



# **Intended Nationally Determined Contributions**

**Ministry of Mahaweli Development and Environment**

**Sri Lanka**

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## 1. Introduction

The Ministry of Mahaweli Development and Environment in Sri Lanka as the National Focal Point to the United Nations Framework Convention on Climate Change (UNFCCC) is pleased to submit its Intended Nationally Determined Contributions (INDCs) in accordance with Decisions 1/CP.19 and 1/CP.20 of the Conference of Parties of the UNFCCC. We believe the INDCs will support the process of reaching a fair and ambitious global agreement at the COP21 of the UNFCCC. Sri Lanka is confident that a fair and ambitious Agreement is an imperative for countries to reach the Sustainable Development Goals.

Sri Lanka is pleased to take part in the efforts of tackling current and projected climate change challenges by preparing Intended Nationally Determined Contributions (INDCs). The INDCs have been formulated based on the principle of common but differentiated responsibilities and respective capabilities. The information presented in this submission is based on the date available at the time of formulation of the country's INDCs. The INDCs will be updated by Sri Lanka as and when more recent and updated data is available.

## 2. National Context

Sri Lanka, a country highly vulnerable to climate change impacts presents the INDCs to strengthen the global efforts of both mitigation and adaptation. In response to challenges posed by climate change, Sri Lanka has taken positive steps by introducing national policies, strategies and actions in order to address climate change induced impacts, amongst which are the *National Climate Change Policy of Sri Lanka*, *National Climate Change Adaptation Strategy for Sri Lanka 2011-2016*, the *Climate Change Vulnerability Profiles; Water, Health, Agriculture and Fisheries, Urban Development, Human Settlements and Economic Infrastructure in 2010*, the *Technology Needs Assessment and Technology Action Plans for Climate Change Adaptation and Mitigation in 2014*, the *National Action Plan for Haritha Lanka Programme in 2009* and *Urban Transport Master Plan 2032* based on the *National Transport Policy in 2009*.

Further, *National Adaptation Plan (NAP) for Climate Change Impacts in Sri Lanka* is expected to be finalized before the end of 2015, Nationally Appropriate Mitigation Action (NAMA) on Energy Generation and End Use Sectors is being implemented, and the NAMA on Transportation is being prepared, in addition to the afore mentioned, the Long Term Electricity Generation Expansion Plan 2015-2032 and the *National Solid Waste Management Strategy 2000*, the *Corporate Plan 2014-2018* by the Central Environmental Authority and various legal amendments made by government entities related to environment are being implemented.

As a small island in the Indian Ocean, the coastal region of Sri Lanka is susceptible to changes in sea level. The 2004 tsunami has indicated that low-lying plains in the coastal zone will be vulnerable to any future rise in sea level. Important sectors of the economy such as tourism and fisheries could be affected due to impacts of sea level rise. A significant population of the

country is dependent on livelihoods connected to agriculture. Studies show that the food security of the nation can also be adversely affected due to adverse impacts of climate change. Besides, a substantial share of the foreign income is generated through export crops which are highly sensitive to fluctuations of weather. Emerging evidence from various sources suggest that climate change could alter natural systems connected to the water cycle, the ecosystems and the bio-diversity of the country. This could lead to decline of various ecosystem services that are indispensable for the welfare of human population. In addition, impacts of climate change appear to have significant repercussions on health of the citizens and human settlements of the country.

Sri Lanka has taken several steps to strengthen the country's capabilities to face the challenges of climate change, especially by the formulation of overarching policies, national level plans and strategies. In order to address the issues related in climate change a separate dedicated institution titled the Climate Change Secretariat (CCS) for handling was established under the Ministry of Mahaweli Development and Environment in 2008.

### **3. Intended Nationally Determined Contributions (INDCs) of Sri Lanka**

As per the outcome of the 19<sup>th</sup> Conference of Parties (COP19) in Warsaw in 2013, all Parties were invited to prepare INDCs. This is as part of the work of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) that was established at COP 17 in Durban to "Develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties".

These INDCs will play a vital role in the post 2020 global climate agreement, which shall aim to limit adverse impacts of climate change and prevent irreversible consequences that would be faced by the world.

#### **3.1 Timeframe and Periods of Implementation**

Base year 2010

Target period 2021 – 2030

#### **3.2 Scope and coverage**

Sri Lanka submits its INDCs under four areas;

- **Mitigation** - Reducing the GHG emissions against the Business As Usual Scenarios in the sectors of Energy, Transportation, Industry, Waste and Forestry. The key contributors to GHG are Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O).
- **Adaptation** - Mainstreaming climate change adaptation into main economic drives with attention to economic and livelihood diversification. Adaptation will focus on as

the key the sectors those of Food security, Health, Water, Coastal and Marine resources, Biodiversity and Ecosystems, Infrastructure and Human Settlements. Adaptation initiatives that derive mitigation co-benefits will be given due priority.

- **Loss and Damage** - In order to contribute to the Warsaw International Mechanism for Loss and Damage a local mechanism will be developed.
- **Means of Implementation** External support for Finance, Technology Transfer and Capacity Building for the above sectors are considered in the implementation process of the INDCs of Sri Lanka.

#### **4. Fairness and ambition**

Sri Lanka is a developing country, highly vulnerable to the adverse impacts of climate change as indicated by the IPCC. However despite its vulnerabilities Sri Lanka is committed to address global climate change and aims to channel the development into a low carbon pathway. The country's total GHG emission represents less than 0.1% of global emissions and the per capita emission is 0.6 tCO<sub>2e</sub>. Through the INDCs, Sri Lanka puts forwards ambitious and progressive delinking of GHG emissions in its efforts for economic growth. Sri Lanka puts forward fair and ambitious mitigation strategies through, while facing the challenges of progressively increasing adaptation demands, and climate induced loss and damages.

Sri Lanka intends to launch an ambitious strategy of mainstreaming climate change adaptation across all economic drives where capacity building and locally appropriate institutional mechanisms will be crucial. The finance and human resource development to implement the strategy will be challenging for these ambitious targets, and the domestic contribution to this end will be very high.

Sri Lanka will also take steps to ensure internal equity by maintaining inclusivity. Inclusivity will be focused through the factors and groups such as gender, youth, vulnerable communities, and providing opportunities to these groups to engage, benefit from the ambitious targets.

#### **5. Mitigation Strategies**

Sri Lanka being a developing country, anticipates achieving development objectives while moving in a low carbon development pathway. It intends to reduce the GHG emissions against Business-As-Usual scenario unconditionally by 7% (Energy sector 4%, and 3% from other sectors) and conditionally 23% (Energy sector 16% and 7% from other sectors) by 2030.

##### **5.1. Energy Sector**

Sri Lanka meets 50% of its primary energy demand through biomass, 40% through imported petroleum sources while the balance is met through indigenous renewable sources. BAU annual

energy demand growth rate is 2.3% which will double the overall demand by year 2046. A detailed energy sector plan has already been developed by Sri Lanka to meet the energy demand while moving away from BAU emission scenarios.

#### **5.1.1. Unconditional emission reduction from Energy sector:**

Emission reduction from existing hydro, Non-Conventional Renewable Energy (NCRC) and future hydro developments is expected to be 4.88 million tCO<sub>2</sub> by 2030, a 4% reduction against the 2010 baseline. Therefore, the cumulative emission reduction for the period of 2015-2030 will be the 74.56 million tCO<sub>2</sub> from the energy sector.

#### **5.1.2. Conditional emission reduction from Energy sector:**

Conditional Emission reduction through future NCRE developments (amounts to 3.33 million tCO<sub>2</sub> in 2030 and cumulatively 30.21 million tCO<sub>2</sub> for the period of 2015-2030. Emission reduction from external support is 16% in 2030, when compared to the likely demand in 2030 following the reductions of the national commitment.

### **5.2. Emission Reduction from Other Sectors**

Sri Lanka intends to reduce its GHG emissions from the sectors of Transport, Waste, Industries and Forest. A total emission reduction of 3% unconditional and 7% conditional against BAU is planned. Detailed plans for these sectors are yet to be completed but some initiatives have already been made by Sri Lanka such as the NAMA being developed for the transport sector.

- **Transport Sector:** The sector accounts for 49% of total GHG emissions of the energy sector. It is targeted to establish energy efficient and environmentally sustainable transport systems by 2030 while 25%-40% of public transport is green fuelled. Reducing unproductive transport systems, shifting of passengers from private to public transport modes, introducing electric railway system, enhancing the efficiency and quality of public transport and economic instruments to environmentally friendly transport modes are some of the intended actions to achieve the target.
- **Industrial sector:** – The sector contribution to the GDP is 28.7% while the GHG emission is only 8% of the energy sector. It is expected to reduce the sector emissions through modernization and facilitate those to follow recognised standards. Fuel switching, industrial energy efficiency and tax structures to promote sustainable technologies are intended actions to achieve the target.
- **Waste Sector:** - Total waste generated in Sri Lanka is between 6500-7000Mt per annum while only 39% is collected. Approximately 60% of total generated waste is biodegradable. It is expected to promote source separation, recycling, composting and waste-to-energy actions while the collection rate is to be increased to 50-65% by 2030.

- Forestry Sector: Current forest cover in Sri Lanka is 29.6% and is planned to be increased to 32%. This includes management of mangrove and wetland ecosystems, management and conservation of natural forests, restoration of degraded forests in underutilized lands and urban forestry. Measures to prevent deforestation and forest degradation will also be taken.

Sri Lanka reserves the right to revise its intended national contributions and targets at any point of time and consider its INDCs to be a living document that should be integrated with changed/modified national development goals and targets.

## 6. Adaptation Strategies

Sri Lanka intends to contribute to the global adaptation goal by enhancing local climate change adaptation. Proper adaptation can prevent losses and damages while creating a conducive environment for low carbon development. The adaptation INDCs of Sri Lanka have been developed based on the *National Climate Change Adaptation Strategy (NCCAS)* and the *National Adaptation Plan (NAP)*. The broader adaptation targets are:

- Mainstreaming climate change adaptation into national planning and development
- Enabling climate resilient and healthy human settlements
- Minimizing climate change impacts on food security
- Improving climate resilience of key economic drives
- Safeguarding natural resources and biodiversity from climate change impacts

Water sector is the most crucial sector where immediate adaptation measures are required that cuts across all the other sectors including health, food security and renewable energy generation (hydro power). In the process of meeting these adaptation commitments Sri Lanka will make extra efforts to build synergies between adaptation and mitigation while capitalising on mitigation co-benefits of adaptation actions. Based on the NCCAS and the NAP, the total finance requirement for adaptation actions for the period of 2016-2025 is SLR 58,571 million (US\$420 million).

## 7. Loss and Damage

Sri Lanka is largely affected with climate induced extreme weather events and slow onset disasters. During these situations Sri Lankan government bears the responsibility of taking care of disaster victims, providing food and other necessary relief services and other supporting to recover early. Losses and damages (L&D) due to these disaster events are heavy creating a huge pressure on the economy and public spending. According to the National Disaster Relief Centre

the total relief expenditure for the period of 2007-2011 was SLR1786 million (US\$129.4million) and that money borne by the government funds. Nevertheless, this calculation has been done with-out considering of infrastructure and other physical damages. According to the *An Integrated post flood Assessment-May 2010*, Disaster Management Centre, Ministry of Disaster Management Sri Lanka, carried out after the floods in the Western and Southern provinces, the total flood damages and losses amounted over US\$ 38.46 million .This means the Government of Sri Lanka is currently handling the losses and damages unconditionally.

**Sri Lanka intends to join hands to develop a fully-fledged Warsaw International Mechanism on Loss and Damage to address the loss and damage issues and in parallel develop an appropriate local mechanism.**

## **8. Means of Implementation**

The means of implementation of INDCs of Sri Lanka requires three pre-conditions.

- **Finance** – Finance is a crucial factor in achieving the set targets. The Sri Lanka government is willing to contribute its finances to achieve the target but the level of ambition will always high with supported actions. As a developing nation, the enhanced finance for adaptation and low carbon development will be a necessity to achieve the set intended conditional targets.
- **Technology** – Predominantly mitigation technology transfer and scaling up adaptation technologies are required without burdening the country’s economic status. The INDCs can be attained with the right mix of access, affordability and scale of technologies.
- **Capacity Building** – (Human Resource Development and Institutional mechanism)  
Sri Lanka needs to develop appropriate institutional mechanisms to ensure climate change is mainstreamed into development process. This will ensure higher degree of deviation from the BAU emission projections while resilience that will reduce loss and damage. Proper institutional mechanisms will help to execute the integrated plans and utilize the finances effectively and efficiently. The institutional mechanisms encompass coordination bodies, engagement platforms and communication channels. Lack of capacities in terms of data acted as a barrier for Sri Lanka as of many other developing country parties in the INDC development process.

**Integrated planning is the key means of implementation. Sri Lanka has already taken initiatives of integrated planning through the NAP and Energy Planning processes which should be extended to other sectors vertically and horizontally.**