ECOWAS COMMISSION
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ECOWAS

Regional Climate Strategy (RCS)

And

Action plan (2022-2030)

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ABBREVIATIONS AND ACRONYMS

ACMAD	African Centre of Meteorological Application for Development
AFD	Agence Française de Développement, the French Development Agency
AfDB	African Development Bank
AFOLU	Agriculture, Forestry and Other Land Use
AGoSEREE-AO	Amélioration de la Gouvernance du Secteur des Energies Renouvelables et de l'Efficacité Energétique en Afrique de l'Ouest (Project Improving the Governance of the Renewable Energy Sector and Energy Efficiency in West Africa)
ARC	African Risk Capacity
ASECNA	Agency for Aerial Navigation Safety in Africa and Madagascar (Agence pour la sécurité de la navigation aérienne en Afrique et à Madagascar in French)
AU	African Union
BAU	Business as Usual
BUR	Biennial Update Reports from Non-Annex I Parties
CaSSECS	Carbon Sequestration and greenhouse gas emissions in (agro) Sylvopastoral Ecosystems in the sahelian CILSS States.
CATI	Climate Action Transparency Initiative
CCAFS	Climate Change, Agriculture and Food Security
CCRS	Climate Commission for the Sahel Region
CET	Common External Tariff
CILSS	Comité permanent inter-États de lutte contre la sécheresse dans le Sahel / Permanent Interstate Committee for Drought Control in the Sahel
CMIP5	Coupled Model Intercomparison Project Phase 5
CMS	Climate and Meteorological Services
CO_2	Carbon dioxide
COP	Conference of the Parties of the UNFCCC
CPCS	Permanent Coordination and Monitoring Framework for IWRM in West Africa
CSA	Climate-Smart Agriculture
CSDD PAD	Comprehensive strategic framework for the development of sustainable fisheries and aquaculture in West Africa
CSE	Centre de Suivi Écologique, Senegalese environmental monitoring centre
CSR	Corporate Social Responsibility
CTCN	Climate Technology Centre and Network
DENR	Directorate of Environment and Natural Resources (Direction de l'environnement et des ressources naturelles – DERN in French)

DeSIRA	Development Smart Innovation through Research in Agriculture
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EAP	Environmental Action Plan
EBID	ECOWAS Bank for Investment & Development
ECGD	ECOWAS Centre for Gender Development
ECOPOST	ECOWAS' regional policy on science, technology and innovation
ECOWAS	Communauté économique des États de l'Afrique de l'Ouest / Economic Community of West African States
ECOWAS DRR GSAP	ECOWAS' Disaster Risk Reduction Gender Strategy and Action Plan
ECOWAP	ECOWAS Agricultural Policy
ECOWARN	ECOWAS Early Warning and Response Network
ECOWEP	ECOWAS environmental policy
ECOWIC	ECOWAS Common Investment Code
ECOWIP	ECOWAS Investment Policy
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency
EDF	European Development Fund
EEEP	ECOWAS Energy Efficiency Policy
EGDC	ECOWAS Gender Development Centre
ERCA	ECOWAS Regional Competition Authority
EREP	ECOWAS Renewal Energy Policy
ERTFC	Regional Trade Facilitation Committee
ETLS	ECOWAS Trade Liberalisation Scheme
EU	European union
EWS	Early Warning System
FAO	Food and Agriculture Organization
FCP	Forest Convergence Plan
FFEM	French Facility for Global Environment
FSRP	Food Systems Resilience Program
FTE	Full-time equivalent
GCCA + WA	Global Climate Change Alliance Phase 2 in West Africa
GCF	Green Climate Fund
GDI	Gender development index
GDP	Gross domestic product
GFCS	WMO's Global Framework for Climate Services
GFDRR	Global Facility for Disaster Reduction and Recovery
GFRA	Global Framework for Risk Assessments
GHG	Greenhouse gas(es)
GMST	Global mean surface temperature
GRAF	Global framework for risk assessments

HDI	Human Development Indices
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICZM	Integrated Coastal Zone Management
IDEC	Interdepartmental Environment Committee (Comité Interdépartemental Environnement – CIDE in French)
IEA	International Energy Agency
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
IPSAS	International public sector accounting standards
ITCZ	Intertropical Convergence Zone
IUCN	International Union for the Conservation of Nature
IWRM	Integrated Water Resources Management
LDC	Least developed countries
LEDS	Low-Emission Development Strategy(ies)
LPG	Liquefied petroleum gas
MCIS	Meteorological and climatological information services
MIDWA	Migration Dialogue for West Africa
MOLOA	Mission d'Observation des Littoraux Ouest Africains / West African Coastal Observation Mission
MS	Member States
MSME	Micro, small and medium-sized enterprise(s)
NAP	National Adaptation Plan
NC	National Communication
NDC	Nationally Determined Contributions
NDRR	ACP-EU Natural Disaster Risk Reduction Program
NEPAD	New Partnership for Africa's Development
NMHS	National Meteorological and Hydrological Services
ORLOA	Observatoire Régional du Littoral Ouest Africain/West African Regional Coastal Observatory
PAMO-WAWRP	Implementation Plan for the West African Water Resources Policy (WAWRP)
PAPBio	Support Programme for the Preservation of Biodiversity and Fragile Ecosystems, Environmental Governance and Climate Change in West Africa
PPP	Public-private partnership
PRLEC	Regional Programme to Combat Coastal Erosion (Projet Régional de Lutte contre l'Erosion Côtière in French)
RAAF	Regional Agency for Agriculture and Food (Agence Régionale pour l'Agriculture et l'Alimentation – ARAA in French)

RAG-CLIN	ECOWAS Regional Advisory Group on Climate International Negotiations
RAHC	Regional Animal Health Centre
RAP - IWRM	Regional Action Plan for Integrated Water Resource Management
RCC-WAS	Regional Climate Centre for West Africa and the Sahel
RCS	Regional Climate Strategy
REDD+	Reducing emissions from deforestation and forest degradation
RESOLAB	Network of veterinary laboratories
RFAF	Regional Fund for Agriculture and Food
RFSR	Regional Food Security Reserve
RSMS	Regional Specialised Meteorological Centre
RWO	Regional Water Observatory
SDG	Sustainable Development Goals
SDLAO	Schéma directeur du littoral de l'Afrique de l'ouest / West African Coastal Master Plan
SER	Social and Environmental Responsibility
SF	Strategic Framework
SFDRR	Sendai1 Framework for Disaster Risk Reduction
SIDS	Small Island Developing States
SIMC	Climate and Meteorological Information System
SME	Small and medium-sized enterprise(s)
SO	Specific objective
STMC	Specialized Technical Committee of Ministers
teqCO_2	Metric tons of CO2 equivalent
TFP	Technical and Financial Partners
TNCB	Trade Negotiations Capacity Building
UEMOA	Union Économique et Monétaire Ouest-Africaine (West African Economic and Monetary Union)
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WA-BiCC	West Africa Biodiversity and Climate Change programme
WACA	West Africa Coastal Areas
WA-CIFI	West-African Coastal Inundation Forecasting Initiative
WACIP	West African Common Industrial Policy
WACSAA	The West Africa Climate Smart Agriculture Alliance
WAHO	West African Health Organisation
WAICSA	The West African Initiative for Climate-Smart Agriculture

[1] UNO, 2015, Sendai Framework for Disaster Risk Reduction 2015-2030, 40 pp.

WAPP	West African Power Pool
WASCAL	West African Science Service Centre on Climate Change and Adapted Land Use
WASSMO	Water and sanitation sector monitoring and reporting system
WAWRP	West African Water Resources Policy
WB	World Bank
WCI	Weather and climate information
WIM	Warsaw International Mechanism
WMO	World Meteorological Organisation
WRCC	Water Resources Coordination Centre (Centre de Coordination des Ressources en Eau – CCRE in French)
WRMC	Water Resources Management Centre (Centre de Gestion des Ressources en Eau – CGRE in French)
WTO	World Trade Organisation

FOREWORD

This Economic Community of West African States (ECOWAS) regional climate strategy was adopted at the xxx th Ordinary Session of the Conference of the Heads of State and Governments of the ECOWAS, held in **xxx, on xxx**. On the one hand it is the result of a long consultation process with the institutions, departments and specialist agencies of ECOWAS, Member States (MS) and specialist regional institutions, and on the other hand it is the culmination of several years of intervention and action by ECOWAS in the fight against climate change.

Currently representing just 1.8% of world greenhouse gas (GHG)[2] emissions, ECOWAS countries' contribution to global warming is minimal. However, the African continent is at the centre of the climate change challenges of this first half of the 21st century. According to the most alarming scenarios, West Africa will experience, by 2060, a temperature increase of +2.3 °C, or a warming of +0.6 °C per decade. Precipitation will be more erratic and will lead to an increase in the frequency and intensity of the extreme weather conditions already being experienced in our region: floods, increased variability of rainfall, coastal and soil erosion in river basins, extremely long pockets of drought among other corollaries, with dramatic human and economic consequences for all economic sectors and for the most vulnerable sections of the population, particularly, women, young people and the elderly. Faced with the seriousness of the impacts to come, "Acting Together", within the framework of regional solidarity, is an absolute necessity to allow our region to reduce its vulnerability and to face, collectively, the risks induced by climate change, which, by definition, know no borders. Thus, ECOWAS, building on its past experience of implementing the *strategic programme for reducing vulnerability and adapting to climate change*, financed by Sweden, is strengthening its framework of action by systematising the integration and consideration of the impacts of climate change in the defining of its actions and directives.

Furthermore, our region is still broadly characterised by resource-intensive economic models that contribute to the deterioration of our environment, with, among other things, low-productivity extensive agriculture, advanced-stage damage to forests and soils, expensive and inefficient transport systems and an energy sector that continues to grow. While these economies still play only a limited role in the growth of global GHG emissions, the prospect of strong economic and demographic growth in the coming decades call for the exploration of low-carbon trajectories: between 1990 and 2016, GHG emissions increased by 39%, compared with global average growth of 4-9%. Our region must seize the opportunity for low-carbon

[2] CCNUCC (2020) : Technical Assessment of Climate Finance in West African Community (https://unfccc.int/sites/default/files/resource/J0008_UNFCCC_NBF_TA_Climate_Finance_WA_v11%5B40%5D.pdf)

growth trajectories by mobilising every possible financial and technological resource, domestic or international: the technical solutions exist and we have everything to gain! This is the spirit of the Nationally Determined Contributions (NDCs) that the ECOWAS Member States have submitted as their commitments to meet the objectives of the Paris Climate Agreement. For ten years now it has also been the objective of ECOWAS, through various major policy frameworks: the renewable energy policy, the energy efficiency policy, the Forestry Convergence Plan, etc. The challenge now is to blend the other intervention frameworks with these mitigation objectives that have already been established at national and regional level.

It is in this context that the ECOWAS Commission and its partners have drawn up this Regional Climate Strategy (RCS) in order to consolidate and harmonise a framework of action for the fight against climate change in the ECOWAS region, taking into account both the adaptation and mitigation dimensions and in alignment with the Paris Climate Agreement 2030 and the Sustainable Development Goals (SDG).

The vision informing it is that of a West African community that is resilient to the effects of climate change and that has managed to seize the associated economic opportunities in favour of long-term sustainable development. This vision is consistent with the 2050 Vision of ECOWAS which aims at establishing *"a community of people that are fully integrated within a peaceful and prosperous region, supported by strong institutions, respecting the fundamental freedoms and working towards an inclusive sustainable development."*

In this regard ECOWAS and its partners commit to supporting the countries in the community in achieving low-carbon development that is resilient to climate change.

The drafting of this strategy document has had a variety of technical and financial support. I should like in particular to close this foreword by expressing my appreciation and thanks to the European Union (EU) for its financial support and to Expertise France for its technical support in the framework of Expertise France's Global Climate Change Alliance + in West Africa (GCCA+WA) project.

PART 1 – CONTEXT, APPROACH AND VISION FOR A FAIR AND AMBITIOUS REGIONAL CLIMATE STRATEGY

1. GENERAL CONTEXT

1.1 Regional context

With a total area of 5,113,000 km^2, the Economic Community of West African States (ECOWAS) comprises fifteen (15) Member States, eleven[3] (11) of which are classified as Least Developed Countries (LDCs).

The territory is spread over four (4) starkly different broad climatic areas: the desert region in the north (average annual cumulative rainfall of less than 200 mm), the Sahel in the centre (annual rainfall between 200 and 600 mm), the Sudanian region towards the south (annual rainfall between 600 and 1,200 mm) and the Guinean region (with over 1,200 mm of rain per year). Rainfall patterns are linked to the seasonal movement of the Intertropical Convergence Zone (ITCZ) and the build-up during the rainy season of the circulation of the West African monsoon.

The region has a total population estimated at 388 million inhabitants in 2019 with an average annual population growth rate of 2.75%[4]. It currently represents about 5% of the world's population and one third of that of Africa, although it covers only 16.8% of the African land mass. Young people account for two thirds of the population. With an average fertility rate of 5.6 births per woman, the highest in the world, projections indicate that this population could exceed one billion in 2050.

Between 2016 and 2020, ECOWAS' gross domestic product (GDP) growth averaged 2%, compared to 5.1% in 2011-2015. Ten (10) of the fifteen (15) Member States posted average growth of 5% or more for the period 2016-2019. This robust economic growth placed ECOWAS' countries, along with those of the rest of Africa, among the fastest growing regions in the world. However, more than 40% of ECOWAS' population is still living in extreme poverty[5]. The Covid-19 pandemic and its economic impacts, the effects of the world economic and financial crises (2007-2008), fluctuations in oil prices (2008-2010 and since 2015), the food crisis of 2008-2011, security tensions in the Sahel and climate change, have considerably reduced the progress made in reducing poverty[6].

With the exception of Cape Verde and Ghana, whose human development indices (HDI) are respectively 0.661 and 0.596, and Niger whose HDI is 0.377, the Member States are similar in their HDIs, with indicators of around 0.5, among the lowest in the world. In 2020, of 227

[3] Benin, Burkina Faso, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Senegal, Sierra Leone, Togo
[4] Demographic prospects of West African countries, UNO data, World Population Prospects 2019.
[5] Economic Commission for Africa (ECA), 2016. From the Millennium Development Goals to the Sustainable Development Goals Path and additional efforts of West African countries towards achievement of the 2030 Agenda. Monitoring report on MDGs in West Africa. Sub-Regional Office for West Africa, Niamey, Niger
[6] World Bank Group (2021). Poverty and Shared Prosperity 2020 Report: Reversals of Fortune, 24 pp.

countries ranked, twelve (12) of the ECOWAS' countries were ranked lower than 200[7], (reflecting in particular a still very significant lag in the areas of health and education. Infant and maternal mortality rates are among the highest on the continent[8]. Literacy rates are uneven, ranging from 30.6% in Niger to 86.8% in Cape Verde. The ECOWAS region also shows greater disparity between the sexes than other parts of the continent, according to its gender development index (GDI) which is 0.825 as against an African average of 0.871.

The rate of access to electricity in the region is among the lowest in the world: only 49%[9] of the total population in 2019, and 8% in rural areas. In countries such as Guinea and Sierra Leone, the percentage of the rural population with access to electricity is in some cases as low as 1%, while Cape Verde has practically achieved universal access. The region is faced with energy vulnerability, volatile oil prices and unreliable power grids. On the other hand, countries in the ECOWAS region have almost unlimited potential as regards energy from renewable sources[10] since most of the West African region receives more than 2 Mwh/m^2 of solar energy every year fairly uniformly. There is also significant potential for wind power in the windy northern parts of the region and certain coastal zones of Cape Verde and Senegal.

The region's economy is based mainly on the exploitation of natural resources. It has been demonstrated that between 2001 and 2018, climatic conditions explain about 40% of the variation in productivity of cultivated land in West Africa[11]. This makes climate change, in combination with other main challenges, a major exacerbating factor of the vulnerabilities that already exist and a major threat to prospects of sustainable development.

Under the effect of past, present and future GHG emissions, changes in the climatic system observed in the course of recent decades will continue throughout the 21st century and beyond. Despite the uncertainties, it would appear that the scenarios with high GHG emissions will involve more extreme events: floods, droughts and heat waves. The consequences of climate variability and climate change in the medium and long term may be disastrous for most socio-economic sectors of the ECOWAS region. The occurrence of extreme events will increase the likelihood of severe impacts which will translate into falling agricultural yields, falling surface and underground water resources, lower hydroelectric production and threats to fisheries, coastal zones and marine ecosystems, cities and infrastructures, among others. Without major

[7] UNDP (United Nations Development Programme) (2020). Human Development Report 2020. The next frontier Human development and the Anthropocene, 26 pp.
[8] Henri-Louis VEDIE (2021). Forces et Faiblesses de la CEDEAO en 2021 (Strengths and Weaknesses of ECOWAS in 2021) Policy Paper, March 2020, 34 pp.
[9] Source:https://donnees.banquemondiale.org/indicator/EG.ELC.ACCS.ZS, Banque mondiale, base de données Sustainable Energy for All (SE4ALL) dérivée du SE4ALL Global Tracking Framework
[10] A. Belward, B. Bisselink, K. Bódis, A. Brink, J.-F. Dallemand, A. de Roo, T. Huld, F. Kayitakire, P. Mayaux, M. Moner-Girona, H. Ossenbrink, I. Pinedo, H. Sint, J. Thielen, S. Szabó, U. Tromboni, L. Willemen (2011). Renewable energies in Africa, JRC Scientific and Technical Reports Edited by F. Monforti EUR 25108, 62 pp.
[11] Altaaf Mechiche-Alami, Abdulhakim Abdi (2020). Agricultural productivity in relation to climate and cropland management in West Africa, Scientific Reports. Vol 10, No 3393, 10 pp.

interventions to strengthen the ability of the main socio-economic sectors to adapt, there is a risk that these changes will seriously compromising populations' food security, means of subsistence and social cohesion.

According to the African Development Bank (AfDB), the impact of climate change on the continent could reach US$50 billion a year by 2040, with a further 30% shrinkage in GDP between now and 2050[12]. Furthermore, according to a recent study carried out by the West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL)[13] for ECOWAS, estimates foresee a reduction in GDP of 3.7% or 11.7% by 2050 in the low and high warming scenarios respectively. The economic losses stemming from climate impacts will come mainly from agriculture and infrastructures (transport, energy, buildings, etc.). Coastal countries are likely to suffer the most significant economic effects as regards infrastructures. Beyond these economic impacts, the health and social impacts could be very significant whether they be gradual changes (increase in average temperature with, for example, impacts on food security due to a fall in agricultural yields or on exceeding the lethal heat threshold in the city) or extreme events (floods). Women and young people often are and will continue to be more vulnerable because of their roles as determined by society and culture. The high degree of climate sensitivity of critical sectors, combined with low levels of ability to adapt contribute to making the West African region one of the most vulnerable in the world. If not addressed, this could have adverse implications in many areas, including on the maintenance of peace and security.[14] Migration patterns could also be significantly affected. For example, the World Bank estimates that climate-induced migration could displace up to 32 million people in West Africa by 2050 if no concrete preventive action is taken.[15] Indeed, West Africa has been identified as one of the world's climate hot spots. And so it is that nine (9) of the world's thirty (30) most vulnerable countries form part of the ECOWAS-CILSS (Permanent Interstate Committee for Drought Control in the Sahel) region according to the Global Adaptation Index[16].

Consequently, **adaptation actions and strategies are the most appropriate pathways to enable the populations, public and private bodies and governments of the ECOWAS countries to prepare themselves and to respond in a coordinated way to the impacts of climate change**.

[12]https://www.afdb.org/en/news-and-events/press-releases/african-presidents-and-global-leaders-support-bold-action-climate-change-adaptation-africa-43027
[13] WASCAL (2021). Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa, WASCAL.
[14] Security Council high-level open debate on "security in the context of terrorism and climate change," Niger presidency (December 2022); Security Council high-level open debate on "water and its linkages to international peace and security," Senegal presidency (2016).
[15] World Bank (January 5, 2022). Climate Migration in Africa: How to Turn the Tide.
[16] https://gain.nd.edu/our-work/country-index/rankings/

1.2 Past, recent and future climate trends in the region

Recent scientific research into climate clearly indicates trends in climate variability and climate change which in West Africa are characterised by the generalised and continuous rise in temperatures, the increased variability of rainfall and the frequency, intensity, spatial extent and duration of extreme weather events.

Climate variability is deeply rooted in West African societies. The 1950s and 1960s were marked by exceptionally heavy rainfall. This was followed by a sharp global fall in volumes of annual precipitation, culminating in the great droughts of the 1970s and 1980s in the Sahel and the more humid countries of the Gulf of Guinea. This dry period is illustrated by a southward shift in annual isohyets (with declines in rainfall ranging from 20% in the south of the Sahel to more than 50% in the north[17]) leading to a process of unprecedented aridification of the Sahel.

Since the mid-1990s, coinciding with the intensification of global warming, West Africa has seen increased interannual variability of rainfall. According to the scientific work of the Centre regional AGRHYMET/CILSS Regional Centre[18] rainfall patterns are now characterised by violent alternation between wet and dry years[19] which seems to be amplified by climate change. During this period, the possibility of a return to a wet period has given rise to controversy. Signs of resumption of the rains have been shown to exist, but with regional disparities on an annual scale[20]. This new pattern of rainfall variability that has emerged since the 1990s has translated into the combined occurrence of several extreme rainfall events such as dry periods and late starts and early ends to rains. Also, despite the decline in the number of rainfall events, there has been an increase in the intensity and volumes of rainfall[21]. This situation explains the episodes of heavy rains and recurring floods seen in the course of the past few years in West Africa such as in 2003, 2005, 2007, 2008, 2009, 2010, 2012, 2017, 2019 and 2020. The intensification of the hydrological cycle under the effect of the high temperatures could be leading to greater evaporation and more intense precipitation.

[17] Lebel T., Diedhiou A., Laurent H., (2003). Seasonal cycle and interannual variability of the Sahelian rainfall at hydrological scales. J. Geophys. Res., 108.
[18] AGRHYMET/CILSS Regional Centre (2015). Atlas agroclimatique sur la variabilité et le changement climatique au Sahel (Agroclimatic Atlas of Climate Variability and Climate Change in the Sahel), 42 pp.
[19] Abdou Ali (2010). Variabilité et changement du climat au Sahel: ce que l'observation nous révèle sur la situation actuelle. (Climate variability and climate change in the Sahel: what observation tells us about the current situation?) 'Grain de Sel', magazine of Inter-Réseaux Développement Rural No. 49, pp. 13-14.
[20] Vischel T., Lebel Thierry, Panthou G., Quantin G., Rossi A., Martinet M. (2015). Le retour d'une période humide au Sahel? (The return of a wet period in the Sahel?) : observations and perspectives. In: Sultan Benjamin (ed.), Lalou Richard (ed.), Amadou Sanni M. (ed.), Oumarou A. (ed.), Soumaré M.A. (ed.). Les sociétés rurales face aux changements climatiques et environnementaux en Afrique de l'Ouest (Rural societies faced with climate and environmental change in West Africa) Marseille: IRD (French Government Research Institute for Development), pp. 43-60. (Summaries). ISBN 978-2-7099-2146-6.
[21] Luc Descroix, Aïda Diongue Niang, Gérémy Panthou, Ansoumana Bodian, Youssouph Sané, Honoré Dacosta, Moussa Malam Abdou, Jean-Pierre Vandervaere, Guillaume Quantin (2015). Évolution récente de la pluviométrie en West Africa à travers deux regions: la Sénégambie et le bassin du Niger moyen (Recent trends in rainfall in West Africa through two regions: Senegambia and the Middle Niger River Basin) Climatologie, vol. 12 (2015) pp. 25-43

Climate models are not entirely in agreement as to whether rainfall will increase or decrease in the future. Using a set of simulations from the 5th phase of the Coupled Model Intercomparison Project (CMIP5)[22] experiments, researchers have shown that in spite of the great uncertainties, around 80% of the models are in agreement on aridification of around 20% in the western part of the Sahel, while 75% of the models forecast a wetter eastern Sahel[23]. The projections also point towards a climate with less frequent, more intermittent but more intense rainfall events in medium to high GHG emissions' scenarios. A potential change in the seasonality of the Sahelian rains is also very likely, with a later start and the possibility of a break in the middle of the rainy season. This change is likely to occur between now and the end of the 21st century.

As regards temperatures, the global mean surface temperature (GMST) in the period 2011-2020 was +1.09 °C higher than in the period 1850-1900 according to the Intergovernmental Panel on Climate Change (IPCC) (2021)[24]. West Africa, along with the other regions of Africa, warmed faster than the global average (land and oceans combined). The thirty-year (30) warming trend for the period 1991-2020 (with a trend of 0.3 °C per decade) was higher than that of the period 1961-1990 (0.2 °C per decade) and considerably higher than that of the period 1931-1960 (0.03 °C per decade)[25]. In disturbing the climate, humans have also provoked changes in the frequency of extreme heat waves since 1950, and this frequency has doubled since the 1980s[26]. A study on the spatial distribution, duration, intensity and frequency of heat waves in West Africa[27] in the months of April to June shows that the regions with a continental Sudano-Sahelian climate are seeing heat waves that are intense, long (>10 consecutive days) and frequent (from 20% to 30% of days). These phenomena are however less frequent and of shorter duration in the coastal zones.

Temperature projections for the 21st century for Africa suggest that land temperatures, particularly those in dry regions, will increase more rapidly than the global average temperature. Warming trends for West Africa in scenarios SSP2-4.5 and SSP5-8.5[28] are estimated as being 0.24 °C and 0.6 °C per decade respectively. The most probable short- and

[22] https://www.wcrp-climate.org/wgcm-cmip/wgcm-cmip5
[23] Philipp Stanzela, Harald Klinga, Hannes Bauer (2018). Climate change impact on West African rivers under an ensemble of CORDEX climate projections, Climate Services, Volume 11, August 2018, pp. 36-48.
[24] IPCC (2021). Summary for Policymakers. 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 [Masson-Delmotte, V., 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.)]. Cambridge University Press. In Press.
[25] OMM (2020). State of the Climate in Africa, 2019 WMO-No 1253, 34 pp.
[26] *Ibid*.
[27] Rome S., Pohl B., Oueslati B., Moron V., Raymond F., Janicot S., Diedhiou A (2019). Durée et fréquence des vagues de chaleur en Afrique tropicale septentrionale selon 5 indices de chaleur (Duration and frequency of heat waves in northern tropical Africa from five thermal indexes). XXXIIème colloque internationale de l'AIC (32nd international conference of the AIC (Association Internationale de Climatologie), Thessaloniki, Greece, 29 May to 1 June 2019, pp. 259-263
[28] These scenarios, referred to as SSPs (Shared Socio-economic Pathways) reflect various different possible future situations in terms of population, economic and technological development and environmental policies. SSP5-8.5 indicates a "disaster" scenario in which annual GHG emissions triple between now and 2100; SSP2-4.5 and SSP3-7.0 indicate "intermediate" scenarios

long-term warming forecasts (2030-2060 and 2070-2090 respectively) are 1.1-1.8 °C and 1.9-3.3 °C for the SSP2-4.5 scenario and 1.5-2.3 °C and 3.3-5.9 °C for the SSP5-8.5 scenario.

These climate changes and the expected impacts on natural and human systems underscore the urgency of taking immediate and ambitious steps to confront climate risks.

1.3 Situation as regards GHG emissions in the region

The region's GHG emissions represents about 1.8%[29] of global emissions, whereas it is home to 5% of the world's population. Likewise, emissions per inhabitant in 2018 are among the lowest in the world, namely 0.7 metric tons of CO_2 equivalent ($teqCO_2$) per inhabitant in 2017, as against a world average of 4.8 metric tons[30]. However, between 1990 and 2018, GHG emissions of States in the region increased by 43% due to their demographic and economic growth, an increase comparable with the global growth in emissions of 49%[31] in the same period.

Based on 2018 data reported by the Member States (MS) in their revised NDCs[32], net GHG emissions came mainly from the Energy, Agriculture, Forestry and Other Land Use (AFOLU) sectors. The combined emissions from these sectors account for 85% of total regional GHG emissions. The energy sector accounts for 69%, AFOLU for 16%, followed by the waste and industrial processes and product use (IPPU) sectors which each contribute 10% of total regional emissions. Net GHG emissions (in 2018) are diversely distributed among the MS, with a predominance of emissions from Nigeria (63%), Ivory Coast (17%), Ghana (10%), Burkina Faso (13%), Sierra Leone (11%), Guinea (7%), Niger (6%), Togo (4%), Senegal (3%), Benin (3%) and finally Guinea Bissau (2%), Gambia (1%), Liberia (1%) and Cape Verde (0.11%)[33].

These data, coupled with challenges linked to access to and cost of energy, clearly indicate an **opportunity to launch the legitimate long-term development aspirations of the region's countries on a low GHG emissions trajectory in order to stimulate economic transformation and to create employment and wealth in innovative sectors**.

1.4 The West African states in concert with global efforts to combat climate change

The fight against climate change calls urgently and imperatively for national and regional efforts to contribute to the global response initiated with the adoption of the Paris

[29] CCNUCC (2020): Technical Assessment of Climate Finance in West African Community, https://unfccc.int/sites/default/files/resource/J0008_UNFCCC_NBF_TA_Climate_Finance_WA_v11%5B40%5D.pdf.
[30] https://data.worldbank.org/indicator/EN.ATM.CO2E.PC
[31] CAIT data 2018
[32] Data from revised 2021 MS NDCs available in the UNFCCC interim NDC registry: https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx (see Part 3)
[33] For Mali, the net balance of the Forestry and Other Land Use sector is a GHG sequestration balance that allows the country to be a carbon sink: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Mali%20First/MALI%20First%20NDC%20update.pdf.

Agreement on climate, at the 21st Conference of the Parties (COP21) in the United Nations Framework Convention on Climate Change (UNFCCC).

Under the auspices of the UNFCCC, the Paris Climate Agreement was adopted in Paris on 12 December 2015 during COP21, with the aim of intensifying world response to the threat of climate change with effect from 2020. This is a follow-up to the Kyoto Protocol which imposed quantified objectives for the reduction of GHG emissions on industrialised countries only, not on developing countries, for the period 2008 to 2020. Having come into force on 4 November 2016, the Paris Agreement became effective in 2020. All the rules, methods, procedures and guidelines enabling its application have been adopted, with the finalisation of the "Paris Agreement Rule Book" during the Glasgow Conference (COP26, CMP16 and CMA3), which was held from 1 to 12 November 2021.

The main objective of the Paris Agreement is to strengthen the global response to climate change and its impacts by holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C. (Article 2 of the Paris Agreement).
In order to achieve this objective, the Parties to the Agreement must reach global peaking of GHG emissions as soon as possible. As soon as this peaking is reached, rapid reductions must be undertaken so as to achieve carbon neutrality in the second half of this century (Article 4.1 of the Paris Agreement). This carbon neutrality corresponds to equilibrium between the anthropogenic emissions and the absorption of GHGs by carbon sinks (Article 4.1). The Paris Climate Agreement acknowledges that GHG emissions will take longer to peak in developing countries.

The Agreement also fixes a global objective regarding adaptation which consists in strengthening adaptation capabilities to climate change impacts (Article 7). Recognising that climate change impacts represent an immediate threat to human societies, it requires their consequences to be anticipated so as to mitigate or avoid their negative impacts and in exploit the positive effects. The Contracting Parties to the Paris Agreement met in Glasgow to specify the conditions for achieving this adaptation objective in the framework of a work programme entitled "Glasgow-Sharm el-Sheikh" which should be concluded by 2024. In this respect, it is worth recalling that the Paris Agreement recognises the need to take account of the needs of developing countries, in particular those most vulnerable to the effects of climate change, in defining actions for adaptation (Article 7.6).

The Paris Agreement provides for the creation of a transparency framework aimed at providing a clear picture of the actions being implemented and the progress made by the Parties (Article 13). Biennial transparency reports and GHG emissions inventories must be drawn up and submitted by the Parties. This transparency framework is intended to contribute to the accountability of all those involved; it constitutes the main tool for building mutual trust so as to corroborate the effectiveness of international cooperation and ensure that each country meets its commitments in the light of its national circumstances.

The Paris Agreement provides a cooperation framework intended to allow the international community to achieve the mitigation and adaptation objectives collectively set.

This framework is supported in particular by the following three (3) pillars of action:

- *Financing*: the financing flows must be made compatible with the mitigation and adaptation objectives. Furthermore, the developed countries must provide financial resources to the developing countries to help them undertake mitigation and adaptation actions (Article 9.1).
- *Technology transfer*: cooperation for development and transfer of technologies to support mitigation and adaptation actions must be strengthened (Article 10).

- *Capacity building*: cooperation to increase the capacities of developing countries in implementing the Paris Agreement must be accentuated (Article 11).

Finally, the Paris Agreement set in train a dynamic cycle of processes that mutually reinforce one another and the application of which must allow the level of ambition to be gradually raised, both for countries individually and for the international community as a whole. The objective is therefore to create a process of continuous improvement which allows the collectively set targets of mitigation and adaptation to be achieved.

More precisely this cycle is based on the following elements:

- Regular communication (every five (5) years) of the "Nationally Determined Contributions" (NDC) whereby the countries make commitments and communicate ambitious efforts for participating in the global response to climate change (Article 3).
- The communication of "biennial reports" within the context of transparency, permitting the tracking of emission trends and of the countries' performance in implementing the Paris Agreement.
- The performance of a "global stocktake": this collective stocktake allows the aggregated assessment, every five years, of collective progress made and highlights the efforts that remain to be made in terms of mitigation, adaptation and implementation means (financing, technology transfer and strengthening of capacity) – at the global level (Article 14). The outcome of this "global stocktake" must inform the Parties in updating and enhancing the next NDCs and the means of implementation, always with an eye to raising ambition.

This is the "**cycle of ambition**" of the Paris Agreement.

The ECOWAS Member States all submitted their NDCs in the context of the first cycle of ambition of the Paris Agreement and updated them in 2021. Regarding **mitigation**, five (5) sectors are considered by ECOWAS countries as priority: agriculture, forestry and other land uses (AFOLU); energy; transport and mobility; industrial processes and product uses (IPPU); and waste. However, the nature of commitments and the expression of objectives vary widely from country to country. Furthermore, most Member States have presented conditional emission reduction objectives, subject to the raising of international climate finance. Table 1 on the next page summarises the sectors prioritised in the Member States' NDCs (2021) for mitigation.

Table1. Sectors prioritised in the NDCs (2021) of Member States for mitigation[34]

Countries	Objectives			Sectoral reduction potential								
	Unconditional	Conditional	Global	Electricity production	Biomass	Tertiary	Residential	Industry	Transport	Agriculture	Forests and other land uses	Waste
Benin	√	√		√		√	√		√	√	√	√
Burkina Faso	√	√		√	√	√	√		√	√	√	√
Cape Verde	√	√		√		√	√		√		√	
Ivory Coast	√	√		√		√	√	√	√	√		√
Gambia	√	√		√	√	√	√	√	√	√	√	√
Ghana	√	√		√		√	√	√	√		√ Forestry	√
Guinea	√	√		√				√	√		√	√
Guinea-Bissau	√	√		√		√	√			√	√	√
Liberia	√	√		√			√	√	√	√	√ Forestry	√
Mali			√	√			√	√	√	√	√ Forestry	√
Niger				√		√	√		√	√	√	
Nigeria	√	√		√		√	√	√	√	√	√	√
Senegal	√	√		√	√	√	√	√	√	√	√ Forestry	√
Sierra Leone	√	√		√		√	√	√	√	√	√	√
Togo	√	√		√			√	√	√	√	√	√

Objective non specified

Identified mitigation actions but reduction potential not defined

[34] *Based on the NDCs of ECOWAS Member States*

With regard to **adaptation**, the priority needs identified in the NDCs are either aligned with the national adaptation plans (NAPs) or come from the latest national communications and the relevant national policy documents. All the Member States identified priority sectors for intervention summarised in the Table below.

Table 2. Sectors prioritised in the NDCs (2021) of Member States for adaptation[35]

Countries	Agriculture & Livestock	Ocean, Fisheries & Coastal Zones	Water & Sanitation	Forestry	Health	Housing, Infrastructure & Construction	Biodiversity and Environment	Energy	Transport	Spatial Planning	Risk Management	Tourism & Trade	Waste
Benin	■	■	■	■	■							■	
Burkina Faso	■					■	■		■				
Cape Verde	■	■	■		■					■	■		
Ivory Coast	■	■	■	■	■								
Gambia	■	■		■		■						■	
Ghana	■			■		■					■		
Guinea Bissau	■	■	■					■					
Liberia	■	■		■	■			■	■				■
Mali	■		■	■			■	■	■	■			
Mauritania	■	■	■		■	■	■			■			
Niger	■			■		■		■	■				
Nigeria	■	■	■				■	■				■	
Guinea	■	■	■	■									
Senegal	■	■	■		■		■				■		
Sierra Leone	■					■	■						
Tchad	■	■	■	■	■	■	■	■		■	■	■	
Togo	■	■	■	■	■			■					
TOTAL	17	12	11	10	8	7	7	7	4	4	4	4	1

1.5 Grounds for regional intervention for climate action

Regional coordination of the response to climate change is essential, especially in the area of adaptation, in view of the strong similarities, the extent of the shared ecosystems and the risks inherent in the sharp contrasts observed in the ECOWAS region. Moreover, the contribution of institutions dedicated to economic integration and to the emergence of a strong regional market offers opportunities to promote an economy with low GHG emissions, which would help in diverting countries away from development paths that are not compatible with their own climate change priorities.

[35] ECOWAS, GCCA+West Africa, 2021, Comparison of evaluation methodologies for costs of implementing adaptation actions planned in the NDCs of ECOWAS and CILSS countries, Stories of NDCs in West Africa, Article No. 3, provisional version.

1.5.1 The revised treaty of ECOWAS

ECOWAS is a regional economic integration organisation which, under the terms of the Treaty revised in 1993, has set itself the goal of achieving regional integration among the countries of West Africa, as a priority on the economic front, but also in all areas of social life, in order to achieve sustainable development for the well-being of the populations of its Member States. To this end, Article 3.1 of the revised Treaty, devoted to the goals and objectives of the Organisation, provides that "*the aims of the Community are to promote co-operation and integration, leading to the establishment of an economic union in West Africa in order to raise the living standards of its peoples, and to maintain and enhance economic stability, foster relations among Member States and contribute to the progress and development of the African Continent.*"

The establishment of a common market is a fundamental objective in achieving these goals. The Community can act in particular within this framework by harmonising and coordinating policies for the protection of the environment, as well as by promoting programmes, projects and activities, particularly in areas such as agriculture and natural resources, industry, transport and communications, energy, technologies and tourism, all of them being sectors that are both greenhouse gas emitters and vulnerable to the negative impacts of climate change.

1.5.2 From the ECOWEP to the Regional Climate Strategy: a gradual participatory process

The ECOWAS environmental policy (ECOWEP) has been adopted by the Heads of State in December 2008 with the global objectives of reversing the far-reaching tendencies of degradation and reduction of natural resources, life environments, in order to ensure the establishment in the region of a healthy environment that is easy to live in and productive, thus improving the living conditions of the populations of the regional areas. Although the climate change issue is not specifically addressed in that policy, it is slightly covered in the first strategic axis on environmental governance and capacity building through the implementation of conventions. Furthermore, following the first regional dialogue on climate change in October 2008 in Cotonou (Benin), ECOWAS has developed and adopted in 2010 a strategic programme on reducing vulnerability and adapting to climate change. The goal of the programme was that "*by 2030, all West African countries have the human, technical and financial resources to protect their human and natural systems from the adverse effects of climate change.*" Subsequently, the ECOWAS Commission adopted several policies and strategies incorporating the fight against climate change: Renewable energy policy (2015), Intervention framework for climate-smart agriculture in the Sahel and West Africa (2015), Strategic framework for the 2025 horizon of the ECOWAS Agricultural Policy (2017), ECOWAS Strategy and Action Plan for Gender-Based Disaster Risk Reduction (2020), etc. Prior to COP21 in 2015,

ECOWAS, CILSS and UEMOA (Union Économique et Monétaire Ouest Africaine / West African Economic and Monetary Union) also announced strong shared political ambitions, and the Environment Ministers of the ECOWAS, UEMOA and CILSS Member States jointly urged the developed countries "*to meet their commitments under the Convention, [UNFCCC] particularly in terms of support in order to ensure full and complete implementation of the Intended Nationally Determined Contributions (INDCs) submitted by the countries of the region*."[36]

The ECOWAS Member States reiterated the importance of a collective and concerted action to support the effective implementation of the Nationally Determined Contributions (NDC) and of the Paris Agreement in the course of a regional strategic brainstorming session on climate action organised by ECOWAS in September 2019 in Lomé, Togo, attended by eighty (80) participants representing the 15 ECOWAS Member States, continental and regional bodies[37], the technical and financial partners and civil society and the private sector. Following this workshop, the participants, through a final communiqué, asked the ECOWAS Commission to develop its first Regional Climate Strategy (RCS) around six (6) strategic axis: i) Making climate commitments robust and realistic, ii) Encouraging a paradigm shift within the region, iii) Promoting the creation of an enabling environment for climate investments, iv) Supporting the satisfaction of the needs expressed by the most vulnerable in the face of the impacts of climate change, v) Acting together in a coordinated manner et vi) Mobilising additional and innovative funding for transnational initiatives.

It was in this rich historical context that in 2020 the ECOWAS Commission launched the development of a Regional Climate Strategy (RCS) in order to consolidate and harmonise a framework of action for the fight against climate change in the ECOWAS region, taking into account both the adaptation and mitigation dimensions and in alignment with the Paris Agreement and the SDGs. To this end, the Commission set up an ad-hoc interdepartmental steering committee for the RCS development process, bringing together all the Commission's directorates. This committee met five (5) times during the process, from April 2020 to April 2021, and co-constructed the major milestones of the RCS. The Commission's sectoral and transversal directorates developed and validated the expected results and actions related to their respective sectors, since the overall approach of the RCS is to be operationalised through the integration of climate issues in the implementation of existing and future regional policies.

[36] Niamey Declaration of 28 April 2015 by the Environment Ministers of ECOWAS and CILSS

[37] African Union (AU), AfDB, UEMOA, CILSS, WASCAL, ECOWAS Bank for Investment and Development (EBID), WADB, CORAF/WECARD, Climate Commission for the Shel Region (CCRS), African Centre of Meteorological Applications for Development (ACMAD), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), ROPPA, The Rural Hub, French Agency for Development (AFD), USAID, World Bank, International Union for Conservation of Nature (IUCN), GCF, EU, Expertise France

A mid-term consultation with regional stakeholders took place in July 2021, bringing together Member States, civil society organisations and technical and financial partners, and allowing for a consultation on the vision, the objectives of the strategy, and the sectoral coverage and orientations. Following the last interdepartmental ad-hoc steering committee within the Commission, the content having been approved by the Commission early April 2022, it was submitted for consultation to the technical segment of regional experts before its validation by the Specialized Technical Committee of Ministers (STMC) in charge of the Environment the 29th of April 2022.

Following COP26 in Glasgow, in the 60th ordinary session of the Conference of ECOWAS Heads of State and Government held on 12 December 2021 in Abuja, a declaration was adopted, instructing the ECOWAS Commission to "*accelerate and finalise the implementation of the regional climate strategy, in collaboration with the specialist regional institutions and the Member States*." This strategy is expressed through a sectoral action plan for 2022-2030, supported by implementation mechanisms and means and a monitoring-evaluation framework. It is the legal basis for regional climate action.

1.5.3 Principles of the regional climate action

ECOWAS' climate action is fully embedded in the organisation's founding treaties. Although it is not a Contracting Party to the Paris Agreement, its action at the regional level is to support and supplement that of its Member States, which are committed by the Paris Agreement to participate in the global response to fight climate change.

This climate action is carried out in compliance with its powers and the fundamental principles provided in the revised Treaty and in particular the principles of solidarity and inter-state cooperation, policy harmonisation and programme integration, promotion and strengthening of good relations with neighbours and fair and equitable sharing of the costs and benefits of cooperation and economic integration.

In accordance with Article 18 of Additional Protocol A/SP.1/06/06 of 14 June 2006 amending the revised ECOWAS Treaty, the Commission intends to exercise its power of initiative with this regional strategy aimed at promoting regional cooperation to fight against the immense and urgent challenge posed by climate change.

On the basis of primary law and with secondary law instruments, ECOWAS has the powers to make its climate action effective. This effectiveness of the Community's climate action is reinforced by the commitment made by each Member State to create enabling conditions in order to achieve the Community's objectives, as well as by their adherence to the principle of

recognition and respect for the rules and principles of the Community's legal framework (Article 4 (i) of the aforementioned 2006 Protocol).

The legal basis for ECOWAS climate action is specified in Chapters IV (cooperation in the field of agriculture), V (cooperation in the fields of energy, science and technology), VI (cooperation for the protection of the environment and natural resources, including combating deforestation or forest deterioration and desertification), VII (cooperation in the field of transport) and XI (cooperation in the fields of human resources, information, social and cultural affairs, and in particular the integration of gender equality in article 63). Therefore, in accordance with the sectoral anchoring of the revised Treaty, the Regional Climate Strategy has a sectoral structure allowing shared responsibility between the various Commission directorates, and allowing an operational and effective implementation.

2. STRENGTHS AND WEAKNESSES OF REGIONAL INTEGRATION FOR THE ACCELERATION OF CLIMATE ACTION

2.1 Regional sectoral policies and programmes relating to climate action

The mitigation and adaptation objectives as well as the implementation measures provided in this strategy relate to the ECOWAS intervention sectors, and follow an approach of strengthening of existing sectoral policies and programmes already initiated by the Community, in order to (i) further integrate concerns related to climate change, (ii) contribute to the problem solving of common or cross-border issues, (iii) raise their level of ambition and/or improve the conditions for their implementation, including in terms of financing.

2.1.1 Agriculture, livestock, fisheries and aquaculture

All the Member States have included the agricultural sector among the priority sectors of their NDCs and planned actions to adapt to the impacts of climate change.

The regional agricultural policy (ECOWAP) adopted in 2005 by the Conference of Heads of States has provided the region with a policy framework to guide and support the desired transformations of the agricultural, forestry, livestock farming and fisheries sector of the Member States, transposing at the West African level the broad continental guidelines adopted by the African Union (AU) in the framework of New Partnership for Africa's Development (NEPAD) and the Maputo declaration. Revised in 2015 through the Strategic Framework (SF) which sets out the guidelines for the period 2016-2025 and integrates the changes of the continental framework as set out in the new Malabo declaration, the ECOWAP strategic framework evolved in favour of further cross-cutting integration of climate change and gender. This evolution is particularly visible in two of the four specific objectives of the SF (SO1 and SO3) concerning the adaptation to climate change of production systems and techniques and the resilience of vulnerable populations in the face of chronic food insecurity.

To achieve these results, two major initiatives have been put in place in the region: on the one hand the West African Climate-Smart Agriculture Alliance (WACSAA), of which the promotion of agro-ecology is a major component; in particular operationalised through the Agro-ecology Programme in West Africa[38] implemented within the framework of ECOWAP by ECOWAS to promote the implementation of innovative agro-ecological projects within the region. On the

[38] https://www.araa.org/fr/programme/programme-agro-%C3%A9cologique-au-sahel-et-en-afrique-de-l%E2%80%99ouest#:~:text=Il%20vise%20%C3%A0%20stimuler%20le,nutritionnelle%20dans%20la%20zone%20CEDEAO

other hand, the regional storage system (strategy adopted in 2012) with the Regional Food Security Reserve (RFSR) as its cornerstone, which went into operation in 2015. In 2021, the RFSR came to the end of its first implementation phase on which the Commission was able to capitalise to draw lessons and identify perspectives. Among these, urgent and transversal consideration of the impacts of climate change in the regional storage system appears to be a necessity.

In addition, several strategies are currently being implemented within the framework of ECOWAP and can be linked to the actions of the current Regional Climate Strategy:

- The regional offensive for the sustainable and supported revival of rice farming in West Africa (2014);
- The regional offensive for the promotion of local milk value chains in West Africa (2020);
- The strategy to support the employability of young people in the agro-sylvo-pastoral and fisheries sector in the ECOWAS region (2019).

Finally, since 2019 the region has had a comprehensive strategic framework for the development of sustainable fisheries and aquaculture in West Africa (CSDD PAD), which includes an expected result (ER6.1) dedicated to building resilience and reducing vulnerability to climate change in West African fisheries and aquaculture.

Thus, the agricultural sector benefits from an operational regional policy on adaptation to the impacts of climate change that has proved its worth over its first decade of implementation and has been consolidated by a certain number of achievements, particularly in terms of institutional arrangements, mobilisation of funding and a system for monitoring and evaluation of implementation. In addition, the agricultural, forestry and livestock farming sector, which is particularly strategic in terms of gender-related issues, has for several years now been making considerable efforts to integrate these considerations, in particular by taking account of the greater vulnerability of women and young people to crises, shocks and climate change.

To complement the region's institutional action in this area, the World Bank (WB) approved in November 2021 the implementation of the Food Systems Resilience Program (FSRP) in West Africa for the period 2021-2026 for an amount of US$570 million with the objective of improving the resilience of food systems, promoting intra-regional value chains and strengthening regional capacities for agricultural risk management.[39]

On the other hand, while around 30% of the region’s total GHG emissions are due to the agricultural sector, mainly livestock farming and savannah burning, most Member States have

[39] https://projects.worldbank.org/en/projects-operations/project-detail/P172769

not included growth limitation targets for GHG emissions from this sector in their NDCs. Although the relative share of this sector in regional emissions is expected to fall in the coming decades, emissions from the sector are expected to continue to increase sharply due to population growth and increasing demand for meat and dairy products as people seek to diversify their diets. Research is still insufficient to determine in a consensual manner the carbon impacts of the various kinds of herding practices in the various agro-ecological zones of West Africa or to establish standards for estimating GHG emissions from livestock adapted to the West-African context. However, initiatives are being implemented at the regional level, such as the CaSSECS project[40] (2020-2023) implemented through a consortium of 18 partners (North and South) including the CILSS, financed by the EU in the framework of the DeSIRA[41], which aims at improving the evaluation of the carbon footprint of Sahelian (agro) sylvo-pastoral ecosystems in order to better quantify their impacts on climate change with a view to drawing up livestock policies suitable for the Sahel.

Contrary to several international studies showing a high carbon intensity of pastoral systems taking into account their low productivity, recent works show on the contrary that roaming herding systems are part of the balancing of ecosystems, including in terms of the carbon balance sheet at the landscape scale. Thus, mobility enables livestock farmers to manage resources in a rational manner, while avoiding over-cultivation and thereby environmental deterioration. Transhumance allows pastures to be occupied for a limited time, ensuring their regeneration, diversification of species, cleansing, reduction of fire risks and therefore soil fertility. A substantial research effort is therefore necessary in order to better characterise the impact of GHGs from West African livestock systems and to establish more viable sources of reference, particularly for national inventories of GHG emissions.

Similarly, although the ECOWAP has the general objective of contributing sustainably to meeting the food and nutritional needs of the population, to economic and social development and to the reduction of poverty in the Member States and of inequalities between regions, zones and countries, the mitigation of GHG emissions from the sector is not referred to explicitly enough. However, ECOWAS is encouraging consideration of this matter through the adoption of intelligent and resilient systems allowing mitigation benefits to be obtained and forming part of global sustainable development strategies. In addition to the many agro-ecological projects supported and implemented by ECOWAS, regional institutions are involved in several initiatives promoting the documentation and deployment of climate-compatible agricultural practices, including in particular:

[40] CaSSECS: Carbon Sequestration and greenhouse gas emissions in (agro) Sylvopastoral Ecosystems in the sahelian CILSS States.
[41] DeSIRA : Development Smart Innovation through Research in Agriculture

- the West African Initiative for Climate-Smart Agriculture (WAICSA) which aims to provide financial and technical support to smallholder farmers' organisations and agribusinesses for them to adopt smart farming practices in the face of climate change. This initiative could avoid 2 million tCO_2 of emissions per year. Although this is a very limited share of the sector's GHG emissions, the initiative is intended to fund practices that can be replicated on a large scale in the region.
- ECOWAS' participation in the "4 per 1,000" initiative shows that an increase, however small, in the amount of carbon sequestered in agricultural soils (including meadows and pastures) and forests is a major lever for improving soil fertility and agricultural production. Several encouraging results allow us to envisage a greater contribution of the agricultural sector to carbon sequestration, while at the same time guaranteeing a high level of productivity. In this respect, ECOWAS, within the context of its contribution to the 4p1000 initiative and based on its long experience of past regional projects on land management, is planning to tackle the major challenge of agricultural land deterioration, and to establish an ambitious regional programme of land restoration. Beyond the objective of capitalizing the past experiences of the CILSS and other regional actors, the goal is also to contribute to of the enrichment of the technical and political debate on that matter that is ongoing within West Africa, and to strengthen local, national and regional institutions that are involved in the implementation of the ECOWAP. This programme must serve as a reference framework for the implementation of regional program-related tackling the matter of conservation and restoration of soil fertility.

2.1.2 Energy

All ECOWAS' Member States have made commitments, both unconditional and conditional, relating to controlling the growth of GHG emissions from the energy sector: energy efficiency measures in the residential building or transport sub sectors, substitution of fossil fuels and massive development of renewable energies. These commitments represent the greater part of the estimated costs of the implementation of the NDCs with regards to mitigation. Furthermore, certain Member States explore the potential of alternative energy sources like hydrogen, creating centres of expertise in the region. We note in this respect the partnership between the German Corporation and WASCAL, aiming at exploring relevant measures for developing the green hydrogen sector at the regional scale.

Following its fundamental principles, ECOWAS has been involved in energy efficiency policies and the deployment of renewable energies for several decades.

ECOWAS's energy policy has been adopted in 1982 with detailed orientations on the efficient and rational use of the natural resources of the region in order to meet the challenges of lack of energy, and on the necessity to explore more promising and more viable renewable and new resources. As a result, ECOWAS approved the Renewable Energy Policy (EREP), which aims in particular at increasing the share of renewable energies in the region's overall electricity mix to 48% by 2030 (including large central hydroelectric plants) as opposed to 32% in 2013, as well as the share of the rural population served by decentralised renewable electricity to 25% by 2030 (basic situation not being known for 2013). The EREP also provides goals for total penetration of improved cookers in households by 2030, as well as the substitution of biomass energy by alternative fuels at a rate of 41% by 2030.

More specifically, ECOWAS adopted in 2018, the Regional Strategy for the Popularisation of Liquefied Petroleum Gas (LPG) as Domestic Cooking Energy which aims to make LPG the preferred cooking energy for households by reaching a penetration rate of 45% by 2030 against 12% in 2017. The ECOWAS Energy Efficiency Policy (EEEP) aims to improve energy efficiency in the region to international standards, including in buildings. Finally, the ECOWAS Gender Policy on Energy Access (2016-2030) completes the framework for the accelerated deployment of modern and sustainable energy services that improve the region's living standards and productivity.

Still with a view to promoting energy sources that emit less than fuel oil and coal, in 1999 ECOWAS initiated the West African pipeline project in order to strengthen energetic security and to promote the production of electricity from natural gas. This project went into operation in 2011 and enables the transporting of natural gas from Nigeria to supply the thermal power stations in Benin, Niger and Ghana. In 2020, this gas pipeline enabled an average of 157 MMBtu/day or about 780 MW to be transported. In order to promote this less emissive fuel than fuel oil and coal in the region, the Heads of States have instructed the Commission to work on the extension of this gas pipeline to other Member States of the Region. The feasibility study for this project was completed in 2018 and the detailed studies for phase 1 (extension to Cote d'Ivoire and Burkina Faso) are under way.

Significant efforts are still needed, however, to speed up the implementation of the objectives of these policies by leveraging massive additional resources and by supporting Member States in transposing the standards into their national legal frameworks. Acceleration is also necessary to strengthen the system of monitoring and evaluating these objectives at the level of the Member States, in particular on energy efficiency, in order to better control the harmonisation of regional standards. AGoSEREE-AO ("Improving the Governance of the RE & EE Sector in West Africa"), financed by the EU is contributing in particular to this effort.

In addition, the transmission of electricity across the region provides significant savings and better use of renewable resources by reducing the use of thermal power stations. It also provides an opportunity for reducing vulnerabilities to climate change by sharing production. In this way the region has created (by means of decisions taken in 1999 and 2006) the West African Power Pool (WAPP), whose mission is to develop means of production and transmission of electricity among Member States. The economic advantages of such a market for the whole region have been assessed at as much as US$665 million per year, with the average cost of production of electricity being reduced by between a quarter and a third. ECOWAS has adopted a master plan in the context of the regional production and transmission of electricity, the latest updated version of which, covering the period 2019 to 2033, was adopted by the 54th Session of ECOWAS Heads of States and Governments in December 2018 by means of Additional Deed A / SA.4 /12/18 with an investment need of US$36.39 billion for 75 regional production and transmission projects (28 transmission projects and 47 production projects with 68.9% of the projects being for renewable energy). By 2033, the electricity mix is expected to be 52% renewable energies (including 37% solar), 42% thermal power stations fired by natural gas and 6% by other fossil sources (DDO, fuel oil, HFO and coal). The construction and operation of these new low-carbon (hydro and renewable energy) and less polluting (gas-fired) power stations would make a major contribution to achieving the NDCs of the Member States with respect to limiting the growth of GHG emissions. This initiative is the result of political impetus from ECOWAS, articulated with public-private agreements, cooperation between power companies in the region, all supported by international capital and expertise.

In parallel, in June 2021 ECOWAS adopted its master plan for the development of regional infrastructure (2020-2045). This master plan includes 201 projects, of which 145 are investment projects and 56 are support projects (technical studies, preparatory activities, capacity expansion), at a cost of US$122 billion over a 25-year (2020-2045) period and includes all the projects of the ECOWAS Master Plan for the Development of Regional Power Generation and Transmission Infrastructure 2019-2033.

From the point of view of the sector's resilience to the impacts of climate changes, few Member States are taking this into account in their NDCs.

Likewise, although the West Africa Water Resources Policy (WAWRP) of 2008 provides for meeting water needs for energy and promoting hydro-electric power while considering environmental and social risks, it does not take into account the impacts of climate change on resources and therefore on the potential for electricity production[42]. This finding is repeated in the directive on the development of hydraulic infrastructures in West Africa adopted in June

[42] https://iea.blob.core.windows.net/assets/62c056f7-deed-4e3a-9a1f-a3ca8cc83813/Climate_Resilience.pdf

2017: despite the major advances that it includes to make sure that ecological, economic and social considerations are taken more into account in the implementation of cross-border water infrastructure projects in the region, the assessment of the impacts of climate change on these infrastructures and the cross-border resources on which they are based is not mentioned.

2.1.3 Transport and mobility

Furthermore all of ECOWAS Member States have not yet systematically integrated the transport sector into their NDCs, particularly in the adaptation component. At the regional level, ECOWAS's master plan for the development of regional infrastructure (2020-2045), which covers transport, develops an environmental perspective up until 2045, integrating the level of CO_2 emissions forecast in the infrastructure to be developed. It is however necessary to include an evaluation of the resilience of the infrastructure to the impacts of climate change. Environmental impact studies are systematically carried out but the sizing of the infrastructures does not systematically take into account the climate scenarios, thus threatening the viability of the structures over their lifespan. Some pilot initiatives to review regional projects of the master plan in the light of the impacts of climate change, financed by the AfDB in 2017/2018, have so far not been implemented across the board, despite a strong consensus within institutions about the extreme vulnerability of the sector.

In terms of mitigation, regional institutions are demonstrating their keen interest in the decarbonisation of the sector, mentioning, in particular, 13 rail transport projects in the ECOWAS master plan for the development of regional infrastructure from now up to 2040/2045 with a total of 21,620 km of new or renovated lines, compared with just 16,660 km of new motorway corridors. Furthermore, the recent adoption of Directive C/DIR.2/9/2020 and the regional roadmap for fuel savings demonstrates the driving role of ECOWAS in leveraging in favour of better energy efficiency in the sector and air quality improvement. The approved road map requires the establishment of a harmonised regional framework for vehicle data and labelling. At the same time, Member States are required to introduce tax incentives to promote cleaner vehicles, including electrical mobility. Finally, a green freight strategy on the corridors in West Africa has been developed in 2021 based on the study of the Abidjan-Lagos corridor with the support of the United Nations Environment Programme (UNEP). This should enable improvement of the road traffic flow and considerably reduce emissions of short lived pollutants and GHGs.

2.1.4 Milieux, natural ecosystems and biodiversity

While ECOWAS Member States all targeted Agriculture, Forestry and Other Land Use (AFOLU) as a priority sector for mitigation in their NDCs, the vast majority of them made their

commitments to reduce emissions in this area conditional on obtaining international financial support. Furthermore, although they hope to obtain additional financing thanks to the mechanisms of the UNFCCC (REDD+, Green Climate Fund (GCF), etc.), many of them are having difficulty collecting and managing data allowing them to precisely assess the impact of changes in land use on forest cover and the carbon cycle (forest inventory, system for monitoring the dynamics of forest ecosystems, biomass and carbon assessment, etc.) and to determine the mitigation potential of the measures envisaged to reduce emissions from this sector.

The forest is a decisive adjustment variable in the region, for both mitigation and adaptation. ECOWAS wants to support the efforts of its Member States by putting policies and measures in place at regional level aimed at maintaining or increasing their carbon sinks in the terrestrial biomass while preserving biodiversity and the production of ecosystem services essential for communities.

The Convergence Plan for the Sustainable Conservation and Management of Forest Ecosystems in West Africa, or the Forest Convergence Plan (FCP) for short, is also helping build resilience to climate change in the forestry and natural resource conservation sectors through the preservation and protection of national forests, protected areas and parks. By means of this plan, several adaptation and mitigation measures and initiatives are being conducted in Member States and at the regional level: this is the case in particular of the West Africa Biodiversity and Climate Change (WA-BiCC) programme financed by USAID, the Global Transformation of Forests for People and Climate project financed by the Swedish International Development Cooperation Agency and implemented by the Food and Agriculture Organization (FAO) and the Support Programme for the Preservation of Biodiversity and Fragile Ecosystems, Environmental Governance and Climate Change in West Africa (PAPBio) financed by the EU. This plan also has strong synergies with other priority sectors such as agriculture, in particular through agro-forestry promotion actions. The implementation of the revised FCP will need to place greater emphasis on conservation strategies, law enforcement, the strengthening of the governance system and the establishment of incentives to induce a change in behaviour.

Tourism and the natural heritage

The tourist industry looks set to develop in West Africa in the coming years. Certain kinds of growth in tourism can prove destructive of ecosystems and jeopardise countries' ability to adapt to climate change. Ecotourism on the other hand aims to preserve the spaces that are most under threat by structuring a type of tourism that is respectful of the environment and valorising regional natural resources. By favouring an economic dynamic that benefits the local

communities living in these remarkable natural zones (for example protected areas), ecotourism can lead to the development of a sense of responsibility on the par of local populations and at the same time generate revenue for them while ensuring the protection of these natural spaces.

It is in this way that ECOWAS' Regional Tourism Policy, associated with the ECOTOUR action plan 19-29 (November 2018), identifies as its first two (2) pathways:

1. the protection of tourism heritage in order to preserve tourism resources based on nature,
2. the valorisation of the tourism heritage in order to propose a diversified, authentic, quality tourism offer that will last over time.

These two pathways aim at the protection and valorisation of the regions heritage, in particular its natural heritage. This heritage is of course itself heavily affected by climate change, and requires protection not just for the resilience of the local populations but also for its sustainable valorisation by developing responsible tourism.

2.1.5 Water resources

At the end of the Conference of West African Ministers in charge of water on integrated water resources management (IWRM) held in March 1998 in Ouagadougou, a declaration considered as ECOWAS' commitment to implementing IWRM in the region was adopted. In line with this, the West African water resources policy (WAWRP, 2008), has as a general objective the contribution to poverty reduction and to long-term sustainable development by orienting the Community and its Member States towards a water resources management that seeks to reconcile economic development, social equality and environmental conservation. The principles that guided the elaboration of the policy mentioned that the policy must allow the impacts of climate change and climate variability to be anticipated. The WAWRP is a common policy pursued by ECOWAS, UEMOA and CILSS under their joint responsibility. This policy was broken down into an implementation plan (PAMO-WAWRP) in 2012 covering the period 2013-2016 and Regional Action Plans for Integrated Water Resource Management (RAP/IWRM) which have now expired (2015-1017). It is for this reason that UEMOA drew up an IWRM action plan in 2019[43], covering the period 2019-2030 and contributing to the implementation of the WAWRP. This plan has three (3) main components: 1. Governance framework; 2. Catalyst initiatives for practical implementation of IWRM and 3. Information to and awareness raising of actors, strengthening of abilities, integration of climate change in particular into components 2 and 3[44].

[43] UEMOA, 2019, Study on the IWRM implementation status in UEMOA Member States, accompanied by an Action Plan.
[44] Ibid.

The Water Resources Management Centre (WRMC)[45] is the executive and permanent body of the Permanent Coordination and Monitoring Framework for IWRM in West Africa (CPCS) established in 2001 by ECOWAS, and has for principal mission to harmonise IWRM policies in all ECOWAS countries. The WRMC carried out in 2020 an evaluation of its first strategic plan (2007-2015) and developed an action plan[46] for the period 2020-2030 validated by the technical committee of experts in 2020, and currently in in the process of being finalised with a view to their being submitted to the ECOWAS bodies. The latter considers climate change as a major challenge for water resources management in West Africa and includes a specific strategic objective in its Axis 2 "Ensure water security in West Africa". This strategic objective (SO 2.5), entitled "Strengthening resilience to climate change", aims at strengthening and developing the resilience of populations to climatic and environmental risks (floods, droughts, pollution, ecosystem degradation, silting, etc.).[47]

Moreover, the WRMC also has a strategic plan for reinforcing actors' capabilities in the period 2020-2030[48]. The climate dimension is very weakly taken into account in this strategic plan[49] although capacity building is a strategic objective of the new WRMC action plan and taking into account climate change is an essential element for the future implementation of IWRM.

Besides, a Regional Water Observatory (RWO) was put in place in 2015 under the guidance of the ECOWAS WRMC. This Observatory is essentially a regional window drawing on the different information systems existing in the region, particularly national systems (SNIeau) and the systems of other regional organisations (cross-border basins, etc.). It is therefore an information system which aims at combining, analysing and valorising the existing data for purposes of communication or as an aid to decision-making at the regional level. One of the major results of the Observatory is the development and implementation of the water and sanitation sector monitoring and reporting system (WASSMO - covering the 15 Member states of ECOWAS) which enabled, among other things, the development of a set of IWRM indicators for countries and basin operators, as well as the setting up of an online portal.

[45] The Water Resources Coordination Centre (WRCC) evolved in the Water Resources Management Centre in 2018

[46] The new action plan (2020-2030) has 5 strategic axis : 1. Improvement of governance of water resources and cooperation in respect of cross-border waters; 2. Ensuring water security in West Africa; 3. Improving environmental integrity; 4. Reinforcing consideration of gender equality and empowering women and young persons; 5. Reinforcing the capabilities of the WRMC in terms of coordination and management

[47] WRMC 2019, strategic plan draft for 2020-2030of the ECOWAS Water Resources Management

[48] The strategic plan on actors capacity building present 5 strategic axis : 1. Basic training in institutions specialising in the subject; 2. Post-university training; 3. Research & Development of WRM management instruments; 4. Continuous remote training by bodies specialising in IWRM; 5. Information and awareness-raising campaign for actors and civil society; 6. Institutional supports in the area of IWRM.

[49] WRMC, 2017, Study on the update of the document "IWRM capacity building strategy in West Africa" and the development of an action plan for capacity building of actors in the field of IWRM in West Africa, Interim Report, 84p (document being finalised for submission to ECOWAS authorities).

2.1.6 Coastal zones

Faced as it is with multiple problems of long standing (in particular coastal erosion, degradation of marine and coastal ecosystems and soil salinisation) the West African coastal zone has been given particular attention by governments of the region since 1997. The conference of UEMOA Environment Ministers launched the Regional Programme to Fight against Coastal Erosion (PRLEC) in 2007. In the context of PRLEC, UEMOA entrusted the execution of the West African Coastal Master Plan (SDLAO)[50] to the International Union for Conservation of Nature (IUCN). Validated in 2011 by the eleven (11) Ministers in Charge of the Environment of countries from Mauritania to Benin, this reference work throws light on how the characteristics of the coast have evolved and the probable amplification of the trends observed and puts forward recommendations applicable to different territorial scales. The SDLAO is the framework reference document for the West African coastal zone.

By decision of UEMOA, the SDLAO gave rise to the creation in 2013 of the West African Coastal Observation Mission (MOLOA) comprising eleven (11) stations in as many countries for the observation of the evolution of coastal risks and with regional coordination entrusted to the Centre de Suivi Écologique (CSE) of Dakar (the Senegalese environmental monitoring centre). In 2016, MOLOA carried out an updating of the SDLAO, in order to present the evolution of the state of the West African shoreline since 2011, update the evolution of sensitive zones and update the databases.

Since 2015, UEMOA and the Member States have been looking at different ways of ensuring the continuity of PRLEC, with different technical and financial partners (World Bank, AFD, FFEM (French Fund for Global Environment)). This process has given rise to the creation of the West African Coastal Areas (WACA) programme designed to finance various key actions to strengthen States' capabilities as regards the management of coastal risks.

In the context of the WACA programme, the SDLAO was again updated in 2020. Apart from this, MOLOA is currently in the process of evolving towards the implementation of the West African Regional Coastal Observatory (ORLOA) which should be operational in 2023 and establish an early warning system for coastal risks[51]. This observatory will have as its objective "to observe in order to understand better, to understand better in order to decide better" and will cover twelve (12) countries (Benin, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, São Tomé and Principe, Senegal, Sierra Leone and Togo)[52].

[50] Etude de Suivi du Traite de Côte et Schéma Directeur du Littoral d'Afrique de l'Ouest (Regional Study for Shoreline Monitoring and Drawing up a Development Scheme for the West African Coastal Area), UEMOA – IUCN, 2011
[51] UEMOA, MOLOA, 2021, Assessment 2020, West Africa Coastal Areas, General Document, 234 pp.
[52] UEMOA, MOLOA, 2021, Assessment 2020, West Africa Coastal Areas, General Document, 234 pp.

At the level of ECOWAS, the commission drew up its Environmental Policy in 2008[53], with the aim of righting the degraded state of natural resources, improving the quality of milieux and living environment, conserving biodiversity with a view to ensuring a healthy, productive environment and improving the balance of ecosystems and the wellbeing of the populations. There was no dedicated policy for the coastal zones. This was integrated into the environmental policy and more specifically its environmental action plan (2010-2016). At the level of SO2 there is "sustainable management of resources to improve the regional economy while respecting the environment is promoted", an activity linked to climate change and the coastal zone that consists in "drawing up and implementing a regional project to demonstrate the resilience of the coastal populations to climate change targeting different ecological contexts" (Activity 2.2.2.2)[54]. UEMOA and ECOWAS signed a protocol of convergence on the coastal zone sector allowing the two institutions to collaborate in depth on this sector and to share their interventions.

In 2017, an additional protocol to the Abidjan convention dedicated to integrated coastal zone management (ICZM) was adopted. It is defined as "a dynamic process for the sustainable management and use of coastal zones, taking account simultaneously of the fragility of the ecosystems and coastal landscapes, the diversity of activities and uses, their interactions, the maritime nature of some of them and their impacts on both the marine and the onshore parts"[55]. This protocol aims to promote the implementation of ICZM in all the States that are signatories to the Convention.

This additional protocol is consistent with the processes under way in the Member States, some of which have chosen to put in place an ICZM policy in order to ensure that this space is sustainably developed[56] and the relevant guidelines of the SDLAO (2020).

2.1.7 Health

The West African Health Organisation (WAHO) was created in 1987 by the Heads of State and of Government of ECOWAS. Its objective is to offer the highest level of health care to the populations of the region through the harmonisation of Member States' policies, the pooling of resources and cooperation between the Member States and third countries with a view to collectively and strategically finding solutions to the health problems of the region.

The 2016-2020 strategic plan of the WAHO explicitly mentions certain consequences of climate change such as *"persistence of certain endemic-epidemic diseases such as meningitis, measles,*

[53] Additional Deed A/SA. 4/12/8 of 19 December 2008 on the adoption of ECOWAS' environmental policy
[54] ECOWAS, 2020, ECOWAS environmental action plan 2020-2026.
[55] UNO Environment, 2017, Additional Protocol to the Abidjan Convention on Integrated Coastal Zone Management
[56] UEMOA, MOLOA, 2021, Assessment 2020, West Africa Coastal Areas, General Document, 234 pp.

malaria, and the emergence and upsurge of other diseases (haemorrhagic fevers, etc.) as well as food and nutritional insecurity."[57] However, the thirteen (13) strategic programmes do not address the need to have a better understanding of and to quantify, for the region, the precise impacts and potential solutions in terms of care and prevention to tackle this challenge.

However, in recent years, WAHO has become more acutely aware of the need to integrate the climate dimension. For the moment action remains limited, due to the lack of resources (human and financial) and the need to have a diagnosis of vulnerability and climate risks in order to formulate appropriate adaptation measures[58].

Lastly, since 2016, ECOWAS has been engaged in implementing a regional mechanism for coordinating the One Health approach, which is defined as a collaborative, multi-sector, cross-discipline approach which works at different scales (local, national, regional and international) with a view to obtaining optimal results in terms of health while acknowledging the interconnection among people, animals, plants and their common environment[59]. The implementation of a robust coordination of this approach at the level of ECOWAS could contribute, in time, to climate change being better taken into account.

2.1.8 Climate services, disaster risk management, early warning systems and human mobility

Climate services

The West African States, which are increasingly affected by extreme hydro-meteorological and climate phenomena, are well aware of the importance of meteorological, hydrological, climatological and early warning services as basic elements for managing risks of disaster and adaptation to climate change[60]. In this context, ECOWAS' Meteorological Programme was adopted in 2017 by the Council of Ministers of ECOWAS. Based on this strategic document, the Hydromet Initiative was developed in order to evaluate the investment needs in the countries in terms of hydro-meteorological services so as to establish and reinforce the link between hydrological and meteorological services.

In the context of the implementation of the activities linked to the climate services and in accordance with the World Meteorological Organisation (WMO)'s Global Framework for Climate Services (GFCS), the ECOWAS Commission in collaboration with the WMO and the

[57] https://www.wahooas.org/web-ooas/sites/default/files/publications/1084/VERSION_ANGLAISE_CORRIGEE.pdf
[58] Information from conversations held in the course of preparing this RCS.
[59] Virgil Kuassi Lokossou, Nnomzie Charles Atama, Serge Nzietchueng, Bernard Yao Koffi, Vivian Iwar, Nadia Oussayef, Chukwuma David Umeokonkwo, Casey Barton Behravesh, Issiaka Sombie, Stanley Okolo, Edgard-Marius Ouendo,
Operationalising the ECOWAS regional one health coordination mechanism (2016-2019): Scoping review on progress, challenges and way forward, One Health, Volume 13, 2021.
[60] ECOWAS, (2021): ECOWAS Hydromet Initiative: Strengthening Weather, Climate, and Water Services In West Africa: An Analytical Report.

AGRHYMET regional centre (Regional Climate centre for West Africa and the Sahel) allowed the 15 Member States, through their technical and financial supports, to put in place their national frameworks for climate services.

In 2018, ECOWAS welcomed the first Hydro-meteorological Forum and its regional Disaster Risk Reduction (DRR) platform. The second ECOWAS Hydromet Forum[61] was held in April 2021 and featured the adoption of ECOWAS' Hydromet Initiative, an investment plan the objective of which is to strengthen the national and regional hydro-meteorological services in West Africa in order to reduce the risks of disasters and the climate risks to countries, communities and businesses[62]. The vision of this initiative is "*that hydromet services in the region improve by at least one category or sustain advanced and full service status by 2030, and Regional Climate Centres have modernised to improve service to countries, communities and businesses in West Africa.*"[63] This project was financed in the context of the project to reduce the risks of disaster of the 10th European Development Fund (EDF) ACP-EU, result 2, administered by the World Bank and GFDRR (Global Facility for Disaster Reduction and Recovery).

Responsibility for the climate services rests in the first instance with the National Meteorological and Hydrological Services. However, ECOWAS has several reference institutions in this area:

- The CILSS and its regional technical centre (AGRHYMET);
- African Centre of Meteorological Application for Development (ACMAD);
- Agency for Aerial Navigation Safety in Africa and Madagascar (ASECNA);
- West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL);
- the World Meteorological Organisation's (WMO) Regional Specialised Meteorological Centre (RSMS) based in Dakar for early warnings and forecasting of extreme events;
- The various river basin organisations of the region[64].

In the context of the implementation of the Hydromet Initiative, the ECOWAS Commission and AGRHYMET started to work more closely together. In July 2020 an agreement was signed between the ECOWAS commission and CILSS endorsing the AGRHYMET regional centre as the Regional Climate Centre for West Africa and the Sahel (RCC-WAS). In this regard the Centre will provide (i) the operational activities of meteorological and climate-related forecasts, (ii) climate surveillance operational activities, (iii) data operational services, in support of long-

[61] This project was funded under the 10th EDF ACP-EU Disaster Risk Reduction Project, Outcome 2, administered by the World Bank/GFDRR
[62] ECOWAS, (2021), ECOWAS Hydromet Initiative: Strengthening Weather, Climate and Water Services in West Africa, Analytical Report
[63] Ibid.
[64] Niger Basin Authority (ABN), Volta Basin Authority (ABV), Senegal River Basin Development Authority (OMVS), Gambia River Basin Development Organisation (OMVG), Mano River Union (MRU), Lake Chad Basin Commission (LCBC)

term forecasting and climate surveillance, (iv) the strengthening of operational capabilities, (v) the management and dissemination of meteorological and climatological information[65].

Disaster Risk Management (DRM) and early warning systems (EWS)

The majority of ECOWAS Member States have national mechanisms for reducing the risk of natural disasters. The level of development of these mechanisms varies from country to country. They ideally include: (i) legal provisions, (ii) a national response plan including disaster risk reduction strategies and/or policies (iii) a national platform including an organisation for disaster management. Considering the synergies and potential economies of scale that can be explored in this field at the regional level, ECOWAS in recent years has played a more important role in integrating regional initiatives on disaster risk reduction through the establishment of the *regional platform for disaster risk reduction* within the context of the project for "strengthening the coordination capacity of African Regional Economic Communities and Member States and the planning and policy advisory capacities for disaster risk management" (ACP-EU Natural Disaster Risk Reduction (NDRR) Program)[66]. Through its Humanitarian and Social Affairs Directorate, ECOWAS also developed several policies, strategies and action plans for preventing and managing natural risks, including climate risks, which provide guidance to the intergovernmental organisations, Member States and their national services, such as the Disasters Risks Reduction Policy and Action Plan for 2015-2030, based on the Sendai framework (see box), the Early Warning Strategy, the Regional Strategy for the Management of Flood Risks (and its 2020-2025 Action Plan). Apart from this, ECOWAS and African Risk Capacity (ARC), a pan-African mutual insurance company created in 2012 by the African Union, specialising in early disaster risk detection and preparation for response to risks by means of insurance against climate risks, signed a memorandum of intent. This memorandum essentially deals with exchanges of knowledge, data and early risk detection methods between ARC and the ECOWAS Member States, with the objective of strengthening their capacity to prepare for and respond to risks of disaster.

Finally, ECOWAS has developed its own Disaster Risk Reduction Gender Strategy and Action Plan (ECOWAS DRR GSAP) adopted in June 2021 by the Council of Ministers and covering the period 2020-2030.

The Sendai Framework[67] for Disaster Risk Reduction (SFDRR) was adopted at the third UN World Conference on the reduction of disaster risks held in 2015 in Sendai, Japan. It takes account of the risk of disasters: sudden

[65] ECOWAS, (2021): ECOWAS Hydromet Initiative: Strengthening Weather, Climate, and Water Services In West Africa: An Analytical Report.
[66] https://www.gfdrr.org/en/acp-eu/about-us
[67] UNO, 2015, Sendai Framework for Disaster Risk Reduction 2015-2030, 40 pp.

and simmering, frequent and infrequent, small scale and large, caused by natural events or by humans, with environmental, technological or biological causes.

The Sendai Framework aims to guide disaster risk management at all levels of governance as well as among and within the various different sectors. It is organised around four (4) priorities:

- Priority 1: understanding the risks of disaster;
- Priority 2: strengthening the governance of disaster risks so as to manage them better;
- Priority 3: investing in the reduction of disaster risks with a view to resilience.
- Priority 4: strengthening preparedness for disasters so as to be able to intervene effectively and "rebuild better" during the resumption and recovery phase.

The ECOWAS Early Warning and Response Network (ECOWARN) is an observation and monitoring tool for preventing conflicts and aiding decision making. Suggested in Article 58 of the revised ECOWAS Treaty of 1993, its organisation and functioning are defined by the Protocol Relating to the Mechanism for Conflict Prevention, Management, Resolution, Peace-Keeping and Security of December 1999. This tool has been applied since 2003[68].

In terms of disaster risk management, the setting up of multi-risk early warning systems[69] is mentioned in the Policy for reducing risks of disaster and Action Plan 2015-2030. The EWS is indeed a key element for adaptation to climate change and disaster risk management. One of the results expected from the action plan for 2015-2030 is that "*early warning systems geared to the population be in place for the main natural risks, relying on existing networks, underpinned by data sharing agreements and integrated with the ECOWAS Observation and Surveillance Centre*."[70]

Lastly, initiatives are also under way at sector level, in connection with programmes or projects. This is the case of the West Africa Coastal Inundation Forecasting Initiative (WA-CIFI) which was conceived in order to provide a combined forecasting and warning service. The WA-CIFI is a joint initiative of the WACA Programme through the Hydromet programme of the World Bank in West Africa, in collaboration with the WMO. The pilot project is helping West African countries (through WACA and MOLOA) in using and maintaining a reliable forecasting system for coastal flooding induced by oceanographic or hydrological phenomena, by supporting national and regional decision-making for coastal management. In due course ORLOA should also provide an early warning system for coastal risks.

Losses and damages

Definition

[68] https://www.oecd.org/swac/theecowasearlywarningandresponsenetwork.htm

[69] The early warning system can be defined as a "set of capabilities necessary to generate and disseminate significant alert information in good time to allow individuals, communities and organisations threatened by a hazard to prepare and act appropriately in time to reduce the possibility of loss or damage" (UNDRR, 2009).

[70] ECOWAS, 2016, ECOWAS Disaster Risk Reduction Plan, 2015-2030.

The notion of "Loss and Damage" suffers from a lack of universal and consensual definition. Generally, reference to this notion refers to impacts or adverse effects of climate change that cannot be avoided through adaptation or mitigation.

For the UNFCCC, the notion of Loss and Damage refers to: "the actual and/or potential occurrence of impacts associated with current climate and future climate change that adversely affect human and natural systems"[71]. The term "loss" refers to negative impacts for which repair or restoration is impossible, as opposed to "damage", which refers to negative impacts for which repair or restoration is possible[72].

Evolution of the concept of Loss and Damage in the international climate negotiations

Within the UNFCCC, the topic of Loss and Damage (L&D) has gained in importance over the past ten years and led to the creation of the Warsaw International Mechanism (WIM) in 2013. The objective of this mechanism is to "address loss and damage associated with climate change impacts, including extreme and slow onset events in developing countries that are particularly vulnerable to the adverse effects of climate change"[73].

The WIM's action is divided into 3 main areas:

1. Improving knowledge and understanding of comprehensive risk management approaches
2. Strengthen coordination of dialogue, coherence and synergies between relevant stakeholders
3. Enhance action and support, including funding, technology and capacity building.

In 2015, the Paris Agreement highlighted the relevance of the topic by introducing a specific article (Article 8) in which "Parties recognise the need to avoid, minimize and respond to loss and damage from the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage". In 2019, WIM created the Santiago Network to catalyse technical assistance on the topic.

Finally, the WIM work plan operational since 2018 is divided into five thematic action areas: slow onset events; non-economic losses; comprehensive risk management approaches; human mobility; and action and support. For each of these areas, a task force has been set up.

Synergy between Loss and Damage and Disaster Risk Management (DRM)

The DRM community is working on the development of a Global Framework for Risk Assessments (GFRA). The climate change community is building on the Warsaw International Mechanism for Loss and Damage to increase consensus, knowledge and availability of methods for measuring the impact of climate change. Within this framework, a shift towards understanding climate change impacts in terms of "risk" has been observed in recent years (since the 5th IPCC report, 2014). According to the loss and damage mechanism, climate change impacts can be translated into economic and non-economic losses, which also corresponds to the way of determining risks, used in the DRM field. Finally, under the Warsaw International Mechanism, support for strengthening early warning systems is foreseen, which is also in line with the Sendai framework

Human mobility in the context of disaster, climate change and environmental degradation At the continental level, the legally binding African Union Convention for the

[71] GIZ, 2021, Climate risk management – a framework Promising pathways to avert, minimise, and address losses and damages, 40p.

[72] UNFCCC (2012). A Literature Review on the Topics in the Context of Thematic Area 2 of the Work Programme on Loss and Damage: A Range of Approaches to Address Loss and Damage Associated with the Adverse Effects of Climate Change: Note. UN. Available online at: unfccc.int/resource/docs/2012/sbi/ eng/inf14.pdf

[73] GIZ, 2021, Climate risk management – a framework Promising pathways to avert, minimise, and address losses and damages, 40p

Protection and Assistance of Internally Displaced Persons in Africa (also known as the Kampala Convention) is a key regional framework for the protection of displaced people. The Convention, which has been signed or ratified by West African countries, addresses internal displacement caused not only by armed conflict, but also by natural and man-made disasters, and focuses on the root causes of internal displacement in order to provide durable solutions. Furthermore, the AU's Migration Policy Framework for Africa (2018-2030) and its Plan of Action[74], which is the main policy for migration management in Africa[75], considers climate change in its pillar 9.7 "Migration and Environment" in relation to SDG 13[76].

The ECOWAS Protocol on the Free Movement of Persons, Right of Residence and Establishment (1979) and the ECOWAS Protocol and Regulation on Transhumance, adopted in 1998 and 2003 respectively, are major steps forward for West African countries in facilitating the mobility of people and livestock.

In September 2020, the ECOWAS Commission adopted its Regional Migration Policy which integrates the climate change dimension through its 7th pillar entitled: "Addressing the impacts of climate change on migration", which is divided into two central actions: 1. "Understanding the challenges"; 2. "Formulating appropriate measures to mitigate the impacts of climate change on migration and vice versa"[77].

However, despite these important efforts, the application of these protocols in national procedures remains limited and the scale of future displacement due to climate change impacts requires anticipatory and transformative measures taken throughout the migration cycle to reduce the vulnerabilities of future environmental migrants.

Progress at the national level requires support and dialogue at the regional level. In particular, there is a need to strengthen collaborative work within ECOWAS itself between the Environment and Natural Resources Directorate, the Humanitarian and Social Affairs Directorate and the Free Movement Directorate. It is also necessary to strengthen the use of existing exchange structures at the regional level, in particular with the thematic working group of the Migration Dialogue for West Africa (MIDWA) on "climate change, land degradation, desertification, environment and migration" set up by ECOWAS and the International Organization for Migration (IOM) in 2000 and whose secretariat has been led by the ECOWAS Commission since 2017[78].

[74] African Union, 2018, Revised Migration Policy Framework for Africa and Plan of Action (2018-2030), African Union Commission/Social Affairs Department.
[75] IOM (2021). Environmental Migration, Disaster Related Displacement and Planned Resettlement in West Africa. IOM, Geneva.
[76] Ibid, p.83.
[77] ECOWAS, 2020, ECOWAS Regional Migration Policy.
[78] IOM (2021). Environmental migration, disaster-related displacement and planned resettlement in West Africa. IOM, Geneva

Human mobility in the context of disaster, climate change and environmental degradation

The term human mobility encompasses the different forms of human movement: forced displacement, voluntary migration and planned relocation - occurring in response to, or in anticipation of, hazards and environmental degradation[7980]. The use of the term human mobility is consistent with the Cancun Adaptation Framework (2010), which for the first time recognises the growing importance of human mobility by including it in sub-paragraph f/paragraph 14 and listing the three types of human mobility for climate change adaptation purposes: "displacement, migration and planned relocation as a result of climate change"[81].

In line with this, the 2015 Paris Agreement initiates the establishment of a Task Force on Displacement within the framework of the Warsaw International Mechanism, whose mandate is to develop recommendations for integrated approaches to avoid, reduce and manage displacement related to the adverse effects of climate change, in relation to its Article 8 on loss and damage.

2.1.9 Industry

In July 2010, ECOWAS adopted a West African Common Industrial Policy (WACIP) with the vision of having a densely populated industrial fabric that would be competitive in the international market, respectful of the environment and capable of significantly improving the standard of living of the populations by 2030.

The WACIP breaks down into ten (10) consistent programmes organised around four (4) main specific key objectives, namely:

A. diversifying and expanding the region's industrial production base by gradually bringing the rate of transformation of local raw materials up to an average of 30% by 2030, by support for the creation of new industrial production capacity, for development and for the renovation of existing facilities;
B. gradually increasing the contribution of manufacturing production to the region's GDP, from the current average of 6-7% to an average of over 20% by 2030;
C. gradually increasing intra-community exchanges in West Africa to 40% by 2030, with 50% of these exchanges relating to goods manufactured in the region, particularly in the area of energy (equipment; electricity, petroleum products);

[79] For a precise definition of each of these terms, refer to the following documents (non-exhaustive list): The checklist is a companion piece to Words into Action Disaster Displacement: How to Reduce Risk, Addresss Impacts and Strengthen Resilience, an effort of the international disaster risk reduction community negotiated by the United Nations Office for Disaster Risk Reduction, 2020; IIOM (2021). Environmental Migration, Disaster Related Displacement and Planned Resettlement in West Africa. IOM, Geneva; IOM, 2019, International Migration Law, Glossary on Migration.

[80] The term human mobility will be used throughout this paper. The term encompasses the different forms of human movement: forced displacement, voluntary migration and planned resettlement - human mobility can occur in response to, or in anticipation of, hazards or environmental degradation (The Checklist is a companion piece to the Words into Action Guideline Disaster Displacement: How to Reduce Risk, Address Impacts and Strengthen Resilience, an effort from the international disaster risk reduction community brokered by the United Nations Office for Disaster Risk Reduction, 2020).

[81] UNFCCC, 2010, Decision on the Cancun Climate Change Adaptation Framework, adopted 11 December (1.CP/16). Available at https://unfccc.int/resource/docs/2010/cop16/ fre/07a01e.pdf

D. gradually increasing the rate of exports to the world market of products manufactured in West Africa, from the current 0.1% to 1% by 2030 by reinforcing and developing skills, competitiveness of industry and quality infrastructures (standardisation, accreditation and certification), of information, communication and transport in particular.

In order to take account of the weaknesses detected in the implementation of its policy (industrials' worries, problems at the levels of the States, problems with the value chain), the WACIP's strategy was revised in 2015.

The new strategy looks like this:

A. Transversal actions
    1. Reinforcement and harmonisation of national policies and regional cooperation
    2. Promotion of opportunities and access to markets
    3. Promotion of quality and competitiveness
    4. Mobilisation of resources
B. Priority industrial sectors
    1. Food and agro industries
    2. Pharmaceutical industry
    3. Construction industry
    4. Automotive Industry and machinery

Since climate change will have a considerable impact on the primary and industrial sectors of West Africa and on the global economy of the region, the main stakeholders, in particular the private sector, including SMEs must be made more aware of climate risks and consider adaptation measures while at the same time seizing opportunities to mitigate GHG emissions as part of a low-carbon development. This strategy thus constitutes an opportunity to ensure that climate change is integrated into the industrial policy of ECOWAS (WACIP).

Indeed, after the Member States signed the Paris Agreement at COP21, ECOWAS was in a position to integrate the climate change aspect into the deployment of its industrial policy, by means of a series of awareness-raising, dialogue and technical framing actions.

2.1.10 Waste

The 2008 ECOWAS Environmental Policy has made waste one of the challenges to be addressed, considering it through national policies and regulations that will tackle pollution, urbanisation and waste disposal. From the diagnosis of the various environmental challenges, the waste issue is an integral part of the vision of this environmental policy: "a peaceful, dignified and prosperous ECOWAS region whose diverse and productive natural resources are preserved and managed in a sustainable manner for the development and balance of the

region. To this end, production, processing, consumption, trading and disposal activities are controlled and managed in an environmentally sound manner, from the point of view of raw materials, material flows, waste and end processes. The operationalisation of this vision is materialised through the strategic axes of this policy. As far as waste is concerned, it is taken into account in the following two strategic axes:

- Strategic Area 1 "*Environmental governance (establishment of a sub-regional mechanism) and capacity building for this purpose*", where the aim is to promote the monitoring of environmental changes and risk prevention via an ad hoc technical tool to be set up (Regional Observatory) by monitoring, among other things, transboundary movements of hazardous waste;

- Strategic Area 3 "*Organising the fight against pollution and nuisance, urban waste and the control of transboundary movements of hazardous products in the sub-regional economy*", whose specific objectives are: i) a review and improvement of urban policies to minimise or better manage pollution and nuisance problems; ii) seeking better solutions to the accumulation of waste and hazardous products; iii) better monitoring of environmental risks thanks to genuine monitoring services.

Following ECOWEP, an Environmental Action Plan (EAP) was developed for the period 2010-2014, but very few actions were actually implemented due to limited technical and financial capacities. A new EAP has been developed for the period 2020-2026. This covers the waste sector (domestic, industrial and chemical) in a broad sense. It recalls the challenge of household waste in West Africa, in a context of rapid and unplanned urban population growth. Within its strategic objective 3 "The fight against Pollution and Nuisance, waste and for the control of the flow of dangerous products in the economy is reinforced", the EAP proposes the following actions:

- Expected results 3.1. Environmental and health risks related to chemicals, waste and nuisances are reduced

- Expected result 3.3: Technical management of toxic products, waste and nuisances is promoted

- Expected result 3.4. Resources for sustainable financing of chemicals, waste and nuisance management are mobilised.

With regard to climate change, it should be noted that neither ECOWEP nor the EAP 2020-2026 mentions the link between waste management and greenhouse gas emissions. However, this sector is one of the sectors that emits GHGs (see Part 3), notably due to the production of methane from landfill waste, as well as from the burning of waste (CO_2 emissions), and this is

why 12 of the 15 revised NDCs of ECOWAS Member States include this sector in their GHG emission reduction strategy, which is an effort that deserves to be supported at regional level.

While some EAP actions aimed at improving waste management, volume reduction, and better planning and governance in the sector will contribute to a better control of emissions, it is necessary that the regional climate strategy proposes actions specifically aimed at reducing emissions from the sector.

2.2 Transversal regional policies and programmes relating to climate action

2.2.1 Trade

The ECOWAS trade policy is aimed at expanding interregional exchanges, increasing the volume of trade and promoting the region's economic activities so as to contribute to the improvement of the economic well-being of the region's citizens. It also aims to promote the harmonious integration of the region within the global economy, while taking due account of the political choices and priorities of the States within the context of the efforts that they are making with a view to achieving sustainable development and the reduction of poverty. One of the essential components of the Community's trade policy is the ECOWAS Trade Liberalisation Scheme (ETLS) which aims to progressively establish a Customs Union among the Member States of the Community with a view to the total elimination of customs duties and equivalent taxes. With the Common External Tariff (CET), which assures the effectiveness of the Customs Union, ECOWAS has the possibility of stimulating the West African economies, while enabling the Community citizens of this zone to effectively benefit from trade-related advantages. At the institutional level, a certain number of Committees have been put in place, notably the Inter-institutional Committee which handles the Trade Negotiations Capacity Building (TNCB) programme and the Regional Trade Facilitation Committee (ERTFC).

A number of initiatives have been taken under the auspices of the World Trade Organisation (WTO) in order to attempt to respond to the environmental[82] and climate[83] challenges, notably the negotiation of price reductions for environmental goods and services, the clarification of the relationship between the current WTO regulations and the specific trading obligations outlined in the multilateral environmental agreements and the elaboration of disciplines regarding fishing subsidies. However, it is not for the WTO to rule on matters regarding the

[82] Concerns for the environment relate basically to the pollution linked to the production of goods and the over-exploitation of natural resources.
[83] Climate concerns are linked to the increasing demand for energy and therefore fossil fuels, but also to the direct impacts on trade of extreme weather events and rising sea levels, which will affect supply, transport and the infrastructure of distribution chains, and the indirect consequences of which concern all sections of the value chains.

environment and climate, which are governed by separate treaties such as the UNFCCC and the Paris Agreement. Nevertheless, these treaties can be taken into consideration by the WTO for the purpose of interpreting international trade law. For its part, the international cooperation framework for the fight against climate change has adopted an approach that respects the law of international trade, particularly the United Nations Framework Agreement on Climate Change (UNFCCC, see the foreword and article 3.5), which calls for a supportive and open international economic system leading to lasting economic growth and to long-term development and one which will enable the problems posed by climate change to be approached in the best way, while avoiding situations in which actions taken to combat climate change, including unilateral actions, create a means for the imposition of arbitrary or unjustifiable discriminations at the level of international trade or of hidden obstacles to this trade. Assurance should therefore be obtained that the trade activities and the actions of the fight against climate change are mutually sustainable, for the sake of coherence and of coexistence between the international legal tools to which ECOWAS and its Member states are committed.

2.2.2 Development of the private sector

West Africa has already taken significant steps towards bringing about a more uniform regional market. The ECOWAS commission has put in place a series of strategic policies defining clear objectives for improving the business and investment climate, including actions on the levers of competitiveness and entrepreneurial capabilities.

The region has also put in place an investment framework requiring non-discriminatory treatment of intra-regional investors. These initiatives may gather new momentum in the region, given that Member States are launching more and more targeted policy reform programmes in order to support the private sector in its bid to achieve sustainable growth and job creation.

In the context of the transformation of the ECOWAS Secretariat into a Commission in 2007, the Private Sector Directorate was created, with the general mandate of directing the implementation of ECOWAS' private sector development activities and their inclusion in its process of regional integration. Since then the Private Sector Directorate has drawn up several strategic documents and implemented action plans for operationalising its mandate. In particular:

- **ECOWAS strategic framework for the promotion of the private sector and businesses (2015-2020):** This document places the stress on the main pillars of private sector promotion, namely: i) encouraging investments and strengthening regional

businesses and institutions, ii) improving regional support for Micro, small and medium-sized enterprises (MSMEs); iii) promoting cooperation with the development and mobilisation of national resources; iv) developing a strategic plan for growth sectors; v) developing a regional approach for a digital common market; and vi) developing the portfolio of sectoral projects for private investment. The implementation framework of the strategy prioritises actions in favour of sustainable, environmentally friendly growth in the Member States, capitalising on nature, knowledge, youth, entrepreneurial spirit, creativity and innovation. The strategy is currently being revised for the period 2020-2030.

- **ECOWAS strategy for Small and Medium-Sized Enterprises (SMEs) (2015-2020 / 2020-2030):** this strategy aims to promote sustainable entrepreneurship and regional competitiveness, to create regional value chains and integrate them in a balanced way into global value chains, and to conserve the environment. Its vision is to take advantage of relevant home-grown knowledge and technologies, stressing improvement of social inclusion and the creation of sustainable wealth. ECOWAS has achieved this strengthening of SMEs and improvement of competitive capacity by means of six main lines of action for the execution of regional programmes for strengthening capabilities, developing entrepreneurship and partnership platforms, facilitating access to financing and markets and lastly promoting regional business associations.

  ECOWAS' MSME Charter defines an institutional framework for the promotion and development of MSMEs, the roles of the various stakeholders, the monitoring framework, etc. The key programmes and projects include the setting up of green enterprise villages, smart special economic zones, the development of value chains, the promotion of digital start-ups and the digitisation of business transactions;
- **ECOWAS Investment Code (ECOWIC) – 2018:** The purpose of this Code is to create a transparent, harmonised, predictable legal and institutional framework applicable to investments and investment-related measures in the ECOWAS region. The Code aims, among other things, to promote sustainable investment policies, particularly as regards protection of the environment, to facilitate the effective application of national environmental laws and to strengthen Member States' ability to deal with investment issues linked to the environment thanks to regional cooperation. Articles 27, 28 and 29 of the Code require Member States to encourage or oblige investors to comply with environmental obligations, particularly applicable laws, regulations and practices, to act in accordance with environmental and social impact assessments and to make use of voluntary mechanisms to improve environmental performance. Lastly the Member

States and investors must promote the transfer of environmental management processes such as increasing recycling, reducing waste, implementing codes of conduct, etc.);

- **ECOWAS Investment Policy (ECOWIP) – 2019:** ECOWIP represents the foundations of the ECOWIC. It sets the bases for the institutional, regulatory and legal framework, for national investment and foreign direct investment, in particular intra-regional and extra-regional investment. This policy ensures a liberal, progressive, transparent trade environment that is open and competitive and encourages the promotion, facilitation and protection of trade linked to investments. Working in close cooperation and coordination with the ECOWAS Commission, the Member States undertake by means of Chapter 12 to comply with the policy precepts regarding the protection of the natural environment, a critical area of Corporate Social Responsibility (CSR). In this regard, strategies and measures have been developed for implementing all these policy principles, in particular the promulgation or amendment of national laws and regulations on environmental matters.

2.2.3 Science, technologies, innovation and education

ECOWAS has always considered science and technological innovation as one of the indispensable areas for initiating the socio-economic, cultural development and competitiveness of its Member States. It has expressed its commitment through Article 27 of the Constitutive Treaty on Scientific and Technological Cooperation. Furthermore, ECOWAS has adopted a regional policy on science, technology and innovation (ECOPOST), Act A/SA.2/06/12 and an action plan for its implementation, a Directive (A/DIR.1/06/12) on Science, Technology and Innovation and a Regulation (C/REG.7/06/12) on the Criteria for the selection of ECOWAS Centres of Excellence adopted at the 41st Ordinary Summit of Heads of State and Government on June, 29th 2012.

ECOPOST's ambition is to transform ECOWAS Member States into emerging economies through the development and use of science, technology and innovation in the socio-economic and environmental sectors to achieve sustainable economic and social development of Member States to meet the present and future needs of their peoples and ensure a better quality of life. Indeed, science, technology and innovation are indispensable for the achievement of sustainable development goals. If a determined effort is made to build capacity in developing countries, science, technology and innovation can play a leading role in improving productivity and economic growth, promoting social inclusion and fostering environmental sustainability.

To address the challenges that were part of the ECOWAS 2020 vision, ECOPOST defined ten cross-cutting policy areas and sectoral policy areas covering sectors of social and economic development, some of which have links to the environment, climate change and biodiversity. ECOPOST is currently under review and intends to further develop sectoral links with climate and biodiversity issues, which are part of its strategic orientations. The development of the ECOWAS Regional Climate Strategy will guide this work.

The strategies developed for the implementation of ECOPOST in the environment, climate change and biodiversity sector have focused on:

- Building scientific capacity for the protection, conservation and sustainable use of biological resources;
- Providing scientific information to decision-makers for the preservation of biodiversity;
- Strengthening the scientific capacity of decision-makers, scientific actors, organisations and other stakeholders to contribute to climate change adaptation;
- Supporting the adaptation of rural and urban populations, especially the most vulnerable, through participatory action research;
- Promoting the sharing of scientific and local knowledge on climate variability and change.

The Education, Science and Culture Department, in collaboration with the Environment Directorate, also carried out capacity building activities for science journalists in the region in 2016 with a view to making scientific information accessible to ECOWAS citizens. The focus was on climate change impacts, adaptation and resilience.

Finally, ECOWAS is currently revising its regional policy on e-learning, which will include training on climate change issues. To this end, a feasibility study for the creation of an ECOWAS Regional E-learning Competence Centre should be launched soon, and the centre will then be developed and operationalised in a pilot manner through its climate change component.

2.2.4 Promotion of gender

ECOWAS considers equality between women and men as a driving force for regional integration and a development objective in its own right. Based on this conviction, the Commission has always been very active on these issues and to this effect created in 2003 a specialised ECOWAS agency: the ECOWAS Centre for Gender Development (ECGD) by Decision A/DEC.16/01.03. The mission of the ECGD is to transform West Africa into a just and secure community in which men and women have equal opportunities to participate in, decide, control and benefit from all development initiatives. The ECGD is responsible for managing

gender issues, equity, justice, gender equality and the empowerment of girls and women in Member States.

Since 2015, a first formal link was established between climate change and gender issues through the Additional Act (A/SA.02/05/15) on Equal Rights for Men and Women for Sustainable Development in the ECOWAS Region, which was adopted by the Member States in 2015. This act considers that lack of gender equality, climate change and lack of access to energy services are also issues that can compromise the role of women, especially in the agricultural sector, and thus negatively impact on the development prospects of the region.

Subsequently in 2020, the development of the Gender Action Plan for Disaster Risk Reduction (2020-2030), which aims to help Member States build resilience to natural hazards, endorses this linkage by recognising that climate-related disasters such as droughts and floods do not affect everyone equally. Their related effects of economic losses, food and nutrition insecurity differ according to levels of vulnerability, which vary according to different facets of social identity, such as gender.

As such, the ECGD participated in the virtual preparatory meeting of gender experts and Ministers, in partnership with UN Women's Regional Bureau for West and Central Africa and the UNDP Regional Service Centre for Africa, in February 2022 as part of the preparations for the 66th session of the United Nations Commission on the Status of Women (CSW66) which theme was "Achieving gender equality and the empowerment of all women and girls in the context of policies and programmes in the area of climate change, environmental risk reduction and disaster risk reduction".

Thus, it should be noted that the ECGD has progressively taken climate issues into account in a cross-cutting manner in its missions, which are to:

- Mobilise women and empower them to actively participate in the regional integration process;
- Mainstreaming gender in ECOWAS institutions and Member States;
- Work with Member States to implement the gender policy and strategic plan;
- Research on gender issues;
- Work with Member States to collect, collate and analyse sex-disaggregated data;
- Conducting awareness raising, training and capacity building in Member States.

In this regard, the ECGD is involved in the conduct of sectoral programmes related to climate change, such as an FAO forestry programme which aims, through a gender approach, at harmonising forestry legislation and a common understanding of forestry policies, practices and dynamics in order to put in place a holistic and inclusive approach to forestry

management, as well as a framework for the collection and sharing of good practices identified in the ECOWAS region.

3. VISION, GENERAL AND SPECIFIC OBJECTIVES OF ECOWAS' REGIONAL CLIMATE STRATEGY

3.1 Vision

Climate change is a matter of vital concern for our West African economies, societies, communities and ecosystems. The effects of global warming are transforming our environment and dramatically increasing the frequency and intensity of extreme weather events in West Africa. These changes affecting our planet's climate are reshaping the world and increasing the risks of instability and insecurity in all its forms. This trend in climate change is clearly reaffirmed by the IPCC in its sixth assessment report.

The response to this global challenge calls for immediate and decisive action by everyone. ECOWAS wishes to contribute to this collective action, which is essential for West Africa, and undertakes to act alongside and in support of its Member States, by adopting its first regional climate strategy.

This undertaking is reflected in particular in ECOWAS' new 2050 Vision, which aims to establish *"a fully integrated community of peoples in a peaceful, prosperous region with strong institutions and respect for fundamental freedoms and working towards inclusive and sustainable development*" in particular via Strategic Orientations 3 (SRO 3: Supporting environmental sustainability and the fight against climate change) and 4 (SRO 4: Promoting growth and sustainable economic development) of its 5th Pillar entitled "Transformation and Sustainable Development". The 2050 Vision presents the fight against climate change as one of the catalysts for its success.

The vision of ECOWAS' regional climate strategy is in the same line, calling for a ***community that is resilient to the effects and impacts of climate change and that has managed to seize the associated economic opportunities in favour of long-term, low-carbon, sustainable development***.

This vision therefore contributes to the achievement of the ECOWAS Vision 2050 and is fully in line with the Paris Agreement, and more particularly in line with decision 1/CP 21 consisting in the elaboration of long-term low-carbon development strategies by 2050 (paragraph 19 of article 4 of the Paris Agreement).

The ECOWAS regional climate strategy also contributes to the implementation of the African Union's Climate Change and Resilient Development Strategy and Action Plan for the period 2022-2032 which provides a structuring framework to guide the actions of African States and regional organisations towards a low-carbon development model, by focusing on green and above all resilient growth, strengthening the adaptive capacities of African economies, societies and ecosystems. The vision of the AU climate change strategy for the period 2022-2032 derives from that of Agenda 2063: "The Africa we want, resilient to climate change." Its main objective is "the achievement of the Agenda 2063 Vision by building the resilience of the African continent to the impacts of climate change." The strategy aims at providing Africa and its stakeholders with strategic orientations in order to tackle the challenges posed by climate change and liable to hinder the achievement of the Agenda 2063 objectives. More precisely, the strategy aims to contribute to the achievement of SDG 13 "Take urgent action to combat climate change and its impacts" and of the objectives of the Paris Agreement, in particular to limit the increase in global temperatures to well below 2 °C relative to pre-industrial levels and to strive for 1.5 °C, but also to achieve the seven objectives of the Sendai Framework for reducing disaster risks.

Therefore the vision of ECOWAS' regional climate strategy aligns its community actions and means of intervention in the areas within its responsibility and competence by virtue of the revised 1993 Treaty with the objectives of the Paris Agreement, in perfect consistency with, and supported by, the African Union's 2022-2032 Climate Change Strategy and 2063 Agenda.

With this document, ECOWAS is formulating its first regional climate strategy in order to set regional mitigation and adaptation objectives for 2030, which is the deadline adopted by all its Member States to meet the commitments of their first NDCs, and also to contribute to the achievement of the SDGs. ECOWAS is motivated by a spirit of continuous improvement, in accordance with the principle of progressive ambition (the "ratchet mechanism") established by the Paris Agreement and the need to establish objectives aligned with scientific knowledge. Therefore, this regional climate strategy at the 2030 horizon is a first milestone in ECOWAS' contribution to the fight against climate change. It will have to be revised to increase the region's level of ambition by 2050 in line with the objectives of ECOWAS' Vision 2050, while taking into account the commitments made by its Member States in their next NDCs as well as the results of the first global stocktakes of the Paris Agreement.

3.2 The general objective

The general objective of ECOWAS' regional climate strategy is to support the Member States in overcoming the challenge of the fight against climate change, in particular for the achievement of their commitments under the Paris Agreement.

As a reminder, the objective of the Paris Agreement is to limit the increase in the global average temperature to well below 2°C above pre-industrial levels and to strive to limit this increase to 1.5°C by supporting very low-carbon development between now and 2050.

3.3 Specific strategic objectives

This general objective breaks down into six specific objectives:

SO1. Ensure that the regional policy framework is compatible and consistent with the global objectives of the Paris Agreement.

By means of systematic evaluation of its compatibility with these objectives.

SO2. Develop the ability to anticipate and to take informed decisions to manage current and future climate risks.

In particular biophysical, socio-economic and macro-economic risks and gender-related differential vulnerabilities.

SO3. Encourage an institutional and organisational paradigm shift regarding climate change.

In particular by means of the holistic integration of the fight against climate change into ECOWAS' modi operandi, including by allowing its institutional arrangements to evolve.

SO4. Build the capacities of ECOWAS and its Member States for the implementation of policies and actions to combat climate change.

In particular through education, gender mainstreaming, entrepreneurship, innovation, support for research and technological development, so as to seize economic opportunities and develop sectors of the future, the blue and green economy.

SO5. Strengthen cooperation and solidarity among Member States vis-à-vis climate change.

Particularly in the development of urgent response coordination mechanisms, the rebalancing of climate financing flows, the promotion of concerted and collaborative actions tackling cross-border issues and cohesion of national positions in international negotiations on climate.

SO6. Promote new approaches to mobilising internal and external financial resources.

3.4 Fields of action

Within the framework of this regional strategy, ECOWAS intends to implement actions in the following three fields of action:

Field of action 1: the Organisation – Reduce the carbon impact of fixed or mobile installations and strengthen the adaptation capacities of systems and infrastructures located within the organisational scope of the ECOWAS institutions and agencies. This area falls within the social and environmental responsibility (SER) of ECOWAS, by targeting actions that concern the way it operates as well as its assets and the behaviour of its staff, with a view to the continuous improvement of its societal, social and environmental performance. To this end, the ECOWAS Commission will soon take the initiative to propose an ambitious SER policy which will serve as an example for the other institutions of the Community, and which will integrate considerations related to climate change into the machinery of the Commission in conjunction with all the Community's other institutions.

Field of action 2: the areas of competence of the ECOWAS Commission – Improve ECOWAS' regional policies, measures and programmes with a view to making them progressively more climate-compatible and efficient, by systematically integrating mitigation and adaptation goals and by setting sectoral objectives to guide the ambition in the areas of competence assigned to ECOWAS.

Field of action 3: political dialogue with the Member States – Strengthen political dialogue in order to support a gradual increase in the ambition of Member States through their NDCs and the methods planned for their implementation, in a spirit of solidarity, equity and cooperation. This also involves making arrangements to enable ECOWAS and its Member States to speak with one voice in order to jointly construct the implementation of the Paris Agreement, in support of the action of its Member States, but also to be stronger by being united within the framework of international climate cooperation in order to play an active part in the negotiations on implementation of the Paris Agreement, particularly via the ECOWAS Regional Advisory Group on Climate International Negotiations (RAG-CLIN) established in 2021 by the ECOWAS Commission.

Furthermore, the forthcoming accreditation of the ECOWAS Bank for Investment & Development (EBID) with the Green Climate Fund (GCF) will help achieve the Community's climate action in this second area.

The vision of ECOWAS is made operational by dedicated institutional actions and arrangements aimed at establishing better climate governance within the Commission and the agencies for implementing the policies and measures to allow the achievement of the sectoral

objectives outlined in parts 2 and 3. These institutional arrangements, as well as the methods for progressively increasing the level of ambition and monitoring and assessing progress, are outlined in part 5.

The priority sectoral axes presented in parts 2 and 3 covering adaptation to climate change impacts and mitigation of GHG emissions set the course for ECOWAS' climate action ambition, in support of the action of its Member States. The priority sectors identified fall squarely within those listed by the Member States in their NDCs and the ECOWAS Commission's competences.

PART 2 – TOWARDS A REGION THAT IS RESILIENT TO THE IMPACTS AND VULNERABILITIES LINKED TO CLIMATE CHANGE

INTRODUCTION

The effects of climate change, while varying greatly from one State to another, will lead, in West Africa, to (i) lower crop yields and reduced output from livestock farming and fisheries, which is likely to exacerbate food and nutritional insecurity, (ii) threats to biodiversity, (iii) rapid degradation of infrastructure, particularly transport networks, notably as a result of rising sea levels and coastal erosion, (iv) strengthening human mobility within the region , (v) exacerbation of conflicts linked to scarcity and use of natural resources and (vi) the emergence of new diseases, *inter alia*. All these impacts could produce major economic effects and lead to significant losses and damage for West African communities, both urban and rural, swelling the ranks of those displaced by climate change and exacerbating the vulnerability of populations, particularly women, youth and other vulnerable persons.

The reinforcement and implementation of adaptation strategies and measures is therefore the priority for West African countries, as testified to by the priority commitments made regarding adaptation in their revised NDCs in 2020/2021. Taking account of their very limited historical responsibility for global warming, the countries have expressed the need for financial support estimated for adaptation between now and 2030 at US$45.05 billion[84].

In addition to the adaptation components of the NDCs, the ECOWAS Member States are in the course of establishing National Adaptation Plans (NAPs) (three (3) countries have already completed theirs[85]) which give details of their measures, efforts and strategies for developing and boosting resilience, strengthening adaptation and reducing the vulnerability of their communities and ecosystems to the consequences of climate change. However, the global and sectoral objectives as currently formulated in the NDCs are rather general and generic as a whole, with a degree of confusion between “traditional” development objectives and objectives for adapting to climate change. Admittedly the availability of diagnostics on vulnerability is all too often insufficient for adaptation measures and objectives to be properly determined. This is an aspect for reinforcement in which ECOWAS can play a role. Apart from this, the cross-border nature of the effects of climate change on the ecosystem and communities, and also the differing capabilities within the ECOWAS region both act as stimuli for greater solidarity and the search for synergies.

[84] ECOWAS, GCCA+ West Africa, 2021, Comparison of evaluation methodologies for costs of implementing adaptation actions planned in the NDCs of ECOWAS and CILSS countries, Stories of NDCs in West Africa, Issue No. 3, and provisional version. Apart from Nigeria, whose cost estimation for adaptation is not communicated in the 2021’s NDC.
[85] Burkina Faso, Liberia and Togo.

Thus, within the framework of its mandate, the ECOWAS Commission is able to accelerate action and to promote the establishment of a framework favourable to adaptation measures, in particular by:

1. Developing and implementing integrated regional climate-friendly programmes ;
2. Supporting the development and implementation of NDCs and NAPs;
3. Supporting the development of national frameworks for climate services;
4. Pooling research on climate change and its impacts and strengthening climate services;
5. Promoting nature-based solutions[86] for regional resilience;
6. Mainstreaming climate change into national sectoral policies, taking into account gender specificities
7. Increasing access to climate finance.

It should be noted that several regional policies and programmes already address these issues, as reported in Part 1.

The **main sectors** prioritised in the NDCs (Table 2) are the priority sectors proposed in the Regional Climate Strategy (RCS), namely: agriculture, livestock, fisheries and aquaculture; energy; natural resources and biodiversity; transport and mobility; coastal zones; climate services, disaster risk management, early warning systems and human mobility; and health.

Supplementary priority sectoral axes must be pursued during the 2022-2030 period in order to accomplish the ECOWAS 2050 vision. Thus, these axes are set out for several areas falling within the Commission's mandate.

1. AGRICULTURE, LIVESTOCK FARMING, FISHERIES AND AQUACULTURE

The agricultural sector constitutes a pillar of the West African economy, accounting for more than 30% of the region's GDP. On average, nearly 60% of the region's population live in rural areas and derive their income from agricultural activities. Agriculture is based essentially on family smallholdings of less than five 5 hectares (12 acres), mainly using family labour,

[86] The term nature-based solution refers to "actions to protect, sustainably manage and restore natural or modified ecosystems to directly address societal challenges in an effective and adaptive manner, while ensuring human well-being and producing biodiversity benefits", IUCN, 2022 (https://uicn.fr/solutions-fondees-sur-la-nature/)

particularly women, who constitute 51% of the agricultural workforce. Production systems focus on diversified food and cash crops[87].

Livestock farming systems range from pastoral herding in the vast semi-arid zones through highly developed agro-pastoral farming in the agricultural zones to suburban livestock rearing. Livestock plays a central role in the economy of the West African countries, with more than 76 million head of cattle, 279 million small ruminants and 564 million poultry birds[88]. Livestock rearing is a source of food, of revenue and above all the main insurance against risks for millions of poor people, whose means of subsistence depends on rain-fed agriculture.

The fisheries sector makes a significant contribution to the GDP of most of the countries, and represents an appreciable source of foreign currency revenue for the coastal countries. Fisheries and aquaculture contribute more than 15% to the region's GDP and nearly 3% of the economically active rural population derive the bulk of their income from fisheries and aquaculture89. The sector encompasses a wide range of ecological and socio-economic components, including sea-fisheries, freshwater fisheries and fish farming (aquaculture). Fisheries includes both subsistence fisheries (for direct household consumption) and commercial fisheries.

Agriculture

Agriculture in the region is heavily dependent on the climate and its variations, and current and expected climate change will have a major impact on national economies. In general terms, climate change is likely to reduce yields of rain-fed crops by shortening the growing season and increasing hydric and thermal stress and the incidence of blight, bugs and weeds. With global warming of 2°C, demand for water generally and for crops in particular is likely to increase considerably. Moreover, the projected increase in temperatures and evapotranspiration constitute serious threats for the agricultural sector. With a 2°C increase, extreme temperatures would more often reach the critical tolerance thresholds for agriculture[90]. The latest studies[91] confirm the projections of lower yields for the majority of food crops: from now until 2050, the results converge towards global reductions in average yields of 12%, 16%, 20% and 25% respectively for millet, sorghum, maize and rice. Moreover from now until 2030,

[87] Ba, Helene Aminatou, Harada Takuro, Cisse, Ibrahima Tonton, Ibrahima Diallo, Bah, Safiatou, Tossou, Sèlidji Hermann, Neyra Gabriel, Flamengo, Bianca and Arnaud Rouillard (2019). Transformation de L'Agriculture en Afrique de l'Ouest Défis et Opportunités 2030-2050-2063 (Transformation of Agriculture in West Africa: Challenges and opportunities 2030-2050-2063) IFAD (International Fund for Agricultural Development), West Africa, 74 pp.

[88] Source: WASCAL, 2021 (data from FAOStat 2019)

[89] ECOWAS (2019). Comprehensive Strategic Framework for Sustainable Fisheries and Aquaculture Development (CSFS FAD), 74 pp.

[90] IPCC, op.cit.

[91] WASCAL, *ibid*

climate change could reduce the yields of groundnuts by between 11% and 25% and by 30% for cowpeas in certain regions of the Sudano-Sahelian zone

Also, an increase in temperature of 1.5 °C by 2030 and 2°C by 2040 could lead to a reduction of between 40% and 80% in arable land surface suited to growing maize, millet and sorghum, which are the staple foods in Africa[92].

Cash crops will not be spared by these changes in yields. The availability of water as well as the sharp variations in start, duration and end of the rainy season will be critical factors for the production of cotton in West Africa, displacing production southwards to more humid zones. For example, the rise in temperatures will have a serious impact between now and 2050 on the production of cocoa beans in Ivory Coast and Ghana, the world's leading exporters[93]. Furthermore, West African cocoa operations will probably have to move uphill towards the protected mountainous forests in order to find an appropriate growing climate with enough rainfall.

Large parts of the cocoa-producing regions will probably become unsuitable for production in the future and will require a change of crop (particularly in the transition zone between forest and savannah in Nigeria and in the east of Ivory Coast). Lastly, future climatic conditions are likely to have an adverse effect on yields of groundnut plantations.

These different impacts will not be without consequences for the strengthening of human mobility in the region. Indeed, seasonal migration (internal and intra-regional) in particular is a widespread practice in West Africa, the dimensions of which are changing with climate change[94].

Livestock farming

Climatic conditions have a direct impact on the production of primary (range land) and cultivated plant biomass, floristic composition, animal metabolism, the composition and activity of micro and macro fauna, and therefore on soils (via the mineralisation of organic matter), water flows and erosion, the filling of water tables, parasitism and the performance of livestock systems. The livestock sector is still largely dominated by the pastoral and transhumant system, as mobility facilitates "immediate" and "reactive" adaptation to climate variability. During a seasonal or inter annual cycle, in a precarious and unstable environment, the only way to survive is to move, in many different forms and durations. Under these

[92] Accelerate transition to low-carbon growth with resilience to climate change: Business plan for climate in Africa. Washington, DC: World Bank Licence: Creative Commons Attribution CC BY 3.0 IGO.
[93] International Centre for Tropical Agriculture (2011) Predicting the Impact of Climate Change on the Cocoa Growing Regions in Ghana and Cote d'Ivoire, Final report September, 2011
[94] Environmental Migration, Disaster Related Displacement and Planned Resettlement in West Africa. IOM (2021) Geneva.

conditions, the abundant availability of food and access to water are the main factors that differentiate production methods and living conditions of livestock farmers.

Livestock production in West Africa is therefore highly dependent on rainfall and, consequently, the performance and strategies of agropastoralists are directly affected by the high variability of rainfall in time and space. Changes in route and timing (earlier or later departures) are already being observed in the region, bringing pastoral communities further south in particular and potentially causing conflicts in these new transhumance areas[95]. Future climatic conditions will also affect livestock adversely, given the forecast levels of thermal stress, and the redistribution of pasture areas, transhumance corridors, parasites and animal diseases. Studies have shown that changes in temperature and humidity above the comfort threshold will affect livestock, influencing production, reproduction performance and the mortality rate. It has also been established that thermal stress leads animals to consume more water and limit their food intake, which leads to lower productions, particularly of milk[96]. The number of consecutive days of thermal stress with intensities in excess of the serious or dangerous threshold for dairy cattle is likely to increase in the future.

Furthermore, as the availability of pasture diminishes and demand increases, competition for these resources will become more and more intense, tending to affect daily relations between transhumant pastoralists and their host communities, generating more potentially conflictive situations in a region that already has more than enough of them.

Fisheries and aquaculture

Fisheries and aquaculture will also be affected due to the deterioration of living and growth conditions for fish (environmental change linked to floods, reduced rainfall, higher temperatures, salinisation, etc.) and the alteration of the physical, chemical and biological processes of ecosystems, especially freshwater (proliferation of parasites and plants, emergence of trophic interactions, reduced reproduction capacities, etc.). These impacts will lead to falls in production overall (fisheries and aquaculture) and to available resources becoming scarcer, particularly due to the reduction in the number of species that are adapted to such changes (reduced biodiversity) in both marine and river ecosystems and inland waters.

Certain studies have furthermore shown that the warming and deoxygenation of the oceans is contributing to reducing the body size of certain sea fish and invertebrates, particularly in the tropics. Thus the maximum average body size of fish in the tropics is likely to decline by

[95] Ibid.

[96] Bazin F, Béchir A, B., Khamis D. (2013). Etude prospective: systèmes d'élevage et changements climatiques au Tchad, Rapport Institut de recherches et d'applications des méthodes de développement (Forward-looking Study: Livestock Systems and Climate Change in Chad, Report Institute for Research and Application of Development Methods) (IRAM-Montpellier), Ministère du Développement Pastoral et des Productions Animales (Ministry of Pastoral Development and Animal Production), 80 pp.

approximately 20% between now and 2050, in comparison with the first decade of this century, according to the IPCC's pessimistic scenario RCP 8.5.

Finally, the effects of the relative rises in sea level are also indicated as being a threat to the survival of mangroves, which play an important role in coastal fisheries and the West African coasts. Judging by the projected figures, sea levels could rise above the level that mangroves can withstand, which would directly harm the fish species that depend on these coastal habitats for their reproduction.

Lastly, climate change will induce thermal stress in freshwater fish species due to warming of surface waters, reduction of dissolved oxygen concentrations and the salinity of the water[97].

Results expected from the RCS:

In view of the impacts of climate change in West Africa referred to above, and the agricultural context of the region, the RCS aims to achieve the following results:

- R1.A. The strategic and policy framework for regional agricultural action is becoming resilient to climate change and taking account of gender-differentiated vulnerability
- R2.A. The promotion of climate-smart agriculture, including agro-ecological practices, is supported
- R3.A. The resilience of pastoralism to climate change is strengthened and conflicts mitigated
- R4.A. Food crises linked to climate change are better anticipated and managed and the regional food storage system is strengthened as a whole
- R5.A. The promotion of fisheries and aquaculture systems that are resilient and less vulnerable to climate change is being supported (see RE 6.1 of the CSDD PAD[98])

2. ENERGY

As far as energy is concerned, it is the hydroelectric sector that will suffer the impacts of climate change most directly. Hydroelectric power currently accounts for 17% of Africa's electricity generation on average, according to the International Energy Agency (IEA). This share could potentially increase to more than 23% in 2040, if the efforts announced "towards a clean energy transition and universal access to energy" meet with success. All the same, the risks

[97] FAO (2018). Impacts of climate change on fisheries and aquaculture: synthesis of current knowledge, adaptation and mitigation options. Summary of FAO Fisheries and Aquaculture Technical Paper (FAO) eng no. 627. Rome. 48 pp.
[98] Comprehensive Strategic Framework for the Development of Sustainable Fisheries and Aquaculture in West Africa, a complement of ECOWAP

from climate change and the energy sector's vulnerabilities to them are still not being taken into account sufficiently by the hydroelectric sector in the region, in a context in which power outages can amount to 80 hours a month[99]. While Member States envisage the growing exploitation of the region's great hydroelectric potential, with the States' very high degree of interdependence in terms of access to water in the region, climate change could seriously affect the sector, as highlighted by WASCAL[100], showing clear and marked flow reduction trends in the Gambia and Senegal river basins[101]. The reduced flow of the rivers and increased evaporation due to climate change could constitute a serious threat for hydroelectricity; increasing water offtakes in the sections upstream of the dams for various activities such as irrigation and mining use can compromise hydroelectric production, even in a context of increased rainfall. Furthermore, climate change could affect the electricity transmission networks, requiring investments in order to study them in a context of high temperatures and more frequent extreme events (storms, gales, thunderstorms).

Results expected from the RCS:

The climate threats facing the West African energy sector lead us to formulate the following orientations:

- R1.E. The regional strategic and policy framework for energy is adapted to the impacts induced by climate change
- R2.E. The impacts of climate change on the supply of electricity are limited

3. MILIEUX, NATURAL ECOSYSTEMS AND BIODIVERSITY

The landscapes of West Africa are composed of scattered mountains, areas of highland, hilly landscapes but also plains, coastal forests and mangroves (Figure 1).

[99] Source: World Bank
[100] WASCAL (2021). *Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa*, WASCAL.
[101] Bodian A., Dézetter A., Diop L., Deme A., Djaman K., D. A. (2018). Future Climate Change Impacts on Streamflows of Two Main West Africa River Basins: Senegal and Gambia. Hydrology 2018, 5, 21. 18 pp.

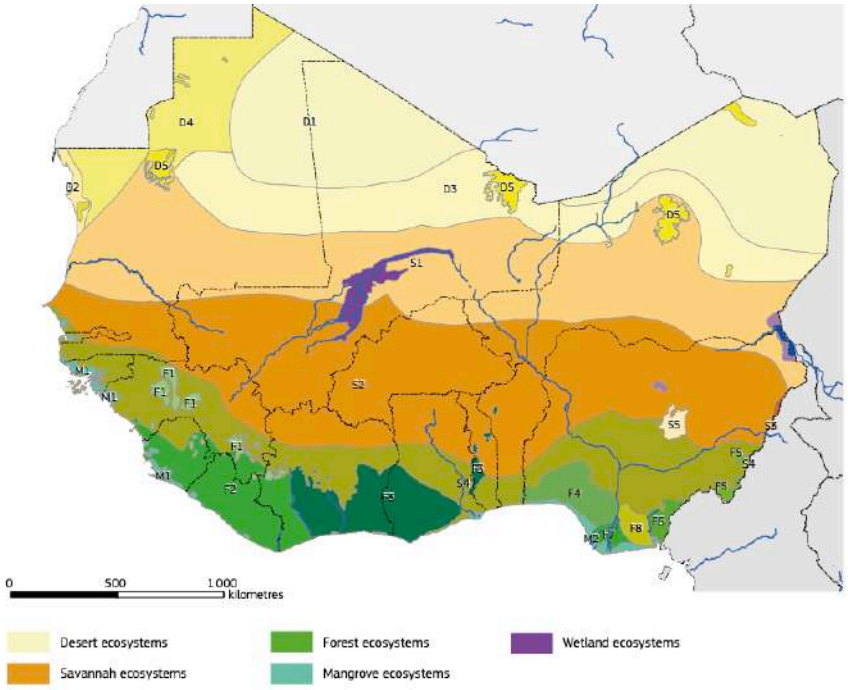


Figure 1: Main ecoregions of West Africa[102]

The different types of forest ecosystems in West Africa are home to a wide range of remarkable but also highly vulnerable native flora and fauna and constitute an essential source of fuel, food and means of subsistence for millions of people. “Ecosystem services” (the benefits that people obtain from ecosystems) play a considerable part in the resilience of populations and of society as a whole, and in particular that of the poorest social groups, especially women and young people.

However, West African forest formations are very badly affected by deforestation and degradation caused by various factors, mainly itinerant agriculture, agricultural expansion and non-sustainable logging for timber and firewood use and certain high-value woods, but also bush fires, uncontrolled urbanisation, and the intensive development of mining activities, all pressures which greatly reduce forest cover, including mangroves, and make it vulnerable. These pressure factors on forests are exacerbated by cross-border issues such as uncontrolled trade between certain countries. In addition, the afforestation / reforestation and restoration efforts initiated by the countries of the ECOWAS region are not enough to offset these impacts.

[102] European Union, 2016, LARGER THAN ELEPHANTS Inputs for an EU strategic approach to wildlife conservation in Africa – Regional Analysis, European Commission, Directorate General for International Cooperation and Development.

From 1975 to 2018 forested areas in West Africa declined from 2,156,416 km² (0.8 million square miles) to 1,475,292 km²[103] (0.6 million square miles) which represents a reduction of 681,124 km² (31.6%) in 43 years or an average of 15,840 km² (0.73%) or 1,584,000 hectares (612 square miles) per year. The reduction in forest cover, which is mainly due to human pressure, is exacerbated by the effects of climate change, which make the forests more vulnerable. For example, during the same period, agricultural areas (areas of crops, irrigated crops, lowland and flood recession crops and previously fallow land turned over to oil palm cultivation) have increased almost threefold (an increase of 852,084 km² or 85.2 million hectares).

As well as deforestation and forest degradation, biodiversity, wetlands and protected areas are being affected by climate change, and some protected areas are more vulnerable than others to its impacts. A significant number of West African species (including amphibians, birds, freshwater fish, mammals and reptiles) have been identified as being vulnerable to climate change based on their specific biological traits.[104]

Results expected from the RCS:

Faced with these threats to the natural milieux and ecosystems and their impacts on the populations whose lives depend on them – particularly the most vulnerable fringe groups, notably women and young people – the RCS aims to achieve the following results:

- R1.F. The resilience of natural ecosystems, particularly forests, to the impacts of climate change has been strengthened and the biodiversity to which they are home is protected
- R2.F. The West Africa regional observatory of natural resources of the Fouta-Djalon Massif[105] has been strengthened and allows rigorous and coordinated monitoring of the main natural resources of the region taking into account climate change impacts
- R3.F. The development of ecotourism is favoured at the regional level and specific support is given to Member States for the development of their ecotourism strategy integrating climate change.

4. WATER RESOURCES

[103] CILSS, 2018. Atlas: Landscapes of West Africa, A Window on a Changing World

[104] Belle E.M.S., Burgess N.D., Misrachi M., Arnell A., Masumbuko B., Somda J., Hartley A., Jones R., Janes T., McSweeney C., Mathison C., Buontempo C., Butchart S., Willis S.G., Baker D.J., Carr J., Hughes A., Foden W., Smith R.J., Smith J., Stolton S., Dudley N., Hockings M., Mulongoy J., and Kingston N., 2016. Climate change impacts on Biodiversity and Protected Areas in West Africa, Summary of the main outputs of the PARCC project, Protected Areas Resilient to Climate Change in West Africa. UNEP-WCMC, Cambridge, UK.

[105] The Observatory of Natural Resources of the Fouta Djallon Massif (transferred from the African Union to ECOWAS in 2018), which in due course was supposed to become an observatory for natural resources, water and basin bodies.

West Africa is relatively well endowed with water resources, with more than a trillion cubic metres of fresh water renewed each year through the region's normal hydrological cycle[106]. However, supply is unevenly distributed and relatively inaccessible due to underdeveloped facilities. Furthermore, the water resources are mainly cross-border, which creates significant management challenges. For example, more than 40% of the supply of water in Mali and Chad and 90% in Mauritania and Niger comes from outside the country concerned[107]. Surface water is limited and often seasonal, making groundwater the main resource in terms of available volumes in the region[108].

Variations in temperature and rainfall due to climate change will have variable impacts on surface water levels in certain parts of the region. The water resources of the Sahel will probably prove the most vulnerable to the rise in temperatures and changes in rainfall. Based on climate projections, total flows of water in the region are likely to diminish by between 20% and 40% between now and 2050[109].

Although very uncertain, simulated changes in the diffuse replenishment of subterranean water suggest that the average replenishment in the central region of the Sahel could increase between now and 2050[110]. In the coastal regions of West Africa however, significant and in some cases very significant depletions are forecast: for example for the Afram Plains area in the sedimentary Southern Volta basin in Ghana, the forecasts show decreases in the replenishment of subterranean water of 12.5% and 25% from now until 2030 and 2050 respectively[111].

In addition to these issues of available quantity, the combination of the effect of climate change, population growth and other anthropogenic actions will make water quality more problematic in the future and will contribute to impacting migration dynamics in the region.

Lastly, one of the major constraints on water governance in West Africa is the lack of knowledge of the current status and the trend of this resource affecting availability and quality and in particular how these factors are interrelated with uses, climate variability and climate change[112].

Results expected from the RCS:

[106] Niasse M, Iza A, Garane A, and Varis O., 2004b, Water Governance in West Africa, Gland and Cambridge, IUCN, 247 pp.
[107] USAID, 2017, Climate change risk profile, West Africa Sahel, Regional Fact Sheet.
[108] Ibid.
[109] USAID, 2013, Climate change and water resources in West Africa, Transboundary River basins, ERCA.
[110] WASCAL, 2021, Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa, 128 pp.
[111] Ibid.
[112] UEMOA, 2019, Study on the IWRM implementation status in UEMOA Member States, accompanied by an Action Plan.

The main climate challenges for the water resources sector in the ECOWAS zone guide the RCS to develop the following expected results:

- R1.RE. Knowledge of water resources and the impacts of climate change has been successfully increased in the context of the Regional Water Observatory
- R2.RE. The operationalisation of integrated water resource management, including the impacts of climate change at the regional level has been reinforced and the Member States are being supported in their IWRM processes
- R3.RE. Synergies with the risk and disaster management sector have been maximised, particularly as regards the risk of floods, taking account of the current and future impact of climate change
- R4.RE. Institutional dialogue at regional level with the various basin operators (ABN, ABV, OMVG and OMVS) and regional institutions (Agrhymet, WASCAL), as well as universities and research centres, has been strengthened.

5. TRANSPORT AND MOBILITY

Infrastructures are particularly exposed to heavy rains and flooding, extremes of temperature and rising sea levels along the coastal strips. The vulnerability of transport infrastructure, and particularly roads, to climate change is a crucial economic issue in the West Africa region, given that the cost of transport can represent up to three quarters of the value of final products in landlocked areas of West Africa. It is also a social issue given the isolation induced and the considerable time spent transporting goods and people, especially in rural areas and for the most vulnerable communities, on a deteriorated transport infrastructure.

At the regional level, the majority of cross-border road infrastructures, apart from the analyses and assessment carried out in the context of feasibility and technical design studies[113], are neither big enough nor well enough maintained to be able to withstand the rigours of climate change, and this will lead to the accelerated deterioration of infrastructures, accidents and interruptions to the flow of traffic, leading in turn to heavy financial if not indeed human losses.

The economic consequences are reflected not only in the significant rise in expenditure on maintenance and repair, but also in the losses in trade flows, and the rises in the price of goods, regardless of the type of transport infrastructures. From 2005 to 2020, damage caused to human settlements and infrastructures by flooding in Africa was estimated at more than

[113] In the framework of the feasibility study for the Abidjan-Lagos road corridor project, taking into account the impact of climate change on the infrastructure to be built is an explicit request made in the terms of reference of the study (ECOWAS, TOR, Abidjan-Lagos Highway, Dec 2017).

US$4.4 billion, East and West Africa being the regions hardest hit. Damage in four West African countries (Benin, Côte d'Ivoire, Senegal and Togo) in 2017 was estimated at US$850 million from flooding from rains and US$555 million from river flooding[114].

Results expected from the RCS:

The specific challenges facing the transport and mobility sector in the form of constraints related to climate change lead us to propose the following orientations:

- R1.T. The strategic and policy framework of regional action concerning transport infrastructures is becoming progressively more resilient to climate change
- R2.T. Climate change resilience measures in the transport infrastructure sector within Member States are promoted with a view to their application

6. COASTAL ZONES

The coastal zones of West Africa are home to about one third of the region's population and generate 56% of its GDP[115]. Eleven ECOWAS Member States are coastal states, including two small island developing states (SIDS), Cape Verde and Guinea Bissau. The West African coast extends from Mauritania to Benin, a total length of about 10,000 kilometres[116]. It is composed essentially of sedimentary basins, making it very dynamic, with rocky coasts representing only 3% of the shoreline[117]. As a result, for several decades now many parts of the coast have seen accelerated degradation due to natural erosion and human factors (urban and population pressure, removal of sand, etc.), which is exacerbated by extreme weather events and rising sea levels, an even more pronounced situation in the SIDS. A study produced by the World Bank estimates that the environmental deterioration of the coastal zones of Benin, Ivory Coast, Senegal and Togo cost US$3.8 billion or 5.3% of the combined GDP of these four countries in 2017[118]. Lastly, extreme events may lead to coastal flooding, generating significant damage to infrastructures, accelerated coastal erosion and fatalities[119].

Apart from this, the West African coast is very low-lying (less than 10 metres above sea level) in many parts (**Error! Reference source not found.**).

[114] CDKN & ACDI (2022). The IPCC'S sixth assessment report, Impacts, adaptation options and investment areas for a climate-resilient West Africa, 20 pp.
[115] Croitoru L. "The cost of degradation of the West Africa coastal zone: Benin, Côte d'Ivoire, Senegal and Togo," WACA, World Bank, 2019.
[116] UEMOA, (2017). Assessment 2016 West Africa Coastal Areas. General Document.
[117] Ibid.
[118] Croitoru L. "The cost of degradation of the West Africa coastal zone: Benin, Côte d'Ivoire, Senegal and Togo," WACA, World Bank, 2019.
[119] WASCAL, 2021, Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa, 128 pp.

Figure 2: Map of low-lying coastal zones in West Africa (USAID, 2014)[120]

The rise in the sea level also represents a significant threat for the future of the coastal zones of the region and is associated with various coastline hazards such as ocean waves, flooding of low-lying areas, the erosion of beaches and damage to infrastructures and to coastal ecosystems[121] as well as the salinization of soil.

In West Africa, the sea level is expected to rise by 0.26 metres by 2050 and 0.47 metres by 2100 according to the RCP 4.5 scenario. In the RCP 8.5 scenario, the rise is 0.30 metres by 2050 and between 0.52 and 0.98 metres by 2100[122]. However, it should be noted that these estimates are very imprecise in the case of West Africa due to the lack of data. An increase in excess of the world average is nonetheless expected[123].

The projected annual average variations in wave height in scenario RCP 4.5 compared with the period 1981-2005 show an increase of more than 50% for certain coastal sections of Senegal and Guinea-Bissau. A smaller increase is observed for the coasts of Côte d'Ivoire and Ghana; and a reduction is observed along the coasts of Benin and Togo[124].

Thus, according to the West Africa Coastal Areas Management Programme (WACA), in Senegal, by 2080, three quarters of the shoreline will be exposed to a high risk of erosion, as opposed to one quarter currently. Furthermore, the risk of flooding due to storms at sea, which is already

[120] USAID. (2014). Mapping the exposure of socioeconomic and natural systems of West Africa to coastal climate stressors (Full report), African and Latin American resilience to climate change (ARCC)
[121] WASCAL, 2021, Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa, 128 pp.
[122] Ibid.
[123] IUCN, UEMOA. (2011). Regional Study for Shoreline Monitoring and Drawing up a Development Scheme for the West African Coastal Area.
[124] WASCAL, 2021, Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa, 128 pp.

very high (more than half the shoreline is at high risk), is likely to apply to two thirds of the littoral by 2080[125].

Lastly, the CILSS carried out a study in 2015 on the impact of climate change on salinisation of agricultural land in coastal areas[126], which revealed that the salinisation is due to coastal erosion and the rise in sea levels, but above all to the decline in rainfall, which by curbing the strength of the runoff has favoured the penetration of salt wedges. According to this study, in certain countries (Senegal, Gambia and Guinea-Bissau) hyper-salinisation of agricultural land and massive destruction of mangrove are observed, leading to serious economic losses.

Results expected from the RCS:

The vulnerability of the West African coastal zone is evident, but more detailed knowledge is needed to be able to fine-tune the adaptation measures. The phenomenon of erosion is indeed well known and monitored, thanks in particular to the shoreline monitoring work carried out at the beginning of the last decade (PRLEC and preparation of the SDLAO) and since updated by MOLOA. However, gaps persist, particularly as regards the impact of the rise in sea level on the coast of the region and its consequences in terms of marine submersion. Strengthening of knowledge of future extreme events (frequency and intensity) is also necessary, in particular to feed the ORLOA early warning system (under way). This strengthening of knowledge is indispensable and fundamental in order to properly parametrise future options for adaptation, and must be accompanied by strengthening of technical and technological capabilities (modelling, data acquisition, training of actors to carry out the necessary modelling, etc.).

Lastly, as regards governance, the PRLEC has made it possible to draw up the SDLAO which constitutes a basic tool for managing coastal risks in the region. However, there is no governance framework for managing the coast as a whole (not just the risks but also general shoreline management and conservation, etc.) at the level of the region effectively taking account of climate change. Although UEMOA has played a leading role in the actions to be taken in this sector[127], ECOWAS can play a key role in reinforcing the governance framework for the West African coast taking account of climate change, in collaboration with the institutions of the region.

These various observations lead us to propose the following results for the coastal areas:

[125] Ibid.

[126] CILSS/GCCA, 2015, Impact des changements climatiques sur la salinisation des terres agricoles côtières de l'Afrique de l'Ouest (Impact of climate change on salinisation of agricultural land in coastal areas of West Africa), 21 p, financed by the European Union in the framework of the GCCA West Africa project .

[127] UEMOA, MOLOA, 2021, Assessment 2020, West Africa Coastal Areas, General Document, 234 pp.

- R1.ZC. Knowledge of evaluation of the impact of the rise in sea levels on the West African coast and on extreme events and their consequences by 2050 has improved (in collaboration with ORLOA)
- R2.ZC. A regional governance framework based on the ICZM for a coastal zone that is resilient to climate change has been drawn up

7. CLIMATE SERVICES, DISASTER RISK MANAGEMENT, EARLY WARNING SYSTEMS AND HUMAN MOBILITY

Climate services

Interest in climate and meteorological services (CMS) has increase in the past few years with the setting up in 2012 of the Global Framework for Climate Services and its breakdown into national frameworks in many countries. The use of climate services is a potentially powerful means for helping decision-making and developing specific adaptation capacities at the individual, community, institutional and governmental levels. These comprise "*the provision of information, engineering solutions, political orientations and know-how for supporting resilience and sustainable development and improving means of subsistence*." They consist of "personalised" and "integrated" services responding to the needs of users and to the new challenges posed by climate change, bringing together human capabilities, financial investments, information resources, tools and training for improving countries' ability to adapt and the resilience of the various socio-economic and environmental sectors[128].

Specifically, climate services refer to all types of services concerning short-term weather forecasts (1 to 15 days), seasonal forecasts (trends for the coming three months) or climate projections (long-term trends over the coming decades), easy for anyone to understand and use (farmers, herdsmen, fishermen, health employees, tourists, planners, entrepreneurs, local government officers), aiming to guide decision making (e.g., choice of sowing dates, when to trigger a flood alert plan, etc.)[129]. The information provided by CMS can be broken down into several sectors: agriculture, livestock farming, fisheries, water resources, energy, transport, health and disaster risk management, infrastructure, tourism, etc.

Even though 70% of all disasters in the ECOWAS region are caused by extreme meteorological and climatic phenomena[130], many West African countries still do not have sufficient

[128]WASCAL, 2021, Impacts of Climate Change on Agriculture, Water Resources and Coastal Areas of West Africa, 128 p.
[129] Roudier, P. (2019), Impacts of Weather and Climate Information Services on African Agriculture, A Question of Development, No. 43, AFD.
[130] Communiqué of the ECOWAS Hydromet Forum and the ECOWAS sub-regional platform, Côte d'Ivoire, 21 September 2018.

meteorological and hydrological capabilities to be able to collect, process and disseminate climate information and early warnings to vulnerable communities[131] and the various planners. The needs for investment in this field have been estimated at US$324.5 million (of which US$290 million for Member States and US$34.5 million for supporting regional institutions)[132].

Despite these difficulties, the region enjoys excellent collaboration between National Meteorological and Hydrological Services (NMHS), regional climate centres such as ACMAD and the Regional Agrhymet Centre, global centres (WMO, International Research Institute for Climate and Society, etc.). These different partnerships make it possible to provide long, medium and short term forecasts. In addition, systems for monitoring vegetation cover dynamics and early warning systems for extreme weather events (droughts, heavy rainfall and flood risks, etc.) have also been set up. Finally, NMHSs benefit from research and professional training programmes in agro-hydrology delivered by the Regional Agrhymet Centre.

Besides, over the past few years we have seen an intensification in the production, dissemination and use of meteorological and climatological information services (MCIS) in some countries such as Ghana, Mali and Senegal, thanks in particular to close collaboration between the national meteorological agencies and CGIAR's Research Programme on Climate Change, Agriculture and Food Security (CCAFS)[133].

Legal frameworks (technological and economic) that allow the public and private sectors to work together have been put in place. These public-private partnership models for MIS have been successfully implemented in West Africa such as Esoko in Ghana, Sandji and Garbal in Mali and Jokolante, MyAgro, Mlouma in Senegal. Their operation is based on the development of weather and climate forecasts by the meteorological services (ANACIM in Senegal, Mali Météo, the Ghana Meteorological Agency) and their dissemination to farmers, fishermen and livestock breeders via mobile phone operators (as in the case of Vodafone in Ghana, Orange in Mali and Senegal). The information disseminated is a decision-making tool for strategic planning (choice of varieties to be grown) and tactical planning of agricultural activities (tillage, sowing, treatments, fertiliser application, harvesting). This form of win-win partnership has enabled meteorological services to generate financial resources for the production of weather and climate information (WCI) tailored to the needs of users, private companies to make profits from the provision of WCI, and users to improve their productivity based on decisions made

[131] ECOWAS, (2021): ECOWAS Hydromet Initiative: Strengthening Weather, Climate, and Water Services In West Africa: An Analytical Report.
[132] Ibid.
[133] Ouédraogo I, Diouf NS, Zougmoré R, Ndiaye O, Touré AA. 2020. Business Model Options for Ensuring the Sustainability of the Use of Climate Information Services in Senegal. CGIAR Research Programme on Climate Change, Agriculture and Food Security (CCAFS). Published by the CGIAR Research Programme on Climate Change, Agriculture and Food Security (CCAFS), 15 pages.

after receiving WCI. In order to improve the efficiency of CMS and their sustainability[134], WCIs are coupled with information services on agricultural input supply, prices and markets.[135]

CCAFS/Esoko Public-Private Partnership Model for the dissemination of climate information services in Ghana

Between 2011 and 2017, the CCAFS developed a pilot scheme to disseminate climate information services (CIS) in two climate-smart villages (Lawra and Jirapa) in Ghana's Upper West region. This project consists in providing climate information to 1,000 farmers by means of a collaboration with a private ITC company called Esoko and the Ghana Meteorological Agency (GMet). In this project, Esoko receives the information processed by Ghana Met and broadcasts it to the producers through their smartphones. The producers are registered on the platform through a grant from the CCAFS. The Esoko platform also allows farmers to access a call centre to ask questions. The climate information services (CIS) disseminated concern rainfall forecasts, start and end dates of the rainy season and ten-day forecasts during the rainy season. As well as forecasts, farmers also receive market alerts and agricultural tips to help them understand and use the information received. To support the delivery of CIS to farmers, Esoko has adopted a public-private partnership (PPP) business model proposed by the CCAFS. The PPP is aimed particularly at farmers taking part in the "Planting for Food and Jobs" initiative launched by the government of Ghana as one of its measures to improve food security and employment in the agricultural sector. The implementation of this model has allowed more than 300,000 farmers, a quarter of them women, to subscribe to CIS and pay the monthly subscription fee of US$0.20 directly. The CIS received by the farmers have allowed them to take strategic decisions on the selection of varieties to be cultivated, when to plant, spread fertilisers, irrigate and harvest. These decisions have contributed to reducing the number of poor harvests and have increased the productions of rural households. **Source: Mathieu Ouédraogo I, *et al,*. 2020.**

Disaster risk management and early warning system

The ECOWAS Disaster Risk Reduction Policy Action Plan 2015–2030 covers adaptation to a limited extent. However, according to the report of the United Nations Office for Disaster Risk Reduction (UNDRR - 2020)[136], synergies between DRM and adaptation should be strengthened. Historically, DRM and adaptation to climate change have had different conceptual bases and been handled by different political institutions. All the same, the link between climate risk and DRR is fundamental in the context of climate change. In the framework of the UN Agenda 2030 for sustainable development, a reinforcement of the consistency of the policies is suggested, to favour a trajectory of sustainable development. For the moment, the consistency between these two policies is not yet structural and needs to be reinforced[137]. In its report, the UNDRR estimates that the synergies between DRM and adaptation can be organised around the priorities of the Sendai framework by developing these priorities so as to properly integrate the adaptation aspect, taking account of the specific vulnerability of women and children:

[134] Ibid
[135] Ibid
[136] UNDRR, 2020, "Disaster Risk Reduction and Climate Change Adaptation Pathways for policy coherence in Sub-Saharan Africa", 80 pp.
[137] Ibid.

- Priority 1: prepare common bases for understanding the risks in order to explain the preparation of the policies
- Priority 2: establish a solid, gender-sensitive system of governance to attain long-term resilience
- Priority 3: increase investments and budgetary support for DRR and gender-sensitive adaptation
- Priority 4: clarify the roles, including those of the most vulnerable groups, in preparing for disasters, and strengthen adaptation for post-disaster resumption.

Similarly, convergences should be strengthened with the actions carried out in the framework of the Warsaw International Mechanism on Loss and Damage, on each of the 4 priorities of the Sendai Framework. Finally, Early warning systems (EWS)[138] form an integral part of disaster management, in priority 4 of the Sendai framework. ECOWAS's Disaster Risk Reduction Policy Action Plan for 2015-2030 provides for multi-risk EWS to be put in place[139]. However, it should be noted that in most of the NDCs, Member States included the early warning systems dimension in their sectoral objectives, in particular for the agriculture, water resources and coastal zone sectors. A sectoral approach to implementing EWS would perhaps be preferable, in order to fall in line with the Member States' processes.

Human mobility in the context of disaster, climate change and environmental degradation

West Africa is one of the world's most mobile regions, historically characterised by trade, nomadic pastoralism and migration with the aim of diversifying the means of subsistence[140]. Indeed, climate-related human mobility is widespread, especially towards urban areas in connection with decreasing rainfall, increasing urbanisation and household vulnerability. The impacts of climatic factors on human mobility are very context-specific and interact with social, political, geopolitical and economic factors. Human mobility can be seen as a climate change adaptation practice for communities but needs to be anticipated by the state, especially as the use of mobility in relation to disaster risk is already observed within the region. In 2020, in ECOWAS countries, more than 620,000[141] new internally displaced persons

[138] UNDRR definition of EWS (2022): An integrated system of systems and processes for hazard/hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risk before hazardous events occur (https://www.undrr.org/terminology/early-warning-system).

[139] Multi-hazard EWS address multiple hazards and/or impacts of similar or different types in contexts where hazardous events may occur singly, simultaneously, in cascade or cumulatively over time, and taking into account potential interrelated effects (UNDDR, 2022, https://www.undrr.org/terminology/early-warning-system).

[140] Rigaud, Kanta Kumari; de Sherbinin, Alex; Jones, Bryan; Adamo, Susana; Maleki, David; Abu-Ata, Nathalie; Casals Fernandez, Anna Taeko; Arora, Anmol; Chai-Onn, Tricia; and Mills, Briar. 2021: Groundswell Africa: Internal Climate Migration in West African Countries, World Bank Washington, DC: World Bank.

[141] Number of IDPs per country concerned: 280,000 in Nigeria, 276,000 in Niger, 20,000 in Burkina Faso and 18,000 in Gambia.

were recorded, linked to disasters, mainly floods and storms[142]. By 2050, climate factors could force up to 32 million people to move within their countries in West Africa[143]. For example, between 0.3 and 2.2 million inhabitants on the coast of West Africa could be forced to leave the five-kilometre coastal strip by 2050 due to rising sea levels, exacerbated by storm surges[144]. Sources of climate migration could emerge from 2030 and continue to intensify through to 2050 in all countries of West Africa.

Results expected from the RCS:

The RCS can contribute to strengthening the integration of adaptation within the Climate Services, Disaster Risk Management, Early Warning Systems and Human Mobility sector through the following pathways:

Climate services

- R1.SC/GRC: The implementation of the Hydromet Initiative as the strategic framework for climate services at ECOWAS level has been completed
- R2.SC/GRC: A collaboration framework for the various regional institutions with competence in the areas of climate services and disaster risk management[145] and the relevant sectoral departments of ECOWAS has been institutionalised
- R3.SC/GRC: The modernisation of the infrastructures of the NMHS via investments in the equipment necessary to put in place a robust observation network for the region (preparation of an investment plan) are coordinated and provided as formulated by the Hydromet Initiative
- R4.SC/GRC: The durability of the digital library of good adaptation and mitigation practices in the agricultural sector (in the process of being prepared in the context of the GCCA+WA) is assured

Disaster risk management and early warning system

- R5.SC/GRC: ECOWAS' next action plan under the risk and disaster management strategy[146] integrates adaptation more forcibly and favours synergies between adaptation and DRM, organised around the four priorities of the Sendai framework[147]
- R6.SC/GRC: Coordination among the regional institutions is assured, to favour the setting up of multi-risk operational EWSs at the level of each Member State.

[142] IDMC, 2021, Global Report on Internal Displacement, Internal displacement in a changing climate, NRC.
[143] Ibid.
[144] Ibid.
[145] List of structures in section 3.2.7 of this document
[146] ECOWAS, 2016, ECOWAS Disaster Risk Reduction Plan, 2015-2030.
[147] In reference to the recommendations of "Disaster Risk Reduction and Climate Change Adaptation Pathways for policy coherence in Sub-Saharan Africa", 2020, of the UNDRR.

Human mobility in the context of disaster, climate change and environmental degradation

- R7. SC/GRC: Regional cooperation on human mobility in the context of climate change is strengthened by building on existing dialogue structures (notably MIDWA) and a legal framework is defined
- R8.SC/GRC: The implementation of pillar 7 of the ECOWAS migration policy is supported
- R9.SC/GRC: The integration of human mobility in national adaptation plans, nationally determined contributions and national communications of Member States is ensured

8. HEALTH

Climate change is already affecting the health of tens of millions of people in West Africa by exposing them to extreme meteorological conditions (droughts, floods, heatwaves, etc.). The Region is experiencing an increase in climate-related emergencies, with 25% more climate-related events reported between 2011 and 2021, compared to the previous decade[148]. Higher-than-normal mortality rates, most often linked to cardiovascular and respiratory diseases, have been recorded in Burkina Faso and Ghana during heatwaves[149]. Extreme events linked to floods also cause loss and damage to human establishments and infrastructures and limit access to essential health services and to water for drinking and sanitation.

The risks of malnutrition, diarrhoeal diseases such as cholera and mosquito-borne diseases such as malaria and dengue fever will probably increase as temperatures rise and rainfall becomes more variable[150]. With a 2°C increase, extreme temperatures would more often reach the critical tolerance thresholds for public health[151]. It is estimated that the mortality risk linked to heat in West Africa would be between six and nine times as high as the average from 1950 to 2005 with a 2°C rise in overall average temperatures. Apart from this, the phenomenon of urban heat islands, combined with the lack of greenery in towns could lead to a sharp increase in the number of days exceeding lethal heat thresholds[152]. The most vulnerable are children, the elderly, pregnant women, people with underlying conditions, socially marginalised groups in cities and people living in extreme poverty.

[148] OMM, 2022, Climate Change and Health in West Africa
[149] CDKN & ACDI, 2022, Op.cit.
[150] USAID (2017) Risk expands, but opportunity awaits: Emerging evidence on climate change and health in Africa
[151] IPCC (2022). Africa (Chapter 9). Full reference: 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, 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. In Press.
[152] https://www.carbonbrief.org/billions-face-deadly-threshold-heat-extremes-2100-study

However, knowledge of the links between climate change and its impacts on human health is still limited[153], which reduces the pertinence of the adaptive responses put in place. Besides, the evolution of climate-sensitive diseases and afflictions will depend partly on the level of GHG emissions, the effectiveness of the public health systems, interventions and sanitation.

Results expected from the RCS:

Climate change is still hardly taken into account in ECOWAS health policies, even though the health sector is considered particularly vulnerable to the impacts of climate change. It is also a sector named as priority in eight of the seventeen (17) NDCs of the ECOWAS plus CILSS countries. Also, the RCS may act as a catalyst in support of initiatives launched by the WAHO to improve the integration of adaptation in this sector, aiming for the following results:

- R1.S. A strategic framework and regional action policy on health, resilient to climate change, have been developed, using the One Health approach.
- R2.S. Knowledge of the impact of climate change on the health sector in West Africa and the means to mitigate its effects has been improved in line with the needs of the sector's strategic and policy framework.
- R3.S. Gender-sensitive measures to increase resilience to climate change in the health sector in Member States, particularly in terms of capacities of health infrastructures are being promoted with a view to their application.

[153] Adebisi Y., Communication "Planetary Health Conference 2020", Understanding the health impact of climate change in West Africa: A review of current knowledge and research gaps, 2020

PART 3 – ENCOURAGE LOW-CARBON DEVELOPMENT TRAJECTORIES AND FAVOUR ECONOMIC OPPORTUNITIES

INTRODUCTION

Overview of GHG emission mitigation commitments of ECOWAS Member States at the 2030 horizon in the context of the Paris Agreement

Participating in the mitigation efforts of the international community to achieve the objectives of the Paris Agreement regarding the reduction of greenhouse gas (GHG) emissions, all the countries of West Africa have expressed their commitments for 2030 via their Nationally Determined Contributions (NDCs), updated or revised in 2020/2021 in order to make them more robust and ambitious, despite the low-level of their contribution to global GHG emissions both historically and currently.

GHG emissions at the regional level are constantly increasing overall but in fairly variable proportions depending on the circumstances of each particular West African country. Indeed, the region's GHG emissions have been estimated at 588,014 KteqCO_2 (thousands of metric tons of CO_2 equivalent) in 2020, and are likely to reach 775,956 KteqCO_2 by 2025 and 1,023,435 KteqCO_2 by 2030 (according to the countries' latest projections in their NDCs, NCs or BURs), representing an increase of 74% between 2020 and 2030. The main sources of emissions are the energy sector, with an average share of 63% of total GHG emissions, followed by the Agriculture, Forestry and Other Land Use (AFOLU) sector with an average percentage of 23%, and in third place by the waste sector with an average share of 9% of the region's total GHG emissions[154]. The figure hereunder shows the estimated projections for GHG emissions at the 2030 horizon of ECOWAS countries in the baseline scenario, commonly referred to as the "business as usual" (BAU) scenario[155].

Based on the commitments made by ECOWAS Member States in their revised NDCs, the scenario of conditional and unconditional mitigation measures would enable GHG emissions in 2030 to be reduced to 619,320 Kt eqCO_2, or 61% of the baseline emissions in 2030. A significant part of this potential reduction is however conditional upon the provision of international climate finance, since the unconditional mitigation objective is only 26% at the 2030 horizon in relation to the baseline scenario. This translates, in absolute terms for 2030, into emissions of 264,954 KteqCO_2. The unconditional objective will in any case require major efforts, particularly (i) to create favourable conditions for the implementation of the mitigation

[154] Data extracted from the revised 2021 NDCs of the MS available in the UNFCCC Interim NDC Registry: https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx (see Part 3)
[155] As some of the revised NDCs do not present a sectoral breakdown of emissions, National Communications and Biennial Update Reports (BURs) have been consulted to establish a sectoral breakdown at the regional level

measures, as regards national sectoral policies, the legislative and regulatory system and the stimulation of investments, (ii) to mobilise the financial resources and (iii) to measure, monitor and report the results of the actions taken. The following figure illustrates the trajectories of GHG emissions in the two mitigation scenarios (conditional and unconditional) at the 2030 horizon for the ECOWAS Member States.

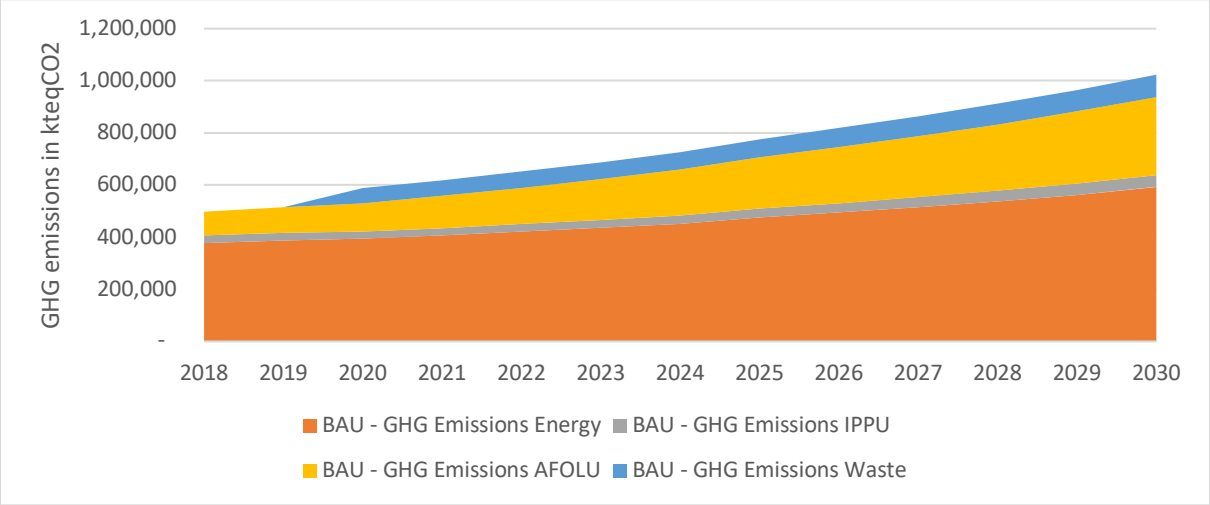


Figure 3. Breakdown by sector of ECOWAS Member States' GHG emissions in the baseline (BAU) scenario[156]

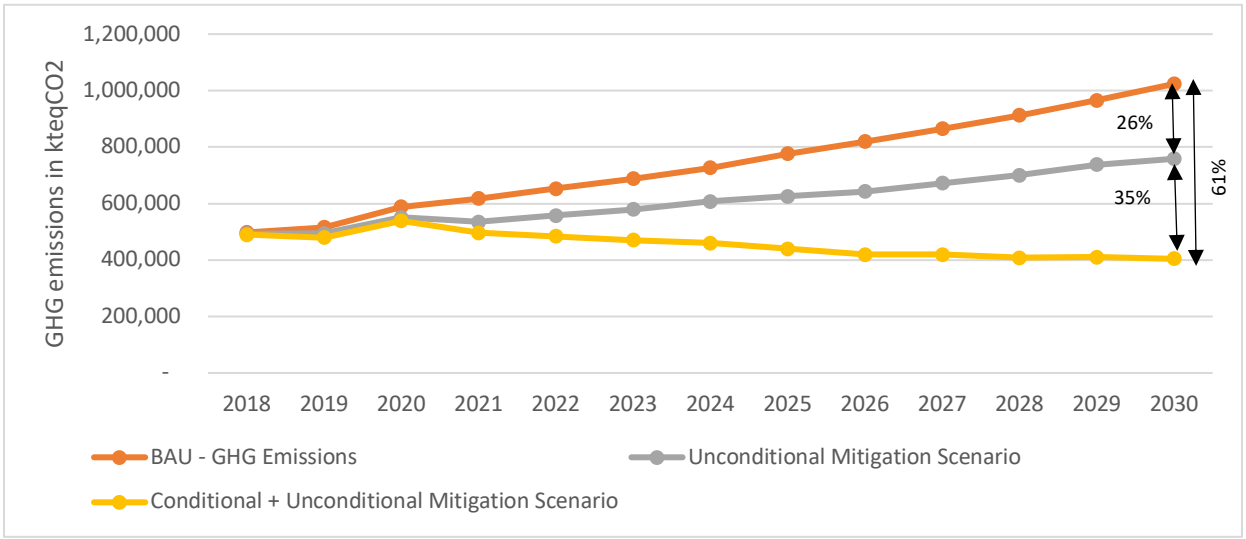


Figure 4. Trajectories of ECOWAS Member States' GHG emissions in the baseline, unconditional mitigation, and conditional mitigation scenarios[157]

[156] Graph constructed from the data presented in ECOWAS Member States' revised NDCs
[157] ibid

The following table presents the GHG emissions of the various sectors in the unconditional and conditional mitigation scenarios.

Table3. GHG emissions of the various sectors in the mitigation scenarios indicated in the revised NDCs of the ECOWAS Member States[158]

Sectors		GHG emissions in thousands of teq CO_2		
		2020	2025	2030
Energy	Unconditional	383,724.37	426,932.38	505,574.07
	Conditional + Unconditional	375,263.08	370,627.96	408,489.81
IPPU	Unconditional	26,709.21	33,647.63	40,872.06
	Conditional + Unconditional	26,143.42	29,973.56	33,878.84
AFOLU	Unconditional	85,078.09	102,748.23	138,981.71
	Conditional + Unconditional	83,703.88	-12,893.26	-93,705.32
Waste	Unconditional	55,348.93	61,759.51	73,053.19
	Conditional + Unconditional	53,439.03	51,565.78	55,451.80
Total – Unconditional measures		**550,860.59**	**625,087.75**	**758,481.03**
Total – Conditional + Unconditional measures		**538,549.42**	**439,274.04**	**404,115.13**

According to the above table and the following figures, the majority of reductions in GHG emissions envisaged are linked to actions in the areas of forestry and agriculture by reducing the rate of deforestation, redoubling reforestation and planting efforts, improving the productivity of livestock farming, etc. This sector foresees a reduction of 63.6% or 393,662 KteqCO_2 in GHG emissions by 2030. The energy sector, and in particular the production of electricity, represents the second biggest source of reduction in emissions, (30% of the total reduction), and in third place is the waste sector with 5% of the total reduction of the ECOWAS region in 2030. The forecast contribution of the IPPU sector to the overall reduction is 1.8%.

[158] Aggregated data based on Member States' data presented in their revised NDCs

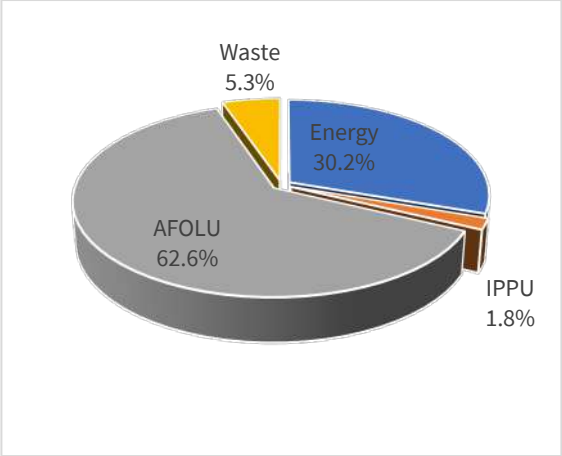


Figure 5. Breakdown of the overall mitigation effort of ECOWAS Member States in the period 2020-2030

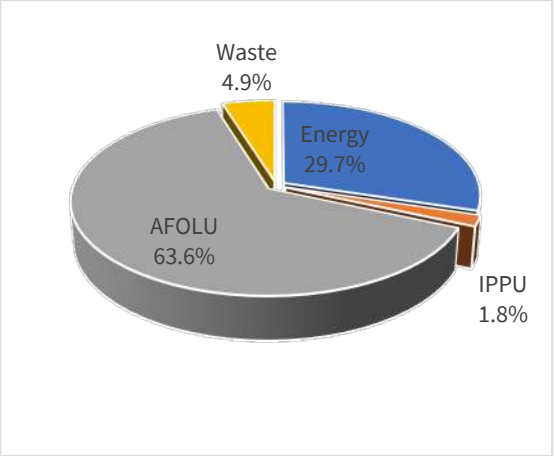


Figure 6. Breakdown of the overall mitigation effort of ECOWAS Member States in 2030

An analysis of the types of mitigation measures envisaged in the Member States' NDCs shows that more than half the mitigation actions are based on investment and financing, while 16% of them rely on grants and incentives[159].

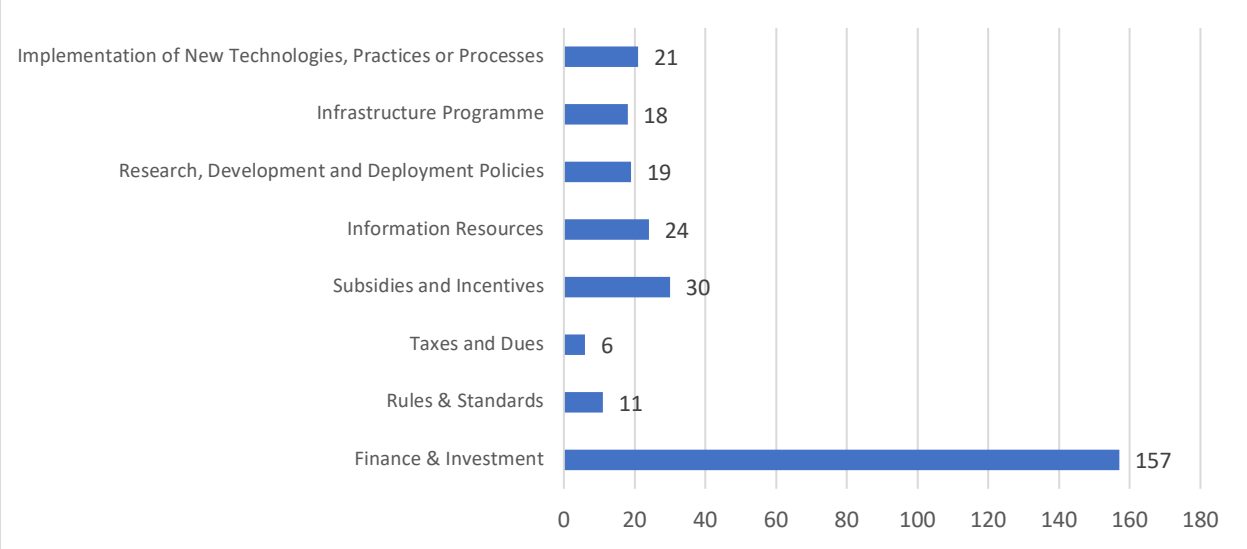


Figure 7. Types of mitigation actions envisaged in ECOWAS Member States' revised NDCs

The nature of the mitigation measures proposed for each sector (e.g. installation of a solar power plant, replacement of industrial gases, renewal of vehicle fleet, reduction of rate of

[159] Analysis of the types of GHG emission mitigation actions using the policy and action standard methodology of the GHG Protocol: https://ghgprotocol.org/policy-and-action-standard

deforestation, development of zero grazing dairy farms, recovery of methane emitted from landfill sites, etc.) is analysed in the following table.

Table 4. Type of policy or action of sectoral mitigation measures proposed in ECOWAS Member States' revised NDCs

Sector / Type of policy or action	Total n° of measures	FI	RS	TD	SI	IR	RDDP	IP	INTPP
Agriculture	**39**	19	0	0	10	3	1	1	5
Energy – Production of electricity	**26**	20	0	0	2	1	1	1	1
Industry	**32**	17	2	1	5	1	0	2	4
Residential and tertiary	**34**	20	2	0	10	1	0	0	1
Transport	**54**	15	3	3	11	4	0	10	8
Land management and forestry	**60**	30	1	0	7	6	0	0	16
Waste	**41**	24	2	0	3	3	0	6	3

FI: Finance & Investment

RS: Rules & Standards

TD: Taxes and Dues

SI: Subsidies and Incentives

IR: Information Resources

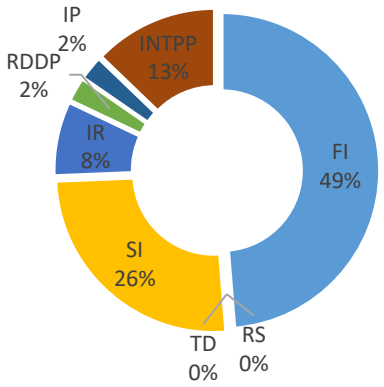
RDDP: Research, Development and Deployment Policies

IP: Infrastructure Programme

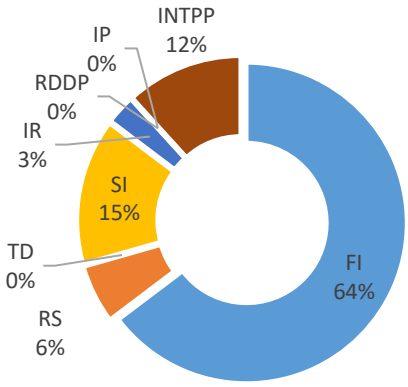
INTPP: Implementation of New Technologies, Practices or Processes

In total, more than 280 mitigation measures are proposed in the revised NDCs by 2030. From the table above and the figures below, it can be seen that the majority of the measures are located in the energy sector (including the transport and building sector) with a share of 40%. Mitigation measures of the Financing and Investment type account for 50.7% of the total measures.

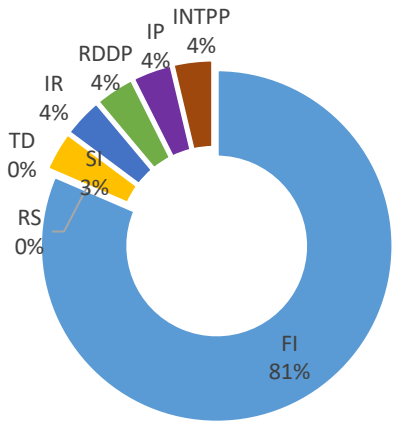
Agriculture



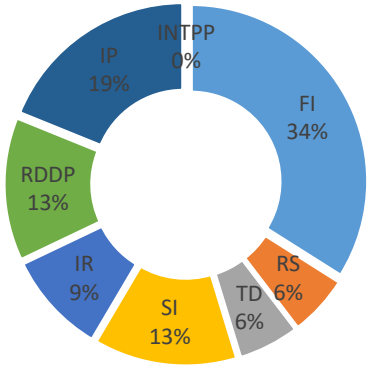
Residential & Tertiary



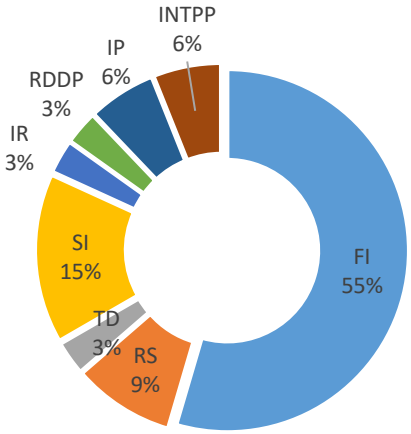
Energy- Electricity Production



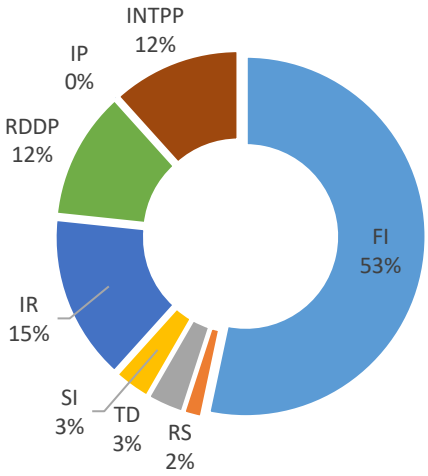
Transport



Industry



Forestery & Other Land Use



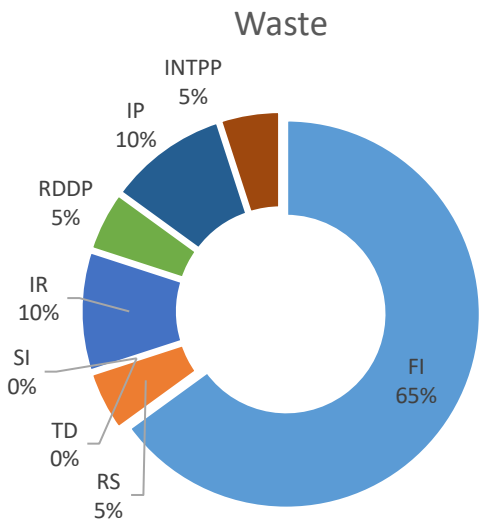


Figure 8. Type of policy or action of sectoral mitigation measures proposed in ECOWAS Member States' revised NDCs

According to the Member States' revised NDCs, the financing requirement for implementing all the conditional and unconditional mitigation actions is estimated at nearly US$240 billion[160].

[160] The Gambia was the only country that did not mention the costs of its mitigation actions in its NDC

Table5: Financing requirement for implementing the mitigation actions proposed in ECOWAS Member States' revised NDCs

Country	Costs of implementing the mitigation measures, in millions of US $		
	Unconditional	Conditional	Total
Benin	5,069.03	3,487.77	8,556.81
Burkina Faso	449.12	885.67	1,334.79
Cape Verde	-	-	1,100.00
Côte d'Ivoire	-	-	10,000.00
The Gambia	-	-	-
Ghana	-	-	6,324.94
Guinea	-	-	13,800.00
Guinea-Bissau	132.80	531.20	664.00
Liberia	-	-	400.65
Mali	-	-	4,343.80
Niger	212.70	2,952.40	3,165.10
Nigeria	-	-	177,000.00
Senegal	3,396.58	5,366.15	8,762.73
Sierra Leone	-	-	1,700.00
Togo	697.72	2,001.64	2,699.36
		Total – ECOWAS Region	**239,852.18**

The ECOWAS Commission's contribution to these efforts through its mandate to bring about economic integration and the emergence of a strong regional market, is already significant and offers opportunities to promote a trade policy and to adopt standards and measures that support the orientation of national economies towards development trajectories that are more decarbonised than the baseline or "business as usual" scenario.

Nevertheless, additional priority axes must be pursued over the period 2022-2030 in order to support the achievement of ECOWAS' Vision 2050 and make the regional action framework consistent with the Paris Agreement as regards mitigation. Thus, these axes are distributed into four sectors under the Commission's mandate.

Forward-looking view of West Africa's GHG emissions at the 2050 horizon

The evaluation and analysis of the current situation and of future climate trends in the ECOWAS region represent an important element for the establishment of this RCS. Indeed, a forward-looking analysis is necessary in order to throw light on long-term trends in ECOWAS Member States' GHG emissions while at the same time taking account of future economic and social developments. This analysis also allows us to verify the alignment of the policies and strategic planning while considering several possible future scenarios. This forward-looking analysis therefore reflects all the commitments made by the ECOWAS Member States in their revised NDCs and the third strategic orientation of Pillar 4 of ECOWAS' Vision 2050 which aims to strengthen environmental sustainability and the fight against climate change.

The parties to the Paris Agreement [161] committed to *"holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels at the end of the century."* The signatories to the Accord also committed *"to reach global peaking of greenhouse gas emissions as soon as possible"* and to *"undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century"*, this balance being commonly referred to as *"carbon neutrality"* (see figure hereunder).

[161] https://unfccc.int/sites/default/files/english_paris_agreement.pdf

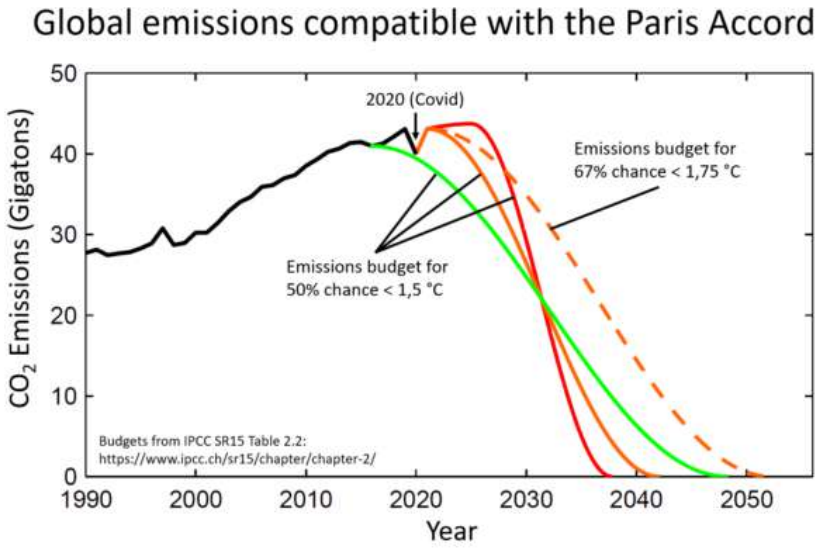


Figure 9. Trends in global GHG emissions compatible with the Paris Agreement[162]

Apart from the NDCs, and in accordance with Article 4, paragraph 19, of the Paris Agreement, all Parties were to strive to formulate and communicate low emission development strategies (LEDS), taking account of Article 2, which considers their responsibilities to be common while differentiated and their respective capabilities in accordance with different national circumstances. The Conference of the Parties, in its decision 1/CP 21[163], paragraph 35, asked the Parties to inform the secretariat of the UNFCCC by 2020 of their LEDS at the 2050 horizon, in accordance with paragraph 19 of Article 4 of the Accord. Among the 50 countries that have already submitted their LEDS, we must note the presence of 19 developing countries, of which only two from West Africa:

- Benin having presented its low-carbon, climate change-resilient development strategy for 2016-2025 in 2016[164]. However this projection goes only as far as 2025;
- Nigeria having recently (December 2021) presented its Long-Term Vision for 2050 (LTV-2050)[165].

However, in the context of the development of the ECOWAS RCS, a forward-looking analysis of the region's GHG emissions was carried out with a 2050 horizon (see Figure 10). Based on the data provided by the countries in their NDCs and the projections of data relating to regional population and GDP, which are the two main variables strongly correlated with trends in GHG emissions, the following three (3) scenarios were constructed:

[162] www.realclimate.org
[163] https://unfccc.int/resource/docs/convkp/conveng.pdf
[164] https://unfccc.int/files/focus/long-term_strategies/application/pdf/benin_long-term_strategy.pdf
[165] https://unfccc.int/sites/default/files/resource/Nigeria_LTS1.pdf

- *Scenario 1*: All commitments (conditional and unconditional) of the Member States are met between now and 2030 and the degree of effort is very slightly increased for the subsequent NDC revision cycles;
- *Scenario 2*: All commitments are met between now and 2030 and the degree of effort is sharply increased for the subsequent NDC revision cycles, particularly in the AFOLU sector;
- *Scenario 3*: Only the unconditional commitments are met between now and 2030 and the degree of effort is very slightly increased for the subsequent NDC revision cycles.

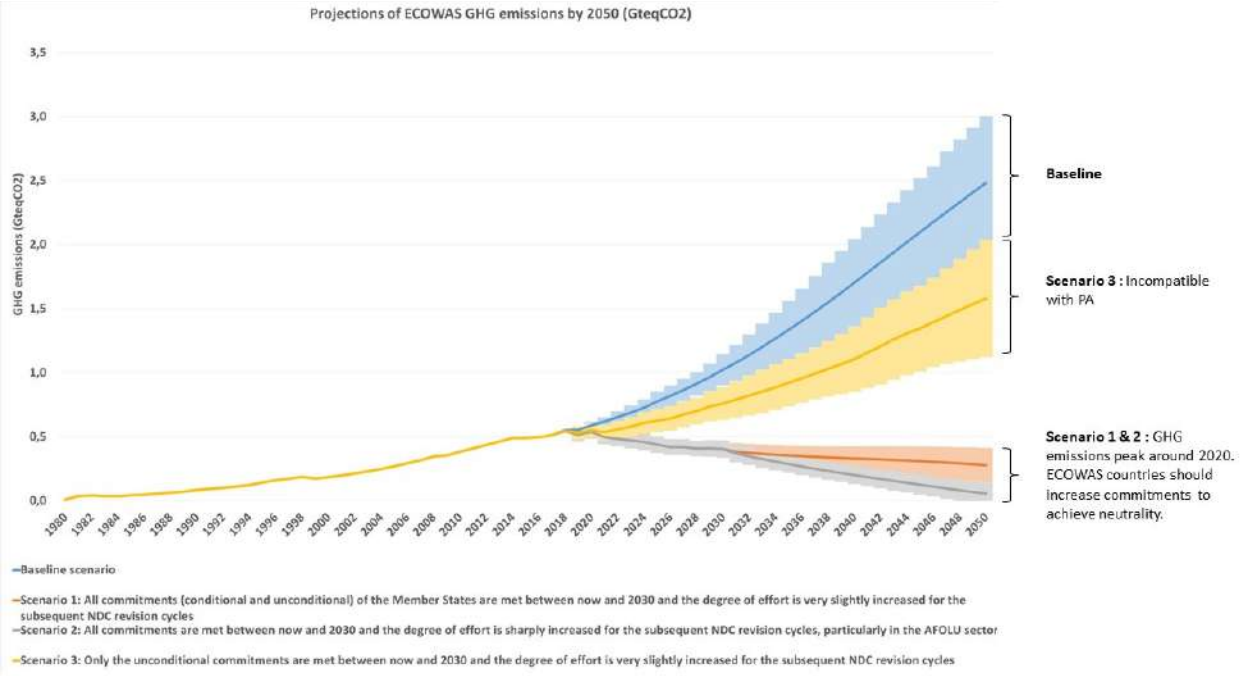


Figure 10. Forward-looking analysis of ECOWAS Member States' GHG emissions at the 2050 horizon

According to this forward-looking analysis, *scenario 3*, in which only the unconditional commitments have been, clearly does not allow the objectives of the Paris Agreement to be attained, since neither the peaking of emissions nor carbon neutrality can be achieved without international financial assistance. *Scenario 1* allows the West African region's emissions to follow a descending curve, with a peak around the beginning of the 2020s. However, the strong demographic and economic growth expected in the region will obviously require an intensification of efforts in order to limit the GHG emissions that will be generated by this increase in economic activity. Besides, depending on the growth generated by Member States, the GHG emissions curve could flatten or even start rising again. Finally, *scenario 2* is the most ambitious, allowing the same level of emissions to be attained in 2050 as in 1985, which is not very far from carbon neutrality.

ECOWAS, in its role as a regional organisation, must reinforce the efforts of the Member States and encourage them to pool their climate projects to favour regional integration, make the region more attractive and mobilise growing volumes of international financing. In this case, and in addition to this forward-looking regional analysis, the RCS could be an instrument to help countries develop Low Carbon Development Strategies (LCDS).

1. AGRICULTURE, FORESTRY AND OHER LAND USES (AFOLU)

From a climate point of view, and according to the projections for emissions produced by the activities of the AFOLU sector, these will increase by 175% (from 108,936 to 299,957 KteqCO_2) during the period 2020 to 2030. The agriculture sector is not a particularly significant emitter in itself, but is likely to become increasingly so, particularly in view of the different development policies for the sector in the various countries of the region.

In terms of reductions in GHG emissions of the AFOLU sector, the ECOWAS Member States' updated NDCs would allow the absorption of carbon estimated at 93,705 KteqCO_2 in 2030 in both the unconditional and conditional mitigation scenarios. These GHG emission sequestration sinks basically come from the forestry sector thanks to the implementation of reforestation projects and the fight against deforestation and land degradation.

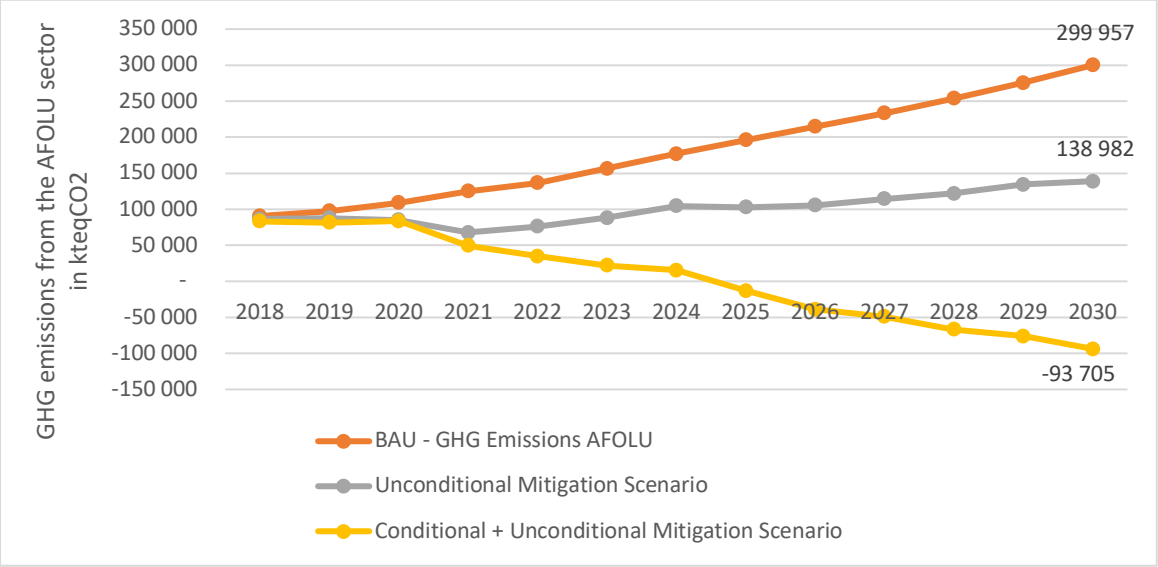


Figure 11. Trends in ECOWAS Member States' AFOLU sector emissions in the mitigation scenario[166]

Indeed, with an estimate of the average carbon stock per hectare in forest formations on a regional scale at 72 KteqCO_2[167], the loss of forest cover represents a source of emissions of 430,236 million KteqCO_2 per year, or almost 24% of the total emissions of the region. This constitutes a net source of emissions at the regional level. This loss of forest cover also has a significant and very worrying impact on biodiversity. Demand for timber and fuel wood continues to encourage logging activity and the deterioration of what remains of the primary

[166] Graph constructed from the data presented in ECOWAS Member States' NDCs
[167] FRA (Global Forest Resources Assessment), 2015

forests, while slash-and-burn agriculture is fragmenting and isolating even secondary forest stands. Although the most intact parts of forest in West Africa are found within protected areas and forest reserves, their total area represents only 3% of the territory and their management is deficient due to lack of capacity and resources. As a result, numerous endemic plants, insects, birds, amphibians, and mammals large and small are in danger of extinction.

1.1 Agriculture sector

Not only does the agriculture sector have the potential to reduce GHG emissions, but it is also the only sector capable of effectively absorbing GHGs from the atmosphere without its entailing a fall in productivity. It is also to be noted that in the right conditions agriculture can take advantage of the synergies created between adaptation to climate change and mitigation.

By reinforcing individual capabilities and consolidating a favourable environment in the Member States, the efforts made to combat climate change in the agricultural sector can be facilitated. Furthermore, low data and solid institutional agreements can allow different effective and viable options to be better defined for mitigating climate change in the agriculture and land use sector. As for effective animal production systems, they can significantly reduce GHG emissions and favour carbon sinks while at the same time increasing productivity.

On the basis of this observation, the results targeted by the RCS are as follows:

- R6.A. At the regional institutional level, agri-forestry-pastoral projects explicitly favouring the relative reduction of GHG emissions are prioritised
- R7.A. Scientific and technical dialogue on the impact of agriculture on GHG emissions in the region is strengthened and encouraged

1.2 Forest and other land use sector

To guide its action, **ECOWAS is setting a regional indicative objective for reabsorbing this loss of forest cover of 0.73% per year from now to 2030**. **We can estimate that the achievement of this objective will enable a reduction of 422 million KteqCO2 from now to 2030**, it being specified that the mitigation results obtained will be recorded by each Member State in line with the actions carried out in its territory. The ultimate objective is to return to the 1975 level of forest cover between now and **2050 (or 2,156,416 km²)**, through the implementation of the Forest Convergence Plan. That represents an annual target of 2,270,400 hectares of forest recovery (restoration, afforestation/reforestation, etc.).

To achieve this objective, the ECOWAS Commission intends to relaunch and strengthen actions undertaken in its Convergence Plan for the Sustainable Management and Utilisation of the

Forest Ecosystems in West Africa (Forest Convergence Plan or FCP for short), which aims to rally political and institutional financial and technical support to solve forestry problems, including cross-border ones, in the fifteen (15) ECOWAS Member States, by improving knowledge of forest dynamics, particularly from the point of view of the carbon cycle, and by supporting the legal and institutional reforms required for sustainable forest management and the dissemination of best practices in community forest management in the region.

The ECOWAS Commission will soon present a revised FCP to its Member States, which will identify the resources provided by ECOWAS as well as the technical and financial partners or even innovative financing instruments such as the cooperative approaches of article 6 of the Paris Agreement which could contribute to its implementation in several countries at the same time, to deal with cross-border forestry problems for example. Within the framework of the revision of the FCP, the accent will be on the harmonisation of the political and legal frameworks for protecting biodiversity and the adaptation capacity of forest ecosystems.

CILSS will provide technical support for the collection of the data required to estimate forest cover and the mitigation results obtained at regional level.

Results expected from the RCS are as follows:

- R4.F. The sustainable management of forests and forest resources is being improved and forest cover increased
- R5.F. Forestry and agricultural policies are better organised at regional and national level
- R6.F. Investments in favour of the sustainable management of forest ecosystems in ECOWAS countries have been maintained.
- R7.F. The fight against land degradation in the ECOWAS countries is encouraged and supported.

2. ENERGY

Energy accounts for almost a third of the region's GHG emissions; it is the main source of GHG emissions for several ECOWAS countries. Apart from the combustion of fossil fuels for transport, the main sub-sectors of greenhouse gas emissions are the use of biomass energy for cooking and heating[168] and, to a lesser extent, electricity production. The ECOWAS zone is marked by very significant variations in the energy mix from one Member State to another,

[168] Regional progress report on renewable energy, energy efficiency and energy access in the ECOWAS region, 2018, ECREEE

given the resources available locally, but also given the public policies already in place to promote energy efficiency and renewable energies.

Thus, the energy consumption of certain countries of the region remains essentially based on biomass, in particular for cooking appliances, access to alternative fuels such as butane gas or electricity[169] and to efficient cooking appliances[170] still being minimal in most of the countries of the region.

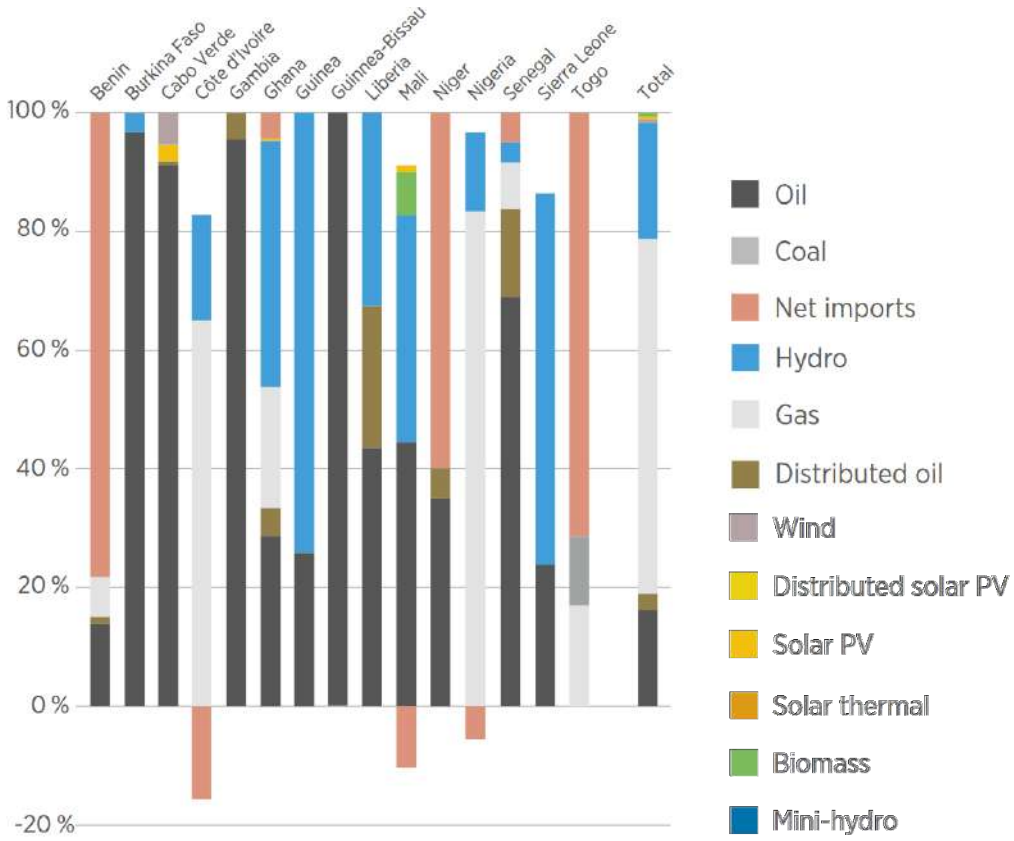


Figure 12. Breakdown of electricity production by ECOWAS Member State in 2015[171]

According to the reference scenarios communicated by ECOWAS Member States in their revised NDCs, GHG emissions are likely to increase to 592,515 KteqCO_2 in 2030, 50% more than in 2020. As regards mitigation, several actions are envisaged in order to reduce the GHG emissions of the energy sector, with an overall objective of 31.1% mitigation at the 2030 horizon, including an unconditional objective of 14.7%. The following figure shows the forecast trajectories of GHG emissions of the energy sector for the baseline and mitigation scenarios.

[169] From 0.2% for Sierra Leone to 78.2% for Cape Verde (ECREEE, 2018)
[170] From 0.009% in Cape Verde to 71.7% in Mali (ECREEE, 2018)
[171] IRENA (2018), Planning and prospects for renewable energies: *WEST AFRICA, 2018*

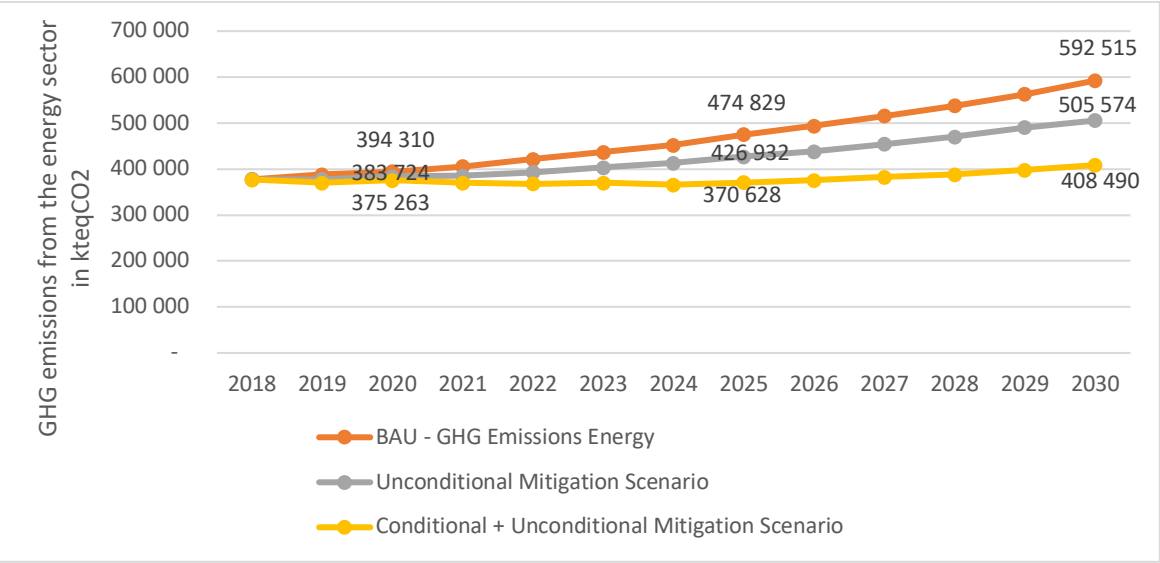


Figure13: Trends in emissions of the energy sector in ECOWAS Member States in the baseline and mitigation scenarios [172]

As far as electricity production is concerned, 80% of the mix emanates from fossil energies (natural gas and petroleum products for the most part), generating a cost per kilowatt hour which is particularly high (around twice the global average). Demand for electricity is likely to increase fourfold between 2015 and 2030[173] to meet the so far insufficiently met needs[174] of urban and rural households[175], but also to meet the development needs of industries in a context of strong economic growth. The impacts of climate change, and in particular the marked rise in temperatures, and the rapid urbanisation of the region[176] could contribute to an increase in air conditioning and cooling needs, in particular in the residential and tertiary sector. Investment choices made today therefore will set West Africa on the path to low-carbon and resilient economies, or not, particularly in terms of access to sustainable energy for all. Given the gender-specific determinants of access to energy services in West Africa, these investment choices will also have implications for development favouring social equality and inclusion.

In addition, fuel subsidies account for around 30% of public expenditure in ECOWAS countries. Furthermore the region remains very dependent on the external market for meeting its demand: in 2017, the region consumed 28.2 million metric tons of petrol and diesel, 85% of

[172] Graph constructed from the data presented in ECOWAS Member States' NDCs
[173] IRENA (2018), Planning and prospects for renewable energies: *West Africa*, IRENA (International Renewable Energy Agency)
[174] In 2018, just 52.8% of the population of ECOWAS had access to electricity, with major differences between one country and another (for example: 18.8% for Niger in 2019 / 83.5% for Ghana).
[175] Current electricity consumption in the region is the lowest in the world, at less than 150 kWh per capita, compared with 500 kWh on average for Sub-Saharan Africa (SSA) and 650 kWh per capita.
[176] According to OECD forecasts, two-thirds of West Africa's population is expected to live in urban areas by 2050, compared with half today (Please add the source).

which was imported. In spite of the fact that West Africa has 30% of the confirmed oil and 30% of the confirmed natural gas reserves of Africa, the region remains very much exposed to the pricing volatility of fossil fuels and this is a heavy burden on the public expenditures and trade deficits of Member States. The sulphur content of these fuels is also very high compared with best international practices, generating atmospheric pollution that is harmful for people's health. However, in 2020, ECOWAS adopted Directive C/DIR.1/9/2020 on harmonised specifications for motor fuels (petrol and diesel) in the ECOWAS region. This requires the application of harmonised fuel specifications from January, 1st 2021 for all non-ECOWAS imports and from January, 1st 2025 for production from local refineries in the ECOWAS region. This measure has the effect of protecting the environment and the health of the populations by ensuring the use of quality and cleaner fuel in the region insofar as it is coupled with Directive C/DIR.2/9/2020, relating to the emission limits of gases and particles from the exhaust of light and heavy vehicles, two-wheelers, tricycles and quadricycles in the ECOWAS region, also setting a limit of the age of the vehicles to be imported at five years. To date, about four (4) countries have taken regulatory measures to comply with the said Directive on harmonised fuel specifications.

However, reducing dependence on this type of energy, by improving the energy efficiency of equipment, installations and systems but also by researching and developing innovative energies is also a priority for the region's development and stability.

Results expected from the RCS are as follows:

- R3.E. A dynamic promoting thermal performance standards in buildings and industry taking account of climatic conditions and changes in West Africa is supported
- R4.E. The ambition of the NDCs and the regional energy policy are harmonised
- R5.E The utilisation of alternative and cleaner fuels has increased
- R6.E. Member States are supported by regional institutions in the implementation of their mitigation objectives in the energy sector
- R7.E. Cooperation and technical and political dialogue between Member States in energy matters is encouraged and supported in order to speed up the achievement of the commitments

3. TRANSPORT AND MOBILITY

ECOWAS has put in place an ambitious transport programme aimed at facilitating the free circulation of persons, goods and services in the region. The air and rail sub-sectors have so far

been under-exploited in the West African region, but efforts are being made to allow their rapid development. The railway sector for example has become the symbol of the determination to develop transport infrastructures in the ECOWAS region.

Road transport is currently undergoing remarkable development, in particular with the ongoing implementation of ECOWAS' regional programme to facilitate road transit and transport, and the adoption of the new ECOWAS regional project for infrastructure development, in which transport is key.

However, the transport sector plays a key role in reducing GHG emissions: it accounts for nearly a third of emissions from fuel combustion in West Africa[177]. Furthermore, the strong growth in the total number of vehicles on the road in West Africa, combined with rapid urbanisation, significant urban sprawl, limited public transport availability and widespread congestion due to the inadequacy and the state of the roads make travel in West African cities[178] slow and expensive and generate losses of competitiveness for many economic sectors. Improving urban mobility while taking the needs and uses of the entire population into account has now become an economic and social imperative.

Results expected from the RCS are as follows

- R3.T. A regional development framework for low-carbon transport infrastructures is established
- R4.T. Carbon-based transport journeys are gradually being replaced by more fuel-efficient means

4. INDUSTRIAL PROCESSES AND PRODUCT USE (IPPU)

Despite the importance attached to industrialisation in the ECOWAS founding treaty, it was not until 2010 that a real industrial development policy was adopted, when the countries agreed on the West Africa Common Industrial Policy (WACIP). Despite the major advances made in recent years, the industrial sector in the West Africa region remains strongly dominated by extractive and agri-food industries. Furthermore, most of the region's industrial added value is concentrated in just four countries (Nigeria, Ivory Coast, Ghana and Senegal).

[177] WRI (World Resources Institute), Global Forest Resources Assessment, 2020
[178] In Abidjan, for example, the poorest households, if they have not given up travel completely, spend on average 20 to 30% of their income on transport and spend 200 minutes a day using it or waiting for it. Added to these costs are the loss of competitiveness for businesses, as well as insecurity and pollution. Ultimately, it is estimated that the lack of mobility within the Abidjan agglomeration causes Côte d'Ivoire to lose up to 4-5% of its national income (World Bank report).

The region remains one of the least industrialised in the world, and this is reflected in the composition of its GHG emissions. Indeed, according to the Member States' revised NDCs, GHG emissions from the IPPU sector amounted to 29,469 KteqCO_2 and are likely to increase to 36,148 KteqCO_2 by 2025 and 45,320 KteqCO_2 by 2030. On average this represents just 5% of the region's GHG emissions. It should be noted however that GHG emissions from energy consumption by industry are counted in the energy sector.

Furthermore, the estimated mitigation efforts for this sector are limited compared with other sectors. It is important to point out that only six of the fifteen (15) Member States proposed mitigation actions in this sector: The Gambia, Ghana, Nigeria, Sierra Leone, Senegal and Togo. The global mitigation potential (unconditional and conditional) has been estimated at 11,441 KteqCO_2 in 2030, of which 4,448 KteqCO_2 are unconditional (see figure hereunder).

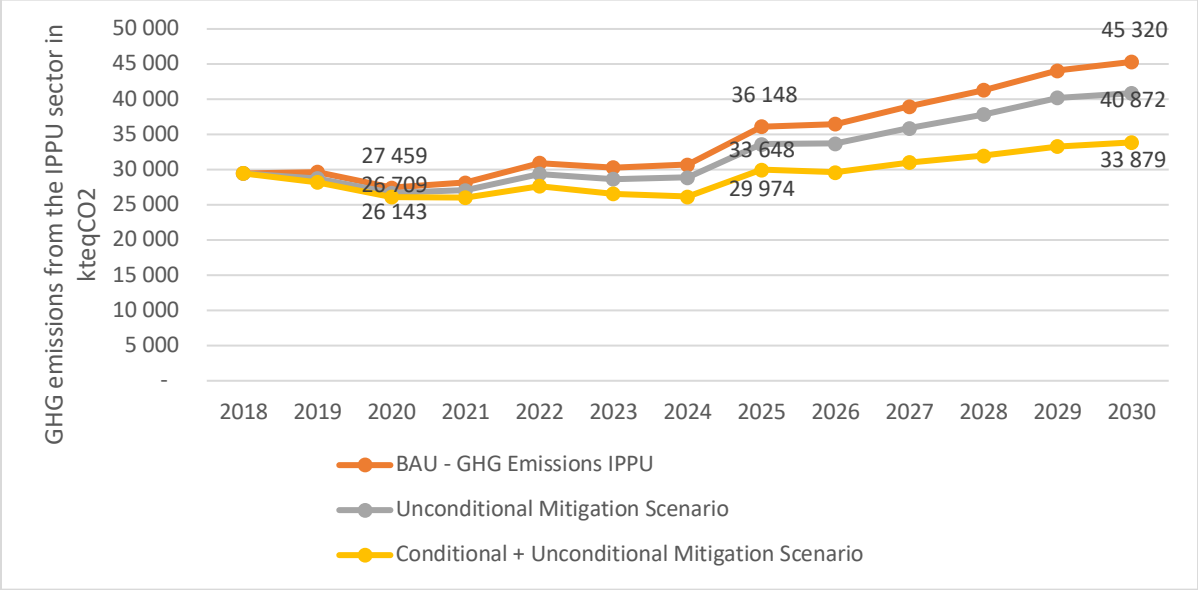


Figure14: Trends in emissions of the IPPU sector in ECOWAS Member States in the baseline and mitigation scenarios[179]

Results expected from the RCS are as follows:

- R1.P. A global approach to ensure low-carbon development of the IPPU area has been adopted and is supported.
- R2.P. The updating/refining and large-scale application of new technologies to ensure sustainable industrial growth are supported.

[179] Graph constructed from the data presented in ECOWAS Member States' NDCs

5. WASTE

Current production, consumption and development patterns in ECOWAS Member States are generating rapidly increasing quantities of waste, the management of which is insufficiently controlled. Waste is generally burnt in the open air or collected in bulk and transported to open dumps. The multiplicity of landfills and their inappropriate management methods lead to GHG emissions, particularly methane from fermentation and CO_2 from burning.

Twelve ECOWAS Member States have identified the waste sector as a priority sector in their NDCs. On analysis, waste emissions account for 9% of the region's total GHG emissions[180], i.e. a total of 57,308.93 KteqCO_2 in 2020. On the other hand, emissions from this sector will be estimated at 68 987 KteqCO_2 in 2025, continuing to increase to reach 85 643 KteqCO_2 in 2030.

In terms of mitigation, a regional target has been estimated at 35.3% by 2030, i.e:

- *Unconditional contributions*: a 14.7% reduction in GHG emissions compared to the baseline scenario;
- *Conditional contributions*: a reduction of up to 20.6% of GHG emissions by 2030 compared to the baseline scenario.

The figure below illustrates the projected GHG emission trends of the waste sector for the baseline and mitigation scenarios.

[180] Data from revised 2021 MS NDCs available in the UNFCCC interim NDC registry: https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx (see Part 3)

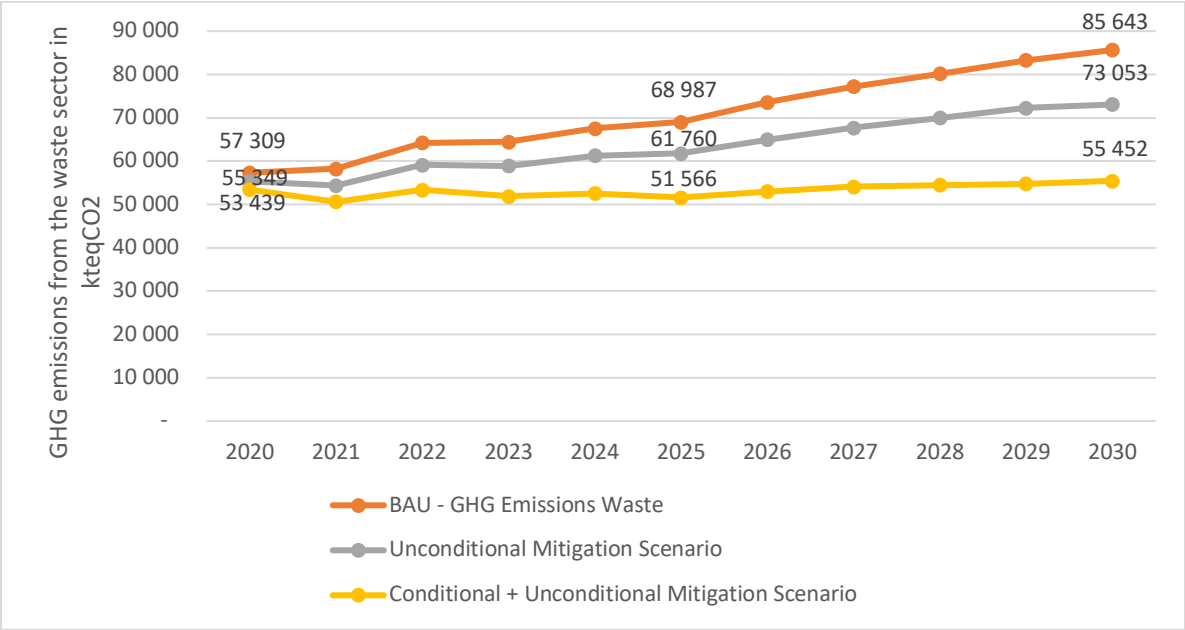


Figure 15. Emission trajectories for the waste sector mitigation scenario

The figure also shows that mitigation efforts in this sector are expected to keep emissions close to the 2020 level in 2030 if the unconditional and conditional mitigation measures in the NDCs of the 12 Member States concerned are financed and implemented. However, the level of emissions will rise sharply by 2030 if only the unconditional measures are implemented (+32%), which confirms the need for international financing. In addition to the climate aspect, better waste management generates numerous co-benefits in terms of cleanliness, public health and environmental pollution.

Expected results:

- R1.D. Regional waste management policies, strategies and programmes are reviewed or designed to promote GHG emission reductions from this sector
- R2.D. Cooperation and technical and political dialogue between Member States on waste management are encouraged and supported to accelerate the achievement of national GHG reduction commitments
- R3.D. The promotion of regional norms, guidelines and standards to guide efforts to reduce methane and carbon dioxide emissions from the waste sector is supported

PART 4 – INSTITUTIONAL MECHANISM, MONITORING-ASSESSMENT AND TRANSVERSAL MEANS OF IMPLEMENTATION

1 INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTATION

The implementation of the RCS requires institutional arrangements in order to implement good climate governance within the ECOWAS Commission and in its relations with the Member States.

The drivers of good climate governance are political will, integration capacity, decision-making based on reliable and shared information, the search for consistency and synergies between regional policies and national policies, and the rallying of all actors, public and private.

The governance of the RCS is based on the principle of consultation between stakeholders to promote the integration of considerations related to climate change and the coordinated formulation of programmes and measures, as part of a dynamic and continuous improvement approach. The key stakeholders are the ECOWAS Commission, the EBID, the Member States, civil society organisations and the private sector. Since they are involved in the financing and implementation, the regional technical cooperation organisations and the technical and financing partners also take part in the consultation.

The RCS constitutes the structuring framework for the ECOWAS Commission's climate action, respecting the prerogatives and powers of each party involved.

1.1 Political steering of the RCS in the ECOWAS Commission

1.1.1 The Commission's main governance body: the IDEC

Given the transversal nature of climate action and the need to ensure not just consistency but also synergies among sectoral policies on the one hand and between mitigation and adaptation measures on the other, the Commission is governed internally by the Interdepartmental Environment Committee (IDEC), which brings together all the Commission's departments, with the Department in charge of the environment acting as technical secretariat.

The IDEC is responsible for monitoring the key success factors and the integration of climate change considerations by the directorates and agencies and for the proper coordination of regional policies and measures for the implementation of the RCS.

Thus, in the framework of the implementation of the RCS, **the mandate of the IDEC** is to:

- define key success factors for the successful implementation of the RCS
- give its opinion on the action plans of the competent directorates and agencies for the implementation of the RCS;

- monitor the implementation of the sectoral climate actions set forth in the action plans of the directorates and agencies;
- stimulate regional political dialogue in a concerted fashion and strengthen collaboration with regional institutions in the fight against climate change;
- approve recommendations aimed at improving the consultation and coordination processes;
- validate the annual report on the implementation of the RCS and forward it to the President of the ECOWAS Commission for submission to the President of the ECOWAS Parliament for information.

1.1.2 Steering of the consolidated monitoring of implementation and performance evaluation

The Department in charge of Macro-economic Policy and economic research, in line with its mandate, compiles data from the various sectoral indicators collected by the sectoral directorates and on this basis draws up an **annual report on the implementation of the RCS for the attention of the Office of the Vice-President** and the members of the IDEC, (summary of sectoral indicators produced by the departments, framework of results / dashboard, indicators of requirements and flows of climate finance from multilateral and bilateral sources). The work of collecting the indicators is done by the Directorate in charge of the environment.

The Office of the Vice-President, in accordance with its mandate, receives the annual monitoring report and carries out a qualitative evaluation of the results relative to the objectives set by the RCS, and an institutional evaluation of the mechanisms for the coordination and governance of the implementation of the RCS with a view to continuous improvement. The Office of the Vice-President also evaluates the contribution of the RCS to the realisation of ECOWAS' Vision 2050.

1.1.3 Steering of the SER policy

The ECOWAS Commission undertakes to formulate and then implement its social and environmental responsibility (SER) policy between now and the end of 2023, by taking a collaborative approach with all the agencies and directorates of the ECOWAS Commission. To this end, the President of the Commission will designate the internal department or directorate responsible for steering the formulation and implementation of this internal policy and set up an in-house team for change management within the Commission. A monitoring-evaluation facility for the achievement of the SER policy objectives as well as an internal process for the

continuous improvement of this policy will be established and steered by the department responsible for steering SER. A report will be produced and sent to the IDEC for information.

1.2 Coordination of implementation and regional consultation

The Department in charge of the environment is responsible for coordinating the paradigm shift needed to implement the RCS as regards fields of action 2 and 3. As such it is responsible for:

Within the Commission:

- Acting as technical secretariat of the IDEC, and as such bringing together all the focal points designated in the directorates and agencies to launch the work of formulating action plans and monitoring and evaluation frameworks by each directorate and agency;
- Putting in place the consolidated monitoring and evaluation framework for the action plans of the directorates and agencies of the ECOWAS Commission, the data for which are expected by the Macro-economic Policy and Economic Research Department, and facilitating the transmission of the results obtained by each directorate and agency in the context of the monitoring and evaluation of the policies and measures to the Department in charge of Macro-economic Policy and Economic Research;
- Prepare internal tools and instruments that are common to all in order to (i) make the regional policies and measures climate-compatible, (ii) evaluate the alignment of the sectoral programmes and investments with the RCS (iii) share the knowledge and competences necessary for the integration of climate into the directorates' and agencies' action plans;
- Participate in the internal process of continuous improvement of the mechanisms of consultation and coordination of the implementation of the RCS, and identify recommendations on improvements to be made to these mechanisms in order to provide substance for the annual report shared with the IDEC and the Office of the Vice-President.
- Initiate and steer the examination at the half-way stage of the implementation of the RCS, in 2026, and the formal process of revision of the RCS after 2030 for the 2050 horizon.

Externally, the Department in charge of the environment:

- Puts in place a reporting system for the national inter-ministerial climate committees through the ECOWAS Member States' NDC focal points, aimed at:

- gathering and taking into consideration their written comments on the proposals for policies and measures put forward by the Commission's directorates in order to implement the sectoral objectives and the transversal measures of the RCS;
- presenting a biennial monitoring report on implementation to the Member States.

- taking part in coordinating the Climate Donors Group in collaboration with the Directorate in charge of External Relations of the General Secretariat to the Office of the President.

1.3 Operational implementation: a shared responsibility

1.3.1 The sectoral directorates with mandates covering the sectors addressed in the RCS

The sectoral directorates with mandates covering the sectors addressed in the RCS are the following:

- The Directorate in charge of energy ,
- The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)
- The Directorate in charge of agriculture and rural development,
- The ECOWAS Regional Agency for Agriculture and Food (RAAF),
- The Directorate in charge of transport and transport infrastructure,
- The Directorate in charge of environment and natural (forestry and water) resources,
- The ECOWAS Water Resource Management Centre (WRMC).
- The Directorate in charge of managing and reducing risks of disaster,
- The Directorate in charge of tourism,
- The Directorate in charge of the Free Movement,
- The Directorate in charge of industry.

Each of the Commission's agencies and directorates is responsible for the development of the regional programmes, policies and measures necessary in order to achieve the sectoral objectives and priorities within its sphere of competence in line with its national sectoral focal points. Always respecting the competences and prerogatives of the directorates. In this respect, they must establish an action plan integrating the considerations linked to climate change and implement the proposed priority actions for achieving the sectoral objectives that concern them, with a precise estimate of the costs and a plan for financing the policies and measures identified, as well as a framework for the monitoring-evaluation of the

implementation (monitoring and impact indicators and the corresponding targets). These action plans are subject to an annual scheduling, the conformity of which to the RCS's objectives is analysed and approved by the Office of the Vice-President as part of its strategic planning mandate.

1.3.2 Transversal departments and directorates

Each transversal directorate of the Commission is responsible for ensuring the integration of the strategic orientations of the RCS in exercising its functions. The transversal directorates have an important role to play in this respect, as presented later.

a) Directorate in charge of trade within the Department of Trade, Customs and Free Circulation of the ECOWAS Commission

The Directorate in charge of trade with the Department of Trade, Customs and Free Circulation of the ECOWAS Commission can contribute to the implementation of the RCS by supporting the ECOWAS Vision 2050 through various actions, including in particular:

- integration of climate change considerations into ECOWAS trade policy and discussions with relevant international organisations in the sectors concerned with trade regulation;
- engaging in negotiations of regional or bilateral agreements that facilitate access to technology transfer, that support low-carbon and/or resilient development, and that promote compliance with higher mitigation and adaptation standards, in a manner that influences the entire supply chain to encourage the use of cleaner and more climate-friendly production processes and techniques.
- using appropriate tools to assess the environmental and climate impact of proposed business measures.

The ECOWAS Regional Competition Authority (ERCA) will also have a role to play in applying the climate rules adopted.

Lastly, for the directorate in charge of trade to be able to play its role fully, it is important than an action plan be developed, also covering the activities of ERCA, and that it concentrate on the priorities of trade policy envisaged for the period 2022 to 2030 and establish a programme to reinforce its capabilities and means of intervention (tools). The Directorate could benefit from the support of the technical and financial partners on the one hand but also from the trading partners of ECOWAS on the other (support that could be provided for in the actual trade agreements).

b) Department in charge of the private sector and industry

Given the importance of the private sector in the implementation of climate actions (adaptation and mitigation) and the mobilisation of financing, the Private Sector Directorate in the Department of Industry and the Promotion of the Private Sector has an important role to play in promoting the implementation of ECOWAS' RCS with the Member States' actors concerned. The key actions comprise:

- Integration of climate change consideration in terms of opportunities and risks, into the process of revision under way, and the implementation to come of the private sector Strategy 2015-2020 and ECOWAS' MSME charter;
- Integration of climate change considerations into the agenda for discussions in the framework of the promotion of networks and regional and international business processes of the private sector in West Africa;
- Promoting projects in favour of low-carbon development that is resilient to climate change, such as green entrepreneurship, with actors from the private sector (particularly MSMEs) making appropriate tools available to them (standards, directives, programme to reinforce capabilities, etc.) for them to take account of the risks and opportunities linked to climate in developing their business models;
- Establish a mechanism for raising awareness and capitalising on best practices in low-carbon, climate-resilient development dedicated to the private sector to ensure their scaling up to cover the region of West Africa;
- Encourage private sector innovation and R&D programmes with a view to putting in place new techniques and technologies aimed at better capitalising on the opportunities presented by climate change (low-carbon development) or to confront climate risks (by improving resilience);
- Engage and raise the awareness of actors in the finance sector of the region in order to establish a roadmap for the promotion and development of climate financing in the region in favour of private sector actors, particularly MSMEs;
- Engage in discussions with central banks and financial market operators in the Member States to gradually introduce the notions of climate risks and opportunities in the risk management systems so as to construct a system for the financing and development of businesses that is more resilient thanks to the dissemination and due consideration of information relating to climate change. Indeed, confronting the financial impact of climate change requires increased transparency in respect of the risks and opportunities linked to climate in order to promote better informed financial and investment decision making.

For the private sector Directorate to be able to perform this role to the full, it is important that it develop an action plan concentrating on the priorities of investment policy (ECOWIP), the MSME charter, and the ECOWAS policy on tourism for the period 2022 to 2030. This will require the establishment of a programme to reinforce its capabilities and means of intervention (tools), which could benefit from support from the Technical and Financial Partners (TFPs) on the one hand but also from partners of ECOWAS in the private sector.

c) Directorate in charge of communication

The RCS must be clearly identified and relayed as the foundation for regional action on climate, which warrants the corresponding communication efforts. The ECOWAS Commission's communication directorate plays a key role in promoting and disseminating the regional climate strategy by guaranteeing the implementation of the associated communication strategy. This role concerns both internal and external communication.

In this context, this Directorate has to implement the following actions:

- As regards internal communication, it puts in place tools and procedures allowing the regular effective sharing of information on the implementation of the RCS in the various bodies of ECOWAS, the Member States and the partner organisations, monitors the mechanism put in place and makes sure that it is sustainable.
- Externally, it makes sure communications on climate are consistent. It defines an annual communication plan, following the major milestones of the RCS and ensures that it is implemented. To do so, it coordinates the existing network of correspondents of the various ECOWAS bodies responsible for implementing the plan, each according to its competences, it makes sure that there are regular, prioritised communications on regional climate action and edits the contents of the communication channels for which it is responsible (in particular the Commission's website and ECOWAS' social media accounts).
- It contributes to the SER section of the RCS by adopting responsible communication practices for all its communication actions and by disseminating these practices to the ECOWAS network of correspondents.

In view of is limited resources, the communication directorate is allocated a budget dedicated to the communication of the RCS, comprising at least one FTE dedicated to guiding communications on climate, at least in the start-up phase, and various technical support services (defining the communication plan and the editorial charter, measuring results, coordinating the dedicated communication channels, responsible communication practices and eco-design, etc.).

d) Directorate in charge of education, science and culture

The directorate is responsible for matters relating to the improvement of education systems, the development of curricula, the harmonisation of diplomas and the promotion of literacy. It also aims to strengthen the capabilities of scientific research institutes, promote joint scientific research, strengthen cultural capabilities and develop Member States' cultural industries, with a view to improving the quality of life of the citizens of the community. Lastly, in its transversal intervention it also takes account of gender promotion and young people and their contribution to the socio-economic development of the region.

This department will contribute to the implementation of the RCS by means of the following actions:

- (i) make an inventory of the frameworks and innovative approaches existing in the Member States as regards integrating education and climate change, preparation for and responses to climate-related disasters in Member States' educational systems; and (ii) support the production and dissemination of guides to best practices with a view to adapting educational and vocational training systems.
- Support the organisation of regional seminars of ministries of education and technical and vocational training in order to raise awareness and exchange views on the integration of climate issues into educational systems.
- Support the preparation of training programmes on climate change education, preparation for and responses to climate-related disasters in Member States' educational systems.
- Support specialist regional institutions and centres of excellence in the field of climate change research.
- Support the organisation of regional forums on scientific knowledge of climate change and the prevention and management of disaster risks.
- Support programmes to strengthen competences of young people regarding the climate and promote climate competences as a new opportunity for insertion into low-carbon jobs that are resilient to climate change.
- Support the preparation of research programmes into climate change and the prevention and management of disaster risks.
- Support the development of an environmental culture focusing on climate change.

e) Directorates in charge of the budget, treasury and financial reporting

The Directorate in charge of the budget and treasury in the Department of Finances is responsible for budgetary planning and treasury management, disbursements and the community levy.

To ensure transparent and prudent financial management, improved governance of the organisation and better risk management, the ECOWAS Commission has put in place the Ecolink system, a real-time integrated administrative and financial management system in the Institutions of the Community in accordance with the international public sector accounting standards (IPSAS).

The Ecolink system aims to contribute to the alignment of ECOWAS' strategies and organisational plans thanks to a good visibility of its operations and more effective decision making processes, and also to the setting up of a robust, transparent and comprehensive reporting system in the Commission's institutions.

Budgetary planning is done on the basis of three-year (short-term) action plans or sectoral plans focusing on priority activities. These three-year action plans or sectoral plans are prepared by way of implementation of the five-year strategic plans, which are associated with pre-approved medium- to long-term policies (10 or 20 years).

The annual budget, prepared on the basis of the budgets expressed in the action plans or sectoral plans using a results-based approach, is formalised in a Budgetary Circular of the Commission which will guide the budgetary expenditure of all sectors, departments and institutions of the ECOWAS Commission.

To support the implementation of the RCS, the Directorate in charge of the budget and the treasury is required to support the implementation of the following actions:

- Support the updating of the encoding system for budgetary expenditure, integrating the climate change dimension;
- Sensitize sectoral directorates to the use of the climate encoding system;
- Prioritise the financing of actions relating to climate change in ECOWAS' budgeting process;
- Encourage and incentivise ECOWAS departments and institutions to develop budgets that are sensitive to climate change;
- Coordinate climate change financial reporting in relation with the implementation of programmes and action plans by sectoral directorates;
- Support Member States in developing national budgets that are sensitive to climate change.

For the Directorate in charge of the budget and the treasury in the Finance Department to be able to play its part fully, it is important for it to develop its own action plan for the period 2022 to 2030 and establish a programme to strengthen its capabilities and its means of intervention (tools), which could benefit from support from the technical and financial partners.

f) Social and Gender Affairs Department

Questions relating to the attainment of gender equality and empowerment of women and young persons and other vulnerable groups in the context of climate change and policies and programmes to reduce environmental and disaster risks will be handled by the Social and Gender Affairs Department through the ECOWAS Gender Development Centre (EGDC). The

EGDC will contribute to equitable and effective participation that takes account of gender equality in planning, budgeting, implementation, monitoring and evaluation of adaptation and disaster risk management linked to climate.

In this regard, the EGDC will be responsible for implementing the following actions:

- Informing, educating and raising awareness of vulnerability and the climate change adaptation strategies in the areas of agriculture, water, health, energy, migration, disaster risk management, etc.
- Strengthen the capacity for leadership and taking account of gender in the decision-making bodies dealing with matters related to the environment and in particular to climate change
- Incorporate gender into policies, strategies and plans to combat climate change,
- Undertake monitoring and evaluation actions in terms of collecting and analysing gender-specific data and reporting relating to other stakeholders.

To do this, the EGDC must on the one hand benefit from actions to strengthen its capabilities in terms of tools for evaluation, data collection and monitoring and evaluation of the implementation of the RCS, and on the other from an implementation budget in accordance with a gender-sensitive approach to budgeting and allocation of resources. The Member States

The Member States take part in implementing the RCS by transposing the regional policies and their enacting legislation into national policies. To this end they are in contact with the national actors affected by and involved in its implementation: public authorities, civil society and the private sector.

However, in a bottom-up approach, the Member States also play an active part in defining and reviewing the regional policies and standards through coalitions or dialogue platforms for the exchange of experiences among peers and the expression of needs and of on the ground reality in the various countries.

They also submit relevant information for the ECOWAS Commission to monitor the implementation of the RCS as well as data on the monitoring of needs and of flows of climate financing.

The Member States, by virtue of their commitments made in the context of the Paris Agreement, are jointly responsible for the alignment of the RCS with the Paris Agreement, and can have recourse to the Commission on this subject in the biennial meetings on the implementation of the RCS.

1.3.3. Member States

Member States participate in the implementation of the RCS through the transposition of regional policies and their normative instruments into national policies. To this end, they are in contact with the national actors impacted and involved in the implementation: public actors, civil society and the private sector.

Nevertheless, in a bottom-up approach, Member States also actively participate in the definition and revision of future regional policies and standards through coalitions or dialogue platforms allowing for the exchange of experiences between peers and the feedback of needs and national realities.

They also provide the ECOWAS Commission with relevant information for monitoring the implementation of the RCS, as well as data on the monitoring of climate finance needs and flows.

Member States, under their commitments under the Paris Agreement, are jointly responsible for ensuring that the RCS is in line with the Paris Agreement, and may refer the matter to the Commission during the biennial meetings on the implementation of the RCS.

1.4 Summary of actors involved in the implementation

The implementation of the RCS will be taken care of by the following main actors:

1.4.1 ECOWAS institutions

The Commission:

- The Office of the President, which receives the annual report on the implementation of the RCS and forwards it to the Parliament, and which creates and coordinates the Climate Donors Group, to argue in favour of the gradually increasing climate compatibility of sponsors' programme approaches;
- The office of the Vice-President which provides the conformity analysis with the RCS of the annual programmes, with the prior opinion of the IDEC;
- The Department in charge of administration, which oversees the preparation and implementation of the SER policy;
- The Department in charge of the environment and natural resources, which coordinates the implementation of fields of action 2 and 3;
- The sectoral departments of the ECOWAS Commission and specialised technical agencies, the focal points of which are in the IDEC and which are responsible for implementing proposed priority actions for achieving the sectoral objectives that relate to them;

- The transversal departments, which integrate the strategic orientations of the RCS into the performance of their functions;
- The Department with responsibility for Macro-Economic Policy and Economic Research, which compiles the sectoral and transversal indicators for monitoring and evaluating the RCS and produces the annual report;
- The Directorate in charge of communication, which implements the communication plan associated with the RCS and which leads, internally, awareness-raising actions within the framework of the definition of the RCS policy, in coordination with the departments;

The **West African Health Organisation** (WAHO), which is responsible for the implementation of actions in the health sector, in the same way as a sectoral directorate of the Commission.

The ECOWAS **Parliament**, which issues a consultative opinion on the RCS prior to its adoption by the Heads of State and Government and is informed of the attainment of its objectives by means of an implementation monitoring report sent by the Office of the President of the Commission.

The ECOWAS Bank for Investment & Development (EBID) and the **West African Bank for Development** (WABD), which mobilise resources to facilitate achievement of Member States national climate commitments, and to finance the implementation of specific actions of the RCS.

The Regional Climate Centre, operationalised by the Agrhymet Regional Centre, which, as per the Partnership Agreement of June 2020 between the ECOWAS Commission and the CILSS, performs: (i) the operational activities of meteorological and climate forecasts, (ii) the climate surveillance operational activities, (iii) the operational data services in support of long-term forecasting and the climate surveillance, (iv) the strengthening of the operational capabilities, (v) the management and dissemination of meteorological and climate-related information.

1.4.2 The Member States

- The Heads of State and Government;
- The Statutory Council of Ministers;
- The specialised, technical ministerial Committee;
- The national inter-ministerial climate committees, coordinated by the ministries that oversee the implementation of the NDCs in the countries.

1.4.3 The Commission's regional and international partners

The UEMOA Commission, in the context of meetings and work of the joint technical secretariat, which aims for consistency and convergence of strategies and policies of the two Commissions, relations between which must subsequently form part of the strategy of cooperation and convergence between UEMOA and ECOWAS which should lead to the alignment of the two regional organisations' specific objectives.

The Commission of the African Union, through its department in charge of agriculture, rural development of the blue economy and of the environment, and more precisely the climate directorate which steers African climate strategy, to make sure of its conforming to the continent's climate strategy and the contribution to the 2030 Agenda.

The Climate Commission for the Sahel Region (CCRS) to create synergies in the coordination and monitoring of initiatives in the field of combating climate change together.

The West African scientific and technical bodies on climate which are partners of the ECOWAS Commission (CILSS, WASCAL) and take part in the implementation;

The regional and international **Technical and Financial Partners**, including UN agencies, that contribute to the financing and technical support necessary for the implementation of the actions of the RCS, and which will be grouped together in the "Climate Donors Group".

The Civil society, through regional platforms and umbrella organisations, local authorities and regional platforms of private sector actors are stakeholders in the implementation and are informed and consulted in the monitoring of the implementation of the RCS. These actors are also involved in the collection of data relevant to the monitoring of the implementation.

Non-state actors, including civil society, have an important role in encouraging member states and ECOWAS to implement regional and national commitments.

2. MONITORING-ASSESSMENT AND INTERNAL PROCESS OF REVISING AMBITION

The monitoring and assessment of the RCS is part of the mechanisms that exist within the ECOWAS Commission to monitor the implementation, results and impacts of all of its sectoral policies. It responds to the continuous improvement ambition. Its operation will be supported at three levels:

i. Each agency and department of the Commission is responsible for defining and setting up a monitoring and assessment framework to measure the achievement of the

sectoral objectives broken down into action plans. The review of regional sectoral policies and action plans therefore also involves formalising climate-sensitive indicators and targets. The tool for evaluating the conformity of the programmes and investments to the RCS enables the progress achieved on the progressive integration of the climate dimension to be monitored within the action of the Commission.

ii. A centralisation, data analysis and reporting system, managed by the Macro-economic Policy and Economic Research Department, which is responsible for the production of centralised information on the progress made, and, as such, produces the annual report on the implementation of the RCS. (It is supported by the Department in charge of the environment for the collection of data from Directorates.). The Department is also responsible for the monitoring of the summarised indicators defined within the framework of the RCS results. The indicators established within the framework of the Commission's SER policy are monitored by the Department in charge of administration.

iii. The monitoring, review and verification system that will be constructed as part of the "ECOWAS strategy for mobilising and accessing climate financing." The data production will be the responsibility of the Member States, will have to work with national non-state actors in this framework. Centralisation, data analysis and reporting on the regional scale will be led by the Department in charge of the environment and natural resources, in collaboration with initiatives such as the Climate Action Transparency Initiative (CATI) and the West African MRV programme.

The RCS is guided by the principle of progression, according to which ECOWAS undertakes to take more ambitious measures incrementally as it is implemented, taking into account the progress made as well as the changing needs and commitments of ECOWAS Member States. To this end, the ECOWAS Commission brings together the Member States and the other regional interested parties every two years to present the implementation status and create a dialogue on the ratcheting up of ambitions.

With its vision of aligning its action and its intervention methods with the objectives of the Paris Agreement (see Part 1), ECOWAS undertakes to regularly review the level of ambition of its RCS, taking into account the results of each planned global stocktake specified by Article 14 of the Paris Agreement.

To this end, a mid-term review of the progress made for achieving the expected results is planned for 2026, after the first overall stocktake of 2023, on the basis of the first annual reports on the implementation of the RCS and taking into account the biennial transparency reports of the Member States and the revised NDCs for 2025. This examination is steered by the

Department in charge of the environment and natural resources, and leads to a mid-term qualitative critical analysis of the implementation of the RCS with a view to its next revision.

A full review of progress is planned for 2030, following the second global stocktake of 2028, taking account of the new NDCs, on the basis of which the RCS will be revised by 2031 at the latest, looking at a 2050 horizon. The revision of the RCS at the 2050 horizon will be guided by the Department in charge of the environment and natural resources.

This process of continuous improvement and revision of ambitions also concerns the SER policy of the ECOWAS Commission guided by the department in charge of administration.

3. TRANSVERSAL MEANS OF IMPLEMENTATION

The implementation of the ECOWAS RCS will require the ECOWAS Commission, its specialised institutions and its Member States to leverage financial resources, put in place operational mechanisms and acquire technical capabilities to achieve the objectives assigned by the strategy.

Concerning the strengthening of the Commission's internal capabilities, the approach must aim to secure the long-term institutional anchoring of the in-house technical capabilities of the Commission. It is therefore proposed to follow a progressive approach of the transferring of competences and know-how by means of technical assistance during the first years of operationalisation of the internal operational mechanisms in order to achieve an increase in the ongoing competencies in the medium term in accordance with the means necessary for implementing the RCS.

This part is presented hereunder for the operational and financial mechanisms, including the strengthening of the Commission's internal capabilities, for the operationalisation of the fields of actions of the RCS.

3.1 Social and environmental responsibility policy of the ECOWAS Commission

In its approach to reducing the carbon and environmental impact of its facilities and operations, the ECOWAS Commission will undertake the drafting of its SER policy (**field of activity 1**). To this end the Commission will deploy an operational system organised around a project manager in charge of guiding the formulation of the Commission's SER policy, with the support of external technical assistance. A toolbox for evaluating the environmental and carbon footprint of the directorates and agencies will be prepared and training on the

evaluation of carbon footprints will be given. Lastly, awareness raising actions in the Commission, particularly in connection with the evaluation of costs and benefits of the SER policy actions will be carried out in order to operationalise the SER policies.

To do this, the President of the Commission will designate a department to take charge of guiding this SER policy, which will nominate a SER project manager from among its number to carry out the activities, who will be supported by external technical assistance. The technical assistance in support of the SER project manager will be responsible for supporting these actors in their mission but also for strengthening their capabilities as regards the internal implementation of the SER policy.

It will be necessary to allocate a dedicated programme budget for the evaluation of the environmental and carbon footprint and the measures to reduce this footprint, the drafting of the SER policy, but above all the management of change within the different directorates and agencies for its implementation. Given the "exemplary" nature of field of action 1, it is recommended that part of the budget needed for the minimum implementation of the SER policy be earmarked as priority and thus able to benefit from the Commission's internal resources, including the community levy.

Additional financing from the Commission's technical and financing partners will be added to finance, *inter alia*, the technical assistance and expertise necessary for the process of developing the SER policy and thereafter its implementation.

The budget relating to the guidance and continuous improvement is being financed by the ECOWAS Commission's financing mechanism.

3.2 Operational climate unit for the integration of climate into the Commission's sectoral mandates

The gradual integration of the climate dimension and the alignment of the ECOWAS Commission's sector policies and strategies with the objectives of the Paris Agreement (**field of action 2**) will require additional resources in order to:

- Revise the existing policies in order to ensure that they are consistent with the RCS objectives;
- Implement projects and programmes the carbon impact, climate risks and vulnerability of which are systematically evaluated;
- Promote knowledge and data management to clarify climate action in Member States.

To do this, the main operational mechanism within the Commission will be an **operational and technical climate unit** within the Directorate in charge of the Environment, which will have as its main aims:

- developing the necessary internal climate integration tools in the Commission for reviewing regional policies and evaluating regional programmes,
- providing technical assistance "on demand" to the sectoral directorates and agencies for defining their action plan and indicators and in mobilising climate financing,
- strengthening in a transversal, structural and lasting manner the know-how on climate change within the Commission (sectoral training, awareness raising, etc.);
- providing technical advice to the team with responsibility for developing and implementing the Commission's SER policy.

As regards the action to be taken in the context of **field of action 2**, the RCS relies on the operational climate unit based within the Directorate in charge of the Environment, but also on the existing one, since it aims mainly at the internalisation of the paradigm shift within each directorate and agency that is responsible for achieving the sectoral objectives.

Furthermore, a cascade-type of capacity building for responding to the needs of these two scales is planned in order to facilitate the achievement of the RCS objectives.

- A building-up of the capability dedicated to the climate unit to support its operationalisation, in line with its mandate, in its first two years.
- A building-up of capabilities of the sectoral directorates and agencies provided by the Commission's climate unit.

Furthermore capacity building plans will be drawn up by each directorate and agency that are closer to their needs, in order to consolidate institutional and technical capacities and to build a common base of knowledge and skills (inclusion of climate risks in sector policies, MRV, taking into account transversal priorities, including gender, in regional climate change policies and programmes, leveraging of climate financing). The pooling of capacity strengthening actions will be sought and coordinated by the IDEC.

The creation and operationalisation of the climate unit may be supported in addition by internal resources of the Commission, by the technical and financial partners that can contribute to its operationalisation phase during the initial years, alongside the leveraging of structural funds within the Commission with a view to its institutionalisation and long-term consolidation.

The budget relating to the coordination and continuous improvement provided by the department in charge of the environment is financed by the ECOWAS Commission's sovereign financial mechanism.

Furthermore, since each Commission agency and directorate is responsible for achieving the sectoral objectives of the RCS and implementing the regional demonstration projects and programmes, the leveraging of additional climate financing will be supported by a precise cost estimate and a plan for financing the policies and measures identified in its action plan.

The authorisation of a budget originating from the Commission's resources is subject to evaluation of the alignment of the programme or investment with the RCS objectives. The directorates are encouraged to mark certain climate actions as priority in their annual working plans so as to be able to make a claim on financing from the community levy.

The agencies and directorates then take care of leveraging the resources and implement their action plan using the methods and financing channels that they deem appropriate for their purposes. In addition to the Commission's budgetary allocation, each directorate and agency mobilises the resources needed to implement its action plan with the TFPs and may apply to the "climate counters".

A **Technical and Financial Partner Climate coordination group** is created and coordinated by the External Relations Department in collaboration with the department in charge of the environment to promote cooperation and to accelerate the leveraging of additional financing of programmes, policies and measures for implementing the RCS.

3.3 Transversal political dialogue with the Member States in the framework of the Paris Agreement implementation

3.3.1 Support to international negotiations

In the context of this field of action, the ECOWAS Commission will also pursue its efforts to support international climate negotiations by consolidating its Regional Advisory Group for Climate International Negotiations (RAG-CLIN). The mission of the RAG-CLIN is on the one hand to strengthen the negotiating capabilities of the Member States and on the other to coordinate the preparation of common regional positions in line with ECOWAS' mandate so as to better represent West African interests in international negotiations, for the common good of the region and in the name of solidarity among the Member States.

In accordance with its orientations, the RAG-CLIN will work on negotiation topics judged as priorities for the region, notably Article 6 of the Paris Agreement, loss and damage (in connection with the Glasgow Dialogue and the Santiago Network), financing and cycle of

ambition. The RAG-CLIN is leading the consultations on these topics from a UNFCCC negotiation perspective, while the operational implementation topics are addressed in ad-hoc platforms discussed in the section below.

The ECOWAS Commission will also continue to organise regional workshops in preparation for international negotiations on climate, in order to strengthen the capabilities of its Member States.

3.3.2 Experience sharing and consolidation of harmonized methods

In the context of field of action 3 of the RCS, the ECOWAS Commission will encourage **political and technical dialogue** in order to promote cooperation among Member States in the framework of the implementation of the Paris Agreement via the **creation and coordination of platforms and alliances**. Non-state actors will be invited to participate in these exchanges to share their experience and strengthen their synergies with institutional actors in the implementation of the Paris Agreement.

Dialogue platforms and coalitions will be put in place **to promote peer to peer experience sharing in implementing the Paris Agreement**, as well as encourage regional convergence on specific matters related to the implementation of the Paris Agreement.

Therefore, regional capitalisation products, based on the experience sharing, positions papers and policy briefs to decision makers may be developed, but also with time propositions of regional harmonized methodologies for the implementation of the Paris Agreement. This regional dialogue among Member States and with regional stakeholders is working towards greater regional solidarity and unity and greater international leadership.

These platforms and coalitions will be able to address all issues of collective interest related to the implementation of the Paris Agreement, and more specifically the following issues of interest (non-exhaustively):

- The implementation of Article 6 of the Paris Agreement within Member States and more globally the promotion and facilitation of carbon market-based instruments by Member States, in partnership with the West African Alliance on Carbon Markets and Climate Finance,
- The operationalisation of mechanisms on loss and damage,
- Reporting issues and methodologies in relation to the transparency framework and methodologies for calculating the costs of adaptation (and mitigation), with a view to developing harmonised regional approaches: harmonised methodologies and tools.

3.3.3 Access to climate finance

Furthermore, the activities of field of action 3 will be concentrated on the creation of favourable conditions for the Member States to be able to raise the necessary climate financing to attain the results expected of the RCS, in accordance with the ECOWAS Commission's strategy for access to climate finance validated in 2021. The financing and investment needs for the fight against climate change in the ECOWAS Member States are indeed colossal. The analyses undertaken in the context of the project assigned by the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) with a view to determining the needs of developing country Parties relating to the implementation of the Convention and the Paris Agreement, estimate that the needs expressed will amount to **more than US$800 billion by 2030**, including US$294 billion to finance their NDCs in West Africa. In this regard the ECOWAS Commission will perform an **annual monitoring and evaluation of the financing flows from multilateral and bilateral sources to Member States** the better to guide the financing decisions of the Commission and of the Member States themselves. This monitoring and evaluation will be overseen by the Directorate in charge of the environment. As part of this activity of monitoring and evaluation of financial flows, the ECOWAS Commission will be able to set up capacity building actions for national and non-state actors in relation to the monitoring of flows, in line with the transparency framework of the Paris Agreement.

In due course, the Commission will also be able to develop an operational mechanism in the form of a "**facility for the preparation of projects and access to climate finance**" by setting up a pool of regional climate finance experts that it can mobilise as needed to respond to specific requests from Member States and other partner regional institutions for support with accreditation processes and/or developing projects. The Directorate in charge of the environment, via the climate unit, will be responsible for the creation, operationalisation and coordination of this facility. This facility may also cover capacity building activities for national and non-state actors on access to finance.

Lastly, the ECOWAS Bank for Investment & Development (EBID), as the community's financing arm, can also participate in the achievement of the RCS objectives, it being understood that its strategic plans are for the achievement of the regional vision and policies of the Commission. In this regard it is interesting to note that the EBID's 2021-2025 strategic plan covers the sectors concerned by this RCS and demonstrates a first attempt at transversal integration of the issues in the fight against climate change into both mitigation and adaptation. Certain strategic axes of the EBID are thus already aligned with this RCS. This is particularly the case of the priority given to low carbon investments in the energy sector. Furthermore, the EBID has recently created a climate financing unit which it will be appropriate to strengthen so that it can raise

the necessary funds for implementing the RCS. Lastly, the EBID, which has initiated its accreditation process to the Green Climate Fund (GCF) intends to formulate its own climate strategy with a view to the long-term structuring of its climate action and to making it transversal across all its activities. This initiative can be encouraged and supported by the Commission in the context of the RCS using shared experience and the provision of common financing resources from technical and financial partners.

ANNEXES

ANNEX 1: ACTION PLAN 2022-2030

ADAPTATION SECTION

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
AGRICULTURE, LIVESTOCK FARMING, FISHERIES				
R1.A. The strategic and policy framework for regional agricultural action is becoming resilient to climate change, taking gender-differentiated vulnerability into account	i. Continue efforts to integrate the impacts of climate change into the regional political and strategic framework for agriculture, taking into account gender-specific vulnerabilities, in particular on the renewal of the ECOWAP horizon of 2025 as well as in operational implementation mechanisms.	80,000	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission RAAF CILSS/Regional Centre Agrhymet WASCAL ECOWAS Gender Development Centre Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Integrate the climate change dimension into water resource management methods in the agriculture sector in the context of the irrigation programmes and strategies	60,000		
	iii. Strengthen regional capabilities in research, modelling and risk mapping of diseases linked to climate change for improved prevention and management of impacts on the regional scale, in particular the action of the Regional Animal Health Centre (RAHC) in a "One Health" approach, notably through the Epidemiological Surveillance (RESEPI) and the Network of Veterinary Laboratories (RESOLAB).	500,000		
	iv. Promoting climate resilient capacity in the agricultural sector within the Member States, taking into account the varying vulnerabilities in relation to gender by the sharing of good practices and experiences and political dialogue on the national version of the climate objectives in relation to agriculture	500,000		
	v. Strengthen south-south cooperation to promote the sharing and scaling up of climate technologies including endogenous solutions	500,000		

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
R2.A. The promotion of climate-smart agriculture,, including agro-ecological practices , is supported	i. Launching the steering, monitoring and implementation mechanisms of the West African Alliance for CSA (WAACSA).	100,000	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission RAAF CILSS/Regional Centre Agrhymet WASCAL ECOWAS Gender Development Centre Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Capitalising on the many agro-ecological and more broadly climate-smart agriculture demonstration projects for documenting the real impact of practices, particularly home-grown ones, and innovations in terms of adaptation and gender to inform decisions and optimise the scaling results.	300,000		
	iii. Encouraging the implementation of training programmes on documented practices and innovations.	250,000		
	iv. Expanding the mobilisation of the resources for CSAwith ambitious targets on all scales, via WAICSA and FRAA.	200,000		
	v. Supporting the development of insurance plans against the impacts of climate change for farmers and stock farmers in order to compensate production losses.	250,000		
R3.A. The resilience of pastoralism to climate change is strengthened and conflicts mitigated	i. Integrating resilience actions against climate change taking into account the differing vulnerabilities linked to gender in the new action plan for the development and transformation of education in the ECOWAS states, subsequent to the 2011-2020 plan.	60,000		
	ii. Strengthening regional dialogue on pastoralism between regional institutions, Member States, neighbouring States and pastoral producer organisations to develop the regional strategic and policy framework in line with the impacts of climate change to prevent conflicts concerning access to resources.	75,000		
	iii. Defining a regional pastoral development plan focusing on cross-border areas that takes the impacts of climate change into account in the sizing of infrastructures (including corridors) for appropriate transhumance.	100,000		

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
	iv. Supporting the emergence and adoption of insurance products linked to climate change suited to pastoral breeders.	200,000	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission RAAF CILSS/Regional Centre Agrhymet WASCAL ECOWAS Gender Development Centre Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	v. Promote sectors related to pastoralism, such as the dairy sector in connection with the Regional offensive for the promotion of local milk value chains in West Africa (2020), in order to promote the economic diversification of households and the employability of women and young people (in connection with the Strategy to support the employability of young people in the agro-sylvo-pastoral and fisheries sector in the ECOWAS region (2019)), and in particular in connection with the development of mechanisms for access to energy services (mitigation co-benefit).	250,000		
R4.A. Food crises linked to climate change are better anticipated and managed and the regional food storage system is strengthened as a whole	i. Integrating the challenges associated with climate change in the storage policy of food security, as well as in the second phase of implementation of the RFSR, particularly for adapting the objectives and the dimensioning, the operational methods, (local stocks, insurance mechanisms, etc.) and the trigger mechanisms, taking gender issues into account.	75,000		
	ii. Reinforcing the support in the second operational phase of the RFSR, made more sensitive to the impacts of climate change, including in relation to its procurement, its storage objectives and operational methods.	100,000		
	iii. Developing, in consultation with the Agrhymet Regional Centre, the regional information system to allow data on prevention, early warning and response to climatic crises to be integrated with the operations of the ECOWARN Observation and Monitoring Centre and the “Cadre Harmonisé” (“Harmonised Framework”) of the RFSR.	500,000		

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
	iv. Strengthening internal and external advocacy for the in-house development and uniformity at regional level of the response mechanism to food crises linked to climate change in accordance with ECOWAS' mandate to maintain regional solidarity and stability.	80,000	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission RAAF CILSS/Regional Centre Agrhymet WASCAL ECOWAS Gender Development Centre Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
R5.A. The promotion of resilient fisheries and aquaculture systems that are less vulnerable to climate change is being supported (see RE 6.1 of the CSDD PAD[1])	i. Guiding research in order to deepen understanding of the vulnerability of communities that depend on fish and shared ecosystems and determining the potential impact of climate change and the necessary capacity of communities that depend on fish to adapt to these impacts.	600,000		
	ii. Developing innovative management and governance methods in order to improve the resilience of communities and ecosystems that are dependent on fish resources	200,000		
	iii. Improving fisheries and fish farming practices in compliance with the FAO Code of Conduct for Responsible Fisheries.	300,000		
	iv. Improving the adoption of practices that improve the resilience of fish farming systems (e.g. aquaculture, integrated breeding; selection of resilient strains; replacement of fish-meal by plant proteins, etc.).	1,500,000		
	v. Improving the financing of research and of adapting to climate change in particular through the private sector in order to preserve both current and future production.	150,000		
ENERGY				

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
R1.E. The regional strategic and policy framework for energy is adapted to the impacts induced by climate change	i. Integrating the impacts of climate change on water resources in the energy sector particularly in the planning and management of hydroelectricity.	75,000	Energy Directorate of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission Industry Directorate of ECOWAS Commission Private Sector Directorate of ECOWAS Commission ECREEE Basin authorities (ABV, ABN, OMVG, OMVS) Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
	ii. Developing directives in conjunction with the ECOWAS master plan on development of regional production and electrical energy transportation implemented by the WAPP in order to include the means of taking into account climate change in the structuring of the regional energy market	100,000		
	iii. Promoting the development of standards for sizing water facilities in line with climate projections for long-term resilience of the production potential (by reinforcing collaboration among regional stakeholders such as the Commission, ECREEE, WAPP and the basin authorities)	150,000		
R2.E. The impacts of climate change on the supply of electricity are limited	i. Promoting the acceleration of the integration of the regional electricity supply system between countries for better management of production losses linked to climate change and water resources.	1,000,000		
	ii. Encouraging the diversification of renewable production sources fed into national grids and the integrated regional grid, as well as storage technologies, to favour the continuity of supply in the event of major impacts linked to climate change.	2,500,000		
	iii. Promoting the development of mini autonomous networks and of individual solar applications for increasing the security of the electricity supply.	1,500,000		
MILIEUX, NATURAL ECOSYSTEMS AND BIODIVERSITY				

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
R1.F. The resilience of natural ecosystems, particularly forests, to the impacts of climate change has been strengthened and the biodiversity to which they are home is protected	i. Encouraging the drafting and implementation of actions to for forest protection and bushfire prevention and control.	200,000	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission Directorate in charge of tourism of ECOWAS Commission	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission RAAF CILSS/AGRHYMET Regional Centre WASCAL Basin authorities (ABV, ABN, OMVG, OMVS) RCU (Regional Coordination Unit) ECOWAS – UEMOA - ECOTOUR 19-29 NUs (National Units) (State, private sector and local communities) / ECOTOUR 19-29 Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
	ii. Promoting the introduction or reintroduction of species resistant to new climatic conditions in reforestation and biodiversity preservation programmes.	500,000		
	iii. Deploying biodiversity conservation actions in connection with the Post-2020 Global Biodiversity Framework and developing a regulatory framework for these actions	1,000,000		
	iv. Developing a connectivity plan for cross-border protected areas to facilitate the climate-related migration of species and thus their resilience.	150,000		
	v. Supporting the conservation of mangroves in order to favour ecosystem services.	250,000		
	vi. Promote the development of non-wood forest product chains	300,000		
R2.F. The West Africa regional observatory of natural resources of Fouta Djalon mountain is strengthened and allows rigorous and coordinated monitoring of the main natural resources taking account climate change impacts	i. Studying the adaptation of forest ecosystems and the results in terms of resilience of biophysical systems and socio-economic co-benefits with a focus on women and young people.	600,000		
	ii. Documenting the value of West African ecosystem services, advocating their conservation and their value in adapting to climate change.	300,000		
	iii. Provide scientific data facilitating the drafting of national biodiversity conservation plans of Member States within the Post-2020 Global Biodiversity Framework.	250,000		
	iv. Ensure synergies and efficient collaboration with the Water Resources Observatory (WRO) through a specific Memorandum of Understanding to share data on water resources and climate change	250,000		
R3.F. The development of ecotourism is favoured at the regional level and	i. Integrate climate change into the ECOWAS regional policy on tourism (and its action plan)	100,000		

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
specific support is given to Member States for the development of their ecotourism strategy integrating climate change	ii. Support Member States in developing strategies that are dedicated to ecotourism and resilient to climate change	1,500,000		
WATER RESOURCES				
R1.RE. Knowledge of water resources and the impacts of climate change has been successfully increased in the context of the Regional Water Observatory	i. Promote research into the impacts of climate change (modelling of impacts on the water sector/groundwater and surface water)	1,000,000	Regional Water Resources Management Center of ECOWAS	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission RAAF CILSS/AGRHYMET Regional Centre WASCAL Basin authorities (ABV, ABN, OMVG, OMVS) Members States (climate focal points and relevant sectoral focal points) Regional platforms / umbrellas of civil society organisations and regional private sector platforms
	ii. Reinforce basic knowledge of underground and surface water: availability, quantity and quality relative to future needs of the region (socio-demographic trends and current and future impacts of climate change)	1,000,000		
	iii. Consolidation of knowledge obtained from the Regional Water Observatory and strengthening of the capabilities of the Observatory of basin authorities (OMVS, OMVG, ABN, ABV, ABM, MRU) and the existing information systems (PREE, PARIIS, early warning) and making the information available at the regional level to Member States and all the actors involved in the water sector	500,000		
R2.RE. The operationalisation of integrated water resource management, including the impacts of climate change at the regional level has been reinforced and the Member States are being supported in their IWRM processes	i. Improving the management framework of cross-border water resources thanks to the promotion of cooperation with a view to reducing tension between States.	250,000		
	ii. Update ECOWAS' WAWRP by integrating climate impacts and risks and finalise the strategic plan for 2020-2030	75,000		
	iii. Support regional bodies and countries in integrating adaptation to climate change into their water management policies and support them in developing and strengthening their IWRM strategies by effectively integrating climate change	1,750,000		
	iv. Strengthening Capacity building of stakeholders on climate change adaptation planning and capacity	500,000	Regional Water Resources	Directorate of Agriculture and Rural Development

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
	building of basin organisations (OMVS, OMVG, NBA, ABV, ABM, MRU) and existing information systems (PREE, PARIIS, Early Warning) in line with the WRMC capacity building plan		Management Center of ECOWAS	(DARD) of ECOWAS Commission RAAF CILSS/AGRHYMET Regional Centre WASCAL Basin authorities (ABV, ABN, OMVG, OMVS) Members States (climate focal points and relevant sectoral focal points) Regional platforms / umbrellas of civil society organisations and regional private sector platforms
	v. Ensure promotion of the Water-Environment-Agriculture-Energy Nexus	50,000		
R3.RE. Synergies with the risk and disaster management sector have been maximised, particularly as regards the risk of floods, taking account of the current and future impact of climate change	i. Develop a MoU between the WRMC and the Humanitarian and the Directorate of Humanitarian and Social Affairs	30,000		
	ii. Ensure the sharing of information and collaboration among the relevant ECOWAS departments	50,000		
	iii. Develop an EWS for the risk of flooding	1,500,000		
R4.RE. Institutional dialogue at regional level with the various basin operators and regional institutions has been strengthened	i. Initiate and coordinate the setting up of a system of coordination and collaboration among the various basin authorities (ABN, ABV, OMVG and OMVS) and regional institutions (Agrhymet, WASCAL) to favour dialogue and the sharing of information	500,000		
TRANSPORT AND MOBILITY				
R1.T. The strategic and policy framework of regional action concerning transport infrastructures is becoming progressively more resilient to climate change	i. Carry out a study on the overall climate vulnerability of the transport and mobility sector	1,000,000	Transport Directorate of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission ECOWAS PPDU (Projects Preparation & Development Unit) Energy Directorate of ECOWAS Commission ECREEE
	ii. Including the adaptation issues in the ECOWAS Master Plan for the development of regional infrastructures 2020-2045 as well as the ongoing feasibility studies.	75,000		
	iii. Forming the strategic environmental assessment of the Master Plan for the development of regional infrastructure.	100,000	Transport Directorate of	

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
	iv. Developing and systematising the use of tools for evaluating environmental impact taking into account climate change in the studies and the performance of infrastructural projects for the Commission.	75,000	ECOWAS Commission	Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
	v. Develop standards and guarantees specific to the Commission for the implementation of the regional projects for which it is responsible.	100,000		
R2.T. Climate change resilience measures in the transport infrastructure sector within Member States are promoted with a view to their application	i. Creating and coordinating a multi-party dialogue platform on transport infrastructure resilience in West Africa to share good practices with a view to regional harmonisation.	1,000,000		
	ii. Developing guidelines on climate-related standards and guarantees in the development of transport infrastructures for Member States.	250,000		
	iii. Supporting Member States in transposing directives to national law.	1,500,000		
	iv. Encouraging EBID and WADB to adopt climate-compatible constraints in the prerequisites of infrastructure projects subject to financing.	150,000		
	v. Sharing West African good practices in terms of infrastructure resilience resulting from the regional regulatory framework in coalitions of technical and financial partners active in the region in order to harmonise measures.	500,000		
	vi. Calling for environmental audits of transport infrastructure projects subject to climate risks	250,000		
COASTAL ZONES				

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
R1. ZC. Knowledge of evaluation of the impact of the rise in sea levels on the West African coast and on extreme events and their consequences by 2050 has improved (in collaboration with ORLOA)	i. Carrying out the studies needed to improve knowledge of the impact of rising sea levels and extreme events in West Africa	5,000,000	Directorate of Environment and Natural Resources (DENR)	UEMOA ORLOA CILSS/AGRHYMET Regional Centre WASCAL WACA / World Bank National focal points of Member States designated in the framework of the UNCAC Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Support the implementation and operationalisation of ORLOA to allow new information from studies on rising sea levels and extreme events to be made available	1,500,000		
R2. ZC. A regional governance framework based on the ICZM for a coastal zone that is resilient to climate change has been drawn up	i. Prepare a regional ICZM strategy integrating the climate dimension at the level of ECOWAS accompanied by an action plan for adaptation for the West African coastal area	300,000		
	ii. Support Member States in executing national ICZM strategies integrating the climate dimension	2,000,000		
	iii. Favour dialogue and collaboration among the various institutions of the region (UEMOA, CILSS, WASCAL, ORLOA)	200,000		
CLIMATE SERVICES, DISASTER RISK MANAGEMENT, EARLY WARNING SYSTEMS AND HUMAN MOBILITY				

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
R1. SC/GRC: The implementation of the Hydromet Initiative as the strategic framework for climate services at ECOWAS level has been completed	i. Support the financial and institutional implementation plan for the Hydromet Initiative	5,000,000	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission CILSS / AGRHYMET Regional Centre	Humanitarian and Social Affairs Directorate of ECOWAS Commission WASCAL EBID World Bank /Hydromet programme Members States (climate focal points and relevant sectoral focal points, and meteo agencies) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms National Meteorological and Hydrological Services Directorate
	ii. Favour the strengthening of actors' capabilities necessary for the effective implementation of the Hydromet Initiative	1,000,000		
R2. SC/GRC: A collaboration framework for the various regional institutions with competence in the areas of climate services and disaster risk management, and the relevant sectoral departments of ECOWAS, has been institutionalised	i. Initiate the setting up of a system of collaboration among the various regional institutions to favour the sharing of information	250,000		
R3. SC/GRC: The modernisation of the infrastructures of the NMHS via investments in the equipment necessary to put in place a robust observation network for the region (preparation of an investment plan) are coordinated and provided as formulated by the Hydromet Initiative	i. Draw up an investment plan for the improvement of the equipment necessary to put in place a robust observation network	100,000		
	ii. Ensure the funding of this financing plan (internal and external resources)	75,000		
R4. SC/GRC: The durability of the digital library of good adaptation and mitigation practices in the agricultural sector (in the process of being prepared in the context of the GCCA+West Africa) is assured	i. Arrange the medium and long term financing of the digital library of good practices for adaptation and mitigation in the agricultural sector	3,000,000		
	ii. Allow efficient coordination of the digital library of good practices for adaptation and mitigation in the agricultural sector	2,000,000		
R5. SC/GRC: ECOWAS' next action plan under the risk and disaster management strategy integrates adaptation more forcibly and favours	i. Favour synergies between adaptation and DRM in the next review of the action plan for the ECOWAS management strategy for risks and disasters in accordance with the recommendations of the UNDRR	150,000	Humanitarian and Social Affairs Directorate (DHSA) of	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
synergies between adaptation and DRM, organised around the four priorities of the Sendai framework	ii. Strengthen the capabilities of the actors in the DHSA as regards the climate change dimension (including Losses and Damages) and its articulation with DRM	250,000	ECOWAS Commission Direction of Free movement of ECOWAS Commission	WRMC/CGRE CILSS / AGRHYMET Regional Centre ORLOA WASCAL Drainage basin bodies Members States (climate focal points and relevant sectoral focal points, and meteo agencies) Regional platforms / umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms Directorate of Member States Civil Protection
	iii. Strengthen synergies of action between DRM actors, climate change and the SDGs by considering the institutionalisation of community-based sustainable disaster risk management and the sharing of good practices to contribute to the Sendai framework.	150,000		
R6. SC/GRC: Coordination among the regional institutions is assured, to favour the setting up of multi-risk operational EWSs at the level of each Member State	i. Initiate the setting up of a system of coordination among the various regional institutions to favour the setting up of EWSs in the Member States	250,000		
	ii. Support the development of EWSs in Member States	1,500,000		
R7. SC/GRC: Regional cooperation on human mobility related to climate change is strengthened by building on existing dialogue structures (notably MIDWA) and a legal framework is defined	i. Producing space-time analyses in order to measure the emergence of foci of human mobility linked to climate change	300,000		
	ii. Strengthening partnerships for development, humanitarian aid and peace in order to take advantage of comparative advantages to meet the needs of migrants and recipient communities	200,000		
	iii. Promote the scaling up or replication of good practices in managing climate change-related migration among member states	300,000		
	iv. Ensure the operationalisation of MIDWA	500,000		
R8. SC/GRC: The implementation of Pillar 7 of the ECOWAS Migration Policy is supported	i. Promote coordination within ECOWAS between the DENR, the DHSA and the Free Movement Directorate	250,000		
	ii. Develop a joint roadmap to ensure the implementation of the ECOWAS Migration Policy (Pillar 7) in line with the RCS	100,000		
R9. SC/GRC: Integration of human mobility into national adaptation plans, nationally determined contributions and national communications of MS is ensured	i. Support MS in integrating human mobility in their climate policy document (NDC, NAP, National Communication)	1,500,000		
	ii. Strengthen the capacity of actors within the MS on the impact of climate change on human mobility.	500,000		

Expected results	Actions	Estimated budget USD	Responsible	Actors involved
HEALTH				
R1.S. A strategic framework and regional action policy on health, resilient to climate change, have been developed, using the OneHealth approach	i. Integrate adaptation into strategic policy documents of the health sector	100,000	Regional Centre for Disease Surveillance and Control (WAHO) of ECOWAS	Directorate of Environment ECOWAS Commission Humanitarian and Social Affairs Directorate of ECOWAS Commission Members States (climate focal points and relevant sectoral focal points) including national focal points within Member States designated in the framework of the UNCAC Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Set up a Climate Task Force within the WAHO	150,000		
	iii. Develop a procedure for strengthening the capabilities of WAHO employees as regards climate change and its impacts	200,000		
R2.S. Knowledge of the impact of climate change on the health sector in West Africa and the means to mitigate its effects has been improved in line with the needs of the sector's strategic and policy framework	i. Promote research into the impacts of climate change on the health sector (including research on the evolution of the nutritional quality of food)	2,000,000		
	ii. Favour the carrying out of studies on climate vulnerability of the health sector in the region	1,500,000		
	iii. Make information on the impacts of climate change on the health sector at the regional level available to Member States and all parties involved with the sector	500,000		
R3.S. Gender-sensitive measures to increase resilience to climate change in the health sector in MS, particularly in terms of capacities of health infrastructures are being promoted with a view to their application	i. Support Member States in integrating the health sector into their NDCs	1,500,000		
	ii. Support Member States in integrating adaptation into their national health policies	1,500,000		

TOTAL US$63,685,000

MITIGATION SECTION

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
AGRICULTURE				
R6.A. At the regional institutional level, agri-forestry-pastoral projects that are explicitly promoting the relative reduction of GHG emissions are prioritised	i. Initiating, on behalf of the Commission, agricultural projects that contribute to reductions on GHG emissions through suitable agricultural practices or carbon sequestration practices.	50,000	Directorate of Agriculture and Rural Development (DARD) of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission RAAF WASCAL Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Strengthening the political dialogue on the impact of agriculture on GHG emissions in the region with a view to aligning regional policies and NDCs and to encourage increased ambition of Member States in the next NDC review cycles.	50,000		
	iii. In line with the objectives of the energy sector, encouraging the establishment of energy efficiency standards in agricultural processing equipment, and promoting the use of renewable energies for the agri-food industry and encouraging short circuits limiting the transport of products.	900,000		
	iv. Operationalising the regional programme for the restoration of degraded land.	1,350,000		
R7.A. Scientific and technical dialogue on the impact of agriculture on GHG emissions in the region is strengthened and encouraged	i. Strengthening and disseminating common knowledge on agricultural practices that reduce GHG emissions.	65,000		
	ii. Encouraging the implementation of training programmes on documented practices and innovations.	1,125,000		
	iii. Ensuring the financing of research programmes for a better understanding of the common impacts and of the adaptation of agricultural practices (CSA/4p1000) per agro-ecological zone, particularly via the documentation of impacts on the regional restoration programme for degraded land.	1,500,000		

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
	iv. Support research programmes to determine consensually the impacts on mitigation of GHG emissions of the various kinds of livestock farming in the various agro-ecological zones of West Africa	1,500,000		
	v. Support the development of standards for estimating GHG emissions from livestock suited to the West African context	150,000		
FOREST AND OTHER LAND USE				
R4.F. Sustainable management of forest resources is being improved and forest cover, including grass lands, increased	i. Improving forest management and development plans, so as to allow countries to better understand the real level of productivity of their forest on the basis of complete and accurate data.	750,000	Directorate of Environment and Natural Resources (DERN) of ECOWAS Commission	Directorate of Agriculture and Rural Development (DADR) of ECOWAS Commission RAAF WASCAL CILSS/Agrhymet Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Supporting the establishment of afforestation/reforestation and restoration plans at different scales, including at community level, which integrate the carbon dimension and the recording of mitigation results, as well as the cross-border dimension	750,000		
	iii. Supporting Member States in conducting national forest inventories	1,500,000		
R5.F. Forestry and agricultural policies are better organised at regional and national level	i. Supporting a SMART approach for agriculture and the development of good agro-forestry practices.	500,000		
	ii. Enhancing the livelihoods of forest-dependent communities, with a focus on women and youth, and strengthening climate resilience.	300,000		
	iii. Protecting the cross border ecosystems that are of regional heritage value.	500,000		

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
R6.F. Investments in favour of the sustainable management of forest ecosystems in ECOWAS countries	i. Encouraging an increase in investments supporting the forestry sector in the allocations granted under national budgets, explicitly establishing an appropriately targeted objective in each country in the new FCP, which will be fixed on the basis of a prior analysis of their capacities and needs for the management of forestry resources	300,000	Directorate of Environment and Natural Resources (DERN) of ECOWAS Commission	Directorate of Agriculture and Rural Development (DADR) of ECOWAS Commission RAAF WASCAL CILSS/Agrhymet Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations (including farmers' organisations) and regional private sector platforms
	ii. Recommending that at least 50% of the resources allocated to the operationalisation of the FCP be destined to activities on the ground in particular in trans-border forestry ecosystems ("the regional heritage allowance")	3,000,000		
R7.F. The fight against land degradation in the ECOWAS countries is encouraged and supported.	i. Encourage and support Member States in the implementation of plans and programmes to combat land degradation	750,000		
	ii. Define a regulatory framework for the fight against land degradation at regional level	80,000		
	iii. Encourage the development of a region-wide innovative financing mechanism for sustainable land management	100,000		
ENERGY				
R3.E. A dynamic promoting energy efficiency standards in buildings and industry taking account of climatic conditions and changes in West Africa is supported	i. Support the development of instruments to inform, raise awareness and regulate public and private actors, and civil society actors	750,000	Energy and Mines Directorate of ECOWAS Commission	Directorate of Environment and Natural Resources (DENR) of ECOWAS Commission Industry Directorate of ECOWAS Commission Private Sector Directorate of ECOWAS Commission
	ii. Promoting the adoption of financial incentive measures for the popularisation of energy efficiency and thermal comfort standards in buildings and industry.	750,000		
	iii. Promoting regional and international cooperation with a view to harnessing innovative approaches and energy efficiency and thermal comfort technologies in buildings and industry.	100,000		

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
R4.E. The ambition of the NDCs and the regional energy policy are harmonised	i. Defining a new regional energy policy in order to better meet the requirements of the evolving energy sector and the national long-term development challenges.	250,000	Energy and Mines Directorate of ECOWAS Commission	ECREEE Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
	ii. Accelerating the implementation of the objectives of the EREP, the EEEP and the Gender Integration Policy in ECOWAS' access to energy by enhancing resources dedicated to technical support for MS.	450,000		
	iii. Initiating a review of the objectives of the EREP and the EEEP in the light of the NDC review cycles.	100,000		
	iv. Assessing the carbon impact of the energy infrastructures of the master plan over their lifetime in order to prioritise the master plan's low-carbon infrastructures.	200,000		
R5.E The utilisation of alternative and cleaner fuels has increased	i. Promoting low carbon footprint technologies for the production of clean fuel and combustible (bioethanol, biodiesel, low sulphur fuels, green hydrogen, etc.)	500,000		
	ii. Encouraging the introduction of LPG-C and NGV and promoting their large-scale use	500,000		
	iii. Promoting the use of LPG for more modern and cleaner domestic cooking	500,000		
	iv. Supporting the production of clean electricity by valorising resources in natural gas, integrating energy from renewable sources and improved fossil fuel substitution	500,000		
R6.E. Member States are supported by regional institutions in the implementation of their mitigation objectives in the energy sector	i. Strengthening the capacity of MS to monitor energy efficiency targets and to harmonise M&E methods, including, for the implementation of results-oriented data collection and evaluation, methods that favour breakdown by gender, age and socio-economic origin.	2,250,000		

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
	ii. Leveraging additional climate finance for the implementation of national objectives.	1,000,000	Energy and Mines Directorate of ECOWAS Commission	
	iii. Technically supporting Member States in the search for economically viable alternatives to the energy infrastructures, producing the highest level of emissions.	750,000		
	iv. Prioritising interconnection investments of the master plan's regional electrical system.	100,000		
R7.E. Cooperation and technical and policy dialogue between Member States in energy matters is encouraged and supported in order to speed up the achievement of the commitments	i. Encouraging the creation of centres of excellence, for research and development in energy production technologies and energy efficiency, including those based on endogenous technological solutions	1,500,000		
	ii. Giving priority to expertise and technology transfers between Member States in relation to energy efficiency and to renewable energy.	1,000,000		
TRANSPORT AND MOBILITY				
R3.T. A regional development framework for low-carbon infrastructures is established	i. Assessing the carbon impact of the master plan's transport infrastructures over their lifespan.	500,000	Transport Directorate of ECOWAS Commission	DENR of ECOWAS Commission Energy Directorate of ECOWAS Commission ECREEE & PPDU Members States (climate focal points and relevant sectoral focal points) Regional platforms / umbrellas of civil society organisations and regional private sector platforms
	ii. Adopting a route map for the infrastructures and for low-carbon transport services in West Africa (for example a component "estimating GhG emissions and mtitigation" in the feasibility studies).	500,000		
	iii. Defining the regulatory framework for facilitating the import of hybrid electric vehicles.	100,000		
R4.T. Carbon-based transports are gradually being replaced by more fuel-efficient means	i. Speeding up the implementation of energy efficiency standards in West African transport, prioritising value creation opportunities in the region.	250,000		
	ii. Improving infrastructures and technology for promoting fuel savings.	750,000		

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
	iii. Engaging in a political dialogue to prioritise financing for low-carbon infrastructures identified in the 2020-2045 master plan (railways)	100,000	Transport Directorate of ECOWAS Commission	DENR of ECOWAS Commission Energy Directorate of ECOWAS Commission ECREEE & PPDU Members States (climate focal points and relevant sectoral focal points) Regional platforms / umbrellas of civil society organisations and regional private sector platforms
	iv. Engaging in technical dialogue and knowledge transfer on sustainable mobility in urban areas	100,000		
	v. Encouraging cooperation between Member States in the development of technical and organisational solutions	80,000		
	vi. Introduce tax policies based on CO_2 emissions from vehicles or fuel economy	100,000		
	vii. Introducing non-fiscal measures aimed at supporting the introduction of zero emissions vehicles (ZEV)	100,000		
	viii. Developing, eco-driving and other sustainable mobility infrastructures, including the improvement of sustainable non-motorised public transport.	250,000		
INDUSTRIAL PROCESSES AND PRODUCT USE				
R1.P. A global approach to ensure low-carbon development of the IPPU area has been adopted and is supported	i. Engage in political and technical dialogue with all main parties, including manufacturers, suppliers, financial institutions and governments to promote the deployment of low-carbon technologies	100,000	Industry Directorate of ECOWAS Commission	Environment and Natural Resources Directorate (DERN) of ECOWAS Commission Private Sector Directorate National focal points of Member States designated in the framework of the UNCAC National sectoral focal points of the Member
	ii. Support the promotion of professional training and awareness-raising of industrials	1,000,000		
	iii. Directives and standards on clean, low-carbon production have been developed	100,000		
R2.P. The updating/refining and large-scale application of new technologies to ensure sustainable industrial growth are supported	iv. Support initiatives and programmes aimed at improving the efficient use of resources (e.g. water, energy, materials, etc.) and the reduction of non-energy GHG emissions.	250,000		
	v. Good practices and technological innovations are tested, documented and disseminated	100,000		

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
	vi. The creation of an own regional production centre as a platform for exchange and strengthening capabilities is supported to favour the acquisition and transfer of technological innovations linked to climate.	3,000,000		States in coordination with the sectoral directorates and agencies in charge of the industry sector
WASTE				
R1.D. Regional waste management policies, strategies and programmes are reviewed or designed to promote GHG emission reductions from this sector	i. Review existing regional waste policies, strategies and programmes (in particular the Environmental Action Plan 2020-2026) to explicitly include the climate dimension and ensure that they contribute to the GHG emission reduction targets set by Member States' NDCs	70,000	Directorate of Environment and Natural Resources (DERN) of ECOWAS Commission	Directorate of Industry and Directorate of Private Sector of ECOWAS Commission Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
	ii. Prioritise, on behalf of the Commission, waste management projects and programmes that contribute to the reduction of GHG emissions through appropriate techniques	50,000		
R2.D. Technical and policy dialogue and cooperation between Member States on waste management is encouraged and supported to accelerate the achievement of national GHG reduction commitments.	i. Strengthen and disseminate common knowledge on waste management practices that reduce GHG emissions.	65,000		
	ii. Encourage the implementation of training programmes on documented practices and innovations.	300,000		
	iii. Strengthen the policy dialogue on the impact of the waste sector on GHG emissions in the region with a view to ensuring coherence between regional policies and the NDCs and to encourage greater ambition from Member States in the next NDC review cycles.	500,000		
R3.D. The promotion of regional norms, guidelines and standards to guide efforts to reduce methane and	i. Develop guidelines and proposals for regional waste management norms and standards aimed at reducing GHG emissions	3,000,000		
	ii. Support the development of standards for estimating GHG emissions from the waste sector			

Expected results	Actions	Estimated budget in USD	Responsible	Actors involved
carbon dioxide emissions from the waste sector is supported.	iii. Organise awareness raising and training on regional waste management guidelines and standards for public and private stakeholders in the 15 Member States.			

TOTAL US$32,135,000

TRANSVERSAL MEANS OF IMPLEMENTATION SECTION

Actions	Estimated budget USD	Responsible	Stakeholders
TRADE			
Integrating climate change considerations into ECOWAS trade policy and in discussions with the relevant international organisations in the sectors concerned with trade regulation	130,000	Trade Directorate of ECOWAS Commission	Directorate of Environment of ECOWAS Commission Stakeholders in the relevant trade agreements International organisations involved Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
Engage in negotiations of regional or bilateral agreements to facilitate access to technology transfers that support low-carbon and/or resilient development	550,000		
Assess the environmental and climate impact of proposed trade measures	100,000		
PROMOTION OF THE PRIVATE SECTOR			
Integrate climate change issues, in terms of opportunities and risks, into the ongoing review process of the 2014 ECOWAS Private Sector Strategy	30,000	Directorate for the Private Sector of ECOWAS Commission	Directorate of Environment of ECOWAS Commission Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
Integrate climate change issues into the agenda of discussions carried out within the framework of regional and international exchange networks involving the private sector in West Africa	30,000		
Promoting low-carbon and climate-resilient development among private sector actors (especially MSMEs)	750,000		
Establish a mechanism for raising awareness and capitalising on good practices in low-carbon and climate-resilient development dedicated to the private sector to ensure their scaling up in the West African region	100,000		
Encourage private sector-led innovation and R&D programmes to introduce new techniques and technologies to better capitalise on climate change opportunities (e.g. low-carbon development) or to address climate risks (e.g. by improving resilience)	3,000,000		

Actions	Estimated budget USD	Responsible	Stakeholders
Raise awareness and engage financial sector actors in the region to establish a roadmap for the promotion and development of climate finance in the West African region for the benefit of private sector actors (especially MSMEs)	100,000	Directorate for the Private Sector of ECOWAS Commission	Directorate of Environment of ECOWAS Commission Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
Engage in discussions with central banks and financial market actors in MS to progressively introduce the concepts of climate risks and opportunities into the risk management framework in order to build a more resilient financial system through climate-related disclosure. Indeed, addressing the financial impact of climate change requires increased transparency on climate-related risks and opportunities to promote more informed financial decision-making.	1,800,000		
SCIENCE, TECHNOLOGY, INNOVATION AND EDUCATION			
To take stock of existing frameworks and innovative approaches in MS for integrating climate change education, preparedness and response to climate-related disasters into the education systems of Member states	365,000	Directorate for Education, Science and Culture of ECOWAS Commission	Directorate of Environment of ECOWAS Commission Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms CILSS/Agrhymet WASCAL ENDA Energie
Support the production and dissemination of best practice guides for adapting education and vocational training systems	100,000		
Support the organisation of regional seminars of Ministries of Education and Technical and Vocational Education to raise awareness and exchange on the integration of climate issues in education systems	250,000		
Support the development of training programmes on climate change education, preparedness and response to climate-related disasters in the education systems of member states	100,000		
Support specialised regional institutions and centres of excellence in the field of innovation and climate technology transfer, including endogenous solutions	1,000,000		
Support the organisation of regional forums on scientific knowledge on climate change and disaster risk prevention and management	250,000		
Supporting climate skills programmes for young people and promoting climate skills as a new opportunity for employment in low-carbon and climate-resilient jobs	300,000		
Support the development of research programmes on climate change and disaster risk prevention and management	300,000		
Support the development of an environmental culture focused on climate change	100,000		
Promote awareness among the general public with dedicated gender-disaggregated tools	100,000		

Actions	Estimated budget USD	Responsible	Stakeholders
GENDER PROMOTION			
Inform, educate and raise awareness on vulnerability to climate change and adaptation strategies in the sectors of agriculture, water, health, energy, migration, DRM, etc.	100,000	ECOWAS Gender Development Centre	Sectoral Directorates of the ECOWAS Commission Directorate of Environment of ECOWAS Commission Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms
Build capacity for leadership and gender mainstreaming in decision-making bodies dealing with environmental issues and in particular climate change	100,000		
Mainstreaming gender in climate change policies, strategies and plans	100,000		
Undertake monitoring and evaluation actions in terms of gender data collection and analysis and reporting to other stakeholders	100,000		
ECOWAS COMMISSION CSR POLICY			
Elaborate and implement the CSR policy of ECOWAS Commission	676,000	ECOWAS Commission	Directorate of Environment and Natural Resources (DERN) of ECOWAS Commission All Commission departments Presidency and Vice-Presidency
Establish a governance process for the definition of the CSR policy: steering committee	72,000		
Implementing quick win actions during the formulation of the Commission's CSR	100,000		
Develop tools to assess the Commission's carbon footprint	45,000		
Designing and organising awareness-raising and training sessions within the Commission	480,000		
THE CLIMATE UNIT: SUPPORTING CLIMATE MAINSTREAMING WITHIN SECTORAL MANDATES OF THE COMMISSION			
Establish and operationalise the climate operational unit within the Environment Directorate	2,692,000	DERN of ECOWAS Commission	Department in charge of Administration All Commission departments Presidency and Vice-Presidency
Develop climate mainstreaming tools for the ECOWAS Commission's sectoral and cross-cutting directorates	75,000		
Develop and deliver training programmes for the sectoral and cross-sectoral directorates of the ECOWAS Commission	745,000		

Actions	Estimated budget USD	Responsible	Stakeholders
CROSS-CUTTING POLICY DIALOGUE WITH MEMBER STATES IN THE FRAMEWORK OF THE IMPLEMENTATION OF THE PARIS AGREEMENT			
Operationalize RAG-CLIN	800,000	Directorate of Environment and Natural Resources (DERN) of ECOWAS Commission	Members States (climate focal points and relevant sectoral focal points) Regional platforms/umbrellas of civil society organisations and regional private sector platforms EBID BOAD CRC Lomé UEMOA West African Alliance for Carbon Markets and Climate Finance Climate Commission for the Sahel Region Other regional stakeholders including technical and financial partners
Organise regional preparatory workshops for the UNFCCC COPs	920,000		
Create and co-lead platforms and coalitions for capitalisation on the cross-cutting implementation of the Paris Agreement (in relation to carbon markets, loss and damage, etc.) including non-state actors	1,206,000		
Develop regional products for knowledge sharing, capitalisation, and harmonised methods and tools on the implementation of the Paris Agreement, including for non-state actors	400,000		
Operationalise the annual M&E of climate finance needs and flows from multilateral and bilateral sources	1,120,000		
Encourage EBID to harmonise its intervention framework with the ECOWAS RCS	100,000		
Implement capacity building actions for national actors, including non-state actors, to monitor flows, in line with the requirements of the transparency framework of the Paris Agreement	2,000,000		
Develop a facility for project preparation and access to climate finance: mobilisation of expertise to respond to requests from MS for project formulation and accreditation	8,000,000		
Implement capacity building actions for national actors, including non-state actors, on access to climate funds	2,000,000		

TOTAL US$30,386,000

ANNEX 2: GLOSSARY

Adaptation: is defined by the UNFCCC as adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Early warning: effective, timely information through identified institutions allowing individuals at risk of disaster to take steps to avoid or reduce the risks and to prepare for possible interventions.

Mitigation: all human interventions with the objective of limiting or reducing emissions and concentrations of greenhouse gases in the atmosphere linked to human activities or improving the capacity for sequestration of greenhouse gases

Climate change: Article 1 of the UNFCCC defines climate change as "a change in climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods of time." The UNFCCC thus establishes a distinction between climate change which can be attributed to human activities altering the composition of the atmosphere, and climate variability due to natural causes.

Climate: The average meteorological conditions of a given place or the statistical description in terms of averages and variability over a period ranging from a few months to thousands or millions of years. The classic period for the average of these variables is 30 years, as defined by the WMO. The study of climate is climatology. It is distinguished from meteorology, which denotes the study of weather in the short term and in a given region.

Carbon dioxide (CO_2): The main GHG of human origin affecting the Earth's radiative equilibrium. It is the reference gas against which all other greenhouse gases are measured, having a GWP of 1.

Greenhouse effect: The trapping and accumulation of heat in the atmosphere (troposphere) close to the Earth's surface.

Carbon footprint: an indicator that aims to measure the impact of an activity on the environment, and more specifically emissions of greenhouse gases linked to this activity. It can be applied to an individual (depending on lifestyle), a business (depending on its activities) or a territory.

Carbon footprint: The total volume of GHG emitted into the atmosphere each year per person, household, building, organisation or business.

Renewable energies: energy resources that are naturally renewed such as biomass, hydraulic, geothermal, solar and wind energy and energy from waves and tides

Equivalent carbon dioxide ($eqCO_2$): this is a measure used to compare emissions of various GHGs on the basis of their global warming potential (GWP), by converting the quantities of the various gases emitted into an equivalent quantity of carbon dioxide with the same GWP. Carbon dioxide equivalents are generally expressed in millions of metric tons equivalent of carbon dioxide. For example, the GWP for methane is 25, which means that the emission of one million metric tons of methane is equivalent to the emission of 25 million metric tons of carbon dioxide.

Greenhouse gas: Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases comprise carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydrochlorofluorocarbons, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

Disaster risk management: systematic process for using administrative decisions, organisations, operational competences and the ability to implement policies, strategies and adaptation capacities of society and communities to mitigate the effects of disasters.

Carbon intensity: the ratio of the quantity of GHG emitted, in CO_2 equivalent, to GDP (or the ratio of CO_2 emissions to the company's output).

Carbon neutrality: the principle of equilibrium between GHG emissions generated by human activity and the absorption of these same gases by natural or artificial sinks.

Climate projection: simulation aiming to estimate the response of the climate system to various scenarios of external forcings (GHG emissions, aerosols, etc.).

Global warming: Global warming refers to the gradual increase, observed or foreseen, in the temperature of the Earth's surface, as one of the consequences of forced radiation caused by anthropogenic GHG emissions.

Reduction of disaster risks: The development and systematic application of policies, strategies and practices to minimise vulnerabilities and risks of disasters.

Resilience: the IPCC considers that resilience is "the ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions."

Carbon sequestration: the process of storing carbon in the soil-plant system to mitigate the GHG emissions responsible for climate change.

Climate system: all the interactions among the atmosphere, the oceans, the cryosphere, the land surface and the biosphere in which climate change takes place.

Energy transition: denotes the gradual move from an energy system based essentially on the use of fossil fuels, which are finite and emit GHG (oil, coal and gas), to a more efficient energy system based mainly on energy from renewable sources. The main renewable energies are: solar energy, wind energy, geothermal energy and hydraulic energy.

Climate variability: variations in the mean long-term state of the climate. This variability may be due to natural internal processes within the climate system (internal variability), or to variations in anthropogenic external forcing (external variability).

Vulnerability to climate change: is defined as "the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes."