

Paris Agreement Transparency & Integrated National plans in EU Member States

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First this.....

Climate Mitigation = GHG emissions reduction Tracking 1990 → 2030 AND BEYOND.....

GHG emissions = Activity x Emission Factor

- **Activity** = e.g. GJ of coal, natural gas, diesel, fuel oil etc **produced & consumed**.
- **Emission factor** = intensity of emission per unit activity (Gg CO2 equivalent / GJ Natural Gas)

Note: The importance of energy fuel type differentiation:

- **Emission factor*** (Gg CO2 equivalent / GJ) for Blast Furnace Gas > Oil shale & tar sands > Lignite > Anthracite > Fuel Oil > Diesel Oil > Motor Gasoline > Natural Gas

* (table 2.2 http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)

Paris Agreement: Nationally Determined Contributions

- Set targets (Start, Be Ambitious, Top Down)
- Consider wider sustainable development (Wide Stakeholders)
- Work towards achieving goals (Take Action)
- Communicate & Collaborate (Build Trust)



Article 4

1. In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.
2. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

Paris Agreement: Transparency (MRV)

If you can't measure it,
you can't manage it.

- ❖ Track it (M)
- ❖ Share it (R)
- ❖ Believe it (V)

*“To **ambitiously lower emissions** and to adapt to climate change, countries need to know their national circumstances. Successful climate and energy policies must be built on **solid bottom-up knowledge** (data and analysis) of all the relevant sectors in a country..... in order to **identify the policy options that are tailored** to the country's specific circumstances and that bring **most co-benefits** and are most **cost-effective**.”*

Paris Agreement Article 13 (Transparency: Analysis Informing and Reporting)

Mitigation: GHG trends and Actions

- 13(7a): A **national inventory report** of anthropogenic emissions by sources and.....
- 13(7b): Information necessary to track progress made in implementing and achieving its **nationally determined contribution** under Article 4.

Adaptation: Vulnerability & Action

- 13(8): information related to **climate change impacts and adaptation** under Article 7.

Climate Finance & Support

- 13(9 & 10): information on **financial, technology transfer and capacity-building support** provided to developing country Parties under Article 9, 10 and 11.

ICA/Review

- 13(11 & 12): a **technical expert review** of 13(7) & 13(9), in accordance with decision 1/CP.21. In addition, each Party shall participate in a **facilitative, multilateral** consideration of progress

Paris Agreement: Transparency Scope

Article 4: **Mitigation:** emissions & removals (Trends & Projections) & Action

Article 7: **Adaptation:** Climatic change, Impacts & Action Plans.

Articles 9-11: **Support, Finance & Co-Benefits**



Paris Agreement: Wider Stakeholder Engagement in Transparency

- 1) Sustainable Development Goals: Good Health and Wellbeing, Affordable Clean Energy, Life on Land, Clean water and sanitation.
- 2) National Strategies: (e.g.) Energy, Tourism, Local industries, Trade/ Economy, Building & Town planning, ...and many more! [Growth and Poverty Reduction Strategy 2014](#)

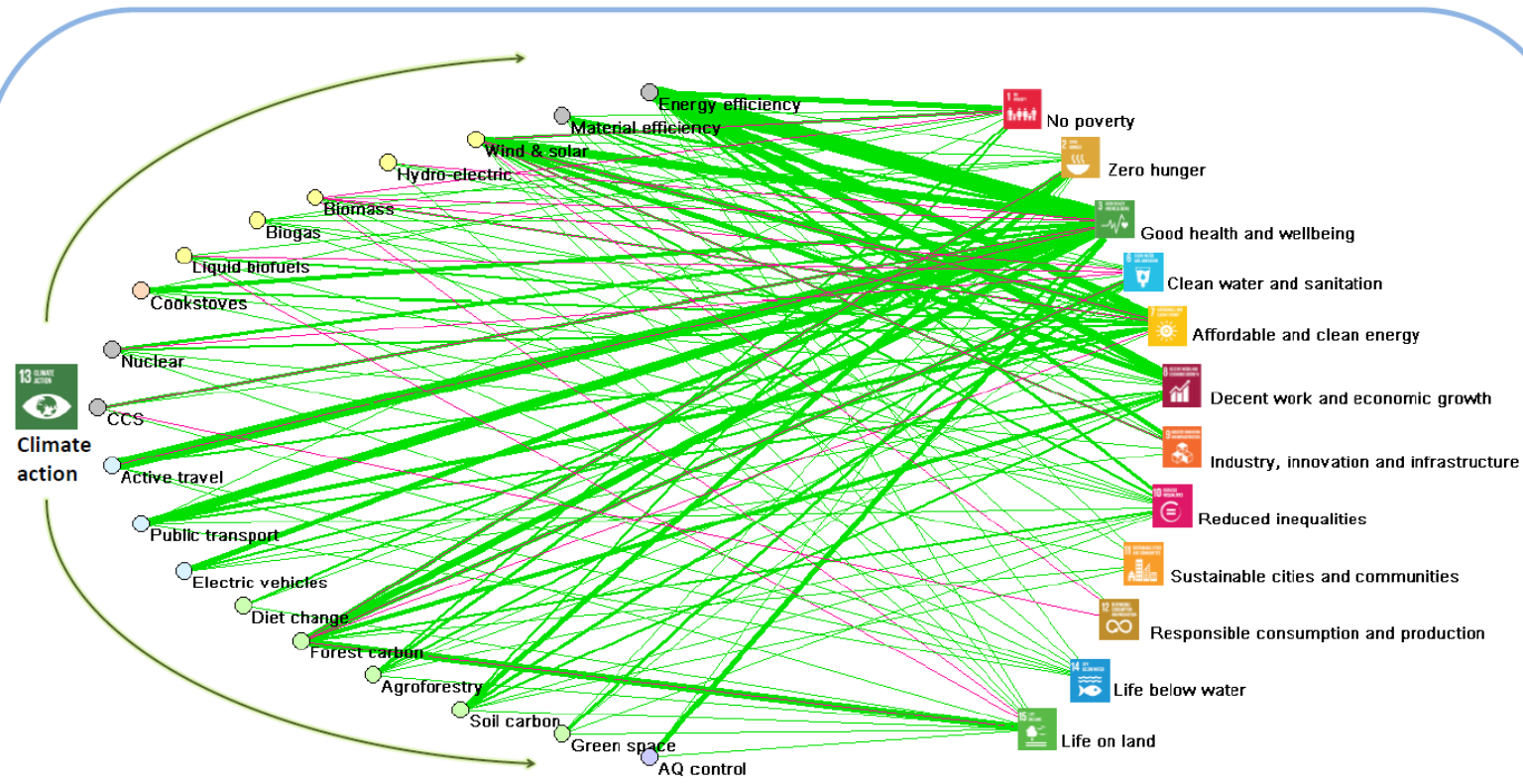
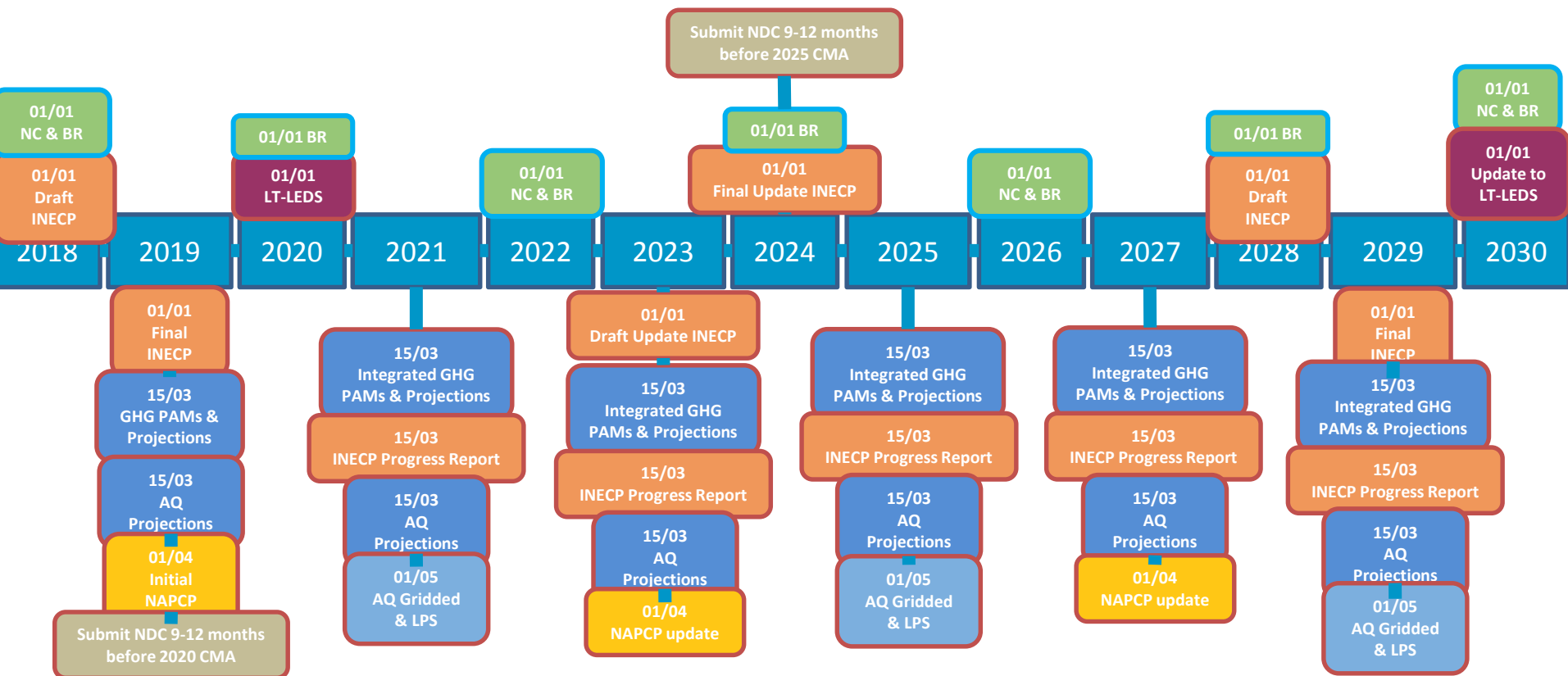


Figure 2: Strength of evidence for links between climate change mitigation actions and the SDGs. Thickness of lines indicates number of papers reviewed which support a link, and colour indicates direction of link (green = co-benefit, magenta = possible adverse side-effect). Links supported by only one paper are omitted for clarity.

Indicative timelines: Iceland

Greenhouse gas & Air Pollutant inventories and reports every year

Projections & Policies and Measures data and reporting every 2 years



INECP

NDC

GHG Projections

Iceland has previously reported

BR = Biennial Report
CMA = Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
INECP = Integrating Energy and Climate Plans
LPS = Large point sources

NAPCP

Gridded LPS

AQ Projections

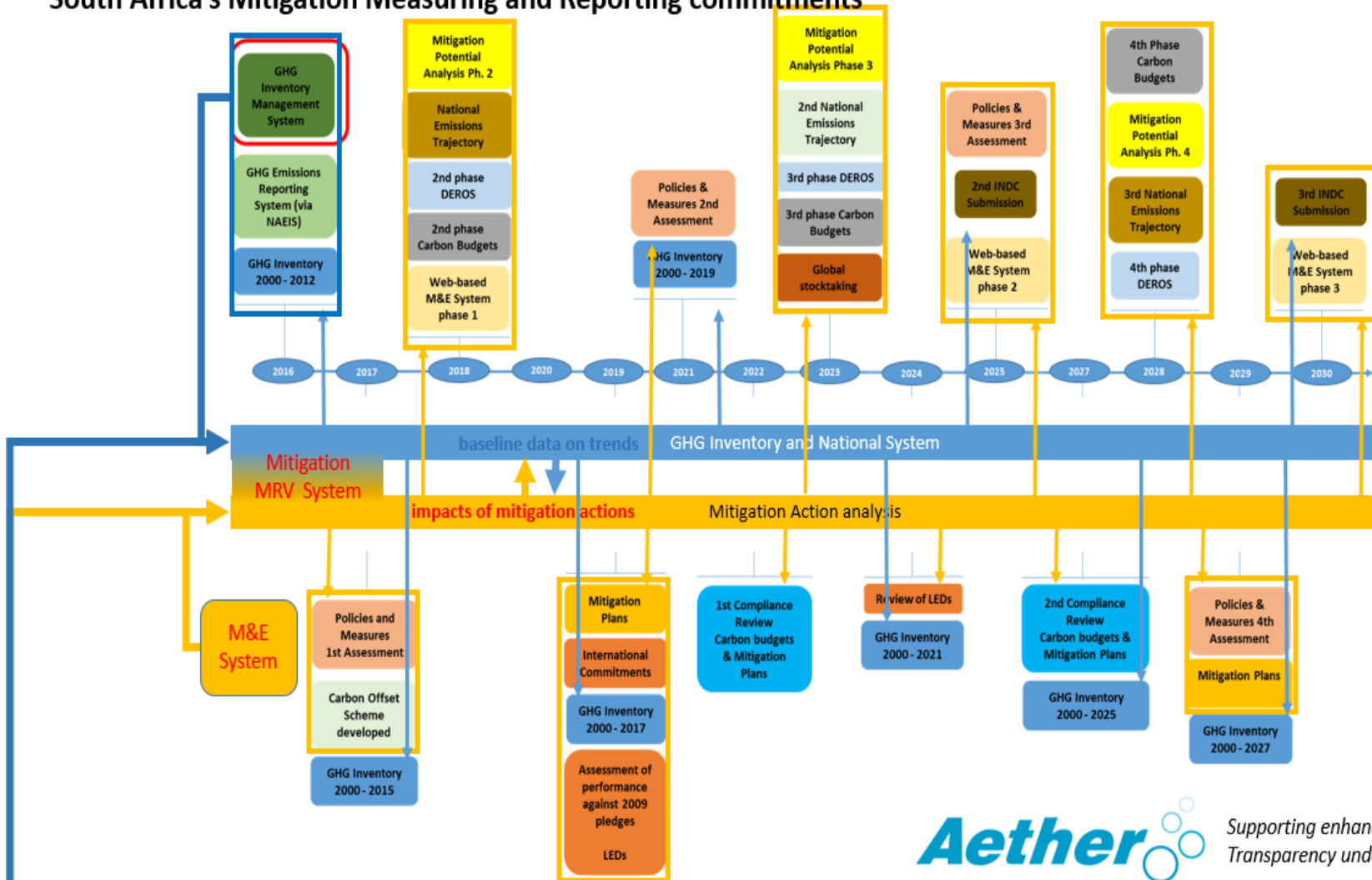
LT-LEDS = Long-Term Low Emission Development Strategies
NC = National Communications
NAPCP = National Air Pollution Control Programme
NDC = Nationally Determined Contribution

LT-LEDS

NC/BR

Indicative timelines: South Africa

South Africa's Mitigation Measuring and Reporting commitments



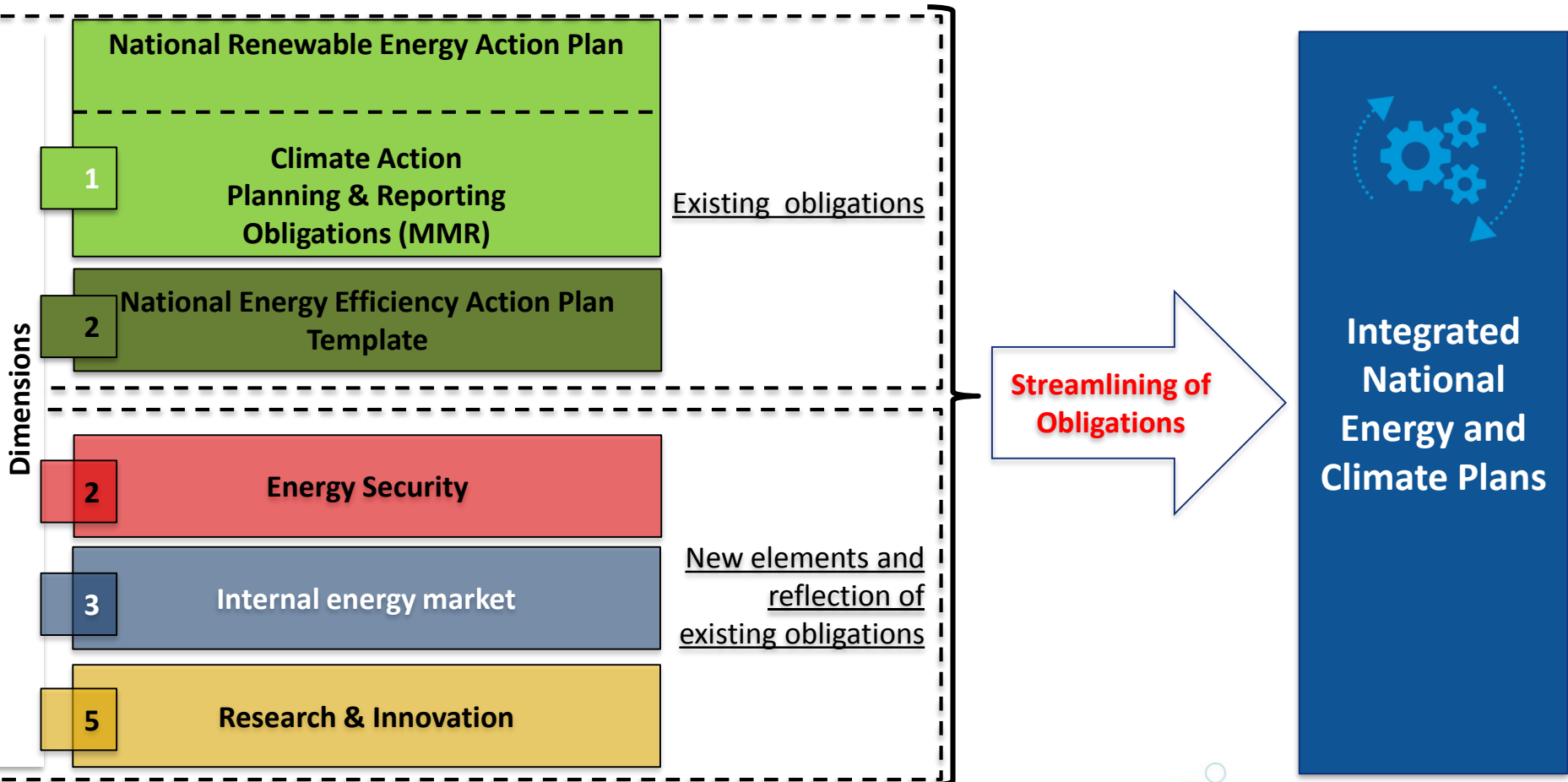
The importance of Mitigation Action Analysis and GHG inventories in supporting > 30 years of South Africa's Mitigation Measuring and Reporting commitments.

EU National Integrated Energy and Climate Plans



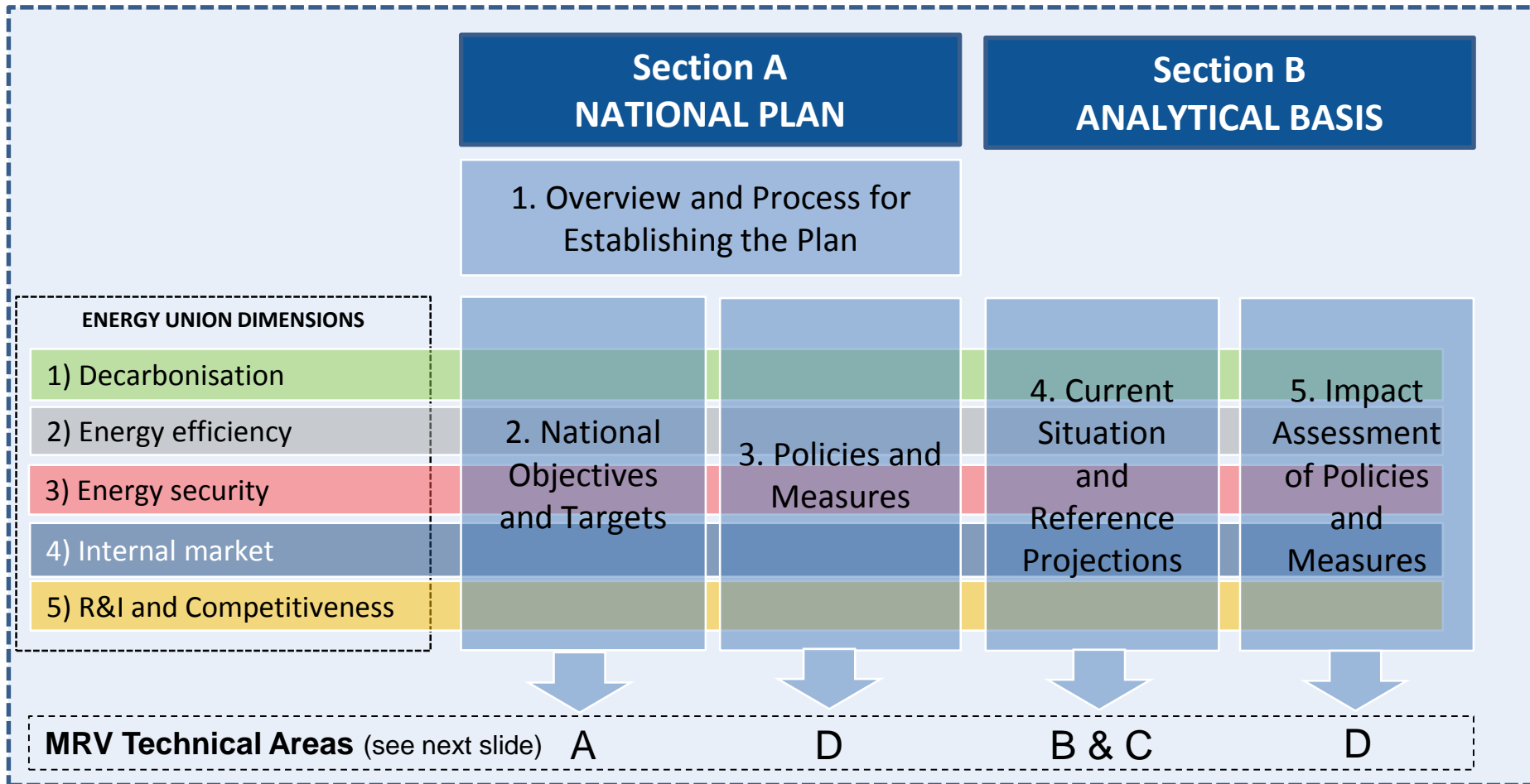
EU National Energy and Climate Plans

INTEGRATED NATIONAL ENERGY AND CLIMATE PLANS: MEETING THE NEEDS OF CLIMATE AND ENERGY POLICY



ANNEX I OF THE COMMISSION PROPOSAL FOR ENERGY UNION GOVERNANCE: Template for National Plans

STRUCTURE OF INTEGRATED NATIONAL ENERGY AND CLIMATE PLANS



National Plans: MRV Technical Areas

- A. Objectives and targets:** for each dimension. specified in terms (units/nomenclature)
- B. Trends (e.g. 1990 to Reporting year - 2):** This is tracking the historical trends (Ex-post)
- C. Projections (e.g. Reporting year -2 to 2030/2040):** This is the presentation of scenarios (WEM, WAM, WOM)
- D. Integrated Energy/Climate Actions (PAMS):** objectives/targets and costs and impacts for each relevant dimension.

MS report comprehensive information on projections & Policies and Measures

- GHG projections:
 - by gases and categories for reference year, 2015, 2020, 2025, 2030, 2035 (2040 obligatory in 2021)
 - total GHG, EU ETS/ESD split and LULUCF
 - ‘with measures’ scenario
 - ‘with additional measures’ and ‘without measure’ scenario *where available*
- Impacts of policies and measures
- Methodologies used for projections (*parameters, model factsheet, if used indicators*)
- Results of the sensitivity analysis of the total GHG
- Other relevant sensitivity analyses
- *Publicly available information*



- 29 countries (EU28+NO) submitted GHG projections in 2017
- 27 countries provided **qualitative information explaining their projections** (often policies and measures as well)
- 26 MS report information about **models used** in GHG projections preparation, often energy models
- **Parameters** used in GHG projections are reported as well

Integrated climate-energy projections: good practices

- Explicit representation of **technologies and fuels** in the energy system
 - repository of technologies & fuels that comply with the wanted standards (energy efficiency, GHG emissions, other impacts).
- Ability to model the production and consumption **decisions of different agents** and their willingness or ability to invest. (Scenarios)
 - Implicit discount rates, budget constraints, awareness.
- Understanding the impact of **fiscal support** to renewable and energy efficient technologies.
 - The impact of feed in tariffs and other initial technology investments.
- Understanding of **non market driven behaviours** (consumer preferences).
 - Willingness to not choose the cheapest most energy efficient mode of transport/living in favour of time/comfort etc.
- Transparent assumptions on **responses to changes** in the system.
 - E.g. rebound effect when energy savings occur.
- Understanding and minimising **uncertainties**.
 - Identifying & modelling uncertain parameters and possible values
- Integration of **international measures** (e.g. EUETS)
 - Explicit (sectoral, technology, fuel use) representation of participants. Constraints of the cap.

Brief analysis of MRV in Contracting Countries

Based on ECRAN project
2013-2016



Projects: Improving the flow of evidence to decision makers.

– EC Member States:

- EC: Projections & GHG inventory KP support (National Systems).
- EC: support to the Energy Union governance process, including for the integrated national energy and climate plans
- ETC-ACM: Analysis and recommendations for Energy Union
- EC: MRV support (UNFCCC Negotiations).
- GHG Inventory and PAMs support: Luxembourg, Iceland, Ireland.

– Other areas:

- **ECRAN: National Systems & GHGs (Balkan countries and Turkey).**
- NDC MRV (Transparency) support: Barbados, St Vincent and the Grenadines, Grenada.
- GHG Inventory database: Jamaica.
- GHG Inventory Management Systems guidance: 2006 IPCC update (2019).

“Non Annex I country”: Current Transparency (MRV) Situation

- ✓ Measuring Reporting and Verification (MRV) projects both for UNFCCC and EU accession reporting.
- ✓ Produced NDCs and National Communications/Biennial Update Reports.
- × MRV is often done on a project by project basis: Ad-hoc teams of experts for a particular output e.g. UNFCCC Biennial Update Reports. After the projects are done, teams usually dismantle again.
- × Difficulties integrating knowledge into national decision making & permanently engaging stakeholders.

What is needed for Transparency?

“For successful planning and implementation of climate and energy policies, MRV (Transparency) capacities have to be strengthened and sustained.”



National Development:

1. Legal Mandate
2. Data Flow
3. Expertise (teams)
4. Co-ordination, tools & Operational functions
5. Publicity & Stakeholder engagement

Long Term Needs: Sustained **institutional memory** and capacity development over the next 5-10 years of Climate & Energy Action. Long term flexible support in evolution of Transparency systems.

Networks, mentoring, data flows, knowledge system and analysis development.

International methods and standards for compilation and reporting data.

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