



Ministério  
da Educação



Escola Secundária Suzete delgado

# REPORT ON ACTIVITIES UNDER THE SANDWATCH PROJECT

“PRAIA PEQUENA”



Project Leaders at Suzete Delgado Secondary School:

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Basileu Inácio Neves

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Suzilene Helena Santos

Director of Suzete Delgado Secondary School:

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Jorge Humberto Delgado

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## **1. INTRODUCTION**

This report is framed within the scope of the sandwatch project and aims to provide important information on two visits made on May 4 and June 14, 19, all at 11:30 am to the “Praia Pequena”, located in Ribeira Grande de Santo Antão. These visits were attended by a group of students from Suzete Delgado Secondary School, accompanied by teachers, under the knowledge of the school's management, in the person of its Director Mr. Jorge Delgado.

With these trips we wanted to achieve the following objectives:

- Inform about the Sandwatch Program, its origin, objectives, methodology and necessary work equipment.
- Justify why we chose “Little Beach” for our beach monitoring pilot without you.
- Make known the work or activity developed within the Sandwatch Program.
- Report the state of the beach as part of the first observation activity.
- Suggest a set of interventions to make the beach more attractive to swimmers, tourists and beach goers.

## **2. SANDWATCH PROJECT**

Today we know the importance of preserving the environment and the need to change behavior in relation to it, in order to promote a model of attitudes, generating clear positive reflexes with the quality of life of all. New ways of living and developing must be found; ways that preserve the vitality of the earth and are therefore sustainable in the long run (Faria & Donaduzzi, s.d.).

Sandwatch is a program that enables children, young people and adults to work together on scientific observation and critical assessment of the problems and conflicts that their beaches and coastal areas are confronted with, and proposes the design and implementation of activities and projects that address some of these issues while reinforcing the beach environment and making the ecosystem more resilient to climate change. Based on a very simple set of protocols, Sandwatch appeals to people of all backgrounds and ages.

- Sandwatch's origins date back to an environmental education workshop held in Trinidad and Tobago in July 1998, coordinated by the United Nations Educational, Scientific and Cultural Organization (UNESCO). Participants saw firsthand many of the problems threatening coastal areas, such as erosion, pollution and poorly planned development, and decided to take action on the situation. That's when what came to be known as Sandwatch began.
- Initially a Caribbean regional initiative, Sandwatch is today a captivating international program put in place by schools, youth and communities in Africa, Asia, Europe, as well as the Caribbean islands and the Pacific and Indian oceans. Thanks to an internet network, Sandwatch is in the process of becoming a worldwide movement.
- Sandwatch is a living example of education for sustainable development and is about to become one of the major projects of the United Nations decade of Education for Sustainable Development (2005 - 2014).
- As the world is increasingly threatened by climate change, Sandwatch offers the opportunity to help people and ecosystems react to present and future changes in a practical way.
- Beaches are among the most vulnerable ecosystems to the risks of climate change due to rising sea levels and the increasing frequency of major storms. Contributing to the health and resilience of ecosystems, Sandwatch can help people of all walks of life learn about climate change and how their actions can help the adaptation process.
- Sandwatch proposes a method for children, youth and adults, with the help of teachers and the local community, to work together to critically assess the problems and conflicts with which their beach environment is confronted and to develop sustainable solutions in order to remedy them. It also helps beaches be more resilient to climate change (UNESCO, 2012).
- The Sandwatch project aims to achieve the following objectives as this program unfolds around the world:
- Have children, young people and adults carry out scientific observations, measurements and analysis of changing beach environments with an interdisciplinary approach;

- Assist Sandwatch groups, together with communities, to use their data and knowledge to improve and manage beaches intelligently;
- Integrate the Sandwatch approach into formal and informal education systems and cooperate with the Decade of Education for Sustainable Development;
- Help understand how climate change interferes with beach systems;
- Strengthen resilience of ecosystems and contribute to climate change adaptation.

## **1. THE CHOICE OF “PRAIA PEQUENA”**

The main reason that led us to choose the “Praia Pequena” is its proximity to the school so it has few financial resources to cover all the logistics that it entails, namely in terms of equipment, snacks and transportation. The school is approximately 1 km away and the journey can be done in just 15 minutes on foot.

Another reason that led us to choose it is that we believe that with a good job done by everyone, namely the school board, teachers, the town hall, the health department, the national police, local community associations, schools, youth, adults, children, fishermen and sunbathers the beach can be very attractive and a place of recreation, given its proximity to the village community.

## 1. METHODOLOGY

The method used to obtain beach information was basically quantitative and was based on the collection of useful data in order to meet the objectives outlined above..

**4.1 Beach Observation** - Selecting a specific beach for observation, preparation of a schematic map and measurements of various parameters such as:

- ✓ The way the population uses the beach;
- ✓ Garbage on the beach;
- ✓ Erosion e accretion;
- ✓ Composition of the beach;
- ✓ Waves;
- ✓ Coastal currents
- ✓ Fauna and flora



## 4.2. Materials Used

To carry out the activities under the project, the following equipment was required::

- ✓ Tape measure,
- ✓ Stopwatch;
- ✓ Notebook and pen;
- ✓ Plastic waste collection bags;
- ✓ Latex Gloves
- ✓ Masks;
- ✓ White paint;
- ✓ Brush;
- ✓ Cork stopper;
- ✓ Graduated broomstick;





## 5. DATA PRESENTATION AND ANALYSIS

The data presented here are the results of two visits to the beach, and on the first visit on May 4th, a team of two teachers (Basileu Neves and Martinho Lima) and 20 students from different levels of said school. In this first visit the beach was observed and the measurements collected.

On the second visit on June 14, 19, measurements were taken and a beach clean-up campaign was carried out by a team of 4 teachers (Basileu Neves, Suzilene Santos, Martinho Lima and Evelina Salomão) and 12 students. Observação da praia

### 5.1.1 Location and mapping of “praia pequena”

“Praia Pequena” is located in the municipality of Ribeira Grande, Santo Antão and next to a small community called Penha de França, Povoação.

### 5.1.2. Constitution of the beach.

Although it does not have adequate material to measure the sediments that make up the beach, it is clearly seen that it consists predominantly of pebble, scrub and in small amounts gravel and sand.

According to reports from some colleagues, in the still recent past the beach was predominantly sand all year round, but its extensive extraction with the use of machines made the sand scarce and is now a rarity on the beach. Currently only small portions of basaltic sand appear on the beach during periods when the sea is quieter when one day can be seen and the next day may no longer be, being carried by high tides or a day of sea a little more. busy.

There are also two buildings on the beach, a sewage sump of the penha de france community and a small dirt field for soccer.



### 5.1.2. Trash on the beach.

Most of the beach waste is from the neighboring community according to reports even though there are garbage collection bins, many prefer to throw the trash on the beach, as evidenced by several plastic bags full of household trash found on the beach.

On the beach we come across a large diversity of pollution debris such as: Slippers, bottle tops, yogurt cups, bucket leftovers, glass leftovers, sisal ropes, soda pop lids, stove leftovers, bones; hair, tree trunks, remnants of an engine, corks, tires, styrofoam, shells, fishing lines, plastic bags, condoms, cans, irons, pieces of nets, among others..



### 5.1.4. Fauna and Flora.

During the two visits we were able to prove that the beach is completely devoid of observable fauna, we did not find any signs of crustaceans, shellfish or crabs near the seafront. We believe that this absence is due to the poor quality of the water due to pollution caused by the existing pit, but also by the garbage that accumulates there.

In terms of vegetation, we verified the existence of some acacias in the area upstream from the beach being planted by the neighboring community according to photos offered by a fellow professor and resident of that community.

In addition to the acacias, you can also find a species of crawling plant next to the pit.





#### **5.1.5. Human activities**

The beach currently has a record of little human activity, being very little sought after by bathers, since it has no watchman throughout the year, does not always have sand available but also because of the poor water quality and the strong currents existing in that area.

It can be seen that the beach is most sought after by teenagers for a short swim or to practice football on the small field there.

#### **5.2. Beach dimension**

On the first visit, the length and width of the beach were collected, being 425 meters long and having an average width of 23.1m, while on the second collection the average width increased to 25m.

#### **5.3. Characteristics of the waves**

On the first occasion the waves had an average amplitude of 54 cm, while on the second visit the amplitude was 57 cm. As for the frequency of waves in the first displacement, 10 waves were recorded in 86 seconds, making it 0.12 waves per second, while in the second opportunity, it was 0.16 waves per second.

As for the direction, the waves come from the north.

#### **5.4. Chains**

It is a beach with strong currents, being easily noticed when entering the water. In the first measurement, we found a speed of 0.3 meters per second, while in the second, the speed was 0.25 meters per second.

As for the direction, the currents go west.

## 5. CONCLUSION

Despite the various initiatives for the conservation of nature and ecosystems, developed in recent years, degradation continues, in some cases, at an accelerated rate. In addition to the legal measures and conservation initiatives that are necessary to ensure the integrity of the country's ecosystems and make them more resilient, it is necessary that all stakeholders (population, NGOs, decision makers, private sector, etc.) have awareness and understanding its real value, as well as the vulnerability associated with it. The efficiency of the actions of each one of us is very important as many of the ecosystems are already threatened by global warming, as a result of rampant pollution.

Projects such as Sandwatch are an asset, as they include several stakeholders, starting with people's awareness and education about the real conservation value of beaches, with the consequences of global warming being the most vulnerable ecosystems.

Despite the total openness of the school management and total availability, we had several constraints in the attempt to implement the sandwatch project, and we did not have any support from those responsible for its implementation, namely to provide the appropriate equipment and some money to develop all the activities previously outlined. For that, we had to improvise certain materials to be able to do something.

Our dismay was even greater, when on the last visit to the beach where we previously invited many people from the neighboring community of the beach (Penha de França) to a campaign to clean it up in an attempt to sensitize them to this very important cause, but not no one came.

The beach in question needs a deep and quick intervention to be attractive again, especially for bathers, so, despite our efforts to do something, we feel a bit of failure in the face of our almost insignificant actions.

From this perspective, we are going to suggest a set of measures that need to be taken to solve the problems of the “Small Beach” and make it more beautiful and attractive:

- An urgent cleaning campaign for the removal of all the garbage found on the beach's perimeter. A work that may have the contribution of the City Council of Ribeira Grande, Schools (Sandwatch Program Team), and the Health Police.
- Sensitize the neighboring community not to throw garbage on the beach, informing them of the many consequences it can have on the environment and public health.

- Slope protection to prevent landslides and sand stones from slipping.
- Tree plantations and plantation improvements that are in place to make the beach more attractive.
- Put baskets or waste containers on the beach for bathers, where the municipal sanitation services make permanent collection, thus avoiding the accumulation of waste.
- Removing the existing pit that contributes greatly to water pollution, endangering public health.
- Remove the tires around the soccer field and protect it with other material that may not be dragged during periods of rough seas.

## **6. BIBLIOGRAPHICAL REFERENCES**

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- **UNESCO, 2012. Sandwatch: Adapting to climate change and educating for sustainable development. Paris: Unesco.**

## ANNEXES















Photo of Praia Pequena several years ago



Sand available on the beach for several years