

Solid waste management – a serious environmental issue of the Georgian Black Sea coastal zone

The case

Management of solid waste is one of the most serious environmental problems in Georgia - both hazardous and municipal waste are mostly dumped on landfills, dangerous both for human health and environment, or even dumped in the nature.

Adjarian Autonomous Republic is situated on the Eastern Coast of the Black Sea and borders with the sea at the distance of 32 km. For the period of 4 months the region hosts tourists from neighbouring regions and countries, while 88% of the medical institutions are situated in the major cities of the Region - Batumi and Kobuleti. This means the same percentage of the healthcare waste generated by the mentioned institutions are being dumped in these two cities.

The major hazard stemming from medical institutions for the environment is health-care waste, generated in those medical institutions.

Due to natural-climatic conditions and geography of Batumi and Kobuleti, health care waste of the medical institutions have a specific impact on the environment. More than 30 tons of hazardous waste has been generated by 380 medical establishments of these two towns yearly. These waste products together with



household waste are dumped by special vehicles into the landfill without recycling, thus violating the sanitary and ecological norms. The dumped waste is washed by the river into the sea and causes pollution of beaches creating the necessity of additional works apart from the danger for health and unpleasant conditions for the holidaymakers.

According to the data of 2005 inventory, conducted by the sanitary inspection of Adjarian Ministry of Health, quantity of class “a” safe waste (however, it is worthy to note, that the inventory results are not reliable and this service has to be improved, the problem which is foreseen by our project) equals 5,500 kg per month, “b”, “c”, “d” and “e” wastes - 2,500 kg.

In 2003, the Ministry of Health of Georgia adopted a law on necessity of burning classified as hazardous “b”, “c” and “d” waste in a special device; as for the safe “a” - household waste, it should have been dumped into the landfill. Thus the medical institutions are responsible for waste selection. Medical personnel linked to healthcare facilities, however, do not do so and even if they did, it would

make no sense, because the medical waste is dumped together with household waste into the landfill. Each medical institution personnel, however, must be interested in isolation of the hazardous for health waste from public places.

Within the framework of TACIS program (2005-2006) on Solid Waste Management in Adjara, a survey was conducted in 2005 concerning the solid waste utilization with participation of BSIF experts. The survey foresaw closing of existing landfills and construction of new ones, which would correspond to the sanitary norms. Unfortunately, this issue failed to be listed among the 2006 governmental priorities, though the number of preliminary works had been prepared to implement this project. The plan was to resolve the issue by the end of 2007, as the entire Adjara is a seaside resort place and the country has been fulfilling the plans regarding its infrastructure development.

The change process

The EU approach is based on recycling, reuse and composting of waste from households on one hand and on a safe disposal of hazardous waste on the other. A pilot project, first in this area, was carried out in Kutaisi on management of waste from households (€ 160 000). Also the Kutaisi landfill, posing significant threats to people's health and environment, was rehabilitated. Another pilot project in the Black Sea Georgian coastal zone, on management of hazardous waste, first one of this kind in Georgia, a system for separation and safe collection and disposal of health-care waste from hospitals was carried out in Batumi and Kobuleti (€ 160 000).

The Ministry of Finance and Economy of the Autonomous Republic of Adjara intended to use the proceeds of a loan from the European Bank for Reconstruction and Development for a project to improve solid waste management services in Adjara through the building of a new sanitary landfill facility and closing the existing landfills in Batumi and Kobuleti. The proposed project had a total estimated cost of 7 million euros.

The major partner of Batumi Municipality in implementation of this project was an experienced NGO based in Adjarian Region - the Black Sea Eco Academy. They have been very actively involved in the process of development of this project. Their technical expert in waste management is one of the initiators of this project. Within the process of implementation of the project the NGO was involved in each particular activity.

The municipality has a long-lasting partnership relationship with the NGO. They have implemented various events, dedicated to the Black Sea, together. The largest joint project, implemented in 2000, was pilot project for introduction of new (container) waste collection system in one of the districts of Batumi - which was later duplicated in other districts.

The overall objective of the project was to contribute to the protection of environment and the health of inhabitants of Batumi and tourists from medical-waste-caused pollution and spread out of infectious diseases. The project intended to achieve this by establishing safe collection and treatment system of the medical waste in Batumi and surrounding towns and villages.

All 45 medical institutions of the AR were covered by the project. Medical waste has been classified and detailed inventories carried out. For each institution waste management plans were developed. Each institution was requested to nominate a waste management authority and all of them were trained by the hired

experts in implementation of the waste management plans and their regular update as necessary. All the remaining personnel of the medical institutions were instructed and received awareness-raising materials on safe handling of medical waste and separation of its hazardous fraction.

It was the first time in Georgia that medical personnel were taught that dangerous medical waste should not be handled in a way the usual waste is done. That already at the site it should be placed in the container where it should stay untouched until it is burnt in a special incinerator. The project provided for 1200 such disposable micro containers which will ensure stable functioning of dangerous medical waste collection in all medical institutions of Adjara for two years. A special regulation was adopted to oblige all medical institutions to ensure stable supply of those containers when the EU gift ends up. Batumi municipal service was equipped with a special car which collects the containers as they fill up and transports them safely to the treatment facility, which was also established by the project. This is a special building at the city landfill where a special incinerating device for medical wastes has been installed. An environmental impact assessment was carried out to ensure environmental safety of the incineration and environmental permit for installation has been received.



Medical waste does not contain dangerous fractions only. The project also took care of the non-dangerous medical wastes by provision of 300 units of 240 l capacity containers to all departments of the medical institutions and equipping the Batumi municipal service with a vehicle for collection of municipal waste from those containers. This fraction of waste is not dangerous and it will be discarded at the local landfill site in the usual way.

The outcome

There were following results of the project:

- A Management Plan with guidelines that included detailed instructions and procedures for all the steps involved in the process of sound health-care management process was prepared and published;
- Procedures in place in the medical institutions and waste management company “Sandasuptaveba” that when correctly observed by the relevant institutions was ensure proper classification and treatment of the hazardous health-care waste;
- Leaflets and other publications, addressed to the public for ensuring public awareness and public participation regarding the proper utilization and segregation of the healthcare-waste were prepared;
- More than 20 000 people were notified about the project through the public participation component (through direct communication - lectures, trainings, booklets);

- The whole territory of Georgia was covered and was informed through our TV programmes;
- Trainings for the staff of medical institutions and “Sandasuptaveba” that was ensure the proper knowledge of the health-care waste procedures;
- A public debate for the EIA purposes took place and was attended by about 100 people;
- About 90 persons from medical institutions and “Sandasuptaveba” were trained in Batumi for the proper management of the health-care waste.

Lessons learned

For the first time in Georgia a modern system of medical waste handling and treatment was established. And everything is in-place to ensure its stable functioning. Namely, the sustainability of the system is guaranteed by the established legal obligations of medical institutions and municipal services to ensure proper handling, collection, transportation and treatment of the medical waste. Adjara AR government environmental department has monitored it and regularly report to the society on results. It is best example the involvement both of governmental and non-governmental sectors in the waste management issue. Good governance is the best mechanism for the implementation of development projects involving various stakeholders as medical institutions, government authorities and the general public.

