Malawi Open NAP

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Abstract

The National Adaptation Plan for Malawi has been developed under the Open NAP Initiative based a country-driven and country-owned approach involve a wide-range of stakeholders from different entities in Malawi, building on equally participatory outputs that exist to support the national approach for adaptation. Malawi has participated in many adaptation initiatives for the last 20 years, both under the UNFCCC as well as through bilateral and national programmes. The NAP is thus not just another planning process, but rather an umbrella adaptation programme for the country, embracing all past and on-going adaptation initiatives. A notable contribution to this NAP are the outputs of a recently formulated SPCR under the World Bank's PPCR, which followed all internationally recognized standards of participation, gender responsiveness, country ownership and basis on best available science, to name a few. The PPCR programme came to a halt for Malawi soon after the SPCR, thus making the SPCR an orphan plan/stranded plan. The five major programmes proposed under the PPCR are sufficient to comprose a NAP, however, several other systems and priorities have been considered to supplement, and produce the current NAP.

The NAP embraces an iterative approach, with updates to be incorporated as things change and new assessments warrant it. This is accomplished by creating a "living document", with continuing assessments that can be integrated into the NAP at any time, subject to approval by the National NAP governance structure. The NAP is developed based on the guidelines agreed under the UNFCCC as expanded in the NAP Technical Guidelines, and is fully responsive to all the guiding principles outlined by the UNFCCC and further reinforced in Articles of the Paris Agreement.

The NAP will serve as an umbrella national adaptation programme, and as the source of input in the update to the NDC in 2020, along with an Adaptation Communication that will also be submitted to the Paris Agreement. The priority programmes agreed to in the NAP will be integrated into the GCF 5-year Country Programme, as well as a broader implementation strategy for adaptation at the country level through national, bilateral and other sources of funding.

To continue the assessments underpinning the formulation of adaptation plans in the country, Malawi has recently accessed the GCF Readiness Support Programme to further advance the NAP process. Outputs form this project, when ready. will be integrated into updates and revisions of the NAP.

Malawi National Adaptation Plan

Introduction

The NAP is the main vehicle for adaptation planning for the country, and encompasses activities at all relevant scales and levels, from the regional (multi-country level) to the national, sectoral, sub-national and local levels, including for specific municipalities. All recent adaptation strategies and plans will thus be included in the NAP as a master plan for adaptation, indicating what is ongoing and what remains to be addressed. [S/T reporting]

As a country with limited resources, most adaptation projects will be funded through international sources, with very little dependence on national budgets, at least to begin with. During implementation, activities will need to be well aligned and integrated with sectoral activities funded by government. [Link to GCF Country Programme]

There are many reporting channels under the UNFCCC and the Paris agreement that require information on adaptation (priorities, key vulnerabilities, adaptation actions, capacity gaps and needs, etc). The work under the process of formulating and implementing the NAP will provide the central

basis for adaptation assessment and prioritization, and will inform all necessary reporting on adaptation, in particular, the update of the NDCs by 2020, and future national communications/transparency reports. [NAP informing Draft NDC in 2020]

The NAP road map for Malawi includes all activities that contribute to adaptation planning and the NAP in particular since the advent of the NAP decisions in 2010/11, and this is designed to be the guiding rail for all adaptation activities for the country and is the basis for support being received by all those in a position to do so. The recently funded NAP formulation proposal under the GCF Readiness Support is naturally a major form of financial support and will be used to continue the work of analysis, assessment, implementation and further planning. Support from others continues to be very critical for the success of adaptation efforts for the country. [Road Map]

The office of the UNFCCC Focal Point, housed in the Environmental Affairs Department, is the current custodian of work on the NAP and will continue to work with all relevant ministries, organizations and actors as necessary, maintaining and running the continuing process of adaptation monitoring, assessment and planning, the support the periodic production of NAPs. [National mandate, CC policy/law, Data Policy, coherence with other MEAs]

The NAP is a living document and will continue to be updated as the need arises, with a view to producing a formal updated version every 5 years. By the same vein, all intermediate outputs (stocktaking report, road map, assessment reports, framework document, monitoring and evaluation plans, climate investment strategy, etc) will remain living documents and will be updated as new information and new insights arise. [Wiki collection of documents for easy update, later morph into a DIVA – dynamic impacts, vuln and adaptation system]

The NAP follows the UNFCCC technical guidelines for the NAP process, and the collection of supplements to these guidelines as developed by different organizations and available on NAP Central.

Applies the NAP-SDG iFrame to manage multiple entry points and coherence with various frameworks being addressed including the SDGs, Sendai Framework, New Urban Agenda, Africa 2063, and relevant national strategies.

There are several major assessments conducted in the last 5 years, and the approach taken is not to promote yet another vulnerability and risk assessment, rather to build on available information and identify any obvious gaps if any. The concept of risk is adapted, following good examples from countries and organizations that have developed recent guidelines, including New Zealand, and OECD.

The traditional approach of arriving at projects as the main outcome of these assessments is improved upon by identifying appropriate methods and metrics that in fact support a risk-based approach.

Building on the unfunded PPCR/SPCR

There are several ongoing projects and programmes that address adaptation to climate change in Malawi, as well as main development objectives. The NAP will build on these projects and scale up efforts as appropriate.

One approach to make progress on the NAP would be to build on the PPCR/SPCR that was produced in November 2017, but for which CIF/PPCR funding dried up and is now left to find alternative funding sources. The PPCR/SPCR focused on three important sectors of agriculture, fisheries and water resources, and presents five priority programmes to implement proposed adaptation activities. The

process of developing the SPCR are similar to that of the NAP and follow good practice in ensuring full participation of stakeholders, gender responsiveness, and builds on national development priorities.

Approach

The formulation of the NAP follows the guiding principles and technical guidelines as outlined in UNFCCC COP decision 5/CP.17. It embraces the country-driven, country-owned and iterative approach. The latest technical guidance from the NAP Technical Working Group is followed, based on the NAP-SDG iFrame toolkit.

Key Risks and Vulnerabilities

Baseline period 1961 to 1990 and trends to the present

Observations since 1960

- Temperature increases of approximately 0.9°C, with the most rapid increase in summer months (Dec–Feb), between 1960 and 2006.
- Increase in the number of days (+30 days) and nights (+41 days) considered "hot."
- Highly variable year-to-year rainfall totals with no statistically significant trends.
- Increased length of dry spells during the rainy season.
- Increased intensity, frequency and magnitude of floods and droughts.

Projected climate for the next 20, 50, 100 years

- Higher average temperatures of 1–3°C by 2050, with largest increases in early summer months.
- Increase in the number of days and nights considered "hot" by 2060.
- Overall increases or decreases in rainfall difficult to project.
- Later onset/earlier cessation of rainy season.
- Increase in average monthly rainfall from Dec-Jan and a decrease from Feb-April.
- Increases in the proportion of rainfall during extreme events of up to 19 percent annually by 2090.

Source: For the summary, USAID 2017. Climate change risk profile Malawi.Fact Sheet.

Key climate hazards

- Prolonged Drought/dry spells
- Global and regional drought spells
- Torrential rainfall/Change (increase) in frequency and intensity of heavy rainfall events
- Local storm events
- Global and regional storm events
- Lightning
- Hot spells/temperature extremes
- Shifting (rainfall/growing) seasons
- Increase in temperatures
- Non-normal annual weather
- Pests and diseases outbreaks associated with climate events
- Disruption of national, regional and global food supply chains
- Wildfire

Systems at Risk

1. Crop production: Maize

- 2. Food security
- 3. Urban water supply
- 4. Hydroelectricity generation
- 5. Urban flooding
- 6. Lake Malawi and its many functions
- 7. Lake Chilwa and its many functions
- 8. Degraded forest ecosystems and their services
- 9. Infrastructure at risk
- 10. Human health and well-being
- 11. Climate-related disasters
- 12. Human settlements

Priority Adaptation Actions

Goals, objectives and expected outcomes of adaptation

Taking a medium- to long-term approach and avoiding maladaptation

- 1. National climate change adaptation programme: umbrella programme
- 2. Projects and programmes to address key risks for the country
- Climate Resilient Integrated Watershed Management (Total: US\$ 84 million, PPCR/SPCR)
- Building Climate Change Resilience in Selected Agricultural Value Chains in Malawi (Total: US\$ 26 million, PPCR/SPCR)
- Sustainable Fisheries Sector and Fisheries Value Chain in Malawi through Improved Climate Resilient Lake Ecosystem Conservation and Management (Total: US\$ 18.2 million, PPCR/SPCR)
- Strengthening Climate Resilience of Smallholder Farmers in Malawi (Total: US\$ 13.5 million, PPCR/SPCR- FAO)
- Operationalising Malawi's Climate Services Centre (Total: US\$ 17.3 million, PPCR/SPCR)
- Forest landscape restoration programme
- Lake Malawi Ecosystem
- Lake Chilwa Ecosystem and Value Chains
- National physical development planning under climate change
- Building a resilient national food security

3. Essential cross-cutting projects/programmes

Creating an effective adaptation process and system (mainstreaming/integration, policies, governance, etc.) * Climate information services and early warnings systems, systematic observations * Active monitoring of key systems: crop production, water resources, ecosystems, etc * M&E system – individual projects and in aggregate for the country * Capacity development for implementation of adaptation and support to the process including data and information management, etc

Implementation Strategy

Alignment with the GCF country programme The priorities in the NAP will form the 5-year country programme for engagement with the GCF as follows: Year 1 Year 2 Year 3 Year 4 Year 5

References

Annexes

Database to support adaptation monitoring and planning

Database of projects under the FM entities

INDC Adaptation priorities from INDC (2015)

Sectors	Intended policy-based actions
Agriculture	Increase irrigation at smallholder level; Increase land under irrigation through Greenbelt initiative from 20,000 to 40,0000 ha; Expanded programme of Greenbelt initiative from 40,000 ha to 100000 ha by 2030; Build adaptation capacity in climate resilient agronomic practices for smallholder farmers; Promote on-farm water conservation technologies; Support an expanded programme of constructing multipurpose dams for irrigation and aquaculture; Develop financial mechanisms to support crop insurance targeting smallholder farmers; Promote the growing of drought tolerant crop varieties; Implement conservation agriculture and agroforestry practices; Promote improved land use practices
Water	Implement integrated catchment conservation and management programme; Promote water harvesting technologies at all levels; support an expanded programme of constructing multipurpose dams to enhance water storage; Support the revision of water related policies and strategies (inc. water SWAP); Develop and enhance climate information and early warning systems
Human health	Build capacity to diagnose, prevent and control climate- sensitive diseases such as malaria, diarrhea and malnutrition; Enhance public awareness about water, sanitation and hygiene practices and enhance health surveillance; Support expanded programme for preventing and controlling climate-sensitive diseases; Construct more health centres in order to improve access to health facilities within a walking distance of 8 km; Support the establishment of centre of excellence for research and disease control targeting climate-sensitive diseases
Energy	Promote use of biomass briquettes as substitute for firewood and charcoal; Promote an energy mix that moves people away from use of biomass; Support an expanded programme of briquette production and use; Construct storage dams for hydropower generation; Promote solar PV and use of the energy efficient bulbs; Promote use of bio-fuels for lighting and cooking replacing fossil-based fuel

Sectors	Intended policy-based actions
Forestry	Support research in drought tolerant and fast-growing tree species; Expand afforestation and forest regeneration programmes; Promote growing of drought to tolerant and fast-growing tree species; Wildlife; Provide watering points at strategic locations of national park/game reserve; Implement diseases control programmes; Support capacity building in a wildlife institution to lead in adaptation initiatives e.g. translocation and culling
Fisheries	Capacity building in aquaculture and cage culture fish farming practices; Adopt ecosystem services approach in the management of fisheries resources; Promote aquaculture and cage culture fish farming practices; Protect fish spawning/breeding sites; Maintain fingerlings for stocking lakes and rivers after severe drought episodes
Gender (and vulnerable groups)	Promote gender mainstreaming in policies, programmes and projects; Support capacity building programmes for vulnerable groups
Infrastructure	Construct infrastructure for flood control, transport etc; Develop and implement climate related building codes/standards; Revise existing building standards in line with climate change
Industry	Promote research in industrial technologies

Burkina Faso table in exec summary

ADAPTATION OBJECTIVES: Protect accelerated growth pillars	ADAPTATION MEASURES	TIME FRAME
Agriculture	Cultivate early varieties or drought- resistant crops	Short-term
	Apply water and soil conservation methods (stone barriers, small dikes, filtering dikes, terraces, half moons, agroforestry, dune fixing etc.)	Short-term
	Promote sustainable land management (SLM)	Medium term
	Improve access to climate information	Medium-term
	Introduce agricultural insurance	Long-term
Livestock farming	Fight bush fires in order to prevent destruction of dry-season grazing reserves	Short-term
	Adopt best animal husbandry and pastoral practices (pastoral hydraulics, pastoral resource management, pasture mowing and conservation, pasture crops, silage, animal mobility and transhumance etc.)	Short-term

ADAPTATION OBJECTIVES: Protect accelerated growth pillars	ADAPTATION MEASURES	TIME FRAME
	Ensure stakeholders take account of climate variability in development project and programme planning by improving their skills	Long-term
	Preserve cattle breeding at serious risk from climate variability	Long-term
	Ensure farmers adopt animal production methods adapted to a hot climate	Long-term
Energy	Diversify energy sources (solar, wind, biogas)	Long-term
	Introduce water planning and management plans in Sudanian zone where climate forecasts predict a slight increase in rainfall	Long-term
	Promote energy-saving technologies in industry and construction	Long-term
	Promote the use of improved fireplaces to achieve a substantial reduction in consumption of wood and charcoal	Short-term
	Promote alternative energies such as butane and biogas	Medium-term
Infrastructure	Adhere strictly to dam and hydraulic structure, hydro - agricultural development and housing construction standards	Short-term
	Update dam and hydraulic structure, hydro-agricultural development and housing construction standards	Medium-term
	Decontaminate and drain flood zones	Medium-term
	Preserve water resources and improve access to sanitation	Medium-term
	Pass and enforce laws and regulations, where applicable, on (i) construction of hydraulic, road and settlement i nfrastructures; (ii) space occupancy in urban and rural environments, especially of flood zones; (iii) mining activities (gold prospecting); (iv) industrial activities	Long-term
	Relocate populations in submersible and floodable zones to appropriate zones	Short-term
	Promote ecological housing and towns with low energy consumption (for air-conditioning and lighting)	Long-term

ADAPTATION OBJECTIVES: Protect accelerated growth pillars	ADAPTATION MEASURES	TIME FRAME
Ensure sustainable food and nutrition security	Increase resilience of vulnerable communities and households to food and nutrition insecurity by improving their livelihood	Medium-term
	Achieve a structural and sustainable reduction in food and nutrition vulnerability of vulnerable communities and households	Long-term
	Improve social protection of vulnerable communities and households in order to secure their livelihood	Medium-term
	Capitalise on and share innovations and best practices to support food and nutrition security	Short-term
	Make increased use of non-timber forest products as food supplements	Medium-term
Preserve water resources and improve access to sanitation	Monitor water retention (dam dikes, water flow, valve functioning etc)	Medium-term
	Provide water storage: construct modern wells, high-flow boreholes, dams; develop ponds; divert water courses).	Long-term
	Combat silting of water bodies	Medium-term
	Develop integrated water resources management (IWRM)	Short-term
	Formulate water planning and management master plans	Medium-term
	Use appropriate technologies to reduce poor access for women to drinking water in the dry season	Medium-term
Protect persons and goods from extreme climate events and natural disasters	Take account of resilience in development projects and programmes	Short-term
	Formulate contingency plans at regional and local level and plans to support vulnerable populations	Long-term
	Provide sustainable financing for disaster and humanitarian crisis prevention and management by formulating and implementing an appropriate financing strategy	Long-term
	Improve women's skills by disseminating best climate change adaptation practices	Short-term
	Use social safety nets for vulnerable populations	Short-term

ADAPTATION OBJECTIVES: Protect accelerated growth pillars	ADAPTATION MEASURES	TIME FRAME
Protect and improve the functioning of natural ecosystems	Develop environmental education in both formal and non-formal education systems	Short-term
	Implement reforestation projects and programmes using local species	Medium-term
	Disseminate anti-erosion techniques	Long-term
	Rehabilitate and preserve wetlands	Short-term
	Develop environmental education in both formal and non-formal education systems	Short-term
Protect and improve public health	Meningitis:	
	Vaccine before first cases are reported	Short-term
	Organise reactive campaigns which target the entire population in epidemic zones	Medium-term
	Increase meningitis monitoring using the geographical information system	Medium-term
	Step up public awareness-raising and information campaigns	Medium-term
	Malaria:	
	Provide proper treatment in all cases of simple malaria using ACT	Short-term
	Provide intermittent preventive treatment of malaria using ITP for pregnant women and children and distribute long-lasting insecticidal nets (LLIN) in routine mass campaigns	Medium-term
	Combat malaria vectors (indoor spraying, behaviour change communication (BCC) at mass media and community relay level, treat breeding grounds)	Long-term

References