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UN-REDD
PROGRAMME



Key Elements of a National GHG Inventory System

Regional African Workshops On REDD+ National Forest Monitoring
Systems & GHG National Inventory Systems

25-27 February 2014
Livingstone, Zambia



Federal Ministry for the
Environment, Nature Conservation
and Nuclear Safety



Australian Government

Importance and Benefits of Developing National GHG Inventory

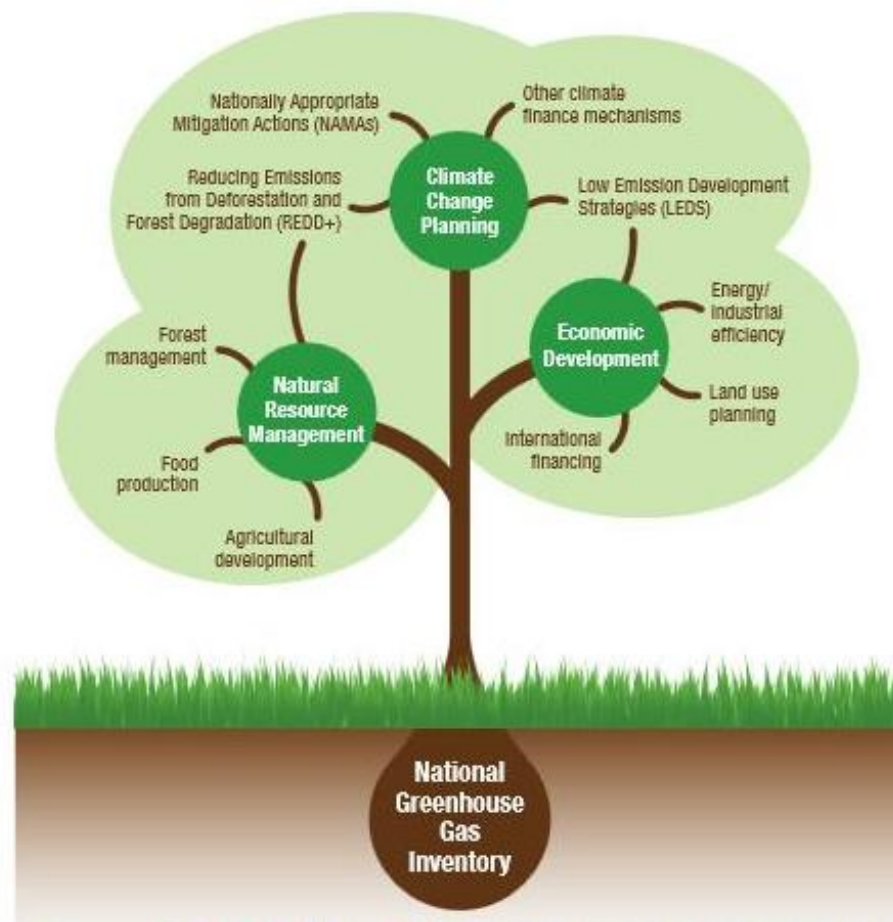
High quality GHG inventories:

are necessary to meet UNFCCC reporting requirements for National Communications and Biennial Update Reports

are a valuable tool for developing policies and programs that address climate change and economic development

help to identify strategies for improving a country's economy and managing natural resources

provide a foundation for MRV required for results-based climate finance



Calls for a robust GHG inventory system

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MRV of NAMAs, REDD+

UNFCCC obligation; support development of Low Emission Development Strategies (LEDS), mitigation strategies, NAMAs, REDD+

Why do we need a GHG Inventory?

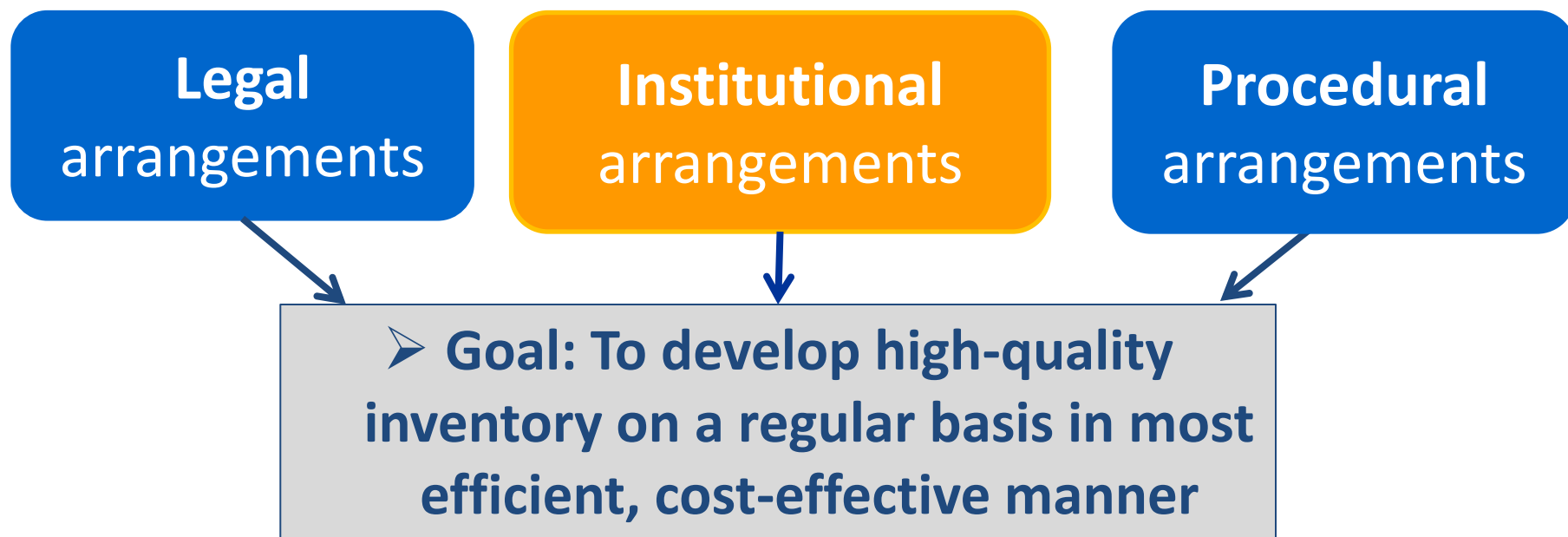
To produce good quality GHG inventories efficiently and cost-effectively

Why do we need a GHG Inventory System?

What is National Inventory System?

A *national inventory system* (NIS) incorporates all the elements necessary to:

- estimate
- report
- and archive GHG emissions and sinks, i.e.



Advantages of sustainable National Inventory System

Ability to develop **high-quality inventory at regular intervals** (e.g., annually, every 2-4 years, etc)

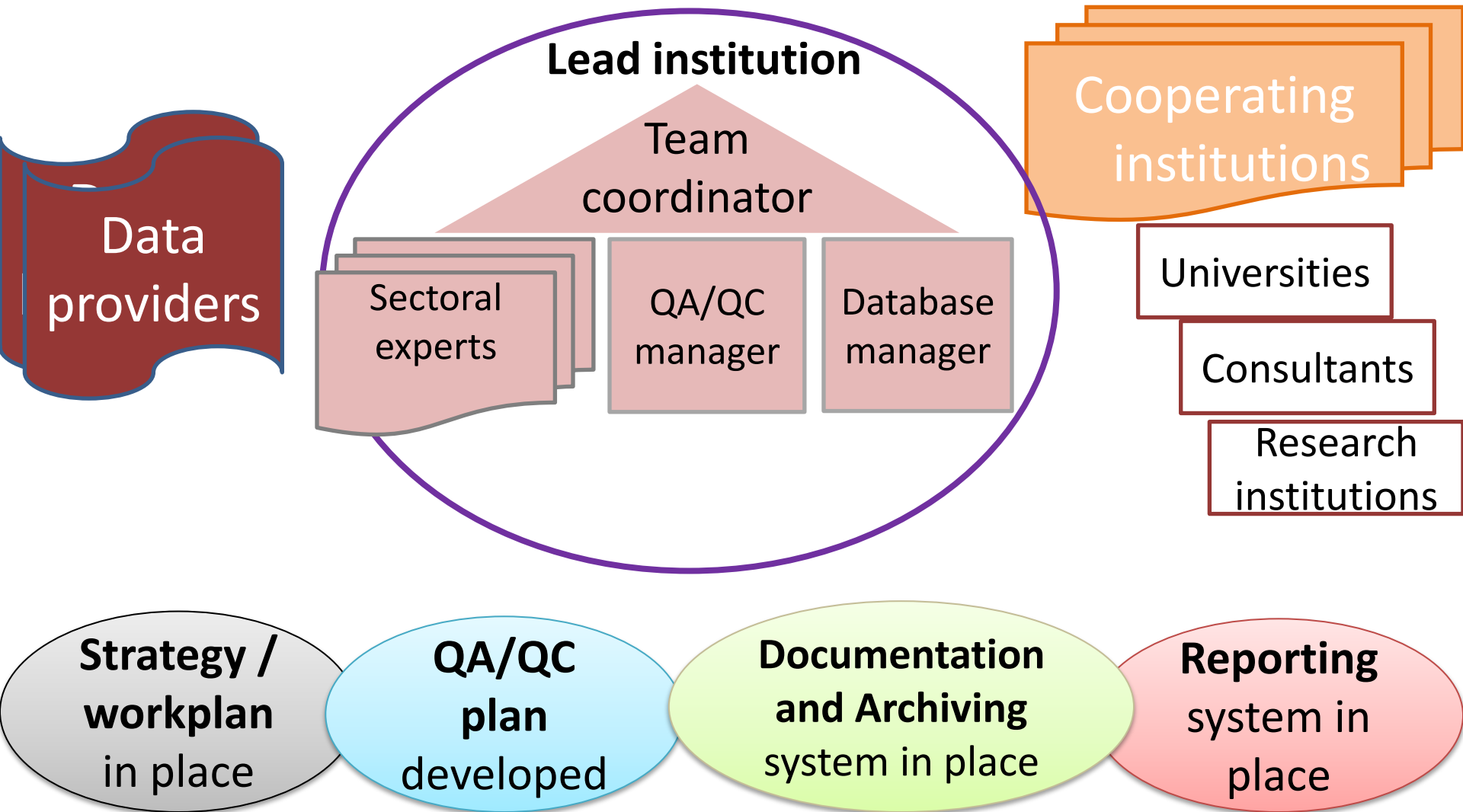
- Resources focused on most significant key sources
- Sources of data are identified, appropriately archived and regularly accessible & methods and assumptions documented
- Emission estimates are continually improved; adhere to international guidance (e.g., IPCC GPGAUM)
- Inventory process transparently documented – an expert should be able to reproduce

DOCUMENTATION of the process is the critical success factor for the sustainability of the system

Institutional Arrangements

- Consist of a set of formal arrangements (e.g., regulations, MoUs, etc.) that rules the flow of resources, data, information, among elements of the NIS
- Objectives:
 1. To provide the financial and human resources as well as legal authority to ensure that NIS functions will be entirely and efficiently performed
 2. To set up the framework of provisions which rule those functions

An Illustrative Example of Institutional and Procedural Arrangements



Why are legal arrangements (e.g., Act, decree) needed?

- To ensure resources are budgeted
- To define responsibilities (legal entity) and designate a single entity responsible for inventory management
- To establish a system for collecting data and allow for timely acquisition of all necessary data
 - *esp. from national statistical agencies, private companies, other key sources*
- To ensure access to inventory data for inventory compilers

National Inventory Schedule



An NIS can streamline the three main phases of inventory process

1. Inventory planning

- Roles & responsibilities defined
- Rules of procedure
- Workplan, budget, timeline
- QA/QC planning
- Inventory improvement strategy

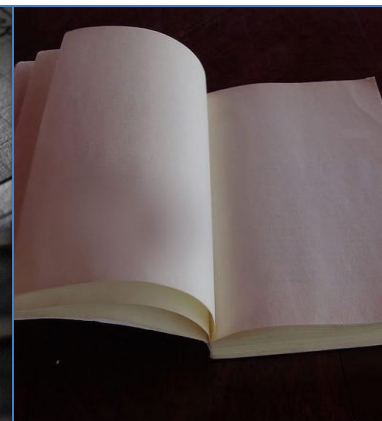
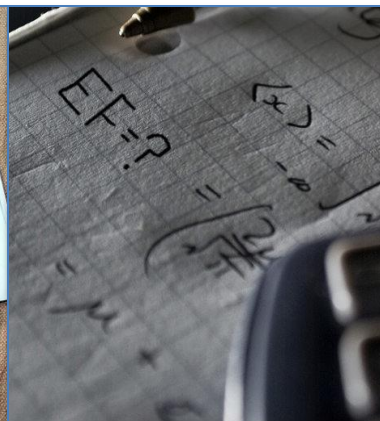
2. Inventory preparation

- **Documentation of data collection, emission estimates & recalculations**
- **QA/QC**
- **National inventory report (optional)**

3. Inventory management

- Archiving
- Reporting to UNFCCC
- Awareness raising (national level)

GHG Inventory Challenges faced by NA-I countries



**Small teams
with limited
resources and
multiple
responsibilities**

**Incomplete or
non-existent
activity data**

**Lack of
country-
specific
emission and
stock change
factors**

**Insufficient
documentation
from previous
inventories**

**Difficulty
retaining
expertise**

Key messages

- A sustainable national inventory system is the foundation for complete and rigorous inventories
- Enhanced reporting requirements and the MRV that will be associated with results-based finance provide further impetus for developing robust national GHG inventory systems
- Inventory development is iterative process – improving over time
- Documentation is a critical success factor for sustainability
- Resources should be focused on key categories