

Association pour le Développement Durable

Sandwatch Programme at La Gaulette SSS

Brief on the First Field exercise at La Preneuse Beach

Date: Friday 16 March 2018 at 10h00

1. Participants

Initially, in view of the expected windy and bad weather, the Rector decided that only one car would be used to transport a couple of teachers and some students to keep up the momentum of interest. However, in the morning of Friday, the weather was quite comfortable for an outing. The Rector decided to take the whole group to La Preneuse in 4 cars. 15 students of Grade 10 and 5 teachers participated in the exercise. ADD was represented by Mr. Ragoonaden. No arrangement was made for other ADD members to be present as it was expected that the activities would be limited to making a reconnaissance of the site and taking a few photos.

2. Activities carried out

Mr. Ragoonaden reviewed the activities planned within the framework of the sandwatch programme. It recalled that these were highlighted during the training conducted on 20 February 2018 at the college. This enabled the students and teachers to have a better idea and assessment on the site of the expected activities to implement the sandwatch programme. He emphasized that the sandwatch manual and the UNESCO database would be used concurrently to carry out efficiently the planned activities.

The Martello Tower is a landmark of the La Preneuse beach. The students were encouraged to search for information on the tower and include it in the description of the site. They were also prompted to take photos during the visits to make mural posters for display during the presentation of sandwatch outcomes and achievements at the end of the project.

3. Distribution of UNESCO sandwatch manual

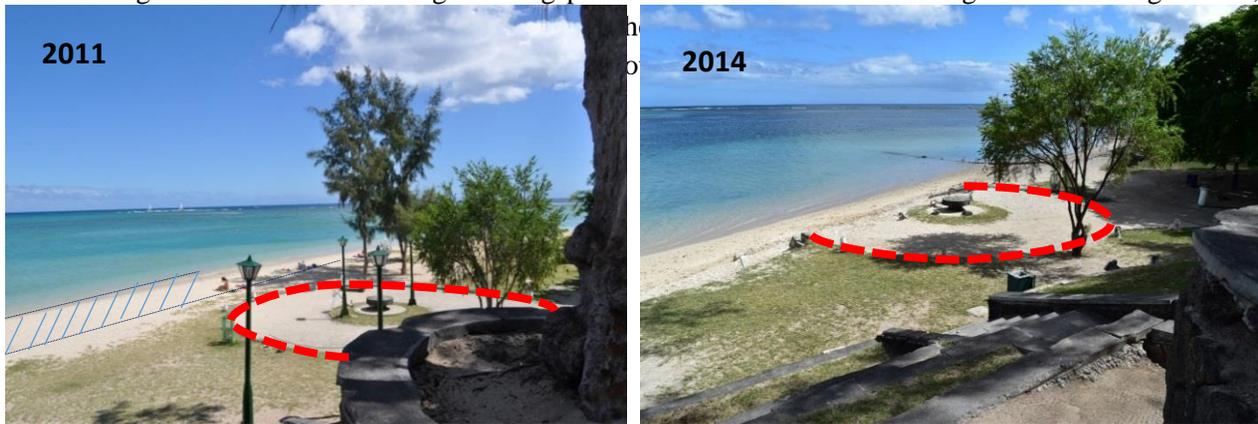
Each teacher was provided with a copy of the sandwatch manual made available by UNESCO. About 10 copies were provided to the students to ensure that at least a copy is available for 2 students. Mr. Kim Currun would discuss with the teachers how the manual copies could be retrieved from the students and redistributed to other students to ensure that all participating teachers and students benefit effectively from it. Mr. Kim Currun has given the username and password, as allocated by the Database Beach Administrator, to all students for viewing the information in the database. The Teachers would use the username and password of Mr. Kim Currun for entry of data.

The teachers and students were guided how to use the manual and carry out activities as described in it.

4. Past changes of La Preneuse beach.

One of the sandwatch activities is to gather information on the historical changes of the La Preneuse beach. The students met and discussed with Mr. Michael, a resident of Riviere Noire, who knows very well the public beach since his childhood, about his recollection how the beach was long ago. He has

observed gradual and drastic changes taking place on the beach and in the lagoon. According to him,



Source: Ministry of Environment, Sustainable Development, Disaster and Beach Management (2015)

Figure 1. Shoreline change from 2011 to 2014 at La Preneuse

Four rows of sandbags have been placed along nearly 200 m of the beach about 3 years ago to protect it from further erosion. Climate change was mentioned by a teacher as one reason causing accelerated erosion in recent years. Mr. Ragoonaden availed of this opportunity to explain the effect of sea level rise on coastal erosion.

There is a natural channel in the lagoon which facilitates boat passage. Mr. Michael has noted also marked destruction of the coral reefs

5. State of the sandbags

The students were asked to observe the state of the sandbags. Many were ripped open with most of sand lost. This could be due to natural forces – effect of strong waves – and trampling by human activities. The first row was now almost covered with sand. In the medium term, this line of defense could disappear and the beach would be again exposed to wave action giving rise to further erosion. Alternative measures ought to be found and students were requested to ponder on them for discussion at the end of the project.



Figure 2. Damage to sandbags due to wave actions and human trampling

6. Weather observation

A fact sheet and a form (annex I and II) were provided to each teacher and student. They were trained how to fill the form. A first set of weather observation was made. The data would be entered in the form provided in the UNESCO Database.

7. Description of the beach

Students were requested to note the state of the beach and human activities. The beach is covered almost entirely with light yellowish white sand. It was quite clean with sunbathers and people jogging. A few debris and litter could be found scattered on the beach.



Figure 3. Yellowish white sandy beach

Main prominent features could be identified including a canon ball and a canal discharging rain water into the sea.



Figure 4. Canon Ball



Figure 5. Canal discharging water into the sea

8. Transect lines for in-depth study

Mr. Ragoonaden explained that four reference points/objects would be identified and transect lines would be drawn from them to the shoreline for in depth studies. These are along the river canal, a white wall, the canon and region where accretion is taking place.



Figure 6. Wall and vertical sand scarp



Figure 7. Accretion part of the beach

The transect lines would be divided into 3 zones for the study: high ground (terrestrial) landward of the beach, beach and sea (low and high tide limit)

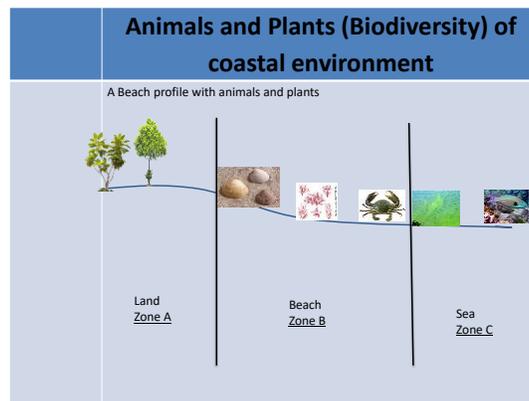


Figure 8. The three zones for in depth studies

Studies would include:

- Plants and animals in the 3 zones
- Debris and litter gathered along transect lines
- Beach width and beach profile along the transect lines using a measuring tape and a simple equipment

9. Other observations and measurement

Sea surface temperature, salinity and pH would be measured using a portable water quality meter. This has been ordered from the supplier and should be available in about 2 weeks.

Information would also be gathered from the public using the beach to prepare a brief on human activities and interest.

10. Work in class

A session in class would be organized to discuss the visit and field exercise. Students with the help of the teachers would prepare a report on the visit, in particular description of the beach, weather observation and activities to be carried out. Marks would be allocated to each student on the quality of the report and an assessment made at the end of the project.

A special session would be considered whereby by ADD members would provide further assistance on data entry in the UNESCO Database, planning of subsequent field exercise and preparation of report.

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Annex I

Sheet No.....

ADD/CF/UNESCO Sandwatch programme at La Gaulette SSS

Weather measurement and observation

Essential information about the weather can be obtained from simple observation. This should be conducted at the same time. It will be seen after a few observations that weather is variable. Weather observation can include:

1. Cloud cover

- i. Clear: no or few cloud
- ii. Partly cloudy: Less than half of the sky is covered with cloud
- iii. Mainly cloudy; More than half of the sky is covered with cloud
- iv. Completely cloudy/overcast: All the sky is covered

2. Cloud type

- i. High, medium and high cloud
- ii. Cloud colour
- iii. Cloud type – cumulus, cirrus or stratus

3. Temperature

A simple thermometer will be used

If not available, whether hot, comfortable or cold

4. Wind direction

