Inventory report
obsolete pesticides (OP)

Chui, Talas, Naryn, Issyk-Kul, Jalal-Abad, Osh and Batken oblasts

Kyrgyzstan

Bishkek, 2021

Table of contents

Prerequisite

The project "Pesticide Life Cycle Management and POPs Pesticide Elimination in Central Asia and Turkey" (GCP/SEC/011/GFF resp. GEF ID 5000) planned to update the inventory of obsolete pesticides in Kyrgyzstan and issued for this purpose a LoA with Independent Environmental Expertise,

This is not the first project that has undertaken an inventory of obsolete pesticides:

- 2003-2006: GEF/UNEP: Assistance to the Kyrgyz Republic in Implementing the Stockholm Convention on Persistent Organic Pollutants (POPs): National Implementation Plan of the Kyrgyz Republic;
- 2004-2009; Elimination of banned and unusable pesticides in Kyrgyzstan (ISTC);
- 2006-2008: "Elimination of high risks of obsolete pesticides in Moldova, Georgia and Kyrgyzstan"- inventory in Osh region (Government of the Netherlands in cooperation with Milieukontakt International and SAEPF;
- 2009: "Technical Study on Obsolete Pesticides in Kyrgyzstan" (Canada/World Bank and SAEPF);
- 2009-2014: GEF-FSP "Demonstrating and Scaling Up Sustainable Alternatives to DDT for the Control of Vector Borne Diseases in the Southern Caucasus and Central Asia" (the DDT-Project);
- 2012-2014: "Inventory of Obsolete Pesticides and Related Waste in Central Asia, Caucasus and Turkey", GCP/RER/035/TUR;
- 2014-2015: EU-FAO GCP/RER/040/EC "Increasing capacity to eliminate and prevent reuse of obsolete pesticides as a model for dealing with unused hazardous chemicals in the former Soviet Union";
- 2019: GEF Project 9421 - Demonstration of non-thermal treatment of DDT waste in Central Asia (Kyrgyz Republic and Republic of Tajikistan).

A review of obsolete pesticide (OP) inventories carried out earlier showed that there was no single data base for past inventories. The data collection itself took considerably longer, as there was no single source of information and reports had to be obtained from national authorities as well as local and international experts. The data themselves for the same locations were not always consistent and requireds double-checking. For most of the sites, there is no information on the owners of the warehouses/land on which the obsolete pesticide outlets are located. Past inventory data did not form the basis for establishment of the hazardous waste management system.

The total number of sites to be inventoried across the country was established to be 136 locations. First of all, the inventory team had to update data on the presence of obsolete pesticides and wastes and correct coordinates. Points, where, according to the description, obsolete pesticides are no longer present, nevertheless required control visits and coordinates corrected for further analysis of soil contamination. Analysis of soils and agricultural products in the contaminated areas should be carried out after establishment of necessary laboratory capacity in Kyrgyzstan for POPs determination.

The mapping of obsolete pesticide points revealed a large number of unreliable coordinates: many points were outside the Kyrgyz Republic (Kazakhstan, Uzbekistan, Ukraine), some points were high in the mountains, one point in the centre of Lake Issyk Kul.

There was no information on regulation and control of obsolete pesticides stocks found in the past. Inventory data on obsolete pesticides stocks were not submitted to the National Statistical Committee, and waste passports were also missing (except for the Boka Ltd. Site in Balykchy).

Prior to the start of work on 30 April 2021, a training workshop was held on the inventory of obsolete pesticides, inventory procedures as established in EMTK Vol. 1 (FAO Environmental Protection Toolkit for Obsolete Pesticides - Volume 1), the use of PPE, as well as safety briefings on pesticide handling for inventory participants (Annex 4).

In accordance with GIETS Order No. 59 dating 26 May 2021 "On Establishment of the Working Commission", a working commission was established with the participation of representatives of DZHKR and independent experts, and the heads of territorial departments of GIETS were instructed to "provide appropriate assistance and take the results of the executed works for further control" (Annex 5).

The Inventory Commission inventoried 51 sites in Chui oblast and 11 in Issyk-Kul, Talas and Naryn oblasts. During the inventory in the southern regions of the Kyrgyz Republic (Jalal-Abad, Osh and Batken oblasts), 21 former OP disposal sites and 4 OP burial sites were visited.

2. Methodology

As mentioned above, the Kyrgyz inventory followed the methodology as laid out in the FAO EMTK series, which were developed for the management specifically of obsolete pesticides and contaminated soil. In a first step, information from prior inventories was collected. The various data were compiled, cross-checked for consistency and discussed with the DCPP. Based on the information, a list of sites to be visited in the frame of the inventory was developed. A small inventory team of six persons including staff from the SP and the DCPP and Environmental Inspection was formed. The team composition remained the same until the end of the inventory, thus assuring consistency in inventory work and data processing. Inventory work was undertaken in two campaigns, first from 1-22 June 2021 in the North of the country, then from 10 July – 2 August 2021 in the South.

For each site, the forms provided by FAO were completed including a brief site description and, where possible, an estimation of the amounts and types of OP on the site. It should be noted that the quantities of obsolete pesticides and contaminated soil are estimates and that an error margin should be considered when planning for safeguarding. In some locations it was not possible to determine the exact amount of pesticides as pesticides were buried or mixed with construction materials (from destroyed warehouses).

Brief site descriptions are given in Appendix 2 as well as a summary of the inventory data obtained for each site. The quantities of obsolete pesticides, contaminated soil inside and outside the storehouse are given in kilograms.

Where pesticides packaging were not labelled or where the mixture of pesticides did not allow their identification, samples were taken for laboratory analysis. The sample register with coordinates can be found in Annex 3.

Areas where stores have been completely destroyed, packaging is missing, or pesticides have been washed away, weathered and spread into the environment, causing diffuse soil contamination, have been mapped and photographed for possible subsequent soil analysis.

Due to lacking proper control, some of the OPs listed in past inventories are missing (either sold or moved outside the warehouses to landfill sites or destroyed by precipitation), and many stores have been destroyed or converted to other uses.

Following the field phase, inventory data were then analysed to define risks from materials in a store (Fp-factor) and risks to the environment and surrounding communities based on the location of the store (Fe-factor). A senior FAO technical consultant reviewed the data and developed based on it a risk classification.

In a next step, the data are now to be validated in a national workshop, which should also determine next steps in terms of safeguarding, centralisation, and responsibility for safeguarded materials. Additionally, options for disposal of the various inventoried materials like obsolete pesticides, packaging, and contaminated soil need to be developed.

3. National inventory results

During the national inventory, the Inventory Commission visited more than 50 sites in Chui oblast, more than 11 in Issyk-Kul, Naryn and Talas oblasts, and more than 21 former storage sites and 4 OP burial sites in the southern oblasts of the KR (Jalal-Abad, Osh and Batken oblasts). A part of the sites had incorrect coordinates noted in previous reports, which meant more time to find the sites with involvement of specialists of territorial units of the Department of Chemicalisation, Plant Protection and Quarantine (DKZKR) and the State Inspectorate on Environmental Safety (SIETS). The map with the investigated sites is attached (Annex 1). One key result from the inventory is

that that more than 150 m^3 of DDT containing materials were found in Chui, Issyk-Kul, Naryn and Talas oblasts. In addition, old inventory data indicate between 270 to 800 metric tonnes (MT) of DDT in the Kochkor landfill and about 3'000 MT in four burial sites in Jalal-Abad, Osh and Batken oblasts. Most of the sites are in poor condition, posing a potential hazard to human health and the environment. Many of the storage sites are in close proximity to housing and agricultural land, used for housing livestock and storing fodder, as well as for storing stockpiles of obsolete pesticides. Most of the stockpiles of obsolete pesticides are mixed with soil and contaminated packaging material. The inventory showed that some stockpiles of obsolete pesticides were completely lost as a result of change of ownership, sale or removal to an unknown destination, or destruction of warehouse buildings where pesticides were stored, which resulted in destruction of packaging containers. As a result, many pesticides were washed away and weathered, leached into the soil and, in some cases, may have reached groundwater and surface water.

The quantities of pesticides in Chui, Talas, Naryn and Issyk-Kul oblasts (excluding Kochkor landfill) according to the inventory add up to more than 150 m^3 of obsolete pesticides requiring safeguarding and more than 80 m^3 of contaminated soil/construction waste inside warehouses and over 100 MT of highly contaminated soil with pesticides.

The quantities of pesticides in Jalal-Abad, Osh and Batken oblasts according to the inventory add up to 11'000 kg of obsolete pesticides requiring safeguarding and over 40 m^3 of contaminated soil/construction waste inside warehouses and over 90 MT of heavily contaminated soil with pesticides.

A summary of available stockpiles of obsolete pesticides in the Kyrgyz Republic is presented below:

- Liquid obsolete pesticides

Type	**Amount**
Defoliants	400 litres
Herbicides	42 601 litres
Insecticides	25 litres
Unknowns	68 860 litres
Total	**111 886 litres**

- Solid obsolete pesticides

Type	**Amount**
Fungicides	100 kg
Herbicides	9 340 kg + 0.5 m^3
Insecticides	1 841 125 kg + 22 m^3
Unknowns	16 790 kg + 288.5 m^3
Total	**1 867 355 kg + 311 m^3**

Note: the unit kg refers to OP still in packaging, whereas amounts spilled on the ground are estimated in m^3

- Empty containers: 603 pieces (different volumes and sizes)
- Contaminated soil: 163 850 kg + 40 m^3

In addition, following amounts of OP have been stolen and/or disappeared since the last inventories:

- Liquid obsolete pesticides: 5 515 litres
- Solid obsolete pesticides: 64 700 kg and 82.5 m^3
- Empty containers – 818 pieces (different volumes and sizes)

A large number of the identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	Packaging completely broken	Packaging partially broken	Packaging in good condition
Liquid obsolete pesticides	300 litres	57 586 litres	54 000 litres
Solid obsolete pesticides	17 425 kg and 289 m^3	1 379 130 kg and 22 m^3	470 800 kg and 289 m^3

The OP in the first two categories should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

3.1 Inventory results per regions

Chui oblast

The greatest amounts in the north of the Republic have been found in the Chui oblast. Most of the stores are destroyed and the spatial relocation/migration of OP is unknown. The inventory revealed a large number of contaminated areas at former depots with unidentified OP, contaminated packages with seepage into the soil, possibly into groundwater.

In total, over 96 sites have been pre-identified from past inventories for the Chui oblast, of which 45 sites could not be located or do not exist anymore (see below). These sites could be potentially hazardous as soil contamination could still be significant in some areas.

51 sites were inventoried in the Chui oblast, many of the past inventories had incorrect coordinates. The search for such sites was carried out with the involvement of local government leaders and territorial specialists of SIETS (after the reform of the government structure – GECC), and the DZHKR. Old photographs and Google Earth Pro were used to identify the locations of old warehouses. Most of the depots have smaller amounts of pesticides compared to past data. Some of the storage sites were lost due to change of ownership, some were lost due to deterioration (collapse of warehouse roofs) and some were stored in metal containers which could have been of interest for metal recycling.

The survey revealed 21 sites with completely destroyed warehouses, with no odour, no OP and no traces on the soil left. Soil traces could have been covered by the application of "clean" soil and thus soil contamination cannot be ruled out.

The total amount of OP requiring repackaging and storage is over 130 m^3 and there is also a large amount of contaminated dust/soil/construction waste (currently unknown, estimated to be over 100 m^3).

Even empty warehouses have often a distinct chemical smell. Of the still existing stores, three locations should be noted:

- WS-204 in Kant, JSC MIS (according to security guards belongs to A. Zhaparova). The warehouse is in good condition, although a strong smell of pesticides is present. The area is guarded, although the warehouse itself does not have locks on the doors. As a result, some pesticides were stolen in relation to the last inventory. The OPs themselves are stored

in undamaged packaging, allowing to read the name of the pesticides. There is no waste passport.

- WS-50 Warehouse in Jany Zher district, Jany Zher village is privately owned. The warehouse itself is not guarded and is in bad condition. During previous inventories, the owner of the warehouse was promised that pesticides would be repacked and removed. As a result, the owner does not feel responsible for storage of hazardous waste and demands to remove the OP, otherwise he will simply burry the bags.
- WS-35 is located in Predtechensky District, Predtechensky village. Predtechenka, OKH "Chekir-Suu". The owners vacated the warehouse for their own needs and transported 48 bags with pesticides to the new warehouse (WS-35a). During transportation, "two bags were lost". There are packaging residues at the old site, there is a pungent smell, possible residues in the soil. There are people living directly across the wall of the former warehouse. The old warehouse is freely accessible and children were playing near the warehouse at the time of the inventory.

2021 inventory results for Chui oblast:

- Liquid obsolete pesticides

Type	**Amount**
Herbicides	4 401 litres
Insecticides	25 litres
Unknowns	360 litres
Total	**4 786 litres**

- Solid obsolete pesticides

Type	**Amount**
Fungicides	100 kg
Herbicides	3 835 kg
Insecticides	835 kg
Unknowns	7 070 kg + 84.5 m^3
Total	**11 890 kg + 84.5 m^3**

- Empty containers: 151 pieces (different volumes and sizes)

In addition, following amounts of OP have been stolen and/or disappeared since the last inventories:

- Liquid obsolete pesticides: 40 litres
- Solid obsolete pesticides: 1 m^3
- Empty containers – 17 pieces (different volumes and sizes)

A large number of the identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	Packaging completely broken	Packaging partially broken
Liquid obsolete pesticides	100 litres	4 686 litres
Solid obsolete pesticides	15 310 kg and 84.5 m^3	3 825 kg and 22 m^3

The OP in the first two categories should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

Photo 1. Point WS-2 s.v. Panfilovka

Photo 2. Point WS-35a, v. Predtechenka

Photo 3. Point WS-48c v. Chat Col

Talas oblast

A total of 3 sites were identified in the Talas oblast based on past inventories and only one site had clear coordinates. The three sites were surveyed, and additional sites were found with the involvement of local government managers and territorial specialists of SIETS and DZHKR. One point was detected on the territory of former agricultural chemical warehouses (no traces of OP, pungent smell present). In addition, a pesticide mixing pit was identified (no traces of OP, no odour), another point was located near Kara-Bura settlement (completely destroyed, no traces of OP detected, no odour). The warehouse, which had clear coordinates, has less pesticides in comparison to past data. The area is completely derelict, has parts of destroyed structures. Most of the OP has been lost due to precipitation (collapsed warehouse roofs). Of particular concern is the direct discharge into the Talas River.

The total amount of TOs requiring repackaging and storage is over 2 m^3. In addition, there is a large amount of contaminated dust/soil/construction debris (currently uncertain, estimated at over 40 m^3).

2021 inventory results for Talas oblast:

- Solid obsolete pesticides

Type	**Amount**
Insecticides	25 kg
Unknowns	9 600 kg + 24 m^3
Total	**9 625 kg + 24.5 m^3**

- Empty containers: 1 piece
- Contaminated soil: 40 m^3

A large number of the identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	**Packaging completely broken**	**Packaging partially broken**
Solid obsolete pesticides	9 625 kg and 24 m^3	--

The OP should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

Photo 4. Point WS-177 (126) c. Kyzyl-Sai

Naryn oblast

For the Naryn oblast, four sites were identified from past inventories, one additional site was identified by the territorial representatives of SIETS (Soviet landfill in Oroo-Bashy, Kochkor district). One site had incorrect coordinates, being located in a high-mountainous area without access by road. A total of 5 sites were inventoried. There is no road to the landfill in the Kochkor region, but it is possible to drive a cross-country vehicle almost up to the site. The remaining 1.5 kilometres had to be traveled on foot.

There are 6 warehouses at the former RaiSelkhozKhimiya site, 4 km from Naryn town, 250 m from the settlement and 300 m from the Naryn River. Of these, 1 warehouse has OP residues. The roof of the warehouse is leaking and the doors are not locked. The warehouse is partially destroyed, the pesticides packaging completely destroyed. The area is fenced off.

The former collective farm pesticide warehouse in Tendik village is completely destroyed, no traces of OP were found, there is a pungent odour and possible soil contamination. During the last inventory it was noted that "there is no smell or traces on the soil".

Two shipping containers with obsolete pesticides (DDT) and contaminated soil are located at At-Bashy anti-plague station. Unlike in Balykchy, the storage facilities are not sealed, but guarded. The contaminated soil warehouse also stores pesticides currently used for rodent control (plague spreaders). Thus, the DDT-contaminated soil warehouse is accessible to staff, the room used to store DDT in the past is now used for storing the rodent control pesticides. A pungent odour is present in the area, presumably soil contamination at the repackaging site.

There is no waste passport. Plague control workers do not consider DDT as waste and foresee the possibility to use it in case of malaria epidemic or to sell it. There is also a need to seal the stores to prevent personnel access to the hazardous waste, to develop a Waste Data Sheet and to carry out awareness and safety training.

The total amount of OP (excluding the landfill and the already safeguarded DDT at At-Bashy) requiring repackaging and storage is over 3 m^3 and there is also a large amount of contaminated dust/soil/construction waste (the exact amount is not known at this time, presumably over 30 m^3).

In Oroo-Bashy, Kochkor district, 9 burial sites with DDT were discovered. The burial took place in the 70s of the twentieth century. According to different sources, burial campaigns took place in 1973 and 1978. Also, according to different data, the burial sites contain from 270 to 800 MT of DDT on the 0.8 hectare site.

In 2019, a local resident applied to the territorial department of the Environmental and Technical Safety Inspectorate regarding the excavation of a burial pit with DDT by local residents. An order was issued to the village self-government (aiyl okmotu) to backfill the pit. These works were carried out (Photo attached), but fresh excavations were again found during the inventory. Some of the sacks with DDT were damaged, some were removed. Thus, there is an uncontrolled use of hazardous waste (DDT), which in turn contributes to increased health and environmental risks. According to local residents, the smell is particularly noticeable after the rains, when temporary streams of washed-out pesticides flow into the canal from which residents of nearby villages draw their irrigation water. To prevent further looting of DDT, it is urgent to repackage this DDT and contaminated land and ensure adequate security until such time. Repackaging should be accompanied by a Risk Management Plan, development of an EIA, obtaining a positive opinion from the State Environmental Expertise and development of a Waste Data Sheet, outreach to local government officials and the territorial division of SIETS.

Different data on the number of DDT burials and the years the landfilling took place also require a detailed review of the archival data. It should be ensured that the same site is described and not two completely different burials in the same area.

2021 inventory results for Naryn oblast:

- Liquid obsolete pesticides

Type	**Amount**
Insecticides	200 litres
Total	**200 litres**

- Solid obsolete pesticides

Type	**Amount**
Insecticides	286 825 kg
Total	**286 825 kg**

- Empty containers: 54 pieces (different volumes and sizes)
- Contaminated soil: 3 850 kg

In addition, following amounts of OP have been stolen and/or disappeared since the last inventories:

- Liquid obsolete pesticides: 40 litres
- Solid obsolete pesticides: 1 m^3
- Empty containers – 17 pieces (different volumes and sizes)

A large number of the identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	**Packaging completely broken**	**Packaging partially broken**	**Packaging in good condition**
Liquid obsolete pesticides	200 litres	--	--
Solid obsolete pesticides	25 kg	270 000 kg	16 800 kg

The OP in the first two categories should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

Photo 5. Point WS-148s. v. At-Bashy

Photo 6. Point WS-175. Naryn city

Photo 7. WS-199 landfill. Tendik

Issyk-Kul oblast

A total of 9 plots were identified in the Issyk-Kul region based on past inventories information, three of which had incorrect coordinates (located deep within Lake Issyk-Kul, mountainous areas without access and among agricultural fields (with no visible outline of structures).

A total of 6 sites were surveyed, at the site in Balykchy there are safeguarded Ops stored in 7 shipping containers with tightly welded, closed doors. The containers are exposed to external impacts (precipitation, frosts) which in turn leads to corrosion of the metal walls and container roofs. Waste passports are available (Annex 6). There is a distinctly pungent odour at the site and in the demolished empty warehouse. A pile of construction debris with a distinct smell of OP was also found. Part of the buildings where pesticides were stored since the last inventory was dismantled.

The plot in the settlement of Chelpek has been completely transformed and built up with new houses (no OPs detected, no odour). According to local residents, there is a plot behind the garden plot where nothing is growing. At the time of the inventory, the fields were flooded and it was not possible to visit the site to take soil samples.

At the site in Kyzyl-Suu village, the warehouse is completely destroyed, there is a pungent smell and a large amount of polyethylene packaging from nitrate.

The remaining stockpiles have smaller amounts of pesticides compared to past data. Some of the OP was lost due to change of landowners, some from precipitation (collapse of warehouse roofs), OPs stored in metal containers could be of interest to metal scavengers.

The total amount of OPs requiring repackaging and storage is more than 15 m^3. In addition, there is a large amount of contaminated dust/soil/construction waste (currently uncertain, estimated at over 40 m^3).

2021 inventory results for Issyk-Kul oblast:

- Liquid obsolete pesticides

Type	**Amount**
Herbicides	38 000 litres
Unknowns	16 000 litres
Total	**54 000 litres**

- Solid obsolete pesticides

Type	**Amount**
Herbicides	255 kg
Insecticides	240 kg
Unknowns	120 kg + 181 m^3
Total	**615 kg + 181 m^3**

- Empty containers: 397 pieces (different volumes and sizes)

In addition, following amounts of OP have been stolen and/or disappeared since the last inventories:

- Solid obsolete pesticides: 72 m^3

A large number of the identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	Packaging completely broken	Packaging partially broken	Packaging in good condition
Liquid obsolete pesticides	--	--	54 000 litres
Solid obsolete pesticides	120 kg + 181 m^3	495 kg	--

The OP in the first two categories should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

Photo 8. Point WS-16. Balykchy city

Photo 9. Point WS-169c. v. Kashat

Jalal-Abad oblast

The Jalal-Abad oblast in the southern region of Kyrgyzstan was the most affected by mismanagement of pesticides. Most of the depots are destroyed and the spatial relocation/migration of previously stored OPs is unknown. The inventory also revealed a large number of contaminated areas of former warehouses with unidentified OPs, contaminated packages with pesticides seeping into soil and groundwater.

In Jalal-Abad oblast, 11 plots were identified from past inventories and 8 additional plots were indicated by the territorial representatives of the DZHKR. A total of 19 plots were inventoried. The main sites are the Suzak-A, Suzak-B burials, Ala-Buka and Zhyl-Kol burials.

In 1973, the Suzak A burial site was established in Ak-Chabyr, Suzak district, Jalal-Abad oblast, where a total of [1]about 2000 - 3000 MT of obsolete pesticides were buried. The burial site is fenced with barbed wire, but access is free. Fencing work was carried out at the expense of the GEF small grants programme. There is a guard, but the guard house has been destroyed. Traces of recent excavation have been observed.

In 1970-1980, burials were carried out at the Suzak B landfill at Tash-Baka Kungei, near village Kyzyl-Bairam, Jalalabad oblast. According to the State Committee of Ecology and Climate (SCEC), a total of about 1300 MT of different OP are buried. At the present time, the condition of the burial site is satisfactory (fenced, there are video cameras near the guard house, with autonomous power supply using solar panels). No traces of fresh excavation have been found.

[1] According to the State Committee on the Environment and Climate

Burials in Ala-Buka were not properly registered. All OP from the warehouse (former pesticide warehouse demolished) of the Production Association "Agricultural Chemistry" of Ala-Buka district were buried 200 m to the south of the warehouse. The area has been leveled with imported soil and a large area has been prepared for construction. Soil monitoring for pesticides is required.

The area of the Zhyl-Kol burial site indicates that there was excavation of OP, most of which may already have been irretrievably lost. The surface of the site shows evidence of old excavations. Another site with deep pits was found nearby, possibly contaminated soil. There are pastures around, where animals are grazing. The burial site is located in a small valley. From Uch-Korgon warehouses, all pesticides were brought to this site and buried. According to local residents, the buried stockpiles were mostly insecticides; cattle were treated with pesticides (presumably DDT).

The survey revealed 6 privately owned plots with partially or completely destroyed warehouses. There is no odour, no OP and no traces on the soil on the area. Traces of contaminated soil could have been covered by clean soil and soil contamination is thus not excluded. The landowners are not aware of the locations of the old OP volumes.

At the moment, the exact number of OP placed in the burial sites requiring safeguarding and storing at a secured temporary store has not been defined. More than 10 m^3 of OP wastes remain in the former stores. The amount of contaminated soil is estimated to more than 60 m^3.

It should be noted that the GEF-UNEP project "Demonstration of non-thermal treatment of waste containing DDT in Central Asian countries (Kyrgyzstan, Tajikistan)" plans to dispose of the waste in the Suzak-A and Suzak-B landfills. These works should be accompanied by development of project documentation, obtaining of positive conclusion of the state environmental expertise of disposal technology, feasibility study, EIA, as well as monitoring of possible POPs emissions into the environment during the whole disposal process.

2021 inventory results for Jalal-Abad oblast:

- Liquid obsolete pesticides

Type	**Amount**
Unknowns	52 500 litres
Total	**52 500 litres**

- Solid obsolete pesticides

Type	**Amount**
Herbicides	0.5 m^3
Insecticides	1 099 200 kg + 22 m^3
Unknowns	12 m^3
Total	**1 099 200 kg + 34.5 m^3**

In addition, following amounts of OP have been stolen and/or disappeared since the last inventories:

- Liquid obsolete pesticides: 5 400 litres
- Solid obsolete pesticides: 64 700 kg + 9.5 m^3
- Empty containers: 801 pieces (different volumes and sizes)

A large number of the identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	Packaging completely broken	Packaging partially broken
Liquid obsolete pesticides	--	52 500 litres
Solid obsolete pesticides	12 m^3	1 099 200 kg + 22 m^3

The OP in the first two categories should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

Photo 10. Point _WS-163 Mazar Bulak

Photo 11. Point WS-167.1 Mogul-Corgon 1

Photo 12. Point WS-216 Suzak-A burial ground

Photo 13: Point WS-217 Suzak-B burial ground

Photo 14: Point WS-165 Bazar-Korgon + Airfield

Osh oblast

Two sites were identified in Osh oblast based on past inventories, both with clear coordinates (WS-214 warehouse in Sarai village (under the Ministry of Defence); WS-215 Airfield in Chekabad village).

At site WS-215, the area has been completely dug up, with large amounts of construction and household waste. According to local residents, the last barrels were removed by the military. The site is located close to agricultural land (warehouse completely destroyed, no traces of OP, no odour). The area is completely derelict with parts of demolished structures. The total amount of contaminated soil is difficult to estimate, there are contaminated areas with an approximate volume of 5 m^3.

Site WS-214 warehouse in Saray village is managed by the Ministry of Defence (restricted access facility). It is not possible to establish the existence of a security compliant warehouse as access to the secure facility is restricted to the security guards of the MoD. Reported data on repackaging is available. The repackaged waste itself with obsolete pesticides was not officially transferred to the responsibility of the Ministry of Defence when 12 hectares of land on which the former warehouse with repackaged pesticides was located were transferred to the MoD. Waste passports were not available.

2021 inventory results for Osh oblast:

- Solid obsolete pesticides

Type	**Amount**
Insecticides	454 000 kg
Total	**454 000 kg**

- Contaminated: 160 000 kg

The identified obsolete pesticides have packaging in good condition and will not require immediate repackaging. Status of packaging is as follows:

Type	**Packaging in good condition**
Solid obsolete pesticides	454 000 kg

Photo 15. Point WS-215 Airfield in Chekabad village.

Batken oblast

For Batken oblast, 3 sites have been identified based on past inventories. One additional site was identified by the territorial representatives of the DZKR (former agricultural chemical warehouse near Batken town). In total 4 sites were visited.

At WS-218 site (Batken agrochemicals, Leilek district) no stored OP were found. Also, there are no traces on the soil. According to local residents, there could be burial of OP in a pulp pit (by partial backfilling with soil) on the area. A pungent smell is found in places. The total amount of contaminated soil or buried pesticides is difficult to estimate, there are contaminated areas with an approximate volume up to 15 m^3.

At sites WS178/WS-127 in the Leilek district, Besh-Bala village, some 50 barrels of Nitrofen were buried in 2000-2002. According to witnesses, in 2005 the burial site was excavated, the barrels were sold, and only 3 full barrels of Nitrofen remained. The area of the former burial site is 50-100 m from the settlement and 300 m from the river. The burial site looks ruined; metal barrels, according to local residents, were later stolen. There is possible soil contamination. The total amount of contaminated soil or buried pesticides is difficult to estimate, there are places with uncharacteristic dark spots with an approximate volume of up to 10 m^3.

The former Raiselkhozhimiya WS179/WS-128 warehouse in Leilek rayon village, Bulak-Bashy, is privately owned and not guarded 24 hours a day. The distance to the nearest house is about 50 m. The store which contains a lot of OP is not locked, the window is open. There is a possibility of intruders getting in. The roof of the warehouse is partially destroyed, there is OP in a destroyed package with an estimated volume of 4500 kg (Protrazine). There is a pungent smell. No metal drums.

2021 inventory results for Batken oblast:

- Liquid obsolete pesticides

Type	**Amount**
Deoliants	400 litres
Total	**400 litres**

- Solid obsolete pesticides

Type	**Amount**
Herbicides	5 250 kg
Total	**5 250 kg**

The identified obsolete pesticides will require safeguarding. Status of packaging is as follows:

Type	**Packaging partially broken**
Liquid obsolete pesticides	400 litres
Solid obsolete pesticides	5 250 kg

The OP should be safeguarded as soon as possible in order to reduce risks to the environment and humans.

Photo 16: Point WS-179 / WS-128 v. Bulak-Bashy

Photo 17: Point WS-218 Batken Agricultural Chemicals

4. Prioritisation of pesticide storage locations

Using data provided by the inventory, a prioritisation of pesticide storage locations was conducted using the FAO PSMS system.

By using FAO PSMS[2] system for legacy pesticides, it is possible to conduct relative prioritisation of sites. This scoring system is based on two factors: the product risk factor F_P and the environmental risk factor F_E. This allows a rudimentary ranking of sites in order of risk presented by the products at each site to human health and the environment. It is important to understand that the score is dependent on the potential level of detail collected at the inventory stage. Due to the degraded nature of many of the stocks in Kyrgyzstan, assumptions about the identity, toxicity and quantity have had to be made. Therefore, while the ranking is a useful tool to guide prioritisation, ultimately careful rationalisation of the results with field observations has to be made.

The F_P score

The F_P score is made up of information collected during the inventory for each type of item, according to the following formula: $S_P = (3S_T + S_C) \times Q$. F_P is the sum of all the S_P scores.

$(3S_T + S_C)$ is a risk coefficient dependent on the toxicity of the pesticide and the conditions of the containers in which it is stored. Q is the quantity of the pesticide in the store and is measured in kilogrammes irrespective of the physical state of the pesticide (liquid or solid). For the purposes of the calculation, it is assumed that all pesticides have a specific density of 1. S_T is a toxicity score that depends on the WHO toxicity class of the pesticide: S_T is 1 for class U pesticides; 2 for class III pesticides; 4 for class II pesticides; 8 for class Ib pesticides; and 16 for class Ia pesticides. S_C reflects the condition of the containers: S_C is 1 if none of the containers are damaged; 8 if fewer than 50 percent of them are damaged; and 16 if more than 50 percent are damaged. In theory, F_P can reach any value because it depends on the quantity of pesticides stored. Once the FP value has been calculated all values are normalised to gain a score out of 100 (F_P*).

Due to the absence of the identity of pesticides or where multiple pesticides were encountered in combination the worst case score of 16 has been used.

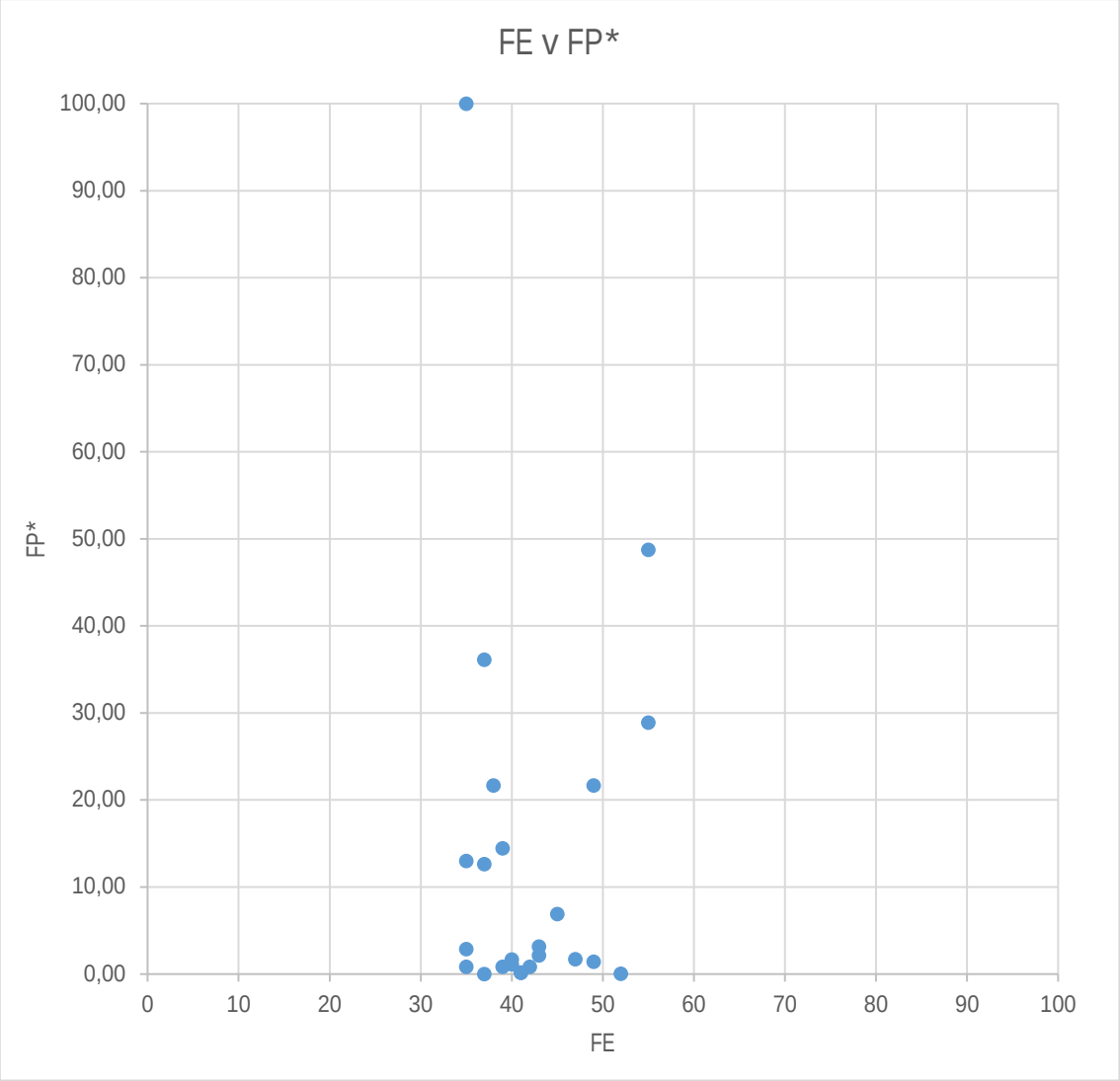
The F_E score

The F_E is based on the answers to a questionnaire which collects information about the environmental setting of each site. Each of the questions receives a numerical figure based on the respective answer, the maximum sum of which is 100, where 100 is the highest risk.

As at two sites in Kyrgyzstan (Barpy and Teplokluichenka) environmental surveys were not undertaken the average value (42.06) of all other sites was used instead.

By plotting F_P versus F_E stores can be represented graphically:

[2] The on-line version of FAO PSMS system is currently unavailable therefore the formulae were used with MS Excel in accordance with FAO Environmental Management Tool Kit Volume 1 which sets out the method.

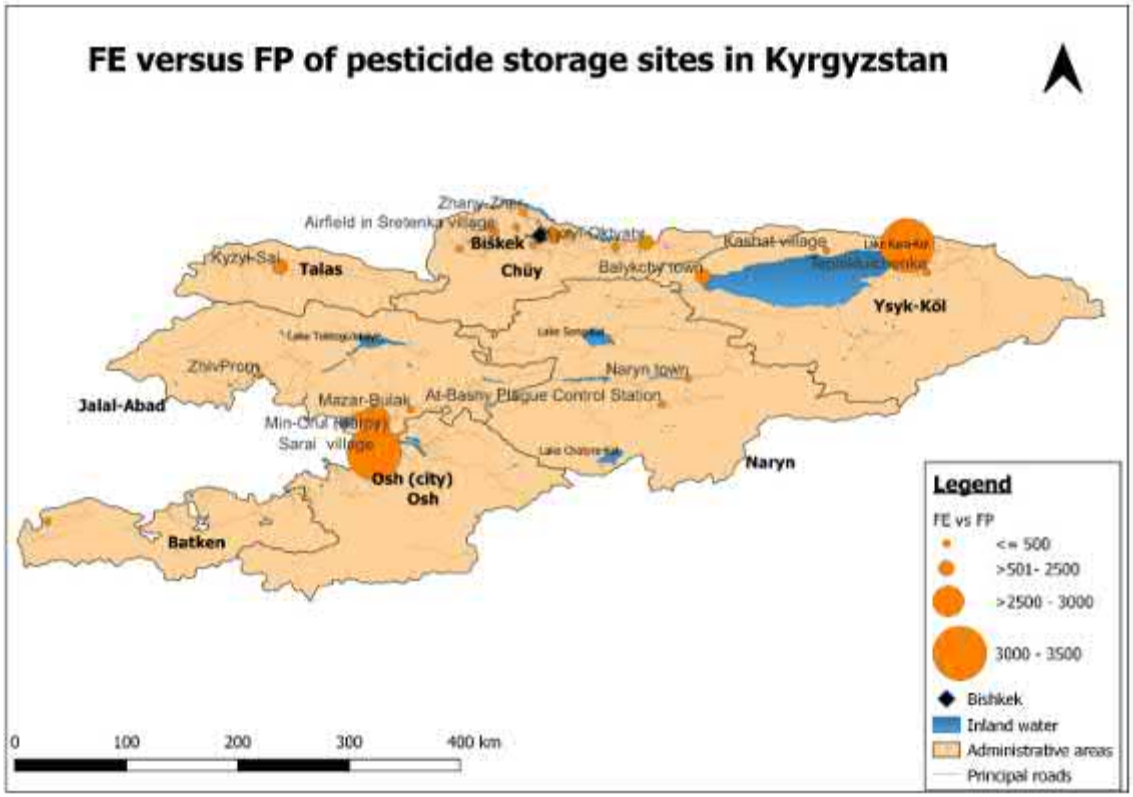


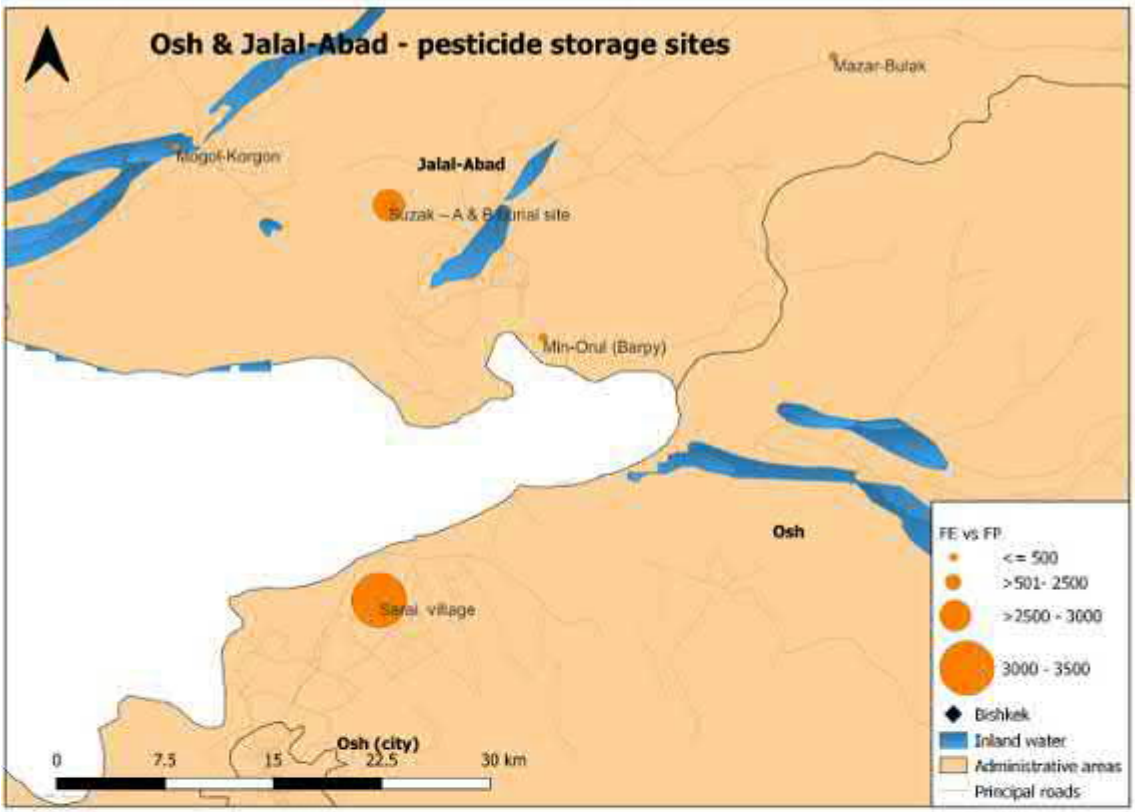
Furthermore, the product of FE.FP* was calculated and a ranking obtained:

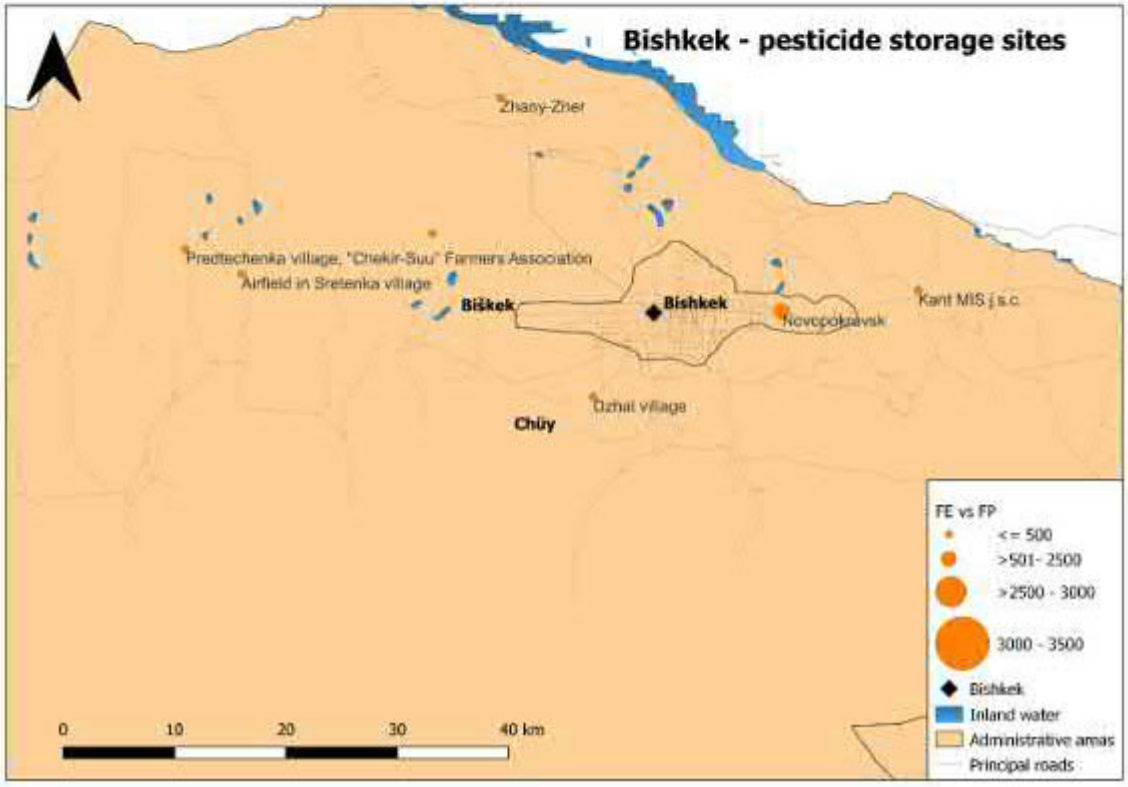
Rank	Population centre	FE.FP*
1	Sarai village	3500.00
2	Kochkor AO	2682.44
3	Balbai village	1589.60
4	Suzak–A burial site	1336.71
5	Kyzyl-Sai	1062.14
6	Geroi Panfilovzi	823.70
7	Kyzyl-Oktyabr	563.58
8	Suzak–B burial site	467.85
9	Novopokrovsk	455.20
10	Balykchy town	310.73
11	Kyzyl-Asker	136.71
12	Teplokluichenka	109.40
13	Zhany-Zher	101.42
14	Kant MIS j.s.c.	92.31
15	Mogol-Korgon	81.50
16	Mazar-Bulak	70.81

17	Predtechenka village, “Chekir-Suu” Farmers Association	68.06
18	Chat-Kol village	46.24
19	At-Bashy Plague Control Station	35.05
20	Dzhal village	33.82
21	Airfield in Sretenka village	30.35
22	Bulak-Bashy village	8.00
23	Min-Orul (Barpy)	6.08
24	ZhivProm	5.92
25	Kashat village	2.62
26	Naryn town	0.23

By using the FP.FE results and plotting over maps using GPS coordinates measured for each site the results have been illustrated as follows:




Osh & Jalal-Abad - pesticide storage sites
Mazar-Bulak
Mogol-Korgon
Jalal-Abad
Suzak – A & B burial site
Min-Onul (Barpy)
Osh
Saray village
Osh (city)
0
7.5
15
22.5
30 km
FE vs FP
<= 500
>501- 2500
>2500 - 3000
3000 - 3500
Bishkek
Inland water
Administrative areas
Principal roads


Bishkek - pesticide storage sites
Zhany-Zher
Prechechenka village, "Chekir-Suu" Farmers Association
Airfield in Sretenka village
Biškek
Bishkek
Novopokrovsk
Kant MIS j.s.c.
Ozhal village
Chüy
0
10
20
30
40 km
FE vs FP
<= 500
>501- 2500
>2500 - 3000
3000 - 3500
Bishkek
Inland water
Administrative areas
Principal roads

5. Challenges

In the process of implementation of the Agreement between FAO and Independent Environmental Expertise under the project "Pesticide Life Cycle Management and POPs Pesticide Elimination in Central Asia and Turkey" (GCP/SEC/011/GFF), the implementers have faced a number of problems:

In October 2020, following political developments and changes in the country, ministries and departments were reorganised, the government structure changed twice, and heads of departments and subdivisions changed. Partners from government agencies could not leave for inventory field trips until departmental regulations had been approved.

The streamlining of public administration and the subsequent two government reorganisations have affected the timing of field visits and coordination of field visits with government counterparts, and have required some adjustments in the inventory of obsolete pesticides.

The Agreement provided for a vehicle by the Department of Chemicalisation and Plant Protection. In agreement with the former Director of the Department of Chemicalisation and Plant Protection, J. Derbishaliev, to carry out the inventory, the contract only provided for the purchase of fuel for the field trip. The newly appointed Director of the Department of Chemicalisation, Plant Protection and Quarantine refused to honour the previous agreement and accordingly the hiring of a vehicle with an upward adjustment of the budget was necessary.

To date, despite the large number of obsolete pesticide inventory projects implemented in the past, contrary to national legislation:

- There are no laboratory databases on waste composition;
- The sites have no Waste Data Sheets;
- There is no regular monitoring of the status of obsolete pesticide waste (only in the framework of international projects);
- There is no executive authority responsible for the storage and disposal of waste;
- There is insufficient laboratory capacity to carry out analyses for obsolete pesticides, including POPs;
- No information on the composition of obsolete pesticides is available from the inspection authorities;
- Further research is required on the owners of some of the warehouses/land on which obsolete pesticide points are located.
- Training should be provided to local government officials, inspectors and supervisory bodies;
- The responsibility for inappropriate handling of hazardous waste must be increased.

Obsolete pesticides, especially those containing POPs, should be destroyed in accordance with the Stockholm Convention on POPs (Article 6 (d) (ii)).

One of the problems in working with local communities is that at the last inventory, the experts conducting the inventory promised warehouse owners that they would remove and dispose of hazardous waste. In the meantime, the pesticides have not been removed, and no control has been exercised over the status of obsolete pesticide sites and their volume. Many owners of land on which hazardous waste is located have changed. Owners of land plots with obsolete pesticides mostly do not perceive their responsibility for hazardous waste management and do not realise that by purchasing land and buildings, previously owned by agricultural chemical companies, they also acquired liabilities related to storage and management of hazardous waste.

According to Section 7 of the Methodology for Determining Environmental Pollution Charges in the Kyrgyz Republic [3]:

"23. All types of waste disposed in the environment, including places (facilities) specially designed and/or equipped for storage (storage, burial) of these types of waste are subject to payment.

24. The waste disposal fee shall be paid by a business entity whose activities generate waste which is not recycled by it and which requires disposal in the environment, including places (facilities) specially designed and/or equipped for storage (storage, burial) of these types of waste. No fee is charged for the transfer of waste for recycling.

30. When waste is disposed at temporary waste disposal sites (facilities), no fee is charged for this type of waste disposal if this waste disposal site (facility) meets environmental safety requirements according to instrumental control (impact on atmospheric air, soil layer, water resources)".

As obsolete pesticides were not removed over the years, no control was exercised, the owners of many stores either sold or removed the remains of obsolete pesticides, or they were stolen as they were not protected. Also, under the influence of precipitation, some pesticides continued to deteriorate, or by getting wet, seeped into the soil.

After laboratory analyses, obsolete pesticide sites should be divided into two categories: POPs containing pesticides and POPs free obsolete pesticides. In the context of limited resources, it is primarily necessary to reduce the risks of further uncontrolled spread of POPs into the environment and to reduce the risk of human health impacts of POPs entering the environment and then the food chain via water, agricultural products. To do this, it is necessary to safeguard the identified OPs initially and move them to safety compliant storage facilities. Subsequently, the pesticides should be disposed of in an environmentally sound manner. For this purpose, it is very important to know the composition of the hazardous waste.

In the process it was identified that the most interest in capacity building (equipping laboratory facilities, training staff, obtaining international accreditation, etc.) was in the following laboratories: Department of Disease Prevention and State Sanitary and Epidemiological Surveillance of the Ministry of Health and Social Development of KR and its Kadamjay Territorial Unit, Territorial Department of Environmental Protection (CTEC) in Cholpon Ata, and DHSKR laboratory of Ministry of Agriculture, Water Resources.

Article 5 of the Law of the KR "On Chemicalisation and Protection of Plants" provides for registration trials of pesticides and agrochemicals, which are conducted to develop and substantiate regulations on the use of pesticides and agrochemicals. This article is supported by the Regulation on Registration Tests and State Registration of Pesticides and Agrochemicals in the Kyrgyz Republic[4].

At present, the equipment at laboratories of the CDC (specialised control and toxicological laboratories in Voyenno-Antonovka village and Osh city) allow to conduct analyses only for some organochlorine pesticides, after providing analytical standard samples and methods. But mostly, due to lack of own scientific base of plant protection, toxicology and hygiene, relevant specialised laboratories, material and technical base, qualified specialists and experts, these analyses are not conducted in the KR.

Thus, it is necessary first of all to train specialists of all laboratories concerned in POPs determination methods, including new POPs, and to help those laboratories, which can already determine residual pesticides and POPs with supplying missing reagents and standards. Regarding the provision of laboratory equipment, this should only be done if the laboratory staff themselves are motivated and interested. For this purpose, it is necessary to hold a tender among laboratories

[3] Approved by Resolution No. 559 of the Government of the Kyrgyz Republic of 19 September 2011

[4] PP KR No. 390 dated July 1, 2013 on approval of the Regulation on Registration Testing and State Registration of Pesticides and Agrochemicals in the Kyrgyz Republic

and equip those laboratories that can provide a specification of the necessary equipment with justification and confirmation of their willingness to undergo international laboratory accreditation[5], and the availability of premises that meet the requirements of GOSTISO/IEC17025-2019 "General requirements for The competence of testing and calibration laboratories"[6].

[5] http://www. kca. gov. kg/doc/dokumenti-sistemi-akkr/pravila-kca-10-13.pdf
[6] http://kca.gov.kg/doc/ILAC/ILAC-ISO.pdf

6. Conclusions and recommendation

1. According to the Stockholm Convention on POPs (Article 6 (d) (ii),) POPs containing waste must be destroyed. In order to find environmentally acceptable ways for destruction of obsolete pesticides, the composition of the waste by chemical groups is needed. For this, it is necessary to address the issue of equipping laboratories, training personnel, and obtaining accreditation certificate in accordance with GOSTISO/IEC17025-2019. Certified laboratories are also needed for e.g. analysing residual contamination in empty pesticides containers wastes and classifying pesticide contaminated soils.
2. Sites with obsolete pesticide should be continuously monitored to ensure that they are not stolen. The OP should be safeguarded as soon as possible and brought to secured temporary stores that meet the requirements of national legislation. Safeguarding, construction/retrofitting of temporary storage facilities and in future disposal should be accompanied by an EIA and a positive conclusion of the State Environmental Expertise. Waste Data Sheets must be submitted by the waste owners and storage permits must be obtained.
3. The storage and disposal of hazardous waste itself must be monitored by environmental regulators. Past inventories did not lead to the establishment of a governmental surveillance system and attribution of responsibilities for obsolete pesticides. In a first step in such a process, a validation of the inventory data should be initiated, followed by an attribution of the authority responsible for the management of the OP.
4. Prioritisation of sites using the product of F_P* and F_E ranked the top five sites according to the following:

Rank	Population centre
1	Sarai village
2	Kochkor AO
3	Balbai village
4	Suzak –A burial site
5	Kyzyl-Sai

However, while the F_PF_E ranking is a useful tool to guide prioritisation, ultimately careful rationalisation of the results taking also into account the availability of safeguarding resources, availability of secures temporary stores, results from an EA/EMP, etc.

Special attention should be paid to the newly discovered DDT landfill near Oroo-Bashy (Kochkor region).

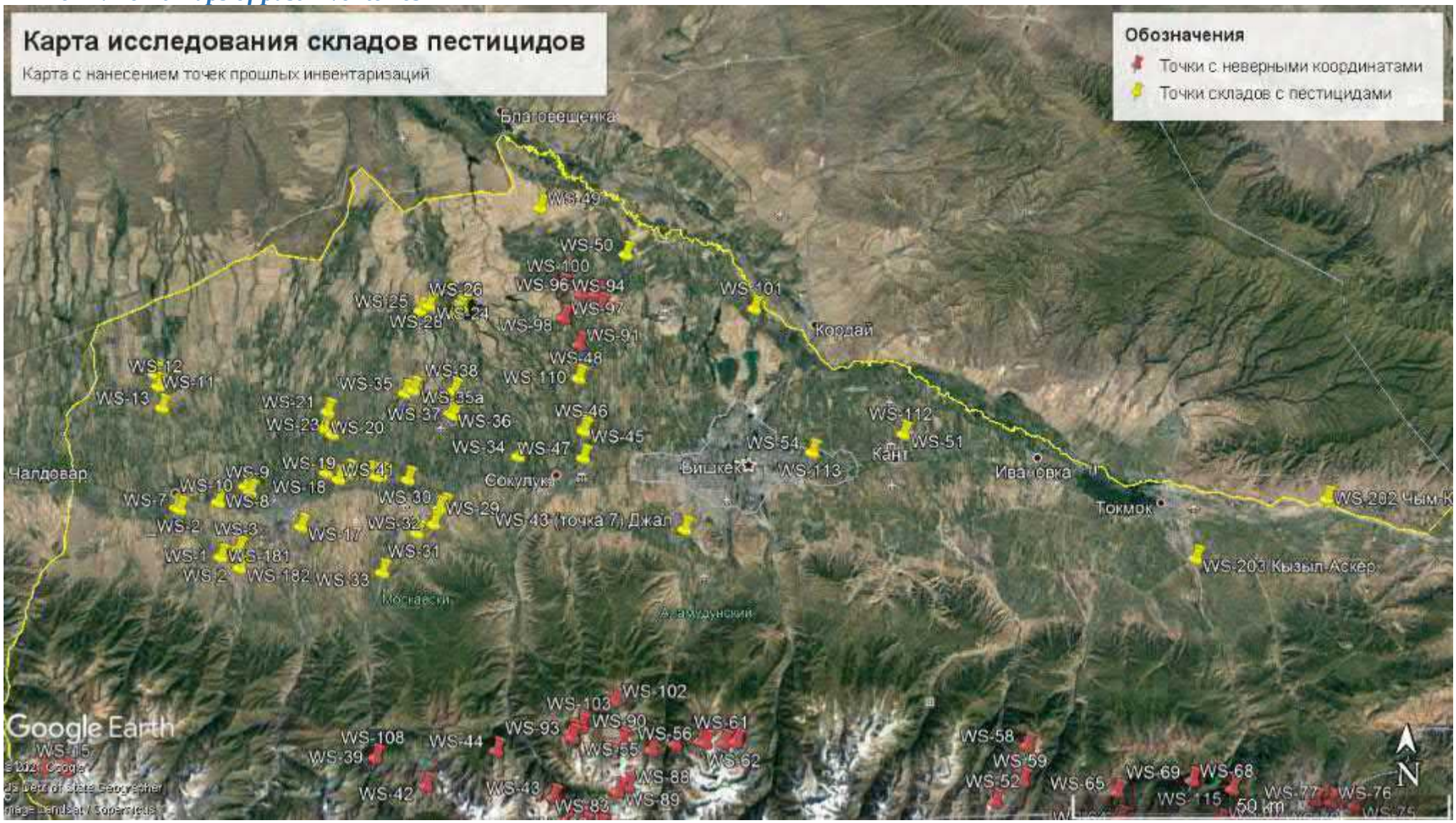
5. Emergency safeguarding of accessible amounts in highly deteriorated packaging should be undertaken as soon as possible, in combination with the establishment of a secured temporary store which can receive these materials. These emergency priorities should be discussed with stakeholders during the validation workshop, while longer-term priorities should be agreed on based on an EA/EMP.

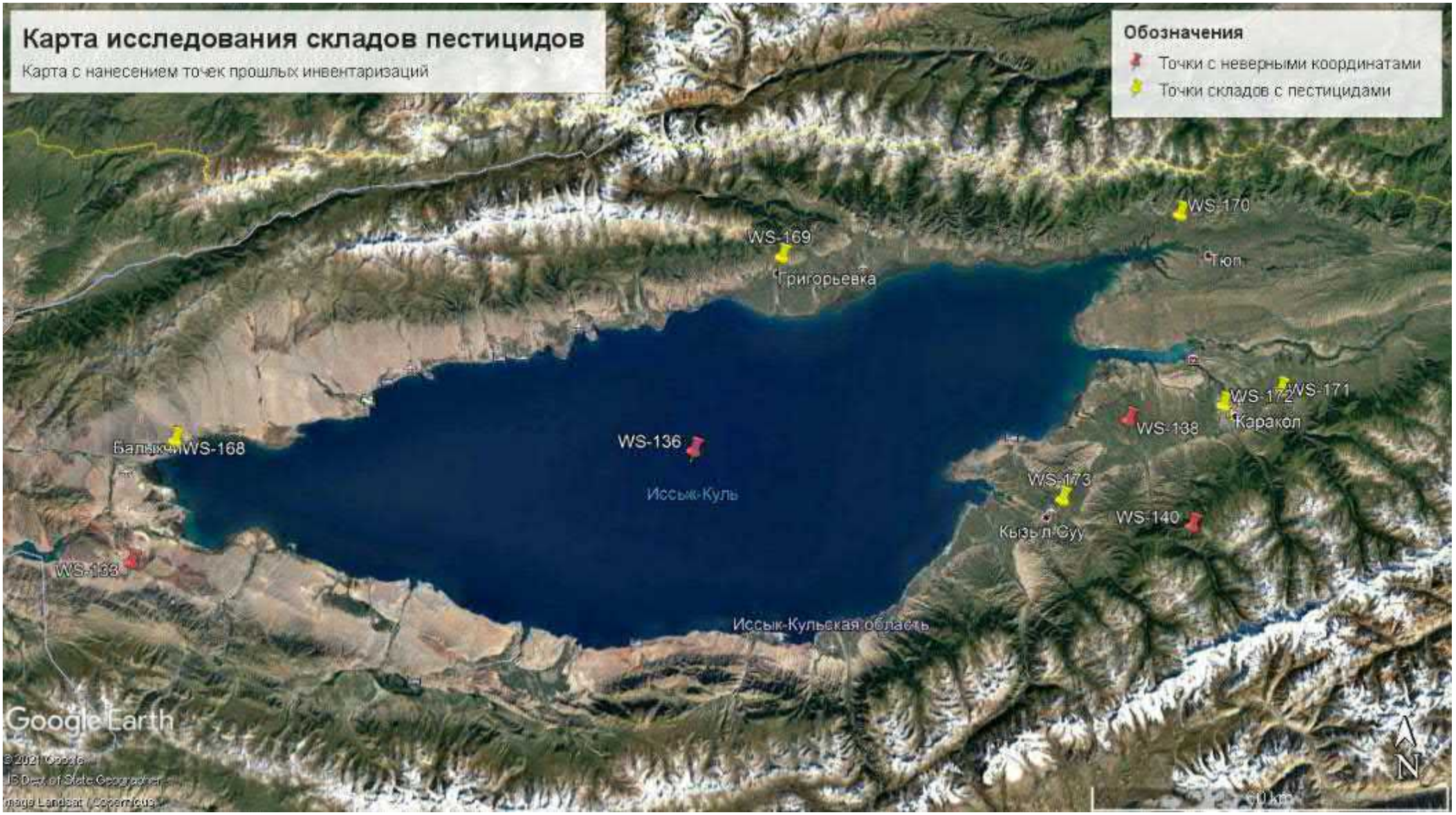
7. Recommendations

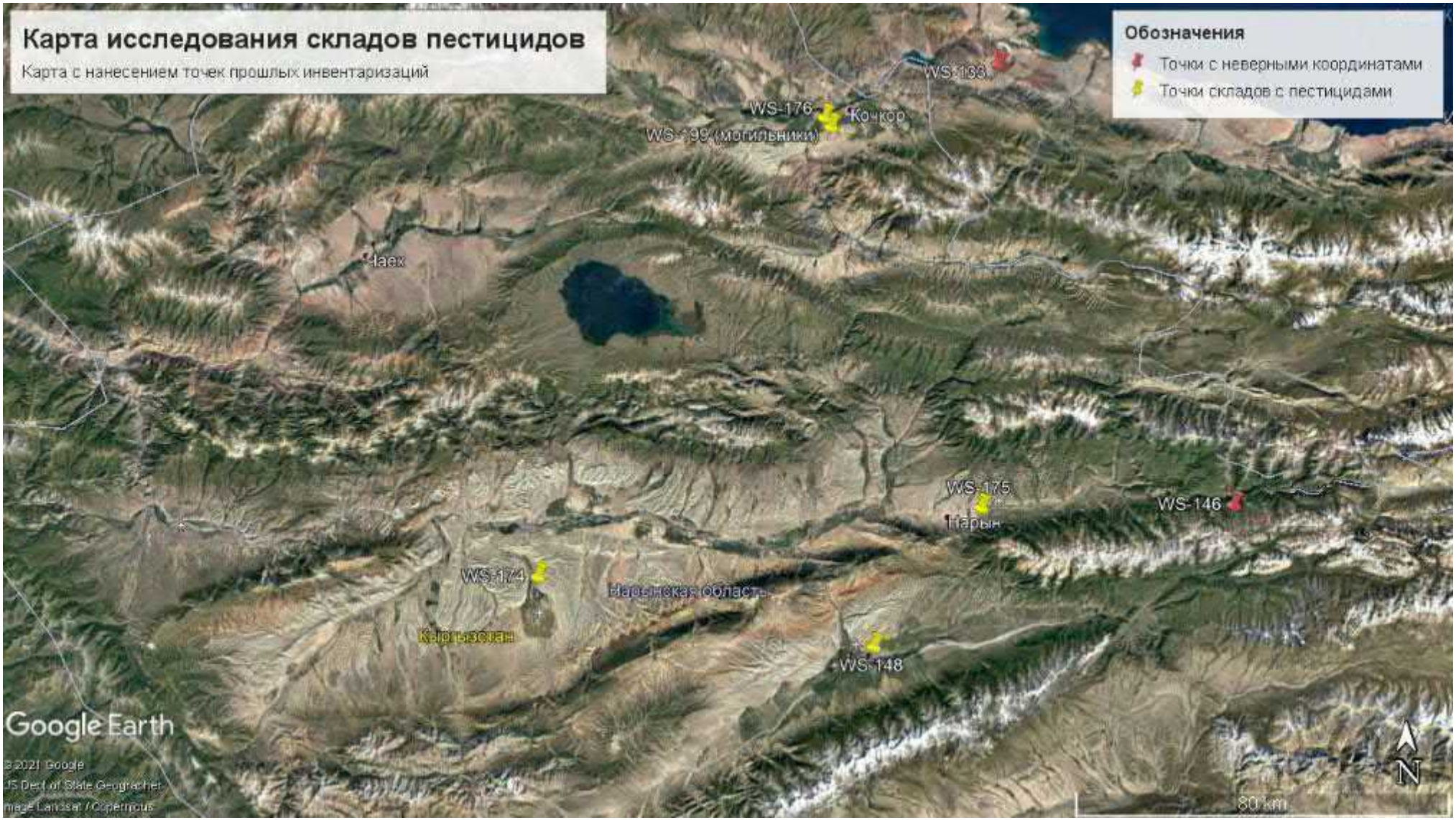
To minimize the risk of health and environmental exposure to obsolete pesticides, the first priorities are to:

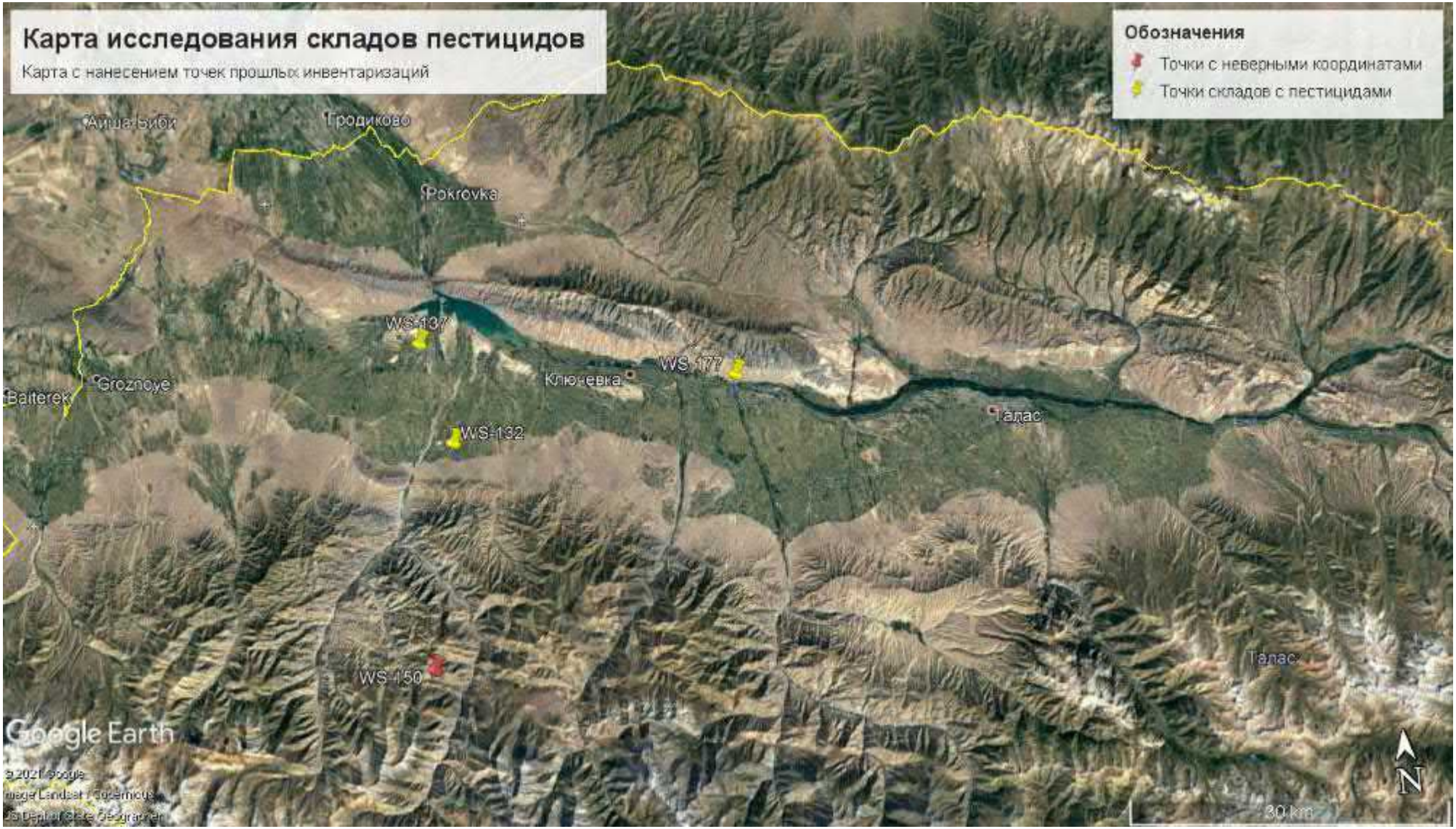
- Run an information campaign for various stakeholder groups to ensure a better understanding of the risks posed by OPs;
- Ensure governmental supervision of OP contaminated sites;
- Provide inspectors with adequate PPE;
- Increase the capacity of existing laboratories to determine pesticides, including POPs;
- Establish a database on Hazardous Waste Sites within the relevant regulatory authority (harmonisation with databases of other interested agencies, e.g. FAO PSMS);
- carry out an analysis of archival data on DDT landfilling in the Kochkor region;
- After receiving the laboratory data, prepare Waste Data Sheets and place the data in the waste inventory;
- On the basis of the data obtained, consider suitable technologies for the environmentally sound destruction of OP and contaminated soil;
- Continue to look for resources (donors) to destroy the OP;
- If the current trials by Manas University on bio-remediation of POPs-contaminated soils show a positive outcome, develop a strategy and clean up pesticide-contaminated areas where possible;
- To prevent further scavenging of DDT, there is an urgent need to repackage DDT and contaminated land at the landfill near Oroo-Bashy (Kochkor region);
- There is contradicting information on the quantity of DDT buried in the Kochkor area and the year(s) of burials. A detailed study of the archived data should be undertaken to ensure that the various inventories describe the same site and not two completely different landfills in the same area.
- To prevent further looting of OPs, adequate protection must be provided until such time as the wastes can be safeguarded and disposed of in an environmentally sound manner. Repackaging should be accompanied by a Risk Management Plan, development of an EIA, obtaining a positive opinion from the State Environmental Expertise, development of a Waste Data Sheet, and outreach to local government officials and the territorial unit of the Environmental Safety Inspectorate.

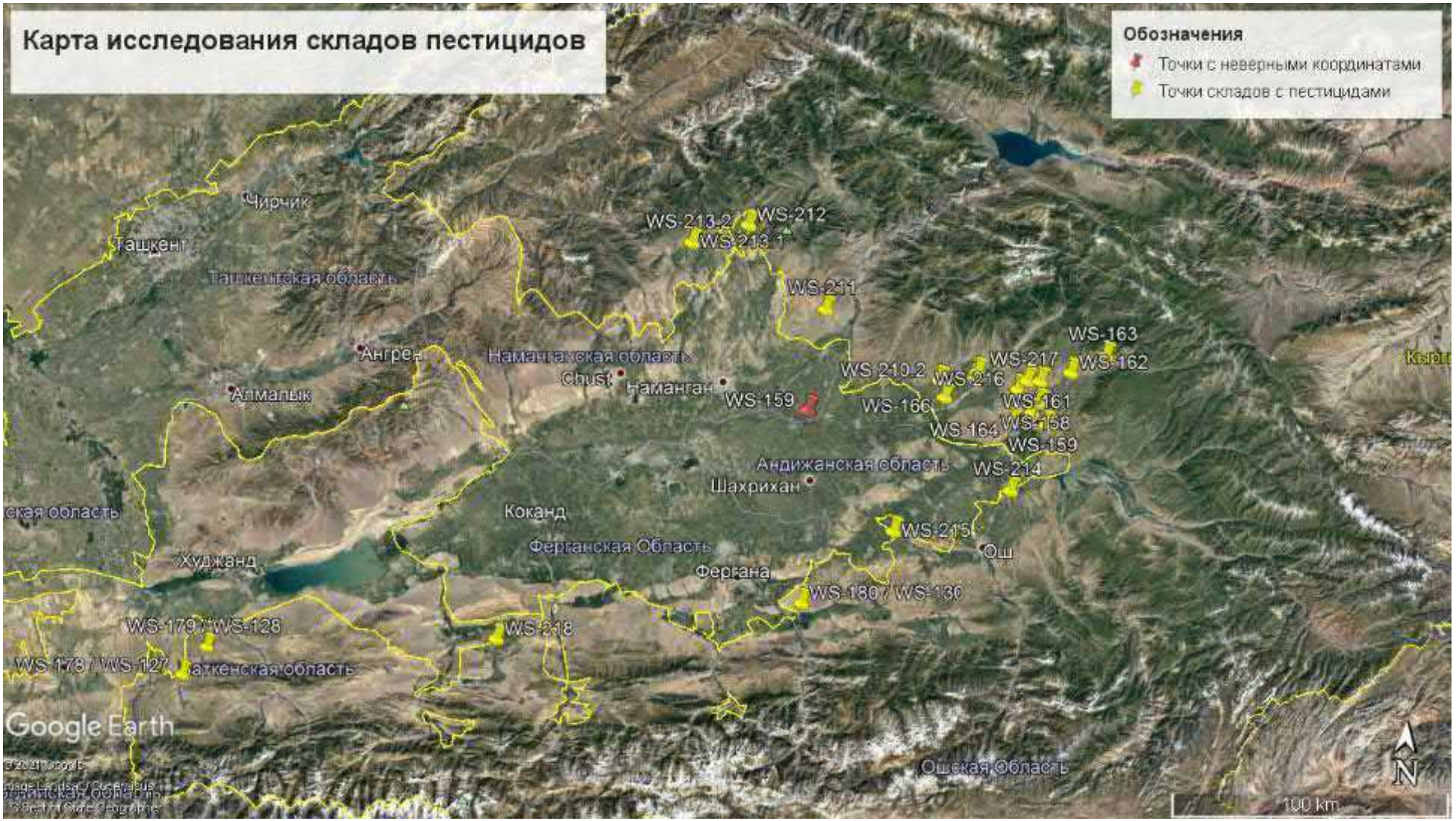
Annex 1. Point maps of past inventories




Карта исследования складов пестицидов
Карта с нанесением точек прошлых инвентаризаций
Обозначения
Точки с неверными координатами
Точки складов с пестицидами
WS-170
WS-169
Григорьевка
Тюп
WS-171
WS-172
Каракол
WS-138
WS-136
Балыкчы
WS-168
Иссык-Куль
WS-173
Кызыл-Суу
WS-140
WS-133
Иссык-Кульская область
Google Earth
N


Карта исследования складов пестицидов
Карта с нанесением точек прошлых инвентаризаций
Обозначения
Точки с неверными координатами
Точки складов с пестицидами
WS-168
WS-176
Кочкор
WS-199 (могильники)
Чаек
WS-175
Нарын
WS-146
WS-174
Нарынская область
Кыргызстан
WS-148
Google Earth
© 2021 Google
US Dept of State Geographer
Image Landsat / Copernicus
80 km
N


Карта исследования складов пестицидов
Карта с нанесением точек прошлых инвентаризаций
Обозначения
Точки с неверными координатами
Точки складов с пестицидами
Аруа-Бибн
Тродиково
Pokrovka
WS-137
WS-177
Ключевка
Groznoye
Baiterek
WS-132
Талас
WS-150
Талас
Google Earth
30 km
N


Карта исследования складов пестицидов
Обозначения
Точки с неверными координатами
Точки складов с пестицидами
Чирчик
Ташкент
Ташкентская область
Ангрен
Алмалык
Наманганская область
Chust
Наманган
WS-213-2
WS-212
WS-213-1
WS-211
WS-159
WS-210-2
WS-163
WS-162
WS-217
WS-216
WS-161
WS-166
WS-158
WS-164
WS-159
Андижанская область
Шахрихан
WS-214
Коканд
Ферганская Область
WS-215
Ош
Фергана
Худжанд
WS-180 / WS-130
WS-179 / WS-126
WS-218
WS-178 / WS-127
Ошская Область
Google Earth
N
100 km

Annex 2. Inventory data

Inventory data for Chui, Issyk-Kul, Naryn and Talas oblasts

№	Field identifier	District	Population centre	Coordinates	Code	Note 2012	Note 2021	Photo (folder)	The number was
Panfilov district									
1	_WS-2	Kuraminsky	c. Panfilovka, AO Heroes of Panfilov	42° 44.429'N 73° 45.120'E 747m	ChPKurP1	There are UE leftovers, the warehouse is in very poor condition, on the territory of the fuel and lubricants warehouse, the watchman's family lives next door to the warehouse. Warehouse : 22x12 m	There are remnants of OP, the warehouse is completely destroyed and there is livestock production on the site	_WS-2	Cotoran- 35-40 bags X 20 kg = 800 kg, Dichloralmo...-50 bags X 20 kg = 1000 kg, Ridomil- 5 bags X 20 kg = 100 kg, unknown substance (NP) 1 25-30 bags X 10 kg = 300 kg, NP 2 - 15 bags X 20 kg = 300 kg, NP 3 mixed- 12.5 m3, empty containers- 2 drums (20 kg), 25 pcs.drums (200l) Quantity. Cotoran- 600 kg, dichloral urea- 1000 kg, unknownsubstance- 150 kg, unknown substance- 225 kg, unknown substance- 3,960 kg, ridomyl- 50 kg, unknown substance- 2 kg, unknown substance- 500 l. Total - 6487 kg
2	WS-1	Ortoevsky	c. Telman	42° 44.429'N 73° 45.120'E 891 meters above sea level		Completely destroyed, no smell, no OP, no traces on the ground	Warehouse completely destroyed, no odour, no OP, no traces on soil	WS-1	
3	WS-2		c. Bukara	42° 43.686'N 73° 46.989'E 937 m above sea level		Completely destroyed, no smell, no OP, no traces on the ground	Warehouse completely destroyed, no odour, no OP, no traces on soil	WS-2	
4	WS-3		c. Bukara	42° 45.007'N 73° 46.857'E 879 m above sea level		Completely destroyed, no smell, no OP, no traces on the ground	Warehouse completely destroyed, no odour, no OP, no traces on soil	WS-3	
5	WS-7		c. Panfilovka	42° 47.761'N 73° 40.942'E 753 meters above sea level		Completely destroyed, no smell, no OP, no traces on the ground	The warehouse is completely destroyed, there is a pungent smell, and there may be residues in the soil	WS-7	
6	WS-8		with Ephyronos	42° 48.333'N 73° 44.718'E 772 meters above sea level		Completely destroyed, no smell, no OP, no traces on the ground	The warehouse is completely destroyed, there is a pungent smell, and there may be residues in the soil	WS-8	
7	WS-11	Chaldobar	c. Pervomaysko ye	42° 57.368'N 73° 38.118'E 648 m above sea level		Completely destroyed, no smell, no OP, no traces on the ground	The warehouse is completely destroyed, there is a pungent smell, and there may be residues in the soil	WS-11	
8	WS-12		c. Pervomaysko ye	42° 56.532'N 73° 38.518'E 658 m above sea level		Completely destroyed, no smell, no OP, no traces on the ground	The warehouse is completely destroyed, there is a pungent smell, and there may be residues in the soil	WS-12	

№	Field identifier	District	Population centre	Coordinates	Code	Note 2012	Note 2021	Photo (folder)	The number was
9	WS-13		c. Pervomayskoye	42° 55.007'N 73° 38.933'E 668m		Completely destroyed, no smell, no OP, no traces on the ground	Warehouse completely destroyed, no odour, no OP, no traces on soil	WS-13	
Jaiyl district									
10	WS-20	Ak-Bashatsky	c. Ak-Bashat 1	42° 53.775'N 73° 54.815'E 665m		Completely destroyed, no smell, no OP, no traces on the ground	Warehouse completely destroyed, no odour, no OP, no traces on soil	WS-20	
11	WS-23		Airfield in the village of Petropavlovka	42° 53.376'N 73° 55.689'E 689m		privately owned warehouse, no odour, no UE, not used for pesticide storage	Privately owned warehouse, no odour, no OP, no traces on soil	WS-23	
Moscow district									
12	WS-35	Predtechensky	c. Predtechenka, OKH "Chekir-Suu"	42° 56.398'N 74° 2.742'E 640 m	ChMP PCS-1	There are UE leftovers, warehouse in poor condition, no fence, no watchman, there are other warehouses nearby in better condition	Moved (see WS-35a) there is a pungent smell, possible residue in the soil. Directly across the wall of the former warehouse are people living	WS-35	Protrazine 360kg, Simazine 540kg, Kerb 280kg, Dichloralurea 375kg, Phenozan 135kg, Unknown preparation 1600kg, empty containers 4 drums (200l)
13	WS-35a	Predtechensky	c. Predtechenka, OKH "Chekir-Suu"	42° 56.638'N 74° 3.550'E 642 m	ChMP PCS-1		There are remnants of the OP, there is a violation of the integrity of the OP, the area is partially fenced off, there is no guardian	WS-35a	
14	WS-36	Sretensky	airfield in the village of Sretenka	42° 55.007'N 74° 7.218'E 657 m	ChMSr 1	The warehouse is completely destroyed, traces of pesticides can be seen, but there is no smell	The warehouse is completely destroyed, traces of pesticides can be seen, but there is no smell	WS-36	about 3 cubic metres of mixed OP with building materials and soil
15	WS-37		Sretensky Current	42° 54.873'N 74° 7.511'E 663 m		privately owned warehouse, no odour, no UE, not used for pesticide storage	privately owned warehouse, no odour, no UE, not used for pesticide storage	WS-37	
16	WS-39	Petrovsky	c. Petrovka, SPK Zavety Ilyicha	42° 50.410'N 74° 0.136'E 753 m		the warehouse itself is not being used for its intended purpose, the floors are very dirty, the shed is in ruins, there are 4 nitrofen drums and about 1 m³ of contaminated soil in its place	the landlord says we have the wrong address (see WS-39a)	WS-39	Nitrofen-4 drums (10 litres), about 1 cubic metre of unknown mixed pesticides, 9 methaphos flasks, 8 contaminated pallets
17	WS-39a	Petrovsky	c. Petrovka, Meadow 404	42° 50.471'N 74° 0.568'E 752 m			privately owned warehouse, no odour, no UE, not used for pesticide storage	WS-39a	
18	WS-201	Kyzyl-Oktyabrsky	c. Ak-Beket, Kyzyl-	42° 48.3421'N	ChKKzOAb-1	Found an unknown copper-containing fungicide, approx. 50 kg			copper-containing fungicide 50 kg

№	Field identifier	District	Population centre	Coordinates	Code	Note 2012	Note 2021	Photo (folder)	The number was
			Oktyabr Seed Farm	75° 38.3307'E 997 m					
19	WS-202		Chym-Korgon village	42° 49.3892'N 75° 32.8080'E 997 m					
20	WS-203	Chuisky	airfield in Kyzyl-Asker village	42° 45.1613'N 75° 19.9787'E 1031 m	ChCh-ChKA Ap1	The warehouse has been destroyed, there are remnants of mixed OP approx. 11m³ , there were 4 warehouses and 1 mortar mixing basin at the site			more than 11 cubic metres of mixed OP
21	WS-204	Ak-Kuduk	Kant MIS j.s.c.	42° 53.930'N 74° 51.476'E 735 m	ChYA K1	warehouse in good condition, secured, lots of UE, strong odour	Temik - 50 boxes * 10 kg = 500 kg; Heterophos - 8 drums * 20 kg = 160 kg; Miral - 5 boxes * 15 kg = 75 kg; Skepter - 1 canister * 1 l = 1 l; Takle (produced by Basf) (hum. aid for Kyrgyzsilhosphere) - 20 canisters* 1 l = 20 l; Unspecified Pest.1 - 5 boxes * 15 kg = 75 kg; Unspecified Pest.2 - 1 metal barrel (200 l.) * half = 100 l; Unspecified Pest.3 - 3 bags * 20 kg = 60 kg; Pesticide-impregnated wooden pallets - 20 pcs. Iron barrels (empty) from Decis pesticide (30 litre) - 2 pcs. Plastic canisters (empty) from pesticide Büktril - 20 pcs. Paper boxes for Rogor, 2M-4X and Tagor - 4 pcs.		Miral-5 boxes X15kg = 75kg, Counter-20 bags X1kg = 20kg, Heterophos1- 4 drums X 20kg = 80kg, Skepter-1 canister X 1l, Heterophos 2- 8 drums X 20kg = 160kg, EgisNoor - 110 canisters X 20l = 2200l, Sunkar1 - 110 canisters X 20l = 2200l Themik-40-50 boxes X10 kg = 500 kg, Metafos - 1 canister X 25l, Unknown preparation1 (NP) - 5 boxes X 15 kg = 75 kg, NP 2- 1 metal barrel X 200l, NP 3- 3 bags X 20 kg = 60 kg, NP 4 - 60 canisters X 1l = 60 l, wooden pallets 60 pcs, iron barrels 2 pcs. X 30l, plastic canisters 20pcs. X 5l.
22	WS-205	Issyk-Ata	Novopokrovsky Kantselkhozk	42° 52.574'N 74° 42.571'E 736 m	ChYA NP1	the warehouse is in a protected area, private, mixed unknown pesticides	Ruzakhunov		Unknown mixed Pesticides - about 45 cubic metres, metal drums - 2 pcs. X10l, wooden pallets - 4 pcs.

№	Field identifier	District	Population centre	Coordinates	Code	Note 2012	Note 2021	Photo (folder)	The number was
			himiya						
23	WS-43 (Point 7)	Orok	c. Jal	42° 46.978'N 74° 30.229'E 1004 m	ChSOD1	The warehouse is completely destroyed, there is a pile of pesticides in one corner, there is a strong smell			3 cubic metres of mixed unknown pesticides
Sokuluk district									
24	WS-48	Kaynazar	c. Chat Col	42° 57.671'N 74° 19.697'E 665 m	ChSQCK1	The warehouse is dilapidated, there is no fence and it is not guarded	Warehouse is dilapidated, no fence, unguarded, residual UE not in container	WS-48	unknown drug 4000kg, empty container 16 drums (20l)
25	WS-50	Zhany- Zhersky	from Jany-Ger	43° 6.570'N 74° 24.147'E 595 m	ChSJJer1	privately owned warehouse, in poor condition, owner wants to get rid of it and bury it	privately owned warehouse, in poor condition, owner wants to get rid of it and bury it	WS-50	unknown preparation 685kg, Redion 120kg, Protrazin 225kg, 2 contaminated pallets, 2 empty drums (cardboard), 12 empty drums (200l), 1 drum half full of unknown liquid preparation, unknown preparation 10 cbm
Talas oblast									
26	WS-177 (126)	Ak-Dobo	c. Kyzyl Say Kochorkul str.	42° 33.521'N 71° 56.133'E 1038 m above sea level	TBAADKS	The site has 3 completely demolished warehouses, of which the 1st warehouse has OP, the 2nd has contaminated soil, the 3rd has no OP no odour. Not guarded. The warehouses are in the vicinity of the settlement. Distance from Talas River (which flows into Kirovske Reservoir, from where agricultural lands of Talas obl. The distance to the Talas River (which flows into the Kirov Reservoir from where the farms in Talas Oblast and Zhambul Oblast of Kazakhstan are irrigated) is 200 m (high probability of UW entering the river, as the storages are above the river). Local people complain about strong smell of pesticides, there were cases of children getting sick living near the warehouses. At the time of the visit, children were witnessed playing on the site and dragging Nitrafen drums.	Warehouse completely destroyed, OP packaging disturbed, powder sack residue, pungent smell, residue in soil and eroded by water during rainfall	WS-177	3 warehouses on the site, completely destroyed: 1st one - there is OP 2nd one - there is contaminated soil 3rd one - no smell or OP Warehouse: 6x4 m NP mixed OP in volume - 24 m3; Nitrafen - 1 barrel x 25 kg. cont. = 25 kg; Contaminated soil - volume - 40 m3. Obsolete pesticides - 9,600kg, empty container 25 litre metal barrel - 1 pc.
27	WS-137	Kara-Burinskiy	c. Kyzyl Adyr	42° 36.557'N 71° 34.304'E 945 m asl			There is a pungent smell, possibly residues in the soil	WS-137	
Issyk-Kul region									
28	WS-168	г. Balykchy	г. Balykchy	42° 27.690'N 76° 13.355'E 1617 m above sea level	YKBSSH	The facility has 6 warehouses, of which the UE is located in 3 warehouses (1 warehouse is completely destroyed, 2 warehouses are partially destroyed). It is privately owned. It is guarded. The object is located 200 m from Issyk-Kul lake and 100 m from Balykchy city.	7 OP containers on site, packed and welded, pungent smell in places around construction waste storage area	WS-168	**In storehouse 1 (destroyed)**: Unknown mixed pesticide in a volume of 54 m³. *Sample No. S 1 was taken*; **In storehouse 2:** Unidentified OP - 18 m cu. OP - 18 m cu.m. sample No. *S 2 was taken*; "Dialen" - 70 pcs. x 100 l. container = 7000 l.; "Tur" - 60x200=12000 l.; "Prodifox" - 30x100=3000 l.; Unidentified. OP - 130x100=13000 l.; Unspecified. OP - 3000 l.; Nonexistent. OP. - 8x15= 120 kg; 155 barrels (6-liter - 22 pcs, 25 liter - 1 pc, 100 liter - 60 pcs, 200 liter - 22 pcs); 200 pcs and 100 cu.m pallets dia. - 1x1,5 m; 2 boxes - 1 cu. m; 3 shelves - 16 cu. m; 2 looms - 5 cu. m. **In 3 warehouses:** "Tur" - 80x200=16000 l.; 40 pieces of pallets 1x1,5 m.

№	Field identifier	District	Population centre	Coordinates	Code	Note 2012	Note 2021	Photo (folder)	The number was
29	WS-169	Issyk-Kul district,	c. Kashat	42° 43.493'N 77° 28.275'E 1784 m asl	YKYKTK	Warehouse of former Raiselhozkhimia, privately owned and guarded. There is a possibility of unauthorised access (windows and doors are not closed).	Destroyed warehouse, destroyed package of UEs present, nearby gardening and livestock, pungent smell	WS-169	"Protrazin" - 17 bags x 15 kg = 255 kg; "Gomelin" - 15 x 15 = 225 kg; "Citrin" 15 kg
30	WS-170	Tyup district	c. Balbay	42° 46.395'N 78° 17.387'E 1635 m above sea level	YKTBZ	The warehouse is completely destroyed. People complain about the strong smell of pesticides. The warehouse is located directly in the village. There is a grain storage facility nearby, where the grain crops are harvested	The warehouse is completely destroyed, there are UEs in destroyed packaging, there is a pungent smell	WS-170	Unmixed OP in a volume of 100 cubic metres. *Sample selected under No. S 3*
31	WS-171	Aksu district	c. Teplocluchenka	42° 30.118'N 78° 29.157'E 1768 m asl	YKAST	Warehouse of the former Raiselhozkhimiya. The warehouse is completely destroyed. It is privately owned and guarded. There is a possibility of entry of unauthorized persons. It is located in close proximity to a settlement and a river. People complain about the smell of OP.	The warehouse is completely destroyed, there are UEs in destroyed packaging, there is a pungent smell	WS-171	Unmixed OP in a volume of 9 cu.m.
32	WS-172	Aksu district	c. Chelpek	42° 28.939'N 78° 22.046'E 1759 m asl	YKASCH	Semi-destroyed warehouse, windows and doors are open. The warehouse is located on a garden plot and in close proximity to the town of Kara-Kol. There are remnants of OP. Residents complain of a strong pesticide odour.	Nothing to be found, entirely new developments. According to local residents, there is a plot behind the garden plot on which nothing grows	WS-172	Unmixed OP in a volume of 36 cu. m.
33	WS-173	Zheti-Oguz district	c. Kyzyl-Suu	42° 20.844'N 78° 1.836'E 1796 m asl	YKJOKS	Former collective farm pesticide warehouse. There are 2 warehouses at the site, of which 1 (solution pit) has a UE. The warehouse (solution pit) is open and unguarded.	Completely destroyed warehouse, pungent smell, large quantities of polyethylene packaging from nitrate	WS-173	Unmixed OP in a volume of 36 cu. m.
Naryn oblast									
34	WS-175	r. Naryn	r. Naryn	41° 25.680'N 76° 4.540'E 2105 m above sea level	NNSSH	Warehouse of former Raiselhozkhimia. There are 6 warehouses on site, of which 1 warehouse has a UE. The roof of the warehouse is permeable, the doors are not locked. There is no possibility of intrusion by unauthorised persons. Located 4km from Naryn city, 250m from settlement and 300m from Naryn river.	Warehouse partially destroyed, UE packaging completely destroyed	WS-175	"Triallat" in quantity: 2 containers x 100 litres. Container = 200 litres; DDT - 1x25=25 kg; 8 pcs. 100 litre drums; 3 pcs. 25 litre drums.
35	WS-199 Graveyards	Tendik village	Kochkor AO	42° 9.385'N 75° 41.896'E 2011m		Owner Head of JSC Talant Shukurbekovich 0500060875 Conductor Rysdolot Rysabekovich 0704020767	Nine burial grounds with OP (Soviet era) burial. Size 80 hectares	WS-199 Graveyards	Burials from the 80s 9 burial grounds 30 tons in each burial ground Somewhere bags of DDT, somewhere barrels of "b58" liquid insensticides brought from the IR by soldiers When it rains the smell is unbearable, there is little runoff After heavy rain there is a mudflow that reaches the Kochkorki canal

№	Field identifier	District	Population centre	Coordinates	Code	Note 2012	Note 2021	Photo (folder)	The number was
36	WS-176	Kochkor district	c. Tendik	42° 10.486'N 75° 40.952'E 1882 m asl	NKTSH	Former collective farm pesticide warehouse. No pesticides were found at the time of the OP arrival. No odour or traces on the soil.	Destroyed warehouse, no traces of OP found, pungent smell, possible soil contamination	WS-176	
37	WS-148	(At-Bashy anti-plague station) village. At-Bashy, 2 Salymbekova str.	At-Bashi Anti-Plague Station Ministry of Health.	41° 9.904'N 75° 48.153'E 2050 m	NABPCHS	There is a residential house 50 m from the DDT warehouse behind the fence, there is a large livestock market 100-150 m away and the At-Bashy River flows 200 m away. The warehouse is ventilated, the floors are concrete and partially contaminated. There is a bottom jamb in the door of the warehouse, which makes it difficult to get through. Warehouse: 20 x 7m	Two containers with OP and contaminated soil, there is a pungent smell at the repackaging site	WS-148	Obsolete pesticides (DDT): 16800 kg, contaminated soil: 3850 kg, empty containers: 43 pcs.

Inventory data for Jalalabad, Osh and Batken oblasts

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
Jalal-Abad oblast										
1	WS-158	Jalal-Abad, Jalal-Abad city		r. Jalal-Abad, Industrial Zone	N 40° 57.260' E 72° 59.235' 784 m	Private warehouse	Warehouse in Jalalabad in an industrial zone. Several small firms operate at this site. The Jalal-Abad Central Depot in the city was the Central Agrochemical Depot. There are two separate buildings for pesticide storage. One is at the back with a single shed with several empty and partially filled metal drums. Their estimated number is 500 pcs. There are no labels on the drums. The other is a large warehouse building with 7 separate sections and 13 entrances. Out of the 7 sections, only the next 3 have pesticides: sections 2, 3 and 5. Awning: 18 x 6 m ; Warehouse: 150 x 30 m	The warehouses are privately owned, completely cleaned out for rent, according to the manager there is no information on where the UEs have gone, no smell, no UEs, no traces on the soil.		Canopy: -2x 200 litre metal drums, full, unknown liquid -500x 100 litre metal drums, empty or nearly empty Section 2: - ~ 30 tonnes of whitish powder in combinations. 20 kg paper and PE bags (said to be MgCl2, (no labels) Section 3: - ~ 14.5 t. Protrazine powder in 20 kg combined PE and paper bags - ~ 13 t. Rideon powder in 11 kg paper boxes - ~ 2 t. 2 tons of 2,4,5-Trichlorophenolate-copper powder in 15 kg paper drums - 1.2 tons of Fenthiuram powder in 15 kg paper drums - ~ 4 tons of DDT powder (no labels) in 20 kg paper bags. Section 5: - 300x 27 kg empty alumina barrels of insecticide BI 58 EC (active ingredient Dimethoate) - 15x 200l full metal drums with liquid Molinat 72% - 4x 25l metal canisters with liquid Heparil 36 EC

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
2	WS-159	Suzak		Min-Өruk (Barpy)	N 40° 53.1424' E 73° 01.3487' 741 m	Not known	The plot is located in an agricultural area 70 m from the main road. The Uzbek border is 2 km to the south. 3 years ago there was a pesticide warehouse on the site. The building has since been demolished, some of the pesticide stockpiles may have been buried here. There is a strong pesticide odour; remnants of plastic bags can be seen on the ground. Now no pesticides can be disposed of until someone reveals the burial site, which is why we have called this site - an almost lost site. Warehouse: 20 x20 m	There is a small quantity of Urea (Urea) of about 0.5 cu m. No packs or pungent odour found in the area.	WS-159	Small pile (0.5 m3) of urea fertiliser, no known amount of pesticide buried
3	WS-160	Suzak		Lawdan-Kara	N 40° 55.372' E 72° 57.706' 762 m	Private	The site is currently used as a coal warehouse. The warehouses are close to the main road to Jalalabad. It has been used as a fertiliser and pesticide warehouse since the 60-70s. The current owners have owned the site for less than two years. The 6th warehouse on the left has a pesticide odour. Warehouse: 45x10 m	Warehouse in private ownership, fully built up with new buildings, no odour, no OP, no traces on soil	WS-160	No pesticides, no fertilisers
4	WS-161	Suzak		Spasovka, Kyzyl-Tuu	N 41° 1.390' E 72° 59.299' 867 m	Not known	This is a former agricultural airfield where pesticides and fertilisers were stored. The airfield is no longer in use, part of the runway asphalt is missing. No stockpiles were seen, there was no smell of pesticides. All together the runway, pesticide and fertiliser storage facilities cover about 1 hectare	Warehouse privately owned, newly built, there is a small pile of asbestos-containing waste intermixed with grain husks, no smell, no OP, no traces on soil	WS-161	No pesticides, no fertilisers

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
5	WS-162	Suzak		Bagysh + Lenin	N 41° 3.364' E 73° 6.934' 1011 m	Former property of two collective farms: Bagysh and Lenin. The plots are now private	Site No. 5 was used as a centralised treatment area for seed dressing (cotton and cereals). Pesticides were stored in the back of the warehouse; in the basin the seeds were dressed. After dressing, the seeds were stored in front of the building. No signs of pesticides are visible. There is a slight smell of pesticides in a small room in the corner. Two dressing facilities are located at the ends of the airfield. The seed dressing process usually took 8 hours with Granozan (cereals) and Fentiuram, Branatac, Pentatiuram (cotton). There are two storage buildings at the back: a larger one for fertiliser and a smaller one for pesticides. The pesticide storage building still smells of pesticides. Local villagers have renovated the former pesticide warehouse and are going to use it as their dwelling. All together - about 1 hectare	Warehouse in private ownership, new fence, no odour, no OP, no traces on soil	WS-162	No pesticides, no fertilisers
6	WS-163	Suzak		Mazar-Bulak	N 41° 6.921' E 73° 15.575' 1230 m	Not known	Site 6 is a former pesticide warehouse located at the airfield. The storage area is completely destroyed, remnants of the foundations remain. The mixing pool is filled with cobbles and stones, almost unrecognisable. Labels from Semorin, Cis-86 pesticides were found in one of the former buildings. Warehouse 1: 6x6 m Warehouse 2: 4x6 m	The warehouse is completely destroyed, there are UEs in a destroyed package of about 4 cubic metres, there is a pungent smell	WS-163	5 cubic metres of mixed unknown pesticides on the floor of the former buildings
7	WS-164	Aksy		Suzak Agricultural Chemicals LLC Kyzyl-Zhar	N 40° 53.427' E 72° 52.884' 720 m	The plot has been used as a collective farm centre. It is now private.	At plot 7, old drums of Butifos, which had been produced 28 years ago, were found. The owner was present during the inventory and expressed his appreciation that the problems with obsolete pesticide stockpiles are being taken seriously and hoped that the pesticides will be eliminated in the future. Warehouse: 20x8 m	Warehouse in private ownership, built up with new buildings, no odour, no OP, no traces on soil		Packs of 20 x 75 litres drums filled with Butifos (liquid); 2 x 200 litres drums filled with Butifos (liquid)

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
8	WS-165	Bazarkorgon		Bazar Korgon	N 41° 1.075' E 72° 42.561' 689m	The private property of a family who are about to build their home on a ruined warehouse.	Site 8 is used as an airfield storage area. It is used as temporary storage of pesticides prepared for spraying on nearby land. The airfield is located 100 m northeast of the storage area, the mixing pool is located behind the runway, but filled with stones. According to a local resident, some pesticides were buried about 20 m east-northeast of the former depot. For verification, soil samples were taken at different locations (BK-1, BK-2, and BK-3) from the top 30 cm of soil; deeper is stony soil. Houses have been built a few metres from the former warehouse. The residents are concerned about the impact of contamination. The coordinates of the possible burial site are as follows: N 41° 01.132´, E 72° 42.589´. Warehouse: 8x10 m	The warehouse has been completely destroyed and the area has been prepared for the construction of a residential building. There are traces of pesticide contamination of the soil and a pungent smell in places.	WS-165	No pesticides, no fertilisers
9	WS-166	Bazarkorgon		Seydy-Kum	N 40° 57.293' E 72° 35.401' 564m	Not known	Plot 9 is located in the centre of an agricultural area, 450 m from the Kok-Art river. The site is surrounded by rice fields. Buildings have been destroyed, only the concrete foundation of a large storehouse remains. Small amounts of pesticide powders are scattered on the concrete floor and there is still a smell of pesticides. Not far from the warehouse was an airfield. The airstrip itself has disappeared, its remnants are part of a dirt road across the fields. There is still a mixing pool, although it is partially filled with mud and soil. The contents of the pool had a strong pesticide odour and locals complained about the smell. The stirring basin is located a few metres from the border with Uzbekistan, next to a wide irrigation canal. A mud sample (SK-1) was taken, coordinates N 40° 56.066´, E 72° 34.189´. This site can be considered as a lost site, no pesticides can be collected. Depot: 50x12 m	The depot is completely destroyed, no OP, no traces on the ground. There is a pungent smell in places.	WS-166	~ 2 m3 of mixed unknown pesticides

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
10	WS-167.1	Bazarkorgon		Mogul-Corgon	N 41° 2.487' E 72° 43.361' 720 m	Not known	On plot 10 - 2 warehouses Warehouse 1 to the north of the road to the left, warehouse 2 to the right, warehouse 3 to the south of the road near the airfield. Warehouse 1 was previously used as a garage, it contains about 7m^3 of mixture of unknown pesticides in old polyethylene and cotton bags and sacks, there are 2-3m drums. Warehouse 2 in good condition - 5 separate rooms. It has ~ 4m^3 of pesticides, of which 1m^3 is an unknown mixture and 3m^3 is Rideon. There is a 3m x 5m x 2m concrete pool in front of warehouse 2, filled with a dark oily liquid with a strong pesticide odour. A 200 l metre barrel was floating on top. A former agronomist said that there were 6 x 200 litre barrels of Fazalon (insecticide) in the pool. Locals collected barrels for metal waste and poured the contents into the rainwater basin. Composite samples of the top 30 cm of soil around the first two stockpiles were collected to determine soil contamination levels: MK-P1 (background; r=6-10 m; 3 CSS), MK-P2 (r=0-6 m; 4 CSS). Deeper stony soil, no samples were taken. Depot 1: 18x8 m; Depot 2: 15x13 m;	The warehouse is partly destroyed, there are UEs in destroyed packaging of about 6 cubic metres, there is a pungent smell. No metal drums, no paper boxes either. Pool partly filled with rubbish and rotten drums	WS-167.1	- 1x 200 l metal barrel, empty - ~ 8 m3 unknown pesticides (torn powder bags) - ~ 3 m3 Rideon (powder) in paper boxes - ~ 15 m3 heavily contaminated water in concrete basin
11	WS-167.2	Bazarkorgon		Mogul-Corgon	N 41° 2.452' E 72° 43.396' 718 m	Not known	Warehouse 3 south of the road near the airfield. was used for fertiliser; it has no pesticide odour; at the time of the inventory the inhabitants stored rice straw in it. Warehouse 3: 30x12 m;	Warehouse completely destroyed, no odour, no OP, no traces on soil	WS-167.2	
12	WS-210.1			Agricultural chemical warehouses 1	N 41° 0.527' E 72° 33.697' 574 m		a former airfield with a pesticide warehouse. The warehouse building is almost completely gone, the roof is demolished and so are most of the walls. There is no smell of pesticides, some small amounts of fertiliser can still be detected. In front of the warehouse ruins there are two mixing pools.	Warehouse completely demolished, new buildings on site, no odour, no OP, no traces on soil	WS-210.1	

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
13	WS-210.2			Agricultural chemical warehouses 2	N 41° 0.452' E 72° 33.865' 576 m		a former airfield with a pesticide warehouse. The warehouse building is almost completely gone, the roof is demolished and so are most of the walls. There is no smell of pesticides, some small amounts of fertiliser can still be detected. In front of the warehouse ruins there are two mixing pools.	Warehouse completely demolished, area prepared for future construction (large pits possibly from former swimming pools), large amount of polyethylene packaging from saltpeter and construction waste, no OP, possible soil contamination.	WS-210.2	
14	WS-211			Zhyl-Kol Burial Ground	N 41° 12.520' E 72° 3.896' 648 m		The plot is in a very remote location. It is surrounded by pastures and grazing animals. The burial site is located in a small valley. From the Uch-Korgon depots, all the pesticides were brought to this site and buried. Local people who helped to find the burial site told the inventory team that the buried stockpiles were mostly insecticides; cattle were treated with 'dust'. Dust is the unofficial Russian name for DDT. Five samples were taken: DK-1-DK-5 to determine the extent of contamination. The surface of the site indicates that people were digging up. If pesticides were buried here, some of them may have already been taken away.	The surface of the site shows evidence of old excavations. Another site with deep pits was found nearby, possibly contaminated soil.	WS-211	
15	WS-212			ZhivProm	N 41° 27.532' E 71° 43.006' 1297 m		The site is located on a hilltop 300 metres from the border with Uzbekistan. Initially there were two warehouse buildings on the site, now only cobbles can be found. There is a small amount of pesticide residue under the cobbles, together the two warehouses form ~3 m3. There is a concrete covered pool with only one hole on top; there may also be some pesticide residue.	The warehouse is completely destroyed, there are UEs in destroyed packaging in several piles mixed with construction debris about 0.5 cubic metres in total, there are uninstalled bags in concrete pits, there is a pungent smell	WS-212	

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
16	WS-213.1			Ala-Buka burial ground 1	N 41° 23.408' E 71° 28.969' 1228 m		The site was used by the so-called Production Association 'Agricultural Chemistry' of Ala-Buka district. The former pesticide warehouse has been destroyed, only reinforced concrete parts are present now. The warehouse has been cleared and all pesticides have been buried 200 m south of the warehouse (the site is 50 m from the border with the village). The coordinates of the burial site are N 41° 23.258´ ; E 71° 28.877´, elevation 1.210 m, the site is called the Graveyard. The stockpile was buried in a 5x15 m pit and covered by soil. Two soil samples were taken from Ala-Buk: A-B-1 (inside the stockpile; composite soil samples from 3 different locations), A-B-2 (outside the stockpile; composite soil samples from 2 different locations) and three samples from the Mogilnik burial site: MOG-1, MOG-2, MOG-3 (composite soil samples from 3 locations; 1 and 2 from the burial site, 3 outside as a background).	The depot is completely destroyed, no OP, no traces on the ground. There is a pungent smell in places. Possible soil contamination.	WS-213.1	
17	WS-213.2			Ala-Buka burial ground 2	N 41° 23.255' E 71° 28.878' 1220 m		The site was used by the so-called Production Association 'Agricultural Chemistry' of Ala-Buka district. The former pesticide warehouse has been destroyed, only reinforced concrete parts are present now. The warehouse has been cleared and all pesticides have been buried 200 m south of the warehouse (the site is 50 m from the border with the village). Coordinates of the burial site: N 41° 23.258´ ; E 71° 28.877´, elevation 1.210 m, the site is called the Graveyard.	The area of the burial ground has recently been levelled by bringing in new soil, possibly preparing for construction. Possible soil contamination.	WS-213.2	

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
18	WS-216			Suzak-A burial ground	N 40° 59.624' E 72° 53.799' 1142 m		In 1973, Suzak A was buried in Ak-Chabyr, Suzak district, Jalal-Abad oblast, and a total of 2000 tons of obsolete pesticides were buried. This work was carried out through small grants.	The burial ground is fenced off, but access is free. Traces of recent excavation have been uncovered.	WS-216	
19	WS-217			Suzak-B burial ground	N 41° 1.342' E 72° 55.987 977m		In 1970-1980 burials were conducted in Suzak B burial ground of Tash-Baka Kungey, near village Kyzyl-Bairam, Jalal-Abad oblast. Currently the condition of the burial site is not satisfactory (not fenced, excavated, water ingress, possible ingress into the soil and spreading by wind into the environment).	The burial ground is fenced, but access is free. There are video cameras with self-contained power supply using solar panels. No traces of fresh excavation have been found.	WS-217	
Osh oblast										
20	WS-214			Warehouse in Sarai village (Ministry of Defence)	N 40° 40.264' E 72° 53.331' 801 m	BLGIB	TAUW on "Study Visit and Situation Study on Obsolete Pesticides in KR" decided to start a pilot project on obsolete pesticides elimination in Osh oblast. Under the project, an inventory was carried out in 25 former pesticide storage sites using the FAO standardised inventory system (August-September 2007). Each storage place was described, forms characterising environmental risks and risks by the amount of available pesticides were filled in. The inventory showed that out of 25 locations, nine locations were completely lost due to destruction of the storage buildings where the pesticides were stored, resulting in destruction of the packaging, pesticides were washed away and weathered and contaminated the soil and in some cases probably ground and surface water. The quantities of pesticides recorded as part of the pesticide inventory are as follows: 450 tonnes of obsolete pesticides, four tonnes of contaminated soil/dust inside warehouses and 160 tonnes of heavily	The warehouse is located in a restricted facility of the Ministry of Defence of the Kyrgyz Republic. Access to the warehouse was restricted. According to the employees, the warehouse is located on the premises and corresponds to the photos provided.		Nitrafen - 3 drums x 25 litre containers = 75 litres.

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
							contaminated pesticide soil			
21	WS-215			The airfield in Chekabad village.	N 40° 31.257' E 72° 24.552 651 m	BLGIB	-	The area has been completely excavated and there is a large amount of construction and household waste. No traces of OP have been found and there is no smell. According to local residents, the last barrels were taken by the military. Possible soil contamination.	WS-215	Nitrafen - 3 drums x 25 litre containers = 75 litres.
Batken region										
22	WS-218	Leilek district	r. Batken	Batken Agricultural Chemicals	N 40° 5.400' E 70° 47.556' 961 m		-	The warehouse is completely destroyed, no OP, no traces on the soil. According to local residents, there may be burial of OP on the site, in a pulp pit (by partial backfilling with soil). There is a pungent smell	WS-218	

No. n/a	Field identifier	Region, Region	District	Settlement/ site name	Coordinates	Owner	Note of early research	Note 2021	Photo (folder)	The number was
								in places.		
23	WS178 /WS-127	Leilek district		c. Besh-Bala	N 39° 53.331' E 69° 29.781' 1172 m	BLGIB	Around 50 barrels of Nitrafen were buried at this site in 2000-2002. According to witnesses, in 2005 the burial site was excavated, the barrels were sold, and 3 full barrels of Nitrafen were found at the time of arrival. The site is 50-100 m from the settlement, 300 m from the river.	The burial ground looks ruined, with metal barrels said to have been stolen by locals. Soil contamination is possible.	WS178 /WS-127	Nitrafen - 3 drums x 25 litre containers = 75 litres.
24	WS179 /WS-128	Leilek district		c. Bulak-Bashy	N 39° 59.046' E 69° 35.241' 929 m	BLQBBA	Warehouse of the former Raiselhozkhimia. The property is privately owned and guarded. The distance from the nearest house is 20-50 m. There are 8 warehouses on the site, of which 2 warehouses contain UE. The warehouse where a lot of OP is stored is unlocked the window is open. There is a possibility of intruders getting in.	The warehouse is partly destroyed, there are UEs in a destroyed package of 4500 kg., there is a pungent smell. There are no metal drums. The area is partly fenced, but access is free.	WS179 /WS-128	"Protrazine" - 350 paper bags x 15 kg bag = 5250 kg; "Butifos" - 2 cont. X 200 litre bag = 400 l.
25	WS180 /WS-130	Kadamjay district	Uch-Korgon	Uch-Korgon	N 40° 16.471' E 72° 2.753' 889 м	BKUQSH	Warehouse of the former Raiselhozkhimiya. No evidence of any odour or traces on the soil at the time of arrival of the OP. No odour or traces on the ground. The warehouse contains building materials.	Privately owned warehouse, no odour, no OP, no traces on soil	WS180 /WS-130	

Annex 3. Sample register

№	Field identifier	Number of samples taken	Coordinates	Note
1	***WS-2***	2	N 42°47876 E 073°40624 747m	Various unidentified UEs selected
2	***WS-35***	5	N 42.944030° E 74.059380° 641 m	Various unidentified UEs selected
3	***WS-36***	3	N 42°91674 E 074°12024 657 m	Various unidentified UEs selected
4	***WS-48***	2	N 42°96116 E 074°32838 665 m	Various unidentified UEs selected
5	***WS-50***	3	N 43°10943 E 074°40213 595 m	Various unidentified UEs selected
6	***WS-177 (126)***	2	N 42.558680° E 71.935550°; 1038 m	Various unidentified UEs selected
7	***WS-170***	2	N 42°46.396; E 078°17.385; 1635 m	Various unidentified UEs selected
8	***WS-171***	1	N 42°30.116; E 078°29.156; 1768 m	
9	***WS-175***	1	N 41°25.682; E 076°04.541; 2105 m	
10	***WS-199***	1	N 42.156704°E 75.698178° 2011m	
11	***WS-201***	2	N 42°48345 E 075° 38345 1059 m	Various unidentified UEs selected
12	***WS-202***	3	N 42.823150° E 75.546800° 997 m	Various unidentified UEs selected
13	***WS-203***	5	N 42.752690° E 75.332980° 1031 m	Various unidentified UEs selected
14	***WS-163***	1	41° 6.921'N 73° 15.575'E 1247 m	
15	***WS-167***	2	41° 2.487'N 72° 43.361'E 720 m	Various unidentified UEs selected
	Total	**35**		

Appendix 4: Safety briefing log

ОО «Независимая экологическая экспертиза»
Проект ОО «НЭЭ» - FAO

Журнал инструктажа
по технике безопасности при обращении с пестицидами и использования СИЗ
участникам экспедиции по инвентаризации устаревших пестицидов на территории КР

Инструктаж провел ____________ А.Алакунов
подпись

№№ пп	ФИО	дата	Подпись в получении инструктажа
1	Пак В.А	14.05.2021	
2	Тезобишалиев Ж. С.	14.05.2021	
3	Дюшеев Д.	14.05.2021	
4	Дуйшембиев М.С.	14.05.2021	
5	Пешков О.В	14.05.2021	
6	Мурзабаева А.А	14.05.2021	
7	Турдукбаева Г.А.	14.05.2021	
8	Рябинин Р.И	14.05.2021	

1

Annex 5. Order "On the establishment of the working committee"

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН
ӨКМӨТҮНӨ КАРАШТУУ
ЭКОЛОГИЯЛЫК ЖАНА ТЕХНИКАЛЫК
КООПСУЗДУК БОЮНЧА
МАМЛЕКЕТТИК ИНСПЕКЦИЯСЫ

ГОСУДАРСТВЕННАЯ ИНСПЕКЦИЯ
ПО ЭКОЛОГИЧЕСКОЙ
И ТЕХНИЧЕСКОЙ БЕЗОПАСНОСТИ
ПРИ ПРАВИТЕЛЬСТВЕ
КЫРГЫЗСКОЙ РЕСПУБЛИКИ

БУЙРУК
ПРИКАЗ

26 05 2021 -год. № 59-кш г.Бишкек.

О создании рабочей комиссии

Во исполнение Указа Президента КР от 19 марта 2021 года «О мерах по обеспечению экологической безопасности и климатической устойчивости», пункта 2.3 «Плана действий по выполнению Стокгольмской конвенции о стойких органических загрязнителях», утвержденного распоряжением Правительства КР от 5 июля 2019 года №248-р «*Инвентаризация и идентификация устаревших пестицидов в захоронениях, а так же количественной и качественной оценки запасов устаревших пестицидов*», в соответствии с р.5. Положения ГИЭТБ, утвержденного постановлением Правительства Кыргызской Республики №136 от 20.02.2012 года, **приказываю:**

1. В целях инвентаризации и идентификации устаревших пестицидов (токсичных отходов) в захоронениях, могильниках по всей территории республики, для дальнейшего принятия на контроль до решения вопроса утилизации, образовать рабочую комиссию с участием сотрудников ГИЭТБ, независимых экспертов ОО «Независимая экологическая экспертиза», сотрудников Департамента химизации и защиты растений при Министерстве сельского, лесного и водного хозяйства Кыргызской Республики в нижеследующем составе:

Председатель комиссии:
Мурзабаева А.А. – председатель комиссии
Тургунбаева Г.А. – заместитель председателя комиссии
Члены комиссии:
Пак В.А. - советник директора ДХЗ КР МСЛВХ КР
Дербишалиев Ж.С. эксперт ДХЗ КР МСЛВХ КР
Печенюк О.В., эксперт ОО «Независимая экологическая экспертиза
Рябикин Р., эксперт ОО «Независимая экологическая экспертиза».

2. Направить на служебную командировку сотрудников ГИЭТБ заведующего отделом контроля биоразнообразия Мурзабаеву А.А., старшего инспектора Тургунбаеву Г.А., сроком с 27.05. по 18.07.2021 года.

3. Завершить работу рабочей группе в установленный срок, согласно Приложения №1 графика по инвентаризации устаревших пестицидов в разрезе областей и регионов.

4. Начальникам Региональных управлений ГИЭТБ оказать соответствующее содействие и принять на дальнейший контроль результатов выполненных работ.

5. Контроль за исполнением настоящего приказа возложить на заместителя директора Э.М. Кулматову.

Основание:
1. обращение ОО "Независимая экологическая экспертиза" на 17 - листах.

Директор **М. Маметов**

Appendix6.Waste passports forWS35a village.Predtechenka, OKH Chekir-Suu

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous waste at the warehouse in the village of Predtechenka, Chekir-Suu OKH.
Predtechenka, OKH Chekir-Suu

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Protrazine 360 kg**(percentage waste component composition)

Formed**agricultural activities**
(name of the technological process thatwasteor the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____

Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____
_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT

for hazardous waste at the warehouse in the village of Predtechenka, Chekir-Suu OKH.
Predtechenka, OKH Chekir-Suu

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance

(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Simazine 540kg**(percentage component composition of waste)

Formed**agricultural activities**

(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**

(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity

_____

Name of legal person _____

TIN _____ SOATO _____

OKPO _____ OKOU _____

GCED _____

Адрес юридический _____

Адрес почтовый _____

_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT

for hazardous waste at the warehouse in the village of Predtechenka, Chekir-Suu OKH.
Predtechenka, OKH Chekir-Suu

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Kerb 280 kg**(waste component composition in percentage)

Formed**agricultural activities**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____

Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____
_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT

for hazardous waste at the warehouse in the village of Predtechenka, Chekir-Suu OKH.
Predtechenka, OKH Chekir-Suu

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Dichloralurea 375kg**(Waste component composition in percentage)

Formed**agricultural activities**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____

Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____
_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT

for hazardous waste at the warehouse in the village of Predtechenka, Chekir-Suu OKH.
Predtechenka, OKH Chekir-Suu

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance

(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Phenosan 135kg**(percentage component composition of waste)

Formed**agricultural activities**

(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**

(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity

_____

Name of legal person _____

TIN _____ SOATO _____

OKPO _____ OKOU _____

GCED _____

Адрес юридический _____

Адрес почтовый _____

_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous waste at the warehouse in the village of Predtechenka, Chekir-Suu OKH.
Predtechenka, OKH Chekir-Suu

Compiled for waste Pesticides, single components 20372 N200609/P00/Q01+13/WL01+S2+ 15/T2/C79/H6.1+11+12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)
Powdered loose substance (presumably a pesticide)
(aggregate state and physical formthe waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost its consumer properties, other)
Consisting of**Unknown preparation 1600kg**(component composition of waste in percentage)
Formed**agricultural activities**
(name of the technological processresultingwaste or the processloss of consumer propertiesof the goods (products), indicating the name of the original product)
Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)
Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____
Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____
_____

Appendix 7.Waste Data Sheets forWS148 At-Bashi Anti-Plague Station

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous wastes in a warehousein At-Bashy village At-Bashy, 2, Salymbekova Street, At-Bashy Anti-Plague Station

Compiled for waste Pesticides, single components 20372 N200609/P00/Q01+13/WL01+S2+ 15/T2/C79/H6.1+11+12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance (presumably a pesticide)
(aggregate state and physical formthe waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost its consumer properties, other)

Consisting of**ObsoletePesticides (DDT): 16800 kg**(component composition of waste in percentage)

Formed**agricultural activities**
(name of the technological processresultingwaste or the processloss of consumer propertiesof the goods (products), indicating the name of the original product)
Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____

Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT

for hazardous wastes in a warehousein At-Bashy village At-Bashy, 2, Salymbekova Street, At-Bashy Anti-Plague Station

Compiled for WasteWaste from the cleaning of chemical storage facilities
15082N 150305/R 00/Q 07/WP1/T2/C84/H11/D(R) 00/A000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance

(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Composed of**contaminated soil - 3,850 kg**(waste component composition in percentage)

Formed bystorage of**agriculturalchemicals**

(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**

(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity

_____

Name of legal person _____

TIN _____ SOATO _____

OKPO _____ OKOU _____

GCED _____

Адрес юридический _____

Адрес почтовый _____

_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous wastes in a warehousein At-Bashy village At-Bashy, 2, Salymbekova Street, At-Bashy Anti-Plague Station

Compiled for wasteContaminated packaging materials with pesticides
15052N 150204/R 00/Q 05/WS18/T2/S79/N11/D(R) 00/A000
(code and name according to the Waste Classification Catalogue)
Contaminated wooden pallets, barrels
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)
Consisting of**contaminatedcontainers 43 pcs.**(Waste component composition in percentage)
Formed bystorage of**agriculturalchemicals**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)
Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)
Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____
Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____
_____

Appendix 8. Waste Data Sheets for WS204 Ak-Kuduk MIS

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for waste Pesticides, single components 20372 N200609/P00/Q01+13/WL01+S2+ 15/T2/C79/H6.1+11+12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance (presumably a pesticide)
(aggregate state and physical formthe waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost its consumer properties, other)

Consisting of**Temik - 50 boxes * 10 kg = 500 kg**(percentage waste component composition)

Formed**agricultural activities**
(name of the technological processresultingwaste or the processloss of consumer propertiesof the goods (products), indicating the name of the original product)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity
_____

Name of legal person _____
TIN _____ SOATO _____
OKPO _____ OKOU _____
GCED _____
Адрес юридический _____
Адрес почтовый _____
_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

_____

"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for waste Pesticides, single components 20372 N200609/P00/Q01+13/WL01+S2+ 15/T2/C79/H6.1+11+12/D(R) 00/GM000

(code and name according to the Waste Classification Catalogue)

Powdered loose substance (presumably a pesticide)

(aggregate state and physical formthe waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost its consumer properties, other)

Consisting of**Unknown pesticide 5 boxes * 15 kg = 75 kg**(component composition of waste in percentage)

Formed**agricultural activities**

(name of the technological processresultingwaste or the processloss of consumer propertiesof the goods (products), indicating the name of the original product)

Hazardousto**class II**hazardous properties:**Toxicity**

(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity

_____

Name of legal person _____

TIN _____ SOATO _____

OKPO _____ OKOU _____

GCED _____

Адрес юридический _____

Адрес почтовый _____

_____

"Approve."
Head of the economic operator
of the subject (signature)

_____

"___" _____ 2021 г.

M.P.

"Agreed"
Head of area
authority(signature)

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"___" _____ 2021 г.

M.P.

PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for waste Pesticides, single components 20372 N200609/P00/Q01+13/WL01+S2+ 15/T2/C79/H6.1+11+12/D(R) 00/GM000

(code and name according to the Waste Classification Catalogue)

Liquidsubstance (presumably a pesticide)

(aggregate state and physical formthe waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost its consumer properties, other)

Composed of**Unknown pesticide 1 metal drum (200 l.) * half = 100 l**(percentage composition of waste)

Formed**agricultural activities**

(name of the technological processresultingwaste or the processloss of consumer propertiesof the goods (products), indicating the name of the original product)

Hazardousto**class II**hazardous properties:**Toxicity**

(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity

_____

Name of legal person _____

TIN _____ SOATO _____

OKPO _____ OKOU _____

GCED _____

Адрес юридический _____

Адрес почтовый _____

_____

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Head of the economic operator
of the subject (signature)

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PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for waste Pesticides, single components 20372 N200609/P00/Q01+13/WL01+S2+ 15/T2/C79/H6.1+11+12/D(R) 00/GM000

(code and name according to the Waste Classification Catalogue)

Powdered loose substance (presumably a pesticide)

(aggregate state and physical formthe waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost its consumer properties, other)

Consisting of**Unknown pesticide 3 bags * 20 kg = 60 kg**(component composition of waste in percentage)

Formed**agricultural activities**

(name of the technological processresultingwaste or the processloss of consumer propertiesof the goods (products), indicating the name of the original product)

Hazardousto**class II**hazardous properties:**Toxicity**

(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

Full name of the individual entrepreneur or the full name of the legal entity

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PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Heterophos - 8 drums * 20 kg = 160 kg**(waste component percentage)

Formed**agricultural activities**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

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PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Powdered loose substance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Miral - 5 crates * 15 kg = 75 kg**(component composition of waste in percentage)

Formed**agricultural activities**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

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PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Liquidsubstance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**Skepter - 1 canister * 1 l = 1 l**(waste component percentage)

Formed**agricultural activities**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

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PASSPORT
for hazardous waste in theAk-KudukwarehouseMIS

Compiled for Agrochemical residues (mineral fertilisers, pesticides, herbicides etc.)
02072N 020106/P 00/Q 01/WS15/T2/C79/H12/D(R) 00/GM000
(code and name according to the Waste Classification Catalogue)

Liquidsubstance
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Composed of**Takle (Basf production) (gum aid for Kyrgyzsilhosphere) - 20 canisters * 1 l = 20 l**(component composition of waste in percentage)

Formed**agricultural activities**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)

Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

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PASSPORT
for hazardous waste in the Ak-Kuduk warehouse of MIS

Compiled for wasteContaminated packaging materials with pesticides
15052N 150204/R 00/Q 05/WS18/T2/S79/N11/D(R) 00/A000
(code and name according to the Waste Classification Catalogue)
Contaminated wooden pallets, drums, plastic canisters, paper
(aggregate state and physical form of the waste: solid, liquid, pasty, sludge, gel, emulsion, suspension, loose, granulate, powdery, dusty, fibre, finished product that has lost itsconsumer properties, other)

Consisting of**wooden pallets soaked in pesticide - 20 pcs. Iron barrels (empty) for Decis pesticide (30 litre) - 2 pcs. Plastic canisters (empty) from Büktril - 20 pcs. Paper boxes from Rogor, 2M-4X and Tagor pesticides - 4 pcs.** (Waste component composition in percent)

Formed bystorage of**agriculturalchemicals**
(name of the technological process that resulted in the waste or the process that caused the goods (products) to lose their consumer properties, indicating the name of the originalproduct)
Hazardousto**class II**hazardous properties:**Toxicity**
(toxicity, flammability, explosiveness, high reactivity, dangerous pathogens)

Additional information requires repackaging for safe storage

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