и контроля спекуляций с инвестициями на жилье в первого и второго уровня городов.

2. Усилить управление и контроль за использованием кредитных средств.

На фоне сужающегося социального спроса и относительно свободной денежной среды всевозможные средства легко «отключаются от реального в виртуальное» и перетекают в сферу недвижимости, увеличивая риск рыночных колебаний. Необходимо усилить контроль за кредитными средствами финансовых учреждений, усилить санкции за незаконный надзор за использованием средств, а также строго запретить все виды потребительских кредитов и бизнес-кредитов, не связанных с недвижимостью, поступающих на рынок недвижимости; строго ограничивать объемы и масштабы труппной реформы, избегать всевозможных местных долгов.

3. В сочетании с реформой выхода коллективных земель на рынок, продвигать реформу жилищно-земельной системы и уменьшать цены при одновременном увеличении предложения цен на жилье.

Хотя мою страну уже давно мучает проблема пузыря на рынке недвижимости, в истории развития стран мира не так уж часто бывает, что недвижимость имеет очевидные характеристики пузыря на фоне того, что урбанизация не закончилась, а общий уровень жилья городских жителей остается низким. Одной из очень важных причин являются жесткие ограничения, налагаемые двойной системой землеустройства на развитие отрасли в недвижимости. Недавно пересмотренный Закон об управлении земельными ресурсами создал определенные правовые условия для нарушения монополии на предложение земли и содействия прямому выходу на рынок коммерческих земель под коллективное строительство. Исходя из этого, мы должны и далее продвигать реализацию проектов коллективного землепользования, таких как коллективное строительство арендного жилья, и ускорить изучение упорядоченного оборота неиспользуемых коллективных земель под строительство, таких как усадьбы может не только улучшить жилищные условия жителей, но

и направить поток средств, сдержать раздувание пузыря на рынке недвижимости и стимулировать экономический рост, достигнув тем самым эффекта «одним камнем убиваем многих зайцев».

4. Своевременно и эффективно снижать краткосрочное бремя погашения задолженности домохозяйств.

Временное снижение процентной ставки по ипотечным кредитам, дополненное такими мерами, как временная отсрочка погашения основной суммы или изменение плана погашения основной суммы. Пострадавшие от эпидемии некоторые домохозяйства могут столкнуться с трудностями при погашении своих кредитов из-за снижения заработной платы и доходов, потерь в бизнесе или потери богатства. В текущий период процентные ставки по ипотечным кредитам на уровне 5%-6% могут оказать определенное экономическое давление на некоторые домохозяйства с нестабильными доходами. Своевременное временное снижение процентов по существующим жилищным кредитам поможет ослабить краткосрочное экономическое давление на домохозяйства, стимулировать потребление и снизить системные финансовые риски. Если действующие правила переоценки ставок по ипотечным кредитам

Таким образом, даже если базовая процентная ставка по ипотечным кредитам будет снижена или процентная ставка LPR будет снижена, это как правило, не вступит в силу до 2021 года, что может привести к упущению лучшего момента и увеличению волатильности рынка. Только путем своевременного и эффективного снижения процентных ставок по кредитам и отсрочки погашения основной суммы долга и принятия других мер по облегчению кредиторы не впадут в более глубокую «откатку прибыли».

Вывод: с точки зрения общей взаимосвязи новая эпидемия коронарной пневмонии оказала краткосрочное влияние на развитие рынка жилья в различных странах, но восстановление рынка жилья с февраля по март 2020 года имеет более важное значение. Со структурной точки зрения эпидемия COVID-19 привела к тенденции дифференциации рынка жилья: ресурсы для развития рынка в дальнейшем концентрируются в ведущих компаниях по недвижимости, а рынок земли вернулся в города первого эшелона и горячего второго уровня; жилье стало ускорителем распределения личных доходов и богатства; разные Кварталы долгосрочной аренды со столичным режимом эксплуатации будут разделены под тестом на эпидемию, а квартиры долгосрочной аренды с длинной капитальной цепочкой и широкий спектр охвата столкнется с ликвидацией во время эпидемии. Скачок на рынке недвижимости Шэньчжэня в условиях эпидемии сформировал парадокс с нисходящей тенденцией всей экономики и финансов. Мы полагаем, что причина этого парадокса вызвана дифференциацией: люди с высоким уровнем дохода первыми стимулировали рост цен на жилье в Шэньчжэне, а затем присоединились группы со средним доходом. Среди них, конечно, весь процесс также неотделим от поддержки кредитными средствами. В ответ на тенденцию к дифференциации и возрождение пузырей в некоторых областях мы выдвинули следующие политические предложения: во-первых, цель жилищной политики должна быть смещена с поощрения предложения жилья на сосредоточение внимания на защите уязвимых групп и поддержке жилищных потребностей населения, группы со средним доходом и сосредоточение внимания на решении проблемы несбалансированного развития рынка жилья. Во-вторых, улучшить возможности надзора за рынком аренды жилья, особенно возможности надзора за жилищным финансированием. В-третьих, придерживаться принципа «жилье, а не спекуляция», сохранять решимость политики и сдерживать пузыри цен на жилье.

INTERNATIONAL ECONOMIC ORGANIZATIONS AND THEIR IMPACT ON AZERBAIJAN ECONOMY

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ABSTRACT

In the current conditions, it is extremely important to re-evaluate the role of traditional institutions in the development of international cooperation, including the orientation of regional cooperation, international capital flows, foreign economic policy and activities of international economic organizations according to new requirements. In this regard, the issues listed above have become the subject of research in the dissertation work. Thus, international organizations have empirically entered the structure of the BIM system, being an important element that requires new forms of regulation in the coordination of world economic relations, which are impossible especially in the conditions of economic globalization. The current global economic crisis in the world economy and its consequences show that strengthening international cooperation and enriching it with new features has become an urgent problem. In countries with limited natural, human and financial resources, it is very difficult to meet the needs of the population only by relying on these resources. In such conditions, it is practically impossible to meet the growing needs of the population without international cooperation, permanent and uninterrupted exchange between regions and countries. All this necessitates the existence and constant development of international cooperation between the countries, determines its importance for the national economies.

Key words: international, economic, Azerbaijan, impact, organizations

Introduction

The expansion of mutual economic relations between the states and the strengthening of their mutual dependence require multilateral regulation of these relations, and as a result, more complete use of the advantages of the international trade budget is ensured.

Multilateral regulation does not affect the national sovereignty of the participating states, but it affects the correct adoption of state decisions regarding international trade and economic relations.

International economic organizations mean an institution that encompasses multilateral interstate relations, has a goal, competence, permanent body, and specific political organization norms agreed by the participants.

It consists of the form of cooperation between international organizations. Currently, there are more than 4 thousand international organizations in the world, including more than 300 interstate organizations. The United Nations is at the center of this system.

They are classified according to the criteria applied to international organizations:

1) according to the nature of the organization and the status of the participant, international organizations are divided into 2 places:

- Inter-state organizations;
- Non-governmental organizations

2) According to the composition of the participants:

- universal organizations open to all states

- regional organizations;
- 3) According to competence:
 - Universal organizations covering all political, economic, social, cultural spheres existing among member states;
 - Specialized organizations covering one relationship.
- 4) According to the given powers:
 - Interstate organizations;
 - interregional organizations.
- 5) According to the conditions of participation in the contest:
 - open organizations of which the requested state can be a member;
 - but closed organizations that give the right to become members upon the invitation of the original founders.

A widespread method of establishing international organizations is the conclusion of international agreements. The contract is the foundation document of the organization and can be called in different ways:

- Charter;
- Convention;
- Status.

International economic organizations occupy a special place among international organizations. International economic organizations that implement the issues of regulation and cooperation in the world economic system are classified according to 2 main principles:

- 1) According to the principle of organization
- 2) According to the multi-faceted regulatory framework

According to the principle of organization, international economic organizations are divided into the following groups:

1. International economic organizations of the UN system;
2. International public organizations that are not included in the UN system;
3. Regional economic organizations

According to the scope of multilateral regulation, international economic organizations are divided into the following groups:

1. International organizations that regulate the economy, industry and world economy.
2. International economic organizations included in the world trade regulation system;
3. Regional business organizations included in the world economy regulatory system
4. International and regional economic organizations that regulate business activity;
5. International non-governmental organizations and associations that help the development of international economic relations. [3, p. 17]

The United Nations Organization

Starting from the 19th century, the development of the world industry gave impetus to the processes of international civil integration and thereby necessitated the creation of international organizations.

The Universal Telegraph Union, founded in 1865, and the Universal Postal Union, founded in 1874, were the first international organizations. Currently, there are more than a thousand international organizations with different legal status.

The United Nations Organization (United Nations Organization, UNO) is an intergovernmental international organization established in 1945. Currently, 193 countries are members of this organization. The Vatican is not a member of the UN. The headquarters of the UN is located in New York City. The main task of the UN is to protect and strengthen international peace and security, to develop cooperation between states.

The UN was created after the Second World War and set the following goals:

1. Preservation of international peace and security
2. Development of friendly relations between nations and assistance in social progress
3. Increasing the level of protection of human life and rights

The UN Charter was signed by 50 nations at the San Francisco Conference on June 26, 1945. was signed by his representative and entered into force on October 24, 1945.

Main bodies of the UN:

1. UN General Assembly
2. UN Security Council
3. Economic and Social Council
4. Board of Trustees
5. International Court
6. Secretariat

The Republic of Azerbaijan has been a member of the UN since 1992. Member countries define their rights and duties among themselves as members of the world community based on the UN Charter. [5, p.36]

In addition to the International Court of Justice located in The Hague, Netherlands, other institutions are located in New York, at the UN headquarters.

- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Children's Fund (UNICEF)
- United Nations Development Program (UNDP)
- Specialized organizations that carry out activities in the fields of development, humanitarian aid and protection of human rights, such as the United Nations High Commissioner for Refugees (UNHCR).

UN specialized organizations:

- The United Nations Secretariat Building.
- International Labor Organization (ILO)
- Food and Agriculture Organization of the United Nations (FAO)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- World Health Organization (WHO)
- World Bank (WB)
- International Monetary Fund (IMF)
- International Civil Aviation Organization (ICAO)
- Office on Drugs and Crime (UNODC)[3]
- Universal Postal Union (UPU)
- International Telecommunication Union (ITU)
- World Meteorological Organization (WMO)
- International Maritime Organization (IMO)
- International Intellectual Property Organization (WIPO)
- International Fund for Agricultural Development (IFAD)
- United Nations Industrial Development Organization (UNIDO)
- High Commissioner for Refugees (UNHCR)
- International Atomic Energy Agency (AEBA)

The goals of the UN are:

- To maintain international peace and security through the peaceful settlement of conflicts and the adoption of collective measures
- To develop friendly relations between countries on the basis of respecting the principle of self-realization and equality of the people
- To implement international cooperation in solving international humanitarian, cultural, social, economic problems

- To ensure respect for human freedom and human rights for all people without any distinction

UN principles:

- ✓ Equality of all its members
- ✓ To faithfully fulfill the obligation accepted by the statute
- ✓ Peaceful settlement of international relations
- ✓ To refrain from using force by one country on another country in international relations
- ✓ To ensure international peace and security
- ✓ Not to interfere in the internal affairs of states
- ✓ To respect the basic rights and freedoms of people
- ✓ Self-governance and equal rights of peoples
- ✓ Cooperation and disarmament

In general, the creation of intergovernmental global organizations aims to eliminate wars, national, economic and other such conflicts and support peace.

"League of Nations" (1919), which is considered one of such projects, did not have any effect on political and international cooperation. The League of Nations was created immediately after World War I. At first, it included 42 countries, 26 of which were European states. Members of the League of Nations have not been more than 57 countries throughout history. National governments believed that only an international organization could preserve peace and save people from a recurrence of war in Europe. [1, p.98]

World Bank

The World Bank (eng. World Bank) is one of the largest donor organizations in the world that serves the goals of global economic development and ensures the distribution of financial resources. It was established on July 1, 1944 at the Bretton Woods conference. The World Bank is not a bank in the classical sense, but a specialized agency. It is one of the specialized agencies of the United Nations (UN). This agency, created by the UN, currently has 184 members.

Member countries control the activities of this institution. The World Bank provides long-term loans and grants to developing countries at very low interest rates or without interest. The World Bank also cooperates with the government of Azerbaijan in the direction of structural reforms.

Main objective

The main objective of the Bank is to help poor countries in implementing structural reforms and reducing poverty. The World Bank uses its financial resources, highly qualified personnel and knowledge base to achieve stable and sustainable development in individual countries.

When the bank was established, its initial purpose was to implement and finance reconstruction works in the countries that were destroyed in the Second World War. There are many features that distinguish this bank from other banks. No one can open an account in this bank. The clients of this bank are only states.

The World Bank has an indispensable role in the development of the world economy and many other socio-cultural areas. As the name suggests, the World Bank is the main central bank of the world.

The World Bank regulates the banking sector of the countries of the world, that is, it periodically provides those banks with information and its advice.

The main direction of the World Bank's activity is to help developing countries and poor countries in the period of economic transition through loans and to reduce the level of poverty, as well as to ensure the development of member states.

The World Bank allocated its first loan (250 million dollars) to France for post-war reconstruction. The official name of the World Bank is: "International Bank for Reconstruction and Development". [4, p.45]

World Bank Group

The World Bank Group refers to the following institutions:

- International Bank for Reconstruction and Development (IBRD)
- International Development Association (IDA)
- International Finance Corporation (IFC)
- Multilateral Investment Promotion Agency (MIA)
- International Center for Settlement of Investment Disputes (ICDR)

Currently, the World Bank Group is a huge economic organization with 185 member countries. The World Bank focuses its activities in developing countries (LDCs) mainly on the following areas:

- Human development (eg education, health)
- Development of agriculture and villages (e.g. "irrigation" - artificial watering of land without water, services provided to villages)
- Environmental protection (e.g. reducing pollution)
- Infrastructure (eg roads, urban growth, electricity supply)
- Governance (e.g. anti-corruption, development of democratic institutions)

The International Finance Corporation (IFC) and the Multilateral Investment Promotion Agency (MIA) include investments in the private sector and act as guarantors of these investments.

The World Bank Group is one of the specialized agencies of the UN. The headquarters of the organization is located in Washington. By tradition, the President of the World Bank should be a citizen of the country of the largest shareholder. The president is elected for a 5-year term and exercises general control. [6, p.125]

Bretton Woods currency system

The Bretton Woods system is an international system of international monetary relations and trade settlements established as a result of the Bretton Woods conference held from July 1 to 22, 1944 (New Hampshire, USA).

The Bretton Woods system replaced the "gold standard" system. The conference laid the foundation for institutions such as the International Bank for Reconstruction and Development and the International Monetary Fund (IMF).

The Bretton-Woods currency system is a system of international mutual calculation and currency relations that existed in 1944-1976. It was the Bretton Woods system that turned the dollar into a means of international settlement and reserve storage.

The main principles of the Bretton Woods monetary system are as follows:

- 1 US dollar is accepted as an international settlement currency that can be exchanged for 1 troy ounce at 35 dollars.
- Other world currencies such as the British pound, German mark, etc. are pegged to the dollar
- Central banks ensure a stable exchange rate of their currency by using foreign exchange intervention
- If necessary, the participating countries can devalue or revalue the currency

The Bretton Woods system was created to bring the world economy to a new level after the Second World War. It is considered that he has fulfilled his duty. However, later developing world trade requires more settlement funds than the US dollar backed by cash gold. For this reason, in 1976, the exchange of currency with precious metals was completely stopped.

International economic organizations and Azerbaijan

The development of international economic cooperation requires, first of all, the expansion of mutual relations between countries, and in this case, one of the main directions should be to expand relations with various organizations that regulate world economic relations and the international economy. Since the first years of independence, Azerbaijan has tried to establish and deepen relations with international organizations. [7, p.65]

Cooperation relations of the Republic of Azerbaijan with a number of international organizations can be broadly interpreted as follows: The Republic of Azerbaijan has been a member of the United Nations since March 2, 1992. Over the years, our country has closely participated in the activities of various UN specialized agencies, and has been widely represented from the General Assembly of the organization to the working bodies at the level of experts.

The Republic of Azerbaijan was admitted to the UN membership on March 2, 1992, and the Permanent Mission of Azerbaijan to the UN was opened on May 6, 1992. Starting from the first day of cooperation with the UN, Azerbaijan tried to attract the attention of the international community to the Armenian-Azerbaijani conflict from the UN platform and to reach a peace agreement using the potential opportunities of the UN. During 1993, the UN Security Council (SC) adopted resolutions No. 822, 853, 874, 884 on the Armenia-Azerbaijan conflict.

Each resolution was adopted as a result of the occupation of Nagorno-Karabakh and other territories of the Republic of Azerbaijan by the armed forces of Armenia. These resolutions reconfirmed Azerbaijan's territorial integrity and demanded immediate ceasefire, cessation of hostilities and withdrawal of occupying forces from the territory of the Republic of Azerbaijan.

Unfortunately, the provisions of the known resolutions have not been implemented so far. Azerbaijan actively and effectively cooperates with many special institutions and bodies of the UN. Among them are the UN High Commission for Refugees, the UN Children's Fund, the UN Educational, Scientific and Cultural Organization, the Industrial Development Organization, the World Health Organization, the UN Women's Fund, the International Atomic Energy Agency, on the Comprehensive Ban on Nuclear Tests Treaty Organization, etc. can be noted.

Cooperation between Azerbaijan and the United Nations Children's Fund (UNICEF) was established in order to improve the situation among internally displaced and refugee children and adolescents. Azerbaijan was a member of the Executive Board of UNICEF in 1995-1997, 1998-2000. Taking into account the importance of education, science and culture, Azerbaijan cooperates widely with the United Nations Educational, Scientific and Cultural Organization (UNESCO), and for this purpose, in 1994, according to the Decree of the President of Azerbaijan, the National Commission of Azerbaijan under UNESCO was established. In particular, the UNDP has greatly assisted the post-conflict recovery process by building the capacity of the Azerbaijan Recovery and Reconstruction Agency (ARRA) and the National Agency for Clearance of Areas (ANAMA).

The UN Development Program, the World Bank, the United Nations High Commissioner for Refugees (UNHCR), the European Union (EU) Technical Assistance to the Commonwealth of Independent States (TACIS) program, etc., in support of the ARRA. realize. In terms of the development of economic relations and the integration of Azerbaijan into UN institutions, the United Nations Development Program (UNDP), the United Nations Industrial and Development Organization (UNIDO) and the UN Special Program for Central Asian economies (SPECA Program) can be mentioned. UNDP has been active in Azerbaijan since 1993. [6, p.78]

Three Country Cooperation Framework documents have been adopted for Azerbaijan. After the second Country Cooperation Framework document covering the years 2000-2004, a new Country Cooperation Framework document for the years 2005-2009 has started to be implemented, and the following are the main priority directions of this document:

- Organization of the management system for the creation of favorable conditions for the purpose of development, poverty reduction, protection of rights and freedoms;
- Ensuring the needs of the population in the field of health and education.

The Development Assistance Framework (UNDAF) covering the years 2011-2015 is under preparation. The Republic of Azerbaijan has been a member of the United Nations Industrial and Development Organization (UNIDO) since 1993. "Memorandum on cooperation in the field of industrial development" was signed between the organization and Azerbaijan on June 5, 2000. In

2005, "Framework Program on Cooperation for 2005-2010" was signed between Azerbaijan and the Organization. The organization works in Azerbaijan in a number of areas, including increasing energy efficiency, developing national industrial statistical programs, supporting small and medium entrepreneurship, improving the environment, etc. various projects are implemented in the fields.

The main goal of the UN Special Program for the Central Asian Economies (SPECA) is to support the integration of the countries of the region and promote their joining the world economy, financing priority issues that will be solved more effectively through joint efforts. Azerbaijan has been a member of SPECA since 2002.

Azerbaijan takes an active part in the elections to these bodies by nominating its candidates to the relevant bodies and institutions of the UN. As mentioned earlier, Azerbaijan was a member of the UNICEF Executive Board in 1995-1997, 1998-2000, the Commission on the Status of Women in 2000-2002, and the UN Commission on Sustainable Development in 2002-2004. Azerbaijan was elected a member of the UN Economic and Social Council (ECOSOC) for 2003-2005. Azerbaijan recognizes that the UN plays an important role in the strengthening and protection of international peace and security, in the process of sustainable development and democratization. Azerbaijan supports the idea of carrying out reforms within the framework of the UN so that the UN can fight against threats and problems in the 21st century.

Its main goal is to ensure macroeconomic and financial stability in the global, regional and local context, help international trade, accelerate full employment and sustainable economic growth, reduce poverty, restore the international payments system around the world, regulate exchange rates, increase international cooperation in international currency and financial markets. Azerbaijan has been admitted to the International Monetary Fund (IMF) membership since September 18, 1992.[3, p.39]

The initial quota when accepting members of the fund is 117 mln. SDR (168 million US dollars), and since 2000, our quota has been increased to 160.9 million SDR. IMF programs, especially for developing countries, are usually implemented within the framework of the Structural Reform Program (SRP). Cooperation relations of the IMF with Azerbaijan were also established in the context of SIP.

It should be noted that during the period of preliminary assessment of cooperation relations, the economic effect of the programs implemented by the IMF in Azerbaijan was great. Thus, in order to get out of the deep economic crisis faced by the country in 1992-1994, the program of structural reforms carried out with the financial support of the IMF made it possible to balance the internal and external balance and ensure economic stability.

Starting from 1995, as a result of the strict fiscal and monetary policy carried out within the framework of structural reforms, the financing of the state budget deficit at the expense of inflationary sources was stopped, and foreign financial sources were preferred in this area, and thus inflation has been lower than its hyperinflationary level - 6% since 1996. fell, the exchange rate of the manat against the US dollar stabilized and real economic growth was achieved.

In accordance with Article IV of the Articles of Agreement between the IMF and the Government of Azerbaijan, in addition to the financial assistance provided to the government of Azerbaijan to support the implementation of economic programs, the IMF provides technical assistance, institutional and monetary management capacity building in Azerbaijan in a number of areas, including public expenditure management, taxation also provided technical assistance in the fields of policy and management, central banking, bank supervision, monetary policy and statistics. [1, p.19]

Azerbaijan benefited from training provided by the IMF in the fields of macroeconomic analysis and policy, financial programming, fiscal policy and management, central bank accounting and bank supervision, the Accounting Chamber was established, the Law on the new Budget System

was adopted, the Oil Fund was established and its transparency was ensured, tax and customs management systems have been improved, as well as the bank control system has been strengthened, the Government and the Central Bank are implementing sound monetary and credit and budget policies.

From the five institutions included in the World Bank, the Republic of Azerbaijan became the International Bank for Reconstruction and Development on September 18, 1992, the Multilateral Investment Guarantee Agency on September 23, 1992, the International Investment Dispute Settlement Center on October 18, 1992, and the International Development Association on 1995 March 31, and became a member of the International Finance Corporation on October 11, 1995.

The World Bank's ongoing projects include the following:

- "National water supply and sewerage services - II" project;
- "Main highway - III" project;
- "Rural investment" project;
- "II Agriculture development and lending" project;
- "Restoration of electric transmission system" project;
- "Corporate and budget sector accountability" project;
- "Unified household solid waste management" project;
- "Development of the education sector - II" project;
- "Pension and social security" project;
- "Development of social protection" project;
- "Modernization of the Justice System" project;
- "Reforms in the health care sector - II" project;
- "Assistance to the economic development of internally displaced persons" project (additional financing);
- "Registration of real estate" project;
- "Strengthening of personnel potential for state investments" project;
- "Supporting railway trade and transport" project.

Azerbaijan became a member of the European Bank for Reconstruction and Development (EBRD) on September 25, 1992. The following refer to the projects implemented by EBRD at the expense of state-guaranteed loans:

- Construction of Yenikend Water Power Station;
- Reconstruction of Mingachevir Water Power Station;
- Modernization of air navigation system;
- Reconstruction of Azerbaijan-Transcaucasia railway network;
- Improvement of the water supply system of Greater Baku;
- Hajigabul - Kurdamir highway reconstruction project.

The following applies to the ongoing projects related to the cooperation between Azerbaijan and the EBRD:

- Baku - Samur highway reconstruction project;
- Rehabilitation of Azerbaijan Thermal Power Station.

The development of foreign economic relations and, on this basis, the effective integration of the country's economy into the world economic system is considered one of the main directions of the socio-economic development strategy of the countries that have recently regained their state independence, including the Republic of Azerbaijan. [2, p.23]

Independent Azerbaijan is rapidly integrating into the world community. Today, Azerbaijan is recognized as an equal partner in the international world, and a long-term cooperation system is established with it. In such conditions, strengthening of trust in the country is of particular importance, and this trust can be built on a number of principles. One such principle is

membership in the World Trade Organization. Azerbaijan wants to become a member of the mentioned organization with the status of "developing country".

The WTO is an international organization established in 1995 as a successor to the General Agreement on Tariffs and Trade (GATT - General Agreement on Tariffs and Trade). The WTO is the only international organization that defines the global rules of trade between states. Its main function is to ensure that trade is conducted in a balanced, unhindered, predictable and free manner. The goal is to improve the welfare of the population of the member countries.

In 1997, the government of the Republic of Azerbaijan decided to apply for membership in the World Trade Organization (WTO). Immediately after that, he began to prepare documents necessary for the discussion of the terms of his membership in the WTO and to justify the application. Our country had to organize an appropriate regulatory regime in order to establish relations with other countries and take its own place in the international world.

Currently, Azerbaijan has observer status in this organization and is working purposefully to be admitted to the WTO. Azerbaijan's WTO Coordination Group was established, and this group implements the entire negotiation process. Becoming a member of the WTO is a complex process. It is not only a matter of reading agreements on tariffs and concessions for services to be offered by foreigners. The applicant hopes to improve and modernize its foreign trade laws by including foreign trade regulatory measures and other normative legal acts. WTO requirements for improving trade rules are the most beneficial advantage of the membership process. Regardless of the decision to join the WTO, it is an advantage to have transparent and effective laws. The principles and norms of the Uruguay Round are generally beneficial for the country's trade regardless of any considerations.

They reduce transaction costs and increase the country's competitiveness in trade. Becoming a member of the WTO is not easy. Unlike the UN or most other international and regional organizations, WTO membership applications are not required to be examined or vetted. The WTO has a rigorous and complex admissions process, and obtaining membership depends on an accurate and detailed examination of the applicant's qualifications. After several years of careful review of documents and other information, the applicant must establish an existing system that is at least in writing, if not de facto, consistent with WTO norms and rules to the satisfaction of all WTO members.

The period of consideration of the request of the requesting country is not subject to any pressure or limitations. There is no deadline here. The inquiry may continue as long as WTO member countries wish or consider it necessary.

It can be seen from the dynamics of the process of admission to WTO membership that successively, the last member countries took on more extensive obligations compared to the first member country. This is related to the increase in the demands of WTO members towards the candidate countries. [6, p.94]

However, there are some exceptions and it depends on each country to develop an effective negotiation strategy and tactics and conduct successful negotiations.

On June 23, 1997, the application reflecting the desire to become a member of the WTO was submitted to the WTO Secretariat by the Republic of Azerbaijan. On July 16, 1997, the WTO Secretariat decided to establish a Working Group on Azerbaijan. On April 22, 1999, the Memorandum on the foreign trade regime of the Republic of Azerbaijan was submitted to the WTO Secretariat. On November 19, 1999, an inter-organizational Coordination Group was established by the Decree of the Cabinet of Ministers of the Republic of Azerbaijan No. 226s on the acceleration of the process of accession of the Republic of Azerbaijan to the WTO. On June 3 - 7, 2002, the First Meeting of the WTO Working Group on Azerbaijan was held in Geneva. On August 22, 2003, the Commission on preparatory work for the accession of the Republic of Azerbaijan to the WTO was established by Order No. 175s of the Cabinet of Ministers of the

Republic of Azerbaijan. 11 The desire of the Republic of Azerbaijan to join the WTO stems from the modern Trade Policy of the country.

The main goal of this policy is to enter the world economy and international trade on the most efficient and favorable terms.

A number of important tasks can be carried out by achieving these tasks:

- Entry of goods and services of Azerbaijani origin to international markets under favorable and non-discriminatory conditions;
- strengthening the export potential of the country and improving the structure and composition of exports in general;
- Protecting the rights of local producers in an "open" economy using WTO rules.

The main advantages of the Republic of Azerbaijan becoming a member of the WTO:

- creation of more favorable, non-discriminatory, stable and predictable conditions for the development of trade and other forms of foreign economic activity;
- acquisition of a very efficient (and practically the only) trade dispute settlement mechanism of the WTO, which serves to protect the trade interests of the member states from unfair harm;
- Adaptation of international experience in the field of foreign economic activity and trade regulation to relevant legislation by applying WTO norms and rules to Azerbaijani practice.

The main goal of Azerbaijan to become a member of the WTO is as follows:

- To benefit from concessions given to each other by WTO member countries;
- Accelerate the process of integration into the World economy system, based on the general rules adopted by the WTO with most countries of the world; carry out operations;
- Achieving an increase in assistance from international organizations and countries to the economic reforms carried out in the country;
- To attract more foreign direct investments after applying WTO rules;
- Access to the WTO's dispute settlement mechanism.

During Azerbaijan's accession to the WTO, the question of how to liberalize the national services market is more important than how to protect it. In this regard, I also believe that the participation of foreign law and natural persons in the services market of Azerbaijan will significantly stimulate the activities of local legal and natural persons. Membership in the WTO will allow:

- expansion of competitive national services and the participation of those who produce them in foreign markets;
- Transition to a multilateral regulatory system based on the Most Favored Mode and without discrimination;
- reliable protection against the application of discriminatory measures by other countries.

During the WTO membership negotiations, the fact that agriculture is the leading sector of the country's economy, the good traditions of the agricultural sector, the availability of agro-climatic resources favorable for the development of this sector, and the fact that more than half of the country's population lives in rural areas should be emphasized. As it is known, agriculture is the most contentious field both in the negotiations during the accession to the WTO and in the trade negotiations carried out within the framework of the WTO as a whole.

This is once again confirmed by the experience of the member countries, as well as the Ministerial Conferences held in Cancun and Hong Kong. The formation of a legislative framework that meets modern requirements is one of the important advantages of Azerbaijan's membership in the WTO.[3, p.52]

Countries that are members of the WTO guarantee the provision of Most Favored Treatment in all areas of services and undertake corresponding obligations. This means that the same trade regime should be applied to all members of the WTO and no country should be discriminated against. In the process of Azerbaijan becoming a member of the WTO, the main tactical task for

services is to ensure that obligations related to the liberalization of traditional, as well as newly created and still insufficiently developed important service areas are connected with the current level of development of those service areas.

Internationalization of economic life, all directions of Azerbaijan's integration with the modern world, which is going on under difficult conditions, create new opportunities as well as new problems and sometimes threats. Effective use of these opportunities, timely detection of existing problems and threats its study is one of the issues of vital importance for Azerbaijan today.

Starting from the first years of its independence, the Republic of Azerbaijan tried to establish mutual economic relations with the countries of the world in order to restore its destroyed economy. First, Azerbaijan expressed its intention to establish friendly and cooperative relations with neighboring countries, and began to be represented in various international economic organizations and regional economic institutions. The real political independence of developing countries is achieved only by them achieving economic independence

The Republic of Azerbaijan struggled to achieve economic independence at this stage as it was strengthened.

In terms of foreign trade turnover, Azerbaijan is the undisputed leader in the South Caucasus. Thus, the annual foreign trade turnover of neighboring Georgia and Armenia is only 7 billion dollars. This is almost 5 times less than Azerbaijan's foreign trade turnover. As it can be seen, a significant part of the foreign trade turnover of the region falls on the share of Azerbaijan.

Immediately after regaining its independence, Azerbaijan started active cooperation with regional economic blocs and organizations within the framework of multilateral cooperation.

Currently, it can be said that in the post-Soviet space there are many integration directions and "islands of regional integration". Each country, based on how it sees its place and role in the directions of multifaceted integration, ways to join the "global society", tries to find and choose the options it considers optimal for itself, and searches for allies and partners based on this choice.

CIS was one of the first regional economic institutions in which our republic was represented. At the time of the creation of the CIS, the member countries hoped that they would be able to overcome the economic barriers that divided them and reveal opportunities for joining efforts in favor of the creation of a free national economy in each of the member countries. However, analyzing some results of the economic activity of the CIS, it can be noted that most of its opportunities remained unrealized.

The agreement was implemented only in the area of reduction of customs duties, and this was partially implemented. As for the introduction of a single customs tariff, the unification of trade and economic policy, and the provision of free movement of capital and labor, these measures were not implemented. The CIS played a secondary role in the economic life of all post-Soviet countries and could not make fundamental changes in the economic life of its members. The most unhelpful of the legal legacy of the Council for Mutual Economic Assistance, founded on bureaucratic principles and later disbanded, is related to decision-making rules. This is the method of making decisions on the basis of consent, and this is called the principle of "disinterestedness", that is, any state has the option of not participating in any issue considered by the bodies of the Union at its unilateral discretion.

In such legal settings, it is difficult to expect effective decisions, especially their mandatory implementation. It is the strict norms of adoption and implementation of decisions issued by the bodies of the European Union that enable the success of the economic cooperation of the countries of the European Union.

The Commonwealth of Independent States, which was mainly political in the early 90s and aimed at establishing interstate relations between the countries of the former USSR, is now more focused on defining the concrete frameworks of economic integration between member

countries. The Republic of Azerbaijan has established a free trade regime with a number of CIS countries, and a legal basis for free investment has been drawn up.

Despite seemingly favorable economic factors, the CIS has been less successful, as countries have tried to create a functional and effective economic grouping with different political regimes and different socio-economic orientations.

The social and political diversity of the CIS member states and the difference in their economic interests led to different approaches to the creation of the common market and the inconsistency of the socio-economic policies of its participants. The experience of the newly independent states that joined the CIS shows that economic cooperation between them is primarily the most intensive foreign trade operations.

was developing in his sphere. A special place belongs to foreign trade in the system of relations of the CIS countries, because it traditionally connects and continues to connect the states included in it. In addition, foreign trade plays a very important role in the reproduction process of these countries. [7, p.102]

The second direction of the regional cooperation of the Republic of Azerbaijan with foreign countries within the framework of the CIS is the liberalization of mutual trade and the stimulation of its growth (by regulating the problem of mutual payments, eliminating tariff and quantity restrictions on commodity circulation). This direction can undoubtedly be an important factor in strengthening the economic independence of the newly independent state.

The international legal foundations of the CIS created a basis for the newly independent member states to closely cooperate in trade exchange and solving economic and financial problems in the fields of customs, monetary system, agriculture and industry.

The desire to create a CIS common market was the true economic goal of the creation of the CIS. This goal could be seen as the first step towards the creation of an economic union between the newly independent countries that signed the economic agreement under the auspices of the CIS. It is known that this treaty was open and other states were encouraged to join it.

Thus, the fate of a number of multilateral agreements on cooperation also happened to the idea of creating the CIS common market, for example, the idea of realizing the Arab common market, that is, in practice, the relations between its participants will be regulated not by multilateral agreements adopted within the framework of the union, but by bilateral agreements on cooperation between the participating countries. started

Measures on the legal regulation of the interstate economic cooperation of the CIS countries were implemented and are being implemented on a bilateral basis as well as on a multilateral basis. As for multilateral acts, it should first of all be noted that after the Minsk Agreement and the Alma-Ata Declaration, the most important multilateral document dealing with economic cooperation issues is the CIS Agreement, which was adopted on January 22, 1993 by the decision of the highest body of the CIS - the Council of Heads of State. Charter (except for Moldova, Turkmenistan and Ukraine).

In accordance with Article 102 of the UN Charter, the importance of the international agreement conditioned by the ratification and registration of the participating states at the UN Secretariat was given in the Charter. Among the goals and principles of the CIS, the charter declared the following: comprehensive and balanced economic and social development of the participating states within the framework of the common economic space; interstate cooperation and integration; development of mutually beneficial economic and scientific-technical cooperation, expansion of integration processes. [4, p.68]

In the early 1990s, the CIS, which was mainly political in nature and aimed at establishing interstate relations between the countries of the former USSR, is currently more focused on defining the concrete frameworks of economic integration between member countries. A free trade regime has been established between the Republic of Azerbaijan and a number of CIS

countries, and a legal basis for free investment has been drawn up. In addition, a number of important documents have been drawn up within the framework of the CIS, including:

- CIS economic development strategy for the period until 2020;
- Action Plan for the implementation of the first stage (2009-2011) of the economic development strategy of the CIS for the period until 2020;
- Implementation Plan of measures aimed at increasing the efficiency and development of cooperation between the CIS member states in the economic field in 2003-2010;
- Annual reports on trade and economic relations between CIS member states, reflecting the socio-economic situation, as well as development prospects.

RESULTS

International economic organizations are an international cooperation institution with a multi-sector agreed goal, permanent body, competence and a tool for regulating international economic relations. In the framework of international economic organizations, intense negotiations are held on general economic or special issues, solutions to controversial and conflicting issues are sought, and relations between member states of these organizations are created and developed.

International economic organizations act relatively freely in international economic relations on their own behalf, as well as on behalf of the states that are members of the organization and participate in the conclusion of international agreements with their own decisions.

After the independence of Azerbaijan, one of the first issues that Azerbaijan paid attention to was international economic relations and cooperation with international organizations. Because these organizations play an important role in helping to accelerate Azerbaijan's transition to a free market economy system and in eliminating the problems caused by the transition period and war conditions.

In the Republic of Azerbaijan, since 1995, economic reforms have been implemented in a complex and systematic manner. This process is carried out in close cooperation with international financial institutions, including the International Monetary Fund, the World Bank, the European Bank for Reconstruction and Development, the World Trade Organization, the World Customs Organization and others.

The final stage of negotiations for Azerbaijan's WTO membership has already been entered. Since international economic organizations are subjects of interstate relations on the one hand, and international law on the other hand, they play a practical role in strengthening, developing and resolving mutual economic relations of international legality and interstate controversial issues.

Protecting the interests of our country in international trade, establishing trade relations on the same terms as with foreign counterparts, creating additional incentives for the development of national production, strengthening the position of Azerbaijan and raising its image in the international world, ensuring the unimpeded export of goods and services of Azerbaijani origin to the world market, strengthening the export potential of our country. and in general, in terms of improving the structure of exports, increasing the quality of products produced in the country under conditions of healthy competition, Azerbaijan's admission to the WTO is of great importance.

In order to improve the export, the existing legal framework should be constantly improved, a dynamic legal mechanism reflecting the realities of the time should be developed, and specifically, a special program should be developed, where export areas and their priorities should be defined.

Countries are looking for ways to increase production efficiency and further develop science and technology by solving the problems faced for the revival of their national economy through international economic cooperation and scientific and technical cooperation. In order to achieve all these, our country should take advantage of the advantages of international division of labor

by trying to expand and develop international economic and trade relations, and develop cooperation with international and regional economic organizations.

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An analysis of tourism-led growth hypothesis in Turkey

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Abstract

Given the importance of the tourism sector in the sectoral composition, this paper investigates the causality relationship between tourist arrivals and economic growth in Turkey over the period 1996-2021. In order to address the aggregation bias problem, the analysis includes 10 major tourism partners. Empirical results indicate the validity of the tourism-led growth hypothesis for all markets suggesting the importance of aggregation bias in tourism economics.

Key words: tourism, growth, Turkey.

1. Introduction

Tourism has been the fastest-growing industry in recent years. Therefore, the effects of tourism on economic activity have been investigated so often by scholars. Table 1 describes how tourism activities affect economic growth in detail.

Table 1. Impact channels of tourism activities on growth

Impact channel	Reflection
Foreign exchange channel	Tourism is a significant foreign exchange earner which allows for payment of imported capital goods or basic inputs used in the production process.
Infrastructure and competition channel	Tourism spurs investments in new infrastructure and increases the competitiveness of local firms against foreign firms.
Inter-industry channel	Tourism promotes other industries through direct, indirect, and induced impacts.
Production channel	Tourism creates new employment opportunities and income.
Exploitation channel	Tourism causes positive exploitation of economies of scale in national firms.
Spillover channel	Tourism accelerates the diffusion of technical knowledge, stimulation of research, and the accumulation of human capital.

Source: Chou, 2013: 226.

The causal relationship between tourism and economic growth has been well-documented. The causality between these two variables has categorized as follows: (i) *tourism-led growth hypothesis* indicates uni-directional causality from tourism to economic growth (ii) *growth-led tourism hypothesis* indicates uni-directional causality from economic growth to tourism; (iii) *feedback hypothesis* indicates bi-directional causality between tourism and economic growth; and (iv) *neutrality hypothesis* indicates no causality between tourism and economic growth.

Tourism economics literature includes a plethora of studies in the case of Turkey. Among them, a great number have found the validity of the tourism-led growth hypothesis (Gunduz and Hatemi-J, 2005; Kaplan and Celik, 2008; Husein and Kara, 2011; Aslanturk and Atan, 2012; Aslan, 2014; Tugcu, 2014; Ertugrul and Mangir, 2015). The number of studies reporting the validity of the

feedback hypothesis (Demiroz and Ongan, 2005; Tugcu, 2014) and neutrality hypothesis (Katircioglu, 2009; Ozturk and Acaravci, 2009; Aslanturk et al., 2011) have been relatively limited. Considering the aggregation bias problem, the purpose of this study is to examine the validity of the tourism-led growth hypothesis in Turkey using data for disaggregated tourism markets. The remaining sections of the paper are set out as follows: section 2 describes the model and data, section 3 presents empirical methodology and findings, and, finally, section 4 gives concluding remarks.

2. Model and data

This study utilizes a basic panel data equation that describes economic growth as a function of tourist arrivals. The analysis depends on annual data spanning from 1996 to 2021.

$$g_{i,t} = \alpha_0 + \alpha_1 tr_{i,t} + \varepsilon_{i,t} \quad (1)$$

where t denotes time and i is the country of origin. g represents economic growth and tr is the international tourist inflow to Turkey. α_0 and ε correspond to the intercept and the random error term, respectively.

Economic growth is measured by the annual change in real output measured in constant 2015 U.S. dollars and gathered from the World Bank World Development Indicators online database. The international tourism markets in this study include the following countries: Belgium, France, Germany, Greece, Iran, Netherlands, Russia, Ukraine, the United Kingdom, and the United States. Note that these countries are Turkey's major tourism partners. The data for the tourism variable is obtained from the Turkish Statistical Institute online database. We convert tourist arrivals into natural logarithms. Because crises affect consumer income, especially for luxury goods including tourism, one has to take crises into account while estimating a tourism-led growth equation. Therefore, the crises-augmented version of equation (1) can be described as follows:

$$g_{i,t} = \alpha_0 + \alpha_1 tr_{i,t} + d_{i,t} + \varepsilon_{i,t} \quad (2)$$

where d is the crises dummy variable. We consider country-specific conjunctures while assigning 0 and 1 values for the 2008 and 2020 crises.

3. Methodology and empirical results

In order to determine whether there is a cross-section dependence problem for the tourism variable, we devote initial analysis to the cross-sectional dependence check. For this purpose, we use the cross-section dependence (CD) test proposed by Pesaran (2004).

Table 2. Cross-section Dependence Results

Variable	CD Test
TR	69.37 ^a

^a denotes statistical significance at 1%.

Analysis results reported in Table 2 show that the null hypothesis indicating the cross-section independence is rejected at the %1 level.

Before proceeding to the causality analysis, another preliminary step is to check whether the series contains a unit root. To this end, we use IPS test developed by Im et al. (2003).

Table 3. Unit Root Results

Variable	IPS Test Stat.	IPS Test Stat. (1 st difference)
g	4.37 ^a	-
tr-Belgium	0.24	4.24 ^a
tr-France	0.55	4.72 ^a
tr-Germany	0.77	4.93 ^a

tr-Greece	0.46	4.68 ^a
tr-Iran	1.01	5.21 ^a
tr-Netherlands	0.22	4.21 ^a
tr-Russia	1.13	5.56 ^a
tr-Ukraine	0.34	4.41 ^a
tr-UK	0.36	4.43 ^a
tr-USA	0.29	4.30 ^a

Cross-section result is reported for the g variable.
a denotes statistical significance at 1%.

Table 3 reports the unit root analysis results. According to the results, the null hypothesis of unit root is rejected at the 1% level for the growth variable whereas it is not rejected for all tourism variables. Once proceeding with the first difference, however, the null hypothesis for all tourism variables is rejected at the 1% level.

Having found the existence of cross-section dependence as well as the unit-variant structure of the tourism variable, we use a Granger non-causality approach for heterogeneous panels proposed by Dumitrescu and Hurlin (2012).

Table 4. Causality Results

Countries	Null Hypothesis	
	growth does not cause tourism	tourism does not cause growth
Belgium	0.72	3.55 ^b
France	0.96	3.68 ^b
Germany	1.43	4.27 ^a
Greece	0.86	3.45 ^b
Iran	1.31	4.12 ^a
Netherlands	0.56	3.49 ^b
Russia	1.35	4.89 ^a
Ukraine	0.78	4.44 ^a
UK	0.57	3.46 ^b
USA	0.69	4.01 ^a

Wald statistics are reported.

a and b denote statistical significance at 1% and 5%, respectively.

Table 4 summarizes the findings obtained from the causality analysis. According to the table, the null hypothesis indicating growth does not cause tourism is not rejected for any of the countries whereas the null hypothesis indicating tourism does not cause growth is rejected for all countries. Hence, it can be concluded that all tourism markets picked in this study contribute to economic growth in Turkey.

4. Conclusion

It is well acknowledged that tourism plays a crucial role in the global economy by increasing export earnings, employment, and, as a result, economic activity. Therefore, examining the nexus between tourism activities and economic growth is of particular importance. Given this importance, this paper investigates the validity of the tourism-led growth hypothesis in Turkey using data for disaggregated tourism markets. To this end, we focus on ten tourism markets over the period 1996-2021.

Empirical findings obtained from the causality analysis reveal the validity of the tourism-led growth hypothesis in Turkey. Because this study takes aggregation bias into account, this study

emphasizes that policies aiming tourist inflow from major tourism markets help increase economic growth in Turkey.

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Қазақстандағы гастрономиялық туризмнің тартымдылығы – ұлттық тағамдар

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Қазақстан өзінің табиғи ландшафттарына, ашық түстеріне, бірегей дәстүрлеріне бай ғажайып ел. Елдегі туризмнің дамуы қарқын алуда, экономиканың осы сегментіндегі жағдай күн сайын жақсарып келеді, шетелдік және отандық туристердің елдегі туристік қызметке деген қызығушылығы артып келеді.

Республикада қазірдің өзінде дамыған елдегі туризм түрлерінен басқа, жаяу жүргіншілер, тау, танымдық, автордың пікірінше, аспаздық туризмді дамыту перспективалы болып табылады, өйткені елде аспаздық саласында бай дәстүрлер мен әдет-ғұрыптар бар.

Қазақ тағамдары туристер үшін өте қызықты және тартымды, оның дәлелі Парижде қазақ мейрамханасының ашылуы болып табылады. Париж тарихындағы тұңғыш қазақ тағамдары мейрамханасы Франция астанасының танымал ауданында пайда болды. Салтанатты ашылу рәсімін Қазақстанның Франциядағы елшісі Дулат Қуанышев басқарды. Оған бірқатар ТМД елдерінің елшілері, сондай-ақ аудан әкімшілігінің басшысы Жорж Сарр қатысты. Француз тіліне арналған «Қазақ» деген экзотикалық атауы бар мейрамхана ұлттық қазақ тағамдарының кең жиынтығын ұсынады. Оның иесі Қазақстаннан шыққан, қазір Францияда тұрады.

Қазақ ұлттық тағамдарында, айнадағыдай, халықтың жаны, оның тарихы, салт-дәстүрлері байқауға болады. Қазақ халқының салт-дәстүрлері мен әдет-ғұрыптарында халықтың өмір салты, оның әдеттері, ұлттық ерекшеліктері көрініс тапты.

Тамақтану дәстүрлері - бұл ұрпақтан-ұрпаққа берілетін және қоғамдық пікірдің күшімен қорғалатын тарихи қалыптасқан тұрақты және жалпыланған тамақтану нормалары мен принциптері. Тамақтану дәстүрлері адамзаттың өзі сияқты ежелгі. Олар тарихи сипатқа ие, өйткені олар жеке адамдар мен топтардың қалауы бойынша қалыптаспаған, бірақ объективті негізге ие болған адамдардың еңбек және әлеуметтік қызметі процесінде пайда болды және қалыптасты. Тамақтану дәстүрлері қоғамдық дамудың табиғи құбылысы ретінде пайда болды және халықтардың мәдени қалыптасуында үлкен рөл атқарды.

Әдет-ғұрыптар сонымен қатар эволюция процесінде адамдардың қоғамдық өмірдің белгілі бір саласындағы мінез-құлқын реттейтін жалпы қабылданған тарихи ережелер мен нормалар болып табылады. Өткеннің керемет дәстүрлерінің бірі бүгінгі күнге дейін жеткен қонақжайлылық, ол жалпы адамзаттық нормаларға жатады және өркениетті қоғамның жағымды қасиеті болып табылады.

Қазақ халқының ұзақ этникалық және мәдени тарихы тамақ өнімдерінің өзіне тән жиынтықтарында, оларды өңдеу тәсілдерінде, тағам түрлері мен дайындау рецептерінде, тағамға артықшылық беру дәстүрлерінде немесе, керісінше, тағамға шектеулер мен тыйымдарда көрініс тапты. Ұлттық тағамдарды ұйымдастырудың қызықты және ерекше формалары, этикет пен рәсімдер материалдық және рухани мәдениеттің аспектілерінде де,

тамақпен де байланысты. Әрине, ұлттық қазақ тағамдарының қалыптасуына аумақтың табиғи-географиялық жағдайлары үлкен әсер етті. Көптеген аңыздар, салт-дәстүрлер, әдет-ғұрыптар-ежелгі уақытта қалыптасқан қазақтардың көшпелі өмір салтының тікелей айғағы. Қазақ ұлттық тағамдарының негізін мал шаруашылығы өнімдері-ет пен сүт құрайды. Кейінірек егіншіліктің дамуымен қазақтар ұн өнімдерін қолдана бастады.

Қазір олардың үстелінде көкөністер мен жемістер де кең таралған. Мұнда қазақ халқының отырықшы өмір салтына көшуінің нәтижесі, сондай-ақ басқа да гастрономиялық мәдениеттердің әсері көрінеді. Адамның іс-әрекетінің кез келген саласы сияқты, қазақ гастрономиялық мәдениеті өзгеруде, қозғалуда, жетілдірілуде. Бірақ сонымен бірге ол өзінің жеке басын жоғалтпайды және жоғары деңгейде жаңасы ежелгі адамдармен байланысады.

Жаз мезгілінде қазақтың әр отбасында (әрине, бұл ауылдық жерлердің тұрғындары туралы, бірақ қалада туристер олардан дәм тата алады) ежелден "батырлардың сусындары" деп аталатын екі көне ұлттық сусын дайындалады. Бұл сусынның аты-қымыз және шұбат. Олардың біріншісі-Қазақстаннан тыс жерлерде емдік қасиеттерімен танымал ашытылған бие сүті. Екіншісі түйе сүтінен осылай алынады. Сондай - ақ, қазақ отбасыларында тағы бір сусын - айран-сүмен сұйылтылған қышқыл сүт дайындалады. Ол салқын сусын ретінде ішіледі, оған түрлі жарма ұнтақтары қосылады. Айраннан курт пен иримшик жасалады. Курт-шарларға оралған және күн сәулесінде кептірілген тұзды сүзбе, ал иримшик - майлы, ұсақталған сүзбе.

Бірақ қазақтардың басты ұлттық тағамы-ет. Бұл-қазақ үстелінің, дастарханның негізі, мақтанышы мен сұлулығы. Ауылдық жерлерде, әсіресе қыста, ет тағамдары әлі де басым. Экономикалық қорғалу қажет болған материалдық байлықтың символы қазақ халқында ежелден-ақ қошқар болып келеді. Қошқардың семантикасы жердегі өмірдің символы ретінде қонақтарды емдеу, оның бөліктерін кесу және беру әдетінде пайда болады. Осы уақытқа дейін қой мяса жеуге байланысты көптеген әдет-ғұрыптар сақталған. Ең сүйікті және кең таралған Ұлттық ет тағамы - бешбармақ - сорпада қайнатылған қой еті мен жайылған қамырдың бөліктері. Бешбармақ қазақ тілінен аударғанда «Жұқа нан» дегенді білдіреді, өйткені бұл тағамды үлкен тағамнан қолмен жеу әдетке айналған. Бірақ, ең алдымен, ең құрметті қонаққа ерекше тәсілмен дайындалған қошқардың басы ұсынылады. Ол оны қабылдайды, содан кейін оны басқа қонақтар арасында бөлетін бөліктерге бөледі. Бұл жағдайда бастың әр бөлігіне белгілі бір мағына беріледі.

Әр қонаққа бастың бір немесе басқа бөлігін бере отырып, бұл іс тапсырылған құрметті қонақ бұл процедураны әзіл-қалжың түрінде Достық кеңестер мен ізгі тілектермен сүйемелдейді. Мысалы, ол құлағын кесіп, кішкентай балаларға немесе жас жігіттерге (жас жігіттерге) мұқият болуды тілейді, тіл мен аспан қыздар мен қыздарға: осыдан олар еңбекқор, шешен болады. Осыдан кейін құрметті қонақ басынан кішкене ет кесектерін кесіп алып, үстел басында отырғандардың барлығына таратады. Ол сондай-ақ басын оң жақта отырған адамға бере алады, содан кейін ол бір қонақтан екіншісіне ауысады.

Осыдан кейін үстелдің ортасына бешбармақ қосылған үлкен тағам қойылады. Ет сүйектермен бірге беріледі. Сонымен қатар, иелері оны бірден ұсақтап тұрайды, ал сүйектер мен ет қонақтарға таратылады. Әр түрлі бөліктерді бөлу тәртібі қайтадан күшіне енеді.

Жамбас сүйектері мен барабан таяқшалары құрметті, жасы үлкен қонақтарға ет жеуге, артқы жағы келіндерге, күйеу жігіттің кеудесі қалыңдыққа немесе күйеу баласына бірінші рет барғанда, мойын омыртқасы үйленген әйелдерге немесе қыздарға беріледі. Бешбармақ сорпа - қамырдың бөліктері қайнатылған күшті ет сорпасымен жуылады. Сорпа үлкен ыдыстарда беріледі.

Әдетте, бешбармақтың алдында қуырдақ-бауыр, өкпе және картоп қосылған ет қуырылады. Суық тағамдар ретінде жіңішке тілімдерге кесілген, маймен қайнатылған бауыр

(Құрық бауыр), сондай - ақ жылқы етінен жасалған өте дәмді шикі ысталған шұжықтар-қазы мен шұжық беріледі.

Дастарханның ажырамас атрибуты әрдайым бауырсақ болып табылады - шошқа майында қуырылған қышқыл қамырдың бөліктері. Қазақтар сондай-ақ қышқыл және тұщы қамырдан торт пісіреді, көбінесе сүт немесе шай қосылған ыдыстарды (қуырылған тары) жейді.

Жалпы, қазақтар көшпелі халық болғандықтан, ұзақ уақыт бойы ет дайындауды білді. Олар оны емдейді, темекі шегеді және тұздайды. Осыған байланысты қазақтың құлазы сияқты тағам түрі де белгілі бір қызығушылық тудырады. Егер бұған дейін аталған ұлттық тағамдармен Қазақстан қонақтары стационарлық жағдайда таныса алса, онда құлазымен - тек жорық жағдайында ғана таныса алады. Мәселе мынада, бұл кемпинг тағамы және туристік жорықтар мен саяхаттар үшін өте қолайлы.

Қазіргі уақытта, азды-көпті біртұтас әлемдік урбанистік мәдениеттің тез таралуы дәуірінде материалдық-тұрмыстық саладағы халықтардың этникалық ерекшелігі біртіндеп жойылуда. Бірақ бұл туристердің ұлттық тағамдарға деген ерекше қызығушылығын тудырады, өйткені халықтың аспаздық өнері оның тарихын, өмірі мен әдет-ғұрпын шоғырланған түрде көрсетеді

Ежелден бері қазақ халқының айрықша ерекшелігі қонақжайлылық болды. Қазіргі уақытта мереке көптеген жолдармен пішіндерді өзгертті, бірақ қонақжайлылықтың ежелгі заңдарын жоғалтпады. Керісінше, оның шекаралары кеңейді: бүгінгі дастарханның артында қазақтар ғана емес, сонымен қатар үлкен көпұлтты республикада тұратын көптеген қонақтар - орыстар, татарлар, украиндар, өзбектер, немістер, ұйғырлар, дүнгендер, корейлер жиналады.

Қазіргі қазақ тағамдары тек дәстүрлі қазақ тағамдарын ғана емес, сонымен қатар өзбек, ұйғыр, орыс, татар, корей және басқа да тағамдардың сүйікті тағамдарын қамтиды. Сондықтан қазіргі қазақ аспаздығында таза ұлттық ерекшеліктерді сақтай отырып, халықаралық сызықтарды байқау қиын емес.

Тарихи қазақ аспаздығы өзіндік технологиясымен ерекшеленді. Қазақ халқының өмір салтының ерекшелігі тамақ дайындау тәсілдеріне із қалдырды. Дәстүрлі қазақ тағамдарында әрқашан пісіруге артықшылық берілді. Дәл осы процесс мяса жұмсақ және нәзік дәмдік реңктерін алуға мүмкіндік береді, оған шырындылық пен хош иіс береді.

Қазақ тағамдарын ТМД елдерінің тағамдары арасында ең жас деп санауға болады, өйткені ол XIX ғасырдың аяғы мен XX ғасырдың басында ғана қалыптаса бастады және қазақтардың отырықшы жағдайға көшуі аяқталып, Қазақстан экономикасы түбегейлі өзгерген кезде қалыптасты. XVI ғасырдың басында түркі-тілдес тайпалар базасында және 1925 жылы Қазақстанның мемлекеттік-аумақтық безендірілуіне дейін ұлт қалыптасқан кезден бастап қазақтар бүкіл тарихында көшпелі халық болды.

Қазақтар өздерінің көшпелі өмір салтына байланысты бастапқыда тек былғары және ағаш, яғни сынбайтын, негізінен тамақ сақтауға және ішінара тамақ дайындауға арналған ыдыс-аяқтар болған. Қымыз және басқа да ашытылған сүт өнімдері былғары сөмкелерде (жылқы терісінен жасалған саба және қой етінен жасалған торсық) дайындалды, ал ағаш қауырсындар мен былғары сабаларда қыздырылған тастарды түсіріп, ет қайнатылды.

Ыдыс-аяқ пен пештің негізгі түрі ретінде шойын қазан тек XVIII ғасырда пайда болды, сонымен бірге өзбектерден алынған кейбір қуырылған ет тағамдары пайда болды.

Осылайша, қазақ асханасы, егер оған заманауи ұғымдар қолданылса, негізінен Суық үстелдің асханасы болды. Ауыл шаруашылығы өнімдері қазақ мәзіріне кеш енді.

Қазақтарға белгілі болған және содан кейін олардың асханасында ұлттық дәнді дақыл ретінде негізгі орынға ие болған алғашқы астық алдымен Жоңғария мен Орта Азиядан

айырбас саудасы нәтижесінде алынған, содан кейін Қазақстанның оңтүстік аудандарындағы отырықшы қазақтар ішінара өсірген Али могоар мен кудза тары болды.

XVIII ғасырда Қазақстанның едәуір бөлігі Ресейге қосылғаннан кейін, қазақтардың рационалында негізінен астық (бидай, қара бидай) және одан алынған ұн мал шаруашылығы өнімдеріне айырбасталатын егіншілік өнімдері көбірек қолданыла бастады.

Бірақ XIX ғасырдың 70-ші жылдарында 60 долларға дейін ұн мен ұн өнімдерін негізінен ауқатты казактар тұтынған.

XIX ғасырдың соңғы үштен бірінде ғана Қазақстан экономикасы Ресей экономикасымен үлкен байланыста дами бастаған кезде, онда капиталистік қатынастардың енуі нәтижесінде таптық дифференциация күшейіп, көшпелі өмірді жалғастыра алмай, кедей, малсыз қазақтар егіншілікпен айналыса бастаған кезде, содан кейін ғана ұн мен ұн өнімдері көбірек ала бастады қазақ асханасындағы орын.

Мәселен, XIX ғасырдың аяғы мен XX ғасырдың басына қарай қазақ тағамдары мен Қазақ ұлттық дастарханының өзіне тән ерекшелігі қалыптасты.

Әрине, қазақ тағамдары табиғи және экономикалық жағдайлардың әсерінен ғана толығымен оқшауланып дамыды деп сену дұрыс болмас еді. XVIII-XIX ғасырларда көп нәрсе алынды, әсіресе үстем тап, осы уақытқа дейін өте дамыған аспаздық мәдениетке ие Орта Азияның көрші халықтарынан Али өзбектер, тәжіктер, дүнгендер мен ұйғырлар.

Бұл өзара байланыс алулар бірінші кезекте Оңтүстік Қазақстан қазақтарының рационалында кеңінен қолданыла бастаған қуырылған ет тағамдарын (майды пайдалана отырып) және аса күрделі ет ұн өнімдерін (самса, Манта) дайындау технологиясына, сондай-ақ жекелеген өнімдерді (мысалы, шай, жеміс-жидек, бақша дақылдарын) тұтынуға қатысты болды. Соңында, өзбек типі бойынша шыршаның мерекелік дастарханын ұйымдастыру да алынды, яғни. түскі астың басында және соңында тәттілерді қолдану.

XX ғасырдағы орыс тағамдарынан қазақтар көкөністерді (әсіресе салат түрінде жиі қолданылатын картоп, сәбіз, қияр, шалғам) күнделікті тұтынуды, сондай-ақ астық шаруашылығы базасында құс шаруашылығының дамуымен қазақ асханасында дәстүрлі өнімге айналған жұмыртқа мен тауық мяса пайдалануды алды. Алайда, технологиялық қарыз алу да, өнім ассортиментін кеңейту де негізінен қазақ асханасының негізгі ұлттық ерекшеліктерін, оның ерекшеліктерін өзгерткен жоқ, дегенмен оны әртараптандырды.

Қазақ асханасының тағы бір тән ерекшелігі-қазақтар өте жоғары бағалайтын (мысалы, бүйрек олар мяса ең жақсы және ең құнды бөлігі болып саналады), сондай-ақ етпен (әдетте төс еті) қосалқы өнімдерді (өкпе, бауыр, бүйрек, ми, тіл) кеңінен қолдану. Сонымен қатар, мяса седла, артқы жағы сияқты бөліктері таза күйінде, тек қана пісіру арқылы дайындалады (бұрын көмірде жеген, ал қазіргі ас үйде пеште жеген).

Қазақтардың ұлттық ет түрі жылқы еті деп саналуы керек, бірақ қазір ол қой етіне, тіпті сиыр етіне қарағанда аз қолданылады. Жылқы етінен қазы, карта, шұжық және т.б. сияқты қазақ тағамдарына тән ұлттық бұйымдар жасалады. ет тағамдарының көпшілігінің атаулары шикізат құрамымен немесе пісіру әдісімен емес, ұлттық дәстүрлерге сәйкес әдетте жылқы ұшасы кесілетін бөліктердің атауымен байланысты. Олар: қабырға, тостик, жанбаз, жал, жаяу, қазы, сурет-ата, белдеме және т. б.

Қазіргі қазақ үстелі, әрине, ұлттық тағамдардың бір ғана тағамдарымен шектелмейді. Бұл тағамдардың құрамы жағынан едәуір әр түрлі, өйткені етпен қатар балық, көкөністер, түрлі жарма, жемістер, консервіленген өнімдер бар, бірақ бұл қазақтың ұлттық тағамдарынан түпнұсқа және салыстырмалы түрде алуан түрлі түскі ас жасауға болмайды дегенді білдірмейді.

Жоғарыда біз қазақ халқының тамақтану ерекшелігін айқындайтын мәдени-тарихи жағдайларды қарастырдық, ал төменде ұлттық тағамдарға үлкен әсер ететін табиғи және басқа да жағдайлармен танысу ұсынылады.

Көшпелі және жартылай көшпелі мал шаруашылығы Қазақ халқының материалдық мәдениетіне қатты әсер еткені соншалық, бұл қазақ тағамдарының ассортиментінде көрініс тапты. Қазақстанда бау-бақша мен егіншіліктің дамуымен көкөністер мен жемістердің тамақтанудағы үлесі едәуір өсті. Бірақ қазір олар өздігінен, бөлек, тамақ дайындауға байланысты емес және ұлттық тағамдардың құрамына кірмейді. Бұрын көкөністерді қолдану дамыған Қазақстанның оңтүстігінде ғана, олардың кейбіреулері, мысалы, асқабақ, ұлттық тағамдарды дайындау үшін кеңінен қолданылады.

Жалпы, қазіргі қазақ тағамдарында диетаның маусымдылығы өте айқын көрінеді. Жазда сүт-өсімдік тағамдары басым болады, қыста ұн еті мен астық еті жеді. Біздің кең Отанымыздың әртүрлі бөліктерінде тамақтануда айтарлықтай айырмашылықтар болмаса да. Халықтың тамақтануындағы аймақтық айырмашылықтарды келесі факторлар тобына байланысты қарастырған кезде анық байқауға болады. Қазақстан аумағының үлкен аумағына ие және оның халқы өте біркелкі емес. Республиканы құрайтын аймақтардың табиғи жағдайлары бір-бірінен ерекшеленетіні соншалық, олар тамақтану жүйесіне де із қалдырды. Қазақ халқының дастарханында ұсынылатын ас мәзірін 1-суретте берілген.



1-сурет. Қазақ халқының дастарханы

Солтүстік Қазақстан - Тың өлкесі, орманды, орманды дала және дала табиғи аймақтарында орналасқан және өзінің сипаттамалары бойынша Батыс Сібір жазығына ұқсас. Мұнда еліміздің қалған аумағынан астық өсімдік шаруашылығы, атап айтқанда бидайдың қатты сорттарын өсіру дамыды, бұл өңірдің мәзірінде ұн өнімдерінің көп мөлшерінің болуын анықтаған Қазақстанның астығы - бұл бекер емес. Орыс халқымен және басқа славян халықтарымен жақындық пен тығыз қарым-қатынас солтүстіктердің асхана үстелінде көрініс тапты: мәзірде неміс, орыс, украин, беларусь, поляк тағамдарының ұлттық тағамдары жиі кездеседі. Елдің бұл бөлігінде басқаларға қарағанда халық көп мөлшерде картоп, түрлі дәнді дақылдар, жидектер, орман мен бал сыйлықтарын жейді. Мысалы, Солтүстік-Шығыс Қазақстанда ормандардың көптігі және бүкіл республика бойынша ең жақсы Омарталардың болуы тұрғындарға керемет дәмді өнімдерден ләззат алуға мүмкіндік береді.

Орталық және Шығыс Қазақстан өткен рацион көшпенділер асханасының айрықша сипатына ие болды, ал бүгінде бұл асудің қазіргі заманғы модификациясы болып табылады, оған бұрын байырғы қазақтарға қол жетімсіз болған өнімдердің жаңа түрлері қосылды. Бүгінгі таңда негізгі ет және сүт тағамдары әртүрлі көкөністермен, жемістермен консервілермен және т. б.

Батыс Қазақстанда басқа аймақтардан біршама өзгеше тағамдар бар, бұл мұнда ішкі теңіздер мен көлдердің болуымен түсіндіріледі. Жылқы рацион пайдаланудан басқа, диетаға балықтың әртүрлі түрлері, уылдырық (Атырау, Ақтау), сондай-ақ түйе еті мен сүтінен жасалған өнімдерді жеу кіреді, өйткені аймақ шөлді және шөлейт аймақтарда орналасқан.

Мысалы, Арал теңізінің кебуінің қайғылы апатына дейін жергілікті тұрғындар негізінен балық аулаумен айналысқан және әйгілі Арал сазанын жеген. Каспий теңізінің жағасында адамдар ежелгі заманнан бері осындай құнды қара уылдырықты тұтынған.

Оңтүстік және Оңтүстік-Шығыс Қазақстанда қолайлы климат пен еңбек ресурстарының болуы ұзақ уақыт бойы осы аймақта суармалы егіншіліктің дамуына мүмкіндік берді, атап айтқанда: күріш өсіру, бұл, әрине, аспаздық дәстүрлер мен әдет-ғұрыптарға әсер етті. Бұл аймақта тағамдар дәстүрлі өзбек, ұйғыр тағамдарына өте ұқсас екендігімен ерекшеленеді, ал мұнда танымал және типтік тағамдар-Палау, лагман және т. б.

Туристтік тамақтану индустриясының қазіргі жағдайын, әлемдегі және кейбір елдердегі аспаздық туризмді ұйымдастырудың ерекшеліктерін зерттеп, талдап, осындай түрлерді ұйымдастыруға қажетті аспаздық-рекреациялық ресурстарды анықтап, Қазақстанда қалыптасқан гастрономиялық дәстүрлерді зерттей отырып, автор аспаздық түрдың келесі бағытын әзірледі. Ол өзінің әдемі ландшафттарымен және көркем айналасымен ғана емес, сонымен қатар керемет аспаздық дәстүрлерімен де танымал Алматы қаласында басталады.

Тур аясында Алматы бойынша экскурсия, қаланың үздік мейрамханаларына бару, шарап-арақ зауытына, түйеқұс фермасына бару және т.б. жоспарлануда. Сіз «Алтын Емел» ұлттық саябағына барасыз, онда сіз козероғтарды аулай аласыз, содан кейін сіз ашық ауада пикник пен атылған ойыннан тамақ дайындауды ұйымдастырасыз. Бұдан әрі түр бағдарламасы этнографиялық мұражай - ауыл жұмыс істейтін Алматы облысындағы Кеген ауылына баруды, мұнда қазақ тағамдарының ұлттық тағамдарының дәмін татуды, ат жарыстары мен халық ойындарына қатысуды көздейді. Тур бағдарламасының келесі, соңғы кезеңі Қазақстанның ең әдемі көлдерінің бірі-Алакөл көліне бару, балық аулауды ұйымдастыру, нұсқау беру, одан әрі дәмін татып, фирмалық ухи дайындауға үйрету болады. Соңында Алматыға оралу, қоштасу кешкі асына қатысу және сізді үйге жеткізетін ұшақтың рейсіне отыру.

Төменде автор әзірлеген тамақ талғаштар туры ұсынылады, оны Алматы аймағында өткізу ұсынылады.

Туризм түрі: аспаздық немесе гастрономиялық

Турдың атауы: «Дастархан түр»

Рекреациялық сабақтардың циклдары: таным, ойын-сауық, ұлттық тағамдардан дәм тату, аң аулауға қатысу, балық аулау, ұлттық ойындар мен жарыстарға қатысу.

Саяхат туралы ақпарат (аймақ және оның ерекшеліктері): саяхат Қазақстанның туристік жағынан ең дамыған аймағында ұсынылады, ол сонымен қатар бай және ерекше аспаздық дәстүрлерге ие. Қоғамдық тамақтандыру кәсіпорындарының неғұрлым дамыған желісі де осы өңірді республиканың басқа аудандарына қарағанда туризмнің осы түрін дамытуға қатысты перспективалы етеді. Алматы қаласында еліміздегі ең таңдаулы мейрамханалар бар, олар тіпті ең таңдаулы гурмандарға да қызмет көрсете алады. «Алтын Емел» ұлттық табиғи паркіне, көлге сапарлар болжанады. Алакөл және басқа да табиғи және мәдени көрікті жерлер.

Турға қатыса алатын туристер контингенті: турға жынысы мен жасына қарамастан, ет пен майдың көп мөлшерін тұтынуға қарсы болатын адамдарды қоспағанда, барлық адамдар қатыса алады.

Маршруттың сызбасы (аялдама пункттері мен қызметтерін көрсете отырып): Алматы (қонақ үй, мейрамханалар, шолу экскурсиясы, айналасы), Кеген ауылы, Шеберлер ауылы, Алтын емел ұлттық паркі, көл. Алакөл. (толығырақ түр бағдарламасында)

Қызметтер құрамы: тұру, тамақтану, экскурсиялар, трансфер, туристердің қалауы бойынша басқа да қызметтер қосымша ақыға.

Қызмет көрсетуші персоналға қойылатын талаптар: біліктілік, сыпайылық, сыпайылық, туристердің тамақтану әдеттері мен дәстүрлерін білу, әртүрлі халықтардың

дастархан этикетін білу. Шет тілдерін білу (шетелден келген топтарға қызмет көрсету үшін), коммуникабельділік.

Күн мен сағат бойынша қызмет көрсету бағдарламасы:

1 күн:

Алматыға келу. Әуежайдан қонақ үйге тасымалдау. «Хайят Редженси» қонақ үйінде тұру. Құрметіне салтанатты, құттықтау түскі ас Қазақстанның оңтүстік астанасына келу. Түскі ас «Хайят Ридженси» қонақ үйінің «киіз үй» мейрамханасының банкет залында ұйымдастырылады.

17: 30-19: 30 Алматы бойынша шолу экскурсиясы.

20:30 «Дастархан» мейрамханасында кешкі ас. Дәстүрлі қазақ тағамдары, тиісті интерьер, қонақтарды қабылдаудың костюмдік имитациясы, қазақтың ұлттық салт-дәстүрлері мен әдет-ғұрыптары көрсетілген. Мәзір әртүрлі ет түрлерінен тұрады: жылқы еті, қой еті, қонақтарға арнайы дайындалған қой басы, қымыз, айран, шұбат және басқа да ұлттық тағамдар ұсынылады.

2 күн:

9: 00 қонақ үй мейрамханасында таңғы ас. Таңдау үшін сізге еуропалық, американдық, орыс немесе ұлттық қазақ таңғы ас ұсынылады. Қазақтың таңғы случае жағдайында Сізге ашытылған сүт өнімдері, бауырсақ, майсыз сорпа, салаттар және т. б. ұсынылады.

10:00 - 13: 00 «фауна» түйеқұс фермасына бару, ферма өнімдерінен қолтаңба омлеттері мен стейктердің дәмін тату.

14: 00 «Жетіқазына» мейрамханасында түскі ас. Шығыс тағамдары, ұйғыр, қазақ, дүнгах тағамдары.

15: 00 «Жасыл базарға» бару, түрлі дәмдеуіштерді, жемістер мен көкөністерді сатып алу.

16: 00 Алматы маңындағы «шеберлер ауылына» бару: қазақ халқының тұрмысымен, мәдениетімен, этнографиясымен танысу. Қазақ шеберлерінің музыкалық аспаптарымен, ас үй ыдыстарымен, зергерлік бұйымдарымен танысу. Қонақтар үшін дастархан жайылып, театрландырылған іс - шара ұйымдастырылатын киіз үйдің безендірілуін тексеру-ұлттық тағамдардың дәмін татып «қонақты қабылдау». Мұнда аулада қонақтарға қозыны «бауыздау» және жаңа жас еттен «бешбармақ» дайындау процесі көрсетіледі.

19:30 кешкі ас алдында демалу

20:30 «Посейдон» мейрамханасында кешкі ас

3 күн:

9: 00 Таңғы ас

10:00-19: 00 Кеген ауылына, қазақ көшпенділерінің тұрмысын жаңғыртатын импровизацияланған ауылға бару. Киіз үйлердегі ас, экскурсоводтың қазақ асханасының ерекшеліктері туралы баяндамасы, ат жарысына қатысу, бие сауу шеберлігіне үйрету, аспаз бастауымен қымыз дайындау.

20: 00 Кешкі ас алдында демалу.

21: 00 «Тропикана» мейрамханасында кешкі ас

4 күн:

9: 00 Таңғы ас

10: 00-13: 00 «Бахус» зауытына, «Фудмастер Айскрим» зауытына, «Рахат» кондитерлік фабрикасына экскурсия.

14: 00-ден бастап тамақтандыру қызметі арқылы түскі асты ұйымдастыру: БАО, Медео, Шымбұлақты тексеру кезінде ашық ауада пикник.

20:30 «Жерұйық» мейрамханасында кешкі ас.

5 күн:

9: 00 Таңғы ас

10: 00 «Алтын Емел» ұлттық паркіне бару. Егерде аң аулауға рұқсат жағдайда ғана тауешкісін аулау. Сосын оны асқа дайындау оны бүкіл топпен отта пісіру, тамақтану.

Кешкі ас алдында демалыңыз.

21: 00 «Алтын сақина» мейрамханасы, ойын-сауық.

6 күн:

Көлге саяхат. Алакөл, (тікұшақпен ұшу). Шомылу, балық аулау. Қолтаңбаны дайындау. Көрікті жерлерді аралау. Жайлы коттеждерге орналастыру. Үйге тамақ жеткізу.

7 күн:

Алматыға оралу. Трансфер қонақ үйі-әуежай.

Турдың құнын есептеу:

Турдың құны 1000 \$ құрайды. АҚШ долларын бағамы бойынша баға өсуі әбден мүмкін.

Жұмыстың соңында мен қорытынды жасағым келеді. Адамзат тарихындағы ең маңыздыларының бірі-тамақ дайындау және тұтыну өнері. Ғасырлар бойы ұлттық мәдениеттің қалыптасуымен қатар, әр халықтың ортақ мәдениетінің ажырамас бөлігіне айналған гастрономиялық талғамдары мен құмарлықтары дамыды.

«Қазақстан Республикасындағы гастрономиялық туризмнің қазіргі жағдайы және дамуы» атты магистрлік диссертация тақырыбы аясында туризм саласындағы тамақтану индустриясының проблемалары мен жетістіктерімен, туристік салада жұмыс істейтін тамақтану кәсіпорындарының түрлерімен және нысандарымен, сондай-ақ шетелдік туроператорлардың тәжірибесінде тамақ талғағыш (гурмандарға) арналған турларды ұйымдастыру принциптерімен танысуға мүмкіндік берді. Жұмыста келтірілген деректерді талдай және синтездей отырып, біз туристерді тамақтандыруды ұйымдастыру туристерге қызмет көрсету технологиясының ажырамас атрибуты болып табылады және сонымен бірге туристердің саяхаттың тартымдылығын бағалау шкаласының көрсеткіштерінің бірі болып табылады деп санаймыз.

Адамның табиғи қажеттілігі бола отырып, Туризмдегі тамақтану адамдардың танымдық талпыныстарын қанағаттандыратын ресурстарды өндіретін қуатты құрал рөлін атқарады, сондықтан біз халықтың аспаздық тәжірибесі мен дәстүрлерін туристік және рекреациялық ресурстар ретінде қарастыра аламыз.

Зерттеулер көрсеткендей, диета мен аспаздық дәстүрлер көптеген факторларға тікелей байланысты, мысалы: табиғи, мәдени-тарихи, әлеуметтік-экономикалық және идеологиялық-діни. Қоғамдық тамақтандыру индустриясының түрлері мен нысандарымен егжей-тегжейлі және жүйелі түрде танысу туризм саласындағы ең перспективалы және тартымды қайсысы туралы қорытынды жасауға мүмкіндік берді, сондықтан аспаздық турларды жоспарлау мен әзірлеуді жеңілдетеді. Мұнда аспаздық тәжірибе арқылы халықтың мәдениеті мен өмірін білу мақсатында, сондай-ақ эстетикалық және аспаздық қажеттіліктерді қанағаттандыру мақсатында туристердің саяхаттары болып табылатын гурмандарға арналған турларды анықтаған жөн.

Қазіргі әлемде тамақтану тек біржақты сипатқа ие болмады, атап айтқанда физиологиялық қажеттілік ретінде бүгінде ол білім мен ойын-сауық көзі бола алады. Жаппай қызмет көрсету бойынша саудадан кейінгі екінші орында тұрған тамақтану индустриясы туристік саланың дамуын қозғаушы тетіктердің бірі болып табылады. Жыл сайын оның қызметтерін көбірек адамдар пайдаланады. Батыс елдерінде аспаздық туризм туризмнің ең танымал түрлерінің бірі болып табылады және мұны нарықтың осы секторында жұмыс істейтін көптеген компаниялар дәлелдейді.

Айта кету керек, аспаздық немесе гастрономиялық туризм туризмнің ең қызықты және танымдық түрлерінің бірі болып табылады, ол әлем елдері арасындағы интеграциялық процестерді тереңдетудің маңызды құралы болып табылады. Оның дамуында нарық

жағдайында осы серпінді саланың дамуына жаңа серпін бере алатын жоғары білікті кадрларды даярлау басты маңызға ие.

Сонымен қатар, жұмыста халықты тамақтандыру түрлері бойынша елдердің жіктелуі қарастырылып, географиялық жағдайлардың халықтардың аспаздық дәстүрлеріне әсері мәселелері қозғалды.

Қазіргі уақытта магистрлік диссертациялық жұмысымдағы мәліметтерімді туристерге қызмет көрсетудің жаңа жолдарын табуға тырысатын туристік фирмалардың қызметкерлері қолдана алады, оларды туризмнің ерекше және жаңа түрлерімен, сондай-ақ өздерін гурмандар қатарына жатқызатын және аспаздық-гастрономиялық мақсаттармен саяхаттауға дайын адамдардың кең ауқымымен тартады.

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Political Studies

Islamic radical movements in the North Caucasus

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Abstract

Islamism has been gaining ground in the Middle East since the second half of the last century. Added to this is the formation of radical Islamist organizations and their actions, which pose a serious problem, not only for the region but also for a global challenge. Islamic radicalism spread beyond the Eastern region and under its influence spread quite intensively in the North Caucasus. This process became particularly evident in the North Caucasus region after the collapse of the Soviet Union. The spread of Islam in the North Caucasus naturally led to the creation of Islamist organizations, which in itself is a significant result of its influence in the Middle East. This made the Middle East and the North Caucasus even closer to each other. A good example of this is that these organizations were funded by some countries in the Middle East. At the same time, radical North Caucasus movements were even involved in regional conflicts in the Middle East. This was especially evident in the wake of the Arab Spring civil war in Syria.

Introduction

The North Caucasus is one of the interesting regions with its diversity. That is why we consider it important to discuss the Islamist radical movements operating in the North Caucasus and the influence of some countries in the Middle East region on it. Since the overwhelming majority of the population of the North Caucasus region is Muslim (the majority are Sunnis), it was seriously influenced by the neighboring Middle East region, from where Islamism spread to the North Caucasus. The radical movements that were created in this region, especially as a result of the collapse of the Soviet Union, are ideologically and financially connected to the Middle East. It should also be noted that although North Caucasian radical Islamism is heavily influenced by the Middle East, it also has distinctive features that are specific to the North Caucasus.

Islamic radicalism in the North Caucasus mostly has a pseudo-religious character, which is one of the forms of implementation of the religious-nationalist and separatist aspirations of various political-religious forces.

Support for terrorist organizations is an important problem in this region. This ideology was largely formed after the second Chechen war in 1999-2000. During this period, militants distinguished themselves by active involvement in global jihadist movements. Moreover, the trend did not decrease even during the period of activity of ISIS. Among the supporters of ISIS, young people were distinguished by their greatest activity, among whom there were also North Caucasians. They more or less agreed with the activities of ISIS. Sympathy for radical Islam among young people was high. They shared his ideology, which poses a particularly great threat to the entire region.

The North Caucasus region is characterized by significant security problems. They also have problems with the control of elites, undemocratic elections, corruption, and a widespread sense of the absence of social justice. In the background of all this, several conflicts and problems, which have been developing for years, appear periodically in this region.

The relevance of our topic is the discussion of current threats in the region in a broad sense. Also the research of the causes of the mentioned threats and the analysis of their development trend. The goals of the research topic presented by us are to study and analyze the reasons for the formation of radical Islamist organizations in the North Caucasus, as well as to determine the consequences that followed the formation of radical organizations in the North Caucasus. We also focus on what traces these movements left in the region.

We also highlighted the role and influence of some countries in the Middle East on Islamist radical organizations in our research region.

Methodology

While working on the paper, we used the "Balance of Power" theory of the school of political realism, which is one of the most important concepts in the theory of international relations. It is closely related to political realism. As a result of the above theory, we better analyzed the factors of intervention of the North Caucasus radical organization in the recent events in the Middle East.

We also used the "security dilemma" and the "collaborative security theory", which implies the recognition of common threats.

Research methods

While working on the paper, we used qualitative research methods, namely: historical-descriptive, interdisciplinary, and narrative.

A brief historical overview of the spread of Islam in the North Caucasus

Historically, the North Caucasus was part of the empires of the Khazars, the Arab Caliphate, and the Golden Horde. It was also under the influence of the Crimean Tatars. It was influenced by the Ottoman and Persian empires, and last was Russia. All of them had their influence on this region. Its complete Islamization took place during the XVIII-XIX centuries.

The process of Islamization of the peoples of this region begins earlier, in particular, from the VII-VIII centuries, which was caused by the Arab campaigns.

From the 16th century, the Ottoman Empire tried to spread Sunni Islam there, in opposition to Iranian Shiism.

The religious-political movement of Muridism in the struggle for the liberation of the North Caucasus against the Russian Empire

In the 18th and 19th centuries, religious leaders in the region crossed narrow ethnic and tribal boundaries to unite the mountain peoples in anti-colonial Russian resistance movements to give it organized forms. It was one of the Sufi varieties of Islam that formed the ideological framework of resistance. The system of organization of the Sufi brothers was subordinated to the leadership of the student ("murid") and the master ("sheik", "murshid"). This movement is known as "Muridism". It was adopted as a social structure to resist.

Muridism, as a religious-mystical movement, entered Islam in the 14th century in the Muslim kingdom of Central Asia. This trend spread from here to the North Caucasus.

Muridism in the North Caucasus was headed by "Imams": Ghazi Muhammad, Hamzat Beg, and Shamil. The latter especially contributed to its spread.²

Shamil was a political and religious figure, the leader of the mountain peoples of the Caucasus, who was recognized as an imam in 1834. He was able to unite the people of Western Dagestan and Chechnya, and then Cherkessia in the theocratic state imamate, through which he greatly resisted the Russian Empire. As a result of great efforts, the Russians besieged Shamil, who

² Karosanidze T. East and the Caucasus, Tbilisi, 2003, p. 54-58.

finally found himself besieged in one of the villages of Ghunib in Dagestan. After a hopeless resistance, he was captured.

The military-political system he created, which was called the Saimamo State, played a particularly big role in Shamil's success. It was divided into military-administrative units headed by Naibs. In it, the judicial power belonged to the mufti, to whom the qadis obeyed. The organization of the army was also of great importance. Shamil paid special attention to the cavalry...Shamil tried to strengthen his government on political grounds as well, however, whenever possible, he took advantage of religious sentiments as well.

It should be noted that Muridist ideology initially played a rather positive role in the first stage of the movement of the North Caucasian mountaineers in terms of mass mobilization.³

Initially, the ideological basis of the "Holy War", "Gaza-Wati" in the North Caucasus was to turn people to the Sharia and to call for the strengthening of faith. At the same time, it also calls for non-believers to resist foreign rule. Even later, despite the persecution of the Russian colonial authorities, Sufi orders were mainly responsible for maintaining the ethnoreligious identity and organizing resistance, especially in Chechnya and a large part of Dagestan. The Murids of the North Caucasus resisted the process of integration into first the tsarist and later the Soviet system of government longer than any other Russian-ruled region.

Since 1994, this dimension of national self-determination was often mentioned even in the Russian press in connection with the war in Chechnya. Although after 1917 patterns of identification shifted from religious to ethnic basis, or were forced to shift under the conditions of the construction of the Soviet Union, today's political and national movements in the region still focus on religious symbolism.

During the Caucasian War in the 19th century, the mountain peoples of the North Caucasus were represented as "Muslim fanatics" not only in Russia but also in Western Europe. The defensiveness of these ethnic groups earned them some sympathy even among certain groups of Russians, and the romantic aspect of the "noble savage" was idealized in the literature of the time. Russian and Western European authors described the Islamic motivation of the struggle for freedom with their characteristic fanaticism and ignorance.⁴

Today, practically every settlement inhabited by Muslims in this region has its mosque. The mystical aspect of North Caucasian Islam, which was persecuted during the Soviet Union, also played its role in this. "Muridism" remained one of the national religious and socio-cultural structures that the Soviet Union could not eliminate. In the late 1920s, more than 40% of the adult male population of Chechnya-Ingushetia belonged to various branches of this order. In contrast to its historical achievement, Muridism today is partly responsible not only for the integration of Muslims but also for organizational fragmentation and local differentiation within Islam.⁵

Russia's December 1994 military intervention against the civilian population in Chechnya made Islam a more important driver of resistance but also widened the divide between the northern and southern parts of the republic. In 1995, the population of the areas under the military control of Dzhokhar Dudayev's forces - mainly in the mountainous southern part of Chechnya - lived according to Islamic law. The northern part was more controlled by federal forces and a changing pro-Russian administration.⁶

³ Anchabadze Z. *Essays on the history of the peoples of the North Caucasus / Plot II*, Tbilisi, 1978, p. 23-68.

⁴ Halbach U. *Islam et politique dans le monde (ex-)communiste, française*, 2001, p 34.

⁵ Ermakov I. *Dmitrij Mikul'skij*, op. cit., 2020, p. 25.

⁶ <https://isoacourses.com/art-courses/tazhib-gereh-works-online-course/> Gankovski j « Čečnyja : pričiny krizisa », in *Aziya i Afrika segodnya*, 2019, pp. 2-6.

The growing political turmoil in post-war Chechnya led to religious divisions. Since 1997, the term "Wahhabi" has become the dominant word in all descriptions of political-religious events in Chechnya and the North Caucasus in the Russian mass media.

Migration and its consequences for the North Caucasus

Muhajirism in the North Caucasus is the emigration or forced migration (in this case, to the Ottoman Empire) of a significant part of the Muslim population of this region. This event took on a particularly massive character in the last years of the Caucasian War (1817-1864). From 1858 to 1865, more than half of the indigenous population (Muslims) of the Caucasus left their place of residence. There is a difference of opinion among researchers about the total number of migrants. The maximum number reaches about one million Muhajirs.

There were many reasons for emigration from the North Caucasus, such as political, economic, social, or religious factors caused by the Russian Empire's conquest of the Caucasus. In the 19th century, emigration significantly changed the ethnic map of the North Caucasus. Another result of this mass emigration was the emergence of the North Caucasian diaspora in Anatolia, Bulgaria, Egypt, Jordan, Mesopotamia, and Syria.⁷

As already mentioned above, the process of migration of mountaineers to the Ottoman Empire began in 1858-1859. This process reaches its climax in 1863-1864. It was the worst political crime against the Caucasus mountain people. During the emigration of the North Caucasian mountaineers to the Ottoman Empire, many people died on the way.

The exiled Mtilis could not adapt to their situation and therefore some of them wanted to return. A small number succeeded, but when it became mass, the Russian government took strict measures against their return.

North Caucasian mountaineers in difficult conditions had no choice but to join the Ottoman army as mercenary warriors.

Despite these harsh conditions, the emigration of Caucasian mountaineers to Ottomans continued. It was caused by the colonial policy of Russian tsarism and also by severe national oppression. The migration of people from this region also took place during the Second World War.⁸

The role of religion in the political life of the region

In the North Caucasus, the influence of religion, specifically Islam, on the political and spiritual life of the society is significant. Religious organizations have become quite active in the domestic and foreign politics of the region and have even influenced the politics of the Russian Federation. In turn, individual politicians began to engage more actively in religious activities to use it to gain and consolidate personal power.

In general, the place of religion in political life, which has developed specifically in the North Caucasus region, has not yet been properly studied, first of all, due to the scarcity of materials for vague ideas about their essence, political aspects, and consequences.

Religious attitudes, both in the past and in modern states, depend on specific social relationships and change accordingly. In Soviet Russia, there were no serious, antagonistic contradictions between religion and the state, because according to the constitutional principle of "freedom of conscience", the church was separated from the state. In modern Russia, the "secular state" is

⁷ Сичкарь, Александр Владимирович, Переселение народов Северного Кавказа в Османскую империю (50-60 - е г. XIX в.): причины, характер, последствия, 2009 с 56.

⁸ Anchabadze Z. Essays on the history of the peoples of the North Caucasus / Plot II, "Science" publishing house, Tbilisi, 1978, p. 12-34.

very vaguely defined. This facilitates the use of religion in the power struggle and exacerbates the antagonistic contradictions between the state and religion.

This is evidenced by the specifics of the religious and political situation in the North Caucasus and its development trends. The number of followers of Islam continues to grow, and so does the influence of religion on all aspects of social and political life, as evidenced by the growing number of mosques and the opening of many religious educational institutions. Therefore, the number of clergymen, religious organizations, political parties with their religious overtones, etc., is quite voluminous.

The quantitative growth of religious denominations does not provide noticeable progress in the moral and spiritual life of believers, i.e. Religion did not become a factor in the consolidation of believers. Disagreement between the clergy and the parishioners is growing, which in some cases has become extremely aggressive.

The division of believers into different religious movements was added to the national division. This is characteristic not only of the followers of Islam but also widespread in the Christian environment.

The division of the North Caucasus Muslim umma into adherents of traditional Islam and Wahhabis, who sought to create a Muslim state "from the Black Sea to the Caspian Sea", caused the religion to introduce an element of tension into the religious and political life of the region. Ideas of unification based on religion remain theological declarations.⁹

There is a common tendency among Muslims to organize politically based on faith. In countries where they are a minority, there is a demand that Muslims form a separate political group, separate from the nation-state, or as a state within a state. Muslims organize politics based on faith because Muslim elites perceive faith as the most effective means of maintaining and gaining political power. There is a close relationship between nationalism and fundamentalism, since fundamentalism presents a detailed and specific program, while nationalism, a phenomenon based on language and ethnicity, complement each other well.

Today, Islamic fundamentalism is more of a political movement than a religious one. Perhaps the reason for this can be found partly in Islam itself, where religion and the state, that is, secular and religious authorities, are less separated from each other. They find unacceptable everything that happens outside their world. As one of the representatives of the Lebanese Islamic organization "Hezbollah" said, there are no such words as compromise or concession in the lexicon of Islamic culture. For some extremists, Islam is perceived not as a personal faith, but as the main system of government.

For Islamists, Islam represents the best ideology, not a religion. As S. Huntington notes in his famous work the conflict between the East and the West was caused by several factors at the end of the 20th century. The increase in the number of Muslims was followed by a mass increase in the unemployed and disaffected youth. It is from their ranks that the Islamists receive serious reinforcements. The resurgence of religion in general, and Islam in particular, has convinced Muslims of the difference and uniqueness of their values, and their superiority over the West. The West's attempt to universalize its values and institutions, to intervene in the conflicts that took place within the Muslim world, caused intense resentment among Muslims. With the collapse of communism, the common enemy of the West and Islam disappears. Instead, each of them became a serious threat to the other. An important factor is also the strengthening of contact between the West and the East (Christians and Muslims), which will strengthen both sides' sense of their own identity and the inspiration that this identity separates and separates them from each other.

⁹ Игнатов, Алексей Владимирович, Религиозно-политическая ситуация на Северном Кавказе и ее учет в политике Российской Федерации, 2004, с 23-45.

Here it is necessary to distinguish Islam as a religion, on the one hand, and Islamism, as an aggressive movement of a political-confessional nature, on the other hand.

The conflicts of the 90s of the last century in the North Caucasus region did not have a purely religious nature.

To analyze as a whole, the religious beginnings of the conflicts at the beginning of the 90s of the last century were particularly weak and insignificant. No one remembered the Shamili call to holy war (Jihad), which was partly due to almost seven decades of atheism. However, later the situation changes. One of the reasons for this, as the President of the Republic of the Adige noted, is the introduction of Islam into fashion. This cannot be entirely blamed on Wahhabi ideology. The fact that religious and ethnic self-determination took place against the backdrop of anti-Russian sentiment in the North Caucasus region over the past decades should also be taken into account. And now, when the period of the Soviet Union has already ended, the ideology characteristic of this government has not been replaced by a common regional alternative. Against the backdrop of general confusion, each community in the North Caucasus is independently looking for an ideological partner.¹⁰

The growing role of the Middle East in the North Caucasus during the period of “perestroika”

During the so-called "perestroika" period in the North Caucasus region, the active construction of mosques and madrasahs began in the 80s of the last century, the financial sources of which came from Turkey and Saudi Arabia. After the collapse of the Soviet Union, the opening of borders helped Islamist organizations to open more schools in the region. More and more young people were going to Islamic universities in the Middle East for education, which was mainly funded by Arab countries.

In the middle of the last century, the North Caucasus entered a period of relative stability. In the 1960s, Islam gained new momentum here. Islam and the Muslim clergy were believed to be fully integrated into the Soviet system. Over a while, muftis were given more freedom. In the late 1970s, according to official Soviet data, there were 300 official mosques registered throughout the Soviet Union and 700 unregistered mosques.

The Soviet period had a significant impact on the social organizations of the North Caucasus region. In the post-Stalin period, the Soviet Union's long-standing policy of promoting national identity in the North Caucasus bore fruit. Significant social, economic and political progress began. More and more, national cadres came to the fore. The number of the indigenous population has also increased.

In the era of perestroika, the central government was weakened, and therefore the state institutions embodied the domination of the Soviet Union. This process allowed the North Caucasus to develop political and social movements that promoted different visions of the region's future. Islam became the primary means of mobilizing support for popular movements against Russia. Moreover, various nationalist movements sought to promote increased political sovereignty and advance cultural and linguistic demands in the republics of the North Caucasus. After the collapse of the Soviet Union, much of the old Islamic elite, whose members were associated with Soviet-led Islam, was challenged by the younger generation. Political liberalization has led to the easing of border controls and the opening of borders.¹¹

North Caucasian Wahhabism and radical Islamist groups

When dealing with radical Islamist groups in the North Caucasus, special attention should be paid to the importance of the role of Islam in the region.

¹⁰ Chikovani N. Religion and Culture in the South Caucasus, lecture course for Master of Social Sciences, Tbilisi, 2006, p. 32-67.

¹¹ Melvin J. Building Stability in the North Caucasus, Stockholm International Peace Research Institute, 2007, P 10.

Historically, Islam has always played a major role in the political life of this region. Any kind of conflict in the North Caucasus against Russia is related to Islam.

Many experts link Caucasian Islamic radicalism and Middle Eastern fundamentalism. Islamic radicalism in the North Caucasus is connected with the history of the struggle for independence, which began in the 19th century.¹²

Before we talk about Caucasian Wahhabism, let us briefly mention that Wahhabism was founded by Muhammad Ibn al-Wahhab (1703-1787). It became a new trend in Sunni Islam. Al-Wahhab traveled a lot to Muslim countries and cities of Saudi Arabia, where he was able to deepen his knowledge in the religious field.

Wahhabism is based on the principles of the Hanbali Madhhab system. The most prominent theologian of this school is Ibn Taymiyyah, who categorically rejected the introduction of the new religion, the cult of saints. He urged Muslims to protect the sanctity of the Qur'an and Sunnah.

Ibn Taymiyyah built the "principle of the golden middle" on Hanbali principles, which meant combining elements of Kalam, traditionalism, and Sufism. Like other Hanbalites, he was also characterized not only by intransigence towards other religions but also by representatives of other sects of Muslims. Despite the dogmatic nature of Ibn Taymiyyah's doctrine, it was still widely spread. Wahhabism is a revival of the teachings of Ibn Taymiyyah and Hanbalism. As we have already mentioned, the followers of Wahhabism rejected the cult of saints, including the Prophet, and were against all entertainment, declaring as heretics anyone who doubted the predestination of events. They also marched under the slogan of Jihad and fought against the slavery of "infidels" and foreigners. Based on these principles, they destroyed even the holy places of Muslims.

Along with religion, the political factor also plays an important role in the Wahhabism ideology. The reason for the success of the Wahhabis was that they were supported by the sheiks of individual Arab tribes. Among them was Abul Aziz Ibn-Saud, who subjugated the Arab tribes to his rule based on a new doctrine (Wahhabism), Ibn-Saud's descendants rule Saudi Arabia to this day. Wahhabism is the official state religion in this country.

Wahhabism became the main factor determining political-economic and religious processes in the Arabian Peninsula. One of the main conditions for his success was religious fanaticism and holy war against those who did not share and did not follow the teachings of Muhammad Ibn al-Wahhab.

Wahhabism, despite its uncompromising attitude towards Muslims, has withstood every test since its inception and has not only become the state religion of Saudi Arabia but has spread to other countries as well.

In the 20th century, the technological process, or the pro-Western orientation of Saudi Arabia, made Wahhabism a relatively moderate religious movement. His attitude towards holy places has changed, which is on the one hand caused by the mercantile goals of the ruling dynasty of Saudi Arabia.

When talking about Wahhabism, we must distinguish between the official religion of the Kingdom of Saudi Arabia (Wahhabism) and that Wahhabism, which is different from Wahhabism spread in other countries, which is why it can become a separate topic of discussion. A good example of this is Wahhabism spread in the North Caucasus.

Wahhabism spread in the Caucasus bears all the signs that are characteristic of a religious sect. This is evidenced by the religious literature that spreads in the region. The movement spread in the Caucasus is not only a manifestation of fundamentalism. It also developed into a sect diluted by politics. All this makes its study even more difficult.¹³

¹² Karosanidze, T. East and the Caucasus, Tbilisi, 2003, p. 21-23

¹³ Aslanidze A. Islam and Modernity, Shota Rustaveli State University of Batumi, Department of Philosophy, Publishing House "Universal", Tbilisi 2013, p. 23-43.

The first groups of "Wahhabis" emerged in the North Caucasus, mainly in Dagestan in the early 1990s when the Islamic Renaissance Party was created. During the first Chechen war, they formed an "Islamic battalion" consisting of foreign volunteers under the command of Khattab. After the war, they emerged as the forces with the strongest and most radical appeal to the Islamic State in Chechnya and its expansion throughout the "Muslim Caucasus."

The "Wahhabis" were represented in the power structures of the post-war "Ichkeria Republic of Chechnya" and controlled the Sharia courts. They were increasingly opposed to the less radical President Maskhadov. According to Marie Bennigsen, they made two major political mistakes - confronting the Sufi brothers and rejecting nationalism. In the name of the transnational "Umma", they aggressively supported the unification with Dagestan.

In 1998, internal political and religious antagonism in Chechnya turned into violent clashes, a constitutional crisis, and a new confrontation with Russia, which did not provide the breakaway republic with economic aid. Moscow did not support President Maskhadov against his more radical opponents. The situation was complicated by the activity of criminal groups, field commanders, and Islamist forces, whose main characters were Shamil Basayev, Salman Raduev, Khunkar Israpilov, and Khattab. In the summer of 1999, "Islamist rebels" of Chechens, Dagestanis, and other nationalities under the leadership of Basayev and Khattab invaded the western part of Dagestan, which gave Moscow an excuse to intervene in Chechnya under the formula "anti-terrorist campaign". With this second Chechen war, Russia did not prevent the growth of Islamist influence from abroad on its Caucasian periphery but created a case for Islamic solidarity. whose main characters were Shamil Basaev, Salman Raduev, Khunkar Israpilov, and Khattab.¹⁴

black widows

At the beginning of the 21st century, women also used the role of martyrs in terrorist organizations, their activities in this direction became more dangerous day by day and gained a wide scale. One such association is the Black Widows, which were actively used by Chechen terrorist groups. They got this name because of the long black dresses they wore when they participated in terrorist attacks. Most of them participated in terrorist attacks, such as the 2002 hostage-taking at the "Nord Ost" performance in Moscow and the September 2004 mass killing of hostages at the Beslan school, among which 186 children were killed. The mass use of female suicide has also been reported in Sri Lanka. These women were ready to become the "martyrs" of the Islamic Jihad and the Divine War.¹⁵

First of all, the radical actions of Chechen women, starting from the 90s of the last century, were directed against Russia. They were enraged by the actions of the Russian Security Service, which took the lives of their fathers, brothers, husbands, sons, and male relatives. In the traditions of the people of the North Caucasus, the rule of "taking blood" is quite strong. This rule obliges the surviving family members to pay retribution for the murder of their relatives.

A good example of the use of women in terrorist attacks is the "black widows" in Chechnya. Black widows are female suicide terrorists of Chechen origin who, as already mentioned above, lost their husbands, sons, and brothers during Chechnya's wars against Russia. The first known black widow was Hava Baraeva, who blew herself up in Chechnya in 2000.

In the second war in Chechnya, which began in 1999, many jihadists from Arab countries were among the Islamists. These jihadists have imported effective terrorist tactics from other fronts of their global jihad. Among them was the use of women in suicide attacks.¹⁶

¹⁴ Bennigsen M. « Chechnya: political developments and strategic implications for the North Caucasus », in *Central Asian Survey*, 1999, p. 535-574

¹⁵ Gelovani N., *Woman in Islam (VII-X centuries)* Tbilisi, 2005, p. 32.

¹⁶ gelovan N., *Women in Islam.*, Ed., "Universal", 2005, p. 13.

It should be noted here that the use of women in suicides is not a purely religious phenomenon. Some secular groups such as the Tamil Tigers in Sri Lanka and the Kurdish Workers' Party have also used this tactic.

There is very little information about how North Caucasian female suicide bombers prepared for their missions. Therefore, it is yet to be determined how much religion was used to turn them into suicide machines, and how much of this is part of a propaganda ploy to present the cause as part of a global Islamist effort against "infidels".

All over the world, female suicides do not have a uniform, clear profile. Most of those identified were younger than 30 years old. Not all of them lost close relatives in the fight against the Russian troops, or during the cleansing of the Chechen civilian population by the Russian security services. The identified female suicide bombers did not live in poverty, nor were they known to have been raped or otherwise tortured and humiliated by the Russian military. An exception is the first "black widow" Luiza Gazoyeva, who blew herself up with a Russian officer in 2001 after the officer taunted the woman that she had killed her husband with his own hands. Many liberal Russian and Western commentators share the common view that desperation over the brutality of Russia's military offensive and its cleansing operations are the main factors driving Chechen women to such acts.¹⁷

Caucasus Emirate

In the North Caucasus, local ruling elites have often been accused of corruption and have also been accused of colluding with Russian authorities and betraying their people. Accordingly, the struggle of the North Caucasian people for independence was going on against both Russia and local rulers. This struggle turned into a jihad, which culminated in the establishment of the Caucasus Emirate in 2007.¹⁸

Russia's North Caucasus region is facing years of instability. Violence occurs regularly in places like Chechnya and Dagestan. While the area poses challenges for Moscow, it has been a longstanding geopolitical imperative for Russia to control the North Caucasus.

Geographically, the North Caucasus is part of the Transcontinental Caucasus Zone, which lies between the Black Sea in the west and the Caspian Sea in the east. The high, rugged terrain in this region creates pockets of ethnic and linguistic groups. More than 40 such groups in Dagestan alone.

The Caucasus is Russia's main defensive buffer, protecting it from powerful Islamic actors such as Turkey and Iran to the south. It was historically difficult for Russia to subjugate the Caucasus region. Since the 18th century, along with the expansion of the borders of the empire, Russia gradually lost control over the North Caucasus to Persia and the Ottomans.

During the Soviet period, strict administrative measures were applied to this region to facilitate the consolidation of any ethnic group. During the Stalin period, a large number of people were deported from the North Caucasus to Central Asia and Siberia (the second migration).

In the 80s of the last century, the reforms of the Soviet system, e.g. year The period of perestroika allowed many of these exiles to return to their homeland. This led to national movements that spread to many Soviet republics at the time.

He added to these processes many different types of conflicts, which were especially manifested in the early post-Soviet era. Chechnya was among them. In the 1990s, Russia waged two wars in Chechnya. These wars started with nationalist and separatist aspirations and also included a religious element. In Chechnya, as well as in the neighboring republics - Dagestan and Ingushetia, the majority of the population is Muslim. And the wars with the Christian Orthodox Russians took

¹⁷ Nozadze P. "Terrorist intelligence on the example of the Tamil Tigers" 2017, p. 10.

¹⁸ Karosanidze T. East and the Caucasus, Tbilisi, 2003, p. 43.

on an increasingly religious character, and the extremism that attracted the attention of local and foreign jihadists also shifted. Moreover, they even participated. They received both material and ideological support from external powers, namely Saudi Arabia.

Russia suppressed the Chechen separatists, mainly by exploiting the internal divisions within Chechnya between nationalists and Islamists. Russia also did this by promoting nationalist clans to power. However, this did not eliminate the violence in Chechnya and its neighboring republics. Islamist groups have tried to pool their resources across the North Caucasus to create a caliphate here. They began to use various types of tactics, including terrorist tactics, in the region and Russia.¹⁹

Islamism did not have much importance in the North Caucasus until a certain period, including in the struggle for the independence of Chechnya. This is evidenced by the fact that when the Chechen parliament approved the new constitution of independent Chechnya in March 1992, it followed the standard model of a secular and nationalist parliamentary constitution, which clearly stated the separation of state and religion. However, shortly after the start of the war, the arrival of Arab jihadist fighters from Saudi Arabia under the leadership of Omar Ibn al-Khattab changed the situation. Through them, not only the religious factor but also Islamism came to the fore among the Chechen rebels.

Open war between Russia and Chechnya ended in August 1996, after Chechen guerrillas regained control of the capital Grozny and the republic's main cities. The cessation of hostilities was signed on August 31, 1996, with the signing of the Khasaviurti Declaration. A few months later, Aslan Maskhadov became the president of the Chechen Republic.

The declaration of the Caucasus Emirate in 2007 was the final turning point in the Chechen insurgency's jihadist transformation. Maskhadov's successor, Doku Umarov, officially abandoned the struggle for Chechen independence to head the Caucasus Emirate itself, a project of a state based on Sharia law. He had to occupy the republics of the North Caucasus, which are part of the Russian Federation.

One of the main characteristics of the Caucasus Emirate is its pan-Caucasian nature, which includes various ethnic groups: Chechens, Ingush, Dagestanis, Kabardians, Circassians, Karachais, as well as a certain group of Azerbaijanis and Russian converts to Islam. The multinational territory under its umbrella is divided into five wilayahs (provinces), which, despite their autonomous structure, are subordinate to the emir.²⁰

In the Caucasus Emirate, the consultative council is appointed by Amira. The Council consists of nine members. The organization has a special unit, the Tortured Brigade, which was founded by Doku Umarov in 2009. This unit was kept secret. Its function included carrying out terrorist acts. The Emirate is based on the Muslim Brotherhood's ideology of jihad. Sayyid Qutb called Muslims to jihad and wrote that every part of the earth on which a Muslim prays is the territory of Islam. He sees Jihad as the main way of protecting Islam.

There are some reports that Bin Laden, the founder of the terrorist organization al-Qaeda, had connections with Islamist militants in the North Caucasus. According to the information of the US intelligence service, in 1997, bin Laden met with the representative of the "Islamic Path" in Afghanistan, Udugov, and the Wahhabis of Chechnya and Dagestan. At this meeting, it was agreed that bin Laden would finance training camps in the North Caucasus and also send fighters to the region.

¹⁹ READ M. History of the North Caucasus' Instability, 2012, P 5.

²⁰ Ter M. Researcher at the Eurasia Observatory, North Caucasus expert, he Caucasus Emirate, the Other Russian Front, 2015, P. 21.

There were also personal ties between the shadowy Caucasian Islamists and the Arab Mujahideen, which further strengthened the communication between them. "Afghan Mujahideen were invited as consultants for teaching and training military tactics in Chechnya". Chechen fighters also helped in the fight. Chechen militias actively fought in Syria. Panki Chechens were also among the fighters in Syria. Among them was Tarkhan Batirashvili, aka Omar Al-Shishani, who was killed in 2014.

Mujahideen of the North Caucasus intensively use intensive sites for their own goals and activities, through which both funds and fighters were attracted.

The use of suicidal methods of fighting by fighters in the North Caucasus became more and more frequent. The Islamists appear in two ways, e. year "Black widow" - martyrs. They were carrying out terrorist acts on the territory of Russia.

The struggle of the Caucasus Emirate has entered a new stage. It is transforming into a global jihad movement. Abu Ali Kebekov himself also shares the ideology of Jihad, although he believes that Jihad should be carried out with ideology along with weapons.²¹

The involvement of the radical extremist groups of the North Caucasus in the Syrian political crisis and the threats arising from them

The North Caucasus is an unstable region, home to several networks of extremist groups that converge on the global jihadist movement of al-Qaeda. The conflict in this region is considered one of the most violent conflicts.

Anti-Russian protests, which began in the mid-90s of the 20th century in Chechnya, have turned into a regional jihad movement since 2007. The Caucasus Emirate was declared by its then leader, Doku Umarov, whose goal was to create an Islamic state based on Sharia (Islamic law) in the entire North Caucasus.

Jihad's popularity in the North Caucasus has gradually increased amid the ongoing conflict between radicals in the Middle East region. On June 21, 2015, A joint statement by North Caucasian rebel commanders claimed that provinces of the Caucasus Emirate had pledged allegiance to Islamic State leader Abu Bakr al-Baghdadi.

In late 2014, two armed groups in Dagestan pledged allegiance to ISIS. Rustam Aselderov was among them. The then leader of the Caucasus Emirate, Ali Ashab Kebekov (Ali Abu Muhammad), clearly confirmed the connection of the Caucasus Emirate with Al-Qaeda and forbade its supporters to communicate with ISIS. After the security services killed Kebekov in April 2015, one of the military commanders of the Caucasus Emirate, Amir Aslan Butukaev of Chechnya, swore allegiance to Abu Bakr al-Baghdadi on behalf of the Chechen fighters. Other provinces followed suit. In June, ISIS accepted the allegiance of the Caucasian Mujahideen and announced the creation of its new province, Vilayet Kavkaz, of which Aselderov became its amir.

ISIS has repeatedly threatened the authorities of Russia and the North Caucasus. On September 3, 2014, he published a video threatening war in the North Caucasus; Notorious field commander Omar al-Shishani offered a \$5 million reward for the assassination of Chechen leader Ramzan Kadyrov.²²

Already in 2012, it became clear that Chechen and other North Caucasian fighters were active in Syria under the flag of the Caucasus Emirate. It was a growing and independent group called Jaysh al-Muhajirin wal-Ansar, the Army of Migrants and Helpers. You received an increasing number of fighters from the Caucasus. This group split in 2013 and a large part of it was led by the Georgian Chechen Tarkhan Batirashvili, also known as Abu Umar al-Shishani. This group joined ISIS. Other North Caucasus militant groups continued their activities in Syria and Iraq. ISIS has gradually become the biggest force for new militants traveling from the former Soviet Union. Al-Shishani

²¹ Karosanidze T. East and the Caucasus, Tbilisi, 2003, p. 12-17.

²² Europe Report N°238, The North Caucasus Insurgency and Syria: An Exported Jihad?, 2016, P. 12-19.

became the leading commander within this organization. He headed the Syrian military operations until his death (July 2016).

It is estimated that 5,000 to 10,000 Muslims from the former Soviet Union have gone to Syria and Iraq - perhaps as many as 5,000 from the North Caucasus. Among them, the Caucasus Emirate stood out against Syrian President Bashar al-Assad's forces. The military experience was received.

In Syria and Iraq, with the strengthening of ISIS, in June 2014 they declared a caliphate in these territories. It was a success for the militants based in the Caucasus.

At the end of 2014, the commanders of the Caucasus Emirate began to increase the number of their loyalists, which was caused by the increasing influence of ISIS in the region. By mid-2015, despite opposition from the leadership of the Caucasus Emirate, the majority of North Caucasian armed groups sided with IS.

Military efforts coordinated with Moscow made it possible to reduce the activity of armed rebels. Before the start of the 2014 Sochi Winter Olympics, hundreds of radical fighters were killed. At the same time, the authorities of the region offered them and even encouraged the departure of radicals and militants to Turkey before the Sochi Olympics. This increased the already busy flow of people leaving the country.

Unstable developments in Syria have contributed to the flow of radicalized youth there from the North Caucasus, Central Asia, Bashkir, and Tatarstan. Under the current situation in Syria, it has become much more difficult for North Caucasian militants to settle there. Those who went to fight in Syria in previous years and then were unable to go stayed in the region and encouraged people to do more violence.

ISIS itself may evolve or mutate, but most experts think it's only a matter of time before it becomes a radical, violent Islamism.

Given the current difficult state of relations between the West and Russia – and with Chechen leader Ramzan Kadyrov, figures under US sanctions – the challenge for Western governments is to influence and defuse the situation. A further complication is a hostility with which Russian and Chechen authorities treat civil society actors, especially those with foreign connections. And yet Western politicians must find a way to engage with both officials and the public to promote good governance, effective deradicalization programs, and honest debate at the grassroots level to address some of the deeper problems destabilizing the region.²³

Caucasian extremist groups in the Syrian conflict are considered one of the most authoritative and leading forces among the groups fighting against Bashar Assad. Their involvement in the conflict was, on the one hand, due to the closest historical ties that have been formed since the 1990s between the North Caucasian jihadist movement and international extremist organizations, as well as among Muslim religious scholars who are authoritative preachers of jihad. The support of the Jihad in Syria by the Caucasians was perceived as a kind of transition period to activate their movement in the Caucasus. It is for this reason that the extremist groups operating in the North Caucasus and their supporting Caucasians who emigrated from the region eagerly took part in the hostilities against Bashar Assad. According to the data of the administration of the president of the Russian Federation in 2018, about 3,000 citizens of the North Caucasian republics went to Syria to participate in terrorist organizations.

The reasons for the involvement of Caucasian extremist groups in fighting in Syria are quite limited. According to one of the versions, this fact was facilitated by those Caucasian veterans who worked abroad for years and at the given moment or at least in the past represented the interests of the extremist organization "Caucasus Emirate" operating in the North Caucasus. These groups convinced Caucasians in exile to participate in the Syrian conflict. For the Caucasian fighters, participation in the Syrian conflict was perceived as a way to gain a lot of combat experience and

²³ Sturdee N, Mairbek Vatchagaev, *ISIS in the North Caucasus*, 2020, P. 36.

to deepen the connection with extremist organizations on a global scale, according to their calculations, in the event of the start of hostilities in the North Caucasus, they would provide the necessary financial, material and human resources for the jihadist movement. The official version of involvement in the Syrian conflict was religious obligations, which included the need to protect the Muslim people and wage jihad. Material motives were also added to the mentioned - the Caucasians involved in the Syrian conflict were presented in the eyes of the international community as mercenary fighters. Subsequently, religious-ideological issues came to the fore, and material interests became secondary. The first flow of Caucasian fighters arrived in Syria in 2012. Although they were not numerous, their importance was great at the beginning of the conflict. Later, since the summer of 2012, the number of North Caucasian fighters in the Syrian conflict has increased significantly. The summer of 2012 is considered a turning point, when the routes connecting with the North Caucasus were significantly restricted, which pushed the emigrating Caucasians to a new wave of jihad. A further large flow of Caucasian fighters left for Syria in 2013-2014, and in this case, a large part of them were people living directly in the North Caucasus. In the summer of 2012, the first group of fighters of non-Syrian origin "Qata'iba al-Muhajirin wal-Ansari" was formed under the leadership of Abu Umar al-Shishani. Caucasian and Saudi fighters were the leading force of the group. During the formation of the mentioned group, further groups of Caucasian fighters had already started to enter Syria, and a large part of them joined the ranks of "Kata'iba Almuhajirin". However, individuals joined other groups as well. In the later stages of the Syrian conflict, North Caucasian Muhajirs began to form other large and independent formations, which play an important role in the Syrian conflict. Thus, by the fall of 2012, the authority of the Caucasian fighters increased significantly. Under the direct leadership of Abu Umar al-Shishani, the Caucasian fighters in coordination with the Syrian opposition forces achieved significant success in capturing several military bases in Aleppo province. In March 2013, several armed formations joined Qata'iba al-Muhajireen, as a result of which the new association was named "Jaish al-Muhajireen wal-Ansari" and became one of the largest and most authoritative formations composed of foreign fighters operating on the territory of Syria. The determination of positions for the Caucasian fighters was greatly influenced by the events that developed in the North Caucasus in 2013, namely the death of Doku Umarov, the leader of the "Caucasus Emirate" since the Caucasian commanders operating in Syria were freed from the oath of loyalty to D. Umarov. Now they were defining their role in the global jihadist movement. Most of the Caucasian fighters supported ISIS led by Abu Umar al-Shishan. The second part continued to exist independently. Until recently, the Caucasian jihadist movement was associated with the Caucasian wing of ISIS by the international community. The Caucasian groups operating in Syria and Iraq may be divided into two or three groups. The first and largest group is the Caucasian fighters of ISIS. Caucasian fighters operating in ISIS lost the leading role in the organization in June 2016, when the fact of the death of Abu Umar al-Shishan was confirmed. Despite this, they were able to maintain the authority of a group with high fighting ability. The wing of supporters of the "Caucasus Emirate" is the second important Caucasian group operating in Syria. At the very beginning of the Syrian conflict, the group was associated with the name "Jaish al-Muhajireen wal-Ansari". Until 2013, the so-called "House of the Emirate of the Caucasus", was formally independent, but was involved in hostilities with other units of "Jaish". In 2013, after Abu Umar al-Shishan joined ISIS, Salahuddin Shishani was elected as the leader of Jaish. Thus, the administration of the group came under the leadership of the official representatives of the "Caucasus Emirate in Syria". The group enjoyed a high level of authority and support from other jihadist organizations operating in Aleppo province, which allowed the group's leadership to attract more and more fighters to its ranks. After the elimination of Magomed Suleimanov, the last leader of the "Emirate" in the North Caucasus in 2015, a new Amir has not been elected. There are no reports of Saladin's further connection with the "Emirate of the Caucasus in Syria".

However, in 2016-2017, he cooperated with independent Caucasian groups operating in the northwest of Syria, which indicates his detachment from the "Caucasus Emirate". In December 2017, Salahuddin Shishan was killed during the fighting in Hama province. Initially, the Caucasian extremist groups joined the Syrian conflict as a united front, and one of their main tasks was to concentrate forces and resources, gain support from international jihadist organizations and donors, and acquire allies. Finally, the North Caucasian wing involved in the ongoing process of the Syrian conflict failed to maintain unity and found themselves divided into different fronts of international jihadist organizations opposing each other.²⁴

Conclusion

The spread of Islam in the North Caucasus was going on for quite a long time. In the late Middle Ages, the Muslimization of the population of this region ended. It should be noted that the vast majority of the population of the North Caucasus are followers of Sunni Islam.

The followers of Shiite Islam are a rather small part of the population of the North Caucasus. This fact is a little strange considering that this region was closer to Shiite Iran than to the Ottoman Empire.

After the North Caucasus became part of the Russian Empire (XIX century), the situation here changed significantly. From that time on, the people living here had to fight not only against social and political oppression but also to protect religious inviolability. Christian Russia posed a serious problem to the Muslim population of the North Caucasus.

Therefore, the people living here had to defend their independence in different ways. It should also be noted here that the national liberation movement in the North Caucasus was accompanied by a religious factor since the 19th century. This led to the formation of the religious-political trend Muridism, around which a large part of the population of this region gathered and under the banner of Muridism began to fight for liberation from the Russian Empire. This movement, or Muridism, turned out to be quite a powerful movement since it was able to gather the population of the North Caucasus around one idea. That is why Muridism played an important role in the national liberation movement in the North Caucasus.

Because the people of the North Caucasus were punished for being Muslim, among other reasons, this created a serious problem for the region. In the 19th century, the migration of the population started. This especially affected the Muslim population based on this word. Many Muslims migrated from the region, which naturally had a painful effect on the North Caucasus region. That is why emigration had a great negative impact and most importantly, it somewhat weakened the national liberation movement of the population of the North Caucasus against Tsarist Russia. Islam is a rather politicized religion, and naturally, this religion played an important role in the development of the population of the North Caucasus in a separate direction. By itself, when the North Caucasians fought to protect their rights, they still brought the religious factor to the fore, because any oppression against them was primarily based on religion. It should be noted here that North Caucasian Wahhabism and Saudi Arabian Wahhabism are very different from each other. In the North Caucasus, the kind of Wahhabism that exists in Saudi Arabia is not widespread, because the export of this current from Saudi Arabia was not carried out in any country.

Wahhabism, which has existed in the North Caucasus for several decades, is the name of one of the trends with its ideas, ideology, actions, etc. It is quite different from Saudi Wahhabism, although North Caucasian Wahhabis believe that they are followers of Saudi Wahhabism, which is quite far from reality. Based on North Caucasian Wahhabism, Islamist radical groups were formed in the North Caucasus, which have been quite active in the territories of the North Caucasus and

²⁴ Sanikidze G. Nakhutsrishvili N. modern middle east
Tbilisi 2019, p. 14-28.

the Russian Empire for a long time. These radical Islamist organizations were active during the Chechen-Russian wars, although their activity continues today, but not with the same intensity as it was two decades ago.

The Caucasus Emirate is one of the important components of the national liberation movement of the people of the North Caucasus, which was formed after the collapse of the Soviet Union. It is worth noting that the North Caucasus Emirate includes several provinces, and these provinces include the territories of the Russian Empire inhabited by Muslims. This emirate and its included provinces did not play any important role, but these emirates and provinces still exist, although as time passes, the existence of this emirate and its included provinces is becoming more and more formal.

As we have already mentioned, the formation and development of the radical Islamist organization in the North Caucasus took place under the influence and financing of some countries in the Middle East. Accordingly, these organizations are in contact with their ideological countries. This can be seen from the circumstances when the situation in many countries became tense as a result of the Arab Spring in the Middle East. North Caucasian radical organizations also joined these battles, of course, they are quite active under the flag of their sponsoring and ideologue countries. Some fighters were sent from the North Caucasus. Fighters were being recruited into the ranks of the terrorist organization Islamic State, and North Caucasian radicals were actively working to take as many young people as possible, especially to Syria. This process had a rather painful impact on the entire Caucasus region and not only on the North Caucasus. It was a kind of threat that could pose a serious challenge to the entire Caucasus region.

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Agricultural Sciences

МИКРОФЛОРА иловых осадков горводоканала и городских «зеленых» ОТХОДОВ

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В результате хозяйственно-бытовой и производственной деятельности человека образуются жидкие отходы в виде сточных вод, которые, преимущественно, сбрасываются в канализацию. В процессе прохождения сточными водами стадий очистки на очистных сооружениях образуется иловый осадок, в большинстве своем, не поддающийся какой-либо переработке, кроме как обезвоживанию на иловых полях в естественных условиях. Складирование иловых осадков приводит к распространению неблагоприятного газовойдушной фона, загрязнения почв и подземных вод токсичными компонентами, входящими в состав осадков. Как известно, наличие в осадке элементов питания растений и органического вещества определяет целесообразность их использования в сельском хозяйстве в качестве удобрения. При этом агрохимический состав осадков зависит от исходного «сырья» и методов, применяемых в технологии их обработки [1].

Использование отходов сточных вод (ОСВ) в качестве нетрадиционного органического удобрения способствует улучшению агрохимических показателей почвы – реакция почвенной среды становится близкой к нейтральной, а внесение возрастающих доз ОСВ увеличивает содержание органического углерода в пахотном горизонте почвы. При этом по содержанию подвижного фосфора почва из разряда слабо обеспеченных переходит в разряд высоко обеспеченных, а низкий уровень содержания калия в ОСВ предполагает применение калийных удобрений. Нехватка традиционных форм органических удобрений заставляет изыскивать новые виды органических материалов и включать их в современные агротехнологии.

Как известно, наличие в осадке элементов питания растений и органического вещества определяет целесообразность их использования в сельском хозяйстве в качестве удобрения. При этом агрохимический состав осадков зависит от исходного «сырья» и методов, применяемых в технологии их обработки [1].

Сухое вещество осадка из первичных отстойников имеет следующий элементарный состав, % по массе: углерод – 35,4–87,8%; водород – 4,5–8,7%; сера – 0,2–0,7%; азот – 1,8–8%; кислород – 7,6–31,4%. Сухое вещество активного ила содержит: 44–75,8% углерода; 5,6–8,2% водорода; 0,9–2,7% серы; 3,3–9,8% азота; 12,5–43,2% кислорода [2]. Таким образом осадки городских очистных сооружений представляют собой органические (до 80 %) и минеральные (около 20 %) примеси, выделенные из воды в результате механической, биологической и физико-химической очистки.

Также осадок сточных вод представляет собой наноструктурированный материал, его шероховатая поверхность обеспечивает большую площадь химического связывания. Наличие развитой переходной пористости, включающей мезо- и макропоры, доказывает присутствие у осадка адсорбционных свойств и способность удерживать влагу при внесении его в качестве удобрения и влагосорбента, связывать тяжелые металлы и другие токсиканты [3].

Компосты на основе осадков в настоящее время используют в цветоводстве, озеленении, при устройстве спортивных площадок, формировании газонов и получении газонной культуры. В соответствии с СанПиН 2.1.5730-96, доза внесения осадков сточных вод не должна превышать 30 т/га по сухому веществу для удобрений земельных угодий, не загрязненных тяжелыми металлами, которые отводятся под посадки древесно-кустарниковых насаждений, разбивки парковых ансамблей, долголетних луговых угодий. Исследования по использованию осадка сточных вод в цветоводстве для выращивания хризантем, гладиолусов, тюльпанов и астр показали позитивное влияние на приживаемость, улучшение их биометрических показателей и содержания хлорофилла, растения раньше зацвели, улучшались декоративные и товарные показатели [4].

К наиболее выгодным способам переработки иловых осадков относятся биологические методы, при которых органический отход производителя становится субстратом для редуцентов. Переработка илового осадка через использование остатков растений, компостирование или вермикомпостирование, вовлекают отходы в биохимические процессы, происходящие естественным образом в природе, включая разложение органического вещества. Осадок сточных вод, переработанный таким образом подвергается множественным процессам, которые обеспечивают стабилизацию ила, уничтожение болезнетворных организмов, уменьшение объема и влажности. Вязкий и комковатый ил легко превращается в менее компактную консистенцию под влиянием атмосферных факторов, растений, дождевых червей в процессе компостирования [5].

Этот метод переработки иловых осадков исключает неприятный запах и уменьшает либо полностью устраняет наличие болезнетворных организмов, а также снижает содержание тяжелых металлов в иле [6,7].

Согласно литературным данным, наибольшее применение в качестве биофлоулянтов нашли бактерии родов *Pseudomonas*, *Bacillus*, а также микроскопические грибы *Penicillium*, *Aspergillus* [8, 9]. Несмотря на то, что в состав активного ила входят актиномицеты, их сорбционные свойства, а также возможность использования в качестве самостоятельного флокулирующего агента остаются до настоящего времени практически не исследованными. При этом особая роль в микробном водном сообществе отводится роду *Streptomyces*. Благодаря лабильности ферментативного аппарата, представители рода *Streptomyces* легко приспосабливаются к изменяющимся условиям среды обитания, а высокая антагонистическая активность позволяет им подавлять или полностью угнетать жизнедеятельность других бактерий [10].

Микробиологическая технология переработки отходов способствовать избавлению обезвоженного осадка от зловония, тяжелых металлов, патогенной микрофлоры, и повысить содержание органического вещества. На сегодняшний день актуальным является разработка препаратов для переработки иловых осадков и городских зеленых отходов в органическое удобрение, на основе эффективных микроорганизмов выделенных из отмеченных отходов. Такой подход имеет свое преимущество из-за высокой выживаемости применяемых штаммов микроорганизмов при использовании их в качестве деструкторов.

Целью данного исследования является изучение микрофлоры осадков сточных вод и растительных отходов с выделением новых штаммов микроорганизмов для создания биопрепаратов.

Объектами исследований служили иловые осадки сточных вод, городские «зеленые» отходы и микроорганизмы.

Эксперименты проведены в лабораторных условиях в 2022 году в лаборатории микробиологии Казахского агротехнического университета им. С.Сейфуллина.

Для создания биопрепарата микробиологическим способом на начальном этапе работы из иловых осадков сточных вод и городских «зеленых» отходов методом серийных разведений были выделены несколько групп микроорганизмов. Для изучения микрофлоры проведен микробиологический анализ отходов. Численность и структуру комплекса микроорганизмов определяли методом посева разведений суспензии иловых осадков и растительных остатков на плотные питательные среды [11]. Количество бактерий, использующих органические формы азота, учитывали на мясопептонном агаре (МПА); бактерий и актиномицетов, использующих минеральные источники азота на крахмало-аммиачном агаре (КАА); мицелиальные грибы - на подкисленном агаре Чапека-Докса. Аэробные целлюлозоразрушающие микроорганизмы выявляли на среде Гетчинсона с последующим дифференцированием на бактерии, грибы и актиномицеты. Общую микробную обсеменённость рассчитывали по количеству выросших колоний, количество КОЕ в 1 мл определяли по формуле (1):

$$M = a \times 10^n / V, \quad (1)$$

где a — количество выросших колоний;

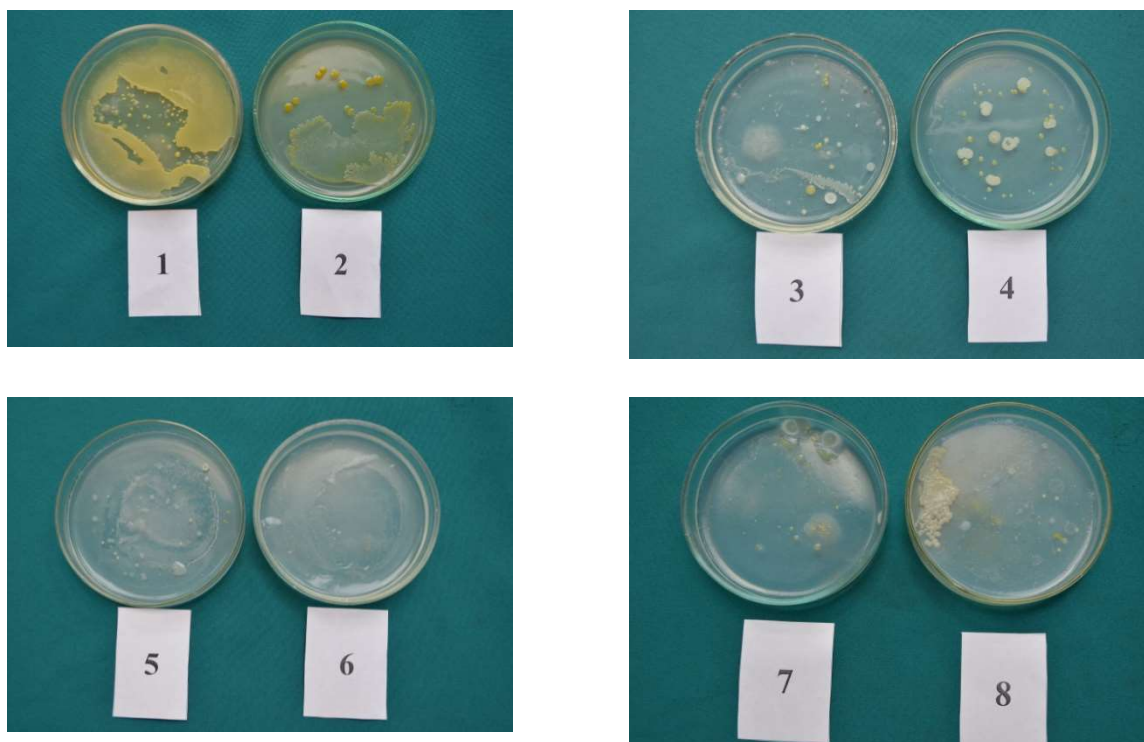
10^n — разведение;

V — посевная доза (0,1 мл).

Для того чтобы запустить природный процесс разложения отходов микроорганизмами необходим поиск штаммов микроорганизмов, способных к расщеплению основных компонентов органического отхода. Выделение микроорганизмов из отходов проводили на пяти твердых питательных средах, где анализ численности был представлен в таблице 1. Согласно результатам микробиологического анализа, образцы отходов широко заселены микроорганизмами различных групп. В иловом осадке содержание микроорганизмов, использующих органические формы азота, довольно высокое, где количество варьировалось в пределах $140 \cdot 10^7$ КОЕ/мл (рис. 1).

Таблица 1 - Численность микроорганизмов на иловых осадках и растительных остатках на различных питательных средах, КОЕ/мл

Вариант	МПА	КАА	Эшби	Гаузе	ЧД
Иловые осадки	$140 \cdot 10^7$	$20 \cdot 10^7$	$40 \cdot 10^7$	$36,3 \cdot 10^4$	$17 \cdot 10^7$
Растительные остатки	$90 \cdot 10^7$	$16 \cdot 10^7$	$17 \cdot 10^7$	$19,3 \cdot 10^4$	$15 \cdot 10^7$



1 – МПА, иловые осадки, 2 – МПА, растительные остатки, 3 – КАА, иловые осадки, 4 – КАА, растительные остатки, 5 – Эшби, иловые осадки, 6 – Эшби, растительные остатки, 7 – Гаузе, иловые осадки, 8 – Гаузе, растительные остатки

Рисунок 1 – Микрофлора органических отходов на различных питательных средах

Микроорганизмов, поглощающие минеральные формы азота и произрастающие на крахмально-аммиачном агаре наблюдалось в 7 раз меньше, чем аммонификаторов в иловых осадках, и в 5,6 раз меньше в растительных остатках. Это свидетельствует о низком уровне процессов разложения в органических отходах. В то же время высокое содержание органических веществ способствует размножению аммонификаторов. Численность актиномицетов в иловых осадках и растительных остатках немногочисленны из-за низкой скорости данной группы микроорганизмов, колеблется в пределах от 17 тыс./г до 36,3 тыс./г. Отмечено что в растительных остатках число актиномицетов превышает количество грибов, что можно объяснить периодичностью роста актиномицетов и грибов в процессе разложения растительного материала.

Анализируя полученные данные, следует отметить, что в иловых осадках численность азотфиксирующих микроорганизмов довольно высокая (на среде Эшби), по сравнению с растительными остатками. Некоторые виды микроорганизмов крайне важны для процесса азотофиксация для многих сельскохозяйственных культур.

Следует отметить что, наиболее перспективным способом переработки органических отходов является микробиологический метод, основанный на способности микроорганизмов использовать в качестве источника питания в процессе их жизнедеятельности разнообразные органические вещества, которые разрушаются ими до экологически нейтральных соединений. Как биологический процесс, компостирование включает в себя множество микроорганизмов. Эти микроорганизмы, их состав и величина являются важными компонентами процесса компостирования. Изменения в различных популяциях микроорганизмов, таких как бактерии, актиномицеты и грибы позволяет лучше понять процесс компостирования.

Количественный и качественный учет микроорганизмов населяющие иловые осадки и растительные остатки позволил выделить чистые культуры микроорганизмов для дальнейшего изучения их свойств и возможного применения для создания эффективных биопрепаратов на их основе. Хотя некоторые из этих организмов могут быть полезны для роста растений и плодородия почвы, другие могут быть патогенными для людей и животных.

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Determining the amount of water needed to dissolve salts in the soil

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Annotation. The need for liming the soil can be determined by the external (morphological) signs of the soil, however, the selection of the field for liming and the determination of lime norms should be done based on soil research and the resulting acidity level. Modern agrochemical methods of soil fertilization allow us to accurately classify soils according to their acidity and identify those that require fertilization. It should be noted that it is necessary to make soil acidity cartograms, the use of which should find a place in practical farming.

Keywords: soil, acidity, Fertilizer efficiency, Physical and chemical processes.

The reaction of the soil has a great influence on the development of plants and soil microorganisms, the speed and direction of the chemical and biochemical processes in the soil; Nutrient uptake by plants, mineralization of organic compounds, decomposition of soil minerals and dissolution of difficult-to-dissolve compounds, coagulation and peptization of colloids and other physico-chemical processes are strongly dependent on soil reaction. It has a great influence on the efficiency of fertilizers applied to the soil. In turn, fertilizers can change the reaction of the soil solution, acidify it, or make it alkaline. The reaction of the soil solution depends on the ratio of hydrogen (H⁺) and hydroxyl (OH⁻) ions in it. The concentration of hydrogen ions in a solution is expressed by the symbol pH, which means the negative logarithm of the concentration of hydrogen ions. Depending on the concentration of hydrogen ions and the value of pH, the reaction of the soil solution is grouped as follows:

Depending on the concentration of hydrogen ions and the value of pH.

Table #1.

reaction	<i>pH</i>	<i>H</i> ⁺ Concentration of ions gr/l
strong acid	3 – 4	$10^{-3} - 10^{-4}$
Acid	4 – 5	$10^{-4} - 10^{-5}$
weak acid	5 – 6	$10^{-5} - 10^{-6}$
neutral	7	10^{-7}
weak neutral	7 – 8	$10^{-7} - 10^{-8}$
alkaline	8 – 9	$10^{-8} - 10^{-9}$
strong alkali	9 - 11	$10^{-9} - 10^{-11}$

The reaction of the soil solution under natural conditions ranges from pH 3-3.5 (various types of soils in transition between highland and lowland peaty soils, which contain at least 70% plant residues, up to 10% moss and up to 20% woody and herbaceous plants residues) up to pH 9-10 (loamy soils), but most often it does not exceed pH 4-8.

If the amount of H⁺ hydrogen ions in absolutely pure distilled water is 1×10^{-7} g and the amount of OH⁻ hydroxyl ions is also the same, such a solution is neutral, that is, $pH = 7$. Close to the neutral reaction of the solution (pH 6.5-7) strong black soils with deep thickness are more often characterized.

11 % of agricultural fields (330 thousand hectares) in Georgia are occupied by acidic soils (red earth, yellow earth, subtropical ecseri, komral and others). In Western Georgia, the area of strongly acidic soils reaches 37 a thousand hectares, Where cultivation of crops other than tea bush and some siderats (primarily leguminous plants) is almost impossible without carrying out specific agrotechnical measures.

Many agricultural crops and beneficial soil microorganisms react negatively to increasing acidity. Therefore, it is of great importance to reveal the nature of soil acidity and to develop means to avoid it.

The need for soil fertilization can be determined by the external (morphological) signs of the soil. However, the selection of the field for liming and the setting of lime norms should be done based on soil studies and the resulting acidity level. Modern agrochemical methods of soil fertilization allow us to accurately classify soils according to their acidity and identify those that require fertilization.

It should be noted that it is necessary to make soil acidity cartograms, the use of which should find a place in practical farming.

he purpose of the experiment was to determine the amount of water needed to dissolve the salts in the soil in the village of Mukhur, Tshorotsku municipality. 2. To calculate the amount of water needed to flush out the resulting solution.

The volume weight of the soil depends on the specific weight of the cool phase of the soil and the porosity. The higher the specific gravity of the dense phase and the lower the porosity, the higher its bulk density. Volumetric weight varies in individual soil layers. The volumetric weight is low, in the upper layers where the porosity and content of organic matter is higher. Density varies between 1.1-1.4(1.6) (g/cm³).

In the case of brackish soils, the total amount of salts is determined by means of the volumetric weight of the soil. We also have the ability to determine soil moisture in percent.

The marginal water capacity is used in solving the issues of agricultural reclamation - calculating the irrigation rate, determining the irrigation schedule, calculating the leaching rate for brackish soils and swampy soils. We have obtained the marginal water carrying capacity of the soil $r_{mw} = 34.11\%$, while the volumetric weight $\alpha = 1,2$. In a 0.7-meter-thick soil of one hectare, the amount of water during percolation to the limit water capacity is:

$$W_z = 100H\alpha r_{mw} = 100 \cdot 0.7 \cdot 1,2 \cdot 34.11 = 2865.24 \text{ m}^3.$$

We got the average solubility of salts 30%, Then the water corresponding to the limit water capacity will open $2865,24 \cdot 0,3 = 859,58$. tons of salt.

The weight of the 0.7 m thick soil of one hectare is:

$$10000 \cdot 0,7 \cdot 1,2 = 8400 \text{ t.}$$

If we express the total amount of salts 859.58 t as a percentage relative to the soil weight, we get:

$$\frac{859,58 \cdot 100}{8400} = 10,24\%.$$

i.e. We got that soil 0.7 m. If the depth layer is evenly salted with a strength of 10.24%, then the amount of water corresponding to the limit water capacity will be sufficient to dissolve the total amount of salts in it. Salinization with such great strength is rarely found in nature, and if it is found, it is only at a depth of a few centimeters of the upper horizon. Usually, their amount varies within 0.5-3%.

In this way, the amount of water corresponding to the limit water capacity is enough to dissolve the salts in the soil. But the dissolution of salts in the soil does not happen suddenly, because the crystals of salts are closely related to the insoluble parts of the soil, so we had to leave the given water in the soil for several days to dissolve them, and then remove it. As for the amount of water required to remove the obtained solution, it was equal to the amount of solution.

As a test, we accepted that the minimum rate of leaching is equal to twice the maximum soil water capacity. We know that the water given for washing moves unevenly in the soil and we get unevenly washed soil, so the water given once is not enough to flush out the solution, which is why we increased the washing rate and washing is carried out by giving water in several portions. We calculated the flushing rate according to:

$$M_l = W_{mw} - W_{ws} + nW_{mw}$$

where M_l - is the rate of leaching per hectare (M^3); W_{mw} - The marginal water capacity of the soil is (m^3/ha); W_{ws} - Water storage in the soil before flushing (m^3/ha); n - is the coefficient, which is approximately equal to 2-3 for highly salinized soils, 1-2 for moderately salinized ones.

Conclusion. To determine the coefficient n , we took a sample of the soil in a dissolved state with a cylinder, in two replicates. In one cylinder, we determined the water supply in the soil (Table #1) and the marginal water capacity (Table #3). And in the second cylinder, we are washing the soil.

From the moment of the start of filtration, we took a certain amount of filtrate several times, in which we determine the salts.

Washing rate during the first filtrate collection when $W_l = 300 sm^3$, $W_f = 75 \text{ } \delta^3$ we took the filtrate $100 - 100sm^3$, Then it was accepted:

$$M = W_{lw} - W_f + nW_l = 300 - 75 + 100 = 325sm^3$$

In this calculation $nW_l = n \cdot 300 = 100 sm^3$,

from where:

$$n = \frac{100}{300} = 0,33.$$

The washing rate for the moment of taking the second filtrate is:

$$M = 300 - 75 + 100 + 100 = 425 sm^3,$$

But, $nW_{lw} = 200$

from where - $n = \frac{200}{300} = 0,6.$

In parallel with the calculation of the coefficient n , we determined the amount of salts in the filtrate, and the analysis of the first and second filtrate gave us the desired result.

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Physical and Mathematical Sciences

ЗЕРТТЕУШІЛІК ДАҒДЫЛАРЫН ҚАЛЫПТАСТЫРУ ӘДІСТЕРІН ФИЗИКАЛЫҚ ЭКСПЕРИМЕНТТІ ОРЫНДАУ КЕЗІНДЕ ОҚУШЫЛАРҒА ҚОЛДАНУ

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Аннотация: физика сабақтарында оқушылардың эксперименттік жұмыс дағдысын, шығармашылық қабілетін дамыту тұлғасын арттыруға болады. Бұл орайда эксперименттік тапсырмаларды үйге берудің маңызы ерекше. Үй тапсырмасына эксперименттік тапсырмалар беру оқушының біршама қабілеттерін және шеберліктерін дамытады және осы пәнге ерекше қызығушылықты тудырады.

Аннотация: на уроках физики возможно повышение учащихся навыков экспериментальной работы, развитие творческих способностей. В этом случае важно давать экспериментальное задание дома. Выполнение экспериментальных домашних заданий развивает умение и навыки учащихся, формирует особый интерес к предмету.

Annotation: in physics lesson it is possible to increase students skills of experimental work, development of creative abilities. In this case, it is important to give the experimental tasks at home. Giving experimental homework assignments develops students abilities and skills and creates a special interest in the subject

Түйін сөздер: эксперименттік тапсырма, шығармашылық қызмет, есептің шарты, шарттарды анализдеу, өлшеулер жүргізу, есептеулер, тәжірибеден тексеру.

Физика есептерін шығару оқушылардың оқу материалдарын саналы түрде терең игеруіне қолайлы жағдай туғызады, олардың алған білімдерін пайдалана білу қабілетін қалыптастырады және бекітеді. Сонымен қатар, есептерді шығару оқушылардың өздігінен ойлануын, қиыншылықтарды жеңуге деген жігерін және табандылығын арттыру құралдарының бірі болып есептелініп, оқу процесін жақсарта түседі. Есеп шығару – оқу үрдісінің бөліп алуға болмайтын бір бөлігі болып табылады. Себебі, ол физикалық ұйымдарды қалыптастыруға оқушылардың физикалық құбылыстарды ойлау қабілетін дамытуға, оны практикада қолданып білуге үйретеді

Білімді игерудің нәтижелілігі таным үдерісіне адамның әртүрлі сезім мүшелерінің қосылуы және нақты заттар мен құбылыстарға бетпе-бет келгенде оны сезіну, көребілу және қабылдау арқылы артады. Бұл жағдайда физикалық эксперименттің маңызы зор. Қабілеттілік дегеніміз дамудың нәтижесі болғандықтан, оның туа бітуі мүмкін емес.

Оқушы қабілеті дегеніміз, оның педагогикалық ықпал аясындағы білім алу әрекеті. Жеке

тұлғаны дамыту, оқыту оның шығармашылық қабілетінің дамуына әсер етеді. Әрбір оқушы оқу материалын шығармашылық деңгейде игере алады, яғни шығармашылық қабілетін дамытады. Бұл үшін оның шығармашылық ойын дамыту негізінде оқуға, яғни өздігінен білім алуға үйрету қажет. Сондықтан, ең алдымен оқушы даяр білімді мұғалімнің түсіндіруімен алатын дәстүрлі оқыту практикасынан бас тарту керек. Бізде әлі күнге мектепте сабақтағы белсенді бірде-бір тұлға – оқу материалын түсіндіруші мұғалім, ал оқушының рөлі тыңдаумен, оқумен және оны білімді тексеру кезінде қайта айтып берумен шектеледі. Шығармашылықты арттырудағы басты мәселе – есептің шартынан оның шешіміне барар жолдағы логикалық алшақтықты түйсік арқылы жеңу. Толғандыратын мәселе (есеп, зертханалық жұмыс, эксперименттік тапсырма т.б.) оны толық билеп, күші мен назары соған ауады. Адам басқа жұмыстармен шұғылданса да, оның сана түкпірінде осы мәселенің шешімі қарастырылып жатады. Оның ұзақтығы шығармашылық қызметтің тәжірибесіне байланысты. Бастапқыда оқушы есепті бір апта немесе одан да көп уақытта шығаруы мүмкін. Ол оның сана түкпірінде жүреді. Ол есепті міндетті түрде шығарады, тек ешкімнен көмек сұрамауы маңызды. Шығармашылық қызметтен тәжірибе жинақталған сайын есеп бұрынғыдан да тез шығарылатын болады. Шығармашылық қабілеттерін арттыруда эксперименттік тапсырмаларды үйге берудің маңызы ерекше. Экспериментті жүргізудің дидактикалық құрылымы төмендегідей болуы мүмкін: демонстрациялық тәжірибелер, фронтальды зертханалық жұмыстар, физикалық практикум, үй жағдайындағы тәжірибелер.

Мұғалімнің үйге эксперименттік тапсырмалар беруі сирек кездеседі. Дегенмен, оқу процесінде дәл осы тәсілді қолданудың ерекше маңыздылығы, біріншіден, үй жұмысының формасын түрлендіреді (кітапты оқыту, есеп шығару), екіншіден оқушының алдына тек қана өздігінен эксперименттік тәжірибе жасау арқылы ғана шешілетін мәселені қояды.

Үй тапсырмасына эксперименттік тапсырмалар беру оқушының мынадай қабілеттерін және шеберліктерін дамытады:

- Интеллектуалдық (салыстыру қабілеті, негізгіні ажырата білу, зерттеу, эксперимент нәтижелерін жазу және қорытындылау).

- Пәндік (теорияны практикамен ұштастыру шеберлігі, физикалық білімдерін құбылыстарға анализ жасауға қолдану, көптеген үй аспаптары мен құралдарының жұмыс істеу принципін түсіндіру).

- Ұйымдастыру-танымдық (құрал-жабдықтардың функционалдық міндеттерін анықтай білу, техникалық құрылғылармен жұмыс істегенде техника қауіпсіздігі мен пайдалану ережелерін сақтау).

Еңбек ету (қол құралдарымен жұмыс істеуді үйрену дағдысы, ұсталық, т.б.).

Физикалық эксперименттік тапсырмаларды үйге беру осы пәнге ерекше қызығушылықты тудырады. Өйткені мұнда жергілікті табиғи және тұрмыстық (техникалық) жағдайлар ескеріледі. Үйге берілетін эксперименттік тапсырмалар жүйесі құрылған. Бұл жүйе төмендегідей бірқатар мәселелерді шешуге бағытталған:

- тәжірибелерді физикалық тұрғыдан қарастыру;

- физикалық шамаларды өлшеу арқылы физикалық заңдар мен заңдылықтардағы функционалдық тәуелділікті анықтау;

- физикалық процестерді тұрмыстық техника көмегімен басқару мүмкіндігін түсіндіру (тігін машинасындағы реостаттың және потенциометр – дыбыс реттегіштің телевизордағы, магнитофондағы, радиоқабылдағыштағы міндетін анықтау);

- тұрмысқа қажетті техникалық құрылғылардың параметрлерін өлшеу және есептеулер жүргізу (электр құрылғыларының – үтіктің, электр плитасының қуатын электр энергиясын есептегіш пен секундтық тілі бар сағат арқылы анықтау және оны осы құралдың құжаттық көрсеткіштерімен салыстыру; егер олар сәйкес келмесе себептерін түсіндіру);

- техникалық білімдерін күнделікті еңбек тәжірибесінде қолдану (май қабатымен

жабылған суда картоп тезірек піседі. Мұны тәжірибе тексеріп, құбылысты түсіндіру керек).

Физикалық құбылыстардың негізін ұғыну, түсініктерді, теорияны игеру процесі әр оқушыда бірдей жүрмейді. Оқыған материалды біреулер тез игереді, енді біреулеріне ой қорытуына және есіне сақтауына көп уақыт қажет. Үйде оқушылар әрқайсысы өз қарқынымен жұмыс істейді. Үй тапсырмасы дұрыс ұйымдастырылса сабақ кезіндегі алған білімдерін бекітуге және тереңдетуге көмектеседі.

Үйге берілген бақылаулар мен тәжірибелердің қорытындылары, есептердің шешімі, шығармашылық тапсырмалардың орындалуы оқушылардың үй жұмыстарына арналған дәптерлеріне жазылады. Үй жұмысының қорытындылары туралы мәліметтер жазу оқушылардың өз ойын сауатты және қысқаша жеткізуге үйретеді. Сонымен қатар жазу мәдениеті, яғни белгілі жүйе, нақтылық пен реттілік қалыптасады. Үйдегі тәжірибелерді және бақылауларды баяндау оқушыға көргенін терең ойлауға, негізгі ажырата білуге үйретеді.

Эксперименттік есептерді шешу тәсілдері оларды шешудегі эксперименттік жұмыстың қойылуына тәуелді. Мысалы, есепті шешу үшін барлық тексеру қажет болса, онда есептің шешуін нұсқауларға сәйкес жазады.

Эксперименттік есептердің басқа түрлерінде есепті шешу мен баяндау қажет болады. Егер есепті шешу үшін қажетті шамалар тәжірибе нәтижесінде алынса, онда экспериментті қою және өлшеулер жүргізу маңызды □

Есеп түріндегі эксперименттік тапсырмаларды шешу мен жазу келесі элементтерден тұрады: есептің қойылуы, шарттарды анализдеу, өлшеулер жүргізу, есептеулер, тәжірибеден тексеру.

Мысалы: *есептің қойылуы.*

Керекті құрал-жабдықтар: тік бұрышты қаңылтыр банка, таразы, масштабты сызғыш, суы бар ыдыс, құм. Банканың вертикаль қалыпта суда жүзуі үшін ішіне құм салады. Банканың суға батқандағы тереңдігін анықтау керек.

Берілген есептің шартын сурет салып, астына сұрағын қою арқылы жазса да болады. Содан кейін анализ жасайды, есепті шешу үшін қандай өлшеулер жүргізу керектігін анықтайды.

Талдау. Банкаға әсер ететін ауырлық күші және астынан әсер ететін кері итеруші күш теңескенше банка суға бата береді. Бұл жағдайда $F_a = P$. Бірақ Архимед күші денемен итерілген сұйқтың салмағына тең болғандықтан, $F_a = g * \rho * V$, мұндағы V - банканың батқан бөлігінің көлемі, ρ – судың тығыздығы. Батқан бөлігінің көлемі табан ауданы мен бату тереңдігінің көбейтіндісіне тең.

Осыдан

$$\begin{aligned} F_a &= g * \rho * h * S \\ h &= F_a / g * \rho * \end{aligned} \quad (1)$$

(1) формуладағы құмы бар банканың салмағын білу керек. Судың тығыздығы мен банканың табанының ауданын білу керек.

Өлшеулер. Динамометрмен салмағын, ұзындығы мен енін сызғышпен өлшейміз.

Ауданын анықтаймыз. $S = l * a$. $\rho_{\text{суды}} = 1 \text{ г/см}^3$.

Есептеулер. Тығыздықтың, салмақтың және ауданның мәндерін (1) формулаға қойып, бату тереңдігін (h) анықтайды.

Тәжірибелік тексеру. Банканың вертикаль қабырғасына түсті сызықпен батутереңдігін белгілейді. Тәжірибе көрсеткендей, табылған мәнімен есептелген биіктіктің мәні сәйкес келеді. Эксперименттік есептерде тәжірибені қажет болғанда ғана қояды, кейбір есептерде фронтальды тәжірибе қойылуы мүмкін. *Мысалы:* сызғыштың көмегімен судың стакан түбіне түсіретін қысымын өлшеу. Электр шамының тұтынған тогының қуатын анықтау.

Физика сабақтарында эксперименттік есептер шығару оқушылармен жұмыс жасау барысында әрбір мұғалімнің негізгі әдістемесінің құраушысына айналуы керек. Себебі,

қазіргі заман талабына сай, оқушыларды техникалық бағыттағы пәндерге атап айтқанда физика саласына бағыттау ең басты қажеттілік болып табылады.

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Математическая модель регулятора расхода жидкости

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ВВЕДЕНИЕ

В автоматической системе регулирования скоростью подачи режущего инструмента в гидравлических силовых головках использован регулятор расхода жидкости золотникового типа, имеющий пропускную щель с острыми краями, в нём зависимость расхода масла от величины открытия пропускной щели линейная при параллельном подключении к нему редуционного клапана.

Математическая модель

Математическую модель регулятора расхода жидкости легко получить по трём составляющим – электромагнитную (электромагнит), механическую (перемещение золотника) и гидравлическую (щель регулятора).

Для гидравлической части золотника (щели регулятора) его расход Q зависит:

$$Q = \mu \pi d_1 m_z \sqrt{\frac{2\Delta p}{\rho}}, \quad (1)$$

где $\mu = 0,62...0,65$ – коэффициент расхода регулятора;

d_1 – диаметр плунжера золотника;

ρ – плотность масла;

$\Delta p = p_o - p_1$ – перепад давления на регуляторе, $\Delta p = const$.

Следовательно, математическая модель данного звена выглядит:

$$Q = m_z k_s \quad (2)$$

где:

$$k_s = \mu \pi d_1 \sqrt{\frac{2\Delta p}{\rho}}$$

Передаточная функция щели:

$$W_{щ}(p) = \frac{Q(p)}{m_z(p)} \quad (3)$$

Из математической модели видно, что зависимость расхода жидкости от величины пропускной щели линейная. (Рис. 1).

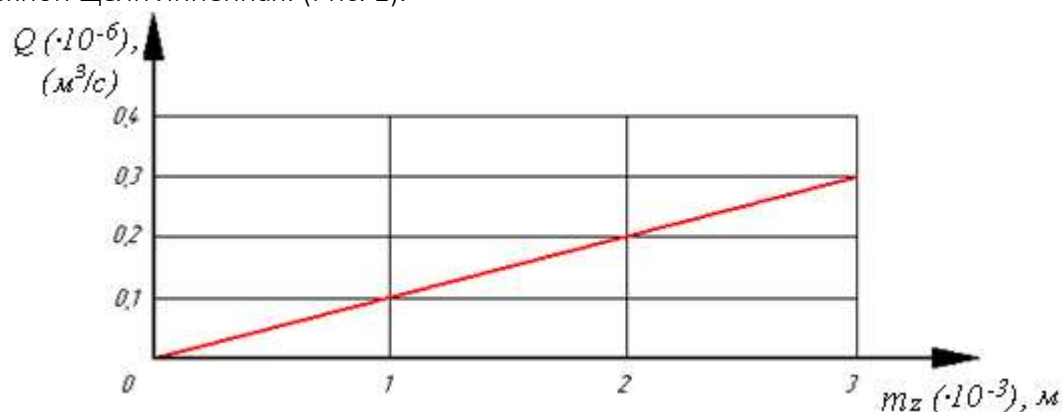


Рис. 1. График зависимости расхода жидкости от изменения размера щели

В системе используется стандартный электрогидравлический регулятор. В электрической части схемы электромагнита предусмотрена система стабилизации напряжения.

Электрическая часть золотника.

Якорь электромагнита перемещает золотник регулятора, изменяя величину проходного отверстия масла, и при этом регулируется расход жидкости.

Параметры электромагнита:

Число витков катушки: $W_k = 115$
 Магнитная постоянная: $\mu = 1,25 \cdot 10^{-6}$

Расчётное сечение воздушного зазора:
 $S_{\delta 1} = 4,11 \cdot 10^{-4}$ для $\delta = 1\text{мм}$.

Проводимость рабочего воздушного зазора:
 $\Lambda_{\delta} = 1,79 \cdot 10^{-5}$

Магнитный поток, выходящий из поверхности якоря, в рабочий воздушный зазор определяется:

$$\Phi_{\delta}(i) = i \cdot W_k \cdot \Lambda_{\delta} \qquad \Phi_{\delta}(0,14) = 2,882 \cdot 10^{-4}$$

Сила, действующая на якорь электромагнита: $F_e = \frac{\Phi_{\delta}(i)^2}{2 \cdot \mu \cdot S_{\delta 3}}$.

Выводя коэффициент усиления можно получить математическую модель звена:

$$\Delta F_e = 2K_{e0}i_0\Delta i = K_e\Delta i \qquad (4)$$

где i_0 – значение тока в рабочей точке.

$$K_{e0} = \frac{(W_k \cdot \Lambda_{\delta})^2}{2 \cdot \mu \cdot S_{\delta 3}} \qquad K_{e0} = 3,914 \cdot 10^3$$

Передаточная функция: $W_{\Sigma}(p) = \frac{\Delta F_e(p)}{\Delta i(p)} \qquad (5)$

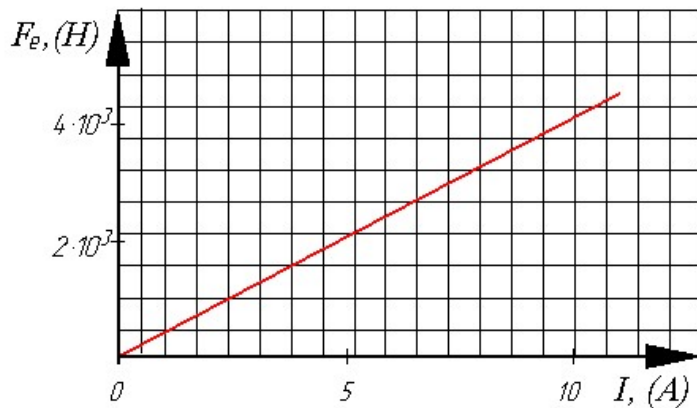


Рис. 2. Зависимость силы якоря от тока электромагнита

Механическая часть золотникового регулятора.

Силы, действующие на ось золотника представлены на рис. 2.

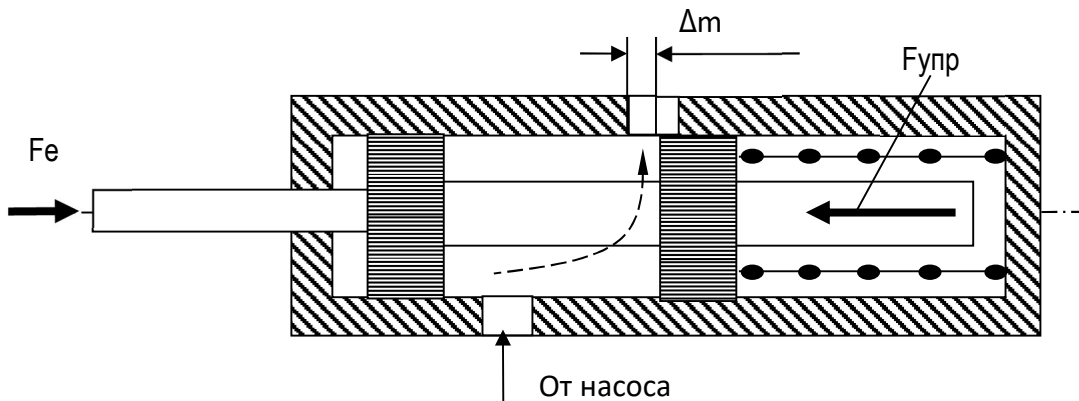


Рис. 3. Силы, действующие на золотник регулятора

Уравнение динамического равновесия золотника регулятора расхода, имеет вид:

$$M \frac{dh_p^2}{dt^2} + F_V + F_{уп} + F_{гид} = Fe, \quad (6)$$

где: M – масса якоря и золотника;

F_V – сила вязкого трения между золотником и корпусом регулятора.

$$F_V = 6\pi \eta R V, \quad (7)$$

где: R – радиус золотника;

V – скорость движения золотника (или того же, якоря ЭМ), в данном случае:

$$V = 0,1 \dots 0,5 \text{ м/с}$$

$\eta = 0,01 \text{ Па}\cdot\text{с}$ – коэффициент динамической вязкости масла;

$F_{уп}$ – сила упругости пружины регулятора,

$$F_{уп} = c \cdot h_p \quad (8)$$

где c – коэффициент жёсткости пружины; h_p – величина открытия щели.

$F_{гид}$ – гидромеханическая сила потока масла, проходящего через регулятор:

$$F_{гид} = 2\mu \cdot x \cdot h_p \cdot \Delta p \cdot \cos 69^\circ, \quad (9)$$

где $\mu = 0,65$ – коэффициент расхода;

x – периметр пропускной щели, в данном случае:

$$x = \pi \cdot d_1, \quad (10)$$

d – диаметр пропускной щели.

Подставляя выше указанные формулы в уравнение равновесия, получим:

$$M \frac{dh_p^2}{dt^2} + 6\pi\eta \cdot R \cdot V + ch_p + 2\mu \cdot xh_p \cdot \Delta p \cos 69^\circ = Fe, \quad (11)$$

или поделив каждый член уравнения на $(c+2\mu \cdot x \cdot \Delta p \cos 69^\circ)$, получим:

$$(T_z^2 p^2 + 2\xi T_z p + 1) \cdot h_p = k_3 F_e, \quad (12)$$

где T_z – постоянная времени золотника:

$$\dot{O}z = \sqrt{\frac{\dot{I}}{\ddot{n} + 2\mu\dot{o}\Delta\dot{o}\ddot{n}is 69^\circ}},$$

ξ – динамическая вязкость:

$$\xi = \frac{3\mu\eta R}{T_0(c + 2\mu x \Delta p \cos 69^\circ)},$$

k_3 – коэффициент усиления регулятора:

$$k_c = \frac{1}{\tilde{n} + 2\mu\delta\Delta\delta\tilde{n}i_s 69^0},$$

Золотник является одним из сложных динамических звеньев, в связи с тем, что на его работу влияют различные силовые факторы. Данное звено является колебательным, поэтому математическая модель данного звена имеет сложный вид.

Данные регулятора расхода масла:

масса золотника регулятора:

$$M = 0,0256 \text{ kg};$$

сила, действующая на золотник:

$$F_e = 85,84 \text{ N};$$

постоянная времени регулятора:

$$T_3 = 0,005 \text{ c};$$

коэффициент усиления золотника:

$$k_3 = 0,000003056 \text{ c}^2 \cdot \text{kg}^{-1};$$

Математическая модель регулятора в преобразовании Лапласа имеет вид:

$$(T_3^2 \cdot p^2 + 2 \cdot \xi \cdot T_3 \cdot p + 1) \cdot m = K_3 \cdot F_e(p) \quad (14)$$

Передаточная функция:

$$W_M(p) = \frac{K_3}{T_3^2 \cdot p^2 + 2 \cdot \xi \cdot T_3 \cdot p + 1}$$

Коэффициент динамической вязкости: $\xi = 0,3$.

Обозначим: $q = \frac{1}{T_3} \quad q = 200 \text{ c}^{-1}$

Декремент затухания: $\gamma = \xi \cdot q \quad \gamma = 60 \text{ c}^{-1}$

Собственная частота колебания:

$$\lambda = q \cdot \sqrt{1 - \xi^2} \quad \lambda = 190,788 \text{ c}^{-1}$$

Уравнение динамики золотника регулятора:

$$m_1(t) = k_3 \cdot F_e \cdot \left[1 - e^{-\gamma t} \cdot \left(\cos(\lambda \cdot t) + \frac{\gamma}{\lambda} \cdot \sin(\lambda \cdot t) \right) \right] \quad (16)$$

Установившееся значение: $m_1(1\text{c}) = 2.623 \cdot 10^{-4} \text{ м}$.

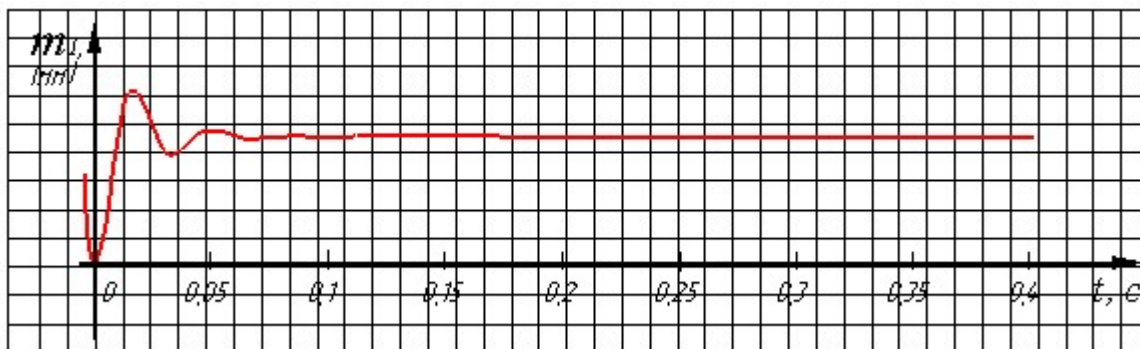


Рис. 2.14. График переходного процесса золотника

Объединив электрическую, электромеханическую и гидравлическую части регулятора, получим его передаточную функцию:

$$W_3(p) = W_{ш}(p) \times W_э(p) \times W_M(p) = \frac{k_3 k_s k_e}{T_3^2 \cdot p^2 + 2 \cdot \xi \cdot T_3 \cdot p + 1}. \quad (17)$$

Заключение

Золотник является одним из сложных динамических звеньев, системы автоматического регулирования режимами резания при сверлении. Данное звено является колебательным, поэтому математическая модель данного звена имеет сложный вид.

Culturology

Üzeyir Hacıbəyov və Qara Qarayevin yaradıcılığında multikulturalizm ənənələri

ŞƏFƏQ ƏZİZOVA

ADPU-nun nəzdində Azərbaycan Dövlət Pedaqoji kollecinin müəllimi

SHAFAQ AZIZOVA

Traditions of multiculturalism in the creativity of Uzeyir Hajibeyov, Kara Karayev .

Summary: The article highlights the trends of multiculturalism in the context of classical and modern Azerbaijan musical culture and specifically, the works of the talented outstanding Azerbaijani composer Uzeyir Hajibeyli, Kara Karayev and also their followers - representatives of the Azerbaijani composer school Fikrat Amirov, Arif Hajiyev, etc. The influence of multiculturalism on the development of musical culture and the importance of its place in Azerbaijani composer school studying the traditions of multiculturalism in Azerbaijani art are emphasized.

Keywords: multiculturalism, Uzeyira Hajibayli, school of composers.

ШАФАГ АЗИЗОВА.

Традиции мультикультурализма в творчестве Узеира Гаджибекова, Кара Караева.

Резюме: В статье показаны тенденции мультикультурализма в контексте классической и современной азербайджанской музыкальной культуры и, конкретно, в творчестве талантливого выдающего азербайджанского композитора Узеира Гаджибейли, Кара Караева и их последователей - представителей азербайджанской композиторской школы Фикрата Амирова, Арифа Гаджиева и т.д. Подчеркивается влияние мультикультурализма в развитие музыкальной культуры и важность его места в азербайджанской композиторской школе. Подчеркивается традиции мультикультурализма в азербайджанском искусстве

Ключевые слова: мультикультурализм, Узеира Гаджибейли, композиторская школа.

Qədim tarixə, zəngin folklorə, özünəməxsus milli və yüksək humanist ənənələrə malik olan Azərbaycan həm də multikulturalizm prinsiplərini, tolerantlığı dünyada yayan nadir ölkələrdəndir. Vətənimizdə bu sahədə bərqərar olan münasibətlər təsdiq edir ki, multikulturalizm xalqımızın tarix boyu formalaşan milli keyfiyyətidir və bütün dövrlərdə cəmiyyətin yaşayış tərzini təşkil edir.

Tarixən milli və dini tolerantlıq mühitinin bərqərar olduğu ölkəmizdə bu tendensiya incəsənətdə daha bariz şəkildə nümayiş olunur. Azərbaycan dünya səhnəsində öz incəsənəti, musiqisi ilə seçilir və musiqi sənətimiz çoxəsrlik zəngin bir inkişaf yolu keçib. İnterkulturalizmi öz siyasət modeli kimi seçən, etnik azlıqların milli ənənələrinin qorunub saxlanıldığı ölkəmizdəki münbit mühitində fərqli etnik qrupların musiqi irsi də geniş inkişaf etmişdir.

Azərbaycan musiqisində multikulturalizm həmişə özünü büruzə verir. Ölkəmizdə yaşayan müxtəlif xalqların mədəniyyəti də bizim musiqimizə, ədəbiyyatımıza və digər sahələrə təsirsiz ötürməyib. Azərbaycanın ənənəvi musiqi irsi, bu irsdən qidalanan bəstəkarın yaradıcılığında multikulturalizm ənənələri cox zaman özünü büruzə verir, qərb və şərq musiqi üslublarını özündə birləşdirir. Azərbaycan musiqisi dedikdə ağıla gələn ilk ad peşəkar musiqi sənətimizin banisi Üzeyir Hacıbəyli olur. Üzeyir Hacıbəyov müasir Azərbaycan musiqi mədəniyyətinin qurucusu olmuş, milli bəstəkarlıq məktəbinin təməlini qoymuşdur. Azərbaycan milli operasının, eləcə də Şərqdə ilk operanın banisi, eyni zamanda, musiqişünas alim, publisist, dramaturq, pedaqoq və ictimai xadim Ü. Hacıbəylinin, demək olar ki, bütün yaradıcılığı multikulturalizmin örnəyi ola bilər. Azərbaycan operasının və Şərqdə ilk operanın banisi olan Ü. Hacıbəyov "Leyli və Məcnun" (1908), "Şeyx Sənan"

(1909), “Rüstəm və Söhrab” (1910), O olmasın, bu olsun (1910)“Şah Abbas və Xurşidbanu” (1912), “Əsli və Kərəm”(1912), “Harun və Leyla” (1915), “Koroğlu” (1937) operalarında multikulturalizm ənənələrinin müxtəlif təzahürlərini görürük.



Şəkil 1: Üzeyir Hacıbəyov.

Yalnız Azərbaycanda deyil, bütün İslam dünyasında ilk opera 1907-ci ildə Üzeyir Hacıbəyov tərəfindən yazılmışdır. Librettosu XVI əsrin dahi Azərbaycan şairi Məhəmməd Füzulinin poeması əsasında bəstələnmiş “Leyli və Məcnun” operası qədim ərəb rəvayətinin Azərbaycan musiqi irsində milli ruhda təfsirini əks etdirir, yəni bu rəvayət ərəb qəbilələrinin həyatından bəhs etsə də, əsərin qəhrəmanları məhz Üzeyir bəyin musiqisi sayəsində gözümüz qarşısında azərbaycanlı kimi canlanır. “Leyli və Məcnun” ilə musiqi tarixində operanın yeni növü – muğam operası meydana gəldi. Üzeyir Hacıbəyovun məhz Füzulinin yaratdığı “Leyli və Məcnun” poemasına müraciətinin səbəbi ondan ibarət idi ki, bu əsər Azərbaycan dilində yazılaraq, Şərq ədəbiyyatının inkişafına böyük təsir göstərmişdi. Bu əsərdən parçalar peşəkar xanəndələr tərəfindən muğamlarda çox ifa olunaraq, xalq arasında geniş yayılmışdı.



Şəkil 2. “Leyli və Məcnun” operasından səhnə.

Ü.Hacıbəylinin “Üçüncü operası “Rüstəm və Söhrab” isə Firdovsinin “Şahnamə” əsərinin motivləri əsasında hazırlanmışdır. “Rüstəm və Söhrab” adlanan operanın ilk tamaşası 12 noyabr 1910-cu ildə Tağıyev teatrında göstərilmişdir. Bu muğam operasında da bəstəkar milli musiqi vasitəsilə qəhrəmanların daxili aləmini xarakterizə etmişdir.

Ü.Hacıbəylinin “Şeyx Sənan”, “Əsli və Kərəm” operaları başqa bir cəhətdən diqqəti cəlb edir. Bu əsərlərin məzmununda müxtəlif dinlərə və millətlərə mənsub qəhrəmanların bir-birinə səmimi qəlblə sevgisindən və faciəsindən danışılır. “Şeyx Sənan”da ərəb şeyxi ilə gürcü qızının, “Əsli və Kərəm”də azərbaycanlı şahzadə ilə erməni qızının faciəli məhəbbət hekayəti əsasında bəstəkar çox təsirli əsər yaratmışdır. Lakin bu operaların taleyi müxtəlif olmuşdur. “Şeyx Sənan” operası bir dəfə səhnəyə qoyulmuşdur, uğursuz tamaşadan sonra bəstəkar əsərin əlyazmalarını məhv etmişdir. “Əsli və Kərəm” operası isə xalq arasında çox rəğbət qazanmışdır və bu gün də Opera və Balet Teatrının səhnəsində oynanılır. Operanın süjet xətti iki gəncin – azərbaycanlı Kərəmin və erməni

Əslinin məhəbbəti, Qara keşişin (Əslinin atasının) onların məhəbbətinə mane olması, onların qovuşa bilməyərək od tutub yanması üzərində qurulmuşdur. Əsərin faciəli sonluğu Azərbaycan cəmiyyətində çox həssas qarşılanmışdır. Bu əsər Ü.Hacıbəylinin cəmiyyətdə baş verən faciəli hadisələrə, dini və milli zəmində qarşıdurmalara, xalqlar arasındakı nifrət hissələrinə qarşı etirazı idi. Qeyd etmək lazımdır ki, bu məsələ bu gün də aktualdır.

“Koroğlu” operasında isə Ü.Hacıbəyli xalq qəhrəmanı Koroğlunu obrazını yaradarkən, onun Qafqaz xalqları arasında məşhur olmasını, onlara köməyini və xalqı zülmkarlardan xilas etməsini təsvir etmişdir. Ü.Hacıbəyli “Koroğlu” operasını yazanda həm Azərbaycan milli dəyərlərinə əsaslanırdı, həm də rus və Avropa klassiklərinin operalarını dərinlən mənimsəmişdi. “Koroğlu”nun bir çox partiyalarında rus intonasionaları da hiss olunur.

Operanın III pərdəsində – Çənlibel səhnəsində Koroğlunun təkəcə azərbaycanlılar üçün deyil, digər millətlərin nümayəndələri üçün də xilaskar timsalında olması, Koroğlunun adını tutub uzaq ellərdən gələn insanların ruh yüksəkliyi ilə qarşılanması və onun haqq işinə inamı öz əksini tapmışdır. Burada da multikulturalizm ənənələri özünü göstərir, azərbaycanlıların digər xalqlarla əmin-amanlıq şəraitində yaşamağa çalışması, onlara kömək göstərməsi, demək olar ki, milli mənəvi irsimizdə tərənnüm olunmuşdur.

Bununla bağlı bir cəhəti də qeyd edək ki, Ü.Hacıbəyli öz operalarında Azərbaycan klassik poeziyasından və Azərbaycan xalq dastanlarından bəhrələnmişdir və bu baxımdan həmin mənbələrdə multikulturalizm ənənələrinin təzahürləri diqqətəlayiqdir. Bəstəkarın yaradıcılığında bunların musiqi vasitəsilə daha qabarıq tərənnüm olunmasından və xalqın hissələrinə daha dərin təsir imkanlarından söhbət gedir. Ü.Hacıbəylinin yaradıcılığının digər sahələrində də multikulturalizm ənənələrinə rast gəlirik. Məsələn, onun ilk musiqili komediyası olan və Azərbaycanda bu janrın əsasını qoymuş “Ər və arvad” (1910) musiqili komediyasının personajları arasında müxtəlif millətlərin nümayəndələri yer almışdır. Musiqili komediyanın librettosu bəstəkarə məxsusdur və ailə-məişət mövzusunda. “Ər və arvad”ın musiqisi mahnı-rəqs xarakterli olmaqla, obrazların daha qabarıq açılmasına, canlı və şən səhnə əhvalatlarının yaradılmasına xidmət edir. Bəstəkar əsərin məzmununu zənginləşdirmək üçün sonuncu toy səhnəsinə müxtəlif xalqların mahnı və rəqslərini daxil etmişdir. Burada ləzgi, rus, gürcü və s. xalq mahnı və rəqsləri ifa olunur ki, bütün bunlar əsərin musiqi məzmununun zənginləşdirilməsinə yönəlmişdir və o dövün musiqi məişətini xarakterizə edir.

Ü.Hacıbəylinin yaradıcılığı Azərbaycan cəmiyyətində baş verən proseslərin, bir növ, güzgüsü olmuşdur. Bu baxımdan, onun “O olmasın, bu olsun” (1911) musiqili komediyası gözəl nümunədir. Əsərin əsas qəhrəmanları – Məşədi İbad, Rüstəm bəy, Sərvər, Gülnaz, Sənəm obrazlarının fərdi musiqi xarakteristikaları ilə yanaşı, Bakı mühitinin təsviri mühüm əhəmiyyətə malikdir. Əsərin məzmununda müxtəlif millətlərin təsirini özündə əks etdirən, müxtəlif dillərdə və ləhcələrdə danışan qəhrəmanlar: Qəzetçi Rza bəy – türk, İntelligent Həsən – fransız və rus, Hambal – iranlı, Həsənqulu bəy – milli danışmaq tərzi ilə diqqəti cəlb edir. Ü.Hacıbəyli bunları təsvir etməklə, əslində, Bakının çoxmillətli mühitində müxtəlif dillərin və mədəniyyətlərin qarşılıqlı təsirini göstərmiş, həmin insanların simasında bu kimi təsirlərin bəzən necə ifrat cəhətlər kəsb etdiyinə gülmüşdür. Lakin bəstəkar tərəfindən bu personajların musiqi xarakteristikası fərdiləşdirilməyərək, xor səhnələrində – hadisələrin gedişatına müdaxilə edən ümumi kütlə daxilində verilir. Ü.Hacıbəylinin “Arşın mal alan” (1913) musiqili komediyası isə məzmununa görə dərin milli xüsusiyyətlərlə fərqlənərək və sevilərək, dünya musiqi arenasına çıxan və Azərbaycan musiqisini, Ü.Hacıbəylinin yaradıcılığını dünya miqyasında tərənnüm edən ilk əsər olmuşdur. “Arşın mal alan” bir çox dillərə – türk, rus, gürcü, ingilis, fars, çin, polyak, bolqar və s. tərcümə olunaraq, Nyu-York, Paris, London, Pekin, Varşava, Qahirə, Ankara, Sofiya və s. onlarla digər şəhərlərdə tamaşaya qoyulmuşdur. Bu əsər əsasında 1945-ci ildə çəkilmiş “Arşın mal alan” filminin isə nümayiş coğrafiyası daha geniş olmuşdur. Baş rollarda dahi sənətkarlarımız Rəşid Behbudovun və Leyla Bədirbəylinin çəkildiyi bu film dünya xalqlarının dillərinə dublyaj edilərək 130 ölkədə böyük uğurla nümayiş olunmuşdur. 100

İldən artıqdır ki, iki gəncin –Əsgərlə Gülçöhrənin romantik məhəbbət hekayətini təcəssüm etdirən “Arşın mal alan” musiqili komediyası və filmi Azərbaycan musiqisinin dünya miqyasında bir elçisinə çevrilərək, xalqlar arasında sülh, vəhdət yaradan bir missiyanı həyata keçirir. Ü.Hacıbəylinin yaradıcılığında müxtəlif xalqların musiqi irsinə müraciətlə bağlı olan nümunə kimi, “Azərbaycan” və “Dağıstan” adlı iki xoreoqrafik əsəri də qeyd etmək istərdik. Bu musiqi əsərləri 1919-cu ildə bəstələnmiş və çox təəssüf ki, səsləndirilməmişdir. Lakin bəstəkarın yaradıcılığının tədqiqatçıları tərəfindən “Azərbaycan” əsərinin “Tərəkəmə”, “Dağıstan”ın isə “Ləzginka” rəqsi ruhunda bəstələndiyi göstərilir ki, bunlar da o dövrdə Azərbaycanda geniş yayılmış xalq rəqsləridir. Göründüyü kimi, Ü.Hacıbəylinin yaradıcılığı multikulturalizm ənənələrini müxtəlif cəhətlərdən əks etdirərək, musiqi irsində onların dolğun ifadəsini önə çəkmişdir. Ü.Hacıbəylinin yaradıcılığından bəhrələnən Azərbaycan bəstəkarlıq məktəbinin nümayəndələrinin də əsərlərində multikulturalizmin müxtəlif təzahür aspektləri ilə qarşılaşırıq. Ü.Hacıbəyli “Koroğlu” operasını yazanda həm Azərbaycan milli dəyərlərinə əsaslanırdı, həm də rus və Avropa klassiklərinin operalarını dərinlən mənimsəmişdi. “Koroğlu”nun bir çox partiyalarında rus intonasiyaları da hiss olunur.

1930-40-cı illərdə Azərbaycanda yeni bəstəkarlar nəslı yetişirdi, yeni janrlar və təmayüllər meydana gəlirdi. Azərbaycan musiqisi ölkə hüdudlarından çıxaraq dünyaya yayılmağa başladı. Bu nailiyyət böyük bəstəkarlarımız Qara Qarayevin, Fikrət Əmirovun adı ilə bağlı idi.



Şəkil 4. Görkəmli bəstəkar Qara Qarayev.

Azərbaycan xalq musiqisinin əsaslarını Üzeyir Hacıbəyovdan öyrənən dahi bəstəkar Qara Qarayevin yaradıcılığında millilik özünəməxsus bir formada təzahür edir. Bəstəkarın yaradıcılığının mərkəzində onun iki parlaq əsəri “Yeddi gözəl” və “İldırımli yollarla” baletləri durur.

Görkəmli bəstəkar “İldırımli yollarla” baletini yazmaq üçün Afrika folklorundan məharətlə istifadə edib. “İldırımli yollarla” baleti isə müasir və aktual mövzuda - müstəmləkə xalqlarının öz azadlıqları uğrunda mübarizəsinə həsr edilib. Balet 1967-ci ildə “Lenin” mükafatına layiq görülüb. Bəstəkar onu Azərbaycan musiqisi ilə elə gözəl şəkildə sintez edib ki, biz burada yalnız Qara Qarayevin üslubunu eşidə bilirik. Balet 1967-ci ildə “Lenin” mükafatına layiq görülüb “Vyetnam süitəsi”, “Alban rapsodiyası” da bu silsilədən olan əsərlərdir”.

Multikulturalizm ənənələri Q.Qarayevin “Yeddi gözəl” baletində özünü daha qabarıq şəkildə göstərir. Dahi bəstəkar “Yeddi gözəl” baletində Azərbaycan ədəbiyyatının klassik irsinə, dahi Nizaminin humanist ideya və obrazlarına müraciət edib. Baletdə ilk səhnələr hind, rum (yunan), Xarəzm, Məğrib, Çin və İran gözəllərinin rəqsləri ilə başlayıb, son nömrəsində də yeddi gözəli birləşdirən ümumi parlaq rəqslə bitir. Bununla da bəstəkar ölkəmizdə bütün dövrlərdə olan mədəni potensialı nümayiş etdirir və incəsənətdə olan mədəniyyətlərarası dialoqu daha da qabarıq şəkildə göstərir.



Şəkil 5. Q. Qarayevin “İldırımli yollarla” baletindən səhnə

Bəstəkarlar Soltan Hacıbəyovun “Hindistan eskizləri”, Əşrəf Abbasovun “Efiopiya rəsmləri”, Fikrət Əmirov və Elmira Nəzirovanın “Fortepiano və orkestr üçün ərəb mövzularına konsert”i və “Alban mövzularında iki fortepiano üçün süita”ları da milli musiqimizdə başqa xalqların mədəniyyətinə olan maraqdan xəbər verir.

Müasir dövr bəstəkarlarımızdan Arif Məlikovun “Məhəbbət əfsanəsi”ni qeyd etmək yerinə düşərdi. Arif Məlikovun Nazim Hikmətin librettosu əsasında bəstələdiyi dünya səhnələrini fəth edən “Məhəbbət əfsanəsi” baleti əlli il bundan qabaq məhz ilk dəfə Marinski Teatrının səhnəsində göstərilib. Nazim Hikmətin “Məhəbbət əfsanəsi” pyesi rus dilində 1952-ci ildə “Noviy mir” jurnalının dekabr nömrəsində dərc olunmuşdu. Əsər tezliklə teatr ictimaiyyətinin nəzər-diqqətini cəlb etdi. Bir neçə ildən sonra isə gənc xoreoqraf Yuri Qriqoroviç gənc bəstəkar Arif Məlikovla bu pyes əsasında balet tamaşası yaratmaq qərarına gəldilər və 60 ildir səhnədən düşməyən bu sənət incisi yarandı. Librettosu fars hökmdarı ilə türk şahzadəsinin böyük sevgisini əks etdirən əsər multikulturalizmə gözəl nümunədir.

Ulu öndər Heydər Əliyev mədəniyyəti xalqın böyük sərvəti hesab edirdi. Elə ona görə də mədəni-mənəvi dəyərlərin qorunması, təbliği və yeni estetik düşüncəyə məxsus əsərlərin yaradılması üçün mümkün olan hər şeyi edirdi. Ümummilli lider Azərbaycanın sivil dünya ilə inteqrasiyasına, xalqların iqtisadi-siyasi, humanitar yaxınlaşmasına dövlətçiliyi möhkəmləndirən, xalqı inkişaf etdirən ən vacib vasitələrdən biri kimi baxırdı. Və bu zaman dünya ilə dil tapmağın ən sınıanmış və optimal yollarından biri olaraq, mədəni dəyərlərin qarşılıqlı dərkini və təbliğini əsas götürürdü. Bu mənada xarici ölkələrdə keçirilən Azərbaycan mədəniyyət və incəsənət günləri, eyni zamanda Azərbaycanda keçirilən belə tədbirlər mədəniyyətlərarası dialoqun inkişafına çox gözəl yol açdı. Əsrlərlə tarixi olan Böyük İpək Yolu xalqımızın ümummilli lideri Heydər Əliyevin səyi nəticəsində XX əsrin sonunda yenidən gündəmə gəldi. Bu siyasi-iqtisadi ənənələr 2010-cu ildə Şəkidə təməli qoyulan “İpək Yolu” Beynəlxalq Musiqi Festivalında öz təcəssümünü tapdı. Bu il yeddinci dəfə keçirilən festivalın konsepsiyası Şərq və Qərb ənənələrinin qarşıdurması və ya təcəssümü prinsipinə əsaslanır. Festivalda səntur, tar, ud, sitar, ney, rübab kimi alətlərin, həmçinin milli azlıqların musiqi alətlərinin səslənməsi Şərqlə Qərbin bir nöqtədə çarpazlaşması təəssüratını yaradır. Bu cür festivallar ölkələr və xalqlar arasında əməkdaşlığın daha da möhkəmlənməsinə münbit zəmin hazırlayır.

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Geological and Mineralogical Sciences

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ИССЛЕДОВАНИЕ И ОЦЕНКА ГЕОТЕХНИЧЕСКИХ МЕТОДОВ РАСЧЕТА УСТОЙЧИВОСТИ ОТКОСОВ УСТУПОВ И БОРТОВ КАРЬЕРА

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Объект исследования

Объектом исследования является месторождения «Kaz Minerals Bozshakol».

Цель работы

Обоснование и оценка геотехнических методов расчета устойчивости откосов уступов и бортов карьера месторождения Бозшаколь.

Для достижения поставленной цели проведены следующие работы:

- анализ горно-геологических и горнотехнических условий разработки месторождения Бозшаколь;
- анализ изученности геомеханических условий месторождения Бозшаколь;
- сравнения методов расчета устойчивости откосов уступов и бортов карьера.

1 Общая информация о Проекте

Климат района резко континентальный. Минимальная температура -42°C , максимальная $+41^{\circ}\text{C}$, среднегодовая $+3^{\circ}\text{C}$. Среднегодовое количество осадков 200-250 мм. Характерны юго-западные ветры. Медные залежи Бозшаколь были обнаружены Р.А. Борукаевым в 1930 году.

В разрезе отложений месторождения выделяется три зоны: область выветрелой породы; область раздробленной породы и область нетрещиноватых скальных пород. Перекрывающие отложения представлены сверху вниз: почвенно-растительным слоем, мощностью до 0,3-0,5 м; суглинками, мощностью до 3,0-5,0 м; глинами коры выветривания, максимальной мощностью до 35-40 м.

Породы относятся к крепким и средней крепости (при $f = 8-12$ по Протодяконову), в бортах карьера в основном будут характеризоваться как среднеустойчивые, устойчивые и весьма устойчивые.

Геологическая модель рудника, обновленная по данным RC бурения в 2017 году, приведена на Рисунке 1.

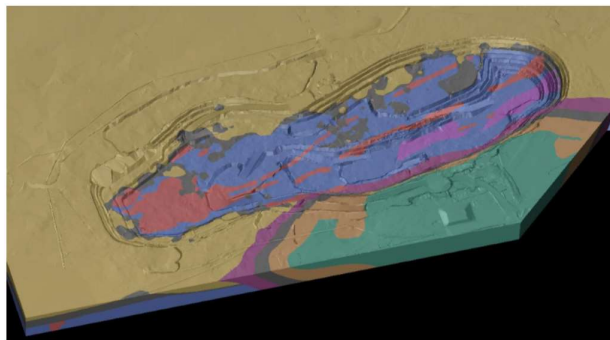


Рисунок 1 - Геологическая модель месторождения Бозшакол

Испытание водоносных пластов методом нагнетания воздуха в скважину/пакерный тест, проведенный «Казахмыс» в течение 2008 года, показал, что раздробленные породы имеют коэффициент проницаемости $\pm 1 \times 10^{-7}$ м/с; эта величина на один – два порядка выше, чем коэффициент проницаемости цельных пород, где он составляет $\pm 8 \times 10^{-9}$ м/с.

Средняя глубина горизонта грунтовых вод вблизи месторождения составляет 8 метров, но в зависимости от топографии местности, уровень грунтовых вод может колебаться от 4 до 25 метров. Течение подземных вод следует топографии местности, т.к. естественный поверхностный сток имеет то же направление.

Средний ожидаемый дебит скважин составляет от 0,1 до 0,8 л/с, что соответствует низкому среднему значению коэффициента проницаемости литологического пласта - 7×10^{-8} м/с. Выход воды из зон разлома может достигать 3 л/с (в среднем между 0,5 и 1,5 л/с), но в целом эти разломы не открыты и имеют относительно низкий коэффициент проницаемости в пределах $\pm 1 \times 10^{-7}$ м/с.

По данным гидрогеологической изученности мощность наиболее водообильных пород достигает до 100-120 м. В зависимости от рельефа местности уровень грунтовых вод устанавливается на глубинах от 4,57 до 23,8 м. Общее направление подземного стока согласно понижению рельефа местности – северное-северо-западное. Дебиты скважин, пройденных до глубины 100 м и характеризующих водообильность трещиноватых пород, составляют от 0,9 до 3,16 м³/ч. Усредненная величина коэффициента фильтрации зоны трещиноватости составляет менее 0,4 м/сут. Грунтовые воды зоны будут являться основным источником, формирующим водопритоки в карьер.

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Literature

KARABAKH PROBLEM IN MODERN POETRY

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Abstract. During the Soviet era, examples of poetry and various works of art were written about Shusha. People's poet Rasul Rza's "Shusha" (1947), "Shusham is mine" (1980), Nabi Khazri's "Ways of Shusha" (1954), Mirvarid Dilbazi's "Shusha", Arif Abdullazade's "In Shusha" poems talk about Shusha, a beautiful, charming corner of Azerbaijan. It is said that in this mysterious land, where nature is a hundred colors, it is possible that man will neither grow old nor die.

After the occupation, the sadness of the poetic word began to beat in the pulse of our poetry. The pen owners wrote several stories, poems, novels and poems with a longing for the homeland. Moaning in the footsteps of the enemy, they called their sons to revenge in order to vote for their call on the difficult day of the Motherland. Poems of our national poet Mammad Araz, such as "The Motherland calls us", "Soldier's son", "Stand up, Azerbaijan"; Zalimkhan Yagub's poem "I do not condemn you", poem "Shusha fell asleep tonight"; Anvar Ahmad's "Where are you running, poor son!", "My shroud is covered with blood", "My great God", "Don't read, Arif"; Shusha poet Eyyub Shirvanli's "I have entrusted Shusha to God", "Ramiz is still guarding Shusha", "Longing for the homeland", "I died and stayed in Karabakh, God", "Shusha", "Ay Shusham"; Dozens of poems by Karim Karimli "Hello, Shusha!", "I condemn you, people of Shusha" and Alamdar Guluzadeh about the fate of the painful homeland expelled from their homeland is valuable as a generalized poetic example of his views.

Key words: *fiction, poetic scope, Karabakh theme, homeland, return to Shusha, hymn of nature*

During the Soviet era, examples of poetry and various works of art were written about Shusha. People's poet Rasul Rza's "Shusha" (1947), "Shusham is mine" (1980), Nabi Khazri's "Ways of Shusha" (1954), Mirvarid Dilbazi's "Shusha", Arif Abdullazade's "In Shusha" poems talk about Shusha, a beautiful, charming corner of Azerbaijan. It is said that in this mysterious land, where nature is a hundred colors, it is possible that man will neither grow old nor die.

Poetic examples dedicated to Shusha by Mammad Araz, Khalil Rza Uluturk, Anvar Ahmad, Ziver Agayeva are also dedicated to the city of Shusha, its poetic and artistic monuments, mysterious beauty and historical existence.

People's poet Mammad Araz wrote in his poem "One night in Shusha" written in 1970:

I'm on the last floor tonight,
I am on the wing of a chandelier tonight (Araz, 2004; p.78)

- describes this miraculous city as a chandelier city and says to Shusha, built on a mountain, "a chandelier city hanging from space":

From a distance: like a ball of stars
in the sky.
Close: like a rock lamp
was on the ground.

Mountain city burning in the middle of the night,
Depending on the space, the chandelier is a city. (Araz, 2004; p.79)

People's poet Khalil Rza Ulutürk in his lyrical poem "Journey to Shusha" in 1979 called the rocky, proud-looking Shusha "the white light of marble castles" and admired the city as follows:

"I have to tell you maybe a bottle,
My glass-lit, marble city.
Glossy, shiny like mountain crystal,
My ruby pen, my jewel city (Ulutürk, 1988; p.73).

The poet dates the names of dozens of springs in this beautiful city. "Jesus spring", "Double spring", "Aydin spring", "Milky spring", "Fairy tales spring" and others. names and writes springs:

"Alexander did not find the water of life,
Let me point out how many sources "(Ulutürk, 1988; p.79)

Every spring that falls in Shusha is like a water of life.

After the occupation, the sadness of the poetic word began to beat in the pulse of our poetry. The pen owners wrote several stories, poems, novels and poems with a longing for the homeland. Moaning in the footsteps of the enemy, they called their sons to revenge in order to vote for their call on the difficult day of the Motherland. Poems of our national poet Mammad Araz such as "The Motherland calls us", "Soldier's son", "Stand up, Azerbaijan"; Zalimkhan Yagub's poem "I do not condemn you", poem "Shusha fell asleep tonight"; Anwar Ahmad's "Where are you running, poor son!", "My shroud is covered with blood", "My great God", "Don't read, Arif"; Shusha poet Eyyub Shirlanli's "I have entrusted Shusha to God", "Ramiz is still guarding Shusha", "Longing for the homeland", "I died and stayed in Karabakh, God", "Shusha", "Ay Shusham"; Dozens of poems by Karim Karimli "Hello, Shusham!", "I condemn you, people of Shusha" and Alamdard Guluzadeh about the fate of the painful homeland. is valuable as a generalized poetic example of his views.

In the poem "The Motherland Calls Us", Mammad Araz addresses the brave sons of the Motherland:

Now with our death,
It was our colliding age.
From the throat of death,
It was our sticky age.
Death without an interpreter
It was our talking age.
Sword grip, son of the fatherland,
Homeland calls us! (Araz, 2004; p.129)

Declaring that this path is the path of death and blood, the poet glorifies the earth as our eternal tomb, a sacred place.

Or;

In the poem "Soldier's son", the poet calls on our brothers-in-arms, the place of hope of the people, lovers of the Motherland, engaged to death:

The last shot and the last blow are yours,
The son of a soldier, the son of a soldier - a brave man,
Even if a man dies, courage does not die, courage does not die;
Courage does not die, courage does not die - a soldier does not die. (Araz, 2004; p.130)

- said the poet, poeticizing the immortality of the heroes who gave their lives for the Motherland.

"Stand up, Azerbaijan!" In his poem, M. Araz calls for a country called Azerbaijan, which unites all its citizens, from the youngest to the oldest, from the youngest to the oldest, from the soldier to the commander.

He calls to the Old Volcano, which is ready to erupt:
Why did you sleep, old volcano, I'm with you!
Stand up, Azerbaijan, I am with you!
Not from you

we can share everything!
Not from you
we can all die!
This is where Shahriyar is,
This is where Bakhtiyar is!

... Pull the chest - patch the rocks,
Follow the path of truth,
The flag is a Caspian-sized flag,
The flag that has been raised to immortality!
Azerbaijan, Azerbaijan,

The flag of Azerbaijan! (Araz, 2004; pp.132-133)

Zalimkhan Yagub's poem "I do not condemn you", one of the prominent figures of our contemporary poetry, is one of the most valuable works of art written during the years of occupation. In the poem, the poet, who sacrificed his homeland, writes:

I saw a ram, a lamb,
I saw a sacrifice, a sheep sacrifice.
Such a nation, such a people
See who did the game victim.
Moon Lachin! Victim of the wounded,
Ay Shusha, don't cry, neck victim! (Yagub, 2006; p. 232)

While being expelled from his homeland, the hearth of dogma, the poet turns to his compatriots who submit to the bitter judgment of fate. He calls on them to stand up, to unite in a united front against the enemy, and to avenge the shedding of innocent blood.

In his wrathful verses, the master turns to the sword, exposes the faults of the hated enemy, who skillfully weaves the net of deceit, and curses him. The poet, who feels with all his being that the inhabitants whose houses have been destroyed and whose country has been turned into a ruin, are innocent, tries to soothe the broken hearts of these people with a more intimate language.

Shusha, whose fate was turned into a toy in the hands of a coward, passed away, and its residents fell asleep. In Zalimkhan Yagub's poem "Shusha fell asleep tonight", the poetic self begins to appear line by line, line by line, with clearer, more realistic lines.

Tonight I fell asleep in Shusha,
Jabbar was crying, Khan was crying.
A bird with a broken wing turned,
Karabakh was crying blood. (Yagub, 2006; p.152)

"Hello, Shusham!" Written by patriotic poet Karim Karimli in 1993. In his poem, he talks about the fate of a city that has been betrayed, its sons have been killed, its men have been beaten, it has been drowned in fire, washed in blood, its babies have grown old from grief, and its old people have grown tired. In the poem, the poet is saddened by the plunder of the country by the treacherous enemy, the plunder of his wealth, the burning of the thousand-year-old treasure of Shusha.

Hello, Shusham!
The lady's house was looted,
Palaces demolished, wealth plundered,
A thousand-year-old treasure is left on fire,
A thousand kinds of slander, falsely branded innocent,
For the sake of the child's blood was swollen, clotted,
He lost his temper, was bruised,

Hello, Shusham, my forgotten city!

My city is stoned and silenced! (Kerimli, 1998; p.65)

The city of Shusha, which was occupied on May 8, 1992, was finally liberated on November 8, 2020, exactly 28 years and 6 months later. Under the leadership of the Supreme Commander-in-Chief, President of the Republic of Azerbaijan, Mr. Ilham Aliyev, the victorious Azerbaijani army drove out the hated enemies from Shusha, and Shusha embraced its owners. "The owners of this land have returned. The flag in his hand, a weapon in his hand, the love of the Fatherland in his heart, we will live in these lands forever," the proud voice of our victorious President seemed to be an ointment for sorrowful hearts. The poet Damat Karimli poeticized this reunion and joy in his poem "Shushan is coming to his arms" as follows:

Dark clouds retreated,
Liberated and captive lands,
Stopped by floods, waters,
Saran comes to his arms.

He wrote the saga in Karabakh,
Inspiration, Supreme Commander-in-Chief,
Winning battles,
Pashan comes to his arms.

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