

**Second Nepal Health Sector Program
(NHSP- II)
2010/11- 2014/15**



**Environmental Management Framework
for Physical Infrastructure Works**



**Government of Nepal
Ministry of Population and Health
Kathmandu, Nepal**

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Abbreviation

AusAid	Australian Agency for International Development
DfID	Department for International Development (UK)
DFO	District Forest office
DoHS	Department of Health Services
DUDBC	Department of Urban Development and Building Construction
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EPA	Environmental Protection Act
EPR	Environmental Protection Regulation
GoN	Government of Nepal
GTZ	German Technical Corporation
HCW	Health Care Waste
IEE	Initial Environmental Examination
MoE	Ministry of Environment
MoLD	Ministry of Local Development
MoPH	Ministry of Population and Health
NHRC	Nepal Health Research Council
NHSP	Nepal Health Sector Program
NHSP-IP	Nepal Health Sector Program – Implementation Plan
SWAp	Sector Wide Approach
SWMRMC	Solid Waste Management and Resource Mobilization centre
TA	Technical Assistance
VDC	Village Development Committee
WHO	World Health Organization

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Chapter 1

Background

1.1. Program description

Government of Nepal (GoN) has implemented first the Nepal Health Sector Program-NHSP since 2004 with multi-donor support. The second NHSP (2010-2015) is follow up on of the first program, and is being designed as Sector-Wide Approach (SWAp) modality. This helps the government coordinate development assistance to the health sector. All the main health donors¹ are participating in the SWAp and have committed to align their expenditures on the overall government-led programmatic goals and an agreed-upon priority. Currently International Development Association (IDA), Department for International Development (DFID) and Australian Agency for International Development (AusAID) are pooling funds with the government. In order to further enhance the harmonization agenda and build a sustainable health system in Nepal, the Ministry of Health & population (MoHP) and eight external development partners, including the World Bank signed the compact of the International Health Partnership (IHP) in February 2009.

Governments five year (2010/11-2014/15) health sector program comprises two components: (i) Service Delivery and (ii) Health Systems Strengthening. The Service Delivery component will support: (i) increasing access to, and utilization of, an affordable package of essential health services by the underserved and poor in line with MOHP's Gender and Social Inclusion strategy-2009; (ii) improving the nutritional status of children and pregnant women; (iii) improving the efficiency and effectiveness in the response to HIV and AIDS; and (iv) further reducing the mortality and morbidity associated with pregnancy and child birth. The Health Systems Strengthening Component will support: (i) improving the availability of human resources for health, especially in under-served areas; (ii) improving the sustainability of financing health care services while protecting the poor against catastrophic expenditures due to ill-health; (iii) strengthening and expanding the scope of Monitoring and Evaluation; and (iv) improving governance and accountability in the health sector.

¹ The list includes AusAID: Australian Agency for International Development; DFID: Department for International Development (UK); GTZ: Deutsche Gesellschaft für Technische Zusammenarbeit, ILO: International Labour Organization; GDC/KFW: German Development Corporation/Kreditanstalt für Wiederaufbau; SDC: Swiss Development Corporation; UNAIDS – UN Joint Program on HIV and AIDS; UNFPA: United Nations Population Fund, UNICEF: United Nations Children's Fund; USAID: United States Agency for International Development, WHO: World Health Organization.

Over the program period, GoN will improve, expand and develop physical infrastructure such as sub health post, health post, primary health care center, Ayurvedic Center and district hospital as well as administrative blocks in order to strengthen health system and improve efficiency/effectiveness of service delivery and enhancing people's access to health services. These infrastructures are likely to be relatively small scale, and most likely to be located in the government land, within the existing health premises. The program will be implemented nation-wide and upgrading/ construction of physical infrastructure will be located in different places across the country.

The minor and localized impacts may arise from construction/ upgrading of small buildings, and related to location and orientation of building as well as construction activities and also wastes generated during construction and operation. In order to manage the above mentioned type of minor and localized impacts arising from infrastructure upgrading and construction, GON is preparing Environmental Management Framework (EMF). This builds on the GoN, Environmental Protection Act and Regulation as well as experiences from the NHSP-IP 2004-2010 implementation. The EMF defines simplified steps, procedures and guidelines or criteria and/or standards to be used while planning and developing health related physical infrastructure under the program. These, for example, are related to screening, preparation of simple and specific environmental management plan (if required), appropriate orientations and siting of buildings, and provision of spaces and facilities for handling and management of wastes generated at the health facilities.

1.2. Environmental Impact Assessment

An Environmental Impact Assessment (EIA) of the first Nepal Health Sector Program – Implementation Plan (NHSP-IP 2004-2010) was carried out by GON in 2003. The EIA of first NHSP – IP 2004-2010 identified following three key environmental concerns: (i) Health / Medical Care Waste; (ii) Use of insecticides/pesticides; and (iii) Construction related environmental issues. These findings and conclusions are still valid, and therefore no new environmental impact assessment was carried out for the second NHSP 2010/11-2014/15.

Expansion of healthcare service delivery is expected to increase the generation of Health Care Waste (HCW). Improper handling and disposal of HCW has several issues associated with it. It poses significant risks to both people and environment as they contain infectious materials and other hazardous substances. The environmental issues range from increasing the risk of spreading infections to increasing exposure to toxic emissions from poor treatment and disposal practices. Therefore, HCW management was identified as the most significant and critical / important environmental issue in the sector requiring greater attention.

Use of different types of insecticides for prevention of vector borne diseases is the common practice in many countries. While use of such insecticides do assist in protecting people from vector borne diseases, improper handling and use of such substances does pose health risk to both general public and persons handling such substances. The range of healthcare services to be strengthened and expanded also includes control of vector borne diseases requiring use of insecticides/pesticides. Use of insecticides/ pesticides is expected to be limited only during the epidemics or at the most during certain periods of the year, as a preventive measure, in the epidemic prone areas. The stakeholders that are likely to get impacted due to improper handling and use of insecticides/pesticides are the staff who handle such substances; the general public in the affected areas due to higher exposure to such substances. However, the hazardous category of substances as per World Health Organization (WHO) classification will not be used. Since it is not a continuous activity, impacts are not expected to be long term and significant.

The program envisages expanding physical facilities for health care service, which is expected to involve construction of new facilities of different levels at different locations in the country. Construction activities, if not managed properly, often lead to environmental impacts such as air, water, noise and land pollution as well as ecological degradation. The extents of such impacts largely depend upon the location of such facilities as well as the construction practices followed. Therefore, environmental issues arising from construction activities are also identified as an issue that needs to be considered.

The findings and conclusion of the EIA of NHSP-IP 2004-2010 is still valid for the sector. The Health / Medical Care Waste remain the single most critical environmental issue in the health sector. GoN is, therefore, preparing a separate Health Care Waste Management Framework Plan for second NHSP 2010/11-2014/15 by revising/ updating the Framework Strategy and Action Plan for Health Care Waste Management in Nepal prepared in 2004 for NHSP-IP 2004-2010.

As discussed earlier, the types of insecticides being used or that will be used in future for control of vector borne diseases do not fall under the hazardous category of substances as per WHO's classification. GoN, by adapting the WHO requirements to country's situation, has developed specific guidelines and procedures for handling & use of insecticides for prevention and control of vector-borne diseases. These guidelines have been prepared in local language; have been disseminated at all levels and periodic training programs are conducted for the working staff in this regard. During actual use of such insecticides, the working staffs are supervised by officers from the Epidemiology Division. The Division has developed supervision protocol/ checklists to ensure that such activities are undertaken in a proper manner. The insecticides used for vector control are required to be changed periodically to tackle increase resistance of insects to a

particular substance. The decision to select the new insecticide, when required, is normally taken by the epidemiology department. While selecting new insecticides, GoN ensures that the information about the new insecticides including its harmfulness is disseminated to the staff as well as the public; and if needed guidelines and procedures including the training contents need to be updated to reflect such changes. Therefore, no new guideline or framework is necessary for this activity: implementation of the existing guidelines, protocols, and training will be emphasized during NHSP II period.

This Environmental Management Framework (EMF) is prepared to manage the environmental concerns, related to construction/ upgrading of physical facilities during second NHSP 2010/11-2014/15 period. The EMF builds on the provisions of GoN Environmental Protection Act, Environmental Protection Rules, other legal provisions as well as experiences from the NHSP-IP 2004-2009 implementation.

Environmental Regulations and Institutions

2.1 Environmental Regulations and Guidelines

Interim Constitution of Nepal, 2063. Section 3, Article 16 of the Interim Constitution of Nepal, 2063 proclaims, “Every citizen of Nepal has right to live in a clean and healthy environment”.

The Environmental Protection Act 1997 (EPA 1997). The “Environmental Protection Act 1997” and “Environmental Protection Rules 1997 (revised) have made provisions regarding dealing with pollution control, Environmental Impact Assessment (EIA), Initial Environmental Examination (IEE), conservation of national heritage etc. EPA Section 24 empowers the GON to frame rules including for matters relating to sources of pollution, standards, prevention and control of pollution. The existing EPA and EPR include procedure for EIA (Environmental Impact Assessment) and IEE (Initial Environmental Examination) for certain types of activities to get permits. IEE is required for small or simple activities, while EIA is required for larger or complicated activities with potential for larger environmental impacts. According to the EPA 1997, all development projects, including construction of buildings, should first be screened using criteria that are based on project type, size, location and cost, stipulated in the Environmental Protection Regulation (EPR) to determine the level of environmental assessment required (whether IEE or EIA or none). Usually, small projects such as upgrading or construction small health facilities and small district hospitals are not expected to cause significant environmental damage and exempted from formal environmental assessment beyond environmental screening.

Forest Act (1993), Forest Regulations (1995). The use of forest land is subject to forest act and regulations. The school projects need to comply with the provisions of forest law when it requires the use of forest land. Forest Act and Regulations allow implementation of development project of national priority in forested area, if it does not pose significant adverse impact to environment and if there are no other alternatives, subject to prior approval from the forest authority District Forest Office - DFO and local forest authority (e.g. Community Forestry User Groups). Adequate compensatory measures must be implemented as permitted by the forest authority and also to affected people. Special provisions apply while dealing with the legally protected plant species and forest products.

National Park and Wildlife Conservation Act, 1972. This act prohibits any action that could be damaging to the park including; cutting of trees and other plants; any kind of residential

structures, quarrying of materials, change in watercourse, etc. Activities prohibited in protected areas includes; hunting, damage or removal of forest products, grazing, mining, block or divert river systems flowing through the park, construction or possession of house, huts or other structures. Any intervention within National Park and Wildlife Conservation Area requires permission from Ministry of Forest, Soil and Water Conservation after recommendation from Department of National Parks and Wildlife Conservation.

Solid Waste Management & Resource Mobilization Act, 1987. This Act has provisions to manage solid waste and to mobilize resources. It aims to minimize adverse effect of solid waste on public health and environment. The Act and the related rules empower the Solid Waste Management and Resource Mobilization Centre in the matter of solid waste management. This Act categorizes harmful hazardous wastes and provides controlling measure. It makes provision to appoint inspection officer for checking and monitoring solid waste control and management with power to take action against the polluter or polluting agency.

The Labor Act, 1991. The Labor Act regulates working environment, and provisions regarding occupational health and safety. Management is required to make arrangements to remove waste accumulated during production processes and prevent accumulation of dust, fume, vapor, and other impure materials, which would adversely affect health of workers. Management is also required to provide protective clothing and devices to workers handling chemical substances and other hazardous and explosive substances.

The Local Self-Governance Act, 1999. The Local-Self Governance Act makes municipalities responsible for managing domestic solid wastes. However, the Act does not require the local governments to manage hazardous wastes, but empowers them to fine anyone up to Rs. 15000.00 for haphazard dumping of solid waste. Due to country's political condition, election of the local body has not taken place for long, and therefore, municipalities are being run by the bureaucrats supported by an ad hoc all-party mechanism.

Pesticides Act, 2048 (1991) and Rules, 2050 (1993). The Act aims to regulate quality of pesticides, production, sale and use of pesticides. Pesticides Registration Agency's permit is obligatory for the import, permit required for persons wishing to be a professional sprayer with the validity for five years. Pesticides Committee have power to cancel or suspend registration of pesticides proved ineffective or harmful to people or animals or environment, and can appoint Pesticides Inspector.

Standards. Current environmental law empowers the government to issue standards for promotion of environmental management in Nepal. No ambient standards have been developed

so far, and efforts are underway to develop other categories of standards. Currently, two types of environmental standards are under implementation: voluntary standards and legally binding standards. The discharge standards issued by the GoN include: effluent standards, vehicle emission standards, and standards for pesticide residues.

Environmental Guidelines. Environmental guidelines include National EIA Guidelines 1993 and Health Care Waste Management Guidelines (Nepali, 2065 BS) as well as Waste Management Orientation Booklet for Health Workers (Nepali 2063 BS). The EIA Guidelines provide guidance to project proponent on integrating environmental management and mitigation measures, as well as process to be followed for IEE and EIA.

Public Work Directives, 2002. The directives provide general guidance with regard to planning and implementation of public works including buildings: the guidance, procedures and requirements are related to environmental assessment, social assessment, earthquake consideration in infrastructure projects, as well as specific sectoral procedures to be followed, for example, in urban and building sector. These build on the GoN already existing legal requirements as well as adopted good practices over time.

2.2 Institutions

Ministry of Environment (MoE): MoE formulates and implements policies, plans and programs pertaining to environment and maintains liaison and coordination with national and international organizations. It is also mandated to conduct a regular and periodic evaluation and review of environment programs implemented by governmental and non-governmental organizations. Pollution control and environment conservation and ecological balance are some of the major functions of this Ministry.

The environmental division of the ministry looks after pollution control and environmental assessment related functions as well as standards, monitoring and evaluation aspects at national level. Final clearance of a full Environmental Impact Assessment will be given by the ministry, where as concerned line ministry can clear Initial Environmental examinations. The Environment Protection Regulation has listed development activities requiring IEE or EIA.

Ministry of Local Development, Solid Waste Management and Resource Mobilization Centre, Municipalities. It is the responsibility of the Ministry of Local Development (MoLD) to provide waste management facilities such as Landfill sites. The Solid Waste Management and Resource Mobilization Centre (SWMRMC), established under MoLD, is the technical arm of the MoLD on solid waste issues. SWMRMC provides technical supports to municipalities, as

required. Municipalities are responsible, on their own or with support from SWMRMC or through private sector, for solid waste management service within respective municipalities. . It is however not specifically mentioned whether HCWM services also fall under their scope. So far the municipalities have been picking up wastes from large sections of healthcare institutions and disposing them along with the municipal solid wastes. Availability of land is expected to be a concern if common HCW treatment and disposal facilities catering to several healthcare facilities are planned. Greater co-ordination between MoLD and MoHP would be required in this regard.

Nepal Health Research Council (NHRC). NHRC was established as an autonomous body through promulgation of the Nepal Health Research Council Act 1991 (NHRC Act 1991). It aims to promote scientific study and quality research in health in Nepal, as well as provide services and information makes the health study and activities more useful. With regard to environmental management in health sector, NHRC had prepared: “National Health Care Waste Management Guidelines”, “Training Manual for Medical Professionals”, and “National Environmental Health Impact Assessment Guidelines – For Project Development”. The two first publications are directly related to health care waste management, while the third is dealing with assessment of health impact of the various polluting activities, among other handling, treatment and disposal of health care waste. GoN has used these publications as resource material while preparing its own Health Care Waste Management Guidelines.

Ministry of Health & Population (MoPH). Ministry of Health and Population is responsible for policy, planning and research, provision of health services, monitoring and evaluation, regulation, human resource policies, health financing, sector coordination, health information and population policy. It consists of three departments, including the Departments of Health Services (DoHS), Department of Ayurveda (DoA) and Drug Administration (DDA) and five Divisions (Personnel Administration; Policy, Planning and International Cooperation; Curative Services, Human Resource Planning & Financial Management & Public Health Administration and Monitoring and Evaluation. There are five Regional Health Directors who directly report to the MoHP. They are responsible for program supervision and technical backstopping. Regional and Zonal hospitals have decentralized authority through the Hospital Development Boards. At the district level and below, District Development Councils and Village Development Councils are responsible for the delivery of health services in accordance to local self governance act.

Department of Urban Development and Building Construction (DUDBC). DUDBC, under the Ministry of Physical Planning & Works (MoPPW), provides necessary technical support in planning and designing of the physical infrastructure/ health buildings under the NHSP II. The

DUDBC is the technical department of the government with regard to building construction and developing necessary standard and policies in this sector. As such the department has necessary expertise and experiences in planning and design buildings using building codes and other applicable standards, such as earthquake resistance design and construction. During the NHSP I implementation, the department has started to internalize the concept of health care waste management in planning and design of health care facility/ buildings, for example providing space for “incinerator” or burning chamber etc. During NHSP II, the department, in coordination with MoHP, will continue to use environmental standards and best practices.

2.3 Capacity

Within the MoHP, its departments, Regional Health Directorates, Hospital Development Board or at district level, there is no institutional unit with clear mandate to coordinate, manage and oversee environmental and health /medical care waste management issues. Furthermore the technical understanding and professional skills regarding environmental and medical/ health care wastes issues are lacking at all levels. The need to increase MOHP/DoHS as well as at health facility level capacity in terms of institutional set up and human resources to implement the environmental and HCWM program is obvious. The awareness programs carried out by the DoHS at various districts in past few years has helped in raising the general awareness of the health facility staff : however, there is need for more technical orientation and training to the persons involved at operational level, besides making institutional arrangements with clear mandates on environmental and wastes issues.

Environmental Management Framework

3.1 Introduction

This Environmental Management Framework (EMF) has been prepared by MoHP for application in physical infrastructure upgrading or construction under NHSP 2010/11-2014/15. Application of this EMF ensures due diligence and avoids/ minimizes any environmental degradation or issues by screening all the proposal for upgrading or construction of physical facilities under the second NHSP for their environmental impacts, identifying suitable mitigation measures and implementation of these measures.

The EMF will provide an environmental screening process, providing guidance on using typical mitigation measures and estimating corresponding budget as well as suggest capacity building measures for its implementation during NHSP second. The EMF is intended to be used as a practical tool during program implementation and to protect human health, environment, and welfare of affected community. Hence EMF in second NHSP will ensure the environment friendly and safe design and construction of health related physical infrastructure.

3.2 Environmental steps in NHSP

The individual health facility/infrastructure upgrading and construction under second NHSP is proposed to be small in scale and located in different, relatively remote, locations. Besides, planning, design and construction of these facilities will adopt standard and best practices that ensure avoiding or minimization of any small scale environmental concerns that may arise from the small scale upgrading and construction activities. Considering these factors, health facility/ physical infrastructure development works under NHSP is not expected to have highly significant environmental consequences; and in general no formal environmental investigations, such as IEE and EIA is perceived to be required for individual health facility upgrading and construction. However, second NHSP will adopt following environmental steps in order to ensure, during implementation, that each physical infrastructure upgrading/ construction activity individually does not result adverse environmental consequences and fully comply with environmental requirements and good practices: (i) Environmental screening, (ii) Using environmental guidelines and criteria for planning and design, (iii) Incorporation of environmental measures into plan, design and contract documents, and (iv) Monitoring environmental compliance.

3.3 Environmental Screening

Each proposal under second NHSP for upgrading or construction of health facility/ physical infrastructure will be subjected environmental screening. The screening will:

- (i) check if the proposed works requires any further environmental investigation prior to permitting upgrading or construction works,
- (ii) review the plan and design to ensure that it adopts environmental guidelines, criteria and good practices ; and
- (iii) provide environmental guidance, as well as attach applicable environmental terms & conditions specific to the proposed upgrading and construction works.

The Environmental Protection Regulation requires IEE and EIA for the following activities in the health sector.

IEE required activities;

- Operation of 25 to 100 bed health facility (hospital, nursing home, or medical profession including teaching)
- Construction of residential or commercial or combination of residential and commercial building with 5,000 to 10, 000 square meter built-up area or floor area ,
- Development of residential area for up to 50 family or in 1 to 4 hectare area
- Construction of building that is 10 to 16 story or 25 m to 50 meter in height.

EIA require activities

- Operation- larger than 100 bed health facility (hospital, nursing home, or medical profession including teaching)
- Construction of residential or commercial or combination of residential and commercial building with built-up area or floor area more than 5,000 to 10, 000 square meter,
- Development of residential area for more than 50 family or occupy more than 4 hectare area
- Construction of building that is more than 16 story or higher than 50 meter in height.
- Construction of any size of following types of works for dealing with hazardous wastes: (i) wastes structure, (ii) construction of wastes recovery plant, (iii) construction of wastes filling, dumping site etc, (iv) construction of waste storage sites, and (v) construction of waste treatment facility.
- Following works related to extremely hazardous matter: (i) collection and management of radio-active matter of which half-life is more than 25 years, (ii)

collection and management of LD50² radio-active matter, (iii) final transport and disposal of biological wastes from health facility or hospital or nursing home with 25 or more beds; and (iv) works regarding incineration/ burning or re-using the extremely hazardous materials that uses one hectare or more area of land and energy

- Any activity on the following areas: (i) historical, cultural and archeological area, (ii) National Parks, wildlife reserve, wet land, and conservation area; (iii) area where main source of public water supply is located.

The activities to be undertaken during NHSP II under physical infrastructure works are unlikely to fall under the EIA or IEE categories mentioned above. However, each activity will be subjected to formal screening to ascertain that the activity will not require formal EIA or IEE: however, if in exceptional cases, an activity fall within the above mentioned EIA or IEE category, EIA or IEE will be conducted following the standard process/procedures, best practices, and meeting the legal requirements.

3.4 Environmental Guidelines for Planning and Design

Irrespective of the outcome of environmental screening, second NHSP will adopt following guidelines and criteria for planning, design, construction, and operation of health facilities/ physical infrastructure works.

- (i) Broader area vision plan for future development of health premises. Proposed upgrading or construction works will be part of longer term plan for developing larger area of the health premises. Therefore, if such plan has not been prepared already, a vision plan for developing the premises in future will be developed quickly in order to provide a longer-term development perspective. This vision plan should be attached with the proposal for upgrading or new construction works. The vision plan, inter alia, should give considerations to: risks from and protection against flood, landslide, fire, water-logging etc; and this will be reflected in a broader area layout plan of the premises development vision. The points to consider are potential for making the larger area of premise greener, minimizing interference with local hydrology, and minimizing any potential adverse impacts on surroundings of health premises. Good area planning also contributes energy consumption and visitors /residents comfort.
- (ii) Location/ sitting of proposed infrastructure. Following criteria will be used in deciding the site of a new construction works proposed under second NHSP.

² Dose at which 50% of subject will die.

- i. Should be located in safe distance away from landslides and flood risk zones, as well as spots with potential water-logging or drainage problem. Flood plains will be avoided as far as possible.
 - ii. Should not be located in areas: with slopes greater than 45 degrees, and in protected area.
 - iii. Should not be located in forest area without proper approval from forest authority and without appropriate compensatory measures.
 - iv. Should not be located using or adversely impacting cultural / heritage site(s).
- (iii) Climatic Orientations. The proposed buildings should follow appropriate orientations, depending on the ecological/ climatic zone of Nepal, to suit the specific climatic characteristics of the zone. Thoughtful placement of a building on a site promotes energy conservation by taking advantage of natural site features such as topography, sunlight, shade and breezes.
- a. Tarai region - Arrange a building in such a way that the prevailing winds can be used in cooling rooms. In general, the buildings should be oriented facing between Wests to North. In case, the building can't be avoided facing East, West or South, evergreen trees have to be planted to prevent direct sunlight entering the building.
 - b. Hill region - It is advisable to provide deciduous trees and at the same time allow winter sun to heat up the buildings.
 - c. Mountain region - In the mountain region, making use of sun to heat the rooms is a good design concept. Therefore, building orientation should be between East and West. One-way to blocking the seeping winter wind is to plant trees in the direction of the prevailing wind.
- (iv) Users friendly. The design of health buildings will consider comfort of users and needs of patients, children, disable, women, etc.
- (v) Standards. Second NHSP will follow following standards while planning, design and construction / upgrading of health facility/ buildings.
- a. Earthquake resistant design. Structural safety will be ensured by following National Building Codes of Nepal, as well as other guidelines as suggested by the Public Works Directives (Earthquake Considerations in Infrastructure Sector).
 - b. Ventilation and lights. Design of the building will ensure adequate ventilation and lights. Design will give priority to make use of the natural systems and renewable energy sources.

- c. Water and sanitation. The health facility should have adequate safe water supply system and sanitation facility. The plan and design of health building will include sanitary waste water disposal system that is appropriate to the locality.
- (vi) Consideration to Health/ Medical Care Waste management. Health facility building upgrading or construction plan and design will make spaces and provisions for collection, storage, transfer and disposal of medical/ health care wastes generated in the health facility. It has become a common practice over the previous NHSP that health facility design incorporates burning chamber (“incinerator”) for burning some type of medical/health care wastes generated at the facility.
- (vii) Minimizing construction period disturbances. Site specific and appropriate measures will be detailed during the design process of upgrading/ construction works for avoiding or controlling nuisances such as dust, noise, labour camps etc; arising from the construction or upgrading of the health buildings. These, for example, could be related to stockpiling of construction materials, dust and noise generated during construction, pollution from labour camps, etc.

3.5 Incorporation of mitigations into the plan, design and contract

The health facility/ building development plan and design will incorporate specific and site appropriate environmental mitigation measures. The tender instruction to bidders should explicitly mention the site specific mitigation measures to be performed, the materials to be used, waste disposal areas, as well other site specific environmental requirements.

3.6 Monitoring Environmental Compliance

The plan and design will be checked to ensure that the Environmental Guidelines and Criteria (described in section 3.2) have been used while planning and designing the health facility/ buildings.

For each upgrading/construction works, the supervising agency will check compliance to the environmental measures / terms. The findings will be debriefed with the contractor/ implementer. Each supervision report will contain the findings and recommendations for each site separately. These will be checked during follow up supervision also. Each progress report will contain the environmental mitigation works undertaken in the reported period at each upgrading/ construction sites as well as any outstanding issues or problems encountered.

GoN will also commission annual independent review of application of and compliance with environmental guidelines, criteria and EMF in the upgrading/ construction of physical

infrastructure/ buildings under the SSRP. This will be done by reviewing monitoring of assessment of health/ medical care waste management status (through survey at randomly selected sample health facilities) and implementation status of HCWM Plan.

3.7 Capacity Strengthening

As noted in section 2.3, capacity to deal with environmental and health/ medical care wastes is generally weak at all levels. GoN, therefore, will strengthen environmental and health care waste management capacity during NHSP II through:

- Making institutional arrangement with full time designated staff at appropriate centre (MOHP/ DoHS etc), with clear mandate to coordinate, oversee and manage environmental and health care wastes related matter at sectoral level. Gradually, GoN will require all health facility to have clear institutional arrangements for environmental and health care wastes management.
- Enhancing environmental and health care waste related competency through Technical Assistance (as part of NHSP II overall program), focused studies as well as availing required services from other agencies including private sectors, as required.
- Organizing training and orientations at different levels, tailored to the needs of different stakeholders: these activities to be planned and undertaken each year.
- Ensuring annual budget allocations for environmental and health/ medical care waste management activities.