



# **Role of Market Instruments to mitigate climate change in Sri Lanka**

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# Contents

## **Sri Lanka and Climate Change**

- Sri Lanka has one of the lowest per capita CO<sub>2</sub> emissions
- Energy demand has grown rapidly with economic growth
- There is an urgent need for climate action

## **Sri Lanka's Initiatives for Climate Change Mitigation**

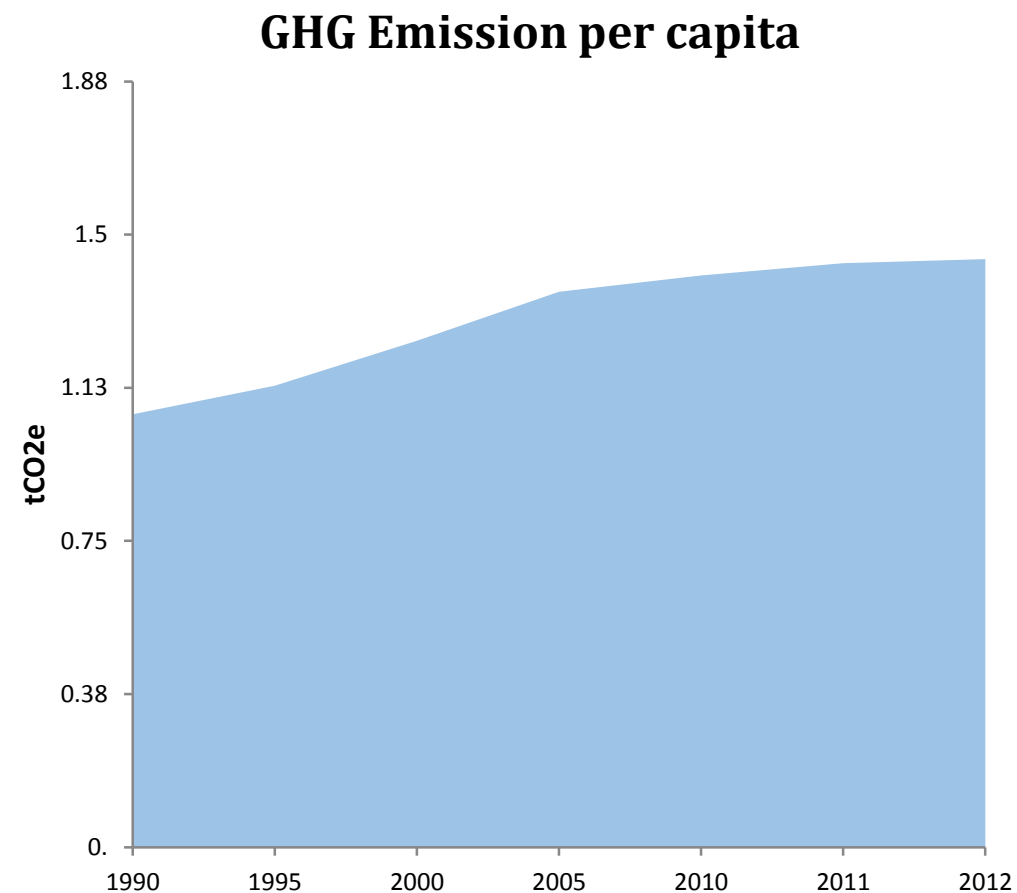
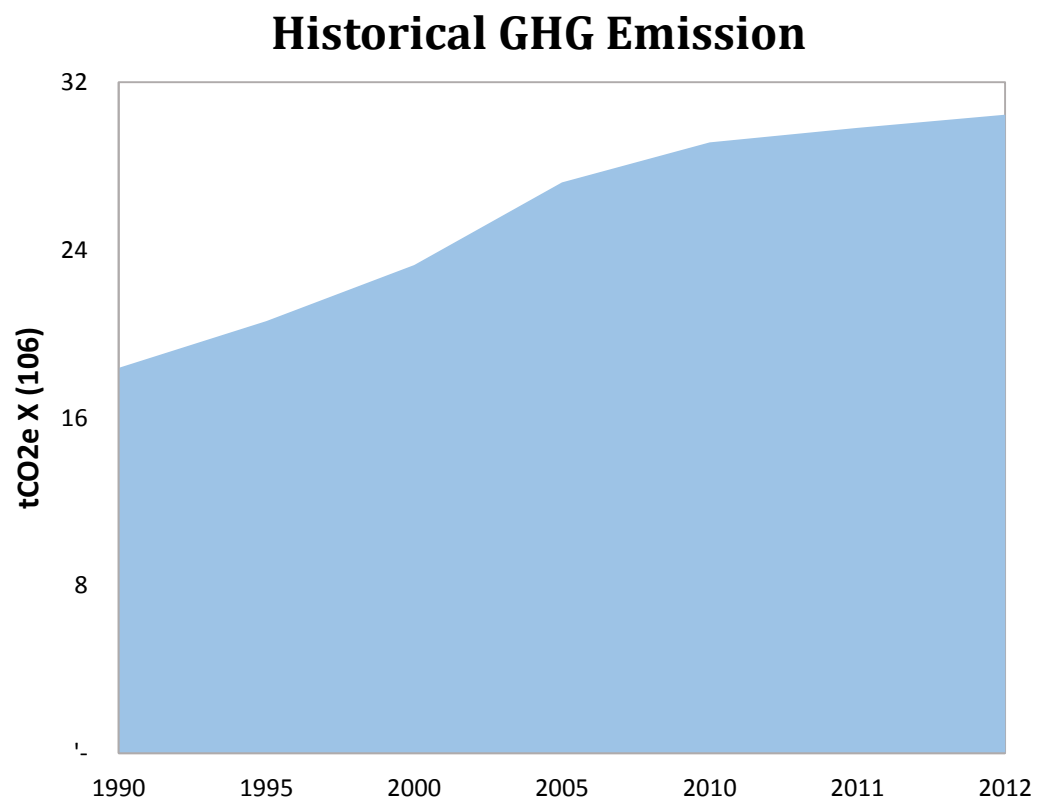
- The government's policy agenda for climate change proposes several strategies
- Aspirational energy goals have been announced
- Sri Lanka is developing a number of voluntary GHG mitigation programs
- Domestic carbon standards have been instituted
- The government is preparing voluntary commitments through INDCs and NAMAs
- Sri Lanka has initiated international programs to incentivize GHG mitigation
- Sri Lanka requires additional support to make climate mitigation efforts a success

## **Sri Lanka's interest in market instruments**

- Sri Lanka requires additional support to make climate mitigation efforts a success
- Market instruments can help achieve Sri Lanka's climate change objectives using a sequenced approach
- Readiness preparation for implementation and capacity enhancement

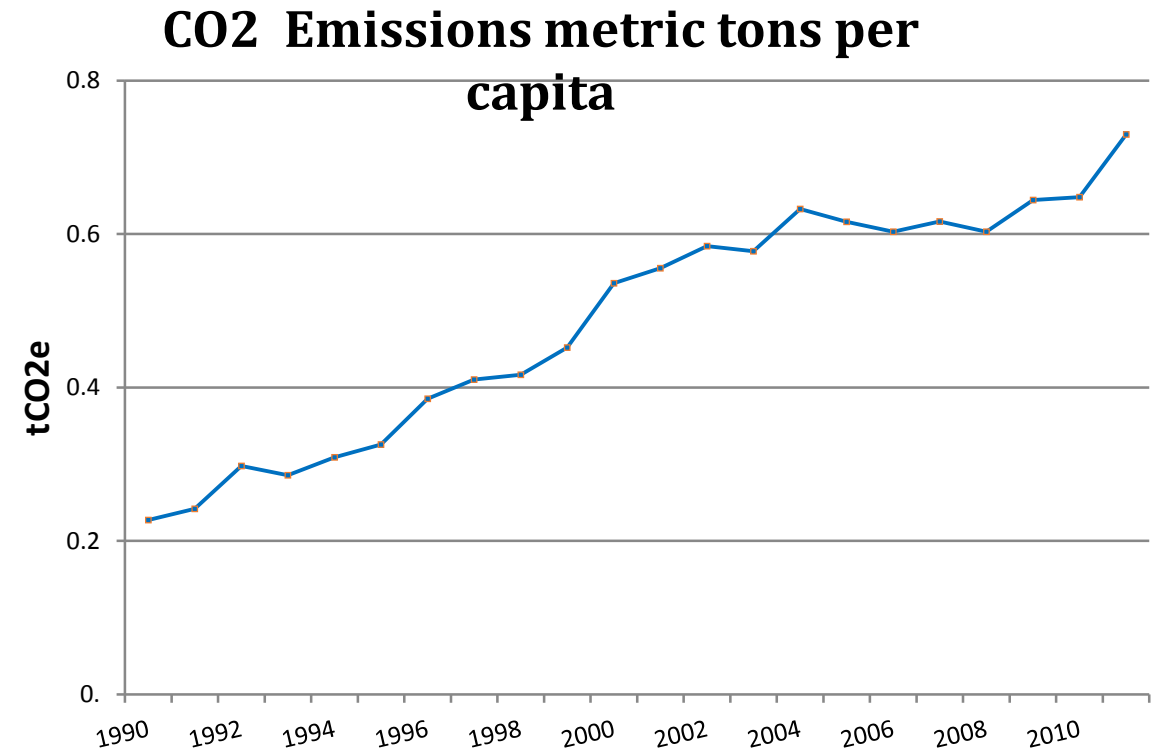
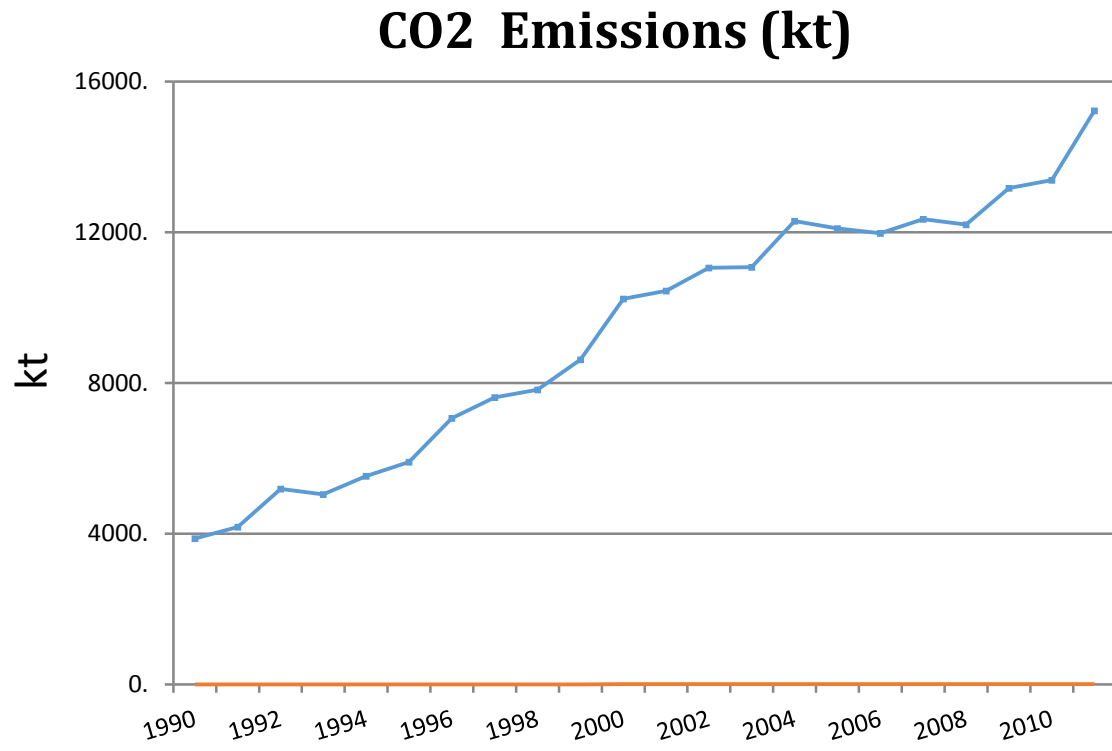
# Sri Lanka has one of the lowest per capita CO<sub>2</sub> emissions

Sri Lanka's GHG emission was approximately 1.44 tons of CO<sub>2</sub>eq per capita in 2012, far below the world average value of 7.58 and lower than most of its neighbouring countries.



Source: Emission Database for Global Atmospheric Research (EDGAR)

# Sri Lanka's CO<sub>2</sub> emission from Fossil Fuel

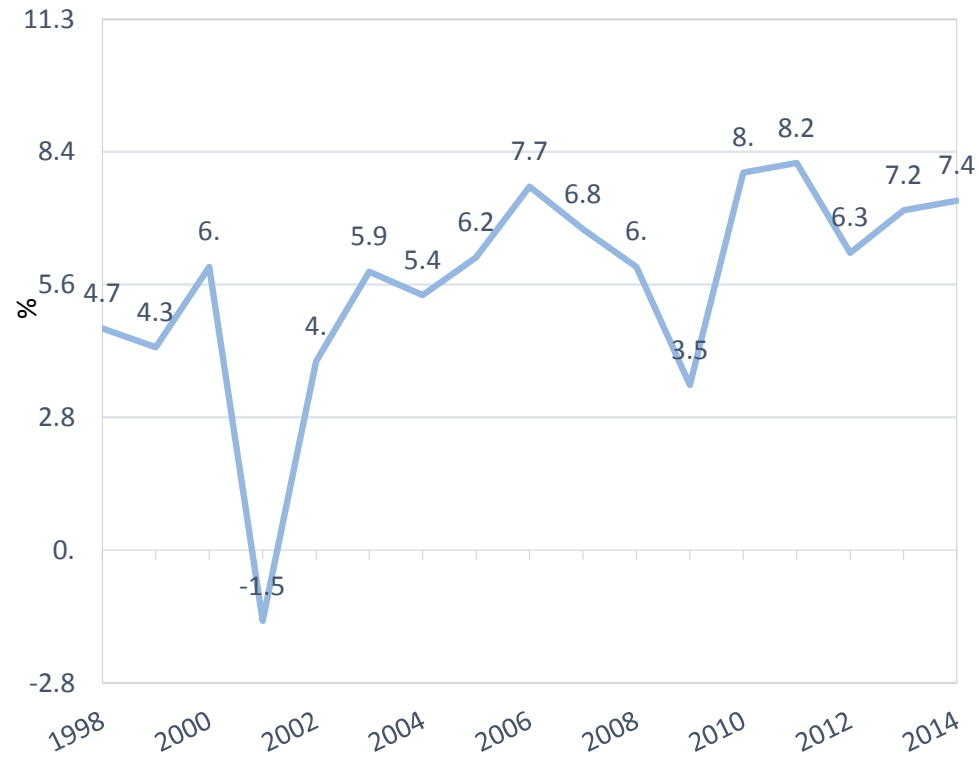


Source: <http://data.worldbank.org/>

# Energy demand has grown rapidly with economic growth

Sri Lanka's economy has grown rapidly over the last decade

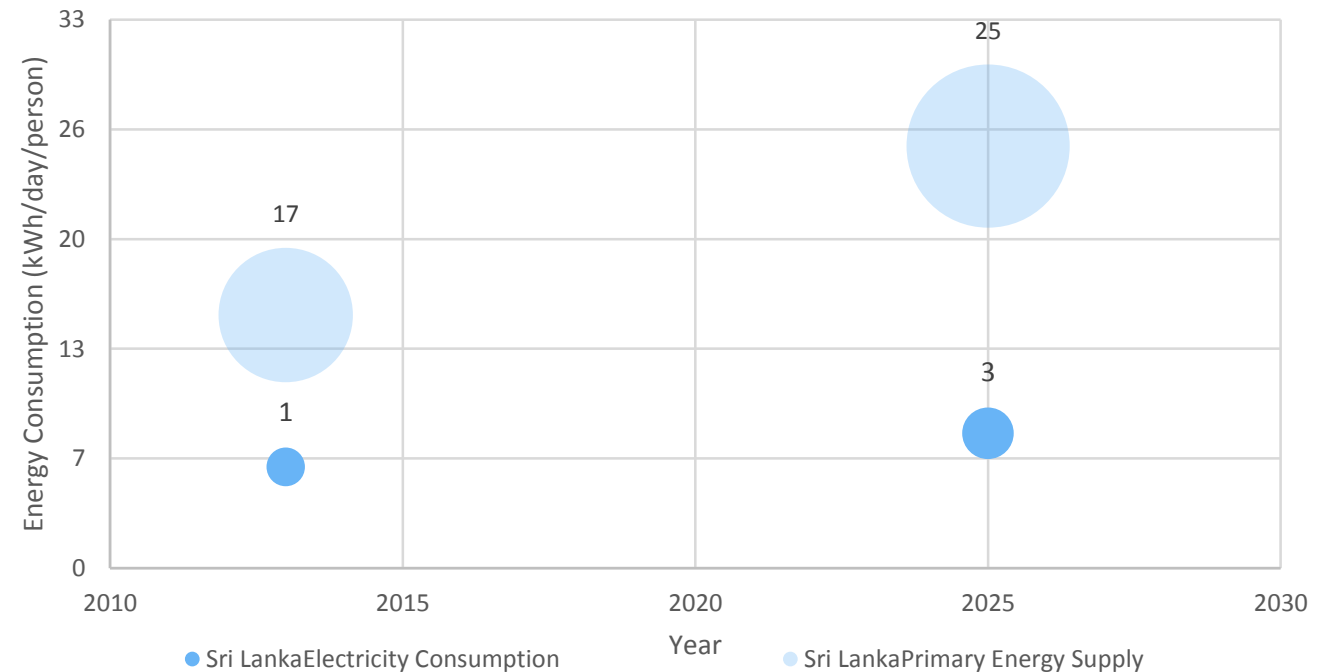
## GDP Growth Rate



Source: Central Bank Reports 1998- 2014

Increasing energy demand has raised dependence on fossil fuel imports

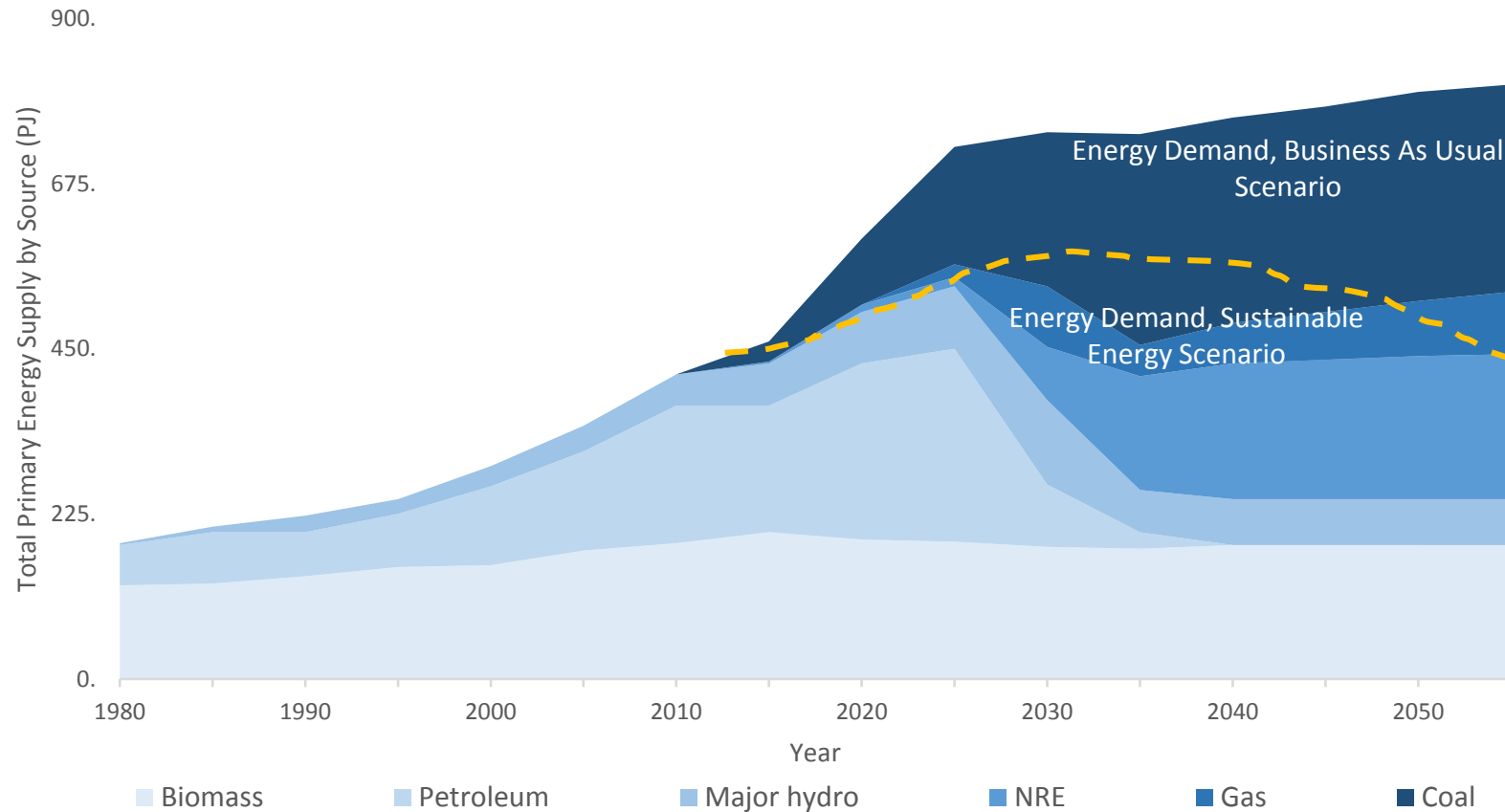
## Primary Energy Consumption and Demand



Source: Sri Lanka Sustainable Energy Authority

# There is an urgent need for climate action

## Total Primary Energy Supply by Source



- In the business as usual scenario, the share of coal in Sri Lanka's generation mix is likely to grow significantly since it is the least cost option for power generation.

This will lead to increased air pollution, greenhouse gas emissions, and growing economic vulnerability to volatility in fossil fuel supplies.

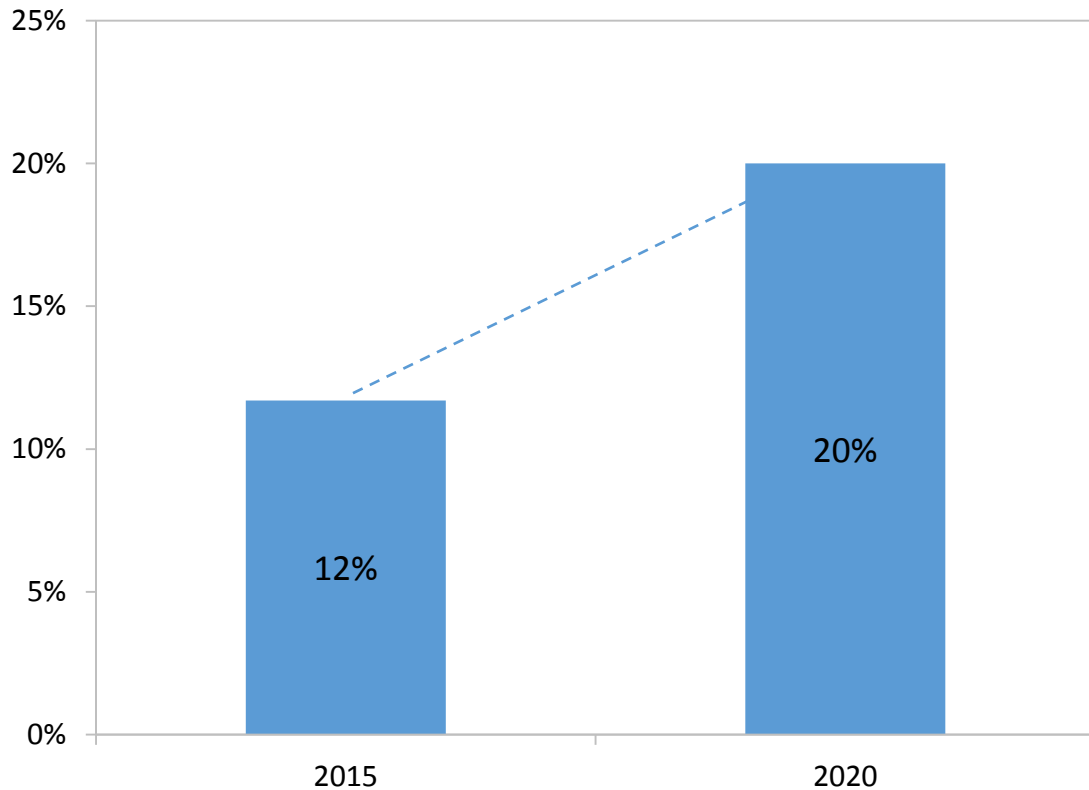
- Coal share will increase from 34% in 2014 to 40% in 2020. <sup>6</sup>

# The government's policy agenda for climate change proposes several strategies

- Introducing Standard Power Purchase Agreement (SPPA) to promote NCRE
- The Sri Lankan government's policy agenda to address climate change includes strategies such as:
  - Expanding the non-conventional renewable energy contribution to the national grid
  - Increasing forest cover
  - Implementing a Green Transport System
  - Implementing a Fuel Quality Road Map
  - Rehabilitating and restoring estuaries, lagoons, mangroves, salt marshes, sand dunes, beaches and grass-beds to safeguard the coastline
  - Multi-resource watershed management to improve water availability and retention

# Aspirational energy goals have been announced

Share of NCRE in Electricity Mix



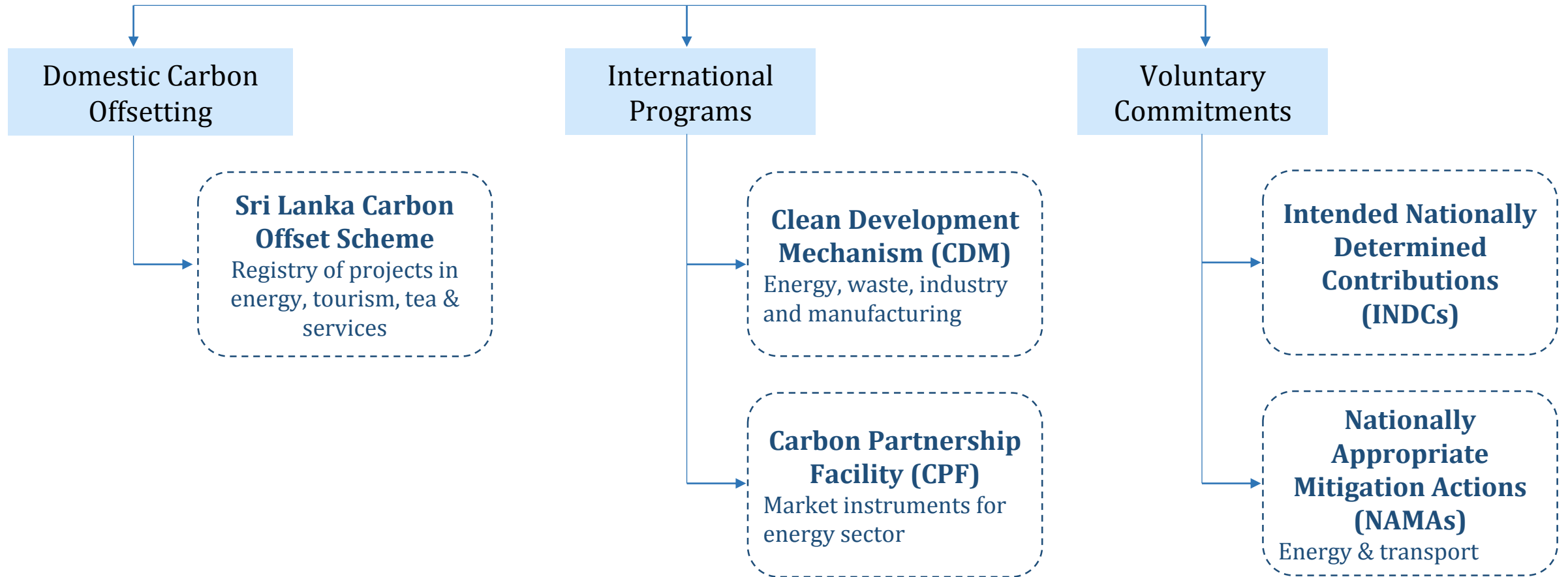
Source: long term generation expansion plan 2015-2034 - PUCSL

- Increase share of non-conventional renewable energy (NCRE) electricity generation to 20% by 2020
- Become energy self-sufficient by 2035
- Reduce technical & commercial losses of electricity transmission network from the current level of 11% to 8% by 2020
- Reduce annual energy demand growth by 2%
- Reduce carbon footprint of energy sector by 5% by 2025



# Sri Lanka is developing a number of voluntary GHG mitigation programs

## Voluntary GHG mitigation programs in Sri Lanka



# Domestic carbon standards have been instituted

## Sri Lanka Carbon Offset Program

Regulation and registry of projects that provide carbon offsets

Objectives:

- ✦ Introduce an effective, user friendly, quality assurance system
- ✦ Create a transparent validation, verification, certification and registration system
- ✦ Facilitate responsible GHG emitters for voluntary offsets
- ✦ Innovate paths in carbon crediting to businesses, non-profits and government entities that engage in on the ground climate action



# The government is preparing voluntary commitments through INDCs and NAMAs

- INDC - Reduce GHG emissions by 7% unconditionally by 2030 against 2010, and 23% with conditions
  - Ministry of Power and Energy and SEA have prepared draft sub-sector NAMAs together with UNDP
- Nationally Appropriate Mitigation Actions (NAMAs)

## Transport

- Draft plan to establish Bus Rapid Transport System submitted for review
- Facilitated by Global Environment Facility (GEF)
- To be implemented by Ministry of Internal Transport

## Energy

- Disseminate 1000 bio-digesters, 1300 high efficiency motors in tea industry & 205 solar PV net metering systems with battery storage
- To be implemented by SEA and Ministry of Environment in partnership with UNDP

# Sri Lanka has initiated international programs to incentivize GHG mitigation

## Clean Development Mechanism (CDM)

As Designated National Authority, the Climate Change Secretariat has awarded several national letters of approval to CDM projects that meet the criteria of sustainable development

	Number	MW/year	tCO <sub>2</sub> eq/year
Registered projects	22	178	605,236
CERs issued	8	60	882,536

## Carbon Partnership Facility (CPF)

With World Bank support, Sri Lanka is currently exploring the possibility of market instruments in the electricity sector (scale up crediting mechanism)

# Sri Lanka requires additional support to make climate mitigation efforts a success



## **Capacity Building**

Strengthen domestic institutions to design and implement programs that will enable achievement of Sri Lanka's low carbon growth goals



## **Develop Market Mechanisms**

Develop new financial instruments or improve the design of existing instruments to catalyze private investment in climate change mitigation projects



## **Incorporate International Standards**

Improve design and enhance effectiveness of domestic GHG mitigation programs by incorporating international standards and practices

# Market instruments can help Sri Lanka to achieve its climate change objectives using a sequenced approach

Step 1	Research green policy instruments to support government in achieving low carbon development path (e.g. green tax, levy)	Assess Sri Lanka's mitigation potential by sector
Step 2	Develop potential policy mechanisms for government	Identify potential sectors and match with market instruments
Step 3	Test green policy instruments (e.g. green bonds, SLCOS)	Implement/ pilot market instruments in identified sector (e.g. scaled up crediting mechanism for transport, building)

Through continuous capacity building with domestic institutions

# Readiness preparation for implementation and capacity enhancement

Implementation of Inter-Ministerial Working Group (IMWG)  
facilitated by Sri Lankan Climate Fund

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## Proposed composition of IMWG

- Ministry of Mahaweli Development and Environment
- Ministry of Power and Energy
- Ministry of Finance
- Ministry of Industries

## Activities to be undertaken by IMWG

- Determine the role of market-based instruments on climate change policy
- Sectoral analysis of the viability of market-based instruments
- National/sectoral MRV
- Selection of market-based instruments according to sectoral needs/preferences
- Pilot activities

# Contact

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