

AGFUND/WHO/CEHA workshop

Role of the communities in awareness raising and hygiene education in community based healthy solid waste management in the Eastern Mediterranean

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Presentation of the Country

Morocco is located at the North-western angle of the African continent. It is delimited in North by the Straits of Gibraltar and the Mediterranean, in the South by Mauritania, the East by Algeria and the West by the Atlantic Ocean. Morocco enjoys a privileged position with two maritime coasts opening on the Mediterranean in North, and on the Atlantic Ocean in the West. In 2004, the population of Morocco reached 29.891.708, with 16.463.634 urban residents and 13.428.074 people living in the rural area, which bring the urbanization rate up to 55,1%. The average annual population growth rate of increase is 1,4%. The country covers a total surface of 710 850 km².

2. General information on the management of solid waste in Morocco

Management of solid waste, particularly domestic waste is an important environmental concern in Morocco. The overall production of waste at the national level is about 3 890 452 tons per year (1999). The legislation relating to the management of solid waste in Morocco is not sufficient (lack of specific lawful texts). The communal charter of 1976, modified in 2002, deal with waste management and involve the local communities in the collection, treatment and disposal of solid waste.

For the large cities, the urban municipalities are in charge of the collection and transport of waste towards transfer areas and towards dumping sites. Communities are also responsible for managing the final disposal or /and storage sites.

An appropriate waste management system implies the existence of adequate hygiene policy, and sufficient human, material and financial resources, as well as trained personnel and an adequate regulation.

In front of the urban growth and the complexity of solid waste management at the urban level, the municipalities have to started to delegate collection and transport of solid waste, to the private sector by the means of agreement and contrat. As an example, Casablanca town (The largest city of Morocco capital economic) where the municipalities have delegated the collection and the transport of domestic waste to the private sector. The same practice was adopted by the city of Rabat (the capital city). More over, recently in Rabat, , the municipalities of zaer signed an agreement to close the the current dumpingsite and open a new one far from the city and safely dispose of solid waste.

3. Experiments specific to the Ministry for Health

The Ministry of Health largely employed the social mobilization as supporting tool the implementation of the national programs to tho public health. This mobilization made it possible to involve local organizations and nongovernmental organisations NGOs and the municipalities at the regional level.

A. Essential Needs for Development (BED)

As an activity of the project BED, a pilot experiment was conducted on the town of the Safi , aiming to raise the quality of life and to improve the environment and population health, within the framework of the project “BED”. It relates to the mobilization of all the community for the cleanliness and waste collection and this, thanks to the efforts of a local NGO and the constitution of village committee. This experiment was a great success thanks to the involvement of all the local structures.

B. Experiment of ocular diseases control – trachoma control

Trachoma is a contagious disease which constitutes a problem of health in the south of Morocco.

The implementation of the component related to the changes of the environment and the behavior of the population was important in the prevention of trachoma and this, through the creation in certain pilot localities of village committees in charge of supervising domestic waste collection, organizing cleanliness campaigns and particulary,securing hygiens disposal of manure to avoid the pullulation of the flies. This practice has largely contributed to a significant reduction of trachoma prevalence and even ti its eradication.

C. Healthy cities Project

This project was initiated in collaboration with WHO, in order to develop effective participation of the municipalities, the non governmental organizations and of the people interested in the promotion of the health, especially in the poor urban zones, while giving the priority to improving services and upgrading health and environment conditions.

In the pilot cities, several actions are undertaken which are:

1. To mobilize NGOs, universities... for the promotion of health and clean environment (collection of solid waste by the population and the installation of fixed dustbins and containers of evacuation of solid waste)
2. To heighten awareness of the population on the aspects of hygiene and cleanliness...
3. Cleanliness of residential districts (collection of domestic waste),
4. Hygiene of markets (management of waste, water, cleansing)
5. Management of dangerous waste (Mohammadia)
6. Cleansing the domestic garbage dumps (Settat and Meknès)
7. Improving sanitary conditions in waste disposal sites

D. Community Health promotion in Rural areas - Peace Corps/ USA

One goal of this project is to assist small rural communities assess hazards caused by various sources of solid waste (residents, weekly markets, slaughterhouses, health clinics) and design and implement actions to address those hazards. The project started by focussing on medical waste. Recently, ten rural clinics were equipped with low cost simple to build and use incinerators. Members of the clinic staff were trained on how to appropriately use and maintain the equipment in order to dispose safely of their medical waste.

This program covers around 40 sites and uses Volunteers of the American Peace Corps, local NGOs and communities and is supported by a variety of sources of funding (Small grants).

E. The management of medical waste

This is an important issue which requires a specific management capabilities and it falls under the responsibility of the Ministry for health (Department of Hospitals and Ambulatory Care). This department purchase and install technical equipment in hospitals to enhance their capacity to safely remove its medical waste. The equipment generally consist of disinfecting crushers and / or incinerators. The production of

waste in a hospital depends on the size and the activity of the facility. The average production on a national scale is estimated at 3 kg/bed/day. Medical waste does not exceed 10 to 25% of the total.

4. Experiments specific to the Department of the Environment

Case study of the center of cotreatment of the domestic solid waste implemented in the town of Missouri.

This project – management of solid waste in small city of Morocco – led by the Department of the Environment was carried out in collaboration with “Enda Maghreb”. The municipality, in consultation with Enda Maghreb, entrusted the management of all domestic waste to a young contractor. At the end of the project, the volume of the wild disposed of in an open field was reduced by 80%.

After the success of this experiment in the town of Missouri, the replication of the Co-treatment center in three other cities was considered with the effective participation of the municipalities.

During the implementation of these project, constraints appeared to be of various natures:

- institutional (lack of service specialized as regards solid waste management, lack of control unit on the level of the districts and lack of regional committee for coordination between the involved parties),
- legal (lack of adequate legal framework),
- technical (insufficiency of the basic equipment and staff shortage), -
- financial (lack of a budgetary heading specific to the management of waste)
- educational (lack of programme of education and heighten awareness of the operators in the field of waste management)

5. Experiment specific to the Mohamed VI Foundation for the environment

Within the framework of the improvement of the quality of the Moroccan beaches, a “clean beaches” operation was launched by the Mohamed VI Foundation. It relates to almost the totality of the Moroccan beaches. Among the undertaken activities in this areas we find collection and evacuation of waste on the level of these beaches. This activity is led by the municipalities (urban or rural) and is generally, passed over to private companies. A national commission is in charge of the follow up of this work. The results has proved to be interesting and the cleanliness of

the beaches has improved yearly. In fact, awards are granted to the municipalities which have shown commitment to these campaigns and reached the best results.

6. Conclusion

In conclusion, the success of a project regarding integrated management of domestic solid waste is conditioned by:

- the strong commitment of the local political decision makers (participation of the elected officials to the workshops of implementation of the project, designation of an engineer of the municipality to monitor the project...);
- financial capacity of the municipality to support and sustain the system
- capacity and skills of the municipal technicians in regards to waste management
- obligation to comply with existing legislation and thus the involvement of a lawyer who will review the contract imposing each party to keep up their commitments and follow terms of reference.