Transparency & Transport

Regional workshop of the Anglophone Cluster

Veronica Eklund, Statistic Sweden

Harare, 6-8 November 2018

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ivl

SCB Statistiska centralbyrån
Statistics Sweden

SLU

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- Recap transparancy
- Legal obligations
- A few words about Sweden
- INDC of workshop participants

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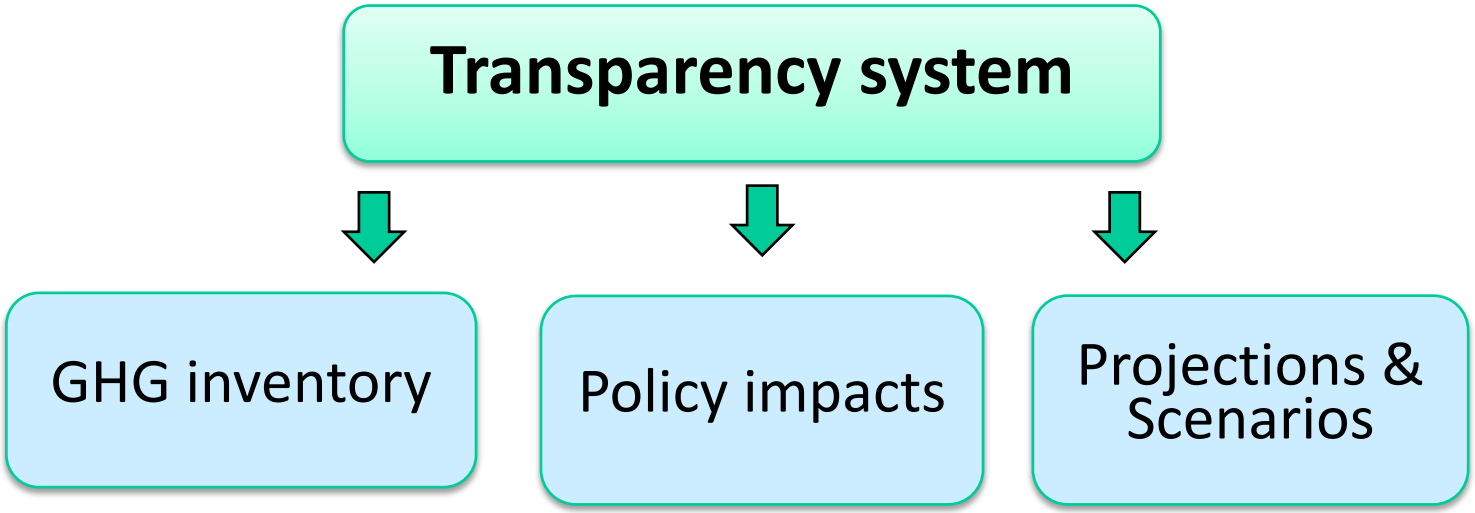
TRANSPARENCY SYSTEM FOR MITIGATION

Can include any *or* all of the following three elements



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TRANSPARENCY SYSTEM FOR MITIGATION

Each element can offer a different benefit:

- **GHG inventories** – understanding how emissions have changed over time and which the key emitting sectors are
- **Policy impacts** – understanding the extent to which policies are delivering the expected emissions reductions
- **Projections/scenarios** – understanding of how emissions might change into the future under different scenarios

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TRANSPARENCY SHOULD ANSWER THE QUESTIONS?

- Where are we?
- Where are we going?
- How fast are we getting there?
- Are our policies effective?

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TRANSPARENCY INCLUDES:

… especially in regard to GHGI

- Data collection and assessment
- Reporting of results
- QA/QC of all steps and results
- Evaluation and learning

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ENHANCED TRANSPARENCY FRAMEWORK UNDER THE PARIS AGREEMENT

All partis shall provide

Reporting

- A national greenhouse gas (GHG) inventory according to Article 13§ 7(a)
- Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4 (Article 13§ 7(a))

Technical expert review

- Undergo technical expert reviews of information submitted under article 13 § 7

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PARIS AGREEMENT ARTICLE 4

- 4 § 2. Each Party **shall** prepare, communicate and maintain successive nationally determined contributions that it intends to achieve (NDC). Parties **shall** pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.
- 4 § 13. Parties **shall** account for their nationally determined contributions... In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties **shall** promote environmental integrity, **transparency, accuracy, completeness, comparability and consistency**, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

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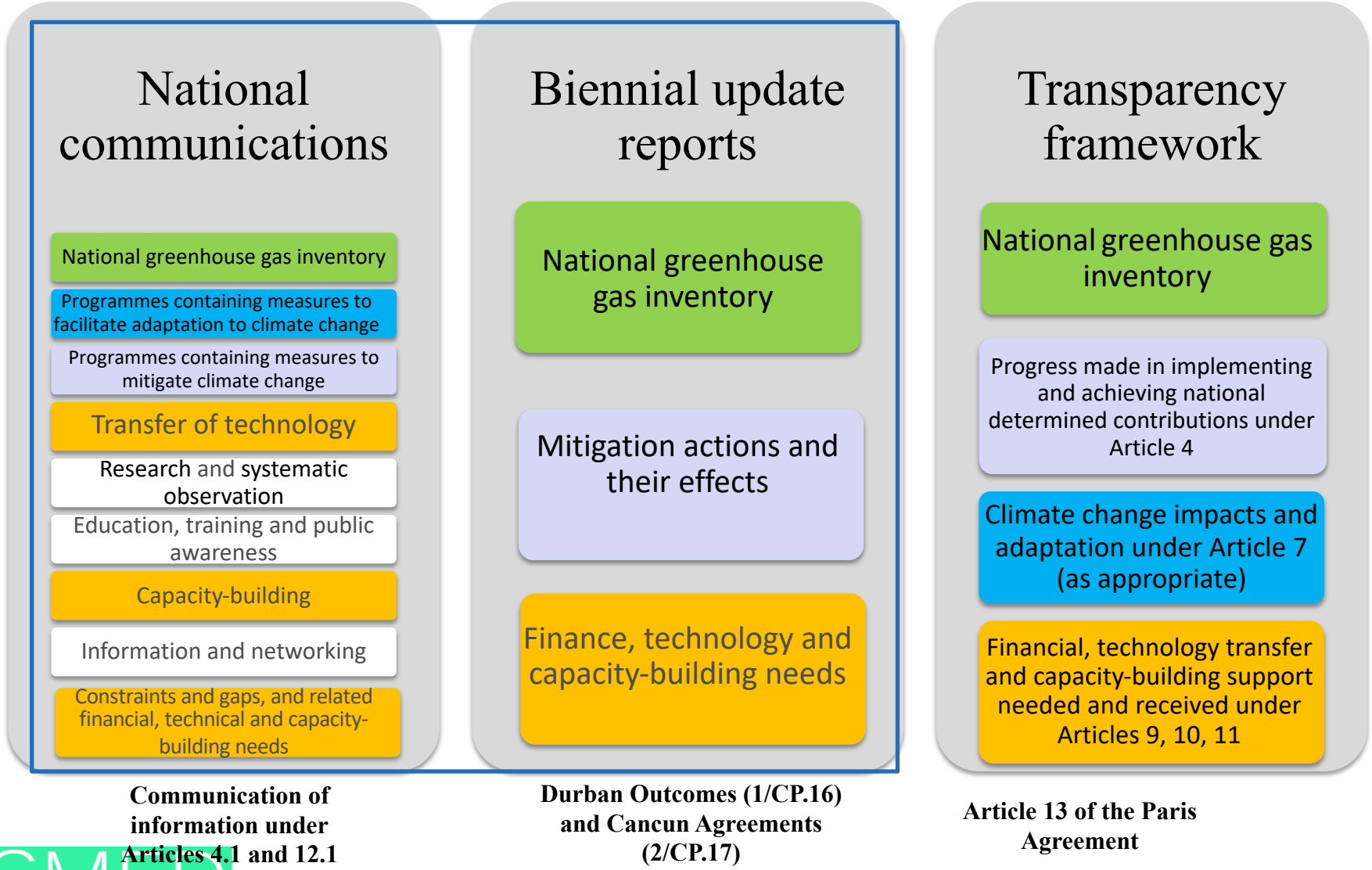
Enhanced transparency framework vis-à-vis existing MRV arrangements: REPORTING



Communication of information under Articles 4.1 and 12.1

Durban Outcomes (1/CP.16) and Cancun Agreements (2/CP.17)

Article 13 of the Paris Agreement

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A few words about Sweden

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Sweden

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INDC FOR THE EURPEAN UNION AND SWEDEN

The EU submitted an INDC for the Paris Agreement in 2014 to reduce GHG emissions by 40 % by 2030 compared with 1990 levels.

Because this INDC under the Paris Agreement was only submitted by the EU and its 28 Member States together (EU-28) and not by each Member State, there are no specified INDCs under the Paris Agreement for individual Member States.

Sweden takes on a quantified emission reduction target jointly with all other Member States.

CLIMATE GOALS FOR SWEDEN

- To provide a clear structure for environmental efforts in Sweden, the Swedish Parliament adopted 16 environmental quality objectives.
- One of these, *Reduced Climate Impact*, forms the basis for climate change action in the country.
- In June 2017, the Swedish Parliament adopted a proposal on a national climate policy framework for Sweden, which consists of three pillars:
  - Climate Act
  - Climate goals
  - Climate policy council

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CLIMATE GOALS

	Historical emissions	Climate target	Climate targets in new Climate Policy Framework	
Sweden's emissions in total	**–25 %** 1990–2015			**Zero net** by 2045 Max 15 % supplementary measures
Emissions from sectors outside the EU ETS	**–27 %** 1990–2015	**–40 %** by 2020 Max 33 % supplementary measures	**–63 %** by 2030 Max 8 % supplementary measures	**–75 %** by 2040 Max 2 % supplementary measures
Emissions from domestic transports	**–11 %** 1990–2015 Excl. domestic aviation		**–70 %** by 2030 Compared to 2010	

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THE TRANSPARENCY SYSTEM FOR THE TRANSPORT SECTOR

Sweden - transport sector

Emissions from domestic transport should be reduced by at least 70 per cent by 2030 compared with 2010 and by at least 75 % by 2040 compared with 2010.

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THE TRANSPARENCY SYSTEM FOR THE TRANSPORT SECTOR

Policies outlined for the transport sector in Sweden

- **Energy tax**
- **Carbon tax**: levied on non-renewable fuels based on their carbon content.
- **Bonus–malus**: The system applies to new passenger cars and light trucks with low CO2 emissions, which are subsidized at the time of purchase while high-emission vehicles are charged with higher vehicle taxes.
- **The reduction obligation**: fuel suppliers have to reduce the emissions by 2.6 percent from gasoline (5% by volume of biofuels) and by 19.3 percent from diesel fuel (25% by volume of biofuels). The quotas will then gradually be increased to help reduce the transport sector's emissions by 70 percent through 2030.
- An **investment support** for local and regional measures to reduce CO2 emissions and other gases that affect the climate.

THE TRANSPARENCY SYSTEM FOR THE TRANSPORT SECTOR

Which indicators can help us evaluate the progress in the transport sector in regard to policy and mitigation avtions?

- Emissions of CO_2 equivalents from transportation/road traffic
- Amount of biofuels sold for transportation
- Number of “Vehicle Kilometers” driven
- Number of hybrid or full-electric cars sold/registered
- Amount of fossil fuel sold for road traffic
- Diesel/gasoline pump prices
- Etc.

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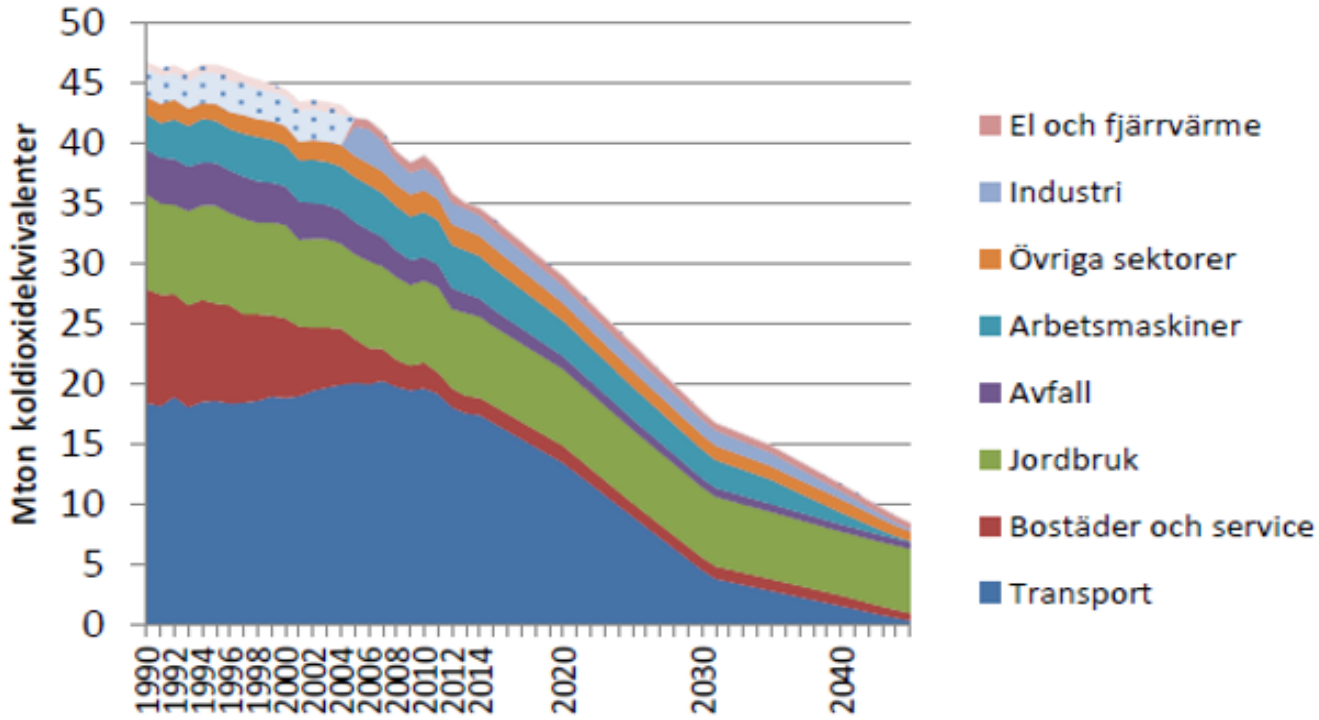
THE TRANSPARENCY SYSTEM FOR THE TRANSPORT SECTOR

Emissions reduction path for Sweden, where road transport follows the proposed emissions targets



Källa: Bearbetning av Naturvårdsverkets målscenario ett, NV-rapport 6525, bilaga 6.

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THE DIFFERENT PARTS OF A NATIONAL SYSTEM

The Swedish national system for production of national statistics and for international reporting of greenhouse gases

(1)
Legal arrangements

= law

(2)
Institutional arrangements

= actors

(3)
Procedural arrangements

= process

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LEGAL ARRANGEMENTS – THE LAW

Ordinance (2014:1434) Concerning Climate Reporting

- The ordinance is the base for the national system and describes the roles and responsibilities for the government and agencies in the context of national reporting.
- Identify the Swedish EPA as responible for coordinating the national system
- Establish the responsibilities for other agencies to assist Swedish EPA
- Guarantee the quality of the national climate reporting

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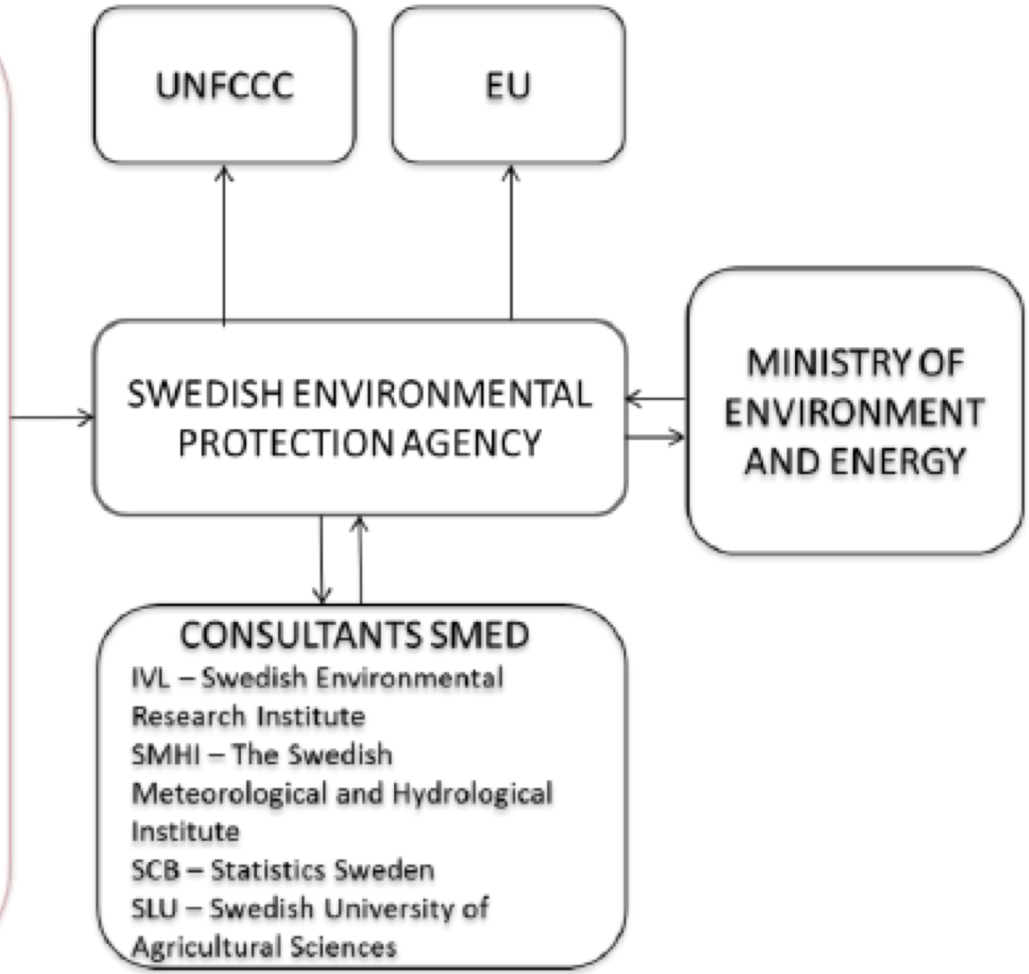
INSTITUTIONAL ARRANGEMENTS; GHG INVENTORY

GOVERNMENT AGENCIES

- Swedish Energy Agency
- Transport Analysis
- Swedish Chemicals Agency
- Swedish Board of Agriculture
- Swedish Forest Agency
- Swedish EPA
- Swedish University of Agricultural Sciences (SLU)
- Swedish Transport Administration
- Swedish Transport Agency
- Swedish Armed Forces
- Swedish Meteorological and Hydrological Institute (SMHI)
- Statistics Sweden (SCB)
- Swedish International Development Cooperation Agency (SIDA)
- *Geological Survey of Sweden (SGU)*
- *Medical Products Agency*
- *Swedish Civil Contingencies Agency (MSB)*



INDC
TRANSPORT SECTOR
PARTICIPATING COUNTRIES

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INDC	Swaziland	Nigeria	South Africa	Liberia	Botswana
Emission Reduction Component	Doubling the share of renewable energy by 2030 compared to 2010 when the share was 16%. Also targets for increased use of biofuels and phasing out of HFC, PFC, and SF gases. Will produce an inventory and reporting systems before further emission reduction elements are introduced. Conditioned by financing and technology transfer.	Emission reduction of 20% to 2030 compared with reference scenario. Conditional reduction of 45% if international support. Based on a list of actions. Does not include not f-gases.	Emission reduction in line with an emission path that culminates, stabilizes and reduces emissions in the long term. The peak will be in 2020-2025, with emissions of CO2 eq ranging between 398 to 614 million tons. Includes all sectors and KP1 gases.	Emission reduction of 15% until 2030 compared with reference scenario. The entire commitment is conditional for international support. Strategy for reaching carbon neutrality by 2050. Includes the energy, transport and waste sectors and the emissions of methane, carbon dioxide, nitrous oxide.	Emission reduction of 15% to 2030 compared with 2010. Includes energy, waste and agricultural sectors. Botswana plans to use international mechanisms. Is not conditioned against international support, but still express a need for this.
Adaptation Component	No time frame is mentioned. Qualitative goals are set and demand for international support, but no figures are mentioned. Major sectors are biodiversity, water, agriculture and health. NAP will be developed by 2020.	13 sector-specific strategies and actions in agriculture, forestry, water supply, coastal and marine areas, infrastructure and more. Focus on strategies in high-emission sectors. Unclear whether implementation also needs to include adaptation measures.	The period is 2020-2030 and refers to qualitative measures, which are not conditioned. The adaptation component addresses adaptation through 6 different areas.	The timeframe is set to 2030 with a number of qualitative goals. General support is requested. The country is currently developing a National Adaptation Plan (NAP) with three priority areas - agriculture, national hydro-meteorological monitoring protection and levees.	INDC does not contain any customization component per se, but Botswana informs about its national adjustment plan currently being developed.

NIGERIA INDC
TRANSPORT SECTOR

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INDC TRANSPORT NIGERIA

The package of policies and measures included in the Nigeria INDC prioritizes those actions that were quantifiable and cost-effective.

The mitigation actions included in the INDC is to a large extent to implement or enforce existing policies or strategies. However, additional legislation and regulatory changes will be required.

An assessment of the changes required to the regulatory and legislative framework will be undertaken upon finalization of the INDC.

INDC TRANSPORT NIGERIA

The measures identified for transport are as follows:

- Modal shift from air to high speed rail
- Moving freight to rail
- Upgrading roads
- Urban transit
- Toll roads/ road pricing
- Increasing use of CNG
- Reform petrol/ diesel subsidies

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INDC TRANSPORT NIGERIA

Mitigation actions for Transport and Infrastructure

The road system is overburdened and poorly maintained, due to fast growing economy. Many of the mitigation options can be summarized as “modal shift”.

- Moving passengers or freight from one form or mode of transport to another, less polluting, one. E.g., when High Speed Rail (HSR) is available in Nigeria, a shift from air travel to HSR could begin.
- Significant investments are being made to revive rail transport, which also has the potential to carry a share of the fast-growing cargo load.
- Measures to increase the efficiency of existing vehicles and the transport system are also possible – but improvements in urban transit systems are difficult to quantify.
- The price of travel can be adjusted to make it more reflective of the true cost, e.g. road pricing and reform of subsidies.
- Introduction of fuel efficiency standards
- The use of LPG / CNG for buses and taxis.

LIBERIA INDC
TRANSPORT SECTOR

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INDC TRANSPORT LIBERIA

Mitigation Targets

The energy sector is the highest contributor of GHG in Liberia emanating, mainly from the use of traditional fuels such as:

- firewood
- charcoal
- palm oil
- fossil fuels, especially petroleum products.

Liberia's Initial National Communication (2013) reinforces the National Energy Policy with additional long-term targets and related activities.

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INDC TRANSPORT LIBERIA

	2030	2050
Reducing GHG	10%	
Improving energy efficiency	20%	
Raising share of renewable energy of electricity production	30%	
Raising share of renewable energy of overall energy consumption	10%	
The long-term strategy of Liberia is to achieve carbon neutrality		100%
Replacing cooking stoves with low thermal efficiency (5-10%) with the higher-efficiency (40%) stoves		

INDC TRANSPORT LIBERIA

Planned Mitigation Actions - Transport

- Mainstream climate change into *existing transport management plan* to strengthen emission control.
- Strengthen institutional capacity for developing strategies for integrated transport services; developing technical and safety standards and the enforcement of policies including emission control.
- Improve the quality and reliability of transport infrastructure and services.
- Develop emission reduction and tracking system of pollutants from vehicles.
- Blend up to 5% of palm oil biodiesel with both gasoline and diesel by 2030 for vehicles.

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SWAZILAND INDC TRANSPORT SECTOR

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INDC TRANSPORT SWAZILAND

Mitigation

Swaziland is not a high GHG emitter - neither in absolute terms nor per capita terms – but the country recognizes that it still has an important role to play in global GHG mitigation efforts.

Swaziland has experienced various challenges in the compilation of its national GHG inventories:

- data collection
- Data archiving,
- Quality assurance and control
- Uncertainties in the estimation of emissions from all IPCC7 sectors.

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INDC TRANSPORT SWAZILAND

Mitigation

Due to these uncertainties, there is no clear departure point for Swaziland's emission trajectory.

Therefore Swaziland's mitigation contribution is framed on

- an action-based approach that is
- strongly dependent on financial and technical support
- strongly dependent on capacity building.

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INDC TRANSPORT SWAZILAND

The transport sector's mitigation contribution to Swaziland's INDC

Introduce the commercial use of a 10% ethanol blend in petrol by 2030.

- Reduce the transport sector's GHG emissions - which accounted for 9% of the nation's GHG in 2010.
- Swaziland does not currently blend ethanol in petrol, though successful pilot projects have been undertaken.
- Positive influence on Swaziland's agricultural sector, particularly in the sugar industry. Bagasse and molasses are by-products and can be used as feedstock for the production of ethanol.

The emissions from road traffic are anticipated to exponentially increase, as more vehicles are purchased. Currently the average growth rate of the number of vehicles, of all types, in Swaziland is 7% per year.

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SOUTH AFRICA INDC TRANSPORT SECTOR

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INDC TRANSPORT SOUTH AFRICA

The approach to the current INDC is based on the national climate policy (NCCRP) and the national development plan (NDP).

South Africa's mitigation component of its INDC moves from a "deviation from business-as-usual" form of commitment and takes the form of a peak, plateau and decline GHG emissions trajectory range.

South Africa's emissions by 2025 and 2030 will be in a range between 398 and 614 Mt CO2–eq, as defined in national climate policy.

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INDC TRANSPORT SOUTH AFRICA

National Climate Policy

- In the implementation of low-cost housing, ensure access to **affordable lower-carbon public transport systems**, incorporate thermal efficiency into designs and use climate-resilient technologies.
- Significant upscaling of **energy efficiency applications**, especially industrial energy efficiency and energy efficiency in public, commercial and residential buildings and in transport; and
- Promoting transport-related interventions including **transport modal shifts** (road to rail, private to public transport) and **switches to alternative vehicles** (e.g. electric and hybrid vehicles) and **lower-carbon fuels**.

INDC TRANSPORT SOUTH AFRICA

National Development Plan (NDP)

The transport sector contributes 9 percent to emissions, which will be addressed through:

- Improvements in vehicle efficiency and standards,
- Promotion of public transport,
- Integrated transport planning,
- Potential increase in bio-fuel content in fuel requirements,
- Major expansion in public transport and rail freight infrastructure,
- Promotion of electric and hybrid vehicles through public-sector investment in product development and non-motorised transport and cycling.

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DISCUSSION - 30 MINUTES

- Has any steps been taken in regard to your country's INDC concerning the transport sector?
- Do you have an MRV system in place in your country aiming to track climate change activities in the country and the progress toward a target?
  - Institutional structures, processes and capacities
- Which institutions are involved /need to be involved?
- What are their roles and responsibilities?
- What might an MRV system for the transport sector look like in your country?
- What are the key policies that you will need to track?
- What are the main challenges and key next steps.

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TRANSPARANCY AND NDC - TRANSPORT

Possible key elements of a transparency system;

- GHG Inventory: would it be appropriate to move to a higher tier?
- Policy reporting; what impacts should be MRV'd?
- GHG projections

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