## Gold in Garbage - the Experience from Maldives

he United Nations Millennium Declaration referring to the special needs of small-island developing states (Article 17), may have raised a few eyebrows. However, such special needs are very real and nothing drives home this fact more than a living example from the Maldives. The peculiar problem that Maldives faces in garbage disposal – lack of land space – is worth a closer look, not just because of its uniqueness, but more because of the ingenuity of its solution. In a rare success story, Maldives has transformed the unsightly spectacle of garbage into a dream tropical island – Thilafushi.

Till the 1970s, solid-waste disposal was not an issue in the Maldives, as the population size was quite small. Things changed with the coming of tourism and the consumer revolution it spawned. Soon, imported tins and plastic bags began to fill dump sites. Malè and other high population density islands simply ran out of space.

In smaller islands, garbage disposal simply meant dumping garbage from this side of the road to the other. Disposing garbage in the sea was not a real option because of the damage it could cause to the marine environment.

Since lack of land precluded landfills as a solution, Maldivians came up with the idea of lagoon-fills. The idea was the culmination of a series of seemingly unrelated events. The first was the population explosion in Malè leading to shortage of land. The second was the increased generation of nonorganic garbage following the consumer revolution. The third was the development of Malè International Airport on reclaimed land this being the triggering factor. By the time the airport was completed, Maldivians not only knew the technique of reclaiming land, they also had the necessary machinery on hand. It was therefore natural to transfer the machinery from the airport to the southern lagoon of Malè to create land for its rapidly increasing population. It was equally natural to use garbage from the crowded island to augment the land mass. When by 1990, Malè lagoon was fully reclaimed, garbage operations shifted to a lagoon near Malè, Thilafalhu.

Beginning with the first load of garbage dumped, the lagoon has been systematically dredged and reclaimed. Thilafalhu



Silos storing cement on Thilafushi Island.

the lagoon has now become Thilafushi the island. About 450 tons of garbage is brought to the island daily, half of which is construction site debris. Today Thilafushi is a refreshingly green island sprawling over 2500 acres of land and bustling with commercial activity.



Houses on land reclaimed by garbage disposal.

It houses workshops, warehouses, a cement factory, an LPG refilling plant, and a boat yard.

However, while the story of Thilafushi Island appears to be a success story, it does leave many health and environmental questions unanswered. For example, hitherto no attention was given to the sorting of garbage; hazardous materials may lie buried under the ground, posing a potential environmental threat. Long-term studies need to be carried out on its impact on the marine environment including coral growth and fish morphology, reproductive capacity, etc.

The Minister of Environment recently indicated that a national campaign for garbage sorting would be needed, starting at the household level. For this, a thorough public awareness campaign would need to be activated simultaneously. This would need joint efforts by the Ministries of Health, Environment, and Home Affairs, with active participation of the media.

Other islands like Velidoo, in Noon Atoll, have developed a community-based system of garbage disposal, and other islands are also looking at this example. The Ministry of Education recently carried out a cleaning programme for Guraidoo Island in Malè Atoll with the participation of school children and volunteers from tourist resorts. In all these efforts the key question is sustainability.

For the Maldives, solid waste disposal with its ominous implications to the marine environment is a core issue pivotal to the entire economy, related as it is to ecotourism. As President Gayoom said in his inaugural address to the WTO Asia-Pacific Ministerial Conference on Sustainable Development of Ecotourism, in February 2002, "To us in the Maldives, nature tourism has a particular significance. It is already our main tourism product." It is quite clear that if the Maldives wants to become and remain a prime eco-destination, it will have to find a sustainable solution for solid waste disposal. "The earth is not an inheritance to be wasted," President Gayoom told the ministers at the Conference. He could have said the same thing of Maldives itself.

-Dr Abdullah Waheed