Mozambique's NDC 3.0

Recent progress includes launching the Early Warning for All (EW4All) initiative in 2023 and its Early Warning System Road Map and Action Plan (endorsed by the government in 2024). Future planned activities include strengthening INAM and DNGRH's capacity to provide meteorological and hydrometric information tailored to

Acronyms

[to be added with final draft]

1 Introduction

Mozambique submitted its Intended Nationally Determined Contribution (INDC) to the United Nations Framework Convention on Climate Change (UNFCCC) on October 1st, 2015, which became Mozambique's First Nationally Determined Contribution (NDC 1.0) 2020-2030 on the date on which the country became Party to the Paris Agreement: June 4th, 2018, in accordance with decisions 1/CP.19 and 1/CP.20 of the UNFCCC.

Adhering to decision 1/CP.21(para. 24) and Article 4(para. 9) of the Paris Agreement, which requests parties to communicate or update their NDC every 5 years, Mozambique submitted its First Update of the NDC (NDC 2.0) to the UNFCCC on November 1st, 2021, with an implementation period of 2021-2025.

A provisional NDC 3.0 was submitted to the UNFCCC on November 5th, 2025. Following the stipulations of these same provisions, this document presents Mozambique's Second Update of the NDC (NDC 3.0), which was prepared following a participatory whole-of-society approach involving the public and private sectors, including civil society and academia, with technical assistance from various international partners.

The Government of Mozambique is committed to taking urgent measures to mitigate and adapt to the impacts of climate change. As a Party to the UNFCCC, the country seeks to contribute to the global objective of stabilising atmospheric greenhouse gas (GHG) concentrations at levels that prevent dangerous human interferences with the climate system. It has also ratified the Paris Agreement which aims to limit global warming to below 2 °C above pre-industrial levels, with efforts to cap the increase at 1.5 °C. It commits countries to reduce GHG emissions and strengthen mitigation and adaptation actions with NDCs constituting a central instrument in which countries specify their targets.

The preparation of Mozambique's NDC 3.0 was informed by Decision 1/CMA.5 and the results of the First Global Stocktake (GST-1). Based on the GST-1 results on **adaptation**, Mozambique's NDC 3.0 prioritises integrated multisectoral solutions and explicitly aligns Mozambique's priorities with the global goal on adaptation. Adaptation remains Mozambique's top priority. In response to the GST-1 results on **mitigation**, Mozambique intends to contribute to global efforts to reduce emissions, depending on international support. Robust, evidence-based targets are the cornerstone of increasing the credibility and effectiveness of Mozambique's NDC 3.0. By basing its ambition on robust data and realistic pathways, Mozambique seeks to ensure that its emissions trajectory contributes to collective efforts to align with the Paris Agreement temperature goal, while contributing to its own development priorities. Just transition remains the priority for Mozambique's mitigation targets, ensuring any mitigation activities remain inclusive and socially equitable.

Mozambique has already experienced devastating impacts of climate change on its environment, society and economy and is one of the most climate-vulnerable countries in the world. Meanwhile, the country's GHG emissions are low in absolute and relative terms. Accordingly, Mozambique prioritises climate change adaptation, however, remains committed to further lowering its GHG emissions, as communicated in this NDC.

1.1 Socio-economic context

Mozambique has a population of 27,909,798 inhabitants, with a projected growth to 59,957,266 by 2050.[1] Although the country remains classified by the United Nations as a Least Developed Country (LDC)[2], its Human Development Index has raised from 0,227 to 0,456 between 1990 and 2019[3]. [4]Between 2020 and 2024, the real Gross Domestic Product (GDP) of Mozambique grew from 958,464 million meticais (MZN) to 1,103,421 million MZN, representing an annual real growth of 3.02% on average over the 5 years.[5] Nearly 45% of Mozambique's population are under the age of 15, resulting in a high dependency ratio and increasing pressure on social services.[6]

The agriculture sector is the main source of income for more than 70% of the population[7]. Between 2015 and 2023, implementation of various agricultural modernisation programmes, such as the National Agricultural Investment Plan (PNISA), the Commercial Agriculture Development Support Programme (SUSTENTA) and the Cashew Nut Value Chain Support Programme have helped increasingly integrate smallholder farmers into profitable value chain actors, whilst promoting sustainable agricultural practices.

In this period, a combination of economic growth, infrastructural investments, economic diversification actions and fiscal reforms has resulted in a reduction of the unemployment rate from 20,7% to 18,4%. This is primarily seen in the statistics surrounding female entrepreneurship. Through training and financing programmes, the period from 2015 to 2023 saw an increase of 25% in the number of women starting small businesses[8].

[1] INE (2023). Mocambique publicacao - INE.
[2] United Nations Department of Economic and Social Affairs. *Least Developed Country Category: Mozambique Profile*. https://policy.desa.un.org/themes/least-developed-countries-category/least-developed-country-category-mozambique-profile
[3] INE (2020). O Perfil de Desenvolvimento Humano em Moçambique.
[5] INE (2025). Quadros PIB Provincial 2024.
[5] INE (2025). Quadros PIB Provincial 2024.
[6] United Nations Statistics Division. (2025). *Mozambique country profile*. UNdata. https://data.un.org/en/iso/mz.html
[7] International Fund for Agricultural Development. (n.d.). *Mozambique*. IFAD. Retrieved September 3, 2025, from https://www.ifad.org/en/w/countries/mozambique
[8] Government of Mozambique. ENDE 2025-2044.

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Despite the progress achieved, 68,2% of Mozambicans live below the poverty line[9]. Although decreases in this rate are generally noted, for example with multidimensional poverty falling from 55% in 2014/15 to 53.1% in 2022, the impacts of the COVID-19 pandemic have caused poverty rates to go up again, highlighting the fragility of Mozambique's economic growth. Poverty levels are even higher among rural populations who make up over 62% of the national population. These high poverty rates intersect with gender and age inequality and poor health outcomes, creating systemic challenges.

1.2 Geography

Mozambique is located on the eastern coast of Southern Africa along the Indian Ocean, bordered by Tanzania to the north, Malawi and Zambia to the northwest, Zimbabwe, South Africa and Eswatini to the west. It is also a maritime neighbour of Madagascar and the Comoros, across the section of the Indian Ocean known as the Mozambique Channel. The country covers an area of approximately 801,590 km^2 divided into 11 provinces, and has coastline of 2,700km, one of the longest on the African continent.

The northern half of the Country, north of the Zambezi River, is a large plateau, with a small coastal plain surrounded by coral reefs, bounded inland by mountain ranges belonging to the Great Rift Valley system. The southern half of the country is characterised by a wide alluvial coastal plain, covered by savannas and intersected by the valleys of several rivers.

Mozambique has 13 major river basins, of which nine are transboundary. Its hydrology is dominated by large rivers flowing from neighbouring countries into the Indian Ocean. The largest and most significant basin in Mozambique is the Zambezi River Basin, spanning eight countries. The next most important basins are the Rovuma River Basin along Mozambique's northern border with Tanzania, and the Limpopo River Basin in southern Mozambique which enters from South Africa and is prone to flooding.

1.3 Climate change trends, projections and impacts

Temperature change

There is a clear warming trend in temperature in Mozambique. From 1981 to 2024, average temperatures increased across the entire country, with the last decade (2015-2024) being about 0.6°C warmer than the 1981-2010 reference period at the national level.[10] 2024 was the hottest year on record since 1950, with an anomaly of 1.2°C above the 1981-2010

[9] Government of Mozambique. ENDE 2025-2044.

[10] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).

reference period.[11] The largest warming provincially has been in Tete, where average temperatures in the last decade were 0.8°C warmer than 1981-2010, followed by Zambezia with 0.7°C of warming.[12]

This warming trend is projected to increase in the future. Annual average temperature in Mozambique is projected to increase in the near future (2031-2060) by 1.5 to 2.0°C (low emissions scenario SSP1-2.6 to very high emissions scenario SSP5-8.5), relative to the 1981—2010 reference period.[13] The interior of Mozambique, such as Tete province, is projected to have the greatest increases in temperature, while there will be relatively less variation in the coastal regions. The June, July and August (JJA) and September, October and November (SON) seasons are projected to have the greatest variation in temperature.[14][15]

Sea level rise

From 1993 to present, sea level has risen by 11 cm.[16] In the future, sea level is expected to rise by 18 cm from 2020 to 2050 in Mozambique under a high emissions scenario (SSP3-7.0) relative to the 1995-2014 baseline, with a likely range of 13 to 25cm.[17]

Changes in precipitation

The climatological year in Mozambique can be split into two parts: the rainy season from October to March and the dry season from April to September. Long-term changes in precipitation are most evident seasonally, in particular in September, October and

[11] INAM (2025): Relatório Anual do Estado do Clima de Moçambique de 2024. Edição N^{O} 004. Publicado em Maputo, Março de 2025.
[12] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).
[13] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).
[14] Mavume, A. F., Banze, B. E., Macie, O. A., & Queface, A. J. (2021). Analysis of Climate Change Projections for Mozambique under the Representative Concentration Pathways. *Atmosphere*, *12*(5), 588. https://doi.org/10.3390/atmos12050588

[16] NASA, U.S. Department of Defense, U.S. Department of State, The World Bank, & United Nations Development Programme. (n.d.). *Sea Level Explorer – Global Sea Level Change*. Earth.gov. https://earth.gov/sealevel/sea-level-explorer/?country=MOZ&scope=section_1
[17] NASA, U.S. Department of Defense, U.S. Department of State, The World Bank, & United Nations Development Programme. (n.d.). *Sea Level Explorer – Global Sea Level Change*. Earth.gov. https://earth.gov/sealevel/sea-level-explorer/?country=MOZ&scope=section_1

November (SON) which shows reductions in precipitation in the last decade compared to the 1981-2010 reference period.[18] Nationally, rainfall has decreased by 20.5mm during SON), though there is notable regional variation. While the central and northern regions also saw declines, the southern region experienced the largest declines, particularly in Inhambane where rainfall decreased by 31.9mm.[19]

At the same time, there has been a moderate (though mostly non-significant) increase in intense rainfall across the country. Regionally, this trend has been significant in northern Mozambique.[20]

Under all emissions scenarios, the trend of decreasing precipitation is projected to continue in the future. This declining precipitation combined with increasing temperatures is expected to drastically reduce effective water availability.[21]

The simultaneous overall reduction in precipitation, particularly in southern and central Mozambique, along with increased heavy precipitation events, particularly in northern Mozambique, has intensified both hydrological droughts and flooding along major river basins.

The rainy season

The rainy season from October to March is a hazardous period, with cyclones, strong winds and floods, including associated risks such as disease outbreaks, occurring on a near-annual basis. The INGD captures the significant impacts of the rainy seasons on an annual basis. The persons affected by climatic hazards in the rainy season in the 2018-2024 period is shown by province in *Table X*[22].

[18] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).
[19] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).
[20] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).
[21] Aguilar, E., Boqué, A., Cimolai, C., Olano, J., & Sigró, J. (2024). *Climate analysis for Mozambique* (Version 1.0). Center for Climate Change (C3), Research Institute on Sustainability, Climate Change and Energy Transition (IU-RESCAT), Universitat Rovira i Virgili (URV). Report commissioned by the World Meteorological Organization (WMO).
[22] Instituto Nacional de Gestão e Redução do Risco de Desastres. (n.d.). *Relatório das Épocas Chuvosas*. INGD. Retrieved August 27, 2025, from https://ingd.gov.mz/relatorio-das-epocas-chuvosas/

Table 1.1: Number of persons impacted by the rainy season from 2018/19 - 2023/24

Impactos Registados (Pessoas Afectadas)	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**
Niassa	7945	5415	6953	2961	20893	3553
Cabo Delgado	249089	15149	847	1317	1300	2469
Nampula	53189	13976	12562	707833	15181	6184
Zambezia	117822	49583	78822	197123	749003	4440
Tete	56971	1769	3468	37605	102262	2445
Manica	270603	7035	62747	18432	6663	4288
Sofala	1258334	75778	419365	30846	238355	4395
Inhambane	720		667	75	107759	5355
Gaza	3630	11604	54000	12544	12126	2738
Maputo	5605	7950	24885	728	24110	76246
Maputo Cidade	11891	7190	26996	89534	79019	58261
Grande total	**2035799**	**195449**	**691312**	**1098998**	**1356671**	**170374**

It is estimated that, in the rainy seasons from 1926 to 2021, more than 61 tropical cyclones hit Mozambique, though records of tropical storms and cyclones, and their impacts, are not well recorded.[23] The provinces of Sofala, Inhambane and Zambezia experienced the highest number of tropical cyclones in this period and were consequently the most impacted.[24]

The proportion of category 4 and 5 cyclones is projected to continue increasing in East and Southern Africa, meaning that tropical cyclones are getting more intense due to climate change.[25][26] For example, it is estimated that climate change elevated the intensity of Tropical

[23] Nganhane, H. V., Tavares, A. O., Santos, P. P., & Fernández-Sánchez, A. (2025). Tropical cyclone meteorological extreme events and their large impacts in Mozambique during the period 1926 to 2021. *Comunicações Geológicas, 112*(Especial I). Laboratório Nacional de Energia e Geologia. Retrieved from https://www.lneg.pt/wp-content/uploads/2025/04/53_Nganhane-et-al.pdf

[24] Nganhane, H. V., Tavares, A. O., Santos, P. P., & Fernández-Sánchez, A. (2025). Tropical cyclone meteorological extreme events and their large impacts in Mozambique during the period 1926 to 2021. *Comunicações Geológicas, 112*(Especial I). Laboratório Nacional de Energia e Geologia. Retrieved from https://www.lneg.pt/wp-content/uploads/2025/04/53_Nganhane-et-al.pdf

[25] Seneviratne, S.I., Zhang, X., Adnan, M., Badi, W., Dereczynski, C., Djalante, R., Ebi, K.L., et al. (2021). Chapter 11: Weather and Climate Extreme Events in a Changing Climate. In V. Masson-Delmotte, P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (Eds.), *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1513–1766). Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-11/

[26] Intergovernmental Panel on Climate Change (IPCC). (2021). *Regional fact sheet – Africa*. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Africa.pdf

Cyclone Chido, which hit Mozambique in December 2024, from Category 3 to Category 4.[27] An attribution study likewise found that climate change increased the likelihood and intensity of the rainfall associated with tropical cyclones Ana and Batsirai in Madagascar, Mozambique and Malawi in 2022, with the former directly causing 25 deaths and affecting 141,483 people, in Mozambique alone.[28]

Flooding is one of the most frequent and damaging climate-related natural hazards in Mozambique, along with cyclones and droughts. In the rainy seasons from 2018-2024, there were cumulatively 131 deaths by flooding/drowning and 154,116 houses flooded.[29] Over this same period there was an average of 196,012 hectares of crops affected by flooding per year. In January 2026 alone, weeks of heavy rainfall resulted in catastrophic flooding across much of southern and central Mozambique, causing over 100 deaths and affecting over 600,000 people, particularly in Gaza province.

Mozambique is prone to coastal flooding due to storm surges, which over time leads to coastal erosion. Fluvial flooding, triggered by heavy rainfall resulting from cyclones or tropical storms, significantly impacts the Zambezi, Pungoe, Save, and Buzi rivers, with the Limpopo River basin being the most affected. Cyclones such as Cyclone Freddy, described above, also cause severe flooding, along with sea level rise, which further exacerbates coastal flooding.

Droughts

Climate change has increased drought occurrence and further rises in drought frequency and duration are projected across large parts of southern Africa if global warming exceeds 1.5°C.[30] According to analysis by the World Food Programme, the districts of Gaza and Tete provinces are among the most exposed to drought, associated with high levels of food insecurity.[31]

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[27] Imperial College London. (2024, December). *Tropical Cyclone Chido*. Grantham Institute – Climate Change and the Environment. https://www.imperial.ac.uk/grantham/research/climate-science/modelling-tropical-cyclones/tropical-cyclone-chido/

[28] https://www.worldweatherattribution.org/wp-content/uploads/WWA-MMM-TS-scientific-report.pdf

[29] Instituto Nacional de Gestão e Redução do Risco de Desastres. (n.d.). *Relatório das Épocas Chuvosas*. INGD. Retrieved August 27, 2025, from https://ingd.gov.mz/relatorio-das-epocas-chuvosas/

[30] Trisos, C.H., I.O. Adelekan, E. Totin, A. Ayanlade, J. Efitre, A. Gemeda, K. Kalaba, C. Lennard, C. Masao, Y. Mgaya, G. Ngaruiya, D. Olago, N.P. Simpson, and S. Zakieldeen, 2022: Africa. In: *Climate Change 2022: Impacts, Adaptation, and Vulnerability.* Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1285-1455, doi:10.1017/9781009325844.011.

[31] Instituto Nacional de Gestão e Redução do Risco de Desastres. (2022). *Manual de procedimentos operacionais padrão para emissão de alertas de seca e implementação dos planos de acções antecipadas*

In some years, droughts occur in the rainy season. January and December 2024 were the driest months ever recorded since 1981 in central Mozambique (almost the entire provinces of Zambezia, and parts of Niassa, Nampula, Tete, Manica, Inhambane and Gaza).[32] This drought caused food insecurity among 3,618,322 people throughout Mozambique (except Cabo Delgado), with a consequent drought-related displacement of 1,893 households (10,115 individuals) from January 2024 to April 2025.[33] [34] While the main factor influencing the occurrence of drought in this period was the 2023/2024 El Niño (the fifth strongest event since 1950), the consequences depict the serious potential impacts of slow-onset events such as drought, which are projected to increase in frequency and duration due to climate change.[35]

1.4 Climate change vulnerability

Mozambique is among the most climate-vulnerable countries in the world, ranking 7th globally and 1st in Africa for disaster risk.[36] Its vulnerability stems in particular from a combination of geographic exposure, socio-economic conditions and limited adaptive capacity, and is not experienced equally across Mozambique.

Geographically, Mozambique's extensive coastline exposes the country to tropical cyclones, storm surges, coastal flooding and sea-level rise. More than 60% of the country's population lives in low-lying coastal areas, where infrastructure, coastal agriculture, key ecosystems and fisheries are at risk, including in major urban centres such as Maputo, Beira and Nacala, where critical infrastructure and economic activities are concentrated.

Mozambique's vulnerability to climate change is compounded by socio-economic and demographic factors that limit resilience. Rural populations are especially vulnerable to climate change due to reliance on rain-fed agriculture and limited infrastructure that heighten their sensitivity to climate shocks and constrain adaptive capacity. Women, children, internally displaced people, and people with disabilities face disproportionate risks while often being excluded from decision-making processes. Together, these factors

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(Versão aprovada pela 5ª Sessão Ordinária do CTGD, realizada no dia 26 de Outubro de 2022). República de Moçambique.

[32] INAM (2025): Relatório Anual do Estado do Clima de Moçambique de 2024. Edição Nº 004. Publicado em Maputo, Março de 2025.

[33] Instituto Nacional de Gestão e Redução do Risco de Desastres. (2024). *Balanço da Época Chuvosa e Ciclónica 2023/2024*. República de Moçambique. https://ingd.gov.mz/relatorio-das-epocas-chuvosas/

[34] International Organization for Migration (IOM), Apr 17 2025. DTM Mozambique - Drought-Induced Displacement Update - El Niño 2023/2024 (April 2025). IOM, Mozambique.

[35] Kimutai, J., Zachariah, M., Nhantumbo, B., Nkemelang, T., Jain, S., Pinto, I., Clarke, B., Wolski, P., Vahlberg, M., de Boer, T., Stewart, S., Mutombwa, I., Wina, W., Singh, R., Arrighi, J., & Otto, F. E. (2024). *El Niño key driver of drought in highly vulnerable Southern African countries*. Imperial College London. Retrieved from https://spiral.imperial.ac.uk/entities/publication/84d28c40-83f4-46fb-b1fd-c28cef42aa3a

[36] Bündnis Entwicklung Hilft / IFHV (2025): WorldRiskReport 2025. Berlin: Bündnis Entwicklung Hilft

contribute to high sensitivity and low adaptive capacity, resulting in overall high vulnerability to climate change.

The vital agricultural sector is highly vulnerable to climate shocks. Increasing frequency and intensity of droughts, floods and cyclones threaten food security and rural incomes, with annual climate-related losses in agriculture estimated at US$ 790 million.[37] For example, Cyclone Idai alone damaged over 700,000 hectares of cropland and caused losses of approximately US$ 258 million in destroyed crops, while Idai and Kenneth together led to the death of thousands of livestock.[38]

Droughts pose a serious threat since nearly all of the cultivated land is rain-fed, with very little under irrigation, disrupting the growth cycle of crops, leading to crop collapse and reducing yields.[39] Forest ecosystems, covering about 46% of Mozambique's land area, are also at risk from climate change due to rising temperatures, changing precipitation patterns and extreme events, exacerbating deforestation and forest degradation that already contribute significantly to national greenhouse gas emissions.[40] [41]

Climate change is likewise impacting the fisheries and coastal tourism sectors through rising sea temperatures, ocean acidification and more frequent cyclones which damage marine ecosystems and infrastructure, thereby decreasing fish stocks, altering markets and influencing tourism in the marine and coastal environment. For example, during the 2018/2019 cyclone season, Idai and Kenneth destroyed 2,189 fishing vessels, damaged 77 engines and resulted in the loss of over 5,200 tonnes of fish, alongside significant impacts on aquaculture facilities.[42]

Mozambique's infrastructure faces profound challenges due to climate change-related hazards. Historical events such as the 2000 floods and the devastating cyclones Idai and Kenneth in 2019 have caused extensive damage to roads, bridges, schools, hospitals and water systems. Cyclone Idai alone caused an estimated economic loss of approximately

[37] CIAT; World Bank. 2017. Climate-Smart Agriculture in Mozambique. CSA Country Profiles for Africa Series. International Center for Tropical Agriculture (CIAT); World Bank. Washington, D.C. 25 p.
[38] Ministry of Land and Environment. (2023). *Mozambique National Adaptation Plan*. National Directorate of Climate Change, Maputo, Mozambique. Retrieved from https://unfccc.int/sites/default/files/resource/National_Adaptation_Plan_Mozambique.pdf
[39] World Bank Group. (2025). *Climate Risk Profile: Mozambique*. Washington, DC: World Bank Group.
[40] CIAT; World Bank. 2017. Climate-Smart Agriculture in Mozambique. CSA Country Profiles for Africa Series. International Center for Tropical Agriculture (CIAT); World Bank. Washington, D.C. 25 p.
[41] FAO.2025. Policymaking for agrifood systems transformation in Mozambique. Rome. https://doi.org/10.4060/cd6204en
[42] Ministry of Land and Environment. (2023). *Mozambique National Adaptation Plan*. National Directorate of Climate Change, Maputo, Mozambique. Retrieved from https://unfccc.int/sites/default/files/resource/National_Adaptation_Plan_Mozambique.pdf

$773 million USD in buildings, infrastructure and agriculture.[43] Slow-onset events such as drought can also profoundly impact infrastructure, as was the case with the drought associated with the 2015-2016 El Niño event which dried up rivers and reservoirs, comprising water supply and hydroelectric power production.

Much of the existing infrastructure is not resilient enough to withstand extreme weather events such as intense cyclones, flash floods or prolonged droughts. Schools, hospitals, energy infrastructure, roads and housing are both the most exposed assets and those whose disruption or collapse has the greatest cascading social and economic impact, increasing the vulnerability of communities and economic sectors, and limiting Mozambique's capacity to respond to and recover from disasters.

Mozambique is highly vulnerable to climate-related health risks.[44] Extreme events such as tropical cyclones, flood, droughts and extreme heat damage health infrastructure, deteriorate water quality and food security (with implications for water-borne infectious diseases and malnutrition), disrupt emergency response capacity, and expand the risk area of vector-borne infectious diseases (e.g. malaria, dengue fever, cholera, chikungunya). Climate change also has significant impacts on non-communicable diseases, including increased cardiovascular mortality due to heat waves, mental health impacts such as post-traumatic stress due to climate disasters, and direct physiological impacts of heat especially in vulnerable groups (the elderly, children, outdoor workers).

Children are more likely to suffer mortality from infectious diseases that are exacerbated by climate change.[45] Diarrhoea, for example, is the leading cause of mortality for children under the age of 5 in Mozambique. Furthermore, diarrhoea and other gastro-intestinal infectious diseases are a major risk driver for malnutrition, coupled with climate change-induced disruptions to food supply and an increase in poverty and food prices. Malnutrition, in turn, contributes to low human capital and reduced child and mortality, school achievement, future adult earnings and economic progress.

These impacts disproportionately affect northern and central provinces, where poverty, limited infrastructure and restricted access to health services heighten communities' exposure. Without strengthened resilience, climate change will undermine progress in disease control, strain an already fragile system and widen existing inequalities.

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[43] WMO. (2019). *Reducing vulnerability to extreme hydro-meteorological hazards in Mozambique after Cyclone IDAI*. World Meteorological Organization. https://library.wmo.int/viewer/56658/download?file=2019_wmo-idai-mission-report_en.pdf&type=pdf&navigator=1

[44] Ministério da Saúde (MISAU). (forthcoming). *Plano nacional de adaptação da saúde às mudanças climáticas (PNAS-MC)*. Maputo, Moçambique: Ministério da Saúde.

[45] UNICEF. (forthcoming). *Climate analysis for children, Mozambique*. UNICEF.

1.5 Climate change governance, legal, regulatory and policy frameworks

Mozambique's climate change governance framework has evolved to address the growing risks posed by climate change and variability, while aligning with the sustainable development goals. This governance framework combines centralised political leadership with cross-sectoral coordination, while ensuring compliance with international climate commitments under the UNFCCC and the Paris Agreement.

At the centre of this framework is the Ministry of Agriculture, Environment and Fisheries (MAAP), through its National Directorate of Environment and Climate Change (DINAMC), which is mandated to serve as the national focal point for climate change, including reporting obligations under the UNFCCC. DINAMC is responsible for, among others, i) ensuring the development, approval, implementation and monitoring of policies, strategies, legislation and guidelines in the area of climate change; ii) submitting, in coordination with other sectors, the contributions country's on climate change; iii) ensuring timely compliance with the obligations and commitments assumed by the country to report under the Framework Convention on Climate Change; iv) mobilise technical and financial resources for the implementation of climate change mitigation and adaptation actions, in accordance with the Internal Regulations of the Ministry of Agriculture, Environment and Fisheries[46].

In addition, the National Strategy for Adaptation and Mitigation to Climate Change 2013–2025 (ENAMMC) established the Inter-Institutional Group for Climate Change (GIIMC). Although not formalised in legislature, this group provides a platform for diverse sectoral representation in climate change governance, ensuring harmonisation of national climate change actions and integration into the sectors, while also supporting reporting on implementation within those sectors.[47] The key ministries responsible for priority mitigation sectors included in this NDC are: MAAP, representing Agriculture, Forestry and Other Land Use (AFOLU) & Blue Economy as well as Solid Waste; the Ministry of Energy and Mineral Resources (MIREME) and the Ministry of Transport and Logistics (MTL), representing Energy including Transport; and lastly the Ministry of Economy, and particularly the National Directorate of Industry (DNI), representing Industrial Processes and Product Use (IPPU).

National-level climate change governance also extends to the sub-national level, which plays an important role in adaptation in Mozambique. The ENAMMC includes the elaboration of district-level Local Adaptation Plans (LAPs), beginning in 2014 as coordinated by MAAP. As of 2025, 138 districts (out of 154) had designed LAPs. While lack of continuous funding

[46] Ministerial Decree No. 111/2025 of 8 December 2025.
[47] Government of Mozambique, *Updated Nationally Determined Contribution (NDC 2.0)*, 2021

and budget allocation hinders the development and implementation of LAPs, the process has improved understanding and awareness of climate change issues at the local level.[48]

The table below summarises the principal policies, strategies and other governance instruments that underpin and enable the implementation of Mozambique's NDC.

[48] International Institute for Environment and Development (IIED). (2022). *Local adaptation planning in Mozambique: Lessons from the Traction Framework*. https://tractionframework.org/wp-content/uploads/2022/04/Traction-Mozambique-Report_April-2022.pdf

Table x: Key policies for framing climate action in Mozambique

Nome	**Prazo**	**Descrição**	**Objetivos**	**Tipo de instrumento**	**Status (Em implementação, Implementado/ Planificado)**	**Instituição Governamental Responsável**
Documentos gerais regulamentares relacionados com as mundanças climáticas						
Estratégia Nacional de Desenvolvimento (ENDE)	2025 - 2044	É um instrumento de planificação, organizado em cinco capítulos, nomeadamente (i) introdução, (ii) Lições aprendidas, (iii), Fundamentação para a revisão da estratégia, (iv), Estratégia Nacional de Desenvolvimento, (v) e mecanismos de implementação.	Promover o desenvolvimento sustentável, inclusivo, equitativo e resiliente do país, impulsionado pelo crescimento económico, pela melhoria da qualidade de vida das populações e pela redução das desigualdades.	Estratégia	Em implementação	Ministério das Finanças
Programa Quinquenal do Governo (PQG)	2025 - 2029	O PQG é um documento que resume a visão e missão do governo moçambicano para os primeiros cinco anos da Estratégia de Desenvolvimento 2025-2044.	O PQG visa acelerar o crescimento económico inclusivo e sustentável, apostando na diversificação económica, na criação de emprego, na modernização das infraestruturas e na gestão racional dos recursos naturais, visando reduzir a pobreza e as desigualdades sociais e espaciais e estabelecer as bases para a independência económica do país.	Programa	Em implementação	Conselho de Ministros
Estratégia Nacional de Adaptação e Mitigação de Mudanças Climáticas	2013 – 2025	É um documento estratégico que visa integrar a resiliência àsà mudanças climáticas na economia e sociedade de Moçambique através de acções de adaptação (aos impactos	Estabelecer as directrizes de acção para criar resiliência, incluindo a redução dos riscos climáticos, nas comunidades e na economia nacional e promover o desenvolvimento de baixo	Estratégia	Implementado - Renovação planeada	Ministério para a Coordenação da Acção Ambiental (extinto) actualmente sob o -

		climáticos) e acções de mitigação (para reduzir emissões de gases de efeito de estufa -GEE).	carbono e a economia verde, através da sua integração no processo de planificação sectorial e local			Ministério da Agricultura, Ambiente e Pescas
Estratégia Nacional de Financiamento Climático- ENFC	2025 – 2034	Exprime a visão e o compromisso de desenvolver um conjunto de acções concretas que contribuam para o aumento do financiamento climático, apoiar o país a realizar os investimentos necessários para aumentar a resiliência da economia aos impactos das mudanças climáticas, e para estimular a práticas de mitigação climática.	Orientar os diferentes actores na mobilização do financiamento climático, visando aumentar o acesso, garantir a transparência e promover a eficiência na alocação dos recursos destinados à acção climática	Estratégia	Em implementação	Ministério da Planificação e Desenvolvimento
Políticaí de Género e Estratégia de sua Implementação	2018-2028	Estabelece o quadro nacional para a igualdade e equidade de género em Moçambique, com nove eixos estratégicos que abrangem legislação, governação, educação, saúde, recursos, violência baseada no género, resolução de conflitos, meios de comunicação social e alterações climáticas.	Garantir a igualdade de direitos e oportunidades entre homens e mulheres; eliminar a violência baseada no género; melhorar o acesso aos recursos, à tomada de decisões e aos benefícios socioeconómicos.	Política e Estratégia	Em implementação	Ministério do Género, Criança e Acção Social (Extinto) actualmente sob Ministério do Trabalho Género e Acção Social (MITSS)
AFOLU & Blue Economy						
Plano Estratégico Para o Desenvolvimento do Sector Agrário (PEDSA)	2021 – 2030	A PEDSA fornece uma diretriz estratégica para o desenvolvimento do setor agrícola até 2030. Centra-se na produção, no desenvolvimento da cadeia de valor, na competitividade e no controlo e ajustamento da oferta e da procura. Apresenta-se para lidar com os principais desafios que Moçambique enfrenta, incluindo a	O PEDSA II promove a transformação acelerada do sector agrícola através de um crescimento rápido, competitivo, inclusivo e sustentável, assegurando um maior envolvimento inclusivo do setor privado e contribuindo para melhorar a segurança alimentar e a nutrição, a criação de emprego, reforçar	Estratégia	Em implementação	Ministério da Agricultura e Desenvolvimento Rural (extinto), actualmente - Ministério da Agricultura, Ambiente e Pescas

		pobreza, segurança alimentar e nutricional, alterações climáticas e NRM insuportável. Vem acompanhado de dois planos de investimento (PNISA), um de 2022-2026; um de 2027-2030.	a resiliência e a adaptação a choques e catástrofes e reduzir a pobreza.			
Política Florestal e Estratégia de Implementação	2018 - 2035	Estratégia florestal nacional baseada em seis pilares: Quadro legal, institucional e governação florestal; Desenvolvimento económico; Serviços ambientais e conservação florestal; Participação das comunidades locais; Desenvolvimento de plantações florestais; e Energia da biomassa lenhosa.	Garantir a perpetuação do património florestal nacional e a geração de benefícios derivados de bens e serviços ambientais através da utilização sustentável e do valor acrescentado dos produtos florestais.	Política; Estratégia	Em implementação	Ministério da Agricultura, Ambiente e Pescas
Estratégia de Desenvolvimento da Economia Azul (EDEA)	2024 – 2033	Estratégia de desenvolvimento nacional da economia azul baseada em seis pilares: Pesca e Aquicultura; Energias Renováveis e Indústrias Extrativas; Capital Natural e Ambiente; Turismo e Cultura; Transporte Marítimo; e Segurança Marítima	Desenvolvimento do capital humano e justiça social, Impulsionar o crescimento económico, a produtividade e a criação de emprego, e Reforçar a gestão sustentável dos recursos naturais e o ambiente	Estratégia	Em implementação	Ministério do Mar, Águas interiores e Pescas é a instituição governamental global. Cada pilar tem a sua própria instituição governamental.
National Strategy for Reducing Emissions from Deforestation and Forest Degradation, Conservation of Forests and Enhancement of Carbon Stocks through Forests (REDD+)	2016 - 2030	Estratégia para a redução de emissões de desmatamento e degradação florestal, conservação de florestas, maneio sustentável e aumento de reservas de carbono através de florestas plantadas (REDD+) visa definir acções estratégicas que lidem com as	O objectivo final da presente estratégia é promover um desenvolvimento sustentável, maior resiliência às mudanças climáticas, desenvolvimento rural integrado, através de um conjunto de acções com enfoque nos sectores de florestas, agricultura e energia.	Estratégia	Em implementação	Ministério da Terra, Ambiente e Desenvolvimento Rural (extinto), actualmente - Ministério da Agricultura, Ambiente e Pescas

		causas multissectoriais da conversão de florestas em outros usos.				
National Biodiversity Strategy and Action Plan (NBSAP)	2015 – 2035	Mozambique's NBSAP defines a 20-year strategy and action plan for the conservation of biodiversity in Mozambique through training, financing and strengthening intersectoral partnerships.	The NBSAP seeks to protect national biodiversity heritage, promote equitable sharing, ensure participatory decision-making and adaptive management, the establishment of payment mechanisms for ecosystem services, mainstream biodiversity into national development planning and promote and protect traditional knowledge regarding biodiversity conservation.	Estratégia	Em implementação	Ministério da Terra, Ambiente e Desenvolvimento Rural (extinto), actualmente - Ministério da Agricultura, Ambiente e Pescas
Energy and transport						
Estratégia de Transição Energética Justa (ETE)	2023-2030 (implícito)	Esta estratégia descreve a abordagem de Moçambique para alcançar uma transição energética justa, de baixo carbono, inclusiva e moderna. Promove investimentos em energias renováveis, redução de combustíveis fósseis e inclusão social.	Orientar o desenvolvimento do setor energético com foco na justiça, equidade e descarbonização, garantindo o acesso à energia para todos.	Estratégia	Em implementação	MIREME – Ministério dos Recursos Minerais e Energia
Industrial Processes and Product Use (IPPU)						
Política e Estratégia Industrial	2016-2025	O documento é dois em um. Política e estratégia industrial. Descreve a Política Industrial como um conjunto de princípios, medidas e atividades que visam contribuir para o desenvolvimento económico e social através do aumento da produção,	O objetivo é fazer da indústria o principal veículo para alcançar a prosperidade e o bem-estar do país através da geração da maioria dos empregos, da produção e da contribuição para a valorização dos recursos naturais.	Política e Estratégia	Implementado - Renovação planeada	Ministério da Indústria e Comércio (extinto) actualmente sob Ministério da Economia

		produtividade e qualidade da produção industrial.				
Solid Waste						
Estratégia de Gestão Integrada de Resíduos Sólidos Urbanos em Moçambique	2012- 2024/5	É um documento de quatro capítulos produzido para fornecer a base para a gestão integrada de resíduos sólidos em Moçambique. Apresenta a avaliação situacional geral dos resíduos sólidos em Moçambique, depois visão, missão, objetivos, atividades e prazos, apresenta também a matriz com ações a realizar e, no final, é apresentado o plano operacional.	Fornecer a base para a gestão integrada de resíduos sólidos em Moçambique	Estratégia	Implementado - Renovação planeada	

2 NDC 3.0 development process & framing

2.1 Framing of the NDC 3.0

Mozambique's top climate change priority is adaptation, reflecting the climatic challenges Mozambique encounters, reflecting its rank of 7th globally for disaster risk according to the World Risk Report 2025.[49] Although only emitting 0,235% of the global GHG emissions,[50] the country recognises the need to provide meaningful contributions to mitigation. This contextualises the strategic thinking and framing behind the Mozambican NDC 3.0, where the need to mitigate the impacts of climate change is emphasised alongside a commitment to global mitigation efforts. The mitigation component is strengthened in NDC 3.0 and constitutes a progression in ambition from NDC 2.0, focusing on broader coverage, higher achievability, quality and realism.

Climate change is framed as an issue that influences Mozambique's overall development pathway rather than a standalone challenge. Its implementation requires horizontal integration across sectors and vertical integration across governance levels, ensuring deep-rooted coordination between the Long-Term Low Emission Development Strategy (LT-LEDS) and NDC 3.0. This alignment ensures total coherence between near-term commitments up to 2035 and the country's long-term decarbonisation pathway up to 2050.

The actions outlined in NDC 3.0 are closely aligned with national development goals, such as ENDE 2025-2044, to maximise the co-benefits of adaptation and mitigation while ensuring sustainable livelihoods. Compared to previous versions, NDC 3.0 prioritises the consolidation of existing measures and the resolution of fundamental barriers over the next 10 years – aiming for overall implementability of NDC 3.0. By adopting a Leave-No-One-Behind approach, Mozambique ensures the country develops holistically and inclusively in the context of climate action.

2.2 NDC 3.0 development process

The process of developing the NDC 3.0 has been led by the DINAMC under its mandate as the general coordination body within MAAP. The development process was composed of four consequent stages:

1. **Preparation of enabling conditions for NDC 3.0**: This involved assessing implementation progress under NDC 2.0, identifying lessons learned and

[49] Bündnis Entwicklung Hilft / IFHV (2025): WorldRiskReport 2025. Berlin: Bündnis Entwicklung Hilft
[50] World Resources Institute. (n.d.). Climate Watch Open Data Platform.

recommendations for NDC 3.0, and engaging all relevant sectors and societal groups. Based on this, an NDC development roadmap was elaborated and approved.

2. **Sectoral studies**: Consultations were conducted with each NDC sector in parallel, involving key stakeholders such as government institutions, private sector companies, academia and civil society organisations. The health, WASH, water resources, education and social protection sectors were grouped for most consultations. This sectoral approach ensured that each sector could define its own targets, indicators and priority measures, while strengthening ownership and commitment to subsequent monitoring and reporting.
3. **Elaboration of NDC 3.0:** The drafting process was began with a launch event on August 11th, 2025. The results of the sector consultations were subsequently integrated into NDC 3.0 drafts, which formed the basis for iterative validation workshops at national and provincial level with public, private and civil-society stakeholders in September 2025 and February 2026. A list of consulted stakeholders is provided in **Annex XX.** Further details on the methodology for emissions modelling and target setting supporting the NDC development process are provided in Section 4.3.
4. **National approval and submission to UNFCCC**: Following the finalisation of the draft and completing national validation, MAAP submitted NDC 3.0 to the Council of Ministers for approval, after which the endorsed NDC 3.0 was submitted to UNFCCC.

MAAP will subsequently begin implementing the NDC 3.0 Communication Strategy. The implementation of the NDC 3.0 will be supported and accompanied by NDC 3.0 Implementation and Investment Plans.

2.3 Priority sectors and cross-cutting themes

The Mozambican NDC 3.0 is organised in sectors that form the strategic pillars of the adaptation and mitigation components respectively. The **adaptation** component is composed of the following priority sectors:

- Agriculture, Forestry and Blue Economy;
- Health;
- Infrastructure;
- Water, Sanitation and Hygiene (WASH) and Water Resources Management;
- Education;
- Social Protection; and
- Early Warning Systems (EWS)

The **mitigation** component is composed of four priority sectors, aligned with the sectors for mitigation defined by the IPCC[51]:

- Agriculture, Forestry and Other Land Use (AFOLU);
- Energy and Transport;
- Solid Waste; and
- Industrial Processes and Product Use (IPPU).

The Mozambican NDC 3.0 is further underpinned by four themes that cut across and are integrated in all sectors. These **cross-cutting themes** are integral for the effective implementation, coordination and institutionalisation of the NDC actions, while ensuring that the NDC implementation process is inclusive, empowering those who are most vulnerable to climate change, and leaving no one behind. The themes are the following:

1. Good governance and institutional strengthening;
2. Strengthening Equity for Women, Youth, and Vulnerable Communities;
3. Conflict sensitivity and human mobility in the context of climate change;
4. Knowledge, information and technology;
5. Communication and awareness-raising;
6. Environmental protection

Cross-cutting theme 1: Good governance and institutional strengthening

The implementation and institutionalisation of actions outlined in the NDC 3.0 relies entirely upon the capacities of respective governing institutions to take ownership of and capitalise upon the defined priorities. In addition, good governance is a gateway to creating a favourable environment for investment necessary for implementation of climate action while aligning with broader development goals. The country has already made great progress in the field of governance, though challenges remain related to corruption, intransparency, limited freedom of media and expression, which are necessary to address to ensure a favourable investment climate.

At the core of enhancing good governance is institutional strengthening that is aimed at enhanced capacities, frameworks and transparency. Good governance is essential at all levels (national, regional provincial, district, municipality) for mitigation and adaptation, along with disaster risk management. The Mozambican NDC 3.0 plays a key role in

[51] IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926

strengthening capacities of government institutions, streamlining governance mechanisms and enhancing decentralisation. It also becomes necessary to ensure that each ministry that is part of the NDC 3.0 implementation has a harmonized, robust and well-articulated structure with operational tools for collecting, analysing and sharing key data that meets the requirements of implementing the NDC 3.0 and reporting to the UNFCCC.

Cross-cutting theme 2: Strengthening Equity for Women, Youth, and Vulnerable Communities

The Constitution of the Republic of Mozambique (CRM) promotes total gender equality (art. 36 CRM), and holds specific protection for children (art. 121 CRM), women (art. 122 CRM), youth (art. 123 CRM), elderly (art. 124 CRM) and persons with disabilities (PwDs, art. 125 CR;).[52] While progress has been made, for example in parliamentary representation of women and high female labour force participation, women, youth and other vulnerable communities still face great disparities and inequalities relating to poverty, education and matters. Climate change impacts further exacerbate the inequalities faced by vulnerable people, as highlighted again in 2023 during the aftermath of Hurricane Freddy.[53]

The NDC 3.0 aligns itself with the Gender Policy and Implementation Strategy (2018-2028). It aims to contribute to a resilient future for Mozambique which recognises current inequities and transforms vulnerable groups, particularly those living in rural areas, from victims and beneficiaries to key drivers of climate action and promoting just transition.

Cross-cutting theme 3: Conflict sensitivity and human mobility in the context of climate change

Human mobility is a complex and multifaceted challenge that is being exacerbated in the face of climate change-related sudden and slow onset extreme weather events. Among the vulnerable communities and populations to be considered across this NDC are those who are internally displaced. In April 2025, a total of 700,000 people were internally displaced in Mozambique due to conflict and climate shocks, especially droughts.[54] Upon arrival in a host community, Internally Displaced People (IDPs) continue to face climate-related challenges.[55]

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[52] Constitution of the Republic of Mozambique (2004), consolidated and amended by Law No. 1/2018 (June 12, 2018).
[53] UN Women and Plan International. 2023. Rapid Gender Analysis Report – Cyclone Freddy – Zambézia – Mozambique.
[54] International Organization for Migration. (2025, April 17). *Mozambique – El-Niño Drought Displacements Update*.
[55] Caitlin Sturridge, João Feijó, Nelson Tivane. 2022. Coping with the risks of conflict, climate and internal displacement in northern Mozambique. Humanitarian Policy Group. Available at https://media.odi.org/documents/USAID_CCD_Mozambique_final.pdf.

The compounding risks of climatic conditions and conflict, especially in northern Mozambique, require focused attention and a pragmatic approach. This NDC advocates for inclusive action, integrating IDPs with host communities in a dignified and safe manner to reduce their climate vulnerability.

Cross-cutting theme 4: Knowledge, research and technology

Research and technology improvements are crucial to the implementation and institutionalisation of activities related to the NDC 3.0, providing solutions to reconcile adaptation and mitigation activities with long-term sustainable development perspectives. This includes, for example, increasing the knowledge and capacity of hydrometeorological and warning services by using remote sensing technologies and earth observation systems.

Over the past years, some significant strides in digitalisation have taken place. Mozambique has innovated in particular in the accessibility and use of digital monitoring tools to improve knowledge management. 2022, for example, saw the launch of both the Integrated Malaria Information System, owned by the Ministry of Health, and national Forest Information System, owned by the Ministry of Land and Environment (now MAAP).

Mozambique aims to leverage digitalisation to enhance transparency in the use of financial resources and procurement processes,[56] contributing to de-risking climate-related investments and attracting private finance alongside public climate finance. This approach will support the effective implementation of both mitigation and adaptation interventions, while fostering trust and accountability in climate governance.

The aim of the inclusion of research as a cross-cutting theme is to encourage the participation of various national and foreign entities to engage in, facilitate and contribute to research and knowledge sharing to support the implementation of the NDC.

Cross-cutting theme 5: Communication and awareness-raising

Communication and awareness-raising is essential to the success and cultural and institutional embedding of the NDC 3.0. Mozambique already makes use of tools such as community radio, school curricula, civil society networks and national awareness campaigns to share information on climate risks and actions[57]. Expanding and systematising these approaches, while strengthening environmental education and climate literacy, will

[56] Mikhail Miklyaev, Glenn P. Jenkins, Batsirai Brian Matanhire, Precious P. Adesina. 2022. Climate-Smart Public Investment Management in Mozambique. Available at https://www.cri-

[57] Republic of Mozambique. (November, 2022). Mozambique Second National Communication to the United Nations Framework Convention on Climate Change.

help mobilise finance, strengthen local resilience, and ensure climate action is integrated across sectors.

Communication between national and sub-national institutions on climate change will enhance the mainstreaming of climate considerations in other sectors, enhancing integration of climate change in all sectors. To align policies and ensure climate action across all sectors is crucial for the achievement of a climate-resilient society.

At the local level, locally tailored awareness-raising and communication will strengthen understanding of climate risks and enhance resilience in communities. Integration in school curricula and using local radio networks, as well as strengthening community-based early warning systems that complement national structures, have immense potential to strengthen community resilience.

Cross-cutting theme 6: Environmental protection

Environmental protection has long been a national priority, enshrined in the Environment Act (No. 20/97, 1997). Despite significant progress, challenges remain, with Mozambique ranking low internationally in terms of air quality and waste treatment[58]. The country ranks poorly on air pollution indicators, with low scores for PM2.5 exposure, household solid fuel use and ozone exposure, reflecting persistent risks to public health and limited progress in reducing harmful emissions. Waste treatment presents an even more critical gap. While wastewater generation is high, virtually none is collected, treated, or reused. Solid waste recovery rates remain negligible, although under significant improvement under the Mitigation Action Facility-funded ValoRe programme, which will run until 2029 to increase the capacities of municipalities to manage their solid waste.

These results underscore the urgent need for integrated policies that expand access to clean energy, reduce reliance on household solid fuels, and establish effective systems for wastewater and solid waste management. Strengthening these areas will not only improve environmental health outcomes but also enhance Mozambique's credibility in meeting its climate and development commitments. The NDC 3.0 reinforces pollution control and sustainable environmental management as a cornerstone on the path towards low-carbon development and increasing Mozambique's resilience to climate change.

2.4 From NDC 2.0 to NDC 3.0: summary of changes

[to be added in a later draft version]

[58] Yale Center for Environmental Law and Policy. 2024. Environmental Performance Index 2024. https://epi.yale.edu/measure/2024/EPI

An overview (potentially in tabular form) showing the differences and evolvement when comparing the NDC 2.0 with the NDC 3.0 – including targets, (measurable) inclusion of further sectors and measures etc.

2.5 Information to facilitate clarity, transparency and understanding (ICTU) of the NDC

Para	Reference in Decision 4/CMA.1, annex I	As applicable to Mozambique's NDC
Quantifiable information on the reference point		
Type of target		
1(a)	Reference year	The baseline scenario is defined using 2020 as the reference year, in line with the latest national reporting period under the SBUR. Projections of activity data extend from 2021 to 2035, representing a business-as-usual (BAU) trajectory in the absence of additional mitigation measures. This baseline serves as the benchmark against which potential mitigation contributions in the NDC 3.0 can be assessed.
1(b)	Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year	The reference indicator is the level of national greenhouse gas (GHG) emissions, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and fluorinated gases (F-gases), expressed in CO_2 equivalent (CO_2eq). In the reference year, total emissions were estimated at 30,600 gigagrams (Gg) of CO_2eq, excluding land use, land use change and forestry (LULUCF), and at 91,300 Gg of CO_2eq, including LULUCF. A revised figure for 2020 is used for the BAU given that for the LULUCF sector relevant changes were introduced and will be reflected in the next inventory. The total emissions for the revised 2020 were estimated at 19,757 gigagrams (Gg) of CO_2eq, excluding land use, land use change and forestry (LULUCF), and at 68,870 Gg of CO_2eq, including LULUCF.
1(d)	Target relative to the reference indicator, expressed numerically, for example, in percentage or amount of reduction	At least a 3% reduction compared to the BAU scenario for the 2026-2035 period. This cumulative emission reduction for the period 2026-2035 is equivalent to 45% of the 2020 emissions level.

1(e)	Sources of data used in quantifying the reference points	Sources of information include Mozambique's SBUR, the Updated Nationally Determined Contribution (NDC 2.0) and the LT-LEDS 2050.
1(f)	The circumstances under which the Party may update the values of reference indicators	The value of the reference indicators was based on the national GHG emissions inventory up to 2020, as published in the SBUR. For the BAU scenario a revised 2020 emissions figure was already estimated. The Party may further update the reference values if an updated national GHG emissions inventory is completed and finalised. In addition, the benchmark value may be updated due to a recalculation of GHG emissions as a result of a change in the methodologies used to calculate GHG inventories, such as IPCC updates or the Forest Reference Emission Levels (FRELs). BAU scenario values for 2026-2035 may be subject to future revisions to incorporate improvements in GHG emissions estimation across all sectors and gases, advances in inventory methodologies, and evolving national circumstances and approaches to defining baselines for NDC actions. The 2020 inventory figure (91,300 Gg CO_2eq) will remain the reference figure for expressing the cumulative emission reduction target for the period 2026-2035, unless Mozambique decides to use and comunicate a different reference point.
Timeframes and/or periods of implementation		
2(a)	Timeframe/period of implementation, including start and end date	1 January 2026 to 31 December 2035.
2(b)	Whether it is a single-year or multi-year target, as applicable	Mozambique's NDC3.0 will set a cumulative target for the 10-year period in relation to the previously defined reference indicator.
Scope and coverage		
3(a)	General description of the target	This NDC 3.0 is presented with a conditional cumulative commitment to reduce GHG emissions by 2035 relative to the previously defined reference indicator.
3(b) and 3(c)	Sectors covered, categories and pools (including explanation on how the Party has taken into account paragraph 31(c) and	The gases covered by the NDC 3.0 are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and sulfur hexafluoride (SF_6).

	(d) of decision 1/CP.21)	The information provided in this provisional NDC is consistent with the IPCC sectoral classification, covering four key mitigation sectors: - Energy: including (sub-)categories 1.A.1. (1.A.1.a.i; 1.A.1.c); 1.A.2.; 1.A.3. (1.A.3.a; 1.A.3.c; 1.A.3.d); 1.A.4. (1.A.4.a; 1.A.4.b; 1.A.4.c); 1.B.1. (1.B.1.a;1. B.1.c); - AFOLU: including (sub-)categories 3.A. (3.A.1; 3.A.2); 3.B. (3.B.1;3.B.2;3.B.3;3.B.4;3. B.5;3.B.6); 3.C.(3.C.1;3.C.3;3.C.4;3.C .5; 3.C.6; 3.C.7); 3.D (3.D.1). Deadwood, litter, and soil organic carbon were not included, as data were not recorded. This is in line with the Second BURs. Mitigation measures related to the Blue Economy are included under AFOLU, but do not contribute to the emission reduction target for the same sector. This is because ocean emissions (ocean CH_4 and N_2O) are not covered by the national GHG emissions inventory; - Industrial processes and product use (IPPU): including (sub-)categories 2.A. (2.A.1; 2.A.4.a); 2.C. (2.C.1.; 2.C.3.); 2.H (2.H.1; 2.H.3). The IPPU sector is included in the modelling and projections of NDC 3.0. However, no concrete measures for reducing emissions have been selected; and - Waste: including (sub-)categories 4.A (4.A.2.); 4.C (4.C.1.); 4.D (4.D.1.). Perfluorinated compounds (PFCs) are not included or addressed in the NDC 3.0. Other GHGs, namely hydrofluorocarbons (HFCs), and nitrogen trifluoride (NF3), are not included. These GHGs are not part of Mozambique's GHG inventories.
3(d)	Mitigation co-benefits resulting from adaptation actions and/or economic diversification plans, including description of specific projects,	Mozambique has identified and is implementing several initiatives that generate significant mitigation co-benefits resulting from adaptation actions alongside its primary adaptation and economic diversification objectives. These co-benefits are an integral part of the country's approach to planning and implementing new initiatives. These initiatives are aligned with key development priorities, as communicated in the *ENDE 2025-2044*

	measures and initiatives	and the PQG 2025-2029 and, subsequently, 2030-2034. Highlighted examples of ongoing initiatives include the following. **Energy (including transport)** The *Accelerating Sustainable & Clean Energy Access Transformation (ASCENT)* programme strengthens access to energy, both on and off the grid. Mitigation co-benefits include greater energy efficiency, increased deployment of clean cooking solutions, and an overall reduction in dependence on carbon-intensive energy sources. The *Women's Employment Promotion for Green Transformation in Africa* initiative promotes green employment opportunities for women and environmentally sustainable business models in value chains such as renewable energy, circular economy and blue economy, thereby contributing to low-emission development. **AFOLU and Blue Economy** The *Green Value for Growth programme in Mozambique* promotes greener, climate-resilient and inclusive development. Its mitigation co-benefits include the expansion of protected areas and carbon sinks, the restoration of degraded land and the sustainable management of biodiversity *hotspots*, alongside the promotion of sustainable employment that supports low-emission growth. **Waste** The *Programme for Sustainable Waste Management in Mozambique (ValoRE)* aims to strengthen sustainable waste infrastructure and value chain development. Activities already implemented in three municipalities have improved waste management systems and established circular value chain opportunities, with measurable mitigation co-benefits through the reduction of emissions from landfills.
Planning processes		
4(a)	Planning processes and implementation plans	The DINAMC, as the leading government entity for climate action in the country, and subnational focal points, coordinates the planning and implementation of the NDC in different sectors with the respective sectoral ministries, such as the Ministry of Mineral Resources and Energy (*Portuguese: Ministério da Recursos Minerais e Energia,* MIREME), the Ministry of Planning and

		Development (*Portuguese: Ministério da Planificação e Desenvolvimento,* MPeD), the Ministry of Public Works, Housing and Water Resources (*Portuguese: Ministério das Obras Públicas, Habitação e Recursos Hídricos,* MOPHRH), the Ministry of Health (*Portuguese: Ministério da Saúde*, MdS) and the Ministry of Education and Culture (*Portuguese: Ministério da Educação e Cultura,* MEC), among others. MAAP actively involved its provincial focal points in the consultation process, enabling them to take a leading role, integrate provincial priorities and contribute directly to the planning and development of NDC 3.0. Other processes included incorporating the findings of the SBUR, the National Adaptation Plan (NAP), the NDC 2.0 Implementation Plan, ENDE 2025-2044 and PQG 2025-2029, as well as aligning with the national development priorities outlined in these documents. The NDC 3.0 has been developed through consultations with a multitude of stakeholders, including government institutions, civil society, the private sector, development cooperation partners, and academia. The effectiveness of NDC 3.0 implementation will be ensured through the development of the Implementation Plan, Investment Plan, and NDC 3.0 capacity-building programme. The development of these key documents will follow the communication of the complete NDC 3.0 to the UNFCCC. Implementation will be strengthened through the development and operationalisation of a Strengthened National Transparency Framework (ETF), based on the National Monitoring and Evaluation System for Climate Change (*Portuguese: Sistema Nacional de Monitoria e Avaliação das Mudanças Climáticas,* SNMAMC). The country's Measurement, Reporting and Verification (MRV) system (currently under development) serves to monitor the progress of the implementation of mitigation and adaptation programmes, Carbon Registry and climate finance that will track all Internationally Transferable Mitigation Outcomes (ITMOs).
4(b)	Specific information applicable to Parties acting jointly under	Not applicable.

	Article 4, paragraph 2, of the Paris Agreement	
4(c)	How the Party's preparation of its NDC has been informed by the outcomes of the global stocktake	Based on the GST-1 results on **adaptation**, Mozambique's NDC 3.0 prioritises integrated multisectoral solutions and explicitly links Mozambique's priorities to the global adaptation goal. In response to the GST-1 results on **mitigation**, Mozambique intends to contribute to global efforts to reduce emissions. Basing its ambition on robust data and realistic pathways, Mozambique seeks to ensure that its emissions trajectory contributes to collective efforts to align with the Paris Agreement temperature goal, while contributing to its own development priorities.
4(d)	Information on adaptation actions and/or economic diversification plans resulting in mitigation co-benefits	Not applicable beyond what is elaborated in 3(d).
Assumptions and methodological approaches		
5(a)	Assumptions and methodological approaches used for accounting of GHG emissions and removals	The accounting of anthropogenic GHG emissions and removals by Mozambique follows the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, including the 2019 Refinement, where applicable. Emissions are estimated according to the global warming potentials (GWP) of the IPCC Fifth Assessment Report (AR5). This approach is consistent with UNFCCC decision 1/CP.21 and reflects Mozambique's status as an LDC, allowing flexibility in reporting. This NDC uses the most recent GHG emissions inventory, produced in the context of BUR2, submitted to the UNFCCC in 2024. To estimate emissions projections, Mozambique uses Long-range Energy Alternatives Planning (LEAP) for the energy sector and the Greenhouse Gas Abatement Cost Methodology (GACMO) for all other sectors.
5(b)	Assumptions and methodological approaches used for accounting for the implementation of policies and measures, or	The implementation and effectiveness of mitigation measures in the NDC will be monitored and reported through the Biennial Transparency Report (BTR), in accordance with the Enhanced Transparency Framework (ETF) of the Paris Agreement. Specific assumptions and methodologies will be elaborated in the BTR.

	strategies in the NDC	
5(c)	Information on how the Party will take into account existing methods and guidance under the Convention	Mozambique applies the 2006 IPCC Guidelines and the 2019 Enhancement, together with the global warming potentials (GWPs) from the IPCC Fifth Assessment Report (AR5), in accordance with Decision 18/CMA.1 and Article 4, paragraphs 13 and 14 of the Paris Agreement. The accounting of anthropogenic emissions and removals follows the methodological approaches used in the national GHG inventory to ensure consistency and comparability. The AFOLU sector applies the IPCC land use categories as described in 3(b) and Level 1 and Level 2 approaches, while other sectors (energy, IPPU and waste) apply Level 1 approaches with national data, where available. Climate change governance improvements and related systems and processes in the next few years are planned, including operationalizing the institutional arrangement for Mozambique's national MRV system (see BUR2). The system is continuously evolving through the implementation of the Roadmap for a National MRV System of Climate Change Actions with the ongoing and last phases lasting through to 2034, including the financial support component, and reporting both mitigation and adaptation actions, together with their results. The system builds on and integrates an updated SNMAMC that includes three Subsystems (1) the National Subsystem for Monitoring and Verification (*Portuguese: Subsistema Nacional de Monitoria e Relato e Verificação,* SSNMRV), (2) the National Subsystem for Monitoring and Vulnerability and Climate Risk (*Portuguese: Subsistema Nacional de Monitoria da Vulnerabilidade e Risco Climático,* SSNMVRC), and (3) the National Subsystem Management of Climate Information (*Portuguese: Subsistema Nacional de Gestão de Informação Climática,* SSNGIC). The MRV system will cover MRV of mitigation actions, adaptation actions, financial and technical support, and Sustainable Development Goals (SDGs). The MRV of GHG emissions involves systematic tracking of GHG emissions to establish baselines and identify trends to inform policy making. It is based on IPCC 2006 Reporting Guidelines, including, under this NDC, GHG emissions from energy, IPPU, waste and AFOLU sectors.
5(d)	IPCC methodologies and metrics used for estimating	Mozambique has adopted the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, updated in 2019. A combination of

	anthropogenic greenhouse gas emissions and removals	Level 1 and Level 2 approaches from the 2006 IPCC Guidelines is used, depending on data availability and specific sectoral characteristics. AFOLU GHG emissions and removals are estimated using the land use categories defined by the IPCC. For the energy, IPPU and waste sectors, emissions are calculated based on specific activities, following the measures recommended by the IPCC for each sector. Mozambique applies the GWPs from the IPCC Fifth Assessment Report (AR5) over a 100-year time horizon to calculate CO2 equivalents. All emissions and removals are expressed in megatons of carbon dioxide equivalent (MT CO2eq), as in Mozambique's BUR2.
5(e)	Sector-, category- or activity-specific assumptions, methodologies and approaches	In Miombo forests, the most dominant in Mozambique, fire acts both as a management tool and as a factor in forest degradation, depending on its frequency and intensity. Cold burning (May-July) is typically low intensity and has minimal impact on vegetation, while dry burning (August-October) is more intense and can reduce biomass, affect regeneration, and alter carbon stocks. Emissions and removals from these fires are included in LULUCF accounting, with ongoing efforts to refine spatial and temporal monitoring to improve future estimates. Age class structure is incorporated using data on changes in land use and biomass growth, together with IPCC emission factors. This approach takes into account the dynamics of forest growth, regrowth and carbon accumulation over time, although current inventories limit the detailed resolution by age class. Emissions are calculated based on decomposition over time, rather than assuming that all emissions occur at harvest. Current datasets on harvested wood products (HWP) are limited, and methodological improvements and additional data collection are planned to increase accuracy.
5(f)	Other assumptions and methodological approaches used for understanding the NDC and estimating emissions and removals	The reference indicator for NDC 3.0 will be taken from the base year 2020, in line with Mozambique's BUR2. Activity data is projected from 2021 to 2035 to represent a BAU trajectory, serving as a baseline for the assessment of mitigation contributions. Baseline indicators and scenarios are defined using historical activity data, emission factors and sectoral targets.

		For the AFOLU sector, the Forest Reference Emission Level (FREL, 2018) provides the basis for estimating forest-related emissions and removals, ensuring consistency with UNFCCC and REDD+ reporting requirements. The FREL is due to be updated in 2028, at which point it may incorporate local emission factors for other forest types in Mozambique, thereby enabling the application of Level 2 alone in LULUCF sector emission estimates. Until its update, the currently established values remain valid and will continue to serve as a reference for calculating and reporting emissions from the forestry sector in Mozambique. The reference levels incorporate historical activity data from BUR2 (2024), national statistics and sectoral reports, including livestock, cropland, rice cultivation, fertiliser use and trends in burned areas. LULUCF reference levels are projected based on 2001-2020 transition matrices, normalised to 2010-2020, initialised with land use areas in 2020 and adjusted for policies and development plans (e.g. livestock growth targets under PEDSA II 2022-2030. Energy sector baselines for demand and emissions are projected in a BAU scenario using the LEAP. Activity data are obtained from various institutions, energy balance statistics and relevant policy frameworks, incorporating sectoral growth rates, electrification plans and renewable energy integration. The default values (Tier 1) from the 2006 IPCC Guidelines are applied when national factors are not available, adjusting with African regional data for diesel, coal and natural gas. The transport sector baseline is based on fuel consumption data (2010-2020), vehicle registration data and projected growth in passenger and freight transport activity. LEAP is used to link transport energy demand to national energy balances. The 2006 IPCC Guidelines (Tier 1) are applied with an activity-based approach for fuel use by vehicle category. Participatory processes and interactive consultations with ministries and other stakeholders were used to validate assumptions, targets, and methodological choices. Future updates incorporating data from 2021-2023 will be reflected in the ongoing preparation of the Biennial Transparency Report (BTR).

		The methodological framework is consistent with IPCC guidelines, Mozambique's BUR2 and Mozambique's LT-LEDS (under development). Projections extend to 2050 to align short-term targets (2021-2035) with the country's long-term decarbonisation pathway.
5(g)	The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable	To be finalised after discussions about Art. 6: See section 6. Means of implementation.
Fairness and ambition		
6(a)–6(e)	How the NDC is fair and ambitious in light of national circumstances	Mozambique, despite its status as a Least Developed Country (LDC) and the option under Article 4(6) of the Paris Agreement to prepare a communication based on existing strategies and plans, has opted to prepare and communicate a third NDC, reaffirming Mozambique's commitment to ambitious climate action and international cooperation. Mozambique has minimal historical GHG emissions, which were negative until 2003, according to the SBUR, yet the country is highly vulnerable and already experiencing severe climate impacts caused by global historical emissions. Mozambique, as a developing country Party, aligns its NDC 3.0 with Article 4, paragraph 4, of the Paris Agreement, committing to a conditional economy-wide emissions reduction target relative to BAU. The emissions reduction target has been set following an extensive technical review and public consultations. The NDC 3.0 reflects national development priorities such as food security, gender equality, poverty reduction and climate resilience, while emphasising quality, transparency, feasibility, measurability and financeability. Equity and ambition are central to Mozambique's approach to NDC 3.0, which is guided by the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDRRC). Mozambique's contribution is commensurate with its development status and capacities, while demonstrating leadership in limiting emissions. The NDC integrates equity considerations by targeting marginalised groups and focusing on

		co-benefits of adaptation and mitigation measures, including inclusive access to energy, food and basic needs.
Contribution to article 2 of the convention		
7(a)–7(b)	How the NDC contributes towards achieving the stabilization of GHG concentrations and the long-term temperature goal of the Paris Agreement	Mozambique's NDC targets described in 1(d) are expected to contribute to the stabilisation of GHG concentrations, in line with the long-term objectives of the Paris Agreement. These targets are accompanied by greater NDC transparency, enhanced sectoral coverage through greater realism, and alignment with national development priorities. Mozambique's NDC further contributes to Article 2, paragraphs 1(b) and (c) of the Paris Agreement, through efforts to increase adaptive capacity and improve climate finance flows. It is highly vulnerable to climate change and is already experiencing the impacts of climate change, making adaptation the main climate priority. The NDC is consistent with Article 2, paragraph 1(a) and Article 4, paragraph 1 of the Paris Agreement, with the aim of limiting the global average temperature increase to well below 2 ° C and pursuing efforts to limit the temperature increase to 1.5 ° C. Mozambique's emission reduction target, currently under development - as described in 1(d), although conditional and subject to review, represents a significant contribution by a LDC with low historical emissions to the Paris Agreement. The NDC 3.0 targets are considered leverage for the LT-LEDS targets. Mozambique's approach reflects equity and CBDR-RC, recognising its national circumstances and priorities.

3 Adaptation

3.1 Adaptation objectives

Mozambique is one of the most vulnerable countries to climate change, making adaptation a top priority. This chapter describes the adaptation and risk reduction actions that the

country aims to undertake in the period 2026-2035, reaffirming the priorities of the National Adaptation Plan (NAP),[59] with its three main objectives:

1. To create a favourable environment for integration of adaptation into planning and budgeting at national, provincial and district levels;
2. To improve the capacity to manage and share data and information, access technology and finance adaptation; and
3. To implement adaptation actions for greater resilience of the most vulnerable at the district level.

3.2 Linkages to the NAP

The National Adaptation Plan (NAP) (2023-2032) is the primary policy document communicating Mozambique's approach to climate change adaptation, in addition to the National Medium-Term Development Plan (ENAMMC) (2013), and the primary mechanism and plan for adaptation implementation. The adaptation contribution of the NDC is aligned with the NAP and serves as a lever for implementation of the adaptation activities outlined therein.

While adaptation measures in the NAP are categorized by three pillars – i) institutional framework; ii) knowledge, technology and finance; and iii) resilience of the most vulnerable – in this NDC they are organized by sector and cross-cutting themes. This difference is due to the sectoral approach to consultations and planning in the NDC development process (see Section 2.2).

3.3 Priority adaptation measures

Based on extensive, whole-of-society sectoral consultations, the measures listed in Table xx emerged as adaptation priorities for Mozambique. The NDC is aligned with the NAP and also promotes the implementation of the NAP. Together, these adaptation measures are designed to ensure the resilience of Mozambique, reduce vulnerability to both slow-onset and sudden climate change impacts, and to avert climate change-induced loss and damage, while integrating the cross-cutting themes listed in Section 2.3.

Given the lack of resources available, the adaptation measures listed here are conditional on international support.

[59] Ministry of Land and Environment. 2023. Mozambique National Adaptation Plan. National Directorate of Climate Change. Maputo, Mozambique

The following sub-sections provide context for adaptation priorities within each of the adaptation sectors:

Table xx – Priority Adaptation Measures

#	Adaptation measure	Region	Timeframe	Responsible institution	Cost estimate (USD)	Indicator	Co-benefits
1. Agriculture, forestry and blue economy							
AGBE-2	Expanding cashew production in semi-arid zones to 88,227 hectares to reduce food insecurity	National				Areas (ha) cultivated	Mitigation, economic development
AGBE-3	Increasing irrigated areas by 22,000 (medium) and 9,900 (low) thousand hectares	National				Area (ha) covered, number of producers covered and benefited	Economic development
AGBE-7	Strengthening local value chains and alternative livelihoods in fishing communities	National (coastal regions)	2025-2031		28,690,000	% increase in income from fish-related activities; Number of MSMEs supported or created;	Economic development
AGBE-8	Expanding Marine Protected Areas (MPAs) from 2.2% to 30% of the national marine area by 2030	National				% of national marine area under legal MPA designation; Area (ha) of MPAs created and managed	Biodiversity recovery, mitigation (blue carbon storage)
AGBE-10	Promoting restoration and protection of mangroves as carbon sinks, to enhance climate resilience	National			50,000,000	Habitat Extent & Coverage in (ha)	Coastal protection; Fisheries Enhancement; Water quality improvement and Biodiversity conservation.
AGBE-11	Promoting climate-smart agricultural approaches and technologies	National				Number of farmers receiving CSA technology packages	Mitigation, improved soil health, water efficiency
#	**Adaptation measure**	**Region**	**Timeframe**	**Responsible institution**	**Cost estimate (USD)**	**Indicator**	**Co-benefits**
2. Health							
HEA-2	Conduct periodic Health Vulnerability and Adaptation Assessments, including health infrastructure			MISAU (DNSP, INS), WHO, INAM		Number of assessments updated and published	
HEA-3	Reinforce early warning systems for climate-sensitive diseases			MISAU (INS, DNSP), INAM, INGD		Increase in average warning time	
HEA-5	Enhance Climate-Resilient Food Security and Nutrition via Agriculture, Livestock, and Fisheries			MISAU (DNSP), MAAP,		Percentage reduction in the chronic malnutrition rate in target districts	

				SETSAN, PAM			
HEA-6	Train rapid response teams for extreme climate events and pre-position essential supplies in high-risk areas.			MISAU (DNSP, INS), INGD		Percentage of provincial rapid response teams trained	
#	**Adaptation measure**	**Region**	**Timeframe**	**Responsible institution**	**Cost estimate (USD)**	**Indicator**	**Co-benefits**
3. Infrastructure							
INF-2	Retrofit existing school buildings, prioritizing high-risk areas		10 years		47,088,923		Continued education, safe learning environment, reduced disruption
INF-3	Construct road pavements with functional drainage systems		10 years		3,100,000,000		Reduced erosion, improved mobility, flood prevention in settlements
INF-4	Build schools, hospitals and houses using climate-resilient techniques		7/10 years		147,680,492		Safer housing, lower reconstruction costs, better public services, safer schools, continuous education, improved access to healthcare
INF-11	Train local communities in climate-resilient construction techniques, fostering ownership, sustainability, and capacity to rebuild after disasters	National				# or % of community members applying techniques to build or repair their own structures, or participating in community rebuilding efforts following a disaster as result of training in climate-resilient construction techniques	
#	**Adaptation measure**	**Region**	**Timeframe**	**Responsible institution**	**Cost estimate (USD)**	**Indicator**	**Co-benefits**
4. WASH and water management							
WAT-1	Building resilient Hydraulic Infrastructures for Water Storage and Management	National	10 years			Water storage capacity increased due to new dams built; Water storage capacity increased due to dams rehabilitation; Number of beneficiaries of new dams; Number of beneficiaries of rebuilt dams	Electricity generation
WAT-3	Strengthening of the Extreme Event Prediction System	National	10 years		7,000,000	Operational flood and drought prediction models; Percentage of system coverage per basin	

WAT-4	Rehabilitation of flood protection and defence dykes	The whole country - With priorities for the Limpopo, Búzi, Licungo and Zambezi Basins	10 years			Extension of rehabilitated dikes	
WAT-5	Increasing access to climate resilient water supply services	National	10 years				
WAT-7	Strengthen Water Sector Governance, Planning, and Capacity for Climate Change Adaptation	National (some sub-measures focus on Maputo, Beira and Nampula)	10 years				
#	**Adaptation measure**	**Region**	**Timeframe**	**Responsible institution**	**Cost estimate (USD)**	**Indicator**	**Co-benefits**
5. Education							
EDU-1	Strengthen Climate Education and Awareness	National				% of schools adopting climate change curricula; Number of teachers trained; Number of materials produced/distributed	Increased youth resilience and climate knowledge; Improved teaching quality; Community engagement
EDU-2	Build Capacity for Climate-Smart Vocational & Higher Education	National				# vocational programs updated # universities offering climate programs # scholarships/internships awarded	Skills for green jobs; Research output, innovation; Youth engagement
EDU-3	Promote Community-Based and Lifelong Climate Learning	National				# sessions conducted % of adult literacy programs including climate topics # radio programs, digital campaigns	Local adaptive capacity Broad population access Remote outreach
EDU-5	Foster Innovation & Technology Adoption	National				# digital platforms/tools developed % of schools implementing remote/blended learning	Broader access Continuity of education
#	**Adaptation measure**	**Region**	**Timeframe**	**Responsible institution**	**Cost estimate (USD)**	**Indicator**	**Co-benefits**
6. Social protection							

SOC-2	Strengthen and expand adaptive social protection programs to enhance resilience of vulnerable communities to climate shocks	Cabo Delgado, Nampula, Zambezia, Sofala, Inhambane, Gaza, Tete, Maputo	10 years		6,000,000	Number of households covered by basic social security programmes	Food security, Increased access to credit, women's empowerment, local economic resilience
#	**Adaptation measure**	**Region**	**Timeframe**	**Responsible institution**	**Cost estimate (USD)**	**Indicator**	**Co-benefits**
7. Cross-cutting themes							
CCT-1	Enhancing institutional coordination and updating policy documents	National				Existence of formal mandates for cross-sectoral collaboration; Number of updated policies aligned with NDCs, SDGs, or NBSAP; Timeliness of BTR submissions; Volume of climate finance mobilized due to improved coordination.	Policy coherence across sectors; Accelerated implementation of NDCs and SDGs; Improved access to climate finance; Enhanced transparency and accountability; Empowerment of subnational actors; Inclusive governance.
CCT-2	Integrating adaptation into planning and budgeting at all levels	National				Number of ministries with climate adaptation focal points	Resilience mainstreaming and Efficient resource allocation.
CCT-4	Including and empowering women and vulnerable groups in adaptation planning and implementation	National				% of women and vulnerable groups in climate decision-making bodies; % of women with access to climate-resilient livelihoods (e.g. aquaculture, agriculture); % of households headed by vulnerable persons receiving adaptation support.	Enhanced adaptive capacity; Better uptake of nature-based solutions.
CCT-7	Strengthening early warning systems and climate data management	National				% of territory covered by real-time climate monitoring	Saving lives and assets; Economic efficiency; Development.

3.3.1 Agriculture, forestry and blue economy

Agriculture, forestry and the blue economy are central to Mozambique's adaptation strategy, given their critical role in food security, livelihoods and economic development. Mozambique has significant potential to advance these sectors, including expanding areas of cultivation and irrigation, leveraging coastal resources for sustainable growth (including tourism), and scaling aquaculture to improve food security, with "blue foods" offering mitigation co-benefits compared to other animal protein sources.

Priorities for agriculture, livestock and fisheries focus on strengthening resilience and sustainability in the face of climate change, while enhancing the adaptive capacity of fishing-dependent communities.

Forestry objectives aim to reduce the rate of uncontrolled deforestation and associated forest degradation and biodiversity priorities seek effective planning and management strategies that conserve and rehabilitate Mozambique's biodiversity and coastal ecosystems.

The use of Nature-based Solutions (NbS) to respond to climate change impacts will be promoted, such as the restoration and use of mangroves to provide natural buffers against climate impacts, while also providing co-benefits for mitigation via carbon sequestration and for the fisheries sector.

These priorities collectively seek to reduce climate vulnerability, strengthen governance, and foster inclusive growth, aligning with Mozambique's National Adaptation Plan (2023–2032), the Strategic Plan for the Development of the Agricultural Sector (2030), the National Biodiversity Strategy and Action Plan (2015-2035) and the Blue Economy Development Strategy (2024–2033).

3.3.2 Health

Mozambique is finalizing the development of a National Plan for Health Adaptation to Climate Change (HNAP) (2026-2030), to be published in 2026. The HNAP is the Ministry of Health's main strategic instrument for integrating climate change adaptation into the health sector. The central objective of the HNAP, and therefore for adaptation in the health sector in Mozambique, is to: i) reduce health vulnerabilities to climate change, ii) strengthen the resilience of health services, and iii) ensure that health adaptation is fully integrated into national planning and financing policies and instruments without leaving anyone behind, while promoting environmentally sustainable and low-carbon health systems. The specific objectives are to:

- Diagnose climate vulnerabilities in health based on geographic and epidemiological data;

- Prioritize effective, sustainable, and territorialized adaptation interventions;
- Strengthen climate-focused surveillance, nutrition, WASH, and early warning systems;
- Integrate health into national and subnational climate strategies (e.g., NAPs, NDCs, PESOEs), promoting co-benefits for health and the environment;
- Promote climate justice through gender equity, inclusion, and community participation in health resilience; and
- Mobilize financial and technical resources for the implementation and monitoring of the HNAP.

The health sector adaptation measures listed in Table xx are a selection of prioritized actions from the HNAP.

3.3.3 Infrastructure

Increasing the resilience of critical infrastructure is urgently needed. The overarching priorities for the infrastructure sector are to: i) strengthen the structural resilience of critical infrastructure, ii) review and enforce climate-resilient building regulations, iii) expand resilient resettlement programmes, and iv) ensure adequate and sustainable financing. The revision of building codes and technical standards must be completed and implemented urgently, accompanied by effective mechanisms for monitoring and training technicians, otherwise further investments risk perpetuating structural vulnerabilities. Specific measures are listed in Table xx. The infrastructure sector is a strategic pillar for adaptation in Mozambique, capable of generating transformative impacts in key areas such as health, energy, education, housing and roads.

3.3.4 WASH and Water Management

Climate change is intensifying water scarcity, degrading water quality, and increasing the frequency and severity of floods, droughts and extreme events, thereby threatening the sustainability of water resources and WASH services in Mozambique. Expanding access to climate-resilient water supplies and sanitation facilities is a key priority for the Government of Mozambique. To strengthen resilience, the country will invest in climate-resilient hydraulic infrastructure, including the construction and rehabilitation of dams, reservoirs and water-supply systems. Monitoring of surface and groundwater will be enhanced through improved hydrological modelling, expanded hydro-climatological networks, updated hydrological information and a national piezometer network. Mozambique will also reinforce early-warning systems and flood-protection structures and expand climate-resilient sanitation services prioritizing nature-based solutions and resilient facilities in public institutions. These actions will be supported by stronger governance, updated legislation, improved water-security planning, capacity building at all

levels, community awareness, and investment programmes that promote sustainable and innovative approaches such as biogas recovery in sanitation systems. The adaptation measures of this sector are listed in Table xx prioritized by the stakeholders.

3.3.5 Education, Training and Public Awareness

Mozambique will integrate issues related to climate change and resilience into the education systems, with an emphasis on school curricula, capacity building and training of teachers; development of accessible and inclusive educational materials; awareness campaigns to raise climate awareness and literacy in all segments and life cycles of society in the Mozambican context (from an early age).

Documents such as the NAP and ENAMMC highlight the importance of education in promoting awareness, dissemination and public participation in climate action. ENDE 2025-2044 emerges as a potential harmonisation mechanism that establishes that all national policies must be aligned with the Paris Agreement and other international environmental commitments, and has a its fifth pillar of focus "Environmental Sustainability, Climate Change and Circular Economy".

It is therefore essential to strengthen resilience and innovation as a priority at all levels of the education system. Vocational and higher education institutions will expand training, research and scholarship opportunities in climate resilience. Community-based adult learning will be reinforced through education on climate risks and digital platforms, while policy makers will receive specific training and better knowledge sharing. Inclusive education efforts will prioritise vulnerable learners, reducing climate-related disruptions and providing support services. The sector will also promote digital innovation and distance learning and strengthen school infrastructure through climate-resilient construction, disaster preparedness plans and training for staff and students. Table X presents the detailed list of priority educational measures for the sector.

3.3.6 Social Protection

Climate change is increasing the vulnerability of poor, marginalized and children populations, exacerbating poverty, food insecurity and negative coping strategies and having consequences for well-being and mental health.[60] To strengthen resilience, Mozambique will enhance its social protection system by improving the targeting and implementation of productive social action programmes expanding cash transfers, in-kind

[60] IIED Strategy and Learning Group (2021). PRIORIZE Initiative. https://www.iied.org/sites/default/files/pdfs/2021-02/17771IIED.pdf

support and financial inclusion mechanisms, and integrating climate vulnerability, gender inclusion, child sensitivity and equity into programme eligibility and design. These efforts will be supported by capacity building, climate-sensitive information on climate risks and adaptation options.

3.3.7 Early Warning Systems

Strengthening early warning systems is an important adaptation priority for Mozambique, faced with severe climate change-related extreme weather events, including more intense cyclones, flooding, and prolonged droughts. Robust early warning systems are essential to strengthen climate resilience and support development. These systems can provide timely information that can help prevent or reduce climate impacts such as loss of lives, damage to crops. livestock and infrastructure, and economic losses.

The implementation of early warning systems is anchored in the Master Plan for Disaster Risk Reduction (2017-2030) and led by the National Institute for Disaster Management (INGD) with the support of National Meteorology Institute (INAM) and the National Directorate of Water Resources Management (DNGRH).

Mozambique's main objectives regarding strengthening early warning systems include, among others:[61]

- Strengthening INDG's capacity to coordinate early warning systems operation actions;
- Strengthening the capacity of INAM and DNGRH to systematically collect climate data, including establishing a network of stations, updating and maintaining adequate measuring equipment;
- Increased capacity for local disaster risk management committees on risk identification, response, preparedness and implementation; and
- Institutionalization of disaster reduction plans (emergency operations) at the level of public and private institutions, civil society and in neighbourhoods.

[61] Ministry of Land and Environment. (2023). *Mozambique National Adaptation Plan*. National Directorate of Climate Change. https://unfccc.int/sites/default/files/resource/National_Adaptation_Plan_Mozambique.pdf

3.4 Recent progress includes launching the Early Warning for All (EW4All) initiative in 2023 and its Early Warning System Road Map and Action Plan (endorsed by the government in 2024).[62] Future planned activities include strengthening INAM and DNGRH's capacity to provide meteorological and hydrometric information tailored to each user and setting standards for the development and coordination of early warning systems for multiple events.[63]Loss and Damage

Alongside adaptation, additional priority is to raise funds for unrecoverable losses and damages caused by extreme weather events related to climate change in Mozambique. Mozambique faces disproportionately high levels of climate related loss and damage, with national assessments (PDNA, DaLA, GRADE, EM DAT, DesInventar) showing that the agriculture, housing and transport sectors together account for 62% of all recorded impacts.

The agriculture sector accounts for 23% of total loss and damage and remains highly vulnerable due to strong economic dependence at both household and national levels. Between 2000 and 2025, cumulative losses and damages reached USD 4,5 billion, with over 86% of this sum from indirect losses linked to production decline and livelihood disruption. Additional losses of an estimated USD 117,7 million in staple foods are projected by 2050.

The housing sector represents 18% of total national climate related loss and damage. From 1967 to 2023, cumulative housing losses exceeded USD 2,63 billion, largely driven by direct damage. Exposure is intensified by vulnerable construction practices and rapid urbanisation, increasing financial risks for households and public recovery systems.

The transport sector accounts for 21% of total loss and damage, with cumulative losses of USD 2,86 billion between 1967 and 2023 and average annual losses estimated at USD 50,2 million. Public infrastructure accounts for around two thirds of these losses, increasing fiscal pressures and constraining economic recovery.

Beyond sectoral impacts, climate related loss and damage generates significant economy-wide costs. Decreasing food security and increased displacement and rural-urban migration increase pressure on public services and government-funded safety nets. Recurrent climate

[62] United Nations Office for Disaster Risk Reduction. (2024, November 14). *Multi-hazard early warning systems in Mozambique*. UNDRR. https://www.undrr.org/resource/case-study/multi-hazard-early-warning-systems-mozambique

[63] Republic of Mozambique. (2022). *National Adaptation Plan of Mozambique*. United Nations Framework Convention on Climate Change. https://unfccc.int/sites/default/files/resource/National_Adaptation_Plan_Mozambique.pdf

shocks slow economic growth, widen the trade deficit and heighten fiscal stress, particularly due to repeated damage to critical infrastructure.

Mozambique's enabling environment for managing loss and damage remains constrained by fragmented institutional mandates, limited technical capacity and persistent financing gaps. Coordination challenges among INGD, MADER, MOPHRH, DNFC, GREPOC and local governments hinder coherent planning and data management, while the country lacks a centralized, standardized loss and damage database. Existing policy instruments do not explicitly operationalise L&D. Financial constraints further limit action, as the Disaster Management Fund (FGC) receives only 0,1% of the national budget, programmes face under-financing and insurance coverage remains minimal. The issue of L&D is included in this NDC to highlight its importance to the country. The key objectives for L&D are:

1. To document loss and damage in Mozambique's MRV system;
2. To improve understanding and quantification of climate change impacts, L&D and adaptation limits;
3. To minimise L&D through adaptation and mitigation efforts; and
4. To establish and improve L&D compensation mechanisms as a safeguard against residual L&D.

To achieve these objectives, the following recommendations provided by UNDP[64] form the core of the improvements of L&D under NDC 3.0:

1. **Strengthen L&D Governance**
   - I. Establish an integrated national L&D coordination mechanism through a high-level interministerial task force or by strengthening the existing Coordinating Council for Disaster Management and Risk Reduction;
   - II. Institutionalise systematic post-disaster assessments and strengthen district-level DRM capacities;
   - III. Align and update policy frameworks by developing explicit L&D guidelines and resolving coordination gaps;
   - IV. Develop a legal or regulatory instrument formally recognising L&D as a policy domain, e.g. in the foreseen amendment of the Environmental Law, No. 20/97.
2. **Enhance Financial Preparedness and Risk Reduction Funding**
   - I. Increase allocations to FGC and sectoral contingency budgets;
   - II. Expand risk financing instruments and insurance mechanisms;
   - III. Mainstream climate and L&D finance tracking across ministries;
   - IV. Strengthen readiness to access international L&D and climate finance.
3. **Strengthen Data Systems, Risk Monitoring and Local Capacities**

[64] UNDP. (2025). Loss and Damage Stocktaking in Mozambique.

I. Create a unified national L&D data system;
II. Adopt common post-disaster assessment methodologies and strengthen local capacity;
III. Upgrade early warning systems and risk monitoring.

4. **Integrate L&D into National Planning and Budgeting**
   I. Embed L&D considerations in Mozambique's core planning, namely:
      1. Climate budget tagging expenditures related to climate change adaptation, disaster risk reduction and post-disaster recovery across all ministries to improve transparency and awareness of L&D-related spending;
      2. Including L&D targets in the PQG and sectoral strategies with resilience investment planning with measurable outcomes;
      3. Integration of L&D considerations in a dedicated national climate resilience fund, further discussed in sub-chapter 6.1.3;
   II. Strengthen climate finance governance and transparency, further discussed in sub-chapters 5.2, 6.1 and 6.2.
5. **Prioritise Climate-Resilient Investments**
   I. Agriculture and livelihood protection: Scale climate smart agriculture, irrigation, resilient seeds, insurance and extension services;
   II. Housing and urban planning: develop and enforce resilient building standards and hazard informed land use planning;
   III. Transport and infrastructure: apply climate-resilient design standards, risk screening and preventive maintenance.

4 Mitigation and low-emission development

4.1 Overall ambition / Mitigation goal

Mozambique is part of the group of Least Developed Countries (LDCs) of the United Nations and contributes minimally to global emissions. Although the country's main focus is on adaptation and reducing its vulnerability to climate change, as outlined in the previous section, Mozambique also has important objectives regarding the reduction of its emissions relative to a Business-as-Usual (BAU) scenario. Under the NDC 2.0, Mozambique established a series of mitigation actions that were expected to amount to an estimated emission reduction of about 40 Mt CO2e in aggregate for the period of 2020-2025. Even though some progress was achieved, and acknowledging the challenges of monitoring the implementation of the policies that the country faces, recent inventory reports under the Second Biennial Update Report (SBUR) and GHG emission projections underpinning the development of the LT-LEDS 2050 clearly show that emissions have increased more than

previous BAU projections - 2020 emissions under NDC 2.0 BAU amounted to around 40 Mt CO2e with emissions by 2025 expected to rise to around 55 Mt CO2e. The latest inventory report estimates a total emission of 91.3 Mt CO2e in 2020.Emission reduction objectives are aligned with, and derived from, the country's strategic socio-economic development frameworks, expressed in documents such as the National Development Strategy 2025-2044 (ENDE), the Government Five-Year Program 2025-2029 (PQG), the Energy Transition Strategy (ETE), and other relevant policy documents as identified in Table XX [*Policy review of selected policies in section 1.5*].

Thus, Mozambique's mitigation objectives for the 2035 horizon are:

At least a 3% reduction compared to the BAU scenario for the 2026-2035 period. This cumulative emission reduction for the period 2026-2035 is equivalent to 45% of the 2020 emissions level.

4.2 Historical trends

According to the latest emission inventory produced in the context of the SBUR, submitted to the UNFCCC in 2024 (with a complete series from 1990-2020) Mozambique has been a net emitter since 2003 (Figure xxx and Figure xxx). Before that, the overall emissions (including LULUCF) were negative. This shift from net sink to net emitter is mainly explained by increasing deforestation, use of charcoal for energy production, increased use of natural gas, population growth, changes in animal production, and development of domestic industry.

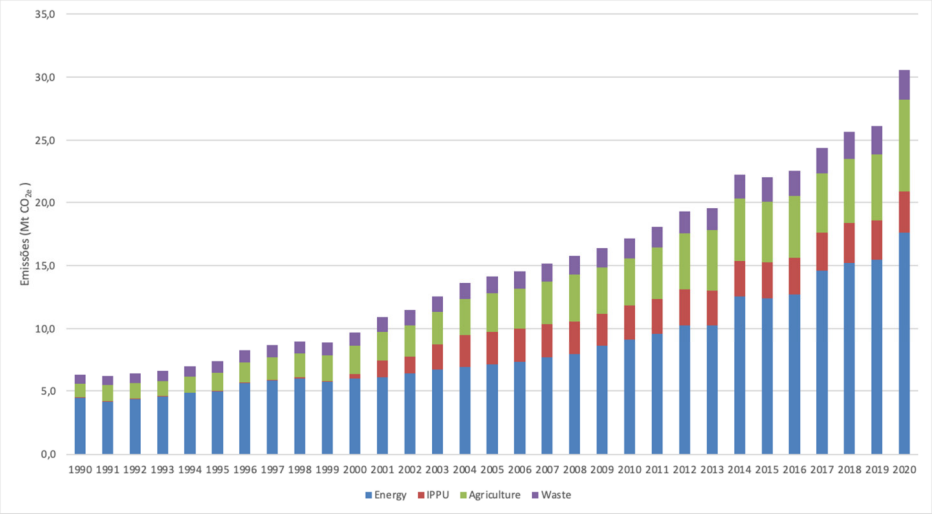

Figure xx: Trend of national GHG emissions by sector, excluding LULUCF

Source: SBUR, 2024

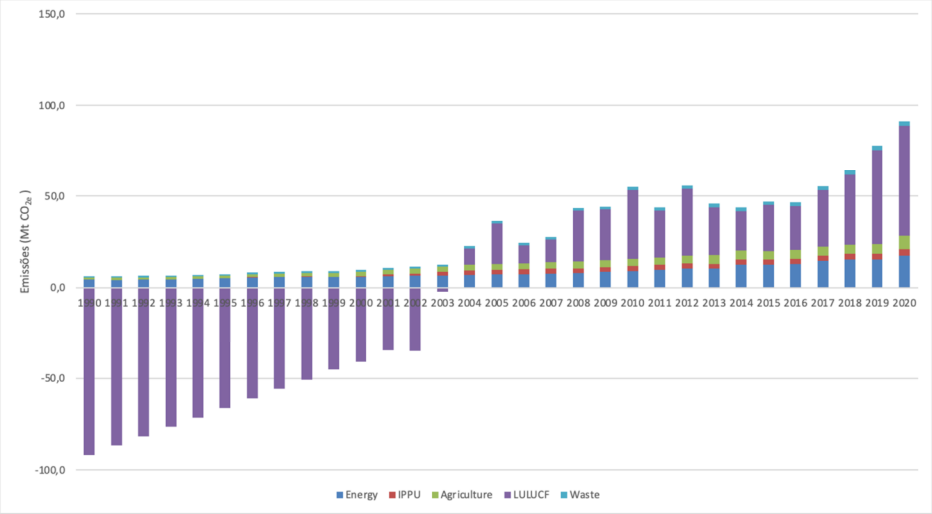

Figure xx: Trend of national GHG emissions by sector, including LULUCF

Source: SBUR, 2024

Excluding LULUCF, the energy sector is the largest contributor (mainly due to fuel combustion activities and fugitive emissions), followed by agriculture sector (mainly due to livestock emissions), and lastly IPPU (mainly due to aluminium production and cement) and waste (mainly due to solid waste disposal and wastewater treatment discharge) that have almost similar contribution.

4.3 Scenarios

Estimates for the emission reductions that can be achieved from the comprehensive package of measures identified for implementation in the period up to 2035 were considered under 3 different scenarios: the two scenarios identified in the LT-LEDS 2050 and a more conservative NDC3.0 implementation scenario. All scenarios are compared to a Business-as-Usual scenario. All scenarios are described below.

4.3.1 Business-as-Usual Scenario

The NDC 3.0 uses the business-as-usual (BAU) scenario from Mozambique LT-LEDS 2050, thus ensuring full consistency between the two policy documents. The BAU scenario was constructed based on extensive stakeholder consultations with relevant sectors. It considers the country's strategic socio-economic development frameworks, expressed in documents such as the National Development Strategy 2025-2044 (ENDE), the Government Five-Year Program 2025-2029 (PQG), the Energy Transition Strategy (ETE), and other relevant policy documents with impacts in terms of energy demand (e.g. for households, transport and industry), food demand (and implications in terms of land conversion), use of biomass, livestock projections and waste production as well as the main structural developments already committed (e.g. investment projects in natural gas and in industrial development in certain sectors). A description of the underlying sector challenges and mitigation measures is provided in the next sections. The BAU scenario is used to assess the mitigation potential of the proposed mitigation measures.

The emissions under the BAU scenario are represented in Figure xx.

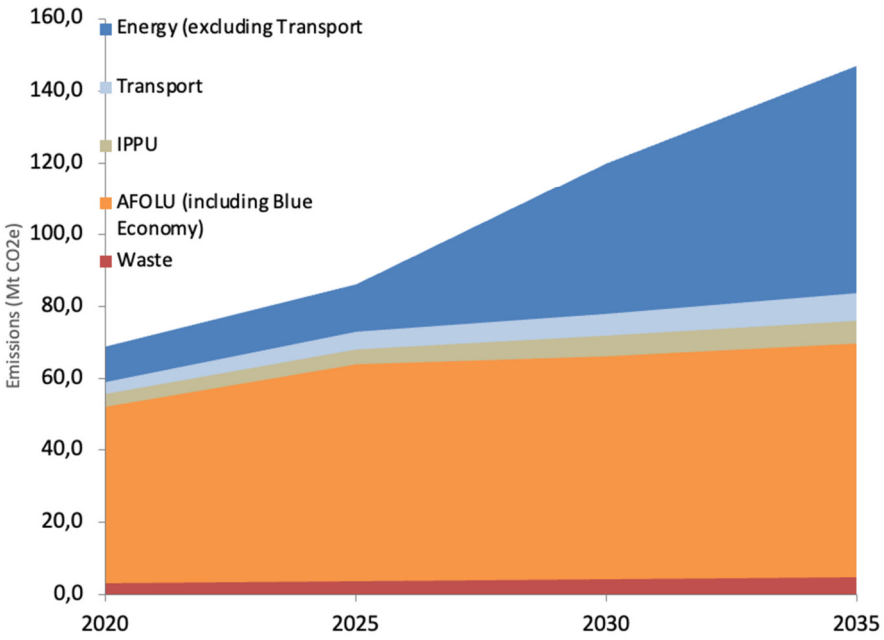

Figure xx: BAU scenario emissions up to 2035

Source: Based on figures from LT-LEDS, forthcoming

Under the BAU scenario emissions in all sectors are expected to increase significantly with total emissions with an increase of 61% by 2035 and of 106% by 2050, compared to 2020 levels. Energy, excluding Transport (with an increase of 357% by 2035 and of 504% by 2050, compared to 2020 levels) and Transport (with an increase of 108% by 2035 and of 321% by 2050, compared to 2020 levels) and Waste (with an increase of 95% by 2035 and of 176% by 2050, compared to 2020 levels) are the sectors with highest growth.

4.3.2 LT-LEDS 2050 Mitigation Scenarios

In the context of the LT-LEDS 2050, Mozambique identified significant mitigation potential in the Energy (including Transport), AFOLU and Blue Economy and Waste sectors in the period 2025-2035 and up to 2050 under two mitigation scenarios – a **high mitigation scenario** and **a low mitigation scenario** (Figure xx and Figure xx) translating different assumptions (mainly in the Energy and Transport sectors) for the implementation of the package of measures described in the previous section. Mitigation options for the IPPU sector are expected to deliver mainly beyond 2035 up to 2050. Thus, it is not expected that the IPPU sector will contribute to the current NDC apart from developing policy frameworks and the enabling environment for industrial development and for the mitigation options identified to be able to deliver after 2035.

A cumulative reduction of between 118.9 Mt CO_{2e} (low mitigation scenario) to 138.2 Mt CO_{2e} (high mitigation scenario) can be achieved for the period 2026-2035 representing around 10-12% of the cumulative emissions of the BAU in the same period. The low mitigation scenario represents a 13% reduction of emissions from BAU levels in 2035 and a 86% increase in emissions compared to 2020 levels. The high mitigation scenario represents a 17% reduction of emissions from BAU levels in 2035 and a 76% increase in emissions compared to 2020 levels.

The highest impact sectors in terms of emission reduction are AFOLU (63.7% in the low mitigation scenario and 54.8% in the high mitigation scenario) and Energy (30.3% in the low mitigation scenario and 40% in the high mitigation scenario).

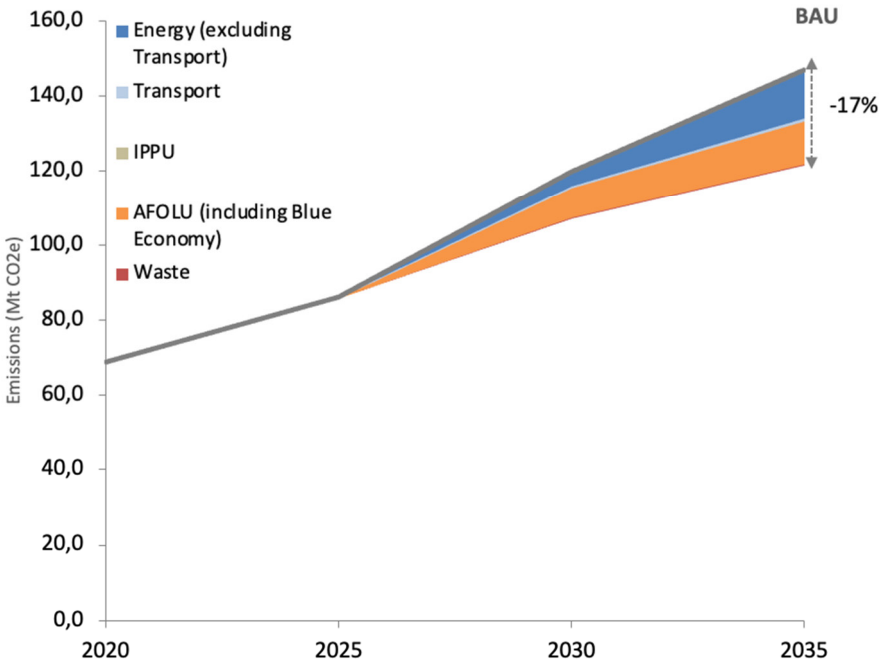

Figure xx: Potential impact of sectoral measures in GHG emissions trajectory up to 2035 (mitigation high scenario)

Source: Based on figures from LT-LEDS, forthcoming

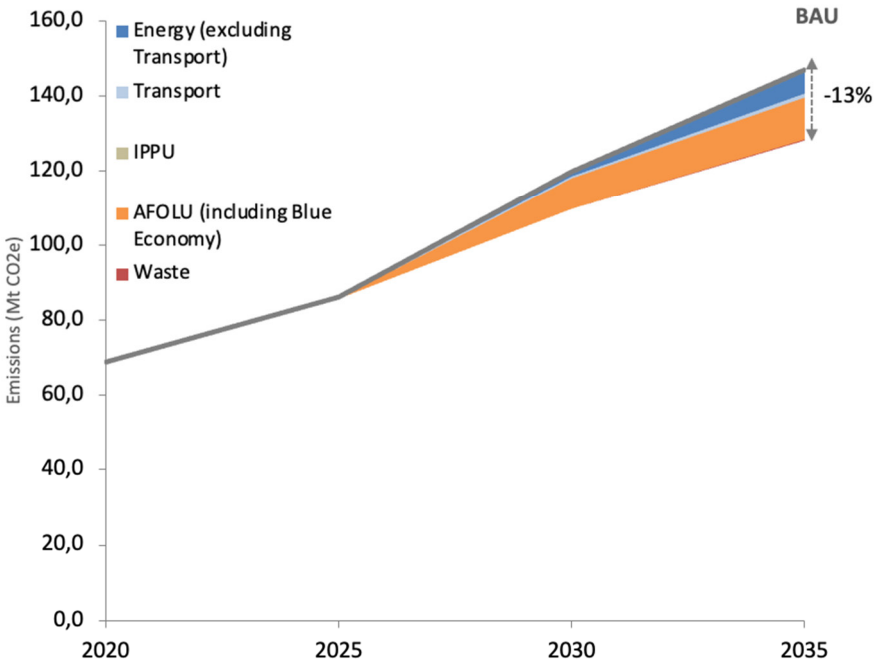

Figure xx: Potential impact of sectoral measures in GHG emissions trajectory up to 2035 (mitigation low scenario)

Source: Based on figures from LT-LEDS, forthcoming

4.3.3 NDC Mitigation Scenario

Given the fact that adaptation remains the key priority for the country in terms of implementation and tackling climate change and also considering the considerable challenges the country faces including in terms of human resources, technical capacity, setting up its institutional arrangements for climate change and coordination among the sectors, Mozambique is basing its commitment under NDC3.0 on a more conservative, realistic and feasible mitigation scenario. This more conservative approach translates in considering that the bulk of the measures will have some delay in the start date of implementation and will only deliver around 60% of the mitigation potential considered in

the LT-LEDS, thus accounting for the challenges that the country typically faces when deploying policies.

This scenario should be considered as the lower end of the commitment of Mozambique for the 2026-2035 timeframe. The comprehensive package of measures identified is critical for progressing towards Mozambique's development objectives and thus its full implementation stretches beyond this timeframe.

A cumulative reduction of 41 Mt CO_{2e} can be achieved for the period 2026-2035 representing 3% of the cumulative emissions of the BAU in the same period, a 7% reduction of emissions from BAU levels in 2035 and a 98% increase in emissions compared to 2020 levels.

The highest impact sectors in terms of emission reduction are AFOLU (22.2%) and Energy (10.8%).

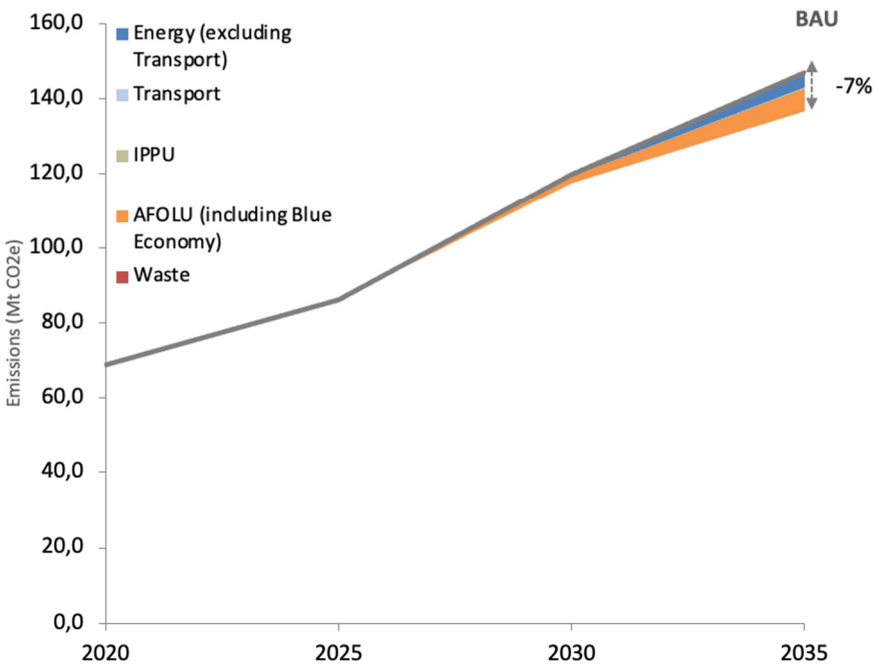

Figure xx: Potential impact of sectoral measures in GHG emissions trajectory up to 2035

Source: Own calculation based on figures from LT-LEDS, forthcoming

Table xx shows the per capita emissions from the BAU and for each of the mitigation scenarios considered, underlining that even considering the expected emissions growth in the coming decades, per capita emissions will remain at low levels.

Table xx: Per capita emissions in the BAU and mitigation scenarios

	2020	2025	2030	2035
BAU (t CO2e/pessoa)	2,2	2,4	3,0	3,2
Mitigation Scenario High (t CO2e/pessoa)	2,2	2,4	2,7	2,7
Mitigation Scenario Low (t CO2e/pessoa)	2,2	2,4	2,7	2,8
Mitigation Scenario NDC3.0 (t CO2e/pessoa)	2,2	2,4	2,9	3,0
Population (Million)	30,8	35,3	40,1	45,5

4.4 Sector-Level Priority Mitigation Measures for the NDC3.0

The mitigation measures for each sector (Table XX) [Priority Mitigation Measures] have been identified in extensive, whole-of-society sectoral consultations undertaken in the context of the LT-LEDS 2050 and in the context of the NDC3.0. The measures and initial information including costs and co-benefits are presented by sector below.

In the context of the consultations, the Health sector identified potential mitigation options such as low-emissions health services (e.g. low-carbon transport logistics for medicines, vaccines, medical supplies and patients), sustainable procurement policies for equipment and hospital consumables, creating a national inventory of GHG emissions from the health sector, assessing the carbon footprint of the health sector and training health professionals in health environment management and low-carbon practices. These mitigation measures are considered to be contained in the broader cross-sectoral measures as addressed under energy savings/efficiency and use of renewables in the energy sector and plans for introducing low-carbon transport options in the country or in the context of the general need for production, access and management of data and identification of training/capacity needs.

4.4.1 Energy Sector Including Transport

Mozambique's energy sector plays a key role in shaping the country's economic and social development trajectory. As a rapidly growing economy with rising energy demand, the sector underpins industrial growth, regional power integration, economic diversification, and efforts to expand universal access to modern energy services. The energy sector is closely linked to national development priorities, including poverty reduction, economic transformation, and job creation while remaining a central pillar for achieving the Sustainable Development Goals, particularly SDG 7 on affordable and clean energy.

Mozambique's energy system is characterized by a combination of abundant renewable energy resources, increasing natural gas production, and a persistent reliance on traditional biomass for household energy. Despite substantial generation potential, transmission constraints continue to limit national grid stability and the ability to fully utilize renewable energy resources.

Primary energy supply continues to be dominated by biomass – particularly firewood and charcoal – which accounts for the majority of household energy consumption. Hence, household energy consumption is a defining feature of Mozambique's emissions landscape. Over 70% of households continue to cook with biomass, often using low-efficiency stoves. Electricity access has expanded, yet affordability and weak grid reliability hinder the shift to electric cooking. Clean cooking interventions – Liquefied Petroleum Gas (LPG), improved biomass stoves, electric cooking, ethanol - remain limited in scale but are central to improving living conditions and reducing emissions.

Electricity generation relies primarily on hydropower, mainly by Cahora Bassa (HCB), which supplies both domestic load and regional exports. New hydropower investments are expected to significantly expand renewable baseload capacity. Gas-to-power is also emerging, complementing the system and enhancing reliability. Solar PV capacity has grown steadily.

Transport is one of the fastest-growing sources of fuel consumption and emissions. The road subsector dominates petroleum product demand due to rapid urbanization, expanding logistics corridors, and an ageing vehicle fleet with limited fuel-efficiency standards. Passenger transport is heavily road-based, with limited mass transit infrastructure, while freight relies on diesel-intensive trucking along major corridors (Maputo, Beira, Nacala). Rail transport remains under-utilized, though it offers substantial mitigation potential if modernised.

The implementation of NDC 3.0 will rely on substantial progress in renewable energy deployment, energy efficiency, sustainable biomass use, and a more resilient and climate-

proof energy infrastructure while addressing the challenges of ensuring universal access to energy and the adoption of cleaner energy for transportation.

IMozambique will undertake the following measures in the period up to 2035:

Energy

E01: Off-grid hydropower

Steady and gradual expansion of off-grid small hydropower, reaching an additional 2 MW of installed capacity by 2035, prioritising rural electrification, local resource utilisation, and low-emission electricity supply in remote areas.

E02: Off-grid solar

Deployment of an additional 16 MW of off-grid solar capacity by 2035, building on the existing estimated 3.9 MW currently installed. The measure supports cost-effective rural electrification, reduced reliance on diesel generation, and scalable low-carbon energy access solutions.

E03: Expanded grid solar PV and wind

Rollout of grid-connected solar PV and wind capacity by 2035, aligned with the Just Energy Transition pathway targeting 3.5 GW of solar and 1 GW of wind by 2050. Based on projects currently in the pipeline, up to 200 MW of new solar capacity could be expected by 2035 and approximately 150 MW of wind.

E05: Solar lighting systems

Installation of 50,000 units of solar lighting systems by 2035. Although public lighting (PL) represents a marginal share (0.4%, according to EDM) in the total national electricity consumption, it is expected that this share will increase in the coming decades mainly driven by the accelerated pace of urbanisation in Mozambique. Replacing part or all of the electricity that is used for public illumination will contribute to reduced load-shedding, reduced power imports and GHG emissions.

E08: Solar Home Systems

Investment in 80 MW of Solar Home Systems (SHS) which translates to almost 1,700,000 new connections.

E09: On Grid Hydro

Development of four major grid-connected hydropower projects – Mphanda Nkuwa, Cahora Bassa North, Lupata, and Chemba – according to their respective commissioning timelines.

E10: Replacement of Incandescent Lights

The proposed action builds on NDC 2.0, which proposed the replacement of 2.5 million incandescent lamps with energy-efficient LED lighting.

E11: Clean Cooking - LPG

Raising LPG access from the current estimated 4% to approximately 13% of households by 2035. LPG massification is identified as a strategic pillar of the Just Energy Transition, with penetration expected to exceed 40% of households by 2050. Deployment will replace charcoal, the dominant cooking fuel in urban areas, thereby reducing emissions and indoor air pollution.

E12: Clean Cooking - Electricity

Achieve an electricity-based cooking penetration of about 4% of households by 2035. Deployment will replace charcoal, the dominant cooking fuel in urban areas, thereby reducing emissions and indoor air pollution.

E13: Clean Cooking - Improved Cookstoves

Adoption of improved cookstoves, reaching 25% of households by 2035. The rollout targets both urban and peri-urban areas where traditional biomass use remains prevalent.

A cumulative reduction of 12.8 Mt CO_{2e} can be achieved for the Energy measures for the period 2026-2035 (Figure xx).

The highest impact measure in the Energy sector is On-grid Hydro (E09) representing 71% of the expected mitigation impact of the measures up to 2035.

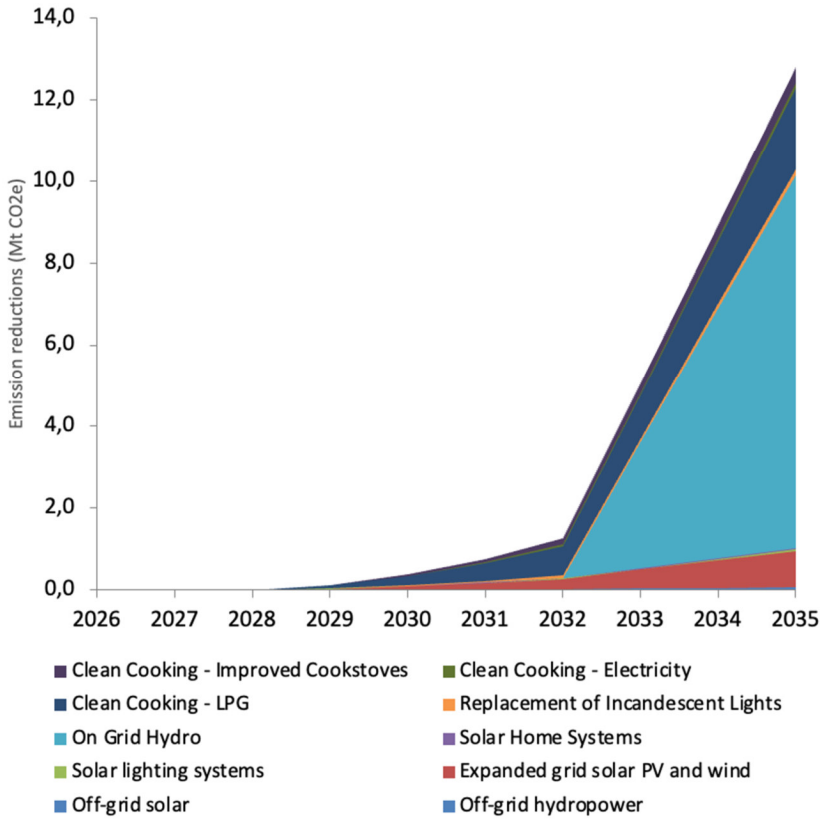

Figure xx: Cumulative emission reduction up to 2035 – Energy sector

Source: Based on figures from LT-LEDS, forthcoming

Transport:

T01: Compressed Natural Gas (CNG) vehicles

This mitigation approach builds on the CNG NAMA (Nationally Appropriate Mitigation Action), which aims to reduce GHG emissions and urban air pollution in Maputo and Matola by promoting natural gas as an alternative to gasoline and diesel. The programme includes

vehicle conversions, procurement of CNG minibuses, and deployment of refuelling and certification infrastructure, primarily focusing on CNG minibuses.

T02: Public Transport – Electric Buses

Rollout of 1,800 electric buses within the Greater Maputo metropolitan area, the busiest transport corridor in the Southern African Development Community (SADC) region. Rapid urban and industrial expansion in Maputo, Matola, Boane, and Marracuene has significantly increased passenger and freight movements, exacerbating congestion and emissions.

T03: Biofuels blending in transport

Delayed implementation of the National Biofuels Policy and Strategy from 2030-2038 through the establishment of the obligation to add biofuels to imported fuels. The primary objective is to boost job creation and encourage private sector investment along the agricultural production value chain. In this sense, importers and distributors of liquid fuels will be required to incorporate, for blending purposes, the entire amount of biofuels produced in Mozambique. This initiative aims to accelerate partial import substitution, reduce Mozambique's exposure to fuel prices in international markets, foster job creation, contribute to the reduction of GHG emissions and leverage agro-industry and attract Foreign Direct Investment (FDI) to the agricultural sector.

T04: Road Transport Electrification

Mozambique currently has very low penetration of electric vehicles (EVs), despite their potential to reduce emissions from fossil fuel use in road transport. Large-scale EV deployment depends on expanded grid access and charging infrastructure, which is supported by the national electrification plan and a power mix dominated by low-emission hydropower. According to the Just Energy Transition Strategy, EV uptake is expected to begin around 2030, reaching 10% of private vehicles and 25% of road freight by 2040, and 50% for both by 2050. The recently approved exemption of the import of electric vehicles from customs duties is an example of a measure already being implemented towards this objective.

A cumulative reduction of 1.3 Mt CO_{2e} can be achieved for the Transport measures for the period 2026-2035 (Figure xx).

The highest impact measure in the Transport sector is biofuels blending (T03) representing around 97% of the expected mitigation impact of the measures up to 2035.

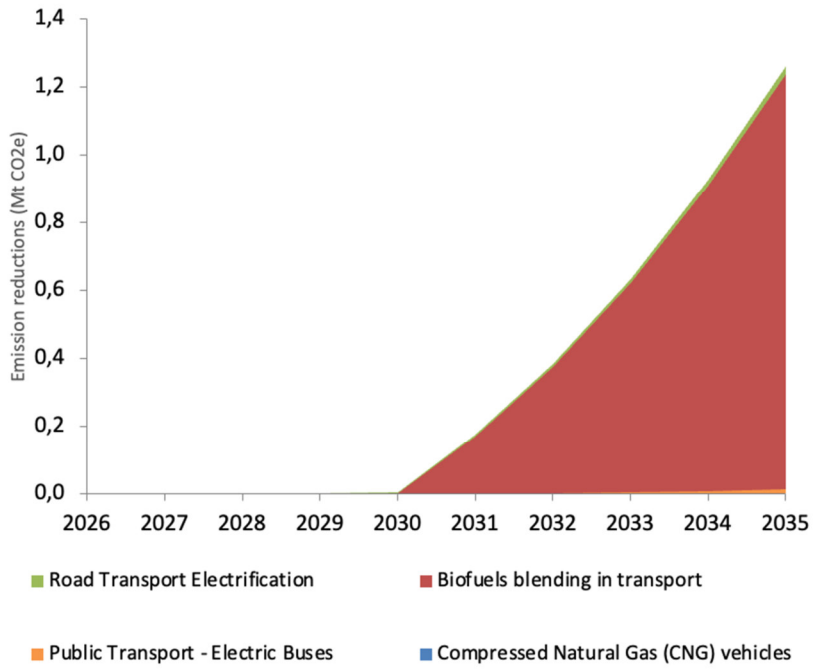

Figure xx: Cumulative emission reduction up to 2035 – Transport sector

Source: Based on figures from LT-LEDS, forthcoming

4.4.2 AFOLU and Blue Economy

The Agriculture, Forestry and Other Land Use (AFOLU) sector plays a central role in Mozambique's GHG emissions profile and in the country's sustainable development

pathways. The sector is both a major source of emissions, through deforestation, forest degradation, agricultural expansion, livestock production and associated land-use practices and a key contributor to removals, as forests and other ecosystems act as important carbon sinks. Beyond its climate relevance, AFOLU underpins the livelihoods of the majority of Mozambique's population, providing food security, energy, employment, and income, while also sustaining biodiversity and ecosystem services. Forests play an essential role in the economy of the country, especially in the rural areas and provide direct benefits to a large majority of the population as source of energy through the extraction of firewood and charcoal, construction materials, logging for timber, non-timber forest products (medicinal plants, fruits, etc.), source of nutrients for small scale agriculture, social and cultural values (FREL, 2018).[65]

The major drivers of deforestation and forest degradation occur both within the forest sector and in non-forest sectors. Within the forest sector, the direct causes are unsustainable commercial timber exploration and unsustainable extraction of wood for domestic uses, particularly charcoal. Selective and unsustainable illegal logging leads to the degradation of native forest stands. Forest conversion into agriculture is the dominant driver of deforestation outside of the sector. This is predominantly shifting subsistence cultivation but also includes commercial agricultural expansion and livestock.[66] Rural-urban migration and the resulting expansion of urban populations have increased the pressure on natural resources, especially fuelwood and charcoal for energy and wood for construction, often linked to deforestation that occurs on the fringes of large cities (Silva et al., 2016; Sedano et al., 2020). Population pressures have also increased around tourist areas and the development of extractive industries. This is commonly accompanied by infrastructure development, such as roads and transmission lines, which create access to the forest frontier.[67]

The analysis on mitigation potential and mitigation measures draws on national policies and strategies, including the National Agricultural Investment Plan (NAIP/PNISA 2013–2017), the Strategic Plan for the Development of the Agriculture Sector (PEDSA II 2030) – aligned with Mozambique's Five-Year Government Plans (PQG) and the Comprehensive Africa Agriculture Development Program (CAADP) –, the Forest Law (No. 17/2023) and its regulation (Decree No. 78/2024), the Strategic Forestry Agenda 2019–2035, the National Forestry Program, and the Forest Policy and Implementation Strategy and Mozambique's National REDD+ Strategy (2016–2030) and Action Plan. Extensive consultations were also undertaken with the sector stakeholders in the context of the LT-LEDS development.

[65] https://redd.unfccc.int/files/2018_frel_submission_mozambique.pdf
[66] https://www.climateinvestmentfunds.org/sites/cif_enc/files/mozambique_fip_investment_plan.pdf
[67] https://www.climateinvestmentfunds.org/sites/cif_enc/files/mozambique_fip_investment_plan.pdf

Mozambique will undertake the following measures in the period up to 2035:

L01: Use of highly digestible forages – legumes forages and protein supplementation

This measure promotes the use of leguminous forages and protein supplementation to improve livestock diet quality. Higher digestibility and protein content enhance rumen efficiency, reduce enteric fermentation, and lower methane emissions per unit of animal product, while improving livestock productivity.

L02: Use of highly digestible forages – Brachiaria and Napier grass forage

The adoption of improved pastures, particularly Brachiaria and Napier grass, is a key strategy to reduce enteric methane emissions from livestock. These forages have higher nutritional value, greater digestibility, and lower fibre content than traditional grasses, resulting in faster rumen passage and reduced methane production.

A01: Conservation Agriculture – Green Cover System (Mulching)

This measure promotes permanent soil cover through mulching and crop residues to improve soil moisture retention, reduce erosion, enhance soil organic carbon, and increase resilience to climate variability.

A02: Conservation Agriculture – Minimum Cultivation System (Zero Tillage)

Minimum or zero tillage reduces soil disturbance, lowers fuel use, enhances soil structure, and increases carbon sequestration, while improving long-term agricultural productivity.

A03: Conservation Agriculture – PV Solar Irrigation

The use of solar-powered irrigation systems reduces reliance on fossil fuels, supports climate-resilient crop production, and contributes to emissions reductions in irrigated agriculture.

A04: Crop systems for perennial agricultural crops – Cashew

This measure supports sustainable cashew production systems, particularly in coastal and northern regions, improving long-term carbon storage, farmer incomes, and land productivity.

A05: Crop systems for perennial agricultural crops – Macadamia

Macadamia production is promoted in suitable medium- to high-altitude zones. Expansion of macadamia systems contributes to carbon sequestration, climate-resilient livelihoods, and diversification of agricultural exports.

A06: Crop systems for perennial agricultural crops – Fruit Trees

Perennial fruit and nut crops are suitable across several agroecological zones in Mozambique. Coffee (*Coffea arabica*) is well suited to Mozambique's highland and mountainous areas and performs optimally under shaded agroforestry systems. Coffee agroforestry enhances carbon sequestration, climate resilience, and ecosystem restoration, while reducing pressure on natural forests. It also provides sustainable livelihoods for smallholder farmers, aligning climate mitigation and adaptation with socio-economic development.

F01: Reforestation – Community planting of trees for multiple uses

This measure promotes community-based tree planting using fast-growing or native species for energy, timber, and non-timber products. Biomass from plantations and industrial residues can be used for heat, pellets, charcoal, or electricity generation. A target of 50,000 ha of plantations by 2035 should be achieved.

F02: Reforestation – Protection Plantations

Protection plantations are established to safeguard watersheds, prevent erosion, stabilize landscapes, and enhance long-term carbon sequestration, particularly in environmentally sensitive areas.

F03: Reforestation – Commercial Forest Plantations

Sustainable forest management (SFM) in Mozambique follows the natural forest concession framework defined in the 2023 Forestry Law. Forest concessions are a key component of the State's permanent forest cover and offer significant potential for long-term carbon storage when managed sustainably. In 2018, concessions covered over 10 million ha, but due to unsustainable practices and illegal logging, this area has declined to approximately 7.8 million ha (FNDS, 2024). Emission reduction efforts within concessions focus on reducing uncontrolled fires and restoring degraded forests, with an emphasis on timber and ecologically important species.

F04: Reduction of Wildfires in Forest Areas – Prescribed Burning

This measure aims to reduce greenhouse gas emissions from uncontrolled fires through awareness campaigns, community training, fire brigades, firebreak construction, prescribed burning, remote sensing monitoring, and enforcement of fire management regulations.

F05: Ecosystem Restoration (Forest)

Forest ecosystem restoration aims to recover ecosystem structure and functions, contributing not only to carbon storage but also to biodiversity and ecosystem services. The Restoration Opportunities Assessment Methodology (ROAM) framework supports the

identification of restoration opportunities at national and subnational scales. In Mozambique, restoration can be implemented in conservation areas and across Permanent Forest Heritage, including forest concessions, community forests, and key biodiversity areas, with mangroves near urban areas prioritized due to their high carbon storage potential, including in soils. Restoration should prioritize native species, with limited use of fast-growing exotics in forest concessions. Given that at least 30% of the 7.8 million ha under forest concessions are estimated to be degraded, a target of restoring 500,000 ha by 2035 should be achieved.

BE01: Mangrove Restoration

Mangrove restoration aims to recover degraded mangrove ecosystems to restore coastal protection, fisheries productivity, and blue carbon storage. The preferred approach is Ecological Mangrove Restoration (EMR), which focuses on restoring natural tidal hydrology rather than large-scale planting. Mozambique is estimated to have up to 30,000 ha suitable for mangrove restoration (including seagrass and marshes restoral). A target of 25,000 ha by 2035 should be achieved (applicable to BE01 and BE02 in conjunction).

BE02: Seagrass and Marshes Restoral

Restoration of coastal ecosystems focuses on recovering degraded mangroves, seagrass, and marshes to restore key ecosystem services, including coastal protection, fisheries support, and carbon sequestration. Effective mangrove restoration requires addressing underlying drivers of degradation, particularly altered hydrology. Ecological Mangrove Restoration (EMR) prioritizes the restoration of natural tidal flows, allowing natural regeneration where conditions permit, with planting used only as a last resort. Poorly planned planting can fail or damage adjacent ecosystems such as seagrass beds.

A cumulative reduction of 26.5 Mt CO2e can be achieved for the AFOLU measures for the period 2026-2035 (Figure xx).

The highest impact measures in the AFOLU sector are restoration through community planting of trees (F01) and cashew crops (A04) representing around 36.1% and 24.2% of the expected mitigation impact of the measures up to 2035.

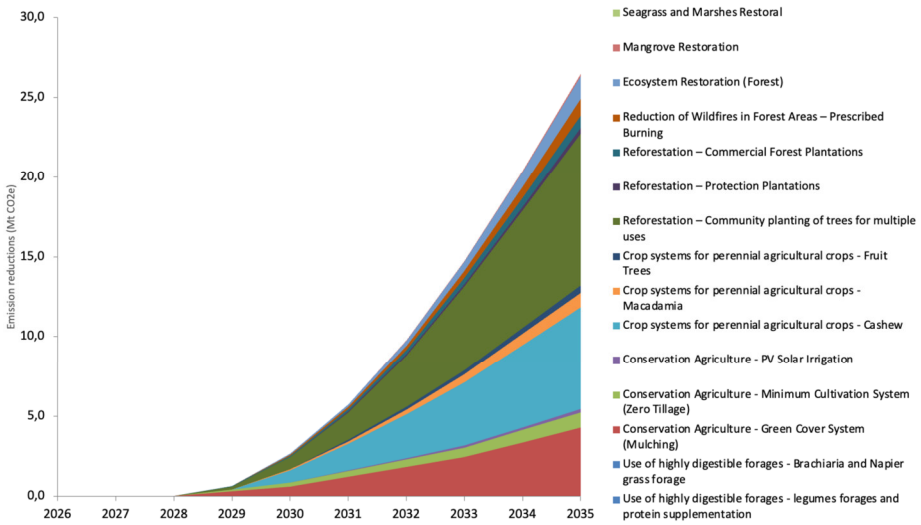

Figure xx: Emissions reduction potential from implementation of selected mitigation measures in AFOLU, Blue Carbon, and Biodiversity between 2026 and 2035

Source: Based on figures from LT-LEDS, forthcoming

4.4.3 Waste

Mozambique, like most African countries, is undergoing rapid urbanization. The number of people residing in urban areas has tremendously increased, from 3.3 million in 1990 to over 13 million in 2023[68]. Presently, in 2025, it is estimated that 40% of the population lives in urban areas, and this proportion will increase to 46% by 2035 (INE 2025). This rapid urbanization, combined with the increasing economic activity, has led to a substantial growth in waste volumes being generated in Mozambican urban areas. Overall, it is estimated that Mozambique generates a4.2 million tons of waste per year. An estimated 40-60% of the waste is collected, although in practice, collection rates might be lower (20-30%)

[68] https://www.circularactionhub.org/wp-content/uploads/2025/01/AFRICARISE_Mozambique-CAH.pdf

with 98% to 99% of this waste deposited in uncontrolled dumps, while the remaining 1% to 2% is reused/recycled through informal networks[69].

Sustainable waste management is a high priority for the Government, which formulated an Integrated Urban Solid Waste Management Strategy (2013-2025) to address the challenges associated with urban waste management. The ValoRe programme (Sustainable Waste Management), will support the government of Mozambique in addressing the challenges associated with municipal solid waste management (MSWM) through a comprehensive and ambitious intervention with the final aim of building a circular economy. To do so, the project will promote investments in Integrated Waste Treatment and Disposal Facilities (i.e. Material Recovery Facilities and sanitary landfills/composting facilities) in three municipalities – Nampula, Nacala and Pemba. It is expected that the initiative will be co-financed by the Mozambican government contributing MZN 700 million (approx. EUR 8 million) to the construction of MSWM infrastructure and will utilise incomes from the upcoming Environmental Tax on Packaging (ETP)[70].

Mozambique will undertake the following measures in the period up to 2035:

W01: Recycling and Waste Valorisation

Separation and recycling of plastic, metals, paper and glass significantly reduce greenhouse gas emissions by decreasing the demand for virgin material production, which is typically energy-intensive and carbon-heavy. Recycling these materials conserves natural resources and uses substantially less energy compared to extracting, processing, and manufacturing new products from raw inputs. Additionally, efficient material recovery through sorting at source or in dedicated facilities minimizes the volume of waste sent to landfills or incinerators, further cutting emissions associated with waste disposal. This integrated approach contributes to circular economy goals while supporting climate change mitigation in the waste and industrial sectors. The ValoRe programme and the Environmental Levy on Packaging (TAE) will play a key role in implementing these objectives.

W02: Composting

Composting mitigates climate change by diverting organic waste from landfills, where it would otherwise decompose anaerobically and release methane – a greenhouse gas significantly more potent than carbon dioxide. Through aerobic decomposition, composting

[69] https://mitigation-action.org/projects/mozambique-sustainable-waste-management-for-a-circular-economy/
[70] https://mitigation-action.org/projects/mozambique-sustainable-waste-management-for-a-circular-economy/

prevents methane emissions while stabilizing organic carbon into humus, a form that enhances soil structure and long-term carbon storage. Additionally, compost enriches soil fertility naturally, reducing the need for synthetic fertilizers whose production and use generate considerable nitrous oxide emissions. By integrating composting into municipal waste management systems, it supports broader climate strategies, promotes circular resource use, and contributes to sustainable agriculture and land restoration efforts. The ValoRe programme and the Environmental Levy on Packaging (TAE) will play a key role in implementing these objectives.

W03: Biogas Flaring

Construction, operation and maintenance of controlled landfills with biogas flaring and the production of electricity, the diversion of organic matter to composting and the separation and recycling of plastic, paper and glass. The GHG emissions/reductions that are considered include: (i) Reduced emissions from landfills (due to methane capture and flaring and diversion of organic waste towards composting), (ii) Reduced emissions from the production of virgin materials for plastics, glass and metals and (iii) Increased emissions from compost production.

A cumulative reduction of 0.4 Mt CO2e can be achieved for the Waste measures for the period 2026-2035 (Figure xx).

The highest impact measures in the Waste sector are biogas flaring (W03) and recycling (W01) representing around 51% and 35% of the expected mitigation impact of the measures up to 2035.

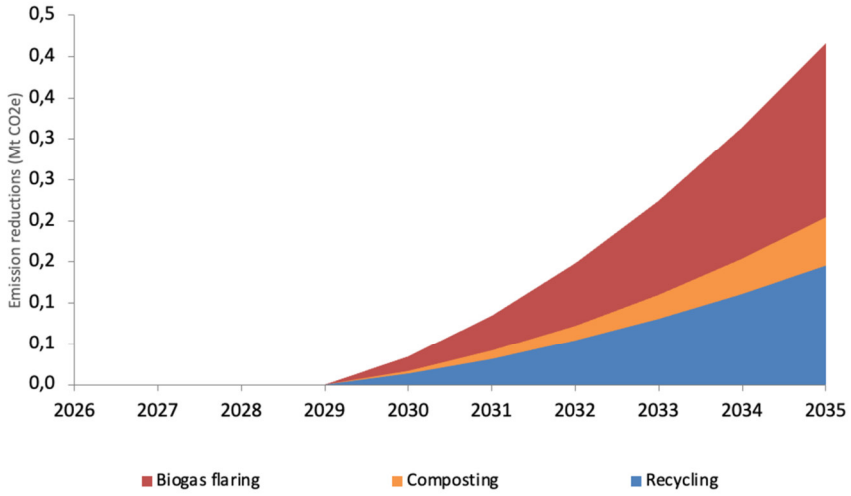

Figure xx: Emissions reduction potential from the waste management measures 2026-2035

Source: Based on figures from LT-LEDS, forthcoming

Table xx – Priority Mitigation Measures

#	Mitigation measure	Mitigation potential (2026-2035 Mt)[71]	Timeframe [72]	Responsible institution	Cost estimate	Indicator	Co-benefits
1. Energy (including Transport)							
E01	Off-grid hydropower	0.03	2029-2035	MIREME		Installed additional capacity (MW)	Job creation; education and health improvements in rural areas (school, healthcare facilities); local enterprise and productive use of energy; local capacity development.
E02	Off-grid solar	0.03	2029-2035	MIREME		Installed additional capacity (MW)	Job creation; education and health improvements in rural areas (school, healthcare facilities); local enterprise and productive use of energy; local capacity development.
E03	Expanded grid solar PV and wind	0.89	2029-2035	MIREME		Installed additional capacity (MW)	Job creation; local enterprise development; grid reliability and energy security;

Assuming implementation in the timeframe indicated in the table and 60% of the estimated mitigation potential under the LT-LEDS.

[72] Timeframe of implementation in the period of the NDC3.0. All the measures can continue to deliver emission reduction beyond 2035.

							reduced fuel imports and forex savings; technology transfer and skill upgrading.
E05	Solar lighting systems	0.04	2029-2025	MIREME		Number of units	Job creation; energy cost savings; energy security/energy saving from the grid.
E08	Solar Home Systems	0.03	2029-2035	MIREME		Installed additional capacity (MW)	Job creation; energy access expansion; health and education benefits; income generation through productive use.
E09	On Grid Hydro	9.10	2033-2035	MIREME		Installed additional capacity (MW)	Job creation; grid reliability and flexibility; multipurpose benefits (new reservoirs for irrigation, flood control, etc); industrial linkages, skills development and training.
E10	Replacement of Incandescent Lights	0.15	2029-2035	MIREME		Number of units	Job creation; household cost savings; energy savings per lamp; increased lifetime of LED compared to incandescent; improved grid reliability and energy security.
E11	Clean Cooking - LPG	2.02	2029-2035	MIREME		Household coverage	Job creation; time savings from fuel collection; household cooking time and cost savings;

							energy diversification and climate resilience; health and social benefits.
E12	Clean Cooking - Electricity	0.11	2026-2050	MIREME		Household coverage	Job creation; reduced indoor air pollution and health benefits; household cooking time and cost savings; load management, grid stability and renewable energy integration.
E13	Clean Cooking - Improved Cookstoves	0.40	2029-2035	MIREME		Household coverage	Job creation; reduced indoor air pollution and health benefits; biomass fuel savings (wood, charcoal); household cooking time and cost savings; gender empowerment.
T01	Compressed Natural Gas (CNG) vehicles	0.001	2029-2035	MIREME and MAAP		Number of cars introduced	
T02	Public Transport - Electric Buses	0.01	2033-2035	MTL		Number of cars introduced	
T03	Biofuels blending in transport	1.22	2031-2035	MIREME		% biofuels introduced	
T04	Road Transport Electrification	0.02	2029-2035	MIREME		Number of cars introduced	
#	**Mitigation measure**	**Mitigation potential (2026-2035 Mt)**	**Timeframe**	**Responsible institution**	**Cost estimate**	**Indicator**	**Co-benefits**
2. AFOLU and blue economy							

L01	Use of highly digestible forages - legumes forages and protein supplementation	0.02	2030-2035	MAAP – DNP		Additional area (ha)	
L02	Use of highly digestible forages - Brachiaria and Napier grass forage	0.002	2030-2035	MAAP – DNP		Additional area (ha)	
A01	Conservation Agriculture - Green Cover System (Mulching)	4.25	2029-2035	MAAP		Additional area (ha)	
A02	Conservation Agriculture - Minimum Cultivation System (Zero Tillage)	0.97	2029-2035	MAAP		Additional area (ha)	
A03	Conservation Agriculture - PV Solar Irrigation	0.19	2029-2035			Additional irrigation area (ha)	
A04	Crop systems for perennial agricultural crops - Cashew	6.4	2030-2035	IAM		Number of trees	
A05	Crop systems for perennial agricultural crops - Macadamia	0.89	2030-2035	IAM		Additional area (ha)	
A06	Crop systems for perennial agricultural crops - Fruit Trees	0.47	2030-2035	MAAP		Additional area (ha)	
F01	Reforestation – Community planting of trees for multiple uses (firewood, charcoal, stakes)	9.55	2029-2035	MAAP – DINFFB		Additional area (ha)	
F02	Reforestation – Protection Plantations (e.g. eucalyptus and casuarina trees to protect areas at risk of erosion)	0.35	2029-2035	MAAP – DINFFB		Additional area (ha)	

F03	Reforestation – Commercial Forest Plantations (e.g. eucalyptus and pine trees)	0.77	2029-2035	MAAP – DINFFB		Additional area (ha)	
F04	Reduction of Wildfires in Forest Areas – Prescribed Burning	1.03	2029-2035	MAAP – DINFFB		Additional area protected (ha)	
F05	Ecosystem Restoration (Forest)	1.43	2030-2035	MAAP – DINFFB		Restoration area (ha)	
BE01	Mangrove Restoration	0.13	2030-2035	InOM		Restoration area (ha)	
BE02	Seagrass and Marshes Restoral	0.0003	2031-2035	InOM		Restoration area (ha)	
#	**Mitigation measure**	**Mitigation potential (2026-2035 Mt)**	**Timeframe**	**Responsible institution**	**Cost estimate**	**Indicator**	**Co-benefits**
3. Waste							
W01	Recycling	0.15	2030-2035				
W02	Composting	0.06	2030-2035				
W03	Biogas flaring	0.21	2030-2035				

Source: Based on information from the LT_LEDS 2050

5 Transparency and accountability

5.1 National MRV System of Climate Change Actions in Mozambique

Mozambique is progressively developing and operationalising its National Monitoring, Reporting and Verification (MRV) System for climate actions, with the aim of monitoring the implementation of the NDC, strengthening transparency and accountability, and supporting evidence-based decision-making. This effort is part of the implementation of the Enhanced Transparency Framework (ETF) under the Paris Agreement and compliance with the respective Modalities, Procedures and Guidelines (MPGs).

The MRV system is a central tool for assessing the effectiveness, efficiency and impacts of climate policies, programmes and projects in Mozambique, integrating monitoring and evaluation processes covering mitigation, adaptation, financial and technical support, as well as relevant contributions to the Sustainable Development Goals (SDGs). The system is

continuously evolving through the implementation of the Roadmap for a National MRV System of Climate Change Actions with the final phases underway with a horizon until 2034. Monitoring and evaluation processes are integrated - covering mitigation, adaptation, financial and technical support, as well as relevant contributions to the Sustainable Development Goals (SDGs)[73].

The 2nd Biennial Update Report (SBUR) of Mozambique,[74] submitted to the UNFCCC in December 2024 represents a significant step towards the operationalization of the MRV system as shown in Figure xx. The system is based on an updated National System For Monitoring and Evaluation of Climate Change that integrates and includes three Subsystems (SNMAMC): (1) the National Monitoring, Reporting and Verification Subsystem (SSNMRV), (2) the National Subsystem for Monitoring and Vulnerability and Climate Risk (SSNMVRC), and (3) the National Subsystem Management of Climate Information (SSNGIC) (Figure xx).

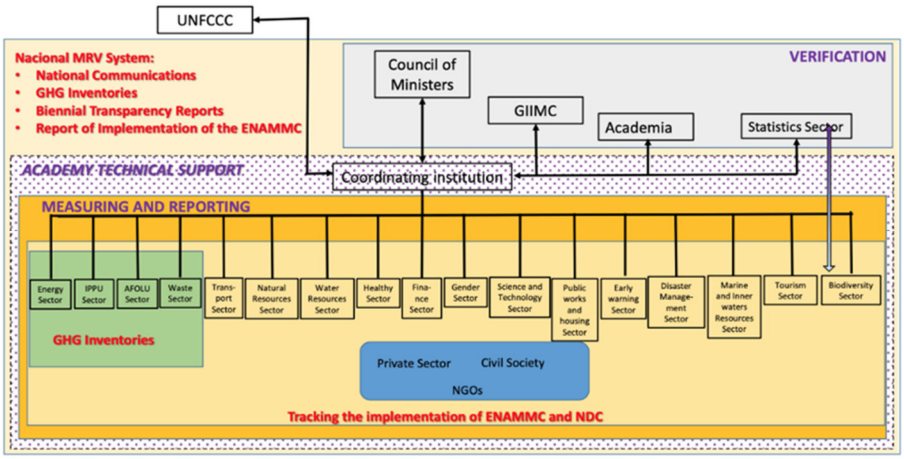

Figure xx - Institutional layout of Mozambique's national MRV system (Source: 2nd BUR Mozambique, December 2024)

[74] REPUBLIC OF MOZAMBIQUE MINISTRY OF LAND AND ENVIRONMENT. SECOND BIENNIAL UPDATE REPORT (BUR) - THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, Mozambique December 2024

[74] REPUBLIC OF MOZAMBIQUE MINISTRY OF LAND AND ENVIRONMENT. SECOND BIENNIAL UPDATE REPORT (BUR) - THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, Mozambique December 2024

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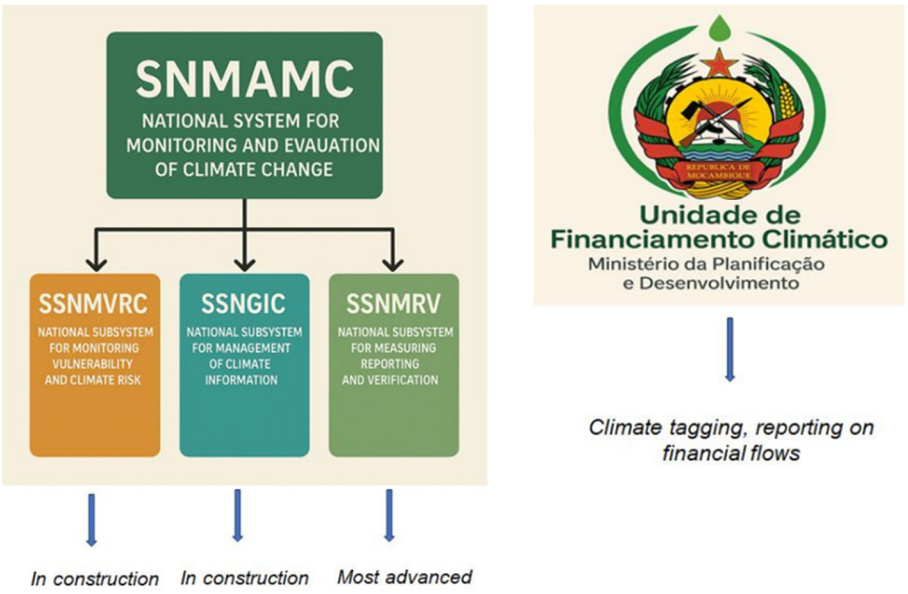


Figure xx – Structure of the National System for Monitoring and Evaluation of Climate Change (SNMAMC)

The MRV system will cover MRV of mitigation actions, adaptation actions, financial and technical support and SDGs. The MRV of GHG emissions involves systematic tracking of GHG emissions to establish baselines and identify trends to inform policymaking. It is based on IPCC 2006 Guidelines, including, under this NDC, GHG emissions from energy, industrial processes and product use (IPPU), waste, agriculture, forestry and other land use (AFOLU) sectors. Mozambique's GHG emission inventory of XXXX will form the basis for monitoring future GHG emission trends. Mozambique will comply with its climate reporting commitments under the UNFCCC and the Paris Agreement through subsequent Biennial Technical Reports (BTRs), Transparency and National Communications (NCs) as required by its status as Least Developed Country (LDC).

Mozambique is also currently developing a dedicated MRV framework for energy and emissions from key industrial segments.

The monitoring and evaluation of adaptation actions is particularly relevant in the national context, given the country's high climate vulnerability. In this context, Mozambique is developing a system for monitoring adaptation actions with clear and measurable indicators, anchored in Local Adaptation Plans (PLAs/PPAs) and, as far as possible in the Global Goal on Adaptation (GGA) indicators. This system aims to monitor the results and

impacts of adaptation measures, with a special focus on priority sectors, the most vulnerable territories and marginalised groups, while also contributing to the monitoring of the Global Stocktake (GST), in accordance with Articles 7.1 and 7.9 of the Paris Agreement.

During the NDC implementation period, the DINAMC at MAAP will coordinate State and Non-State actors in developing annual, mid-term and end-term reports. The Enhanced Transparency Framework (ETF) implementation project, underway since the end of 2025, is a fundamental pillar for the technical and institutional strengthening of the MRV system, supporting national capacity building, the harmonisation of methodologies, the integration of information systems and the improvement of the quality and consistency of mitigation, adaptation and support data.

Thus, the integrated MRV system and the related reports will provide input for national and international reporting requirements in the context of combatting climate change through climate action and sustainable development measures. The monitoring of climate finance and MRV, which allows for greater transparency, traceability, and credibility in the communication and monitoring of climate-related financial flows in the public and private sectors, including NGOs. This will be coordinated by the climate finance unit at the Ministry of Planning and Development (MPD).

5.2 Enhanced Transparency Framework for Mozambique

Mozambique's Enhanced Transparency Framework operationalises the principles and requirements of Article 13 of the Paris Agreement and is directly anchored in the institutional arrangement of the national MRV system as illustrated in Figure xx. This framework defines the country's main climate reporting products, as well as the processes associated with data collection, application of methodological guidelines, verification, validation and publication of information.

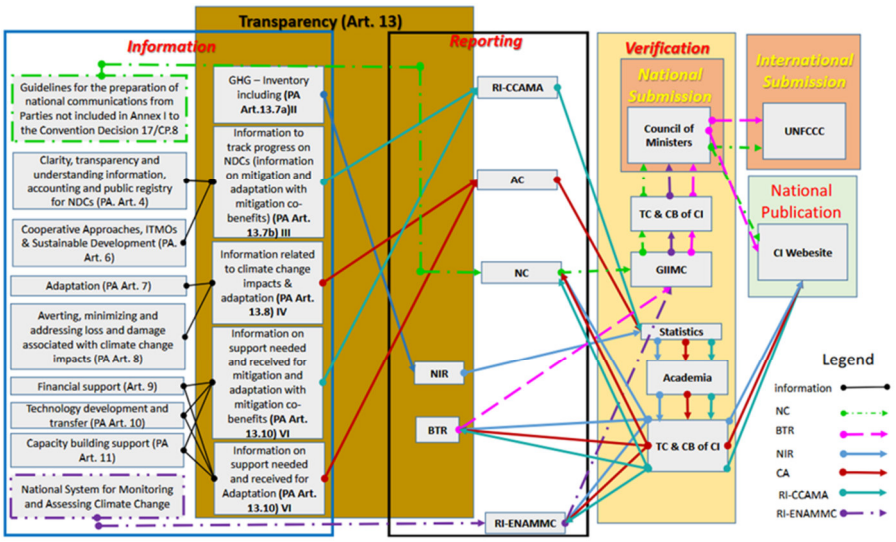


Figure xx - Mozambique's Strengthened Transparency Framework (Source: 2nd BUR Mozambique, December 2024)

The National Inventory Report (NIR) on GHG emissions as well as the BTRs are prepared under the coordination of MAAP's DINAMC as focal point for the UNFCCC - coordinating the preparation of reports on climate change that respond to the national reporting needs and the commitments under the Convention and its Paris Agreement.

6 Means of Implementation

Mozambique is committed to combatting climate change, through both adaptation and mitigation measures. This commitment is demonstrated in this NDC 3.0, the NAP, and xxx policies. However, given Mozambique's national circumstances and equity in terms of historical emissions, considerable support is nonetheless needed in order to implement the NDC 3.0.

This section describes the institutional arrangements in place and planned to support NDC implementation, identifies barriers related to policy, legal and regulatory issues and the Government of Mozambique's approach to addressing these to ensure smooth and transparent NDC implementation.

This is followed by describing the financial, technology transfer and capacity building support needed, as per Article 13 of the Paris Agreement, reflecting also the support to be

provided by developed countries according to Articles 9, 10 and 11 of the Paris Agreement. These needs were identified based on stakeholder consultations during the development of the NDC 3.0 along with consultations reflecting on enabling and disabling factors for implementing the NDC 2.0.

The cross-cutting themes described in Section 2.3 also apply across all of these financial, technology transfer and capacity building needs. This is in order to ensure the NDC is implemented a manner that is socially inclusive, empowering of women, children and youth, transparent and contributing to broader sustainable development goals.

6.1 Institutional arrangements for NDC implementation

6.1.1 National institutional framework for climate change

A national institutional framework for climate change (NIFCC) is established and will be enshrined in a legal instrument (see below), for the institutional strengthening of the steering function of the Government of Mozambique. The NIFCC builds on the existing structures and assigned roles and functions related to climate change governance that exist or were created in the past – including the Coordination Committee of the Council of Ministers, MAAP with its DINAMC, the Inter-Institutional Group for Climate Change (GIIMC) as well as MPD in the context of climate finance governance (see below). This framework improves coordination, clarifies mandates, and better territorialises the implementation of the NDC by integrating structures at the provincial, district, and municipal-levels to ensure effective implementation and vertical coordination.

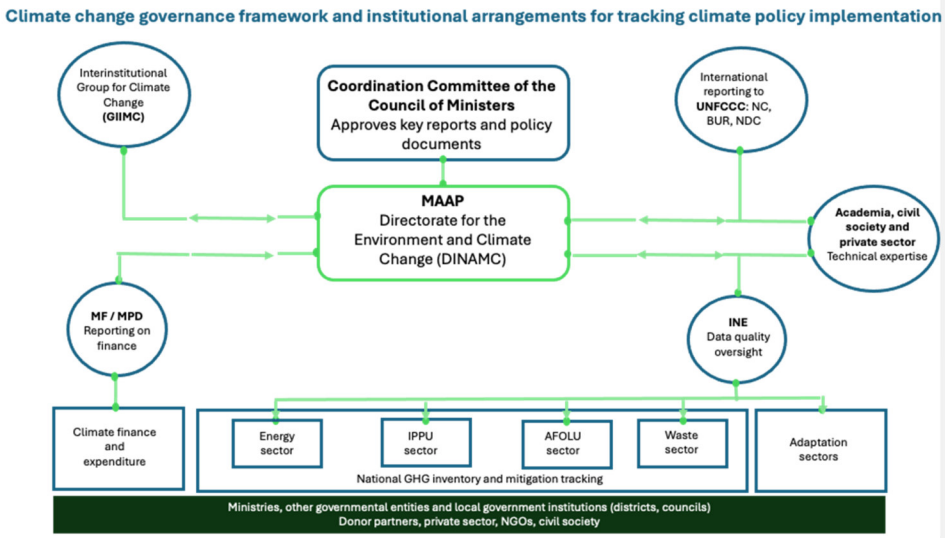


Figure xx - Climate change governance framework and institutional arrangements for tracking climate policy implementation

The NIFCC aims to enable regular, clearly organized and coordinated governance of climate change and the national plicy agenda, which is essential for NDC implementation. This is based on an established hierarchy, comprehensive mandates for other necessary bodies and organisations, and allocation of the necessary resources. The structure incorporates corrective measures such as institutional strengthening, stable staffing, and mobilisation of domestic resources to ensure long-term functionality and continuity, and with the aim of addressing and avoiding past challenges related to climate change governance.

The NIFCC contains the different bodies that define, implement, monitor, and evaluate a comprehensive and integrated national climate change adaptation and mitigation strategy (ENAMMC), to be updated in 2026. Clearer definitions are provided through terms of reference and explicit identification of operational gaps to increase coherence and accountability are provided. The following actors and processes are of particular importance in this institutional framework and for the implementation of the NDC:

- A *strengthened central coordination body on climate change* with a strong mandate and related role and function is confirmed by the legal instrument on climate change. This is MAAP with its Directorate for the Environment and Climate Change (DINAMC), which is responsible for cross-cutting climate policy coordination across all relevant sectors and representing Mozambique (leader) at the international level in this respect and supporting the Coordination Committee of the Office for Climate Action as its secretariat.

- Establishment of an *operational Interministerial Committee on Climate Change, i.e., a Coordination Committee of the Office for Climate Action* to be chaired by the prime minister and supported by the formalized executive structures of the GIIMC and MAAP (i.e. DINAMC in its role as a secretariat). Subsidiary structures within the Committee under the umbrella of the GIIMC are designated to monitor and supervise GHG levels in various sectors, as well as cover the NDC implementation tracking (mitigation and adaptation) and climate finance reporting.
- *Strengthening sectoral integration of climate change via the creation and implementation of planning mechanisms* by the Coordination Committee of the Office for Climate Action. The risks and opportunities of climate change are anticipated and systematically integrated into sectoral planning and budgeting across the board, in particular within sector ministries and agencies. The NIFCC ensures alignment between the sector ministries (and agencies) and their strategies and policies, and the mandate given to MAAP and its climate change directorate as the coordinator and leader of climate policy at the national level and its strategy and policies. Improving the integration of climate change into the sectoral development strategies and plans and related approaches, programmes and policies as well as into the national and local planning and budgeting process in all areas, will occur progressively and over time.
- Creation of executive bodies for *climate change, i.e., units/teams/directorates complete and trained in each sectoral ministry involved with climate change* based on clearly defined roles and functions (ToRs) with the necessary resources. Climate Change Units (CCUs), established as focal points or technical units at least or directorates at a maximum within ministries and agencies, are responsible for integrating climate change, coordinating climate-related, climate-resilient considerations into sectoral initiatives and vulnerabilities, supporting adaptation projects and promoting the development policies and actions.

The NIFCC integrates the different bodies and processes with a view to synergistically defining, implementing and monitoring a comprehensive and integrated national climate change adaptation and mitigation strategy. It recognizes existing institutional realities, addresses capacity gaps, strengthens vertical coordination, and ensures that climate policies translate into NDC implementation and climate action on the ground.

6.1.2 Coordination and engagement mechanism (non-government stakeholders) for inclusive and effective implementation of the NDC

A structured and organised *involvement of scientific and technical institutions and communities and the provision of technical knowledge related to climate change* to monitor Mozambique's overall development and prospects, in ecological and socio-economic terms, in relation to climate change and to support the government in implementing of its

climate policy occurs through a related engagement mechanism – including civil society, academia and the private sector actors.

The engagement mechanism is formally linked to the mandated and adequately resourced Secretariat at MAAP/DINAMC, which manages and coordinates the GIIMC and other related processes. This linkage ensures that stakeholder inputs are systematically incorporated into policy planning, sectoral strategies, and NDC implementation tracking, reinforcing coherence between government and non-government actors.

6.1.3 *National legislation and regulatory framework*

The Government of Mozambique will amend the Environmental Law, No. 20/97 to establish an overarching climate change legal and regulatory framework to support the implementation of an updated ENAMMC to establish and legally anchor the NIFCC and aligned it with the existing environmental and (sustainable) development policies in place. This is with a view to broad and long-term climate action to materialize on the ground in the different sectors and to sufficiently mobilize climate finance. This legal instrument (a) integrates technical concepts and definitions related to climate change, including mitigation, adaptation, loss and damage, and climate finance; (b) reinforces MAAP as the central technical body of the Government responsible for the coordination, integration and supervision of cross-sectoral climate actions; (c) establishes enforceable sanctions (criminal and administrative) for certain activities that violate international and national legislation on the environment, sustainability, and climate change; and (d) defines the legally permitted sources of climate finance and mechanisms for transparent allocation in the country.

In addition, the sector ministries are responsible for ensuring the integration of climate change into their activities. Furthermore, they conduct studies, research and promote the use of environmentally sound technologies to increase resilience to climate change and/or mitigate greenhouse gas emissions. Ministries shall also provide sector-specific information related to climate change to the MAAP, contributing to the implementation of the NIFCC and the NDC.

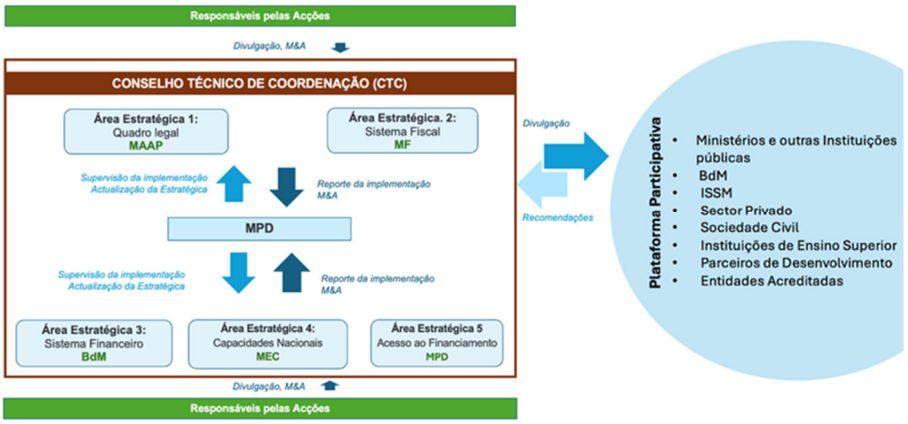
An *assessment of legal preparedness* for climate change will be carried out to analyse sectoral laws and regulations or a similar process. This will be followed by the development of regulations or regulatory reforms and the development of incentive mechanisms and guidelines for the provision of incentive mechanisms for economic and sectoral development.

National governance of climate finance

In parallel with the implementation of the NDC 3.0, Mozambique is implementing its ENFC over the same period, i.e., over 10 years and until 2035 – mobilizing (more) climate finance at the national and international level with the aim to increase financial resources, ensuring transparency, efficiency and accountability in the allocation of resources for climate action. A well-defined governance framework provides a structured approach to decision-making, facilitating the integration of climate considerations into financial policies and practices as part of the implementation of the NDC 3.0. The climate finance governance model is designed to support the implementation of the NDC 3.0 in the following ways:

- *Clear roles and responsibilities among stakeholders are established*, including government agencies, private sector actors, civil society organizations, and development partners promoting collaboration and coordination, which are essential for mobilizing resources and aligning efforts toward NDC 3.0 implementation.
- *Transparency and accountability are increased* by implementing monitoring, reporting and verification (MRV) mechanisms, so that progress in implementing the NDC can be tracked, the impact of initiatives be assessed, and, if necessary, informed adjustments made (see Transparency and Accountability). For example, the ENFC establishes periodic reporting to the Ministry of Finance, MAAP, and relevant parliamentary committees, linking finance flows to sectoral action plans.
- *Local knowledge and priorities are integrated* by involving key stakeholders in the decision-making process; the governance framework ensures that NDC measures and related projects or programmes are contextually relevant and culturally appropriate and aligned with local development priorities.
- *Coordination with existing funding mechanisms*, as the government model builds on existing climate and development finance structures, such as the National Fund for Sustainable Development (FNDS) and donor trust funds, ensuring coherence, avoiding duplication, and leveraging additional resources.

This governance model lays the foundation for collaboration, accountability, and inclusion of key stakeholders in climate finance for NDC 3.0 implementation.



Legend: MAAP: Ministry of Agriculture, Environment and Fisheries; MF = Ministry of Finance; BdM = Bank of Mozambique; MEC = Ministry of Education and Culture; MPD = Ministry of Planning and Development.

The MPD, through its National Directorate of Climate Finance (DNFC), coordinates the implementation, monitoring, and evaluation of the climate finance strategy in support of NDC 3.0 implementation. A Technical Coordination Council (CTC) has been created and integrated into the abovementioned NIFCC, led by DNFC. The CTC is responsible for performing key functions and duties fundamental to the governance and effective implementation of climate finance initiatives in the context of NDC 3.0 implementation, namely: (a) Coordination and collaboration; (b) Monitoring and evaluation; and (c) Disclosure, Communication, and Public Awareness.

As part of the evolving climate finance governance system under the overall NIFCC the Mozambican government also *establishes (revised) arrangements to participate in Cooperative Approaches contained in the Article 6 of Paris Agreement*, so that Article 6 measures are appropriately included and accounted for during the implementation of Mozambique's NDC 3.0. This includes (a) a legal basis for participation, (b) mechanisms for the participation of government institutions and other private entities, (c) management, transparency, and audit mechanisms for participation – including the treatment of "correspondent adjustments" - and (d) the establishment of the designated national authority (DNA) to participate in the Article 6.4 Mechanism of the Paris Agreement.

National Climate Funds

The National Fund for Sustainable Development (FNDS) is designated to act as Mozambique's National Climate Fund. As such, the FNDS has a central role as the main vehicle for the mobilising significant climate finance flows via the GCF and (catalytic) funding from other sources such as the Adaptation Fund (AF) or the Global Environment

Facility (GEF) for the implementation of Mozambique's NDC 3.0. In a first phase, FNDS will restructure its climate change window and finalize the process of becoming a direct access entity with the GCF. The objective is to provide expertise for transformational programmes and align pipelines of 'investment-ready' projects to help attract both public and private climate finance at scale for NDC 3.0 implementation.

There are two or three further national climate funds next to the FNDS that are capitalised and mobilise investments for the implementation of Mozambique's NDC 3.0. Firstly, there is the Mozambique Energy Fund (FUNAE), which finances projects that develop renewable energy infrastructure, such as solar, wind, and hydroelectric power, and supports the transition to cleaner energy sources. Secondly, there is the Blue Economy Development Fund (ProAzul), which mobilises national resources and international support for projects that promote marine conservation, climate resilience, and local economic development. Furthermore, FUNAE is also becoming a direct access entity to the GCF.

In phase 1, FNDS and its climate change window focus on attracting and channelling climate finance for the implementation of Mozambique's NDC 3.0. FUNAE and ProAzul are structured, and dedicated climate change windows are added or restructured as part of phase 2.

6.2 Finance

In evaluating the implementation of the NDC 2.0, it was estimated only about 24% of an implementation cost of 7.6 billion USD had been mobilised[75]. To increase the mobilisation of necessary finance in the future to reach climate action targets, several key processes have taken place during the implementation of the NDC 2.0 or continue to progress. A key achievement during this timeframe has been the development and publication of the National Climate Finance Strategy (Portuguese: *Estratégia Nacional de Financiamento Climático*, ENFC) 2025–2034, which articulates Mozambique's vision for strengthening climate finance accession and guiding a more strategic mobilisation of resources for national climate priorities. Mozambique's NDC 3.0 is aligned with the NDC 2.0 and with the ENFC 2025–2034.

The ENFC outlines five strategic areas that shape Mozambique's climate finance approach, providing the framework for the NDC investment strategy while supporting the implementation of specific policies and measures:

[75] Ministry of Planning and Development. 2025. National Climate Finance Strategy 2025-2034.

1. Reform of the legal framework to create a regulatory environment conducive to climate finance in both public and private sectors;
2. Reform of the tax system to integrate climate considerations, enhancing Mozambique's capacity to mobilise domestic resources;
3. Reform of the financial system to increase climate investment through regulation, incentives and institutional capacity building;
4. Strengthening national capacities in climate finance, with a focus on public and private actors and higher-education institutions; and
5. Increasing access to domestic and international climate finance through innovative financial instruments and transparent, inclusive and effective national coordination.

As part of the ENFC 2025–2034, Mozambique plans to strengthen the following financial instruments and mechanisms for climate action, which shall help to implement increased ambition under the NDC 3.0: grants; debt-for-climate swaps; climate risk insurance; forecast-based financing; and carbon credits.

In addition, Mozambique finalised its Financial Protection Against Disasters Plan (Portuguese: *Plano de Protecção Financeira Contra Desastres*, PPFD)[76] in August 2022. This plan focuses on the strengthening of domestic finance allocation to disaster risk management and recovery, comprehensive monitoring of domestic finance allocation, and the development of private climate risk insurance products.

A last key achievement is the concentration of climate finance from sectoral ministries into the National Directorate for Climate Finance under the Ministry of Finance, shared with the Ministry of Planning and Development. This has contributed to building an efficient institutional framework for accessing, channelling and monitoring climate finance.

Several processes feeding into the implementation of the ENFC are ongoing and, once completed, will have a crucial impact on the mobilisation of financial resources for the implementation of NDC 3.0. These include the near-finalisation of the Forest Financing Strategy and the development of the Banco de Moçambique Inclusive Green Finance (IGF) system (launch projected for 2026–2027). Furthermore, the establishment of a national climate-finance MRV system as part of the overall evolving MRV system related to climate action and the drafting of a Carbon Market Regulation are to be mentioned in this context. Together, these achievements and processes provide a pathway for Mozambique's ambition

[76] Mozambique, Council of Ministers of Mozambique, "Plano de Protecção Financeira Contra Desastres 2022–2027" [Financial Protection Against Disasters Plan 2022–2027] [Maputo, 2022]. Available at https://faolex.fao.org/docs/pdf/moz212525.pdf.

to attract, mobilise and effectively deploy climate finance in support of the country's enhanced mitigation targets and climate change adaptation goals.

6.2.1 The Cost of NDC 3.0

The ENFC estimates that 37.2 billion USD will be needed by 2030 to ensure Mozambique's climate resilience. Consequently, a significant upscaling of finance will be required to enable implementation of the NDC 3.0. The total estimated costs of NDC 3.0 amount to **XXXX billion USD**, of which **XXXX billion USD** correspond to adaptation-related interventions and **XXXX billion USD** correspond to mitigation-related interventions. These figures encompass the costs of achieving the NDC's mitigation targets and achieving its adaptation objectives.

The estimated cost of implementing the measures outlined in the NDC 3.0 will be financed by the allocation of domestic resources, international resource mobilisation and increasingly private sector financing. For this to happen, sectoral strategies need to be imminently and directly aligned with the national development agenda, particularly the ENDE 2025-2044; PQG 2025-2029 and consequently 2030-2034; National Territorial Development Plan (Portuguese: *Plano Nacional de Desenvolvimento Territorial*, PNDT); the ENAMMC (in revision); National Adaptation Plan (NAP); and Local Adaptation Plans (LAPs).

6.2.2 Domestic finance mobilisation

Mozambique's economy is growing steadily. However, available domestic resources remain primarily allocated to general public services, social sectors (education and health), national defence and public order, public wages and debt services payments.[77] This leaves little remaining finance for large-scale investments in climate change adaptation and mitigation projects beyond those represented in the ENDE 2025-2044 and PQG 2025-2030.

Nonetheless, Mozambique is continuously strengthening its capacity to mobilise domestic financial resources for climate action. These capacity increases are grounded in improvements in the public investment management (PIM) and public financial management (PFM) systems of the country. Major contributions towards integrating climate change into national budgets have been made, beyond those already highlighted in NDC 2.0[78]. This includes the gradual inclusion of indicators related to climate change and sustainable development in the annual state budgets. Climate risk is generally not yet

[77] World Bank. (2023). *Mozambique Public Expenditure Review : Rebalancing Public Spending (English)*. Washington, D.C. : World Bank Group

[78] Ministry of Land and Environment. 2021. Update of the First Nationally Determined Contribution to the United Nations Framework Convention on Climate Change - Mozambique. Available at https://unfccc.int/sites/default/files/NDC/2022-06/NDC_EN_Final.pdf

included in capital expenditure budgeting, despite the significant climate-related costs annually in the country[79].

Strengthening the PIM system, Mozambique developed the Electronic National Public Investment Subsystem (Portuguese: *Subsistema Eletrónico Nacional de Investimentos Públicos,* eSNIP) in 2018 and 2019, with the support of the UK Department for International Development and World Bank, which facilitated subjecting all programs in Mozambique to concrete and systematic investment processes. Climate risk is currently considered in eSNIP, but only at the project identification level[80]. On top of the procedures required in eSNIP, Mozambique requires climate-sensitive project appraisal for capital projects[81].

However, Mozambique's PIM regulations do not yet explicitly address climate risk. Upgrades can be made to ensure climate risk is in PIM is embedded in a regulatory and guidance framework to be incorporated at all stages of the PIM cycle, going beyond the identification stage to also address appraisal, selection, implementation and M&E, among others. Such climate-smart PIM guidelines are critical for climate-proofing future domestic investments, as well as securing additional international finance[82]. Sub-optimal climate-resilience investments affect all levels of government. Leveraging the existing PIM infrastructure exists, climate risk could be more structurally integrated into Mozambique's whole-of-government PIM framework. A stronger regulatory framework, alongside strengthening private sector financing mobilisation, will provide the currently missing incentives for green investment and technologies.

Through progress made in PFM, PIM and national funds and financing mechanisms, the current domestic public climate financing modalities include[83]:

- Annual budget allocations dedicated to the sustainable management of natural resources and the environment, at approximately 4% of the state budget;
- The Mozambique Sovereign Fund (FSM) – under development, pending a management agreement between the Ministry of Economy and Finance and the Bank of Mozambique;

[79] Ministry of Planning and Development. 2025. National Climate Finance Strategy 2025-2034.
[80] Mikhail Miklyaev, Glenn P. Jenkins, Batsirai Brian Matanhire, Precious P. Adesina. 2022. Climate-Smart Public Investment Management in Mozambique. Available at https://www.cri-world.com/publications/qed_dp_4594.pdf
[81] Virginia Alonso-Albarran, Nicoletta Feruglio, Oni Raoilisoa, Katia Funke, Willie Du Preez, Rui Monteiro, Richard J Neves, and Mai Farid. 2024. Republic of Mozambique: Public Investment Management Assessment – PIMA and Climate PIMA. Available at https://www.elibrary.imf.org/view/journals/029/2024/045/article-A001-en.xml.
[82] https://www.cri-world.com/publications/qed_dp_4594.pdf
[83] Ministry of Planning and Development. 2025. National Climate Finance Strategy 2025-2034.

- The National Fund for Sustainable Development (Portuguese: *Fundo Nacional de Desenvolvimento Sustentável,* FNDS);
- The Blue Economy Development Fund (ProAzul), which promotes sustainable management of marine and coastal resources and mobilises both domestic and international resources;
- The Mozambique Energy Fund (Portuguese: *Fundo de Energia*, FUNAE), supporting access to renewable energy in rural areas;
- Disaster financing mechanisms, including:
    - An annual contingency budget (0.07–0.13% of the state budget);
    - Parametric insurance mechanisms with national insurance companies and the African Risk Capacity;
    - The World Bank Catastrophe Deferred Drawdown Option; and
    - The Disaster Management Fund (FGC), with a minimum annual allocation equivalent to 0.142% of national tax revenues; and
- The National Investment Bank (BNI), a publicly funded development bank channelling domestic and international finance.

Through strengthened climate-smart PFM and PIM and increased state budget mobilisation for climate and sustainable development, these financing sources will continue to develop and increase capacity to fund climate action in Mozambique as part of implementing the NDC 3.0.

6.2.3 International finance mobilisation

Mozambique will not be able to mobilise the resources to implement the NDC 3.0 and ensure climate resilience for its population through domestic finance alone. The country requires substantial financial support from cooperation partners and other financing mechanisms, including accessing finance particularly from the climate funding mechanisms under the UNFCCC (Green Climate Fund; Global Environment Facility; Adaptation Fund), bilateral cooperation, multilateral development banks and facilities and programmes as referred to in Article 9 of the Paris Agreement. Furthermore, Mozambique intends to leverage private climate finance with the help of international climate finance mechanisms and public finance institutions alongside designing and deploying respective instruments at the national level in this regard as well. Finally, carbon markets under Article

6 are also seen as an additional and complementary means to channel public and private climate finance to Mozambique to fund climate action.

The operationalisation of a functioning climate finance governance framework and related institutional arrangements and the related processes and systems as laid out in the ENFC 2025–2034 are central to increasing mobilisation of climate finance for the implementation of the NDC 3.0 in Mozambique. Key roles and functions are fulfilled by the DNFC at MPD and the CTC. They coordinate access to climate finance next to the equally important and accompanying measures regarding legal, tax system, and financial system reforms next to related national capacity building. Improving and increasing the access to international climate finance will be greatly facilitated by the operationalisation of a national climate fund, being an enabler and catalyser for further international and national private climate finance as well.

6.2.4 Mobilising private sector financing

Mozambique intends to deploy innovative green finance instruments to further stimulate domestic and international private sector finance for green growth and climate action with a view to implement its NDC 3.0. Private sector financial flows to promote green growth and climate resilience are currently insufficient to meet Mozambique's needs. Investment opportunities remain significantly hindered by the country's low private sector credit allocation.[84]

As expressed in the ENFC 2025-2034, Mozambique has an interest in the development of climate risk-mitigating and risk-sharing financial instruments, and will also develop and launch new financial instruments, particularly green and blue bonds, as well as regulatory frameworks for tapping further into the large potential of carbon markets.

Multilateral Development Banks, including and in particular AfDB, and Domestic Financial Institutions will play an instrumental role in offering innovative financing instruments that de-risk private sector investments in Mozambique, particularly in non-energy sectors such as water and health infrastructure, which are critical for Mozambique's green growth ambitions. These financial institutions are foreseen to implement risk-agnostic measures to finance green growth and climate action in Mozambique, as well as work for innovative instruments such as climate-swaps.

[84] African Development Bank. (2023). Country Focus Report 2023 – Mozambique: Mobilizing private sector financing for climate and green growth. Abidjan, Ivory Coast: African Development Bank. Available at: https://www.afdb.org/en/documents/country-focus-report-2023-mozambique-mobilizing-private-sector-financing-climate-and-green-growth

Several fiscal and structural barriers continue to limit the mobilisation of private-sector climate finance. Limited fiscal space linked to debt vulnerability and recurrent climate-related shocks reduces the capacity of the Government to provide targeted incentives and de-risking measures that could attract private investment. Institutional capacity constraints across ministries and financial institutions further weaken the development and implementation of policies required to support private-sector participation.[85]

While transition risks to the wider private sector are less pronounced due to the high level of informality (around 80 percent of employment), this informality also limits firms' ability and incentives to invest in low-carbon technologies. In addition, tariff and non-tariff barriers continue to hamper private-sector uptake of greener solutions. Overall, insufficient regulatory signals and market incentives reduce the appetite of domestic investors to engage in climate-related sectors.

Ongoing reforms in PFM, financial-sector policy and macro-fiscal planning aim to ease these constraints and create a more enabling environment for private-sector finance mobilisation. These efforts seek to support greater domestic private investment in climate action, alongside international public and private capital as part of implementing the NDC 3.0. Most notably, in December 2024, the Council of Ministers (Portuguese: *Conselho de Ministros,* CdM) proposed a decree to establish a regulatory framework for promoting the issuance of sustainable bonds in the country, providing investors with confidence in investing in a wide range of environmentally and socially impactful projects, including those advancing renewable energy, climate resilience, sustainable transport, marine and coastal protection, blue and green economy initiatives, inclusive employment, youth housing and community-driven conservation and development.[86]

6.2.5 Non-Market Approaches

Mozambique intends to engage in non-market approaches (NMA) under Article 6.8 to support the implementation of adaptation-focused policies and socially inclusive, gender-responsive climate interventions. NMA implementation will generally take place through regional collaboration with Southern African Development Community (SADC) member states on the strategic objectives of the SADC Regional Indicative Strategic Development

[85] African Development Bank. (2023). Country Focus Report 2023 – Mozambique: Mobilizing private sector financing for climate and green growth. Abidjan, Ivory Coast: African Development Bank. Available at: https://www.afdb.org/en/documents/country-focus-report-2023-mozambique-mobilizing-private-sector-financing-climate-and-green-growth

[86] Conselho de Ministros. 2024. PROPOSTA DE DECRETO QUE ESTABELECE O REGIME JURÍDICO DE OBRIGAÇÕES SUSTENTÁVEIS.

Plan (RISDP) 2020-2030[87] and, consequently, 2030-2040. Key collaborative objectives may include objectives 4, 5 and 6 of the RISDP's cross-cutting sectors (Gender & Youth, Environment & Climate Change and Disaster Risk Management), namely:

4. Strengthened climate change adaptation and mitigation, with outcomes:
    a. Enhanced sector-based approaches towards developing climate change resilience;
    b. A reduction of the carbon footprint in the SADC region;
5. Improved disaster risk management in support of regional resilience, with outcomes:
    a. Coordinated and effective response and recovery efforts to address the impact of climate change and natural disasters, pandemics and migratory pests;
    b. Strengthened disaster risk management and governance in the region;
    c. Strengthened planning for disaster risk assessment and preparedness;
    d. Enhanced disaster risk management investments to facilitate climate adaptation and community resilience;
    e. Strengthened regional and national disaster recovery interventions; and
6. Sustainable utilisation and conservation of natural resources, with outcome:
    a. Improved management of the environment and sustainable utilisation of natural resources.

These NMAs will also help coordinate finance, technology transfer and capacity-building with development partners.

6.3 Political, legal and regulatory barriers to NDC implementation

6.3.1 Policy barriers and the approach as part of NDC implementation

The lack of a fully functioning climate change governance framework and institutional architecture created a fragmented landscape of climate actions and climate finance mobilization, dispersed among institutions and different actors. There are no clear guidelines and timelines regarding how and when projects are created and financed.

There is a central coordination body on climate change, the MAAP and its DINAMC, with a mandate and related role and functions, but the lack of a comprehensive and legally grounded governance framework hinders the effectiveness of this coordination body. Where committees with assigned roles and functions related to climate change governance exist, they are hampered by a lack of funding and mandates. Sectoral ministries and directorates

[87] Southern African Development Community. (2020). *Regional Indicative Strategic Development Plan (RISDP) 2020–2030*. Maputo: SADC Secretariat. Available at https://www.sadc.int/pillars/regional-indicative-strategic-development-plan-2020-2030

are underfunded, have weak capacity to develop and implement climate action programmes, and coordinate poorly with the central government coordination agency. Furthermore, comprehensive mandates for further necessary bodies and organisations, and allocation of the necessary resources are not in place.

The (full) integration of climate change-related actions and climate finance across all sectors and in-depth is pending[88]. However, this integration into the planning and budgeting process at the national and local levels has taken place to some extent in some sectors but does not materialise in the actual planning and budgeting processes at the sectoral and local levels on the scale required[89] – leading to the necessary actions and projects on the ground. Notable exceptions are the WASH, sanitation, education, health, social protection sectors, as well as the REDD+ strategy and related regulation, which are quite well-positioned when it comes to mobilising climate finance for climate actions on the ground.

More specifically, the following policy barriers exist in the different sectors due to the lack of a fully functional climate change governance framework in Mozambique, while the NDC 3.0 offers entry points and related solutions addressing these barriers:

- Many sectoral policies or strategies expired, are outdated or expire in 2025, such as energy (incl. transport), solid waste, IPPU and infrastructure. The implementation of the NDC 3.0 provides an opportunity to review, update and align the respective policies, strategies and plans in these sectors to ensure that adaptation and mitigation objectives and measures and related financial means are fully integrated and incorporated[90] – in full alignment with the NDC 3.0 and its objectives and measures and sectoral priorities. These updates and the alignment of the NDC will take place in the initial phase of the NDC 3.0 implementation.
- Cross-sectoral coordination, particularly with regard to overlapping competences of sectoral ministries or the lack of clear mandates and assignment of responsibilities and related regulations or incentives/disincentives, is not only a problem for the abovementioned sectors with major integration issues. Even the AFOLU sector, which is much better positioned will benefit from coordinated and structured guidance and oversight to be introduced as part of the establishment of related functional governance structures, systems and processes as part of NDC 3.0 implementation.
- Although the cross-cutting sectors (water, WASH, sanitation, education, health, social protection) integrate adaptation as part of their strategies, policies and programmes, the implementation of the NDC 3.0 will help to improve the integration of mitigation into these sectors.
- Despite comprehensive, consistent and consequential integration into the national planning and budgeting cycle and reflections in annual planning such as in the

[88] See also ClimateScanner (2025). Mozambique
[89] ibid.
[90] ibid.

sectors of social protection, WASH and health, for example, financial constraints are a frequent challenge described across all sectors[91]. The implementation of the NDC lacks funding and financial resources. The government does not have the necessary budget to support all climate actions or activities of the NDC, although Mozambique receives significant donor funding for key sectors and related measures. Sectors do not report on their climate change-related actions and do not yet make specific budget allocations for these actions. The implementation of the new National Climate Finance Strategy from 2025 and its implementation in parallel with the NDC 3.0 will help to address or alleviate these financial constraints.

Currently, there is a lack of systematised sectoral MRV systems (with information management systems) in the sectors, with the exception REDD+. The development and establishment of the national MRV system will address these gaps (see transparency and accounting).

The lack of coordination and participation extends to other actors and stakeholders. There is no clear mechanism for mobilising and engaging the private sector and CSOs, although there is a donor coordination group. However, structured and coordinated involvement of donors, CSOs and the private sector – including banks and project developers – is important for the implementation of climate action under the NDC 3.0 and an important source of climate financing. The same applies to structured and organised involvement of research institutions and organisations specialising in climate change. Again, the mechanisms for mobilising and engaging these groups will be developed and implemented in the initial phase of the implementation of the NDC 3.0.

6.3.2 Legal and regulatory barriers and how to address them as part of NDC implementation

Overall, the basis for establishing a fully functional governance structure and institutional architecture is lacking as there is adequate legal basis.[92] This gap will be addressed as part of establishing such an adequate legal basis, as part of the initial phase of NDC 3.0 implementation.

Few national laws and regulations have incorporated and planned for climate change and climate action in a way such as in the energy sector (including transport) – including industrial investments in renewable energy, carbon pricing, financing for SMEs and off-grid. However, these incentives are underdeveloped, and the related incentive mechanisms for

[91] ibid.
[92] ibid.

private sector facilitation, renewable energy cost reduction, and off-grid solutions will be developed and established as part of the implementation of the NDC 3.0.

In many cases, laws or regulations are outdated, fragmented and often partially replaced or undermined by more recent laws and policies[93], such as in the cases of AFOLU (including the blue economy), solid waste, and IPPU. A notable exception is the 2013 REDD+ regulation, with a clear legislative incentive mechanism as a clear link to international financing. However, in other cases, such as the waste sector, the creation of regulatory instruments in the waste sector, recycling technology, etc. are addressed but the lack of capacity for actual implementation leads to a lack of these incentive mechanisms materialising.

As part of the initial phase of NDC 3.0 implementation a comprehensive assessment of legal preparedness for climate change is being conducted. This preparedness assessment will analyse sectoral laws and regulations across in general to prepare for the development of respective reforms or new laws or regulations.

6.4 Technology

Mozambique seeks international cooperation and support for technology transfer, as per Article 10 of the Paris Agreement, in order to implement this NDC. Stakeholders consulted in the development of this NDC identified the limited availability of financial and technological resources as a transversal limitation to implementing the NDC 2.0, affecting the technical and operational execution capacity of the sectors and institutions involved. Weak acceptance towards new technology was also identified.

Mozambique has actively engaged in technology needs assessment (TNA) over the last decade. This happened notably through a series of TNA reports and associated analyses of barriers and action plans conducted from 2016 to 2018 under the Technology Needs Assessment project, funded by the Global Environment Facility (GEF).[94] Priority technologies were identified for adaptation in the agriculture sector (seed production and conservation and the promotion of low-cost seed and grain storage systems, conservation agriculture, and rainwater harvesting and conservation) and the coastal zone sector (flood-warning system, feedback of beaches, and restoration of mangroves). For mitigation the following priorities in the energy sector (photovoltaic solar systems of regular scale, conventional combined-cycle to gas, regular hydraulic turbines) and in the urban waste management sector (landfill with biogas production, landfill bioreactor biogas production, and pyrolysis) were identified. Mozambique subsequently prepared 12 Technology Action

[93] ibid.
[94] Government of Mozambique. (2011). *Second national communication to the United Nations Framework Convention on Climate Change*. UNFCCC. https://unfccc.int/sites/default/files/resource/Mozambique%20Second%20National%20Communication.pdf

Plans (TAPs) (the third step of the TNA) in 2018, corresponding to each of these priority technologies.[95]

More recently, the TNA for Mozambique (2021) was conducted by UN Technology Bank for Least Developed Countries. Although not climate-specific, the assessment identified several relevant technology transfer needs, particularly in the energy sector. These include microgrid technology, portable in-house solar power solutions, and Slurry-Separation Technology (SST).[96] The NAP identified a need to further assess Mozambique's technological needs, and to prepare and implement the respective plan.

Mozambique's Second National Communication details prioritised mitigation and adaptation technology options, target benefits, cost and barriers, based on the results from the series of TNA reports conducted 2016-2018, and aligned with Mozambique's Second NDC and other national policy documents. The NAP also identifies technology transfer needs, including establishment of climate insurance and updating of vulnerability studies, including climate scenarios, to identify priority areas/sectors for adaptation.

Based on stakeholder consultations, the NAP and SBUR, the need for new or strengthened data platforms and systems emerged as a priority technological need for NDC implementation, including:

- Developing a system for tracking climate finance;
- Developing a system or centralized data platform for monitoring NDC implementation;
- Developing data infrastructure to support mitigation activities;
- Establishing a unified loss and damage data system;
- Strengthening the Integrated Climate Change Database Management System;
- Strengthening institutions for collecting, processing and systematising information related to adaptation;
- Creating a database on studies carried out and national experts in the area of climate change;
- Improving digital disease surveillance and data systems to better capture the impact of climate-sensitive illnesses on children; and

[95] UNFCCC. (n.d.). *Technology Action Plans*. Retrieved from https://unfccc.int/ttclear/tna/tap.html

[96] United Nations Technology Bank for Least Developed Countries. (2021). *Mozambique: Technology needs assessment (Final report)*. United Nations. https://www.un.org/technologybank/sites/www.un.org.technologybank/files/mozambique_-_technology_needs_assessment_final.pdf

- Developing and/or improving tools to monitor and evaluate adaptation.

Through the NDC development process, stakeholders also raised a wide range of technology needs for mitigation and adaptation. Stakeholders from the infrastructure sector highlighted a need for integration of climate risk mapping and assessment for climate-resilient infrastructure. In the WASH sector they called for scaling up climate-resilient infrastructure technologies to maintain safe water and sanitation services during extreme events. Stakeholders highlighted the need to ensure that Early Warning Systems incorporate children's needs within their technological design and communication processes. They also underscored the value of expanding the use of solar-powered irrigation technologies and low-carbon food processing systems to support food security in climate-affected communities. They also stressed the importance of digital, shock-responsive social protection mechanisms to rapidly support vulnerable households during emergencies. Support for adopting low-carbon processing technologies that reduce food loss and waste in climate-sensitive value chains is needed. Finally, stakeholders identified education digitalization technologies as a critical tool to ensure continuity of learning during and after climate-related disruptions.

Meanwhile, energy transition in Mozambique requires accelerated deployment of renewable and off-grid technologies, paired with modern digital systems and climate-resilient energy infrastructure. Priority technological needs for the energy sector include: microgrids, battery storage, hybrid systems for isolated grids, resilient hydropower technologies, improved cookstoves with verifiable performance, efficient charcoal production systems, GIS-based resource mapping, and smart-metering infrastructure.

Mozambique has submitted five requests for technology-related technical assistance through the UN Climate Technology Centre and Network since submission of its NDC 2.0. These requests related to development of National Innovation System, flood risk mapping, digital technologies for local communities in the Water-Food-Energy nexus, solar based irrigation, and rainwater harvesting.[97]

Mozambique underscores its commitment to creating an enabling environment for climate technology development and transfer into the country, in line with Article 10 of the Paris Agreement as part of implementing the NDC 3.0. This includes strengthening institutional frameworks, capacity building and partnerships to ensure effective adoption of transferred technologies, led by MAAP and the Ministry of Communications and Digital Transformation, and aligned with its NAP, SBUR and SDGs. Mozambique is already leveraging support from

[97] UN Climate Technology Centre & Network. (n.d.). *Mozambique*. Climate Technology Centre & Network. Retrieved December 1, 2025, from https://www.ctc-n.org/ctcn-countries/mz

the Initiative for Climate Action Transparency (ICAT) for transparency and tracking systems, critical for technology transfer success.[98]

6.5 Capacity building

6.5.1 Institutional Capacity

Mozambique's ability to implement this NDC is dependent on strong public institutions, coordination, and functioning national systems for transparency, planning and finance. The institutional arrangements described in Section 6.1 and the policy, legal and regulatory barriers described in Section 6.3 require complementary capacity building efforts to ensure functionality and effectiveness in NDC implementation. Mozambique's Second National Communication and stakeholders consulted during the NDC development identified persistent coordination gaps and uneven capacity across ministries and levels of government.

The high dependence on external consultants and turnover of technical staff have been identified as weaknesses that jeopardise the continuity and consolidation of NDC implementation processes. Mozambique thus seeks international cooperation under Article 11 of the Paris Agreement to strengthen in-country institutional and technical capacity for climate action and NDC implementation.

A comprehensive assessment of national capacity has not yet been conducted. Furthermore, Mozambique lacks a comprehensive mapping of institutions and individuals engaged in climate change related activities.[99] As per the NAP, it would be relevant to assess the capacity building of the National Climate Change Network (of the institutions of the MRV institutional arrangement) and prepare and implement the Capacity Building Plan so that it can conduct investigation and research in the relevant areas.

Mozambique's Second National Communication, SBUR, NAP and stakeholders consulted during NDC development identify several areas where institutional capacity building support is needed, including:

- **Adaptation:** Strengthening the capacity to integrate cross-cutting issues (e.g. gender, biodiversity into climate change adaptation, and enhance knowledge on climate change, its impacts and associated issues.

[98] ICAT. (n.d.). Mozambique. Climate Action Transparency. Retrieved December 4, 2025, from https://climateactiontransparency.org/country/mozambique/

[99] Government of Mozambique. (2022). *Mozambique Second National Communication to the United Nations Framework Convention on Climate Change*. UNFCCC. https://unfccc.int/documents/624697

- **Education and public awareness:** Designing and implementing a strategy for education, awareness, dissemination and public participation in climate change, including youth engagement initiatives and capacity to use digital education tools to ensure learning continuity during climate-induced disruptions. Integrating nutrition education focused on breastfeeding and dietary diversity.
- **Social protection:** strengthening institutional and technical capacity to operate shock-responsive emergencies and incorporate child-sensitive targeting approaches.
- **Early warning and preparedness:** building capacity to design and deliver child-inclusive early warning systems and preparedness actions including communication approaches tailored different audiences (e.g. children, schools, people with disabilities, internally displaced people, and other vulnerable groups).

Further capacity building needs are described in greater detail in Mozambique's Second National Communication.

The need for strengthening technical-institutional capacities of different entities at various levels in order to operationalize the National Framework for Transparency in Financing and Mitigation (QNTFM) and the MRV system was previously raised in the NDC 2.0. Consequently, Mozambique is preparing a Capacity Building Initiative for Transparency (CBIT) project, led by UNEP and supported by GEF, to strengthen institutional and technical capacities for implementing the 2006 IPCC Guidelines, tracking NDC actions and support, and developing systems for Biennial Transparency Reports.

6.5.2 Technical Capacity

Lack of technical capacity was a significant challenge in the implementation of Mozambique's NDC 2.0. Many sectors, within which notably sub-national technicians, lack technical expertise on climate change, particularly with regard to drawing up GHG inventories, implementing low-carbon technologies and formulating climate finance proposals.

Three main priority areas for technical capacity building, described in greater detail below, were identified based on the SBUR, the NAP, and stakeholder consultations: 1) climate finance; 2) MRV; and 3) training for sub-national actors.

Capacity building on climate finance

There are currently insufficient technical capacity and human resources for mobilising climate finance and preparing strong applications for climate finance projects, particularly due to the limited training of national staff to deal with the requirements and procedures of

the available financing mechanisms. Strengthening of national competences to prepare competitive applications and manage funding processes autonomously and effectively is needed.

A comprehensive training or capacity building program would be beneficial for national technicians in designing and managing projects to help mobilize climate and other funds, for both mitigation and adaptation.

There is also a need to define methodologies and legal instruments to guide sectors in accessing funding, including clarifications on what documents and content are required, and in what form they should be presented.

Capacity building on MRV

Important progress has been made in developing the technical capacity for the preparation of the GHG inventory, yet a lack of knowledge and skills in inventory techniques persists, making it difficult to produce consistent and reliable data. In many cases, sectors do not have the necessary capacity to carry out their own inventories, inhibiting their ability to actively participate in reporting processes and leading to continued dependence on external consultants and limits the appropriation of the results by national organisations.

In the energy sector, it is pertinent to train national staff in the compilation of national statistics by sector, by sub-sector of activity, and by type of fuel, in improving data collection processes, in calculation of national energy balances following IPCC approaches, and in understanding the general process of determination of emission factors specific to the energy sector.

In the AFOLU sector, the primary constraint is not the technical capacity to collect, quantify, and store activity data, but rather the limited financial resources needed to ensure these processes are carried out consistently. Sustained funding is required to support systematic data collection across key AFOLU categories, including biomass burning, soil degradation, animal populations and waste use, fertilizer application, energy use in agriculture, and rice cultivation, in line with IPCC guidance. Additional resources are also needed to maintain regular monitoring of biophysical changes such as land cover dynamics, biomass growth, and regrowth in abandoned areas, given their significant influence on GHG emissions.

In the waste sector, capacity building is needed in terms of the characterization, quantification and data storage of the waste generated from hospitals, industry, municipalities and other sectors.

There are also difficulties in harmonising data collection procedures, and a lack of technical knowledge to applying the IPCC guidelines to quantify emissions. It is essential to train technicians in each relevant sector to collect and organise sectoral data in accordance with IPCC guidelines, including at the municipal level.

Capacity building for sub-national actors

Sub-national actors such as provincial, district and municipal governments and communities have a central role in implementing and monitoring climate action throughout Mozambique. Municipalities, for example, are the entities that collect the information required for GHG inventories and are therefore fundamental to the quality and reliability of the data.

Increasing the technical capacity of these actors is crucial so that they are well-equipped and confident to actively participate in the NDC implementation process, including sharing relevant information. Such training, capacity building and awareness raising is particularly relevant to improve the engagement of communities.

Key capacity building needs raised in the district-level LAPs include: climate change and agriculture, livestock, fisheries, natural resources management, and social protection (e.g. soil fertility management, climate-resilient livestock systems, integration of adaptation in social protection programs, sustainable fishing practices, community-based fire protection); climate risk governance and institutional strengthening; climate information, education and public awareness; disaster risk reduction and early warning; monitoring, evaluation and reporting; and climate finance access and resource mobilization.

Additional capacity building needs

Further capacity building needs identified include:

- **Energy sector:** Training in national energy statistics, fuel use data compilation, IPCC compliant energy balance methods, development of sector specific emission factors, digital data collection for MRV, and structuring bankable renewable energy and clean cooking projects. Subnational actors require training to manage off-grid systems, collect energy use data, and support community level mitigation initiatives.
- **Agriculture sector:** building community-level capacity for climate-resilient agriculture (e.g., solar-powered irrigation, diversified nutritious food production).
- **Infrastructure sector:** Expand training programmes for technicians, artisans, contractors and communities on climate-resilient construction and maintenance techniques, and compliance with new technical regulations and resilient building

codes. Strengthen capacity for planning, constructing and maintaining climate-resilient WASH and education infrastructure, especially in cyclone- and flood-prone areas, to ensure continuity of essential services for children.

- **Industry sector:** Technical training for cement producers and other industrial sectors, promoting the alignment of their practices with mitigation objectives.
- **Health sector:** Strengthening the technical capacity of health sector professionals related to climate change and health infrastructure; improved training for disease surveillance, data collection and reporting with children-disaggregated indicators for climate-sensitive diseases such as malaria and diarrhoea.

See Mozambique's Second National Communication (2022) for a more detailed list of capacity development needs.