

COUNTRY REPORT

Legal and Technical Assessment
of the Management of Obsolete
Pesticides

Russian Federation



Food and Agriculture Organisation
of the United Nations



Country Report

Legal and technical assessment of the management of
obsolete pesticides Russian Federation

Coordinated by: John Vijgen and Bram de Borst, IHPA,
and Andrei Isac

Authors: Irina Kireeva and Mikhail Malkov

Photographers: Marina Klimova and John Vijgen

Designer: Dennis Mijssen, www.studioijsselstad.nl

The European Union and the Food and Agriculture Organization of the United Nations (FAO) have invested € 7 million to assist countries in Central Asia and Eastern Europe to foster an environment of cooperation and capacity development to eliminate the risks from obsolete pesticides and Persistent Organic Pollutants (POPs) and to develop a more sustainable agriculture in the future. This report was prepared by the International HCH and Pesticides Association (IHPA) under a contract from FAO to assess the need for, and legal and technical capacity for, the sound management of hazardous waste in the country and to develop a “road map” for achieving self-sufficiency in sound hazardous waste management in the region.

Disclaimer: This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of IHPA and can in no way be taken to reflect the views of the European Union.

Content

Content.	4
Acknowledgement	5
List of acronyms.	6
Introduction	9
Summary	11



Data, Annexes and Working Document

All original data and Annexes are available in a separate document: 'Working Document, Legal and Technical Assessment of the Management of Obsolete Pesticides, Russian Federation'

Annexes:

Annex 1: Terms of Reference for IHPA for Coordination of a Disposal Study for Obsolete Pesticides in the Former Soviet Union

Acknowledgement

IHPA would like to thank herewith both main authors Ms. Irina Kireeva, the national legal expert responsible for Part I. The assessment of the legal framework on the pesticides waste management in the Russian Federation and Mr. Mikhail Malkov, the national waste management consultant who was responsible for Part II. Technical assessment of the management of obsolete pesticides and POPs waste and soil in the Russian Federation, for their strong engagement and commitment to achieve these reports.

We give special thanks for the methodological support, general coordination and encouragement of the work to FAO, Mr. Kevin Helps, former Project Coordinator of FAO-EU Partnership, Mr. Richard Thompson, present Project Coordinator of FAO-EU Partnership Project, Ms. Lalaina Ravelomanantsoa, Legal Officer, Development Law Branch, FAO Legal Office, Ms. Oxana Perminova, Agricultural Officer (Social and Economic Impact) of FAO-EU Partnership Project, Milieukontakt International, Green Cross Belarus and Blacksmith Institute.



List of acronyms

ACAP	Arctic Contaminants Action Program	NCC	National Coordinating Committee
ADR	International Carriage of Dangerous Goods by Road	NFP	National Focal Point
ANO-CIP	Autonomous Non-Profit Organization, Centre for International Projects	NGO	Non-Governmental Organization
AvtoVAZ	Cars of Volga Automobile Plant	NIP	National Implementation Plan
BAT	Best Available Techniques	NSEM	National System of Environment Monitoring
BEP	Best Available Practices	OAD	Open joint-stock company
CIP	Centre for International Projects	ODS	Ozone-depleting substance
CIS	Commonwealth of Independent States	OP	Obsolete pesticides
CMR	Conditions for the international carriage of goods by road. (original: Convention relative au contrat de transport international de Marchandises par route)	OSCE	Organization for Security and Co-operation in Europe
DDT	Dichlorodiphenyltrichloroethane	OpFP	Operational Focal Point
DOT	US Department of Transport (DOT) classification of dangerous material	PCB	Polychlorinated biphenyl
EA	Environmental Assessment	PDF-B	Project Development Facility (GEF)
EC	European Commission	POP	Persistent Organic Pollutant
EEC	European Economic Community	PRTR	Pollutant Release and Transfer Register
EECCA	Eastern Europe, Caucasus and Central Asia	PSMS	Pesticide Stock Management System (FAO)
EEZ	Exclusive economic zone	RID	International Transport of Dangerous Goods by Rail (original: Reglement concernant le transport international ferroviaire des Marchandises Dangereuses)
EIA	Environmental Impact Assessment	RF	Russian Federation
EMP	Environmental Management Plans	SAICM	Strategic Approach to International Chemicals Management
EMTK	Environmental Management Tool Kit for Obsolete Pesticides (FAO)	SCWO	Super Critical Water Oxidation
EU	European Union	SSC	State Scientific Center of the Russian Federation
FAO	Food and Agriculture Organization of the United Nations	TACIS	Technical Assistance to the Commonwealth of Independent States
FSUE	Federal State Unitary Enterprise	TCB	Trichlorobenzene
GEF	Global Environment Facility	TEQ	Toxic Equivalent
GHS	Globally Harmonized System of Classification and Labelling of Chemicals	UNDP	United Nations Development Programme
Gosstandard	Gosudarstvennyy standart, means state standard for the Russian Federation and Republics of the Former Soviet Union	UNEP	United Nations Environment Programme
HCB	Hexachlorobenzene	UNIDO	United Nations Industrial Development Organization
HCH	Hexachlorocyclohexane	UNITAR	United Nations Institute for Training and Research
HDPE	High Density Polyethylene	USSR	Union of Soviet Socialist Republics
IATA	International Air Transport Association	WB	World Bank
IHPA	International HCH & Pesticides Association	WTO	World Trade Organisation
IMDG	International Maritime Dangerous Goods Code		
JSC	Joint-stock company		
LLC	limited liability company		
MAC	maximum allowable concentration		
MoD	Ministry of Defence		
MKT	Milieucontact International		
MNRE	Ministry of Natural Resources and Environment of the Russian Federation		
MUE	Municipal Unitary Enterprise		
N/A	Not Applicable		
NATO	North Atlantic Treaty Organization		
NATO PfP	NATO's Partnership for Peace programme		

Introduction

Within the EC / FAO project GCP/RER/040/EC “Improving capacities to eliminate and prevent recurrence of obsolete pesticides as a model for tackling unused hazardous chemicals in the Former Soviet Union” the International HCH & Pesticides Association (IHPA) has been tasked to develop capacity for management of hazardous wastes through the example of OPs and POPs pesticides. There is an estimated 200,000 tonnes of these materials known to be affecting the countries of the Former Soviet Union. Much of the previous work on disposal of waste from the countries has looked to export thousands of tonnes of pesticide stockpiles to high temperature incinerators operated commercially in EC member states. Whilst this strategy meets all international environmental compliance requirements it is prohibitively expensive. The vast distances involved for transport of waste from Central Asian Countries to facilities in Europe makes the option of finding a local solution appealing based on both risk management and cost considerations. Moreover, the huge volumes of hazardous waste generated in the region increases the need for local destruction hazardous waste capacity. Based on the national Legal and Technical assessment reports of the management of OPs that were produced in 2014, the “Road Map to Establishing Environmental Sound Management of POPs Pesticides and other Hazardous Waste in the EECCA region”, was published at the end of 2015

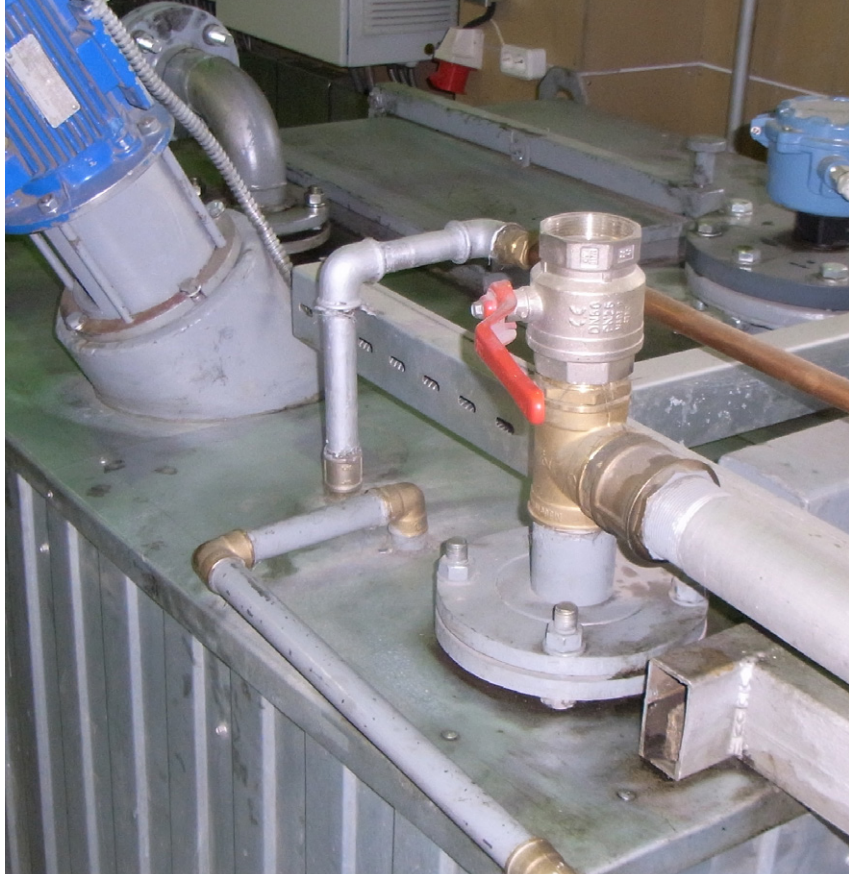


The Disposal Study involved (see Terms of Reference in Annex 1 of the Working document) the following activities:

- Review of existing policy framework for the management and elimination (including inventory, assessment and transport) of POPs and OPs in line with the requirements of the respective EU Directives/ Stockholm Convention;
- Conduct benchmarking of current POPs management (including (temporary) storage and destruction) against international best practice on BAT/BEP as set out by the Basel / Stockholm Convention working groups; highlight and describe best ongoing practices in the country;
- Review of existing and planned treatment options for POPs pesticides, OPs and related hazardous wastes, contaminated containers and contaminated land;
- Assess potential treatment facilities such as existing modern cement kilns, as well as planned and/or implemented pilot plant investigations which can develop in the next years to important market players;
- Assess the Russian-Belarus-Kazakhstan customs union and its implications for hazardous waste in and through Russia, including an assessment of 1) experiences over the last years practical implementation and of 2) alternative transport routes from the republics avoiding Russian territory. This was completed with due reference to the requirements of the Basel Convention;
- Assess access (by road, train or water) to treatment options and economics of transport of waste across the region to treatment facilities/alternative storage facilities; and,
- Review existing POPs data (OPs and PCBs) as far as available, and make efforts to collect, if possible, total hazardous waste stream data as set out in national profiles such as the UNITAR chemicals profile. This was collated for the country in order to assess the potential need for future investment per country/region. Provide estimates of the scale of investments (in terms of tonnes of POPs for disposal) and a rough estimation of their national distribution, tonnes of other OPs, distribution and quantities of contaminated land and contaminated containers;
- Assess status of recycling options for empty containers or already planned or ongoing programs and initiatives;
- Prepare country summary sheets on findings and identify the gaps in information;
- Compile report of study findings, including recommendations for filling the information gaps.

Expected Outputs based on the Terms of Reference:

- i. Summary report of existing policy framework for the elimination and management of POPs and OPs (12);
- ii. Analysis of barriers (technical, legal, economic) to the development of national and regional waste management capacity;
- iii. Report on opportunities for introduction of new technologies (thermal and non-thermal) e.g specific stockpiles (DDT and HCH waste);
- iv. Summary report of existing and potential treatment facilities, pilot plant facilities and empty container recycling facilities/initiatives (12 countries);
- v. Report on POPs waste in relation to total hazardous waste market and approaches for Investment plan for POPs destruction for the region;
- vi. Presentation of the draft report to the SC meeting in February 2015, finalization of the report incorporating received comments.



Part I of the study on the assessment of the legal framework for pesticides waste management is structured into five main sections:

I. General background information (Participation in international treaties)

The introduction includes general information about international cooperation and the state's participation in international treaties in the waste management field. The purpose of this section is to identify and clarify the state's position in the field of waste management at an international level.

II. Regulatory framework on waste management

The first chapter is about the political and legal framework that determines the policies or strategies at the national/federal level aimed at the prevention of waste generation and minimization of risks associated with wastes. Also this section provides a general overview of all national laws and regulations that govern hazardous waste management. The second chapter on specific laws and regulations that govern waste management is focused on the determination of all laws regarding waste management across different sectors such as: import/export, landfill of waste, incineration, shipment of waste and general waste management.

The third chapter on "Institution(s) involved in waste management (focus on pesticides)" studies the relevant institutions that are involved in waste management, and their obligations and responsibilities, in order to identify the competent organizations that are responsible for waste management planning.

III. Analysis of existing national waste management legislation

This section is dedicated to an analysis of existing national waste management legislation that reflects the legal framework regarding the different activities of waste management such as:

- Register of pesticides waste and general classification of waste
- Licensing
- Trans-boundary movement, import/export rules
- Economic initiatives regarding transport
- Labelling requirements
- Packaging and containers
- Emergency procedures
- Disposal obligations
- Incineration
- Recording, monitoring, and reporting
- Offences and penalties
- Official controls and inspection
- Research and development

IV. Information supplementing legal analyses – from other experts includes three main topics:

- Pesticides manufacturing industry
- Management of OP Stocks – legal provisions regarding the conditions/methods for inventory/storage/disposal activities related to obsolete stocks.
- Methods used for treatment of pesticides wastes



V. Disposal, storage recycling and recovering facilities – practical information from other experts is composed of four topics:

- Disposal facilities
- Storage facilities
- Recycling facilities
- Recovery facilities

This section aims to identify the legal norms that apply to any disposal/storage/recycling/recovery facilities of pesticides waste.

Part II of the study, the national technical assessment (waste management report)

We realized that in order to fulfil the specific conditions on capacity building and benchmarking in each country, as specified in the terms of reference, an adequate analysis of the whole cycle on how to deal with OPs was required. This applies from the very beginning of the process, including who is responsible and who is involved in every step from finding the OPs to the final step of complete elimination. Having carefully worked this out, it was then necessary to design a clear and standardized structure that all national waste management consultants could simply follow in order to assess each step. It was also important to allow comparison between the assessments of each country and therefore it was decided to develop a standardized template for each report using a tabular format. For clarity and brevity the entries have been made as concise as possible.

The report has been built up in four main sections containing a large number of individual items that have been assessed, these being:

1. Benchmarking of current POPs management against international best practice

This section includes detailed information on each step of all actions necessary for elimination of OPs and POPs pesticides:

1. **Institutional arrangements** that include the responsibilities of the concerned organisations in the country.
2. **Inventory** with all national/regional inventory updates, data sources and existing inventories, first National

Implementation Plan (NIP), recent NIP update (specifically on new POPs), UNITAR Chemicals Profile, if existing, National Pesticides and/or POPs Inventory, FAO PSMS Inventory and other information.

3. **Environmental Assessment** consistent with national requirements, and also with International experience often implemented by the UN and other agencies. This includes the capacity of the government and private sector to develop such an Environmental Assessment, as well as the FAO stages in Environmental Assessment (EA) and Environmental Management Plans (EMP) experiences from the FAO Toolkit EMTK v 3.
4. **Inventory and Environmental Assessment Management** including vital questions on the inventory and the assessment, and if the organisational capacity is in place to complete the task. For example if the relevant organisation is in place and also operational, and if so whether all managers and coordinators are in place and operational, as well as if all field teams are established and operational. Also if all Inventory data management people are in place and operational, whether the National/Regional Inventory is being updated or not, a National Pesticides and/or POPs Inventory has been established, and if a contaminated sites register exists or not.
5. **Safeguarding:** defining what has been implemented at national and international level such as under the FAO projects.
6. **Storage and transport** includes all items on packaging, containerization, storage and transportation with assessment of transport regulations, driver regulations, existence of storage regulations and available storage capacity, and Incident and accident reporting.
7. **Disposal**, assessing the national, international and FAO experience to date, including reporting on the technologies that have been selected, the process on transboundary transport under the Basel Convention and the national transport within the country, disposal capacities in the country, quality and standards applied (national/international), and current ownership of facilities.
8. **Containers** assessing the national and international experience, the FAO supported plans, amounts and type of empty containers and/or packaging materials, and the use of collection centres for empty containers.

2. General overview of POPs and other hazardous waste data

This section has been set up around the following six categories:

- A. Agricultural chemical waste that includes OP waste, POPs pesticides waste and new pesticides waste such as counterfeit pesticides, waste empty containers, and contaminated sites. These contaminated sites consist of burial sites or polygons (landfills) which often contain huge volumes of waste, storage sites, and sites which are still in use;
- B. Industrial chemicals,
- C. By-products,
- D. Petroleum wastes,
- E. Inorganic wastes,
- F. Health care high risk waste.

This effectively means the majority of hazardous waste has been listed. It has also to be mentioned that many of the required data are either preliminary or missing as many countries are in a first stage of such an assessment. Often quantities are listed but not verified in the field. The data also change rapidly as new inventory and assessment activities such as the current NIP updates are planned, so the data can be seen as a “snapshots” of the situation and are likely to be updated again in the near future.

3. Existing and planned treatment options for POPs pesticides, OPs and related hazardous wastes, and contaminated land

This section assesses existing and potential destruction plants, planned facilities and planned and/or implemented pilot plants, as well as existing and/or planned empty container (plastic and/or steel) recycling facilities or initiatives in the country. Data that need to be entered are: type of plant or technology, address/location, contact person (name/contact details) and a brief summary of the technical data, with treatment capacity, types hazardous waste permitted for treatment, permit information, and date of permit. However, it should be noted that there are only a very few plants available in most of the countries.

4. Transportation logistics

This section includes five main issues:

- 1. The assessment of various transport alternatives from main stockpile locations to the existing and or planned treatment facilities including cost estimates;
- 2. Assessment of possible storage networks: waste transfer stations e.g. at main railway stations or at existing landfills (polygons) or waste handling stations;
- 3. Assessment of transport capacity;
- 4. Reference to the requirements of the Basel Convention and previous experience of international export Implications of custom facilities; and
- 5. A brief description of the cases that should be reported.

Due to its clearly defined structure the report is very easy to update periodically, for the use of the national authorities and donors that are interested to support further actions on the elimination of OPs and POPs in the future.

The main report is available in both English and Russian, and all country reports will be accessible in the library of IHPA at <http://www.ihpa.info/resources/library/>

John Vijgen
Director
International HCH & Pesticides Association



Summary

for Russian Federation

It should be noted that the conclusions and recommendations in this report have been made on the basis of the information available in 2014. Additionally, this legal and technical assessment of the management of OPs report was followed by a second report: “Road Map for the Development of Hazardous Waste Management in the EECCA Countries”. During the work on the last report the country’s conclusions and recommendations have been intensively discussed with the national authorities and national consultant, leading to final summaries of legal and waste management issues, which are then specifically addressed for each country in the Road Map report.



Part I. The assessment of the legal framework for pesticides waste management in the Russian Federation

Major Findings

The Russian Federation accessed to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, to the Basel Convention on the Trans-boundary Movement of Hazardous Wastes and Their Disposal and also signed the Stockholm Convention on Persistent Organic Pollutants. Russia did not sign the Basel Protocol on Liability and Compensation for Damage Resulting from Trans-boundary Movements of Hazardous Wastes and their Disposal, adopted on 10 December 1999.

There are over 400 different legal acts regulating and managing hazardous waste in the Russian Federation.

According to the Federal Law “On Production and Consumption Waste” art. 1, hazardous waste is defined as waste containing chemicals with hazardous properties (toxic, explosive, inflammable, highly reactive) or containing infectious agents, or which may be of immediate or potential danger for human health and / or the environment, as such or when brought in contact with other substances.

So, the definition of Hazardous Waste, provided by the Federal Law “On Production and Consumption Waste” of 24/06/1998, No 89-FL (Article 1), is more general and not so precise in comparison with e.g. the definition of Hazardous Waste provided by Directive 2008/98/EC of the EU (Article 3), since in the Directive a reference is made to a detailed Annex III with 16 properties that make waste hazardous.

It is important to note that there is no definition of the

pesticides waste in the Federal Law “On Production and Consumption Waste” of 24/06/1998, No 89-FL. However, Paragraph 3 of the Article 1 of the Federal Law No.109-FZ of 1997 “On safe handling of pesticides and agricultural chemicals” provides definition of Agricultural Chemicals and Pesticides, as amended by the Law of 10 January 2003

The legislation does not provide any specific procedures to indicate when pesticides would become waste (particularly, hazardous waste) – it only mentions that “disposal, recycling and destruction of pesticides and agrochemicals, unfit for further use for other purposes (hereinafter - unsuitable) also includes agrochemicals that are prohibited for use in connection with the identified adverse effects on human health, animals and / or plants whether or not with altered physico-chemical properties and whether or not stored in a mixture with other materials and/or substances”.

There is no detailed description of distribution and disposal of the waste, including waste composition that would help determine the percentage of waste suitable for incineration in the Russian Federation (at least on the bases of the information available for legal analyses). No specific legal act can be found in relation with waste incineration.

The Federal Law “On industrial and consumer waste” does not contain specific references or Articles on incineration (it is considered to be one of the methods of disposal of waste, i.e. Article 1 - disposal of waste - waste treatment,



including incineration and decontamination of waste in specialized units, in order to prevent the harmful effects of waste on human health and the environment). In the scientific articles there is a division between separation of wastes for further disposal and direct incineration (which is considered to be more economically attractive). However, there are various processes of thermal treatment – high-temperature modification, hydrolyze, etc. It is clear that incineration is allowed and there are facilities for doing that in Russia. However, as in the legal acts the categories of waste suitable for incineration are not clearly defined, it would depend on the passport issued for the waste (and classification of hazardous nature for each activity in relation to further treatment a license should be granted).

In accordance with Article 17 “Trans-boundary movement of wastes” of the Federal Law “On Production and Consumption Waste”, importation of waste (including pesticides waste) into the territory of the Russian Federation for the purpose of burial and disposal (incineration) is prohibited. The export of such waste from the Russian Federation is allowed only under license of the Ministry of Industry and Trade of the Russian Federation, issued under the authority of the Federal Service for Supervision of Natural Resources (its territorial bodies) on the trans-boundary movement of wastes.

The principle “Polluter Pays” is more a theoretical than practical one, because in practice, determining the original

owner of the waste – the person who illegally dumped the waste on the empty land plot – is rather difficult and often impossible. Under the Law on Waste such waste is called “abandoned” waste.

The complexity is based on two elements. In the past the State was owner of all the land in Russia, at the moment this still applies for a substantial part of the land, but there is an increasing percentage of private ownership. The other element is the fact that in many regions adequate disposal and destruction capacities (including controlled landfills) are lacking. Due to these two elements there are many plots of land with “abandoned waste”. This situation bears the risks that nowadays waste producers argue that it is common practice to leave waste abandoned on plots of land, thus creating new “abandoned waste sites”.

The state has released itself from liability for abandoned waste by setting forth in the Law that the entity in possession (whether in ownership or lease) of the plot on which the abandoned waste is found becomes owner through the use of such waste or by performing some other action that bears witness to its having been taken into possession in accordance with then Russian civil law. Thus, the person or entity that has begun to use abandoned waste becomes the owner of it. This means in practice that a contractor that begins preparatory work usually bears responsibility for abandoned waste and in consequence payment of the ecological fees.



Institutions involved in waste management in the Russian Federation (including pesticides waste):

1. The Ministry of Environment and Natural Resources (in particular, the Federal Service for Supervision of Natural Resources);
2. The Ministry of Agriculture (in particular, ROSSELHOZNADZOR);
3. The Ministry of Health of the Russian Federation (ROSPOTREBNADZOR);
4. The Ministry of the Russian Federation for Civil Defense, Emergencies and Elimination of Consequences of Natural Disasters;
5. The Ministry of Transport of the Russian Federation;
6. The Ministry of Railways of the Russian Federation;
7. The Federal Customs Service and the Federal Service for Ecological, Technological and Nuclear Supervision.

At the local level regional offices of the above mentioned Ministries (in particular, Ministry of Environment and Natural Resources) are responsible for waste management.

Part II. Technical assessment of the management of OPs and POPs waste and soil contamination in the Russian Federation

• Identify the gaps in information (for all 5 sections):

- Lack of available information in open sources
- NIP not yet completed
- Different oblasts are developing regional strategies without reporting to MNRE

• Analysis of barriers (technical, economic) to the development of national and regional waste management capacity:

- Political risks and possible ban on technology transfer due to sanctions
- Environmental Standards higher than in other countries
- Impossibility to make inventories in military garrisons

• Analysis of opportunities (technical, economic) to the development of national and regional waste management capacity:

- Possible involvement of big business (such as Renova, Russian Railways and oil exploration companies)
- Huge internal financial resources available

• Other findings that need to be addressed:

None





Food and Agriculture Organisation
of the United Nations

