



## Cooperation between Dominican Republic and Haiti: Environment, climate change and risk reduction

The Pedernales watershed, whose highest point is at 2,000 metres above sea level, covers an area of nearly 350 km<sup>2</sup> shared between Haiti and the Dominican Republic. This transboundary area is located in the southeast of Haiti. The rapid deforestation process has contributed to soil degradation, leading to severe erosion and, consequently, a loss of soil fertility and significant risks of landslides and flooding downstream of the basin. Environmental degradation is also a proven driver of food insecurity in Haiti. Climate change, by altering rainfall and increasing the likelihood of more intense storms, further exacerbates soil erosion.

### General presentation of the project



#### General objective

To strengthen sustainable development processes that deliver mutual benefits for both countries by fostering better relations and greater integration in key areas.



#### Specific objectives

- To strengthen the institutional, policy and regulatory frameworks related to climate change.
- To pilot sustainable, climate-resilient land use approaches, as well as locally adapted farming systems to inform policy development, improve community livelihoods and enhance their resilience to climate change.



#### Intervention strategy

The project seeks to build links between natural resource management, climate change adaptation and disaster risk management, while improving coordination between communities and institutions in both Haiti and the Dominican Republic. Given that agriculture is particularly vulnerable to climate change, the watershed approach aims to reduce the risk of disasters and erosion through resource conservation and soil conservation policies and techniques. This project stands out for its cross-border approach based on bilateral cooperation, since the Pedernales watershed lies within both Haiti and the Dominican Republic.



#### Expected results

- R1. The protection of the population living in the watershed of the Pedernales River against natural disasters is improved.
- R2. The degradation of natural resources is reduced, increasing the population's access to environmental services.
- R3. Bilateral cooperation at the local level on environmental issues is strengthened.
- R4. Bilateral cooperation at the institutional level is reinforced in the areas of natural resource management, disaster risk management, and climate change adaptation.



#### Partners

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).



#### Timescale

54 months (2018–2023).



#### Budget

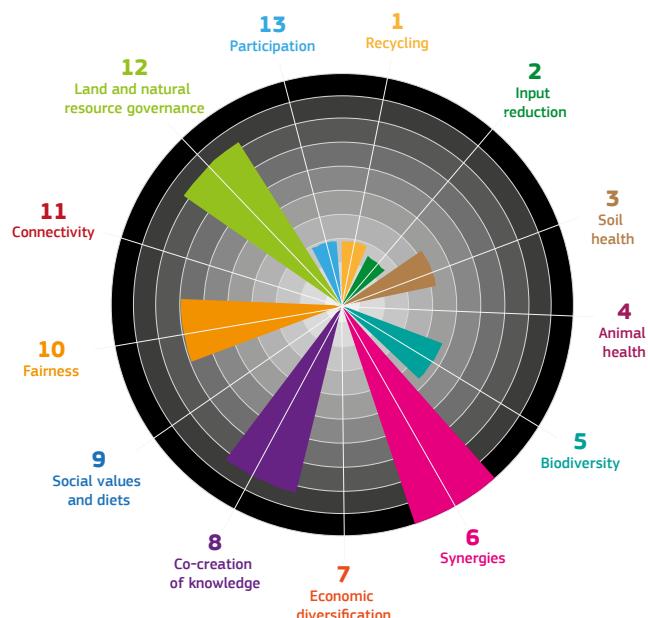
EUR 7.5 million, funded by the European Union (84%) and the German Federal Ministry for Economic Cooperation and Development (BMZ) (16%).



#### Intervention area



## Agroecological classification of the project according to the 13 principles of the HLPE



### 1 Recycling

The project pays limited attention to the integration of the principle of nutrient, biomass, and water recycling.

### 2 Input reduction

The project places low priority on measures to reduce external inputs. It proposes to improve harvesting and storage of rainwater (e.g. rainwater harvesting tanks) to increase water availability during the dry season. The soil conservation practices supported by the project aim to improve water infiltration and, consequently, contribute to better soil fertility. Although the specific impacts of conventional agricultural practices on soils and water (both in terms of quantity and quality) are not explicitly mentioned, the project nevertheless promotes sustainable agricultural practices without providing specific details on these practices.

### 3 Soil health

The project does not explicitly address the principle of soil health. However, by reducing the risk of erosion, it supports the improvement of soil fertility, thereby leading to an increase in yields and a reduced pressure on forested areas. Deforestation contributes to soil degradation by reducing water retention capacity and exacerbating the risk of flooding, landslides and drought. While the project does not promote practices that reduce tillage, it offers training to farmers in contour ploughing techniques, which respect natural elevation contour lines. Other water and soil conservation techniques—such as riparian buffer strips, vegetative and non-vegetative anti-erosion barriers, and reforestation—are also promoted through peasant organisations.

### 4 Animal health

Animal health is not a component of the project.

### 5 Biodiversity

The consideration of biodiversity within the ecosystem by the project is partial. Particular attention is given to the diversity of plant species used for reforestation, prioritising locally adapted varieties that are resilient to climate change. The sustainable use and management of soil and forests, which form one of the pillars of the project, aim to reduce ecological vulnerability of the region and increase the resilience of ecosystems.

### 6 Synergies

The enhancement of synergies within agroecosystems is partially integrated by the project. The promoted approach primarily focusses on the landscape scale, recognising that changes in practices at plot level are not sufficient to counteract watershed degradation driven by deforestation, demographic pressure, and climate change. Agroforestry is presented as “the most promising practice for soil conservation”. The project also aligns with a logic of climate change mitigation by limiting the risks of deforestation and supporting reforestation. Indeed, the change in land use, such as deforestation for agricultural purposes, is a significant contributor to greenhouse gas emissions.

### 7 Economic diversification

The project does not mention economic diversification. The promotion of climate-resilient agricultural practices, which could foster diversity to mitigate risks, is mentioned, although these practices are not detailed in the project.



## 8 Co-creation of knowledge

The project contributes to knowledge sharing and, to a lesser extent, to co-creation. The project places great emphasis on cross-border knowledge exchange between the various partners involved on both sides. An information-sharing platform was set up between Haiti and the Dominican Republic to disseminate best practices and harmonise approaches. Training sessions included soil conservation practices and natural resource management. The project document refers to training on agroecological techniques, diversification of agricultural products, drought-resistant seeds and crops. Strengthening the individual and collective capacities of farming communities in disaster risk management, including early warning systems, is one of the main areas of intervention. However, the project does not emphasize local knowledge systems, nor does it adopt an experimental approach that would enable communities to engage with and contribute to the proposed solutions. It is unclear if the project fully subscribes to a co-creation approach that fosters horizontal exchange.

## 9 Social values and diets

The project makes no reference to the promotion of social values and diets.

## 10 Fairness

The project is partially committed to promoting social justice. It supports a gender-sensitive approach. For instance, an initial analysis was carried out to assess access to and control over resources according to sex and age. This preliminary study was intended to adapt the planned activities to the specific needs and capacities of the participants. It was also meant

to ensure more equitable involvement in each component of the project. The capacity-building component promotes gender parity. However, the role of women in decision-making bodies is not clearly defined. The project document does not appear to have been initially developed with an explicit gender perspective; instead, gender considerations seem to have been integrated at a later stage.

## 11 Connectivity

The project makes no reference to the principle of connectivity.

## 12 Land and natural resource governance

The project is partially committed to promoting responsible governance of land and natural resources. It focuses on strengthening consultation and cooperation between national institutions in the two countries. This collaboration aims to facilitate the exchange of information and knowledge on the environmental vulnerabilities of the Pedernales River basin. Furthermore, it contributes to the creation of an inter-institutional management platform designed to develop a shared vision for the management of natural resources, disaster risk, and climate change along the watershed. This collaboration is expected to result in the formulation and implementation of a harmonised management plan for resilient watershed development, as well as coordinated disaster response plans. In total, the preparation of four “municipal resilience plans”, based on local risk analysis and mapping, is foreseen. This process is intended to involve local authorities, decentralised technical services, civil protection, and community or professional organisations.



## 13 Participation

The principle of participation is partly integrated into the project approach. It supports the development of "resilience plans" at the municipal level. These plans are developed through participatory community planning (PCP) processes, which strengthens the capacity of a community to cope with and adapt to adverse events, while taking into account the specific physical, economic, environmental, and social characteristics of the locality. They are based on risk analysis at the watershed scale and risk mapping at the municipal level. These plans help identify the activities supported by the project. For certain strategies of common interest, such as forest fire prevention, flood control, riverbank erosion protection, and soil conservation measures, the project encourages and facilitates coordination among involved stakeholders.

### SUCCESS FACTORS/CHALLENGES

- +
- Strengthening of binational cooperation in the management of natural resources and risk prevention at the watershed level.
- +
- Multi-stakeholder approach involving the relevant institutions of both countries, local authorities, and community organisations, fostering the sharing of knowledge and information.
- +
- Participatory approach for the development of municipal resilience plans in response to climate change.
- +
- Water and soil conservation approach at the watershed level to reduce erosion risks and improve soil fertility.
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- Limited consideration of the social and economic drivers of environmental degradation in the watershed.
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- Absence of clarity on the pathways of impact between watershed restoration and the improvement of food and nutrition security for the targeted communities.

