



**FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA**

MINISTRY OF ENVIRONMENT AND FOREST



FEDERAL  
DEMOCRATIC  
REPUBLIC OF  
ETHIOPIA

**Intended Nationally Determined  
Contribution – Ethiopia  
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# What are INDCs?



**Under the UNFCCC, countries across the globe committed to create new international climate agreement by the conclusion of the Paris Climate Summit in December 2015.**

During previous climate negotiations:

- Countries agreed to publicly outline what actions they intend to take under a global agreement well before the Paris Summit (and for those countries in a position to do so, by March 2015);
- These country commitments are known as Intended Nationally Determined Contributions (INDCs),
- Their form and rigor will largely determine whether the World achieves an ambitious 2015 agreement (that will come into effect by 2020) and is put on a path toward a low-carbon, climate-resilient future.

# What are INDCs?



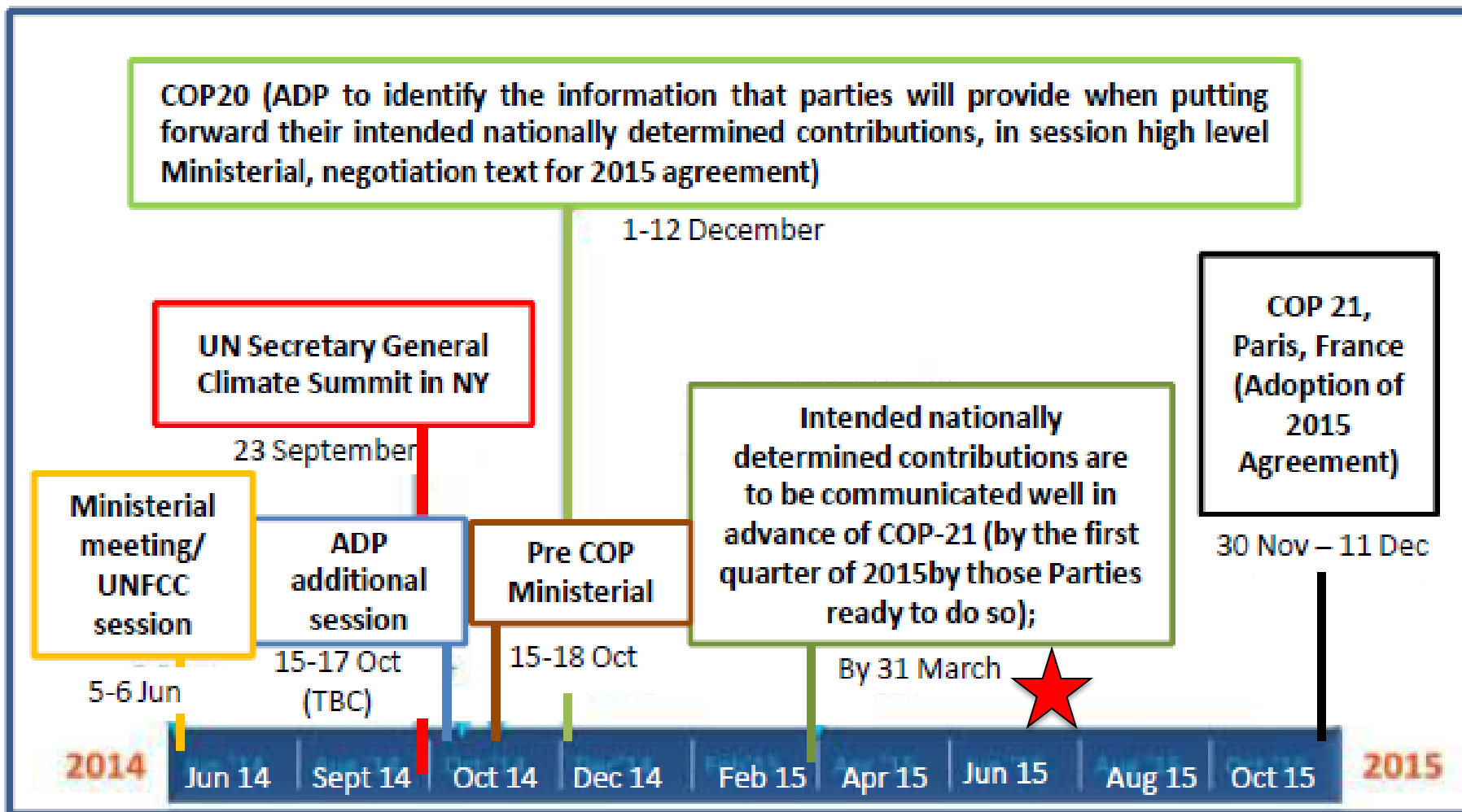
## **INDCs – Expected to respond to an important question –**

- How will the expected maximum global emission quantity be divided up among the parties expected to sign a new climate agreement in Paris in 2015? - **mitigation question**
- INDCs are expected to also respond to questions on **adaptation and means of implementation.**

# What are the important timelines?



## The timelines for INDCs preparation.



# What makes a good INDC?



A good INDC should be *Ambitious*, leading to transformation in carbon-intensive sectors and industry; *Transparent*, so that the level of ambition can be reviewed; and *Equitable*, so that each country does its fair share to address climate change (UNFCCC)

A well-designed INDC will:

1. signal that the country is doing its part to combat climate change and limit future climate risks
2. follow an efficient and transparent process that will be clearly communicated to build trust and accountability with stakeholders (both domestic & international).
3. articulate how the country will integrate climate change into other priorities of the country (economic development, poverty reduction, etc.), and send signals to the national & international community public & private sector to contribute to these efforts.

# What should be contained in an INDC?



The information developed in the body of the INDC could/should be summed up according to the final points of the Paragraph 14 of the Lima decision to simplify comparison between the UNFCCC parties.

# What does Paragraph 14 Say?



Agrees that the information to be provided by Parties communicating their intended nationally determined contributions, in order to facilitate clarity, transparency and understanding, may include, as appropriate, inter alia,

- Quantifiable information on the reference point (including, as appropriate, a base year),
- time frames and/or periods for implementation,
- scope and coverage,
- planning processes,
- assumptions and methodological approaches including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals,
- how the Party considers that its intended nationally determined contribution is fair and ambitious, in light of its national circumstances, and
- how it contributes towards achieving the objective of the Convention as set out in its Article 2



# Article 2 of the Convention



**Article 2 of Convention:** The ultimate objective of the Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, **stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.** Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

# How was EINDC work approached and what were the milestones?



- **Step 1:** General concept note on Ethiopia's INDC before the Lima COP. But the format and content for developing INDCs was not clear at this point.
- **Step 2:** Information/data collection. *All sector focal persons were contacted and existing information was collected.*
- In general the information collected focused on:
  - **Sectors' GTP-I performance ( GTP I 2010/11 - 2014/15)**
  - **Sectors' CRGE performance**
  - **Intended CRGE/climate mainstreamed engagement of Sectors during GTP II**

# How was EINDC work approached and what were the milestones?



- **Step 3:** Generating options on what EINDC should look like taking into account a number of aspect, including time constraint (i.e. to be completed by **March 2015?**).
- **Option 1** – To look at the strategies and other documents (information on GTP I, GTP II, project/intervention data) and use the information contained in these documents and translate it to contributions.
- **Option 2** - To update data and recommend complementary actions based on current performance information and new ambitions –

# How was EINDC work approached and what were the milestones?



- **Step 4:** Inception workshop - sectors and MEF (i.e. technical team).
- **Step 5:** Identifying types of contributions:
  - Ethiopia shows the initiatives (e.g. projects, programmes, and infrastructure for resilience and GHG reduction) it is implementing and it plans to implement in the future as contribution.
  - Ethiopia also shows domestic policy instruments/policy actions (laws, incentives etc.) that it will put forward to stimulate climate change response actions.
- **Step 6:** Drafting the INDC
  - Preliminary draft
  - Improved draft provided
  - Comments were provided by a review team in two rounds and comments were addressed.



## Ethiopia reaffirms its continued commitment to build a climate resilient green economy.

- Ethiopia's INDCs, which will be **integrated into the national development plans**:
  - contributes to global effort in mitigating climate change,
  - supports green economic growth in neighboring countries,
  - ensures the realization of an equitable and resilient green economic growth nationally.
- Ethiopia invests substantial domestic resources for the implementation of its CRGE Strategy.
- It also commits to allocate resource for the implementation of its INDCs.
- Ethiopia expects multilateral rule-based partnerships that stimulate international public support, private sector investment and participation in market-based mechanisms for NEW & ADDITIONAL Finance.



## Ethiopia intends to limit its net GHG emissions in 2030 to 145 Mt CO<sub>2</sub>e or lower

- Ethiopia intends to limit its net GHG emissions in 2030 to 145 Mt CO<sub>2</sub>e or lower
- This would constitute a 255 MtCO<sub>2</sub>e reduction from the BAU emissions in 2030 or 64% by 2030 from the BAU scenario
- Ethiopia also presents its adaptation initiatives and contributions to reduce the vulnerability of the population and the economy to the adverse effects of climate change.



## Covers the following gases as per the Green Economy Strategy

- ✓ Carbon Dioxide (CO<sub>2</sub>)
  - ✓ Methane (CH<sub>4</sub>)
  - ✓ Nitrous Oxide (N<sub>2</sub>O)
- Uses
    - 2010 as base year, and
    - 2030 as target year



## Covers the following sectors

- Agriculture (livestock and soil)
- Forestry
- Transport
- Electric Power
- Industry
- Buildings (including Wastes and Green Cities).





- Improving crop and livestock production practices for higher food security and farmer income while reducing emissions
- Protecting and re-establishing forests for their economic and ecosystem services, while sequestering significant amounts of carbon dioxide and increasing the carbon stocks in landscapes
- Expanding electric power generation from renewable energy for domestic and regional markets
- Leapfrogging to modern and energy efficient technologies in transport, industry and building sectors



The total GHG emissions of Ethiopia in 2010 were 150 Mt CO<sub>2</sub>e. The sectoral GHG emission sources and their quantity were the following

- **Livestock:** 65 Mt. CO<sub>2</sub>e; 42% of the total
- **Crop cultivation:** 12 Mt. CO<sub>2</sub>e; 9% of the total
- **Forest:** : 55 Mt. CO<sub>2</sub>e; 37% of the total
- **Electric power generation:** 5 Mt. CO<sub>2</sub>e; 3% of the total
- **Transport:** 5 Mt. CO<sub>2</sub>e: 3% of the total
- **Industry:** 4 Mt. CO<sub>2</sub>e; 3%
- **Building/Green Cities:** 5 Mt. CO<sub>2</sub>e; i.e. 3% of the total.



- The proposed measures to achieve the emission reduction targets are included in the Ethiopians' Green Economy Strategy (2011)
- the 'business-as-usual' scenario was developed by forecasting Ethiopia's economic development and computing the associated emissions using the economic development targets (2010-2015), past performance and the ambition to reach middle-income status before 2025
- The abatement potential was calculated using a comparison with the business as-usual projection.
- The resulting projection was then converted into a CO<sub>2</sub> equivalent emission based on international methodology (IPCC guidelines), domestic expertise and knowledge acquired during the development of the Ethiopia's Green Economy Strategy.



## Long-term goal

Ensure that climate change adaptation considerations are fully mainstreamed into development activities, thereby contributing towards an economic growth path that is resilient to current climate variability and future changes.



- Ethiopia has undertaken several planning processes and actions in relation to adaptation. These include - the EPACC (2010); Adaptation plans for 9 Regions and 2 City Administrations; 5 sector plans; and detailed Agriculture sector Climate Resilience strategy
- Large scale sustainable land management and natural resources management activities are on-going, including SLMP and PSNP
- The main effort in the near-term is to identify the capacity gaps and build the capacity needed to mainstream climate change adaptation considerations into public and private development initiatives, in all sectors and at all governance levels.



## Disease

- Strengthening capacity to deal with the expansion and emergence of diseases and avail medicines in a sufficient quantity to deal with the emergence and expansion of human, animal, crop and plant diseases
- Strengthening and increasing capacity for breeding and distributing disease resistant crop and fodder varieties to farmers and other land users



## Drought

- Minimizing food insecurity and making available crop varieties, that can suit all the agricultural areas
- Protecting humans and domestic animals from extreme droughts by diverting streams, developing groundwater resources and enhancing water harvesting techniques
- Ensuring that urban areas to be habitable through planning for and construction of dams or deep wells, deployment of water saving technologies and wastewater treatment infrastructure
- Improve traditional methods of food and feed storage with the aim of enabling local communities store food and feed in good years for years of food and feed loss resulting from extreme weather events
- Create biodiversity corridors, in order to minimize biodiversity loss through enabling the re-establishment and movement of plant and animal species and varieties
- Enhancing ecosystem health through ecological farming, SLM practices and improved livestock production practices



## Flood

- Developing one or more insurance systems against disasters from extremes weather events
- Building additional dams and power stations to develop energy generation potential from the same river flow as well as develop new dam sites on parallel rivers in order to maintain the baseline hydropower electricity generation capacity to levels attainable in the no-climate change scenario
- Expanding electric power generation from geothermal, wind and solar sources ( energy mix)
- Developing climate justified codes for the construction of buildings, roads, railways, bridges, dams and irrigation canals





- Annual review by MEF to review the implementation of EPACC
- The review outcomes from the national process will then serve as input for the regional government review process
- Based on these reviews annual country-wide report on the status of implementation will be provided



- Despite being a Least Developed Country, Ethiopia has already placed itself on the path of undertaking a substantial national program of climate action, outlined in the Climate Resilient Green Economy Strategy (CRGE)
- Ethiopia has already removed fossil fuel subsidies to enable enhanced generation and use of clean and renewable energy
- Ethiopia also seeks to maximise the synergies between adaptation and mitigation, especially involving agriculture and forests
- By targeting much of its actions in these sectors, Ethiopia is seizing the opportunities that ambitious climate action brings, helping to reduce both its future emissions and its vulnerability to climate impacts.



- Ethiopia's INDC covers both mitigation of greenhouse gases and mainstreaming of adaptation
- the scope of financing Ethiopia's INDC comprises both public and private sources and both grants and loans
- The full and effective implementation of the Green Economy Strategy requires an estimated expenditure of more than USD 150 billion by 2030.



## Mitigation

- Future research will be conducted to:
  - 1. Quantify and assign the share of unsupported** contributions that are planned and fully funded by the government to limit the quantity of emissions,
  - 2. Quantify and assign the share of supported contributions** that are planned by the government but require international support to limit the quantity of emissions
  - 3. Identify the technical & technological support needed** to introduce new and additional supportive policies and actions that help stimulate, enable and sustain investment in green economic growth



## **Adaptation**

Future research will be conducted in order to:

1. Quantify the needed international financial, technological and capacity building support for the implementation of vulnerability abatement measures up to and beyond 2030.
2. Identify and quantify the needed technical support for mainstreaming climate change adaptation considerations into existing and planned public and private development activities.
3. Identify the needed technical support to quantify the cost of countering social, environmental and economic vulnerabilities that are likely to result from the adverse impacts of climate change.