



GLOBAL SUPPORT  
PROGRAMME

# National GHG Inventories for Development of Mitigation or NDC Actions

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Empowered lives.  
Resilient nations.

# The Objective

- Moving from having a robust national GHG inventory to emission projections and mitigation actions or implementation of NDC goals
- Important to remember NIA countries have “commitments” under the PA, emanating from INDC
- Key issues of considerations
  - GHG inventory – essential mainly for baseline development only to NAI countries, for BAU baseline projection
  - National sustainable development goals, assumptions and mitigation scenarios/projections
  - Technology needs assessment and their the potential costs and impacts to reduce emissions
  - Relevant V&A information for mitigation actions and NDC

# Integrating GHG Inventories with V&A, Mitigation/NDC Actions

- GHG inventories:
  - will identify major sources and sinks of GHGs, helping to determine the scope and emphasis in the mitigation assessment
  - Mitigation assessment accounts should use inventories accounting procedures and emission factors wherever possible
- V&A assessments:
  - Will identify possible changes in natural resource conditions and management practices, which could effect baseline resource conditions as well as the applicability of mitigation options
    - For example: climate change might affect hydro potential, irrigation energy requirements, and biomass productivity, and alter the effectiveness of mitigation strategies such as afforestation or the reduction of agricultural emissions.

# The Process – Moving from GHG Inventory to Projections/Mitigation/NDC Actions

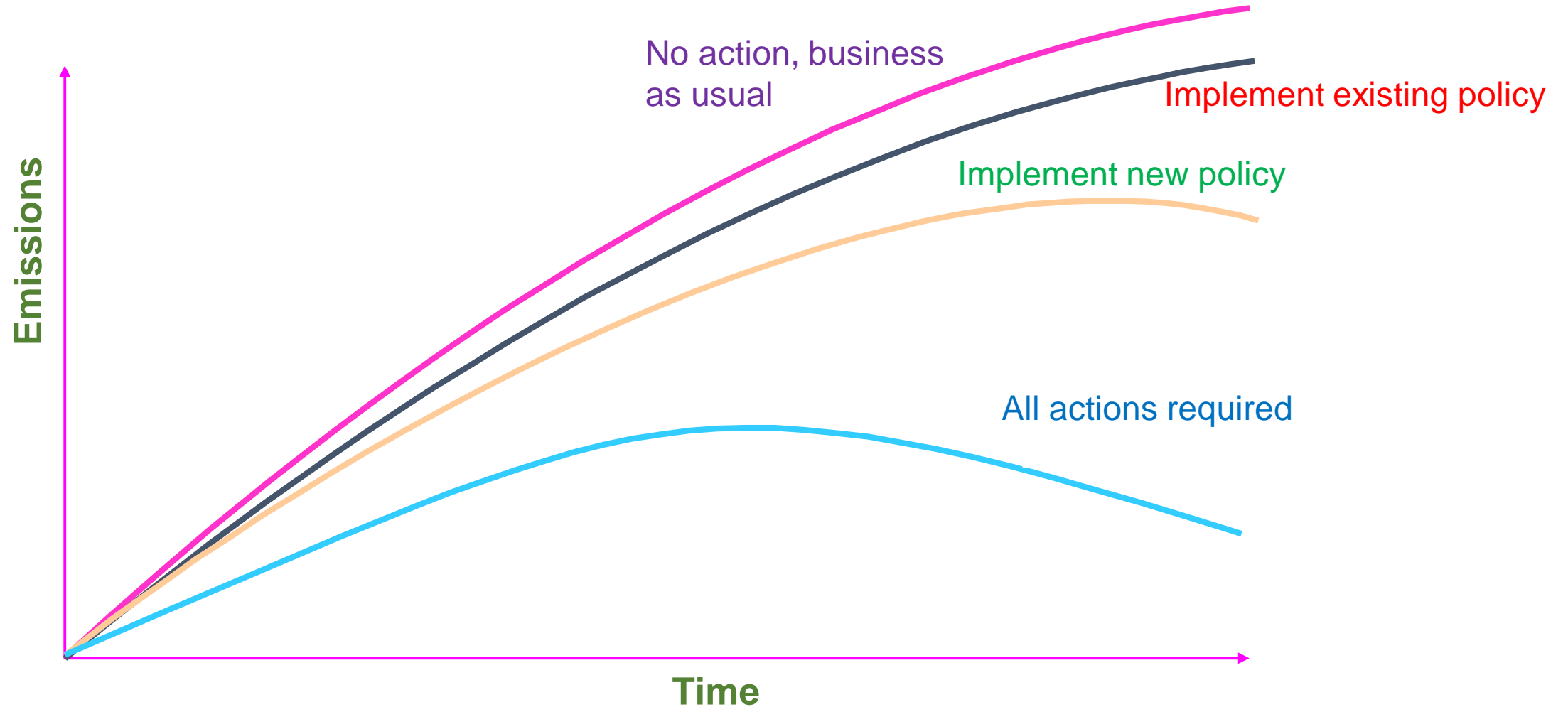


- Working together with experts and representatives from different sectors
- Identification of most applicable/reliable data sources; institutions/organizations, people etc to contact
- Data verification and data quality assurance and checks
- Knowledge of mitigation analysis tools
- Review previous information available
  - Then check for improvements? Strength, gaps, uncertainties, etc.

# Projections: Business As Usual (BAU) and Mitigation Scenario

- General assumptions and drivers of future trends
  - Economic growth
  - Population projections and impacts of AIDS
  - Technological change
  - Future fuel prices
  - Discounting costs
  - Emission factors
- Mitigation scenarios, eg
  - Reference case
  - New policies/regulations
  - Industrial energy efficiency scenario
  - Commercial energy efficiency and fuel switching scenario
  - Cleaner and more efficient residential energy scenario
  - Electricity supply scenario options (import gas, import hydro-electricity, RE)
- Use tools/models to project emissions reflecting above factors

# Where Are the Actions Leading To?



# How to Get Practical, Ambitious Mitigation/NDC Actions

- Key issues of consideration include
  - Conducive implementation environment
  - Aligning mitigation/NDC actions with overall national development goals
  - Understanding the most effective avenues of implementation, having aboard the private sector (including foreign investments)
  - Optimum use of resources, domestic or international, given the lock in nature of most measures
  - Economy-wide mitigation/NDC actions

# The 3-P Approach to Mitigation/INDC Implementation

- The 3-P INDC Implementation Framework
  - Policies and measures
  - Programmes
  - Projects



# Policies – Key Issues

- Define and understand the country circumstances, national development priorities and key barriers to the intended actions
- Assess and identify strategic policy priorities at the national and sector level in line with achieving economy wide mitigation and sustainable development goals as a whole
  - Are the current policies adequate to drive vehicle that will deliver the national contributions?
  - Are the inherent sustainable development goals adequate to meet the intended contributions?
  - Is there need for a specific climate change policy in the country?
- **If necessary** - Design specific policies, regulations, and incentives (fiscal etc) to direct resources toward national contribution actions. Political buy in is another key factor

# Programmes – Key Issues

- Assess current development goals, programs and measures in the country
- Identify key programmes and measures that have significant impact in achieving economy wide mitigation and sustainable development goals as a whole
  - Are there challenges in implementation of current development goals, programmes and measures?
  - For those that do not have national coverage, can they be extended to drive more effect and impact?
- What are new development goals, programmes and measures necessary for national development that results in additional economy wide mitigation benefits?
- Identify and select programs and measures that can results in significant impact on mitigation, adaptation and sustainable development but need financial support in order to be implemented

# Projects – Key Issues

- Translation of development goals, programmes and measures into financeable public or private investment initiatives
  - Public – government or international financial support
  - Private – regulation or incentive driven
- Institutionalizing project preparation process in the country is key
  - Identify gaps and support requirements in projects preparation
  - Having a robust national framework to build strong project pipelines

# Common Mistakes in Preparing National GHG Inventories

- Wrong objectives – GHG Inventory report for UNFCCC and not for internalization
- Formulation of inappropriate Terms of Reference for technical experts/consultants for GHG Inventory
- Lack of effort in aligning GHG inventory with BUR reporting – time series and latest inventory year
- Adhoc national GHG preparation process – mobilization when GHG is required
- GHG inventory as a one man show – the GHG Consultant Syndrome
- GHG inventory as number worksheets without a national inventory report
- Lack of basic MRV institutional arrangement for climate change reporting – including QA/QC process
- Double counting between transport and agriculture sector in fuel use
- Land classification challenges in AFOLU
- Double counting between energy/IPPU/waste sectors
- Inclusion of bunker fuel emissions in national emissions
- Putting too much effort into insignificant source categories (Key Category Analysis and use)
- Assumption that F-gas emissions in the country are not significant
- Wrong emissions factors/methodology use
- Not checking discrepancy between Reference and Sectoral Approach in Energy Sector – difference to within 2%
- Preference for use IPCC default rather than regional emission factors
- Lack of improvement plan and updating/recalculations of previous inventories
- Perception that 2006 IPCC Guidelines are difficult to use
- Inclusion of CO<sub>2</sub> emissions from biomass fuels in national emission totals

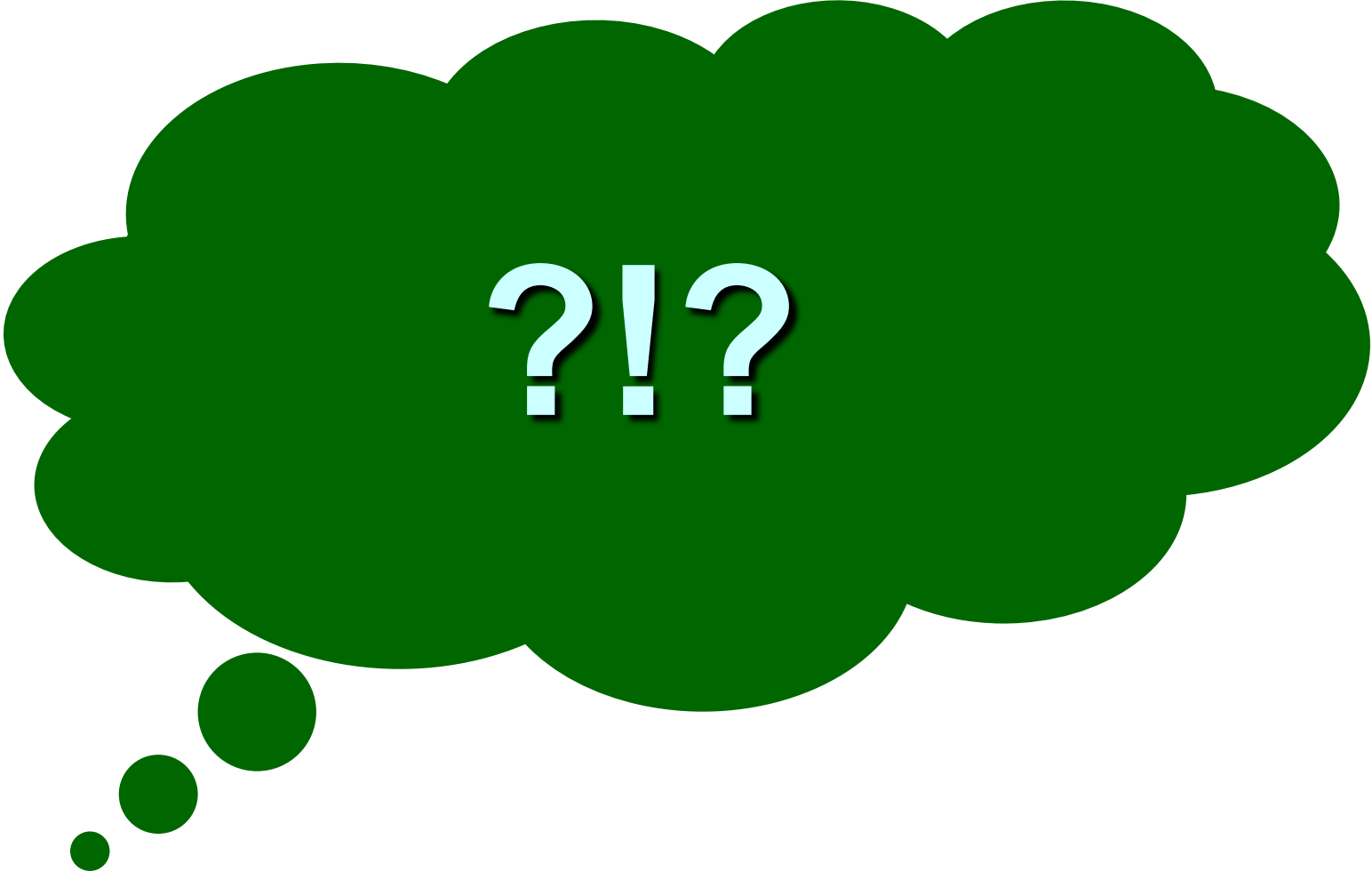
# Common Mistakes in Developing Mitigation/NDC Plans or Actions

- Wrong objectives - mitigation report for UNFCCC and not for internalization
  - Mitigation analysis as a once-off exercise, when there is a call for preparation of national communication or submission to the UNFCCC
  - Results in lack of continuity and hence lack of improvements
- Inaccurate background information, including GHG (baselines) and scenarios
- Mitigations/INDC actions based on GHG inventory
- Non involvement of relevant experts/relevant information/relevant sectors
- Mitigation assessment as an academic exercise – political buy-in very unlikely
- Mitigation for climate change rather than for sustainable development
- Generic mitigation options as national mitigation/NDC actions
- Formulation of inappropriate Terms of Reference for technical experts/consultants for mitigation studies
- Lack of climate change information management system – including archiving
- Lack of MRV institutional arrangement for climate change reporting – including QA/QC process

# Way Forward

- Learning from each other, both success stories and limitations
  - Need to improve exchange of information related to national inventories and mitigation/NDC goals amongst countries within a region
- Strengthening the existing linkages between national organizations involved in collection of activity data and those responsible for preparation of national inventories and communications/BURs
- Furthering of development of appropriate information management systems and for archiving and updating inventory/NC/BUR data, and submission of data to IPCC (EFDB)
- Appointments and designation of well-resourced technical coordinators/technical focal points or a secretariat with a clear set of mandates for the preparation of national GHG inventories and communications/BURs
- Formulation of at least basic national MRV institutional arrangement
  - High level political support needed to get inter-sectoral and inter-agency cooperation
- Creating the national MRV team that goes beyond preparation of GHG Inventory/NC/BUR reports
  - Discuss how to link the national reports with future development, and interact with government agencies and other interested parties, including industry, policy makers.

# Questions



# Thank You!

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