



Chapter 6

Medical Waste Management

1. Why is attention to the environment important?

The principal natural and potentially adverse environmental consequence of HIV/AIDS programs is the proliferation of contaminated medical waste. The diagnosis of medical conditions, care of people infected with HIV/AIDS or other sexually transmitted diseases will require the use of reagents, needles, gloves, drugs, and other pharmaceutical supplies. Inappropriate handling and disposal of medical waste and inadequate management of the respective disposal sites in urban and peri-urban areas, where domestic and medical waste may be mixed, and where scavenging is a livelihood, is likely to have negative environmental and social impacts.

2. What needs to be done?

Given these potential consequences, the preparation of MAP projects now includes a Medical Waste Management Plan, because:

- Inappropriate handling of medical waste materials constitutes a risk not only for staff in hospitals and in municipalities who are involved in waste handling, but also for families and street children who live on or near dump sites
- Some aspects of the proposed project implementation (e.g., the establishment of testing clinics, the purchasing of equipment by communities for home care of the sick, etc.) could constitute an increase in the environmental and social risk with regard to the handling of HIV/AIDS infected waste

Box 6.1 Specific groups to be consulted during the preparation of the Medical Waste Management Plan can include:

- The national association of PLWHAs and affected families
- The implicated sectoral ministries (i.e. Environment/National Resources and Urban Planning; Public Works and Transport; Social Protection; Tourism)
- Managers/owners of private companies subcontracted for municipal waste collection and disposal
- Public Health personnel responsible for oversight of the hospital and health facility clinical waste management
- The manufacturers of the locally constructed

To deal with the problem of hazardous waste, MAP projects normally include the following:

- Construction plans and equipment for new health facilities, at all levels of service provision, must include capacity for sound handling and disposal of hazardous hospital waste. This should comprise the requisite human resource capacity devolved to management and disposal function of infectious medical waste, as well as the availability of cost-effective and environmentally and socially proven technologies.

- Monitoring and evaluation indicators will be established following completion of the Medical Waste Management Assessment for inclusion in the appropriate category (i.e. social mobilization, care and support, policy) in the common M&E project manual

3. Lessons learned and recommendations

While it is too early to draw definitive lessons of experience, there are a number of areas that warrant attention:

- **Projects should provide systematic training and capacity building** (on the subject of HIV/AIDS waste management) of all health personnel responsible for managing existing incineration and waste management units in medical facilities.
- **Medical Waste Management Plans should normally**
 - Assess a country's legal framework pertaining to medical waste management and treatment as well as the need for additional regulatory requirements;
 - Collect baseline data on current technologies, management practices and institutional setup collecting, handling and disposing off medical waste in the country;
 - Assess environmental and social impacts of current management practices;
 - Assess alternative technologies and facility sizes for treatment and destruction; Analyze available information on existing disposal sites;
 - Assess the potential of the private sector as service provider, as well as public-private partnerships and cost recovery; and
 - Prepare a training needs assessment for municipal workers and managers, MOH staff, scavenging families and the general public directed at building a national consensus on the economic benefits of good medical waste management
 - Propose institutional arrangements for sound implementation and monitoring of the plan, with clear lines of the responsibility of the various actors involved and an implementation schedule; and
 - Present detailed cost outlays for the various mitigation measures, to include awareness and capacity building activities and the monitoring plan.
- **A well targeted awareness building campaign program** can be created for the general public and more specifically for health care workers, municipal workers, dump site managers, incinerator operators, nurses, scavengers and street children.



See Annex 6 (CD-ROM) for further references