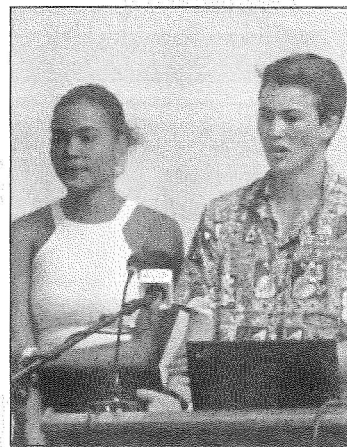
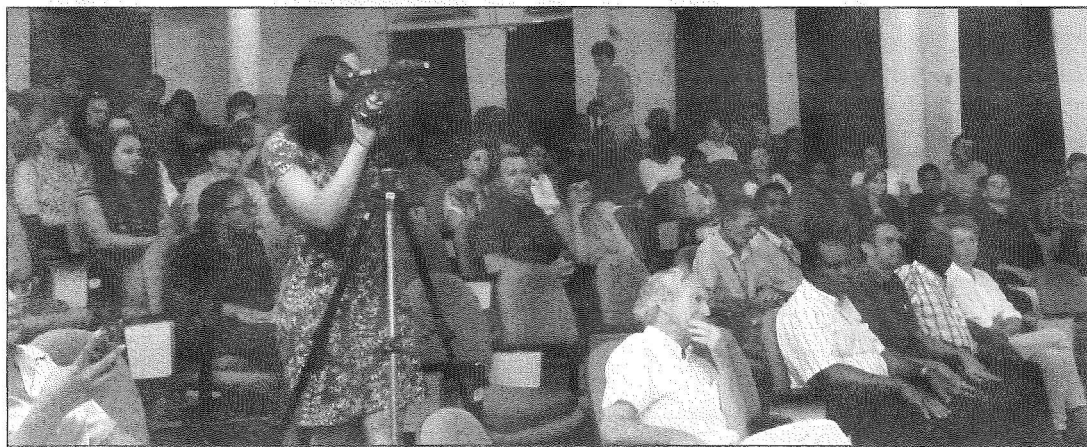


Waste management

# Research reveals a need for responsibility

**A team of students from the University of Seychelles (UniSey) and the Department of Environmental Systems Science at the Swiss Federal Institute of Technology in Zürich collaborated on a case study on how waste is perceived and managed on the main island, and to assess the condition of the landfill in Providence.**



**Students from UniSey and ETH Zurich conducted the study over three weeks and released the results yesterday.**

S. Marivel

The presentation, done by different groups of the students from both institutions, reveals that there is a need to “define responsibility for a Solid Waste Master Plan”, according to their research which extended over the course of three weeks.

Elements of the research included data collection and analysis, and determining collaborations and responsibility throughout government bodies and companies. The study was extensive; they included stakeholder interviews with fishermen, landfill workers, hotels, restaurants, farmers, government agencies and members of the Public Utilities Corporation (PUC), Seychelles Fishing Authority (SFA), Seychelles Fishing Boat Owners Association (SFBOA), and STAR Seychelles.

“The area around Providence

is not a good spot to fish anymore,” one fisherman expressed during the case study.

One landfill worker observed, “... the waste produces methane gas – it is a source of pressure and sometimes it explodes like a volcano.”

One stakeholder also aptly noted that, “The treatment plant has not functioned for over a year. Waste doesn’t go away: it’s crucial to understand that when it leaches into the ocean it will come back, through the fish that eat it and later into our bodies.”

These testimonials alone give weight to the students’ research, proving that prioritising the technical aspect of waste management is necessary to get things moving forward. While there are already efforts towards waste management on the island, working more efficiently to make significant progress is crucial.

The students also stressed

that “data collection must be improved to generate accurate material flow analyses.”

Conclusions from the presentation stressed the need for government support, and to create markets for recycled products. Combining aluminium, PET, and glass collections are also necessary, and to set up collection bins and points.

“Households in general are willing to recycle,” one group said.

“A portfolio of coordinated action is needed in order to divert waste fraction from being landfilled. Additional landfills are still needed in the long-term even with very favourable assumptions. Better and improved sorting at source is a core assumption of all implemented scenarios. In order to increase the robustness of the results, better data is needed,” one presenter noted.

“There is some evidence of landfill leachate (Editor’s note: water that has percolated through a solid and leached out some of the constituents) entering the surrounding water bodies and pre-treatment does not operate so far,” one group pointed out. “There has been locally declining fisheries, that could be potentially attributed to the landfill, however there are other possible environmental influences from land reclamation, a sewage treatment plant, and other industries.”

Furthermore, “The leachate may have severe environmental consequences and therefore should be treated. A long-term disposal solution must be developed for the leachate. The fishing industry may be compromised by the leachate from the landfill, although there could be other contaminant sources,” the group highlighted.

On a positive note however, “Due to the levy system, PET and metal cans are effectively collected,” the case study outlines.

According to their research, a large fraction of solid waste on Mahé consists of biodegradable waste (BW). Using BW as input for a biogas plant would reduce the amount of waste going to the landfill, they conclude. IOT is planning its own biogas plant.

The core message was however best summarised by Minister for Environment and Climate Change, Didier Dogley when he said, “At the root of it all, we need to find ways to reduce the very creation of waste.”