

**ENVIROMENTAL MANAGEMENT FRAMEWORK**

**FOR**

**TAJIKISTAN HEALTH SERVICES IMPROVEMENT PROJECT**

**GOVERNMENT OF TAJIKISTAN**

**May 2013 (Amended in March 2015)**

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## **List of Abbreviations**

<b>ACM</b>	Asbestos Containing Materials
<b>AFR</b>	Africa Region
<b>BBP</b>	Basic Benefits Package
<b>CBHP</b>	Community and Basic Health Project
<b>CG</b>	Coordination Group
<b>CO</b>	Community Organization
<b>ECGoT</b>	Environment Committee under the Government of Tajikistan
<b>EMF</b>	Environmental Management Framework
<b>EMP</b>	Environmental Management Plan
<b>HH</b>	Health Houses
<b>HSIP</b>	Health Services Improvement Project
<b>MCH</b>	Maternal and Child Health
<b>MoH</b>	Ministry of Health
<b>NGO</b>	Non-governmental organization
<b>PBF</b>	Performance Based Financing
<b>PHC</b>	Primary Health Care
<b>PVC</b>	Polyvinyl chloride
<b>RHC</b>	Rural Health Center
<b>SAR</b>	South Asia Region
<b>SES</b>	Sanitary and Epidemiological Service
<b>UNICEF</b>	UN Children's Fund
<b>WHO</b>	World Health Organization
<b>WSP</b>	Water and Sanitation Program

## BACKGROUND

### I. Sector Background

Health is a priority sector in the framework of the National Development Strategy of the Republic of Tajikistan. Improvement of country health sector key indicators is a key objective of the Health Reform in Tajikistan and Millennium Development Goals achievement. A number of health financing and organizational reforms have been piloted over the last decade with the objective of improving effectiveness and financial sustainability of the health sector by strengthening the Primary Health Care (PHC). PHC is not only the stepping stone of the health care system but also the first point of contact particularly for the rural and poor population. Key reforms that have or are being piloted in selected rayons include the introduction of a basic benefits package (BBP)-wherein a limited number of PHC services are free and some hospital and diagnostic services have formal co-payments with some exemptions; introduction of partial per-capita financing for PHC services; building managerial and financial capacity at PHC facilities; introduction of the Family Medicine (FM) model of practice; clinical capacity building of PHC physicians and nurses in FM; and rehabilitation and provision of medical equipments to PHC facilities.

Notwithstanding the recent reforms and investments have led to some improvements in the delivery of PHC services, there are still several issues to be addressed. The large majority of public funds are allocated to PHC facilities via line-items budgets that crystallize the status quo and do not provide incentives to quality. The investments – training, medical equipment, rehabilitation and reconstruction of facilities – have improved only a part of the PHC delivery network. The result is that overall, quality of PHC services remains low.

Ministry of Health (MoH) of Tajikistan has demonstrated a growing conformity to modern requirements and improvement of the ability to manage the transition from humanitarian assistance to sustainable development. It has become increasingly open about unresolved challenges in the health sector, verifying external reports on the health status in Tajikistan and match experts' assessments. This provides the potential for a substantive relationship between health and financial reforms, such as reforms to improve primary health care (PHC) to the population.

At the same time, critical gaps persist in the quality of care. Despite the many efforts to improve the financing, capacity and physical infrastructure at the PHC level, in the absence of incentives to providers these have not translated into better service quality. Maternal and Child Health (MCH) outcomes in Tajikistan are worse than the average in Central Asia and Caucasus region. Rates of malnutrition and micronutrient deficiencies are high, with 21 percent and 53 percent of children aged 6 to 59 months respectively, stunted<sup>1</sup> and iodine deficient<sup>2</sup>. Preventable illnesses contribute to a considerable proportion of all child deaths in Tajikistan. Acute infections are the leading cause of deaths in the post-neonatal period. Acute respiratory illness, pneumonia, and acute diarrhea still account for more than 50 percent of reported child deaths within the first year of life, a pattern that has remained persistent over the last eight years until the present<sup>3</sup>. Physical distance to health facilities is also an important barrier for women to access antenatal and other health services, especially for those in rural areas.

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<sup>1</sup> Tajikistan Demographic Health Survey (2012)

<sup>2</sup> 2009 Tajikistan National Micronutrient Survey, UNICEF (2010).

<sup>3</sup> The World Bank (2011). Quality of Child Health Services in Tajikistan. The World Bank, Report No. 62870-TJ.

Since 2000, the Bank has been supporting the Government of Tajikistan in strengthening the country's health sector initially through the first health sector operation- the Primary Health Care Project (closed in 2005) and currently through the Community and Basic Health Project (CBHP), approved in December 2005 and financed by an IDA grant of \$10 million. Performance of the CBHP has been consistently satisfactory. As a result, the Government and Bank agreed on scaling up the project through two rounds of Additional Financings, approved in May 2009 (US\$ 5 million) and July 2010 (US\$ 3 million), respectively.

The projects have focused mainly on: (i) the introduction and implementation of key health sector policy reforms- including per capita financing for PHC, the BBP, health human resource strategy and health sector master plan development; (ii) improving policy development and management capacity at the central, regional health and PHC facility levels; (iii) strengthening of PHC capacity-re-training Family Medicine practitioners and rehabilitation of PHC physical infrastructure. Over the last several years, the implementation of key health sector policy actions including increase in PHC workers salaries in 2006, maintenance of Government spending on health during the economic crisis in 2009 and Government adoption of the Health Sector Masterplan in 2010, have been supported through the Bank's development policy program.

## **II. Project Background**

The current project aims at contributing to the improvement of coverage and quality of basic primary health care (PHC) services in rural health facilities. It will support a pilot of performance based financing (PBF) at the PHC level in ten rayons (districts) under which Rural Health Centers (RHCs) and their subsidiary Health Houses (HHs) will be eligible to receive a performance-linked payment based on verified quantity and quality of health services delivered. The project aims to improve the capacity of PHC providers to provide quality services through capacity building of PHC doctors and nurses and will also finance procurement of basic medical equipment and supplies to PHC facilities and rehabilitation and reconstruction of selected PHC facilities to ensure a basic level of functioning. The project aims to increase the access level of treatment and patient satisfaction with medical care in the pilot districts, covered by the project, strengthening the capacity and effectiveness at the national level and the role of the regions and districts in the management of the Basic Benefit Package and per capita financing for primary health care.

The main beneficiaries would be the population of Tajikistan who would benefit from improved PHC services. Women and children in particular would benefit from better quality of maternal and child health services offered by the PHC facilities. Health care providers would also benefit from the project through performance-based incentives and capacity building. The project would be expected to promote positive health outcomes for both women and men, as well as for infants, children, working age adults and senior citizens

## **III. Legal Framework**

Tajikistan has a Law 'On Environment Expertise' which was adopted in 2003 and amended on 26 December 2005, # 123, and # 328 from 30 July 2007 which states that 'feasibility studies and construction projects, reconstruction, expansion, modernization, conservation and liquidation of facilities, enterprises, and other projects, regardless of their cost estimate, ownership subordination and forms, the implementation of which may have an impact on the environment are subject to the mandatory environmental expertise. In each particular case, the Party implementing the certain project should apply to local authorities. Item 13 'Local Executive Authorities Powers in the Field of Environmental Expertise' says that 'Local executive authorities have the right to:

- Receive the necessary information from the relevant authorities on the facilities of environmental expertise, implementation of which may have an impact on the environment, state and public environmental expertise results;
- Submit in writing to the public authorities in the field of environmental expertise their justified proposals on environmental aspects of the planned economic and other activities.’

Tajikistan also has “Construction Standards and Regulations” that govern the construction of all buildings, which include standards for all materials including plumbing, piping, fittings, fixtures etc. The “State Sanitary Rules and Regulations” govern the quality of all potable water supply systems and all state sanitary control services. The Commission consisting of members of 10 or 11 public agencies is responsible for inspection of all buildings and water/sanitary installations with the ultimate responsibility bore by the Rayon Chief Architect. Water and sanitary piping is installed by the construction contractor who should be licensed by the Construction and Architectural Agency.

The State Sanitary Hygienic Service under the MOH has to provide Sanitary Hygienic Service project clearance. They also undertake periodic inspections during construction, in accordance with the following legal and regulatory documents: Drawing and Issuing of Sanitary Hygienic Findings, No. 139 (dated March 31, 2004); Provision on State Sanitary Hygienic Services of Republic of Tajikistan, Regulation of the Government of Republic of Tajikistan, Provision on Agencies Involved in State Construction Inspection, No. 553 (dated December 25, 1997). There are applicable legislations on Fire Safety which come under the responsibility of the Fire Safety Agency, which undertake periodic inspections, as does the Barqi Tajik with regard to energy services.

The Environment Committee under the Government of the Republic of Tajikistan (ECGoT) carries out common public environmental policy in the field of environmental protection, supervision of the rational natural resources use, comprehensive forecasting and environmental studies, arranges and carries out environmental monitoring etc. It is entitled to inspect commercial entity activities and carry out public supervision of environment impact assessments and restoration of natural resources and provide analytic and laboratory diagnosis of water, soil, air.

The basic environmental regulations for construction management, basic utilities services and EIAs are in place, although capacity for enforcement and monitoring is weak. There are no specific laws or guidelines governing safe practices and management of healthcare waste and mercury. Construction guidelines are weak with regard to asbestos waste management, which will continue to be an issue of concern given that the country does not have the required infrastructure for transportation and safe and secure disposal. The project will support strengthening the environmental due diligence related to construction and waste management in the healthcare sector through initiation of policy dialogues, development of guidelines, capacity building and training and piloting good practices in the identified project facilities.

<p><b>KEY ENVIRONMENTAL IMPACTS OF HEALTHCARE SERVICES AND PROJECT ACTIVITIES</b></p>
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**IV. Environmental Issues of the Project**

The project entails civil works related to improving the physical infrastructure of Rural Health Centers, to upgrade them to basic levels of functionality to be able to provide satisfactory health services in accordance with the Project Development Objective. The RHCs provide basic health services including immunization, provision of family planning services, nutrition and growth

monitoring, anti- and post-natal care, basic first level medical treatment for women, children and adults.

While there is no foreseen expansion of the constructed area or substantial increase of capacity, the current situation of the facilities are quite degraded and will need significant rehabilitation and civil works to improve availability of basic utilities and services including water, sanitation and electricity. While there is no foreseen substantial increase of quantity of medical waste, or change in waste types or composition, site specific assessments will be undertaken to determine characteristics and suitability of existing waste disposal facilities. Given the above, in accordance with World Bank's Operational Policies (OP4.01) on Environmental Assessment, the project has been classified as Category B.

#### **IV.i) Operational Phase**

- *Water and sewerage*

An assessment of a sample of rural health centers water supply suggests that all RHCs in Khatlon and Sughd regions have no access to drinking water and adequate treatment of drinking water and potentially infectious / hazardous sewage is not carried out. In summer-time, the RHC staff boils water in buckets using water heaters, and in winter - in kettles and pans on potbelly stoves in minimum water quantities. Poor quality water carried in buckets by the RHC workers from residential areas and office buildings can result in illnesses linked to pathogenic bacteria, viruses and parasites. There is a close direct dependence correlation relationship between morbidity rate and poor water quality (40-50%).

Sewage system in RHC area is by non-concrete pit privy located in the RHC backyards (some RHC having no such a lavatory on their territory, use the services of the neighboring buildings, schools and institutions). Once filled, lavatories are covered up and new pits are dug. These lavatory construction methods typical for almost all rural area in the country have the potential of gradual soil and groundwater contamination. The waste water from washing, etc. is discharged to open trench drains at the side of the roads.

- *Power supply*

The assessed RHCs, as entire rural population of the country, have restricted power access, 5-6 months in a year. During the Soviet period, RHC heating and hot water supply system was operational day and night with boiler houses. Mostly the only one room is heated in a premise where both RHC staff and patients coming for the health care find place. Premise heating, water boiling, medical supplies boiling is carried out by installing and operating potbelly stoves. This stove has obtained the peculiar name for its "voracity" and is non-efficient. Due to its thin walls, its heat retention is poor and takes a lot of fuel and is expensive to operate.

In almost all cases, the fuel is stored inside RHC buildings in empty rooms, corridors, and sometimes in abandoned warehouses owned by RHC. The quality of the burned coal is not always high, usually coal fine blend, sometimes as a charcoal powder with stones. Coal burning results in charcoal-black inside buildings, contaminates objects, results in indoor air emissions of carbon monoxide, and is hurtful to the health both the health staff and patients coming for the health care. Due to the shortage of coal provided to RHC for the pot-belly stoves, the additional source of fuel is a fire wood. To this end, trees and bushes growing on the RHC lands, household plots, and forests are cut down spending budget funds for the firewood purchase. Each winter, it is estimated that RHCs burn from 2 - 10 cubic meters of wood.

- *Health Care Waste Management*

There are no centralized healthcare waste management facilities or sanitary/secured landfills in Tajikistan. Medical waste generated from RHCs typically includes sharps (discarded needles/syringes, scalpel blades, empty vials), anatomical and infectious solid waste, including syringes, needles, cotton wool, bandages, etc. These are collected in first aid boxes and burned in pits located at RHC territory once or twice per month. These pits are 1- 3 m in depth pits and are located within premises of the RCH areas. Once the pit is filled, another is dug nearby. As many RHCs have no secure fencing, these pits are not secure from neighborhood contact. Almost all RHCs are located close to (or even on the same area) the resident households, schools, public and private edifices (pharmacies, chayhona (tea-house), café, stores). The smoke generated by burned waste can cause health impacts and are an annoyance for the neighboring communities.

#### **IV.ii) Construction and Renovation Phase**

- *Dust, Noise and Traffic Disturbance*

Most RHC buildings are located in close proximity to the private premises of the local population, outlets and schools. Access of local people to public facilities, stores, pharmacy may be temporary reduced by the physical works local shopkeepers may experience reduced income as a result. Traffic disturbance, noise and dust will have an impact on the neighborhood and may have temporary health impacts, if not well managed. Runoff from uncured concrete or concrete wash water may be high in pH which may have temporary impacts to the neighborhood ecosystems. Renovation and construction of rural facilities and village clinics, may lead to the tree felling or temporary impact on vegetation depending on local conditions.

- *Asbestos Handling*

The use of asbestos as a building material, primarily in roofing, is common for existing (asbestos slate) health facilities in the rural area. The basic asbestos industry product is slate. Most rural houses roofs are covered by old slate, fences or auxiliary buildings. The handling and disposal of asbestos during the renovation of old asbestos-bearing roofing could expose workers, facility staff and rural population to potential health hazards. Asbestos is a recognized global carcinogen. According to WHO, asbestos exposure is occurred mainly by inhalation asbestos fiber contained in the foul air at the construction site as well in the atmosphere not far from the point sources or in the air of the domestic and non-residential premises constructed using asbestos containing materials. Penetrating into the lungs, asbestos dust causes asbestosis, lung cancer and mesothelioma. If houses are 15 to 50 years old, the probability of the asbestos use is 100%.

- *Archaeological and cultural resources*

In the sample assessment of health facilities, no cultural property items were found, including ancient artifacts, valuable cultural, religious and archaeological facilities. However, the site must be screened for any such assets prior to commencement of construction or restoration.

- *Waste handling*

Construction activities will generate solid and liquid wastes including drywall, machine oil, paints and solvents. Minor spills of fuel and other materials are likely to occur during the course of construction. Improper handling of on-site wastes and response to spills could result in adverse effects on the local environment including groundwater, surface waters, terrestrial ecosystems, local residents and construction workers. Construction activities will require the use of heavy equipment which contains fuels, lubricating oils and hydraulic fluids. Migration of these compounds either from spills during construction or later through seepage from saturated soils can negatively impact both the terrestrial and aquatic environments.



## ENVIRONMENTAL MANAGEMENT FRAMEWORK

The overall purpose of the EMF is to serve as a decision-making tool and design procedures and responsibilities for environmental management to be applied by MOH and targeted RHCs during project implementation. It is intended to serve as a comprehensive and systematic guide towards making project activity environmentally sustainable and allow compliance with the national environmental laws and the World Bank's Environment Safeguard Policy O.P 4.01 (Environmental Assessment)

The EMF details the following:

- (i) key environmental impacts of healthcare services and project activities; (prepared on the basis of field visits and visual overview of selected RHCs in Khatlon and Sughd Oblasts)
- (ii) mitigation measures to be addressed in the design and planning of reconstruction and upgrading of RHCs.
- (iii) mitigation measures to be undertaken during operations of RHCs
- (iv) monitoring and supervision systems

Prior to start of civil works at each individual RHC, the MOH must ensure alternative location where the community and patients can continue to access the healthcare services.

In accordance with the SES requirements, each sub-project must complete a site-specific EMP which must be approved prior to commencement of works. The design and construction related mitigation measures must be included in the bid and contract documents of the construction and works contractors. In addition to national clearances and inspections, the Bank project will also undertake supervision and monitoring of works in some sample facilities.

## MITIGATION MEASURES TO ADDRESS ENVIRONMENTAL IMPACTS OF HEALTHCARE SERVICES AND PROJECT ACTIVITIES

### **V. Management of issues related to Design phase**

#### *Building-related Specifications*

- Building designs must be in compliance with National Technical Standards for energy efficiency, water and sewerage and healthcare waste management
- Facility design features must ensure adequate space and equipment for health service delivery, as per the forecasted requirement.
- As far as possible, local material must be used to reduce the energy consumption in transport
- Asbestos must not be used
- Low-cost lead-based paints, anti-termite chemicals and other pest management using chemical pesticides should be avoided and building materials should be fire resistant.
- Proper ventilation and natural lighting should be ensured in the building design, in compliance with national building norms.
- The flooring design should be such that it does not lead to falls, slippage and retention of infectious material.
- The building design must include environmentally sound ventilation and insulation - preferably using local materials and local techniques - to reduce heat loss.
- Good construction practices should be planned. This should include the usage of environment friendly construction products such as fly ash, if possible.
- Emergency access and easy access for patients and the physically challenged should be provided.

- In case archaeological or religious site exists in the vicinity, the site-specific EMP must include all due diligence measures to avoid any harm or impact on those structures.
- The rehabilitation/renovation of the RHC should not cause any additional harm the existing habitats or biodiversity of the neighboring area. No tree felling should be undertaken for renovation without the consent of the requisite national. In case of big trees within the premises they should be protected and fenced off.

#### *Water Supply and Quality*

- Assessment will be made of availability of water supply at each facility
- If piped water can be accessed, the MOH should review possibility of linking the RHC to the water source. In case of extending pipeline, environmental due diligence must be conducted with regard to the infrastructure required, materials used, layout of pipes within the facility etc. These must be clearly assessed and recorded in the site-specific EMP.
- If there is no piped water, possibility of having a shallow-well/tube-well within the RHC premises. In case of this option, environmental due diligence will involve assessment of the local environment, depth and quality of groundwater and type of aquifers, availability of materials and equipment required to install the pumps etc. Recommendations for management of water extracted through these pumps which must be documented in a user manual for the RHC staff. These must be clearly assessed and recorded in the site-specific EMP.
- All laid pipes must be preferably copper, cast-iron sewer pipes to avoid Polyvinyl chloride (PVC) venting. Open pipes and insulation should be of non-toxic materials.
- The quality of the water must be assessed for usage (drinking, sanitation etc). Specific plans to address any particular issues of water quality, such as arsenic and fluoride contamination, should be made if required. Instructions must be included with regard to usage of the water, especially how to make it potable/drinkable.
- Adequate provision for storage of sufficient volumes of water should be provided to ensure continuous availability of water within the building
- The drainage pattern of the RHC should be studied to determine whether the site would be subject to flooding and stagnant water. The building designs must include systems for drainage of excess water
- Options for Rainwater harvesting systems should be reviewed and planned accordingly.

#### *Sewerage and Sanitation*

- Assessment will be made of conditions of sewerage facility must be done for the identified RHC.
- Where there is no system in place, options for constructing pit latrines must be assessed. Pit latrines must be installed downhill from water sources/wells and should be at least 2 meters above the water-table and about 6m away from the building. The design of the pit must follow international standards (WHO, WSP etc). A users and management manual must be prepared and disseminated to the users and healthcare staff of the RHC. The assessment must be clearly documented in the site-specific EMP.

#### *Power supply*

- Alternative sources of power for lighting and heating options must be assessed for each site. Alternatives options such as Solar Photovoltaic technology (for lighting and water pumps) and Solar thermal applications for water heating, etc must be assessed. The assessment must include availability, cost of operations, cost and availability of maintenance services. Quick reviews of case studies in other similar countries will provide sound and viable options which can be chosen as suitable to local conditions. The assessment and recommendations must be clearly documented in the site-specific EMP.

### *Waste Management*

- An assessment of volume and type of solid and liquid waste generated will be undertaken for each specific facility prior to drawing of construction designs. This will determine the type of treatment and disposal systems which need to be put in place for each facility. The Bank policy recommends non-burn technologies for small volumes of healthcare waste. Small incinerators are not seen to be a long-term viable option due to the pollution and health issues associated with poorly operated incineration.
- At a minimum, sharps pits/barrels should be constructed within the RHC for disposal of sharps. Assessment will be made of location and height above water table. The design of the sharps pit must prevent it from being used for other categories of waste and must be fenced in. The design must follow international standards (e.g. WHO). The assessment of requirements, design and environmental issues must be clearly documented in the site-specific EMP.
- Depending on the volumes and type of waste generated, additional disposal facilities for solid and liquid will be constructed or installed as required. Quick reviews of case studies in other similar countries will provide sound and viable options which can be chosen as suitable to local conditions
- Waste treatment equipment and consumables (sterilization, autoclaves, microwaves, shredders) as required for each facilities will be defined in the site-specific EMP
- Where possible, the RHC could earmark an area within its premises for the collection and future disposal of organic and biological non-hazardous and potentially hazardous wastes generated

### *Screening for Involuntary Resettlement:*

The project site must be screened for Involuntary Resettlement impacts as covered under World Bank OP 4.12. The screening procedure must satisfy the conditions that the site has no persons living on it, nor does it have any structures or investments made by or used by any private person or the surrounding community, aside from the health facility. The project works will not acquire any additional land. No person will be negatively affected due to any restrictions in access to assets, resources or services. Hence the site must fulfill all conditions such as there will be no Involuntary Resettlement impacts and OP 4.12 is not triggered.

## **VI. Management of issues related to Construction phase**

- Generation of dust is common in a construction site. In order to reduce dust emissions, periodic watering should be done. In addition, temporary fencing should be provided along the boundary so that the emissions do not affect the immediate neighbours.
- Noise pollution due to operation of different types of equipment and machinery during construction activities may disturb the surrounding premises, including houses, schools etc. Construction should be carried out only during the daytime and as per permitted timings. If there is a school in the neighbourhood, proper temporary noise barriers should be erected to reduce construction-related noise impacts.
- Construction workers and personnel must be provided with personnel protective equipment such as helmets, gloves, safety boots etc.
- No children will be employed in construction activities.
- Labour camps on site for temporary construction labor must be in accordance with local laws and requirements.
- All machinery should be checked for leaks or worn hoses, fittings to prevent spills. Procedures should be known with regard to spills of lubricant, fuel and oil within the site.

- Temporary fencing around the project site should be provided to regulate the entry and exit of material, personnel and equipment.

#### *Management of Waste*

- Precautions should be taken to ensure that waste water generated from wash-pits, wheel washing, equipment cleaning, concrete etc is well managed and contained. Neighboring springs or water-bodies must be protected from run-off and /or solid wastes of the construction site. If required, temporary storage and drainage systems can be made.
- There will be no disposal of any material by burning.
- The old building structure (walls, foundations, foundation cement slabs, etc.) should be dismantled / demolished following standard precautions. Construction rubble must not be dumped in existing streams or water-bodies, neighboring lands or by the roadside but should be disposed safely in the allocated landfill. Any reusable/valuable materials (doors, windows, etc.) can be reused within the project.
- Provision must be made for management of solid and liquid waste from the labor camps.
- Open medical waste pits and incineration ash must not be removed by shovels or other equipment and must not be disposed indiscriminately. Workers must use gloves and boots when dealing with the excavated soil, which can only be used as foundation material.
- Workers dealing with asbestos removal must be provided with protective equipment as per OSHA guidelines (glove bags, protective clothing and approved respirators). Wet methods during mixing and handling to minimize dust, prompt disposal of asbestos-contaminated wastes and ventilation spaces must be ensured by the contractor.

#### *Management of Asbestos:*

The site specific EMP must include an Asbestos management plan which clearly identifies the location where the asbestos containing materials (ACM) are present and defines procedures for safe disposal and worker safety. Removal, repair, and disposal of all ACM shall be carried out in a way that minimizes worker and community exposure to asbestos, and require the selected contractor to develop and submit a plan, subject to the engineer's acceptance. Proper disposal of all ACM is important not only to protect the community and environment but also to prevent scavenging and reuse of removed material.

ACM should be transported in leak-tight containers to a secure landfill in a manner that precludes air and water contamination that could result from ruptured containers. However, in case where there is no secured landfill, the preferred alternative solution is secure burial. Precautions must be taken to ensure the material is stored until then in a temporary secure place and not available to be pilfered by (worse yet, sold to) local people seeking building material. The ACM could be buried under the foundations of the new construction but precautions must be taken that it is not broken or crushed. Workers handling ACM must be provided protective gear. While dismantling, handling, burying is being done, ACM must be treated with wetting agent in order to minimize asbestos dust appearance.

The contractor must ensure worker safety measures are in place, in accordance with ILO standards. The Asbestos Management plan should be made available to all persons involved in repair/ removal and disposal of the ACM. The MOH must take extra due diligence measures and increase supervision during the phase of dismantling and removal of asbestos for each pilot facility. These requirements must be detailed in each site-specific EMP.

#### *Disclosure*

Project specific details, timeline and name and contact address of the contractor will be posted on the premises during the construction phase. A contact number for emergencies, feedback and grievances will also be included in the notification.

## VII. Management of issues related to Operations phase

### *Healthcare Waste Management*

Once operational, the RHCs will need to comply with the SES technical Guidelines ‘SanPiN’ No. 2.1.7.020-09 ‘*Instructions for Waste Collection, Storage and Disposal at health facilities*’ for segregation, collection and disposal of medical waste. Sharps, syringes, and needles need to be dropped into sharps boxes/containers immediately after use and/or mutilation.

Once filled the sharps boxes will be discarded into the sharps pits. Very small volumes of infectious medical waste (cotton wool, bandages etc) and mercury containing waste (broken lamps, thermometers, batteries) can be thrown into the sharps pit or a waste pit within the premises of the RHCs. It is recommended that plastic and organic waste not be burned.

### *Occupational Safety practices*

Healthcare staff should be trained in infection control and occupational safety good practices when dealing with sharps and infectious waste. Appropriate sized bins must be placed for easy disposal, to prevent multiple handling. The project should consider providing needle /hub cutters to reduce the volume of sharps waste.

## VIII. Guidelines and Capacity Building

Guidelines defining good practices and guidelines for healthcare waste management must be developed by MOH. These will define the practices related to practices to be followed by all levels of healthcare staff dealing with management and disposal of infectious solid and liquid waste. Training modules will be developed based on these guidelines which will be targeted to all healthcare staff. The training will include both routine procedures as well as emergency procedures in the case of accidents. MoH, with the CG support, will be responsible for developing a training plan and providing training on a regular basis to all staff.

Core staff in MOH will be trained for implementing and monitoring the EMF. In addition to hands-on support by international experts from World Bank, there will also be mechanisms for sharing of knowledge and experience from other IDA funded projects in Tajikistan. Options for learning through south-south knowledge exchange with other similar countries will also be explored.

## DISCLOSURE AND CONSULTATION

The MOH disclosed the EMF on their website and at their office in Dushanbe as well as at the Khatlon and Sogd regional health departments. Consultations were held with relevant public sector agencies, Community Organizations, NGOs and medical professionals to get feedback on the draft EMF, before finalizing it prior to project approval and implementation.

Site-specific EMPs would be consulted with relevant stakeholders in the Oblasts to discuss proposed facility design, scheduling of construction hours, habitat/ecosystem management and waste management. These will include neighboring communities, patients, residents, healthcare staff and workers, local businesses and neighboring shops and local authorities. Grievance mechanisms need to be instituted to ensure that communities can provide feedback or voice their concerns, if any.

The community will also be consulted with regard to alternative location for continuation of RHC services during the time of construction and restoration. However, no site that

has persons living on it, or has any structures or investments made by or used by any persons may be selected. In addition, any site which will restrict access to assets, resources or services for any persons will not be eligible. This is because choice of such sites would result in triggering OP 4.12 on Involuntary Resettlement and require mitigation measures. In the rare event that a site causing the above impacts is the only option, the project unit must inform the World Bank and carry out all requirements to fulfill the requirements of OP 4.12. The community will be informed of these provisions regarding OP 4.12

The MOH will develop a consultation plan for stakeholders for the site specific EMP consultations. The plan will include public meetings, awareness campaigns, feedback mechanisms (phone communications), joint development of the action plans, committee advisory committees etc. Such events as an open door day or public meeting could also be held in mahallas.

## **ORGANIZATIONAL AND IMPLEMENTATION ARRANGEMENTS**

The Project would be implemented by the Ministry of Health, with day-to-day operations being managed by Coordination Group. The nature of the project requires a partnership and coordination mechanisms between state and local authorities. RHC and HH buildings are under the MOH on behalf of the District Health Departments and public authorities at the local level (district Hukumats) are owners of the lands on which RHCs and HHs are placed.

The State Sanitary & Epidemiological Control Services of MOH which governs the water quality and sewage disposal for Tajikistan will also be involved in reconstruction of facilities in accordance with state legislation. The Supervision and Inspection Departments, Oblast Environment Departments and Rayon Environmental Services of the Environment Committee will be involved in the following ways: (i) develop regulatory documents for sanitarian and environmental conditions improvement, in collaboration with Heads of the State Sanitary & Epidemiological Control Services of MoH and district Hukumats and (ii) approve and supervise construction under the project, as per national regulations (organizational chart shown in Annex I).

### **IX. Monitoring and Supervision**

The Department of Construction at MOH will have primary responsibility for ensuring quality and implementation of the site-specific EMPs. An Environment consultant will be hired under the project and will support the Department on developing the site specific EMPs and monitoring overall EMP implementation (including construction and training activities) and also carry out regular site visits to supervise implementation of EMPs at each site.

In each oblast the MOH will hire a construction engineer, who will be in charge of inspection of civil works. The verification report submitted by these rayon level engineers would be required to release payment to contractors. Additionally, at the central level, the MOH will hire a Construction Coordinator who will be responsible for overall coordination and reporting to MOH and the Bank. The Construction Coordinator and the Environmental consultant will coordinate their respective responsibilities for development and monitoring of overall EMP implementation. They will be responsible for quality assurance of the site environmental control measures and their effectiveness and will have a right to suspend or amend construction works if there is an unforeseen risk or potential harm to the environment or if the EMP is not been implemented satisfactorily. The detailed Terms of Reference for the Construction Coordinator and the Environmental consultant will be cleared by the Bank prior to project implementation and start of hiring process.

The EMP will be prepared by the Construction Coordinator (to be hired for overseeing the construction of RHCs) with the help of the Environmental consultant if needed. The requirements of the site-specific EMP will be an integral part of their construction contracts. The EMPs must be cleared by the Bank, along with procurement contracts and design of civil works, before the start of construction.

The contractor will not commence with dismantling and construction until the EMPs have been approved and cleared by the Supervision and Inspection Departments, Oblast Environment Departments and Rayon Environmental Services of the Environment Committee and also by the State Sanitary & Epidemiological Control Services of MoH. The approved EMPs will be sent to the MOH project team (Environmental Consultant and Construction Engineer) for clearance before sending to Bank for final clearance.

There will also be a qualified Civil Engineer hired as a consultant by the MOH to design and oversee the rehabilitation/construction phase of each facility, in collaboration with the Construction Coordinator and the MOH construction department.

Responsibility for the implementation of other aspects of the EMP will be the responsibility of the MOH. It will develop and approve healthcare waste management guidelines, hygiene standards, occupational and worker safety norms and requirements for protective equipment for healthcare workers. The training and capacity building of all healthcare workers will also be managed and supervision and monitoring of the regulatory sanitary-epidemiological safety related to healthcare service delivery. Each facility Head will designate a person responsible for the infection control, good practices in occupational safety and healthcare waste management. Responsibilities for staff training and overall implementation at each facility will be borne by the Chief Nurse.

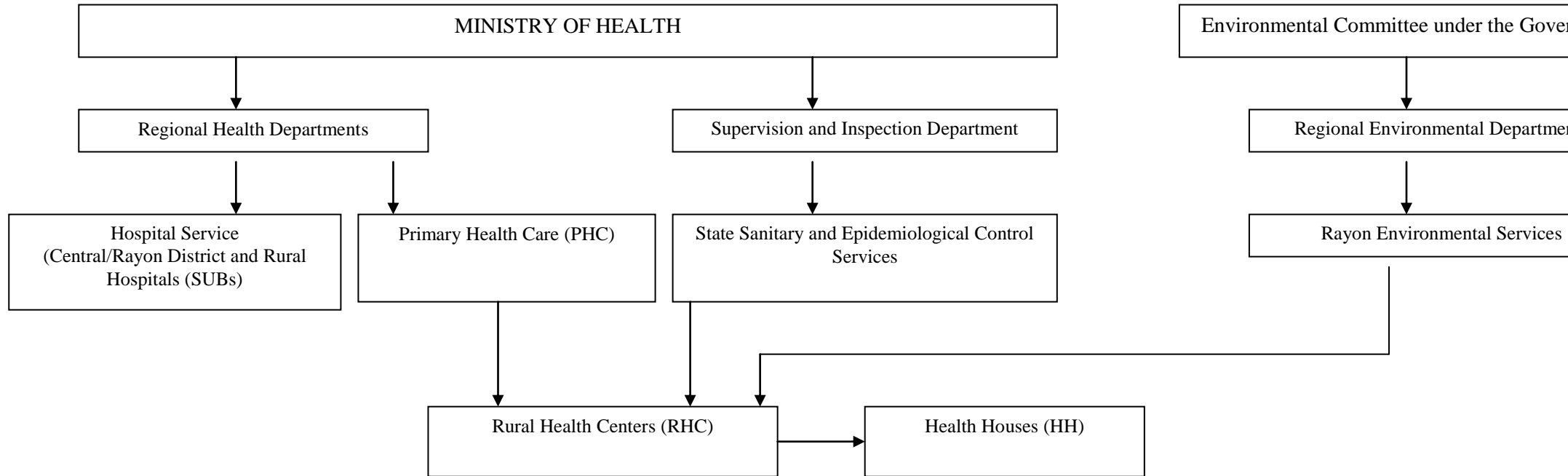
## **X. Budget**

The Government of Tajikistan will allocate approximately \$100,000 from the civil works and project management components, for implementation of the EMP and put in institutional arrangements for monitoring and supervision that will include local consultants on construction/engineering and environmental management. An independent third-party assessment will be undertaken prior to project completion. Project funds would also be allocated for this assessment.

## **XI. Timeline for Implementation**

The EMP will be implemented from the time project activities start on ground, i.e. October 2013 and will continue until around January 2020.

# ANNEX I: ORGANISATION CHART





## **ANNEX II: MINUTES OF CONSULTATIONS ON THE EMF**

### **Consultative Meeting for Discussing Draft Environment Management Framework developed under the preparation of the Tajikistan Health Services Improvement Project funded by the World Bank**

**Venue:** Oblast Health Department in Khatlon Oblast, Kurgantube city

**Date:** April 29, 2013, 14:00 – 15:30

#### **Attendants:**

1. Doliyev S.R. – Head, PHC Division, Health Department of Khatlon Oblast.
2. Boyakov N.S. – Director, Oblast Center for the State Sanitarian and Epidemiological Supervision, Health Department of Khatlon Oblast.
3. Makhmadaliyev K. – Chief, Capital Construction Department, Local authorities of the Khatlon Oblast.
4. Safarov Sh.A. – Head, Division of Local authorities of the Khatlon Oblast.
5. Burhanova M. – Local Consultant, Tajikistan Health Services Improvement Project (funded by the World Bank).
6. Representative, South Power Network Enterprise, Kurgantube
7. Representative, Oblast Water supply Authority.
8. Representative, Oblast Housing and Utility Enterprise
9. Representative, Oblast Department, Environment Committee.

The meeting started with introduction of the attendants and key Oblast division staff involved into the Primary Health Care (PHC) improvement. At the start of the meeting Mrs. Burhanova made a presentation on the Environmental Management Framework under the Health Services Improvement Project. The presentation was carefully listened to by the meeting participants, and was followed by a discussion. Special attention was focused on constraints regarding water supply, power and fuel issues encountered by RHC staff and the local population. The following questions were raised and discussed among the participants:

- RHC water supply capabilities: discussion related the RHC drinking water provision to the population and the best way has been recognized as the water supply through the water well water pumps. In winter time, it is reasonable to collect water at night time in the water-storage tank, preferably with the capacity up to 20 tons.
- Medical waste burning methods in RHCs and improvement of the existing practices: incineration of the medical waste in pits remains one of the options for the remote rayon hospitals and RHCs. It is preferably to provide RHCs with small incinerators for burning waste placed in the separate warehouses at the RHC area.
- The local government authorities have started the process of re-issuing Land Registry Certificates for all health facilities. Some of the RHCs in Khatlon Oblast have already received the Certificates. It was recommended and agreed during the consultations that the local government authorities would re-issue these certificates for the remaining facilities.

#### **Minutes kept by:**

Mrs. Muazama Burhanova

Date: April 29, 2013.

**Consultative Meeting for Discussing Draft Environment Management Framework  
developed under the preparation of the Tajikistan Health Services Improvement Project  
funded by the World Bank**

**Venue:** Ministry of Health of the Republic of Tajikistan, Dushanbe

**Date:** May 2, 2013, 14:00 – 15:30

**Attendants:**

1. Bandayev I.S. – Project Officer, Tajikistan Health Services Improvement Project (HSIP).
2. Sattorov A.A. – Head Specialist, Ministry of Land Reclamation and Water Resources.
3. Suriyev B.S. – Head, Analytic Control Center, Environment Committee under the Government of Tajikistan
4. Boltuev A.A. – Construction and Architecture Agency under the Government of Tajikistan
5. Burhanova M. – Local Consultant, Tajikistan Health Services Improvement Project (funded by the World Bank)
6. Muradov A.S. – Had, Environment Division, BARKI TOJIK Holding Company
7. Kabutov K. – Head, Renewable Energy Sources, Physics and Technology Institute, Academy of Sciences of the Republic of Tajikistan
8. Narzulloev H.N. – International Division, Ministry of Health of Tajikistan

The meeting started with introduction of the attendants, key staff of line ministries and agencies involved into the Primary Health Care (PHC) improvement. At the start of the meeting, Mrs. Burhanova made a presentation on the Environmental Management Framework under the Health Services Improvement Project. The presentation took about 25 minutes, and carefully heard by the meeting participants. The presentation was followed by a discussion. Several questions were raised, and the comments provided were mainly on the methods for decreasing negative environmental impact to the Rural Health Centers (RHC) performance in the pilot rayons of Khatlon and Sogd Oblasts. The discussion raised the following environmental mitigation measures that should be taken into account when rehabilitating RHCs:

- Planned reconstruction and rehabilitation works are to be carried out according to the national/regional infrastructure development plans and existing sanitary standards, rules and regulations. It was recommended and agreed that Land Use Certificates for the areas where the RHCs are located should be re-issued.
- RHC water supply capabilities: discussion related the RHC drinking water provision to the population and the best way has been recognized as the water supply through the water well water pumps ensuring water-storage tank with the capacity up to 20 tons. However, for drinking water supply, it was recommended to drill wells to the depth of at least 80 meters. Rehabilitation of the existing and abandoned water-pump station was considered as unfeasible by the meeting's participants as the infrastructure is very old and also requires constant power supply to function.
- Medical waste burning methods in RHCs, improvement of the existing practices: incineration of the medical waste in pits remains one of the options for the remote rayon hospitals and RHCs. It was suggested to provide RHCs with small incinerators for burning waste placed in the separate warehouses at the RHC area. As for the RHCs located nearby rayon hospitals and disposal sites, one of the possible options could be the collection of the medical wastes and their disposal to the specialized sites.
- Participants recognized the installation of the photovoltaic power plant with the moderate capacity 0,12 – 0, 5 kW as one of the most effective power supply approaches in winter

time, for generating hot water – construction of the solar water heaters with the capacity 200-300 liters of water. Having high solar power capacity in Tajikistan, RHCs would therefore be continuously supplied with hot water, including during the winter period. However, since there is no production chain of the solar plants in Tajikistan, the solar panels are usually imported by private companies.

**Minutes kept by:**

Mrs. Muazama Burhanova

Date: May 2, 2013.