



KINGDOM OF CAMBODIA

Nation, Religion, King

## **Cambodia's Intended Nationally Determined Contribution**

### **Introduction**

Cambodia recognises the need for respecting the principles of the United Nations Framework Convention on Climate Change (UNFCCC), in particular the principle of ‘common but differentiated responsibilities and respective capabilities’ along with the right to the sustainable development of developing countries. A global limit of greenhouse gas emissions is also needed in order to achieve the ultimate objective of convention, which is “*to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*”. In response to the ‘Lima Call for Action’<sup>1</sup>, Cambodia is pleased to present its Intended Nationally Determined Contribution (INDC) to the UNFCCC, ahead of COP 21 in Paris, December 2015. This INDC is subject to revisions to meet national circumstances as the country continues along its development pathway.

Cambodia is a low emitter and highly vulnerable country to the negative effects of climate change. Our contribution is therefore necessarily aligned with our development priorities. The INDC includes both adaptation and mitigation actions based on national circumstances. Cambodia's INDC is composed of five sections:

- Section 1: National context, presenting national circumstances relevant to the INDC
- Section 2: Adaptation, covering Cambodia's vulnerability to climate change and prioritised adaptation actions
- Section 3: Mitigation, including Cambodia's intended contribution to reduce greenhouse gas emissions, with information to ensure clarity, transparency and understanding, and consideration of fairness and ambition
- Section 4: Planning and implementation processes, with indications of the institutions, policies, strategies, and plans that will support the implementation of the INDC
- Section 5: Means of implementation, with information on the support needed for the implementation of the INDC.

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<sup>1</sup> UNFCCC decision Decision -/CP.20

[https://unfccc.int/files/meetings/lima\\_dec\\_2014/application/pdf/auv\\_cop20\\_lima\\_call\\_for\\_climate\\_action.pdf](https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf)

Cambodia is confident that through INDCs, which is a new, ‘bottom-up’ approach to addressing climate change, the *impasse* in the negotiations that have been experienced in the past years will be overcome. Cambodia also hopes that the new agreement to be finalised at COP 21 will be successful in limiting temperatures to a level that would prevent dangerous anthropogenic interference with the global climate system, and at the same time contribute to global poverty reduction and promote economic growth efforts.

## 1. National Context

Cambodia is highly vulnerable to the effects of climate change, in particular from floods, droughts, windstorms, and seawater intrusion. Agriculture, infrastructure, forestry, human health, and coastal zones are the most affected sectors. Cambodia’s main national development priority, enshrined in the National Strategic Development Plan (NSDP) for 2014-2018, is to reduce poverty while fostering economic growth at a steady rate of 7-8% per year<sup>2</sup>. Cambodia aims to progress from least-developed country (LDC) status towards a low and high middle-income developing country by 2018 and 2030 respectively. It is intended that this goal will be achieved by diversifying the economy, including through industrialisation and the development of physical infrastructure.

Efforts in addressing climate change in Cambodia cannot be separated from economic development and poverty alleviation goals. The agriculture sector is expected to grow at an annual rate of 5% in order to meet national economic growth and export targets, as well as to contribute to the population’s food security needs. At the same time, Cambodia has more than 57% forest cover, which the government endeavours to increase and maintain, to ensure livelihoods for forest-dependent communities and future generations. The pressure on resources and land is high, and whilst the latest available GHG inventory suggests that Cambodia was an **overall net carbon sink** in 2000<sup>3</sup>.

Despite the many challenges inherent in realising such strong ambitions, Cambodia is proud of the progress made in climate change policy, in particular since the accession to the UNFCCC in 1996. Explicit efforts have been made in mainstreaming climate change into national and sub-national planning. For example, Cambodia has developed and implemented the Climate Change Strategic Plan 2014 – 2023 (CCCSP), and associated action plans developed by each relevant ministry. These plans are Cambodia’s first ever comprehensive national policy documents that illustrate not only the country’s priority adaptation needs, but also provide roadmaps for the de-carbonisation of key economic sectors and the enhancement of carbon sinks. Further, Cambodia has developed a Green Growth Policy and Roadmap

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<sup>2</sup> Source: RGC (2014), National Strategic Development Plan 2014-18, Ministry of Planning. Available at: <http://www.mop.gov.kh/Home/NSDP/NSDP20142018/tabid/216/Default.aspx>

<sup>3</sup> According to the latest greenhouse gas inventory for 2000 in: RGC (2015), Second National Communication to the UNFCCC, Ministry of Environment (unpublished)

which sets the path to stimulating the economy through low carbon options, savings and creating jobs, protecting vulnerable groups, and improving environmental sustainability.

Cambodia has also made progress in integrating climate change in budgeting through the development of a climate change financing framework, in addition to producing regular climate public expenditure reviews and having improved tracking of climate finance in the Official Development Assistance (ODA) database. There is ongoing work in priority sectors to strengthen climate change-related budget submissions and in integrating climate change in their monitoring and evaluation systems. Climate finance modules are also being integrated in the public financial management training courses provided for government officials.

## 2. **Adaptation**

### 2.1. Vulnerability to Climate Change

Cambodia is one of the most climate vulnerable countries in the world<sup>4</sup>. As a least developed, agrarian country, Cambodia's vulnerability to climate change is mainly due to its geography, high reliance on the agriculture sector, and low adaptive capacity, including limited financial, technical and human resources. Over the past decade, Cambodia has witnessed more frequent and severe floods, droughts and windstorms which pose serious challenges to socio-economic development. As well as occurring more frequently, storms have resulted in increasingly high physical and economic impacts, in particular in rural areas. As an example, heavy rainfall in October 2013 resulted in flash floods, impacting over half a million people. More than half of Cambodia's provinces were impacted, with the Mekong region being particularly affected, as the river's water levels rose with the rainfall. An assessment indicated that the damage and loss caused by the 2013 floods was 356 million US\$<sup>5</sup>, of which 153 million US\$ was the estimated value of the destruction of physical assets (damage) in the affected areas, and 203 million US\$ the estimated losses in production and economic flows. Similarly, in 2012, drought was experienced by 11 out of the 24 provinces in Cambodia and negatively affected tens of thousands of hectares of rice growing areas.

Meteorological modelling predicts that temperatures will rise in the future and, in addition to the increased frequency of severe floods experienced over the last decade, rainfall patterns will become more unpredictable by 2050. Agriculture, infrastructure, forestry, human health, and coastal zones are the most vulnerable sectors to the impacts of climate change:

- **Agriculture:** The country's most agricultural production system is dependent either on rainfall or on the annual flooding and recession of the Tonle Sap Great Lake. The sector is therefore particularly sensitive to potential changes in local climate and monsoon regimes

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<sup>4</sup>Source: Royal Government of Cambodia (RGC, 2012), RGC (2006) and RGC (2015), Second National Communication to the UNFCCC, Ministry of Environment (unpublished)

<sup>5</sup>Cambodia 2013: Post-Flood Early Recovery Need Assessment Report, RGC.

- **Infrastructure:** the increasing occurrence and severity of floods exacerbated by climate change are resulting in high costs for the maintenance and upgrading of roads and irrigation infrastructure. This is particularly the case in urban areas where more and more assets and population are concentrated
- **Forestry:** Under emission scenarios SRESB1 and SRESA2 up to 2050 most lowland forest will be exposed to a longer dry period, particularly forest areas located in the northeast and southwest. More than 4 million hectares of lowland forest, which currently has a water deficit period of between 4 and 6 months, will become exposed to a greater water deficit period of between 6 to 8 months or more
- **Human health:** Climate change can have both direct and indirect impacts. Examples of direct impacts include death, injury, psychological disorders and damage to public health infrastructure. Examples of indirect impacts include changes in the geographical range and incidence of vector-borne diseases, water-borne and infectious diseases, malnutrition and hunger as a result of ecosystem disturbance
- **Coastal zones:** Coastal zone resources already face a number of pressures, including from over-fishing, over-exploitation of forest resources and mangrove ecosystems leading to increased erosion. Climate change adds to these existing challenges through sea level rise, shrinking arable land and decreasing availability of drinking water.

## 2.2 Priority Actions

Adapting to current and future effects of climate change is a priority for Cambodia. Cambodia firmly believes that climate change adaptation action requires an integrated, multi-sector approach to be effective and to be able to support national development objectives. Cambodia has therefore selected a number of priority actions, giving prominence to ones with climate change impact mitigation co-benefits, as follows:

- Promoting and improving the adaptive capacity of communities, especially through community based adaptation actions, and restoring the natural ecology system to respond to climate change
- Implementing management measures for protected areas to adapt to climate change
- Strengthening early warning systems and climate information dissemination
- Developing and rehabilitating the flood protection dykes for agricultural and urban development
- Increasing the use of mobile pumping stations and permanent stations in responding to mini-droughts, and promoting groundwater research in response to drought and climate risk
- Developing climate-proof agriculture systems for adapting to changes in water variability to enhance crop yields.
- Promoting climate resilient agriculture in coastal areas through building sea dykes and scaling-up of climate-smart farming systems

- Developing crop varieties suitable to Agro-Ecological Zones (AEZ) and resilient to climate change
- Promoting aquaculture production systems and practices that are adaptive to climate change
- Repairing and rehabilitating existing road infrastructure and ensuring effective operation and maintenance, taking into account climate change impacts
- Up-scaling the Malaria Control Program towards pre-elimination status of malaria
- Up-scaling of national programmes to address the risk of acute respiratory infection, diarrhoeal disease and cholera in disaster-prone areas. Including conducting surveillance and research on water-borne and food-borne diseases associated with climate change
- Strengthening technical and institutional capacity to conduct climate change impact assessments, climate change projections, and mainstreaming of climate change into sector and sub-sector development plans.

The implementation of each of the above actions and the context in current climate change strategies are presented in Table 1 in the Annex.

## 2. Mitigation

### 3.1 Contribution

Cambodia's contribution particularly aligns with the following requirement of the Lima Call for Action, paragraph 11:

- *"...the least developed countries and small island developing States may communicate information on strategies, plans and actions for low greenhouse gas emission development reflecting their special circumstances in the context of intended nationally determined contributions..."*

Cambodia wishes to propose a GHG mitigation contribution for the period 2020 – 2030, **conditional** upon the availability of support from the **international community**, in particular in accordance with Article 4.3 of the UNFCCC. Significantly, despite Cambodia's status as an LDC, Cambodia is implementing actions in accordance with our sustainable development needs that also address climate change:

- (i) **Energy industries, manufacturing industries, transport, and other sectors:** Cambodia intends to undertake actions as listed in Table 1, the impact of which is expected to be a **maximum reduction of 3,100 Gg CO<sub>2</sub>eq compared to baseline emissions of 11,600 Gg CO<sub>2</sub>eq by 2030.**
- (ii) **LULUCF:** Cambodia intends to undertake **voluntary and conditional** actions to achieve the target of **increasing forest cover to 60% of national land area by 2030.** In **absence of any actions** the **net sequestration from LULUCF** is expected to

reduce to **7,897 GgCO<sub>2</sub>** in 2030 compared to projected sequestration of **18,492 GgCO<sub>2</sub>** in 2010<sup>6</sup>.



Tables 1 and 2 detail the potential mitigation reduction in these sectors, along with the necessary corresponding actions to realise the mitigation potential identified.


**Table 1: Mitigation actions in key sectors – aggregate reductions by 2030**

<i>Sector</i>	<i>Priority actions</i>	<i>Reduction as Gg CO<sub>2</sub>eq and % in the year 2030 compared to the baseline</i>
<b>Energy Industries</b>	<p>National grid connected renewable energy generation (solar energy, hydropower, biomass and biogas) and connecting decentralised renewable generation to the grid.</p> <p>Off-grid electricity such as solar home systems, hydro (pico, mini and micro).</p> <p>Promoting energy efficiency by end users.</p>	1,800 (16%)
<b>Manufacturing Industries</b>	Promoting use of renewable energy and adopting energy efficiency for garment factory, rice mills, and brick kilns.	727 (7%)
<b>Transport</b>	<p>Promoting mass public transport.</p> <p>Improving operation and maintenance of vehicles through motor vehicle inspection and eco-driving, and the increased use of hybrid cars, electric vehicles and bicycles.</p>	390 (3%)
<b>Other</b>	<p>Promoting energy efficiency for <b>buildings</b> and more efficient <b>cookstoves</b>.</p> <p>Reducing emissions from <b>waste</b> through use of biodigesters and water filters.</p> <p>Use of renewable energy for <b>irrigation</b> and <b>solar lamps</b>.</p>	155 (1%)
<b>Total Savings</b>		<b>3,100 (27%)</b>



<sup>6</sup>This information is based on an assessment undertaken for preparing the Second National Communication (SNC).

**Table 2: Contribution from the LULUCF sector**

<i>Name of activity</i>	<i>Description</i>	<i>Estimated emission reductions</i>
Increasing the forest cover to 60% of national land area by 2030, and maintaining it after 2030	<p>In accordance with the National Forest Programme (2010-2029), Cambodia is striving to increase and maintain the forest cover at 60% of the total land area, from an estimate of 57% in 2010. This will be achieved in particular through:</p> <p><u>Reclassification of forest areas to avoid deforestation:</u></p> <ul style="list-style-type: none"> <li>- Protected areas: 2.8 million hectares</li> <li>- Protected forest: 3 million hectares</li> <li>- Community forest: 2 million hectares</li> <li>- Forest concessions reclassified to protected and production forest: 0.3 million hectares</li> <li>- Production forest: 2.5 million hectares.</li> </ul> <p><u>Implementation of the FLEGT <sup>7</sup> programme in Cambodia</u></p> <p>The objective is to improve forest governance and promote international trade in verified legal timber.</p>	<p>4.7 tCO<sub>2</sub>eq/ha/year</p> 

### 3.2 Information to Facilitate Clarity, Transparency and Understanding

Table 3 provides additional information to assist the UNFCCC in compiling and comparing the contributions from all INDCs received by Parties to the convention.

**Table 3: Summary of information to facilitate clarity, transparency, and understanding**

Information for the UNFCCC		
Time frames and/or periods for implementation		
Timeframe	for	2020 to 2030

<sup>7</sup> FLEGT stands for Forest Law Enforcement, Governance and Trade. It aims to reduce illegal logging by strengthening sustainable and legal forest management, improving governance and promoting trade in legally produced timber.



Information for the UNFCCC	
implementation	
<b>Scope and coverage</b>	
Scope of gases included in the contribution	Carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O)
Geographies covered by the contribution	All national territories
<b>Assumptions and methodological approaches</b>	
<b>Methodology for estimating emissions and projections</b>	<p><b>Historical GHG inventory:</b> The reported estimates of emissions of GHGs and removals of CO<sub>2</sub> are based on data reported in the draft Second National Communication (SNC) developed by the Government of Cambodia. The GHG inventory used Tier 1 methodologies set out in the IPCC 1996 Guidelines, IPCC default emission factors and country specific activity data from 2000.</p> <p><b>Baseline GHG projections:</b> In the energy sector, projections have been generated for the SNC using Long-range Energy Alternatives Planning (LEAP) modelling, using default emission factors and activity data from a wide range of sources. Projections for the land use, land use change and forestry (LULUCF) sector take into account forest and grassland conversions and land abandonment, and are based on methodologies in the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance. All projections took into account current macroeconomic conditions, policy conditions, market conditions and events in other sectors.</p> <p><b>Mitigation options:</b> These were formulated based on previous needs analyses, experience from successful projects, pilot projects, feasibility studies, literature reviews and expert opinion.</p>
Approaches for land use, land-use change and forestry emissions	Though actions for LULUCF are presented as a conditional contribution, a precise list of actions and the GHG impacts will be updated after finalisation of the REDD+ Strategy (Reducing Emissions from Deforestation and Forest Degradation “Plus” Strategy).
Global Warming Potentials (GWP)	GWPs values used for estimating CO <sub>2</sub> e are taken from the IPCC Second Assessment Report
<b>Reference point</b>	



Information for the UNFCCC	
Business as Usual (BAU) emissions in the target year	11,600 Gg CO <sub>2</sub> eq by 2030
Projection methodology for low carbon scenarios	A LEAP model was used to project the BAU scenario for energy sector, while COMAP was used for LULUCF, as indicated in the draft SNC.

### 3.3 Fairness and Ambition

Cambodia recognises the need for all countries to present fair and ambitious INDCs, and acknowledges the objectives laid out in the Lima Call for Action.

As an LDC, Cambodia emits a small share of present global emissions and accounts for a fraction of past global emissions. Taking into account the important role of forestry in carbon capture, Cambodia was still a net sink in the year 2000. As per estimates in draft SNC, Cambodia's BAU per capita emissions in 2050 will be 2.59 tCO<sub>2</sub>eq, this is less than half of current world per capita emission. The actions proposed, if adequately supported through finance, technology transfer, and capacity building, will keep the per capita emissions to an estimated 2.04 tCO<sub>2</sub>eq by 2030 which is below world average for a 2°C pathway. Cambodia, despite being an LDC, has for the first time presented a clear list of mitigation actions to limit growth in GHG emissions, making a significant deviation from BAU, and thus going beyond existing actions.

Cambodia seeks to maximise synergies between mitigation and adaptation, and sustainable development. Hence, the actions proposed are necessarily integrated with Cambodia's development priorities, whilst ensuring that growth shifts towards a low carbon development pathway, and align with efforts to increase our country's resilience.

## 4. Planning and Implementation Processes

The INDC has been developed under the coordination of the National Council for Sustainable Development. An INDC Preparation Team has been appointed, with representatives from relevant ministries that will be responsible for the implementation of the specific actions identified.

This INDC (and its future revisions) are to be an integral part of the climate change architecture of Cambodia. Hence its implementation will be aligned with that of Cambodia's national climate change policy, and not create unnecessary duplication.

There are a number of existing and planned domestic processes for delivering, supporting, and monitoring climate change policy in Cambodia, thereby facilitating the successful implementation of the actions captured in the INDC. It is clear that these strategies and plans will need to be revised once the timeframes expire, after having assessed the progress achieved under them.

Cambodia made extensive progress in developing processes for implementing climate change interventions over the last decade. The overarching development plan for the country, the National Strategic Development Plan (2014-2018), states the importance of implementing Cambodia's Climate Change Strategic Plan (2014-2023) and contains indicators to track implementation of climate change actions. Further, the INDC development is guided by the Green Growth Road Map (2009), developed with the aim to support the achievement of middle-income country status by 2030. The roadmap also has priority projects for the longer term i.e. 2020-2030.

Cambodia intends to support the initial delivery of the INDC mainly through the implementation of the Cambodia Climate Change Strategic Plan (CCCSP) (2014 – 2023). The following strategic priorities aim to develop Cambodia towards a green, low-carbon, climate-resilient, equitable, sustainable and knowledge-based society:

(1) The line ministries have developed Sectoral Climate Change Strategic Plans and Action Plans (SCCSPs and SCCAPs) are aligned with CCCSP and cover all the main sectors of relevance to climate change, where identified in the NAPA and National Communications under the UNFCCC. Cambodia is also actively mainstreaming climate change resilience into sub-national planning and finance systems.

(2) Specifically on adaptation, Cambodia has undertaken initiatives to mainstream adaptation into national development, and in specific sectors such as in the agriculture, forestry and human health sectors, as well as coastal zone management. In addition to the CCCSP and the SCCSPs and SCCAPs, Cambodia has developed the National Adaptation Programme of Action to Climate Change (2006), in which coping mechanisms to hazards and climate change impacts are identified, as well as key adaptation needs.

(3) The National Adaptation Plan (NAP) process is being used in Cambodia to strengthen the ongoing climate change adaptation processes through cross-sectoral programming and implementation at national and sub-national levels. It may in turn inform future climate change strategies, financing frameworks, and national development planning and budgeting.

(4) Forestry related actions would be implemented as part of the national REDD+ Strategy. Cambodia is developing an operational National Forest Monitoring System (NFMS), Reference Emission Level to more accurately quantify GHG impacts of actions in this sector. This will form the basis of implementing and accounting for the forestry actions post 2020. Further, Forest Reference Emission Levels and Forest Reference Levels

(FREL/FRL) and a Safeguards Information System (SIS) will be used to account for the emissions reduced via the implementation of activities identified from 2016-2020.

Cambodia has already taken steps to ensure that its monitoring and evaluation (M&E) system includes indicators to measure progress, including INDC implementation, both for adaptation and mitigation. The monitoring, reporting and verification (MRV) system will build on the greenhouse gas inventory. In particular, continued support to develop the REDD+ MRV system is required, in order to enable Cambodia to move towards the third phase of REDD+ where it will receive performance-based payments. M&E for adaptation is currently carried out at project-level. A national M&E framework will be developed, while activities to operationalise it in key sectors have already begun.

The Annex to this INDC summarises the prioritised actions on climate change mitigation and adaptation, and the proposed related planning and implementation processes. It is expected that there will be stock-taking of progress and lessons learned in 2018 for the development of the action plans for the subsequent period.

## 5. Means of Implementation

Cambodia requires support in the form of financing, capacity building, and technology transfer to implement the actions set out in this INDC. Detailed analysis at the start of the INDC implementation will be necessary in order to align it with that of the climate change action plans and refine the estimation of funding requirements, in particular post 2018. This analysis will determine the precise nature and level of support needed, in particular with respect to capacity building and technology transfer.

The assessment of support needs will build on the climate change financing framework that has been developed in conjunction with the climate change action plans. This framework included an analysis of financing sources, costing, analysis of climate change impacts on the economy, and recommendations on financing modalities for the implementation of the CCCSP.

According to the assessment of financial needs for priority activities up to 2018 included in the sectoral climate change action plans, Cambodia would require 1.27 billion US\$ to support the implementation of these activities. The assessment also took into account the climate finance absorption capacity of Cambodia to ensure that the proposed investments are effective.

The international finance support needed would be additional to what Cambodia is allocating to implement its sustainable development plans to realise the identified positive impacts of GHG emission reduction activities. The Climate Change Financing Framework estimated that in 2012, expenditure on climate related policies and actions represented 6.5% of public expenditure, or 1.31% of national GDP. In the National Strategic Development Plan there is a

plan to increase the ratio of climate expenditure on GDP from an estimated 1.39% in 2015 to 1.5% in 2018.

The support received will be channelled through bilateral and multilateral mechanisms, including market based mechanisms. Cambodia is for example making progress in readiness for direct access to the Green Climate Fund (GCF), which may become the principal vehicle for climate finance in the future. Dedicated climate change funding from international sources, either from bilateral/multilateral donors or through global climate funds, represents only 40% of total climate related investment. The strategy will also focus on traditional development funds, as the climate-relevant portion of these funds from domestic and international sources too are an important financing support. As stated above Cambodia is already participating in REDD+ mechanism with respect to forestry related actions.

Sectoral climate change action plans contain indications of capacity building needs. Through consultations carried out to develop the INDC, the development of MRV and M&E systems has been identified as a priority. Though, as explained above the work has already been initiated, more work is needed to develop the MRV based on identified indicators.

Cambodia has developed technology needs assessment for adaptation and mitigation, and technology needs also feature prominently in the sectoral climate change action plans. At the start of the INDC implementation phase Cambodia will also need to carry out a detailed technology needs assessment.

## Annex: Further Information Related to Climate Change Related Strategies and Policies

Cambodia intends to support the initial delivery of the INDC mainly through the implementation of the Cambodia Climate Change Strategic Plan (CCCSP) (2014 – 2023) (see table 1 below) through the following strategic priorities aims to develop towards a green, low-carbon, climate-resilient, equitable, sustainable and knowledge-based society.

The main CCCSP strategic objectives are to:

- Promote climate resilience through improving food, water and energy security
- Reduce sectoral, regional, gender vulnerability and health risks to climate change impacts
- Ensure climate resilience of critical ecosystems (Tonle Sap Lake, Mekong River, coastal ecosystems, highlands, etc.), biodiversity, protected areas and cultural heritage sites
- Promote low-carbon planning and technologies to support sustainable development
- Improve capacities, knowledge and awareness for climate change responses
- Promote adaptive social protection and participatory approaches in reducing loss and damage due to climate change
- Strengthen institutions and coordination frameworks for national climate change responses
- Strengthen collaboration and active participation in regional and global climate change processes.

The CCCSP sets out strategies and actions for different phases:

- In the immediate term (2013-2014): putting in place institutional and financial arrangements for the implementation of the CCCSP, development of national monitoring and evaluation (M&E) frameworks and indicators, and development of climate change action plans (2014 – 2018) by line ministries
- In the medium term (2013-2018): launch of high priority programmes with an initial focus on adaptation and gradual increase in mitigation actions, and accreditation of the Adaptation Fund and Green Climate Fund
- In the long term (2019-2023): the focus will be on research and learning, but its main objective will be to scale up successful initiatives and to continue mainstreaming climate change into national and sub-national programmes.

Table A1 provides a comprehensive list of climate change related strategies and policies under the CCCSP.

**Table A1: INDC planning and implementation processes and their link to existing climate change strategies and plans**

Priority actions	Existing climate change strategy and plan
<b>Adaptation</b>	
Promoting and improving the adaptive capacity of communities and restoring the natural ecology system to respond to climate change	Implementation of Climate Change Action Plan for Environment and Protected Area (2014-2018)
Implementing measures of management and protection of areas to adapt to climate change	Implementation of Climate Change Action Plan for Environment and Protected Area (2014-2018)
Strengthening climate information and early warning systems	Implementation of Climate Change Action Plan for Water Resources and Meteorology (2014-2018)
Developing and rehabilitating the flood protection dykes for agricultural/urban development	Implementation of Climate Change Action Plan for Water Resources and Meteorology (2014-2018)
Increasing the use of mobile pumping stations and permanent stations in responding to mini-droughts, and promoting groundwater research in response to drought and climate risk	Implementation of Climate Change Action Plan for Water Resources and Meteorology (2014-2018)
Developing climate-proof tertiary-community irrigation to enhance the yields from agricultural production of paddy fields	Implementation of Climate Change Action Plan for Rural Development (2014-2018)
Promoting the climate resilience of agriculture through building sea dykes in coastal areas and scaling-up of climate-smart farming systems	Implementation of Climate Change Action Plan for Water Resources and Meteorology (2014-2018); and Climate Change Action Plan for Agriculture, Forestry and Fisheries (2014-2018)
Developing crop varieties suitable to Agro-Ecological Zones (AEZ) and resilient to climate change (include coastal zones)	Implementation of Climate Change Action Plan for Agriculture, Forestry and Fisheries (2014-2018)
Promoting aquaculture production systems and practices that are adaptive to climate change	Implementation of Climate Change Action Plan for Agriculture, Forestry and Fisheries (2014-2018)
Repairing and rehabilitating existing road infrastructure and ensuring effective operation and maintenance, taking into account climate change impacts	Implementation of Climate Change Action Plan for Public Works and Transport (2014-2018)

Priority actions	Existing climate change strategy and plan
Up-scaling the Malaria Control Program towards pre-elimination status of malaria	Implementation of Climate Change Action Plan for Public Health (2014-2018)
Up-scaling of national programmes on acute respiratory infection, diarrhoeal disease and cholera in disaster-prone areas, including conducting surveillance and research on water-borne and food-borne diseases associated with climate variables	Implementation of Climate Change Action Plan for Public Health (2014-2018)
Strengthening technical and institutional capacity to conduct climate change impact assessments, climate change projections, and mainstreaming of climate change into sector and sub-sector development plans	Implementation of recommendations from the draft SNC
<b>Mitigation</b>	
<b><u>Energy Industries</u></b> Grid connected renewable energy generation (solar energy, hydropower, biomass and biogas) and connecting decentralised renewable generation to the grid  Off-grid electricity such as solar home systems, hydro (pico, mini and micro)  Promoting energy efficiency by end users	Implementation of Climate Change Action Plan for Manufacturing Industry and Energy Sectors (2014-2018)
<b><u>Manufacturing Industries</u></b> Reducing emissions as a result of rice milling, garment, and brick works	Implementation of Climate Change Action Plan for Manufacturing Industry and Energy Sectors (2014-2018)
<b><u>Transport Sector</u></b> Motor vehicle inspection, public transport and improving efficiency of vehicles	Implementation of Climate Change Action Plan for Transport Sector (2014-2018)
<b><u>Other Sectors</u></b> Efficient cookstoves, biodigesters, water filters	Implementation of Climate Change Action Plan for Manufacturing Industry and Energy Sectors (2014-2018)
<b><u>Forestry</u></b> Increasing forest cover to 60% of national land	Implementation of: National Forest Programme 2010-29; Climate Change



Priority actions	Existing climate change strategy and plan
area, and maintaining that level from 2030 onwards	Action Plan for Agriculture, Forestry and Fisheries Sector (2014-2018); REDD+ Strategy