



## REPUBLIC OF MALAWI

### INTENDED NATIONALLY DETERMINED CONTRIBUTION

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## 1 Introduction

### *1.1 National Circumstances*

Malawi is a land-locked and densely populated country located in sub-Saharan Africa. The country lies at the southern end of the Great East African Rift Valley system. It is bordered by Tanzania to the north, Zambia to the west and Mozambique to the east, south and south-west. The country's total area is 118,484 km<sup>2</sup>, with an estimated population of 17 million<sup>1</sup>, growing at a rate of 2.8% per annum. Malawi's current per capita gross domestic product (GDP) is \$272.

The United Nations Development Programme (UNDP) Human Development Report (HDR) of 2007 rated Malawi as one of the most vulnerable countries in sub-Saharan Africa to the deleterious impacts of climate change. Furthermore, Malawi's NAPA of 2006 showed that thematic areas such as agriculture, energy, water, forestry, fisheries, gender, wildlife and human health are vulnerable to the impacts of climate change, climate variability and extreme climate events. Major climate related hazards that wreak havoc in the country are floods and droughts. For example, in 2015, floods affected 15 out of 28 districts in Malawi. About 1.1 million people were affected, 230,000 were displaced, 176 were killed and 172 were reported missing. The total cost of loss and damage that the Government of Malawi incurred during these severe floods was estimated to be US\$335 million, and the recovery and reconstruction costs stood at US\$494 million.

Because of the country's vulnerability to climate change, there is urgent need to undertake interventions to enhance the resilience of productive sectors to the associated negative impacts. For instance, climate-sensitive rain-fed agriculture is the mainstay of Malawi's agro-based economy. It accounts for 30 to 40% of the GDP, employs 85% of the country's workforce and supplies 60 to 70% of raw materials to the manufacturing sector.

Notwithstanding its very low emissions of around 1.4 t CO<sub>2</sub>e per capita in 2015, Malawi as a Party to the United Nations Framework Convention on Climate Change (UNFCCC) has made firm decisions and plans to move the country's development pathways towards a green economy based on national circumstances and capabilities. It is in light of the above that the country's Intended Nationally Determined Contribution (INDC) has been developed in direct response to decisions adopted at the 19th and 20th Sessions of the Conference of the Parties (CoP) to the

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<sup>1</sup> 2008 Population Census by National Statistical Office - Population Projections sourced from <http://www.nso.malawi.mw/publications/134-population-projections-for-malawi.html>

UNFCCC. The INDC aims at achieving the objective of the UNFCCC as set out in Article 2 of the Convention and also contribute to sustainable development.

### ***1.2 National Climate Change Management Policy***

Government of Malawi has developed the National Climate Change Management Policy, currently pending Cabinet approval and endorsement, to spur climate change activities in Malawi. The overall goal of the Policy is ***to promote climate change adaptation and mitigation for sustainable livelihoods through measures that increase levels of knowledge and understanding and improve human well-being and social equity, while pursuing economic development that significantly reduces environmental risks and ecological scarcities.*** In addition, Malawi has sector-specific policies which have mainstreamed adaptation and mitigation activities, as well as implementation frameworks that foster development and transfer of technology and capacity building.

The selection of sectors prioritized in the INDC was premised not only on the sectors that could make the greatest contribution to GHG abatement and resilience building, but other emerging issues were also considered to reflect changes overtime in other key sectors. For instance, the energy and industrial sector landscapes are bound to change in line with developmental plans of the country. Furthermore, the INDC has included issues of adaptation and community resilience, paying particular attention to the vulnerable groups and sectors. Above all, the INDC has provided an opportunity to enhance the implementation of Malawi's sustainable development goals as articulated in its national developmental agenda.

## 2 Mitigation Contributions

### 2.1 Malawi's current greenhouse gases profile

As per 2006 IPCC Guidelines for the preparation of National GHG Inventories, the main sectors contributing to GHG emissions in Malawi are energy, industrial processes and product use (IPPU), agriculture, forestry and other land use (AFOLU), and waste.

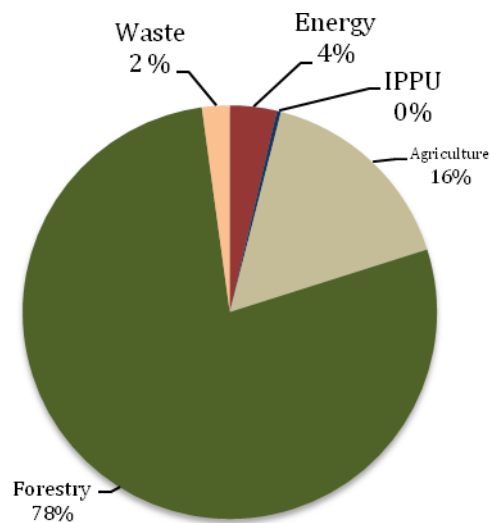


Figure 1: Sectoral emissions in 2015

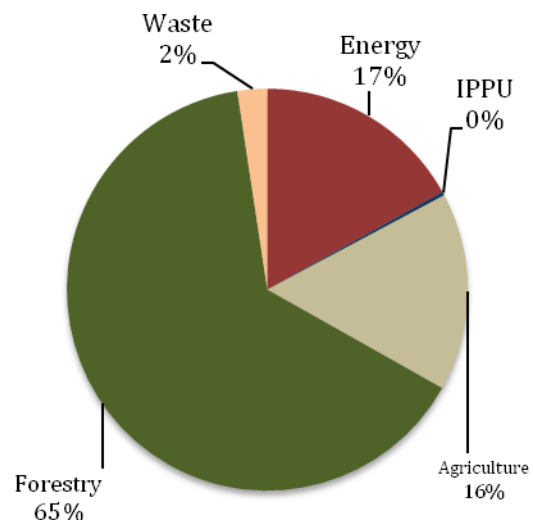


Figure 2: Sectoral emissions in 2040

Between 2015 and 2040, total annual GHG emissions are expected to increase from the current level of approximately 29,000 Gg CO<sub>2</sub> equivalents to in the range of 42,000 Gg CO<sub>2</sub> equivalents, an approximately 38% rise. However, there is at present significant uncertainty about future emissions, particularly beyond the year 2020. While some of these uncertainties pertain mainly to endogenous economic and political factors, as a least-developed country the pace and scope of future emissions growth and the nation's overall pursuit of low-emissions development will also hinge on the provision of international capacity building, technology transfer and financial assistance. The Government of Malawi is working with development partners to improve climate change related data management systems. Estimates suggest that between 14,000 and 16,000 Gg of CO<sub>2</sub> equivalent will be saved per year by 2030 if a robust low emission development path is adopted.

At sectoral level, the largest emitters of greenhouse gases are forestry and land-use, agriculture and energy respectively (Figures 1 and 2). The largest sectoral increase will likely take place in the energy sector as new coal-based generation capacity by independent power producers (IPPs) comes on line to meet immediate energy deficits currently being experienced in Malawi. Due to unsustainable use of fuelwood and charcoal (97% of Malawians rely on biomass energy for cooking fuel), and poor agricultural practices, resulting in a high rate of deforestation and forest

degradation, Malawi is a net emitter of GHGs. Therefore, reliance on biomass energy for the majority of Malawians households continues to put pressure on existing forests, thereby reducing Malawi's sink capacity further. Investments in new and alternative renewable energy sources and the promotion of sustainable forest management practices will be an absolute necessity if deforestation and forest degradation are going to be halted. For the agricultural sector, enteric fermentation, manure management and the use of chemical fertilisers are major sources of emissions, resulting from farming activities as the nation strives to ensure household food security. Emissions in Industrial Process and Other Products Units (IPPU) reflect the growth in the cement industry as new entrants or expansion of existing manufacturing capacity takes place. Management of municipal solid wastes (MSW) is a big challenge to existing and new urban establishments, resulting in the emission of GHGs.

## **2.2 Scope of gases covered**

As it was the case during the implementation of the Initial and Second National Communication, the following gases will be covered in this INDC: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O).

## **2.3 Targets**

Malawi's targets reflect a consolidation and expansion of various climate change related initiatives that have been derived from policies, programmes, and projects. Table 1 shows policy mitigation actions in various sectors of the economy, which can be implemented using local resources (i.e., Unconditional). The table also shows mitigation actions, which the Government would undertake on condition that external support in terms of capacity building, technology development and transfer, and financial resources (i.e., Conditional) are provided thereby contributing meaningfully to the reduction of global emissions.

## **2.4 Equity, fairness and ambition**

Levels of GHG emissions in Malawi are very low, amounting to 0.04% of the total global emissions in 2015. Despite this observation, Malawi Government, through this INDC, has expressed its intentions to contribute towards global efforts to reduce GHG emissions. Emission reduction efforts will concentrate in key sectors of forestry, agriculture and energy. Implementing all unconditional and conditional mitigation activities is expected to reduce the per capita emissions of Malawi from 1.4 t CO<sub>2</sub>e per capita in 2010 to around 0.7 to 0.8 t CO<sub>2</sub>e per capita in 2030 compared to expected business as usual emissions of around 1.5 t CO<sub>2</sub>e per capita in 2030. Potential reductions from the energy sector will be additional to the expected overall per capita GHG emissions reduction. Malawi is currently preparing the Third National Communication to the UNFCCC, which will provide an updated national GHG inventory. Since the results of the new GHG inventory are not available as of yet, Malawi intends to contribute to climate change abatement by implementing mitigation activities, which only provide estimates of GHG reductions through this INDC. Malawi seeks support to improve the national GHG inventory system with a view to provide accurate baseline emissions in the future.

## **2.5 Sectoral emissions**

Table 1 shows the detailed mitigation policy actions for the following sectors: energy; industrial processes and product unit (IPPU); agriculture forest and other land use (AFOLU); and waste.

### **2.6 Energy Sector**

Malawi's current electricity generation capacity is only 351MW against an estimated suppressed demand of 400MW. The hydroelectric power plants are mostly located on the Shire River. Biomass accounts for about 90% of energy supply. Access to grid electricity is at 10%, one of the lowest in the world. Malawi's electricity generation deficit is not only a hindrance to new investments in manufacturing, industry, mining and tourism but also detrimental to the social and economic well-being of its people. Thus, investments that would enhance the generation, transmission, distribution and utilization of alternative and renewable energy sources are key to the development of Malawi.

The Malawi Energy Policy (2003) envisaged a steady increase in hydroelectric power generation, reduction in biomass use, and steady growth in other renewable sources - especially solar, wind and micro hydro power plants. Most of the set targets were not achieved. Recent electricity projections show that Malawi has to rapidly increase its generation capacity to between 1,200MW and 1,500MW by 2020 in order to meet demand. There is a need to accelerate feasibility studies of potential HEP sites so that corresponding electricity generation growth exceeds that of fossil fuel based electric power plants. With external support, Government of Malawi will be able to make significant investments in energy generation from cleaner sources

### **2.6 Industrial Process and Other Product Units**

There is currently a shortage of decent houses both in urban and rural areas of Malawi. In order to meet the demand, the government needs to build an average of 21000 houses per annum. Thus demand for cement, cement products and burnt clay bricks will continue to grow. The two main areas of mitigation in the Industrial Processes and Product Use (IPPU) sector are the reduction in cement consumption through cement blend (using rice husks ash or coal ash) and use of soil stabilized building blocks in place of burnt clay bricks. External support in form of finance, capacity building and technology transfer would contribute towards reduction in GHG emission from IPPU sector.

### **2.7 Agriculture**

Even though the agricultural thematic area is responsible for a significant share of Malawi's GHG emissions, the overall mitigation potential is comparably small. The mitigation options for agriculture are: the promotion of sustainable intensification pathways for the livestock sector, including improved feeding, breeding and veterinary services as well as improved manure management; promoting agroforestry systems in targeted locations as source of biomass and soil carbon sequestration; optimizing fertilizer application with regards to product, rate, timing and placement and encouraging the application of organic amendments such as manure and crop

residues that contain the potential to contribute to soil carbon levels; the planting of nitrogen fixing plants to reduce fertilizer usage; as well as potentially reduced and zero tillage.

The mitigation measures suggested in the agricultural sector will unconditionally contribute 100 Gg CO<sub>2</sub> equivalent mainly from reduced synthetic fertilizer application, and around 400 Gg CO<sub>2</sub> equivalent per annum from implementing climate smart agriculture extensively by 2040, conditional upon support.

## 2.8 Forestry and other land-use

The main activities responsible for greenhouse gas emissions and removals in the forestry sector include deforestation, forest degradation, and afforestation (which includes natural and assisted regeneration). On an annual basis, Malawi emits approximately 0.8 million tCO<sub>2</sub>e from deforestation, and approximately 10 million tCO<sub>2</sub>e from forest degradation. The current level of tree planting and natural or assisted regeneration sequesters approximately 0.9 million tCO<sub>2</sub>e annually. The result is an approximate net annual emission from the forestry sector of 9.9 million tCO<sub>2</sub>e annually.

Two main mitigation options have been proposed for the forestry sector which are in accordance with the recently approved Government of Malawi REDD+ Programme Action Plan: protection and conservation (of existing forests); and, afforestation (covering tree planting, as well as natural and assisted regeneration). Malawi is committed to pursuing policies and measures that slow and eventually reverse GHG emissions from deforestation and forest degradation, and increase removals through afforestation. Given limited resources, however, our ability to implement many of these measures, and to accurately capture resultant emission reductions, will depend to a large extent on adequate provision of international technical and financial assistance.

The proposed mitigation actions designed to enhance protection and conservation of protected areas (forest reserves and wildlife reserves) are projected to result in an unconditional emission reduction of approximately 4.8 million tCO<sub>2</sub>e. Conditional on external support, which would enable the Government of Malawi to expand protection and conservation efforts beyond the nine reserves prioritize by the Department of Forestry in 2015, the emission reduction from protection and conservation could be increased.

The mitigation actions that enhance afforestation and natural/assisted regeneration are projected to result in the unconditional sequestration of approximately 1 million tCO<sub>2</sub>e annually (through planned afforestation in plantations and on customary land, projected based on recent afforestation rates, and discounted to reflect realistic survival rates). Conditional on external support the contribution of afforestation could be increased. Specifically, for the Government of Malawi's to achieve its target of 2% increase in forest cover nationally, the area being afforested on an annual basis would need to increase four times. If conditional funding were available to achieve this target the mitigation benefit is projected to sequester approximately 2.6 million tCO<sub>2</sub>e.

## 2.9 Waste

Population is the main driver of waste generation. Malawi's population is rural based, with 85% of its population living in the rural areas. However, the rate of urbanization in cities and town centres, estimated at 5.2%, is among the world's fastest growing. The high urbanisation rate and lack of designated plots have resulted in the expansion of informal settlements in its towns and cities, which are characterised by lack of access to basic services, including waste collection and disposal. The per capita waste generation ranges from 0.37 to 0.9, with organic content of 81%.

Mitigation interventions recommended are reduction of waste generation, recovery and use of landfill bio-gas, controlled waste incineration, and composting for organic manure as technological approaches to mitigate GHG emissions in the waste sector.

Conservative estimates, indicate that the **mitigation potential** could be as high as **400 Gg CO<sub>2</sub> equivalent by 2025, if additional measures** (i.e. waste incineration, biogas recovery, processing MSW into fertilizers) will be implemented with **external support.**



Table 1: Malawi's policy-based mitigation actions.

Key: Unconditional (UC) Capacity requirements (CR), technology requirements (TR) and finance requirements (FR)

Sectors	Intended policy based action	Provision of implementation means			
		UC	CR	TR	FR
Energy Supply	Produce 2000 solar water heaters (SWH)	✓			
	Increase SWH from 2,000 to 20,000 by 2030		✓	✓	✓
	Install 20,000 solar PV systems	✓			
	Increase Solar PV from 20,000 to 50,000 by 2030		✓	✓	✓
	Produce 2 million litres of bio-diesel/year	✓			
	Increase biodiesel from 2 to 20 million/ year		✓	✓	✓
	Produce 18 million litres of ethanol/ year	✓			
	Increase ethanol production from 18 to 40 million litres per year		✓	✓	✓
	Increase number of passengers using mass transport by 1%	✓			
	Increase number of passengers using mass transport by 30%		✓	✓	✓
	Producing 351 MW of hydro electricity	✓			
	Increase generation of HEP by 800MW by 2025		✓	✓	✓
	Distribute energy saving cook stoves to 400 000 households	✓			
Energy utilization	Increase the number of households adopting energy saving stoves to 2,000,000 by 2030		✓	✓	✓
	Increase use of soil-cement stabilized block and rice husk ash blended cement to around 10% of current cement production		✓	✓	✓
Industrial Processes	Support research and use of alternative cement materials	✓			
	Develop national standards for alternative building materials and technologies		✓	✓	✓
	Support industries engaged in carbon capture and storage		✓	✓	✓
Agriculture	Support development of market based policies and legal instruments to shift decisions from financial to environmental decisions		✓	✓	✓
	Develop appropriate extension and training materials for climate resilient agronomic practices	✓			
	Upscale the dissemination of climate resilient agronomic practices to above 10% of current cropland		✓	✓	✓
	Build capacity to implement and monitor the agriculture NAMA		✓	✓	✓
Forestry and land-use	Afforestation, reforestation and forest conservation and protection of catchments	✓			
	Upscale afforestation, reforestation and forest conservation and protection of catchments		✓	✓	✓
	Implementation of payment for ecosystem service for hydroelectric dams		✓	✓	✓
	Promotion of non-extractive livelihoods from forest	✓			
	Upscale the non-extractive livelihoods from forest		✓	✓	✓
	Promote sustainable production of fuel wood by establishing woodlots plantations and forest management	✓			
	Upscale sustainable production of fuel wood by establishing woodlots plantations and forest management		✓	✓	✓
Wastes	Construct controlled landfill for biogas recovery to generate up to 240 GWh of primary energy (95 GWh of electricity) per year		✓	✓	✓
	Promote solid and water waste reduction practices at household, institutional and industry level to reduce waste generation	✓			
	Process municipal solid wastes into fertilisers		✓	✓	✓
	Install waste to energy incinerators to generate up to 250 GWh of electricity per year		✓	✓	✓



### 3 **Adaptation** measures

The priority sectors and thematic areas identified based on national development priorities are: agriculture (crops, livestock, fisheries), water resources, health, infrastructure, land-use planning, transport, population and human settlements, disaster risk management, forestry; wildlife, energy and gender. For all these sectors, there will be need for multi-sectoral collaboration in the implementation of various projects and programmes. Also, there will be need for capacity building, research, and consideration for disaster risk management as well as the need to harmonise policies. Table 2 shows the summary of adaptation measures.

#### *3.1 Agriculture*

The biggest adaptation challenge is Malawi's heavy reliance on rain-fed agriculture. The majority of smallholder farmers cannot afford irrigation technologies despite the fact that Malawi is endowed with abundant water resources. Climate change also requires farmers to adapt to new agronomic practices such as conservation agriculture, growing of drought tolerant crops, precision agriculture (which in turn also requires a better access to input for seeds and fertilizers) and agro-forestry amongst others in order to improve productivity. The Greenbelt Initiative by the Government to increase the level of irrigation farming is a key national adaptation measure to address this challenge.

#### *3.2 Water*

Potential adaptation measures in the water sector reflect the need to enhance and harmonise policies and strategies for catchment area protection, water conservation and sustainable utilization. The adaptation actions that Malawi is implementing in this sector include: the construction of multipurpose dams, implementation of water harvesting technologies, capacity building in integrated water resources management (IWRM), catchment management, promotion of irrigated agriculture (including the Greenbelt Initiative), fish farming, and water supply development for domestic and livestock use. Upscaling of the above listed activities will require external support.

#### *3.3 Human health*

Various studies have shown that under climate change scenario, the spread of climate-sensitive diseases such as malaria and diarrhoea would increase, and food production would decline resulting in malnutrition. Years of below-normal rainfall (e.g., 1991/92) have correspondingly led to higher incidents of malnutrition. These issues are highlighted in the NAPA.

Adaptation measures suggested in this INDC aim at enhancing institutional and human resource capacities so as to provide sustainable support to vulnerable groups in terms of disease monitoring, prevention and control.

#### *3.4 Wild life*

Droughts pose a major threat to wildlife in terms of availability of forage and water. Adaptation interventions are meant to prevent the extinction of the animal species while ensuring optimal population sizes are retained based on carrying capacity of the reserve. Efforts will be taken towards enhancing capacity to construct watering points, and control of animal population by culling or translocation amongst other approaches.

Table 2: Adaptation actions

**Key: Unconditional (UC) Capacity Requirements (CR), Technology Requirements (TR) and Finance Requirements (FR)**

Sectors	Intended policy based action	Provision of implementation means			
		UC	CR	TR	FR
<b>Agriculture</b>	Increase irrigation at smallholder level	✓			
	Increase land under irrigation through Greenbelt initiative from 20000 to 40000 ha	✓			
	Expanded programmes of Greenbelt initiative from 40000 ha to 10000 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	✓			
<b>Water</b>	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		✓	✓	✓
<b>Human Health</b>	Build capacity to diagnose, prevent and control climate-sensitive diseases such as malaria, diarrhoeal diseases 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		✓	✓	✓
<b>Energy</b>	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 energy efficient bulbs	✓			
	Promote use of bio-fuels for lighting and cooking replacing fossil based fuel	✓			
<b>Forestry</b>	Support research in drought tolerant and fast growing tree species				
	Expand afforestation and forest regeneration programmes		✓	✓	✓
	Promote growing of drought tolerant and fast growing tree species	✓			
<b>Wildlife</b>	Provide watering points at strategic locations of national park/ game reserve		✓	✓	✓
	Implement diseases control programmes		✓	✓	✓
	Support capacity building in wildlife institution to lead in adaptation initiatives e.g. translocation and culling.		✓	✓	✓
<b>Fisheries</b>	Capacity building in aquaculture and cage culture fish farming practices	✓			
	Adopt eco-system services approach in the management of fisheries resources	✓			
	Promote aquaculture and cage culture fish farming practices		✓	✓	✓
	Protect of fish spawning/breeding sites	✓			
	Maintain fingerings for stocking lakes and rivers after severe droughts episodes	✓			
<b>Gender (and vulnerable groups)</b>	Promote gender mainstreaming in policies, programmes and projects	✓			
	Support capacity building programmes for vulnerable groups		✓	✓	✓
<b>Infrastructure</b>	Construct infrastructure for flood control, transport, etc		✓	✓	✓
	Develop and implement climate related building codes/standards		✓	✓	✓
	Revise existing building standards in line with climate change	✓			
<b>Industry</b>	Promote research in industrial technologies		✓	✓	✓

### *3.5 Energy*

Most of the energy sector interventions that have been put forward as mitigation activities have adaptation co-benefits. The vulnerability of energy production is related to the sources being affected by floods and droughts in terms of damage to machinery, loss of biomass productivity and availability of appropriate alternative technologies. For instance, solar PV is an alternative energy source for lighting when there is load shedding resulting in generation outage, but the technology is currently unaffordable without international support. Biomass briquettes and bio-fuels provide alternative energy sources in place of charcoal and firewood as the national forest stand is simultaneously under pressure from unsustainable wood extraction and climate change effects.

### *3.6 Forestry*

Forest productivity will be greatly affected by erratic rainfall and extended droughts. Overtime, communities may adapt by planting tree species that are drought tolerant and fast growing such as bamboos. This would reduce pressure on standing forests since communities would be harvesting wood for fuel from their own woodlots. Some mitigation interventions in the forestry sector also have adaptation co-benefits elements. For example, forest regeneration could spur bee-keeping and indigenous mushroom harvesting thereby taking people-off from forest extractive activities.

### *3.7 Fisheries*

Fish provides about 60% of animal protein intake in Malawi and is a source of employment for many Malawians. Unfortunately, fish population is declining rapidly due to climate change as well as non-climate factors such as rapid population growth resulting in unsustainable levels of fish harvesting. Fish farming using ponds and cages provides an opportunity to enhance the quality of life of vulnerable groups through improved access to fish resources. This development could be directly linked to the construction of multipurpose dams. Improved co-management of capture fisheries also has strong potential to buffer food security and improve the climate resiliency of fishing-dependent communities.

### *3.8 Gender*

It is worth noting that gender is a cross-cutting issue. Hence, it needs to be mainstreamed in all the sectors. Vulnerable and disadvantaged groups carry the burden of the impacts of climate change. Women and girls are particularly impacted, as they have to walk further in search of basic commodities for the family such as firewood and water. Yet, women may not have the authority to decide on alternative and climate-resilient solutions for the household. The adaptation interventions proposed in this INDC are meant to enhance gender inclusiveness in the adaptation programmes and projects.

### *3.9 Infrastructure*

Adaptation measures under this subsector are meant to provide physical barriers for flood prevention and control and facilitate the revision of construction and building standards in line with the changes in climate-based design parameters. The interventions are also meant to contribute to green and climate-resilient buildings.

## 4 Time frames and period for implementation

The timeframe for implementation of the Malawi INDC is 2015 to 2040. This timeframe will allow development of a detailed INDC plan and feed into the medium term plan of the successor MGDS III which will become effective in 2016, and also be aligned with the new long term vision when the current expires in 2020.

## 5 The INDC Development Process

The preparation of Malawi's INDC was conducted with government's full commitment and all inclusive process: It passed through the establishment of national INDC taskforce and the launching of the process at national level. The draft was prepared by the national taskforce assisted by national and international experts. The review of national policies and strategy documents as well as a series of consultations of key stakeholders, including a national workshop for the final validation of the INDC were conducted. Finally the document was approved by government.

## 6 Other implementation considerations

### 6.1 Assumptions

The implementation of mitigation and adaptation actions indicated as "with *requirements*" will require availability of financial resources, technology development and transfer, and capacity building from the international community. The Government of Malawi is willing to implement some of the adaptation and mitigation actions indicated as 'unconditional' by pulling resources from domestic sources. Development partners and other stakeholders at the national level are invited and requested to provide the required support to ensure that the recommended projects are implemented. For this to happen, the outcome of the United Nations Climate Change Conference in December 2015 in Paris, France is expected to be in full conformity with equity and common but differentiated responsibilities; and the contributions forthcoming from developed country Parties relating to mitigation and adaptation will be in a balanced manner, in the context of a global and comprehensive agreement for the period beyond 2020. The economic development landscape in the country will also be key in determining the implementation of the mitigation and adaptation actions proposed.

### 6.2 Human rights and Gender

Vulnerability and adaptation assessments have shown that most of Malawi's social economic sectors are prone to negative impacts of climate change. Through this INDC, Malawi has expressed the need for external support in the implementation of adaptation policy actions that will reduce the vulnerability of the sectors and enhance people's resilience to the negative impacts of climate change.

Human rights and gender issues are enshrined in the Malawi Constitution, and Government of Malawi is committed to its Gender Policy, promoting the mainstreaming of gender in all government sectors, programmes and projects. Consideration of these cross-cutting issues is critical in the design and implementation of mitigation and adaptation actions.

### *6.3 Policy framework to support implementation*

Malawi launched its Vision 2020 in the year 2000 to provide a roadmap for sustainable development in the country. This provided the basis for developing medium term developmental plans such as the Malawi Poverty Reduction Strategy Programme (MPRSP), Malawi Economic Growth Strategy (MEGS) and Malawi Growth and Development Strategy I & II (MGDS I & II). MGDS II spans over the period 2011 to 2016. At the sectoral level, the National Environmental Action Plan (NEAP) (1994) and National Environmental Policy (NEP) (revised 2004) provided policy guidance and direction to manage the environment, natural resources and climate change. There have been other strategic documents that have provided policy direction such as the National Communications of 2002 and 2011 submitted to COP, NAPA (2006), National Environment and Climate Change Communication Strategy (2012), Malawi's Climate Change Learning Strategy (2012) and National Climate Change Investment Plan (2014). MGDSII recognises climate change as a key priority area.

## **7 Monitoring and Evaluation System for Adaptation**

For all government programmes and projects implemented in the country, a monitoring and evaluation framework is in place. The M&E activities are undertaken by the Ministry of Finance, Economic Planning and Development in collaboration with sectoral ministries. The INDC M&E will be done by the MFEPD, Ministry of Natural Resources, Energy and Mining and other sectoral ministries. Government of Malawi will require external technical and financial support to put in place a tailor-made INDC tracking system to monitor short, medium and long term implementation.