

Ministry of Natural Resources, Ecology and Technical Supervision



supported by **WUNOPS**





Green Climate Fund (GCF) project implemented by the United Nations Environment Program Copenhagen Climate Center (UNEP-CCC) "Technical guidance and support for technology needs assessment (TNA) of sectors and development of a Technology Action

Plan (TAP) in the Kyrgyz Republic"

Protocol

Round table on launching the Concept development process project on climate change mitigation through implementation and dissemination of climate technologies in waste management

Date	September 14, 2023
Time:	09:30 – 15:00
Venue:	Conference hall of the Ministry of Natural Resources, Ecology and Technical
	Supervision (Boulevard Erkindik, 2)
Participants	James Haselip - Senior Advisor to UNEP-CCC
•	2. Paul Riemann - Project Officer for UNEP-CCC
	3. Ala Druta - International expert consultant (Moldova)
	4. Yuri Matveev - International expert consultant (Ukraine)
	Aleksandr Temirbekov - Leading national consultant of the project on agriculture
	6. Bogombaev Edilbek - National expert-consultant on energy
	7. Mamakeev Aibek – Project Coordinator of the Climate Finance Center under
	MNRETS
	8. Isken Dunkanaev - Project Assistant "Technology Needs Assessment"
	9. Ekaterina Sakhvaeva - National expert consultant on water resources
	10. Mamakeev Aibek - Project Coordinator of the Climate Finance Center
	11. Isken Dunkanaev - Assistant of the project "Technology Needs Assessment"
	12. Azamat Almazovich Nakenov – specialist in the production and technical department of the Tazalyk MP
	13. Karimov Alibek Abdyganievich Specialist of the development and
	monitoring department of housing and communal services of Gosstroy
	14. Moldokulov Kurmanbek Bishkek Development Agency, Director
	15. Arstanbekova Asel - ESC Central Asia
	16. Kubat kyzy Aizhan - Begreen Bishkek Ecology LLC
	17. Alymov Bakhtiyar – expert on solid household waste
	18. Sapazov H.R Eco Leader KG
	19. Azhibekova A.B. – ALE APPD
	20. Kakeshev B.D. – UVPK MNRETS
	21. Sakiev N.K. – Head of MP BSP department
	22. Kasymov B.O. – Geo Tel Expert engineering
	23. Shevchenko V.V. – climate expert
	24. Dzhalbieva I. J. – ARIS M&E
	25. Abdyldaev D. – climate expert
	26. Isabekova B. – UNDP
Agenda:	Information on the CFC experience in developing projects for climate
	finance;
	2. Information on the Development of Concepts for projects on climate
	technologies: Specifics, experience of CTCN
	3. Presentation "Priority technologies and draft Technology Action Plan
	for the development of the Project Concept for the GCF on Waste
	Management

- 4. Determination of technology for developing the Project Concept;
- 5. Work in groups, presentation of group work and discussions;
- 6. Next steps

Haselip J.: presented the information about the development of Project Concepts on climate change Technologies, their specifics and CTCN experience, as well as information on the process of submitting a project concept to the Green Climate Fund

The meeting participants took note of the materials presented and the format of the application to the GCF.

O. Zabenko, made a presentation on Priority Technologies and Proposed Measures for the Development of a Technological Action Plan in the Waste Sector, in which she spoke about the technology selection procedure that preceded the selection of technologies for the multi-Criteria Analysis, and also provided information on the work on identifying barriers to the selected three technologies and measures for overcoming them.

After presenting information about the work done, O. Zabenko presented the three prioritized technologies and a TAP for each of them, which included barriers to their implementation and measures to overcome them. Further, the Waste sector working group was asked to discuss all three technologies and which of them could be accepted for work on the application to the GCF. Selected technologies are presented for discussion, such as: Mechanical and biological treatment of MSW, Use of organic waste (food) as raw material for biogas plants, Use of organic waste from wastewater treatment for biogas plants.

After the presentation, Zabenko O. gave the floor to international expert Yu. Matveev, for more detailed information on which technologies can be selected for the CCF application.

Yu.Matveev.: If we take into account the features of the waste management system in the Kyrgyz Republic, then all waste, including organic waste, is located in a landfill, methane is produced, it enters the atmosphere and greenhouse gases are released. Various environmental consequences are also possible, such as fires that pollute the environment. We would like the waste management system to be significantly improved during the implementation of the waste project. In fact, only such projects will be supported by the Green Climate Fund. If we look at the list of projects that have been selected and approved, this list is the result of a lot of work done, so ideally our choice of project concept is one that will cover one or a combination of technologies. This list is not absolute, it can be optimized, and this is the goal of our meeting today - to hear all possible proposals, and this is the task of the expert group. It is also necessary to take into account that the three selected technologies can be divided into two groups, two technologies for solid waste and one technology for wastewater.

- **A. Temirbekov**, thanked Yu. Matveev for the detailed information and drew the participants' attention to the fact that the first question facing the working group is the choice of technology that will be an umbrella technology or will form the basis of the entire project. And, he invited each of the participants to speak out about the choice of technology.
- **O. Zabenko**, encouraged participants to take an active part in choosing technology, taking into account knowledge and professionalism in the field of waste management.
- **B.** Alymov: Drew the attention of the participants to the fact that before talking about biogas plants, it is necessary to think about waste separation. My choice will be in favor of the first technology

because it involves sorting. If we talk about anaerobic decomposition, this is already the second or third step after the introduction of separate collection.

- **A. Temirbekov**: In fact, what you said separate collection, transportation could be components of the project. Technologies are chosen because they reduce greenhouse gas emissions, we can choose a technology and build everything we need around it.
- **B. Alymov**: If the ultimate goal is to reduce emissions, then this is the second technology, but after 20 years we do not have a large distribution of biogas plants.
- **Yu. Matveev:** I'm very glad to hear such an opinion among the audience. The list of projects is not absolute, and we have gathered to optimize it. Even dry and wet waste already optimizes collection better than just a mixed stream.
- **A. Arstanbekova**: We have been working for a long time in the field of modernizing and equipping enterprises in the field of waste management, especially with the private sector, and now enterprises that are supported by authorities and local governments are also making a lot of requests regarding technologies that they can use when working with waste. Therefore, we are more interested in the first technology.
- **A. Karimov**: Three projects are a priority and can be implemented, but we have weak human and institutional capacity in the waste sector. Industrial bodies do not introduce qualification documents and standards. They should be involved in developing standards together with the private sector. I consider the third technology quite feasible. There is sufficient volume in the city of Bishkek, but there are questions regarding the technical standards regarding the installations themselves.
- **V. Shevchenko**: In my opinion, Mechanical and biological treatment is included in both the second and third technologies because it is impossible to implement biogas plants without preparing raw materials, and in the third, the biological fraction is simply not processed. There is no contradiction in its use, and they complete the processing, reducing greenhouse gas emissions.
- **B. Bekeshev**: I am the commissioner for the prevention of corruption in the Ministry of Natural Resources. I would like to draw your attention to my activities, since many projects are subject to corruption. I recommend that you choose your composition well for your current projects.
- **A. Temirbekov**: Projects implemented by specific authorized parties rather than governments have written preventive measures.
- **A. Karimov**, drew attention to the fact that technology is being discussed, and relevant bodies exist to make any assessment in this area. He also noted that to develop human resources and institutional potential, industrial bodies must work taking into account the Ministry of Natural Resources, the city mayor's office, the state agency for human resources management all this must work in a complex.
- **E. Bogombaev:** Now the projects are being filled with activities, and I propose to write down important points so as not to return to them, for example: lack of a regulatory framework, increasing capacity.
- **Yu. Matveev:** Display the categories of measures, please

A. Nakenov: I am impressed by the first two technologies: the first sorts, the second processes food waste. This would reduce our workload and the prices of our services.

Kubat kyzy A: Our company is engaged in the collection, logistics and recycling of waste. We, as the private sector, support the second technology. Basically, 50% of the containers in Bishkek are food waste, which we cannot do anything with.

A. Temirbekov: We are finishing the discussion of the first step – choosing a technology.

Based on the results of the discussion, MOB technology and, as a component of the project, Biogas plants technology for processing food waste were selected for the umbrella project.

Next, the group began discussing a list of the main components of the project. After the meeting participant discussed the project components, a list of components was formed for the project: Mechanical-Biological Treatment + Biogas Plant on Food Waste

The list includes the following categories of measures and components:

- 1. Improving policies and legislation
 - 1.1. Development of a strategy/program/concept for sustainable waste management
 - 1.2. Improving normative and regulatory regulations
 - 1.3. Create financial incentives
- 2. Strengthening institutional and human capacity
 - 2.1. Support for the reform of the institutional waste management mechanism
 - 2.2. Waste management training systems

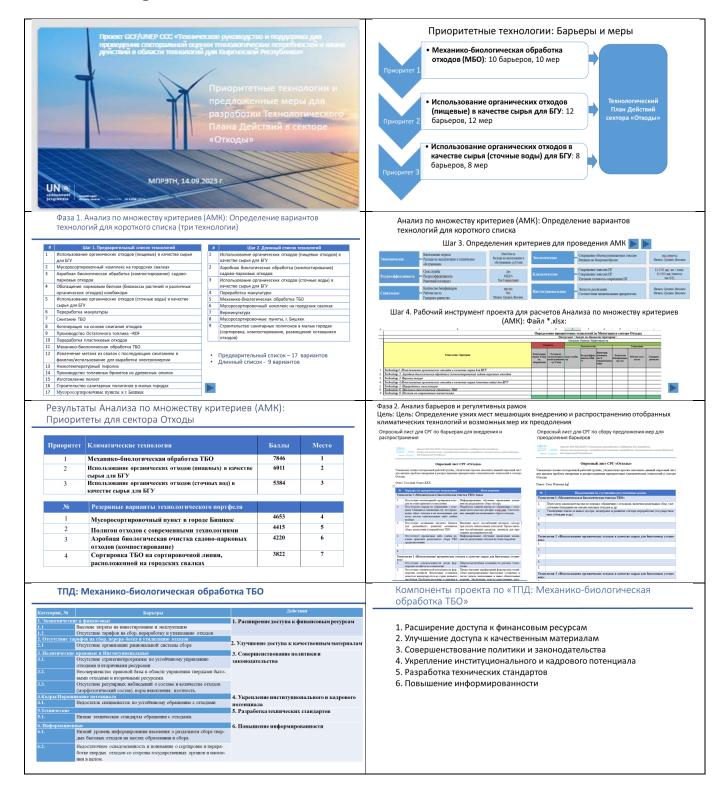
(educational standard)

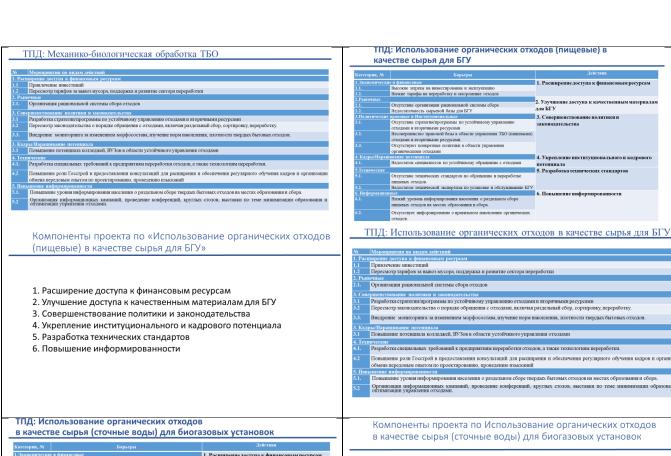
- 2.3. Improving the qualifications of government workers, municipal and private employees
- 2.4. Creation of an information system for waste management
- 2.5. Exchange of experience/internships abroad and participation in international events
- 3. Support initiatives to modernize facilities
 - 3.1. Purchase of electric/gas green special equipment
 - 3.2. Biogas plants set with biofuel processing
 - 3.3. Mechanical and biological treatment plant
 - 3.4. Waste transfer stations
- 4. Raising awareness
- 4.1. Increasing the level of informing the population about the separate collection of solid household waste at the places of education and collection.
- 4.2. Organization of information campaigns, conferences, round tables, exhibitions on the topic of minimizing education and optimizing waste management.
 - 4.3. Holding exhibitions

Decisions made:	Access the selected technologies for the project: Mechanical-
	Biological Treatment + Biogas Plant on Food Waste
	2. The Waste sector expert will send the working group members a list of
	components to add and make adjustments, if necessary.
Applications	Annex 1

Made by:	Project Assistant Dunkanaev Isken	Signature:
	development of a Technological Action Plan in the Presentation 2. Technology Action Plan and Concep James Haselip Appendix 2. Appearance sheet Appendix 3. Photo	Waste sector
	Presentation 1. Priority technologies and proposed	measures for the

Presentation 1. Priority technologies and proposed measures for the development of a Technological Action Plan in the Waste sector





Компоненты проекта по Использование органических отходов в качестве сырья (сточные воды) для биогазовых установок

Октусткуру конкрения волитили в объемы до установления объемы до установления объемы до установления в недостаток специального по установления объемы до установления по установления по установления объемы до установления по установления

2. Улучшение доступа к качественным материалам для БГУ

3. Совершенствование политики и законодательства

- 1. Расширение доступа к финансовым ресурсам
- 2. Совершенствование политики и законодательства
- 3. Укрепление институционального и кадрового потенциала
- 4. Разработка технических стандартов

исутствие организации рациональной системы сбора едостаточность сырьевой базы для БГУ завовые и Институциональные

развовае и Пестиупловизальные
Отсутствие стритегини программы по устойчивому управлению
откольми и изгоричивами ресурсами
Несовершенство правовой бам в объети управления ТБО (пищевыми)
откольми и тогричивами ресурсами.
Отсутствуют конкретные политики в объети управления

лечение пивестиций смотр тарифов за вывоз мусора, поддержка и развитие сектора переработки

арапшвание потенциала вышение потенциала колледжей, ВУЗов в области устойчивого управления отходами

5. Повышение информированности

в фактисные
Высовые заграты на питестирование и коллугицию
Высовые заграты на питестирование и коллугицию
Натакие тарафы на водовогробение и водоотведение
правовые в Иментурования коллене
правовые в Иментурования коллене
голожими и игоричилыми ресурсами
голожими игоричилыми ресурсами
голожими игоричилыми ресурсами
голожими игоричилыми регурсами
водоотведения
водом водовые водовые водовые водостирование
водоотведения
водом водовые вод Расширение доступа к финансовым ресурсам Недостаток пециалистов по устойчивому обращению с отколления потенциала

Недостаток технической экспертим по установке и обслуживанию

4. Разработка технических стандартов

Бизгаловых установох. на:
Недостаток пиформации о современвых технозогиях переработки органических отходов. Недостаток информации о положительных практиках применения сточных вод в качестве сырья для биогазовых установок.

ТПЛ: Использование органических отхолов в качестве сырья (сточные воды) для биогазовых установок

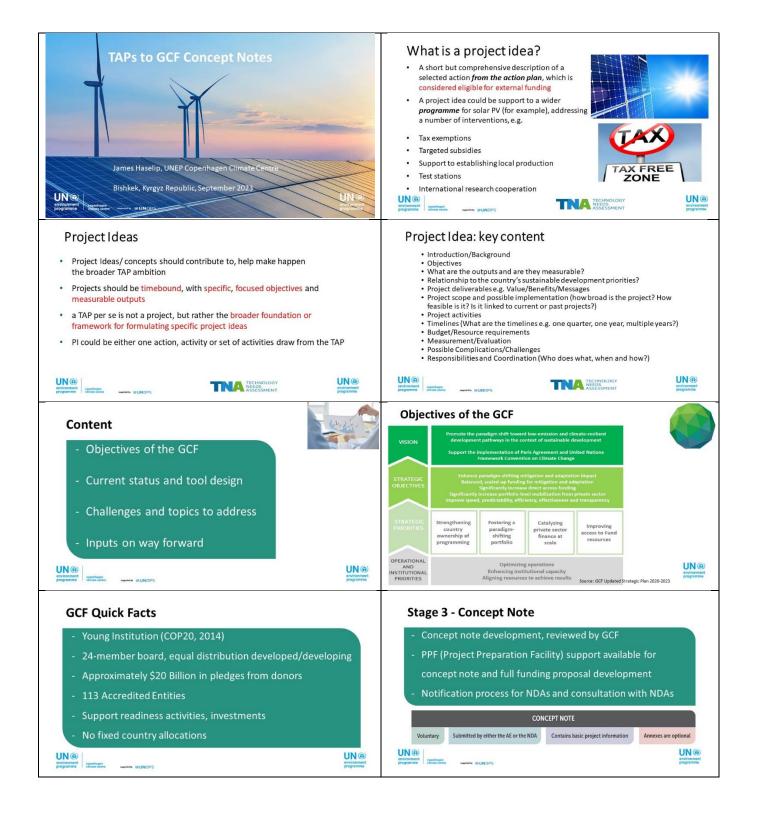
No.	Мероприятия по видам действий								
1. Pac	диериприятия по водом деястоги пипрение доступа к финансовым ресурсам								
1.1	Поивлечение инвестиций								
1.2	Пересмотр тарифов за водопотребление и водоотведение								
2. Cor	зершенствование политики и законодательства								
2.1	Разработка стратегии/программы по устойчивому управлению отходами и вторичными ресурсами								
2.2	Разработать отраслевой нормативно-правовой акт по регулированию тарифов в секторе хозяйственно-питьевого водоснабжения и водо-								
	отведения.								
3. Ka;	3. Кадры/Наращивание потенциала								
3.1	Повышение потенциала колледжей, ВУЗов в области устойчивого управления отходами								
4. Tes	нические								
4.1	Повышение роли Госстрой в предоставлении консультаций для расширения и обеспечения регулярного обучения кадров и организации								
	обмена передовым опытом по проектированию, проведению изысканий								
5. Ho	зышение информированности								
5.1.	Повышение информированности лиц принимающих решения о климатических проблемах и выгодах внедрения использования сточных								
	вод в качестве сырья для БГУ.								
5.2	Изучение и информирование о положительных практиках использования сточных вод в качестве сырья для БГУ								

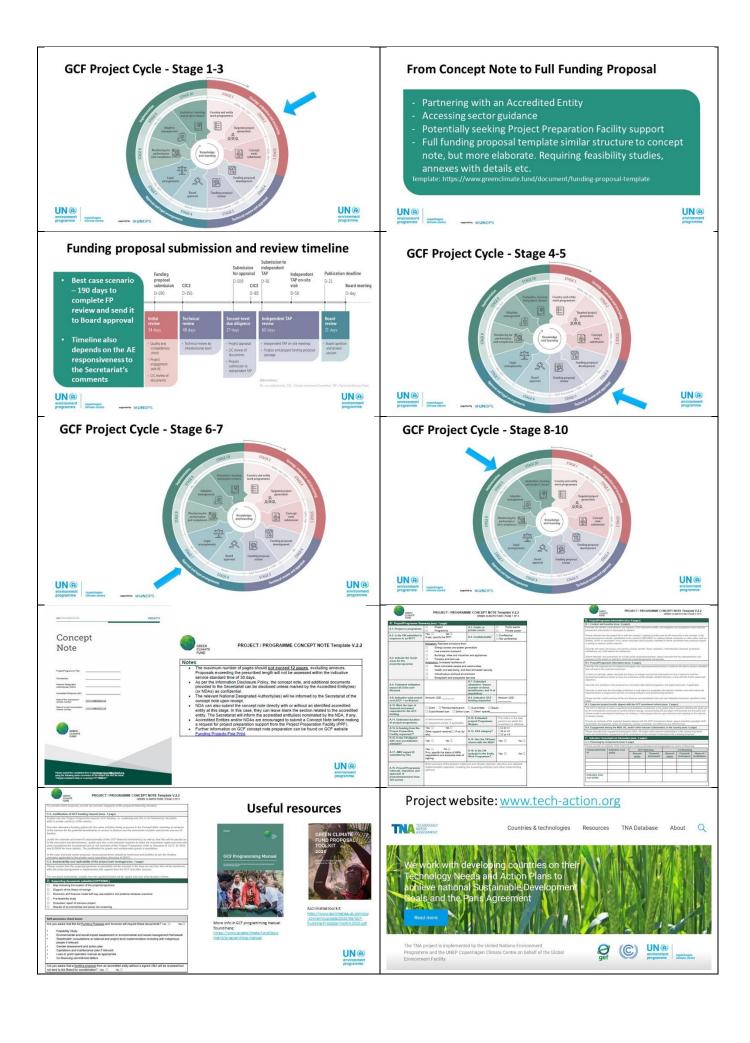
Вопросы для обсуждения в группах

- 1. Какую технологию выбираем для разработки проекта?
- 2. Локализация проекта?
- 3. Основные компоненты проекта?



Presentation 2: Technology Action Plan and Concept Notes for the Waste Sector James Haselip





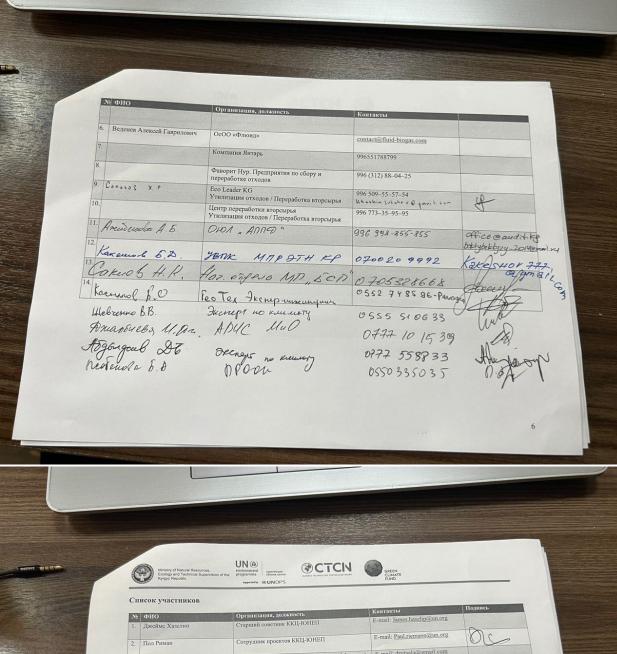
Attendance sheet

-			
	Список участников СРГ по	Отуолям	
	№ ФИО	Организация, должность	Контакты
	1. Уланбеков Талантбек Уланбекович	Мэрия г. Бишкек, заведующий отделом ОБО	0312-66-06-21 Отдел документационного обеспечения и контроля
	 Джумалиев Нурлан Джапарбекович 	Директор МП «Бишкекский санитарный полигон»	0559233233 mp_bsp@mail.ru
	3. Асылбеков Кубаныч Жумабекович НАКЕНОВ АЗАМАТ АЛМАЗОВИ 2	Замсститель директора МП «Тазалык» Специалист производствению— -технического отдела МП» Тазалык	0312 345-102, (приемная) 055344 0435 0312 345-073, (общий отдел) mptazalyk@mail.ru azamat. nakenov@gmail.com
-	Каримов Алибек Абдыганиевич	Специалист отдела развития и мониторинга ЖКХ Госстроя	0312 312-924 0223 104000 Общий отдел alik.7189@mail.ru al_kaa2List.ru
5	. Джуманалиева Айнура Сатыбековна	Центр климатического финансирования при Министерстве природных ресурсов, экологии и технического надзора КР	555 56 20 00 ainuradjm@gmail.com adjumanaliyeva@gmail.com
6	Молдокулов Курманбек	Агентство развития г. Бишкек, директор	0557-858888 kurmanbek78@gmail.com
7.	Абылаев Тимур Замирбекович	Агентство развития г. Бишкек, заместитель директора	0555004344 sovetnikmera0012@gmail.com
8.	Кулмурзаева Айсулуу Куватбековна	Агентство развития г. Бишкек	0505043044 aisuluukulmurzaeva@gmail.com
9.	Бакиров Б.Ж.	Агенство развития г. Бишкек	0999117709 Bakytbek.bakirov.76@mail.ru
10	Султамбаев Медетбек Ороскулович	АРИС Старший специалист по мониторингу и оценке	MSultanbaev@aris.kg, 30-17-78 доп. 197 0702803251

11	Е ФНО Байдакова Наталья Сергосына Е. Устанбенова в	Организация, должность СSR Central Asia Эксперт по экологической безопасности	0700 204-734 wastenet.projects@gmail.com	AL
12	Веденева Татьяна	Центр ВИЭ и ЭЭ. Президент	0312 533-766 0555 755306 info@creeed.net	
13.	таксат секснович	Институт водных водных проблеми Гидроэнергетика НАН КР. Зав.лабораторией Гидроэнергетики	abduldaev59@mail.ru 0550056442	
	Подрезов Андрей Олегович	КРСУ, Зав кафедры «Метеорологии, климатологии и ООС»	0550 428-379 andrey_podrezov@mail.ru	
5.	Обозов Алайбек Жумабекович	НАН КР, Лаборатория ВИЭ, Д.т.н., Профессор	0559 190 606 obozov-a@mail.ru	

Частный сектор по отходам

	№ ФИО	Организация, должность	Контакты	and the latest designation of the latest des
	1. Маматбеков Данияр Жумабекович	ОсОО «Бивтор» Старший менеджер	0770 900-248 0772 032-620 mdj 1988@mail.ru	
12	2. Замирбеков Бахтияр Кубоя едум Динии. Друмалиев Н	ОсОО «Ведтеен Бишкек Экология» Завод по переработке пластика. Опјанси ва вод трг 19. Директор 077	0707 562 562	B
3.	Д-Мумалиев Н.) инженер-технолог	ОсОО «Эко технолоджис» компания по утилизации отходов	0507-62-42-12, 0777-62-42-12 ecotechnologies17@mail.ru	/
	Рахманов Абдуллабек Пайзуллабекович	ОсОО Ихсан Эко Групп, компания по утилизации отходов. Руководитель	0775587595 ihsan.ecogroup@gmail.com	^
1	Алымов Бахтияр	ATTANLIMOB GOXTUSP	0555970063 bakhtiyar.alymov@gmail.com	5



SEC.	ФИО	Организация, должность	Контакты	Подпись
1.	Джеймс Хазелип	Старший советник ККЦ-ЮНЕП	E-mail: James.haselip@un.org	
2.	Пол Риман	Сотрудник проектов ККЦ-ЮНЕП	E-mail: Paul.riemann@un.org	00
3.	Ала Друце	Международный эксперт-консультант (Молдова)	E-mail: drutaala@gmail.com	
4.	Юрий Матвеев	Международный эксперт-консультант (Украина)	E-mail: Matveev.yuri@gmail.com	ec ,
5.	Темирбеков Александр	Ведущий национальный консультант проекта по сельскому хозяйству	E-mail: atemirbekov@mail.ru	for
6.	Богомбаев Эдильбек	Национальный эксперт-консультант по энергетике	0553919114 E-mail:edilb@mail.ru	Done
7.	Оксана Забенко	Национальный эксперт-консультант по отходам	E-mail: ksana_ks@mail.ru +996552091973	
	Екатерина Сахваева	Национальный эксперт-консультант по водным	E-mail: tadar51@mail.ru 0555354656	
	Искен Дунканаев	ресурсам Ассистент проекта «Оценка технологических потребностей»	+996550577577 E-mail: lskenskii1@gmail.co	m





