

## **Morocco's experience of loss and damage management and finance: The case of drought**

### **Introduction :**

The Moroccan agricultural landscape is characterised by the cereal-livestock-olive system. Due to the arid climate, the total agricultural area of Morocco is only 8.7 million hectares, of which 81% is rainfed. The increasing frequency and intensity of drought events in Morocco is largely attributed to climate change, which is caused by human activities, notably its greenhouse gas emissions. By 2050, the majority of the national territory will experience an average decrease in rainfall/precipitations of 10% to 20% (according to the 4th National Communication of Morocco).

The frequency of dry agricultural seasons has increased fivefold in Morocco, from one dry year out of fifteen normal years in the 1930s, 1940s, 1950s, 1960s and 1970s, to one dry year out of three in the last two decades. These droughts of varying intensity have had significant repercussions on agriculture and the country's economy as a whole. The impact of drought episodes on agriculture in Morocco is a major challenge that requires urgent action. Agriculture is a key sector of the Moroccan economy; crop loss and damage to farmland and livestock not only affect the livelihoods of farmers, but also have wider economic implications for the country. In addition, droughts exacerbate water scarcity and desertification, which are already major problems in the country.

The creation of a fund at COP27 to support climate and disaster affected countries is a necessary element in addressing the loss and damage caused by extreme weather events. However, this global effort must be complemented by actions at the national level to address the root causes of the problem and promote sustainable solutions. While the creation of a global fund is a positive development, addressing the root causes of the problem and promoting sustainable solutions must happen at the national level.

### **I. Economic losses**

Agriculture is a very important sector in Morocco, economically, socially and environmentally. It is the result of the various agricultural policies implemented by Morocco since its independence. Agriculture has had a significant impact on the Moroccan economy, accounting for 12-14% of GDP from 2008 to 2018. The agricultural sector contributes to nearly 38% of employment at the national level with nearly 74% in rural areas.

#### Agricultural losses:

In a drought year, agricultural production and associated economic activity sectors are greatly affected. As an example, the drought of the 1994-1995 agricultural season resulted in a significant decrease in production (17.4 million quintals compared to 96 million quintals in 1993-1994), a decrease in the level of employment in rural areas and a loss of 60% of working days compared to a normal year (IRES, 2014).

Despite the ambitious objectives of the "Plan Maroc Vert" and "Génération Green" agricultural strategies, cereal production in Morocco remains fluctuating in the context of abundant

droughts and increasing water stress. The final production of main cereals for the 2021/2022 agricultural year was 34 million quintals, i.e. a drop of 67% compared to the previous year, which recorded an exceptional performance (Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forests, 2022). This reduction in cereal production will result in a contraction in agricultural value added of around 15%, which would negatively affect the income and consumption of rural households, while increasing Morocco's dependence on imported cereals.

Rainfed agriculture covers about 80% of the useful agricultural area and produces mainly food crops based on cereals, food legumes and fodder crops. The fodder deficit has direct repercussions on livestock and, consequently, on the income of livestock farmers.

Agricultural GDP	Estimated			Projected	
	2019	2020	2021	2022	2023
	-5,0	-8,1	17,8	-15,0	12,0
	Annual percentage change unless otherwise indicated				

(Source: World Bank, 2022)

#### Labour market losses:

According to the World Bank report, the lack of rainfall is once again causing job losses in rural areas. According to data from the Higher Planning Commission (Haut Commissariat au Plan, HCP), 174,000 jobs were lost in rural areas in 2022. This suggests that the dry start to the 2021-22 agricultural season has once again had a negative impact on rural livelihoods.

Drought events, in addition to their economic impact, can have a significant social impact by significantly increasing rural-urban migration. Rural populations whose only resources depend on agricultural labour are economically weakened in the event of a severe drought, especially if it lasts several years in a row.

## **II. National expenditures and policies for drought risk management**

During periods of prolonged drought, the Moroccan government undertakes national actions and expenditures to mitigate the economic and social impacts of drought, particularly through the improvement of social, cultural and health assistance, the provision and supply of drinking water and the generation of employment.

In this sense, the Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forests has urgently launched a Rainfall Deficit Impact Reduction Programme (Programme de Réduction des Impacts du Déficit Pluviométrique, PRIDP) to remedy the negative effects of the drought on the 2021/2022 agricultural season. This programme is endowed with a budget of 10 billion dirhams (1 billion USD) of national public funds, to provide the required assistance to farmers and breeders, and to face the impact of the rain delay on the different sectors of the agricultural sector. The PRIDP focuses on three areas, namely:

- Protection of animal and plant capital,
- Management of water scarcity,

- Agricultural insurance and financial support to farmers and professionals.

### III. Financing needs

As mentioned above, drought is a threat to economic activity. It can result in considerable losses and damage and significant financing needs to cope with it. Thus, several types of funding may be required to meet drought-related needs:

- Humanitarian aid and emergency assistance are essential to meet the immediate needs of affected populations, including food, water, shelter and health care.
- Insurance programmes can also be put in place to cover losses incurred by economic actors affected by drought.

Although preventive and protective measures are being put in place to minimise losses and damage caused by drought, Morocco needs to explore new sources of funding and improve the financial governance and effectiveness of ongoing projects.

Adaptation and resilience building programmes are also needed to help communities cope with droughts in the long term, as cost-effective prevention of losses and damages. This may include the adoption of sustainable agricultural practices, the establishment of efficient water management systems, and the development of renewable energy sources.

### IV. Identify funding sources, instruments and channels to cover loss and damage

COP27 mandated loss and damage funding arrangements and a fund for assisting developing countries that are particularly vulnerable to the adverse effects of climate change and tasked the Transitional Committee to facilitate the operationalization by identifying sources of funding and solutions and gaps within the current financing landscape. In that sense, here are some possible instruments and channels for financing loss and damage:

- **Social protection:** One policy approach that could help channel finance in the long term is the development and resourcing of national social protection systems, in the face of increasing risks posed by climate change.
- **Emergency funding:** This is public funding provided via the state to individuals, businesses or organisations in response to unexpected events or circumstances that require immediate financial assistance.
- **Catastrophe risk insurance:** This is a type of insurance that covers financial losses resulting from natural disasters (such as earthquakes, hurricanes, floods, forest fires, etc), which public finance can subsidize.

### Conclusion:

The creation of a loss and damage fund at COP27 is good news for Morocco because of the droughts that affect its agricultural sector, labour market, and water security, resulting in annual economic losses estimated at nearly 15% of agricultural GDP. Indeed, the process of implementing the loss and damage fund represents an opportunity for the country to support and enhance national financing measures to mitigate vulnerability. Therefore, it is important to highlight the type and nature of loss and damage finance in countries similar to Morocco, in response to slow onset events such as drought, in order to ensure their eligibility for funds.