



Food and Agriculture  
Organization of the  
United Nations

## FAO and the Enhanced transparency framework

# ENHANCED TRANSPARENCY FRAMEWORK WEBINAR SERIES

## The role of institutional arrangements in the Enhanced Transparency Framework

*1. ESTABLISHING & MAINTAINING ROBUST & SUSTAINABLE INSTITUTIONAL  
ARRANGEMENTS - IORDANIS TZAMTZIS (FAO)*

*2. NATIONAL INVENTORY SYSTEM TEMPLATES – JOHN STELLER (U.S. EPA)*





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# ENHANCED TRANSPARENCY FRAMEWORK WEBINAR SERIES

Establishing & maintaining robust & sustainable Institutional Arrangements

*Iordanis Tzamtzis*

*Office of Climate Change, Biodiversity and Environment*

*19<sup>th</sup> November 2020*





# Institutional Arrangements: why/what?

*clarity*

*transparency*

Collection & analysis of complete, reliable, accurate information/data

Reporting of climate-related information

Informing

Assessment & gap identification

Improve, increase ambition, take action

*GHG, PaMs, adaptation, risks, opportunities, needs, NDC*

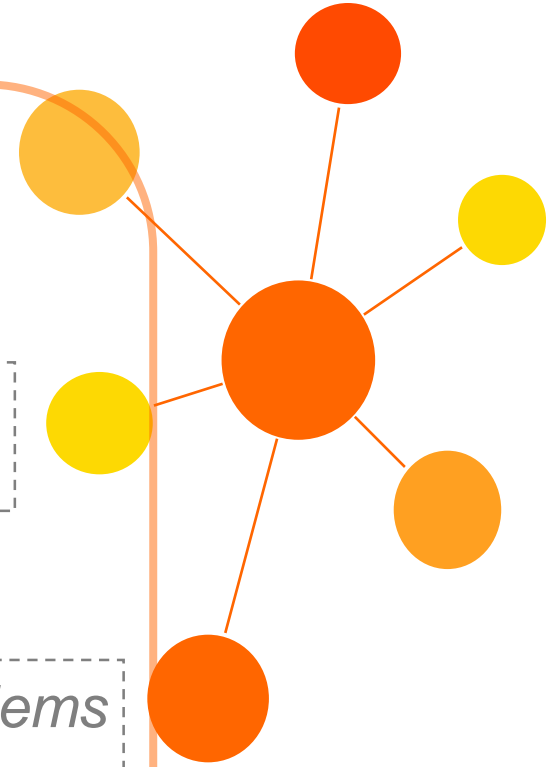
*Completeness, accuracy, problems understanding, opportunities*

*mutual trust*

*effective implementation*

*confidence*

*understanding*



# Institutional Arrangements: why/what?

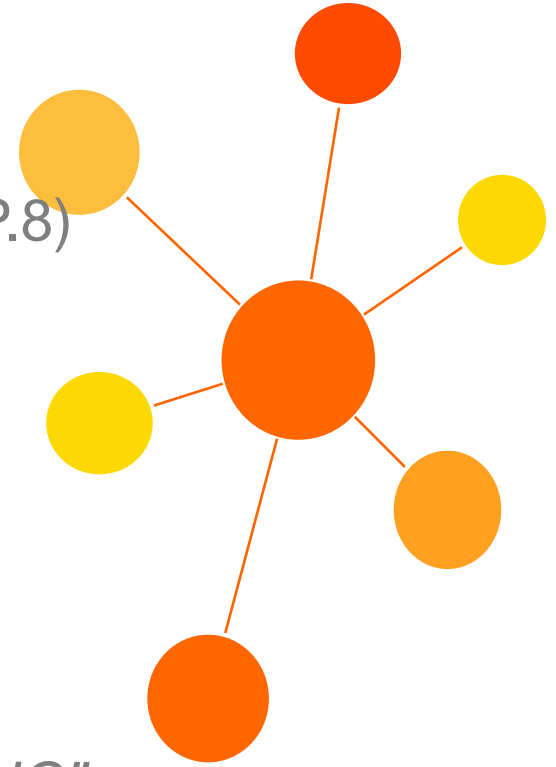
*“nA1 Parties may provide a description of existing **IA**s for NCs” (17/CP.8)*

*“The scope of BURs is to provide an update...in the following areas:  
Information on...**IA**s relevant to the preparation of NCs” (2/CP.17)*

*“Each A1 Party should implement & maintain **national inventory arrangements** for the estimation of GHG” (24/CP.19)*

*“Each Party included in Annex I shall have...a **national system** for GHG”  
(art. 5.1 KP)*

*“Each Party should implement & maintain **national inventory arrangements..**”  
(18/CMA.1)*

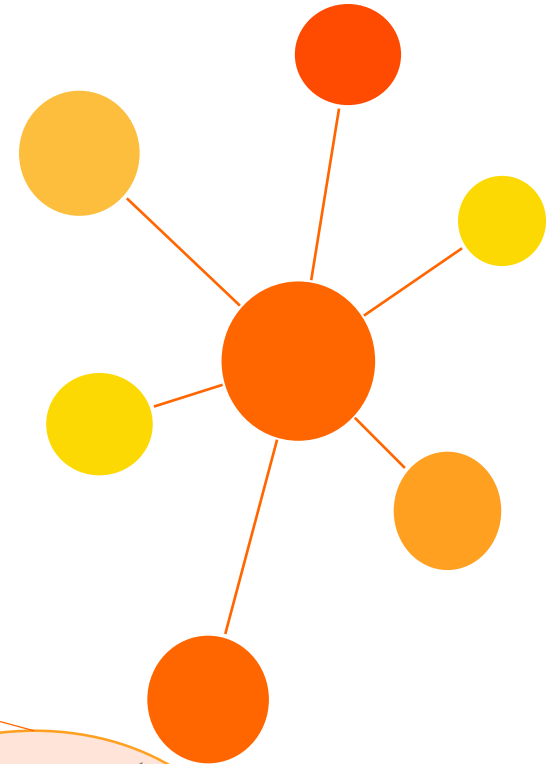
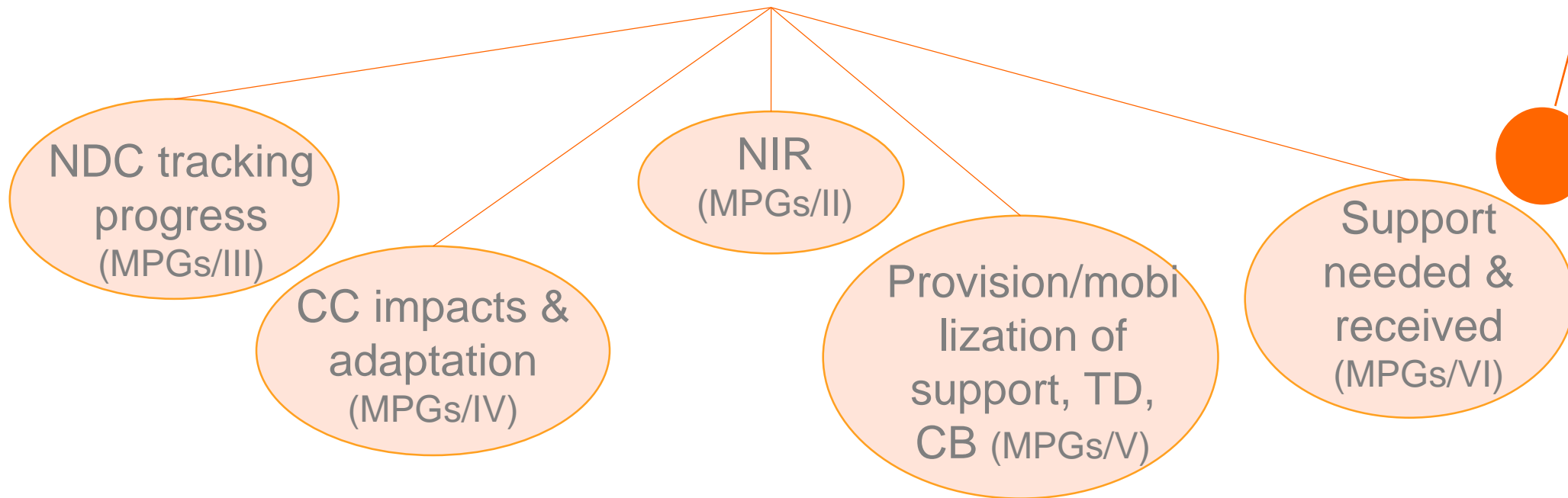


# Institutional Arrangements: why/what?

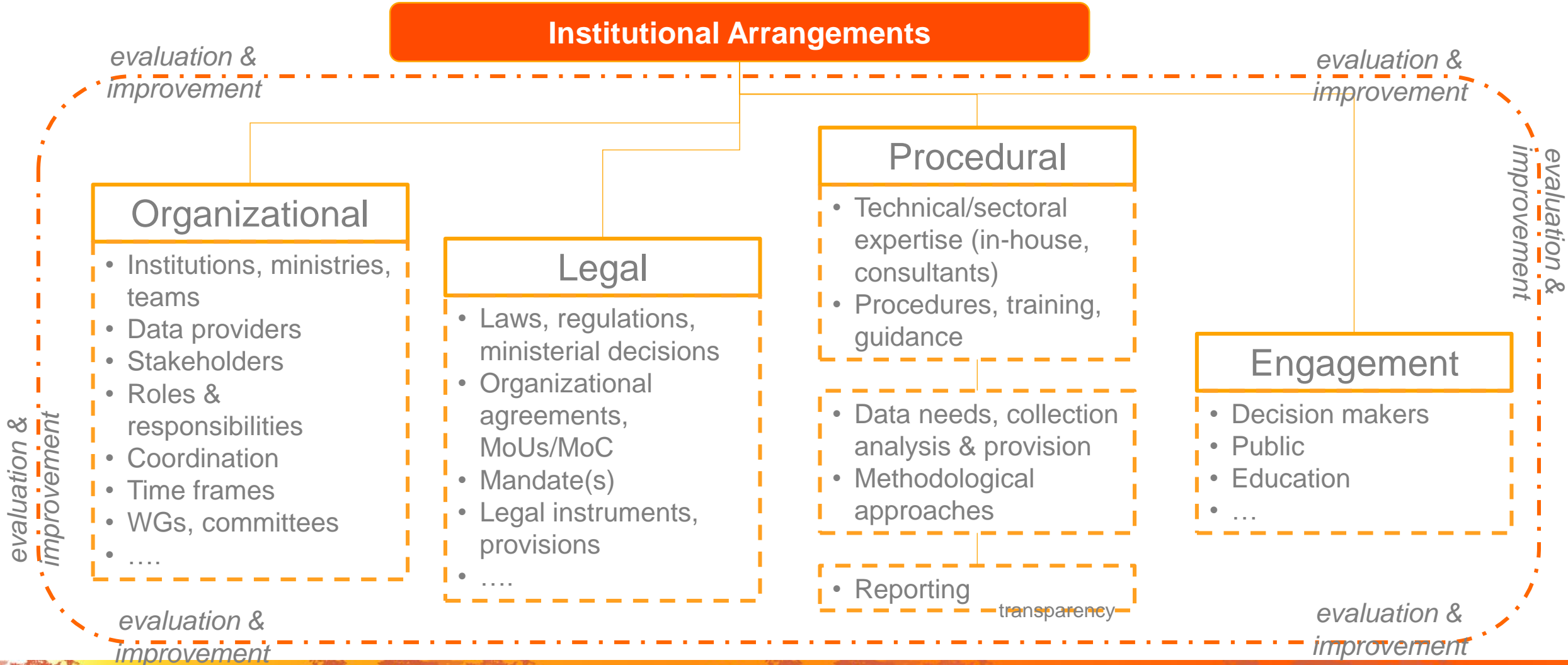
## National Institutional Arrangements



All institutional, legal & procedural arrangements made within a Party for...



# Institutional Arrangements: Why/what?



# Institutional Arrangements: key characteristics

build on existing arrangements

data flows

**flexible**

country driven

expertise availability

inclusive

**sustainable**

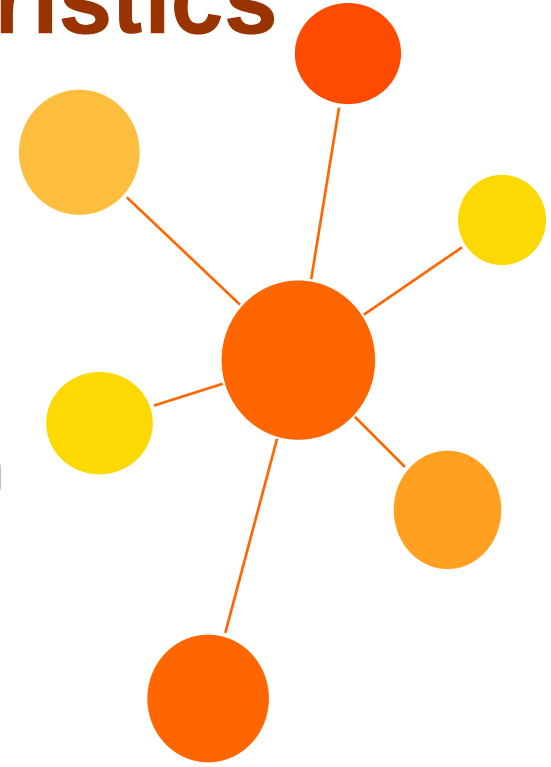
clearly defined

coordination

**efficient**

transparent

evaluation & improvement



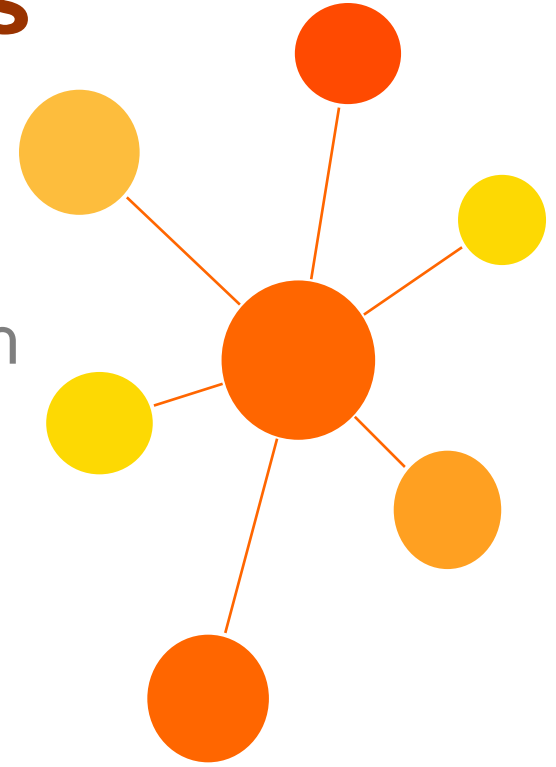


# Institutional Arrangements: key functions

Ensure TACCC of reporting

Ensure the continuous quality of reported information through planning, preparation & management activities

- Sufficient capacity for timely performance of all functions needed & technical competence
- National entity with the overall responsibility of reporting
- Prepare the GHGI, BTR in time & in accordance with dec.18/CMA.1

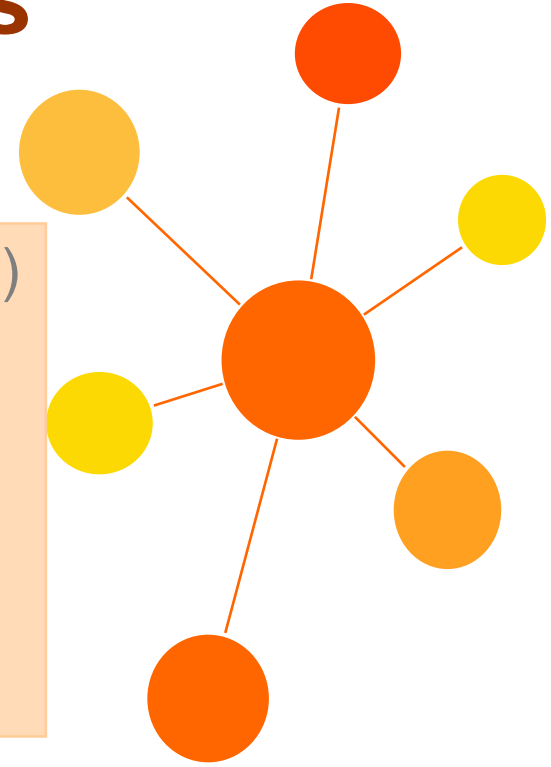




# Institutional Arrangements: key functions

## Planning

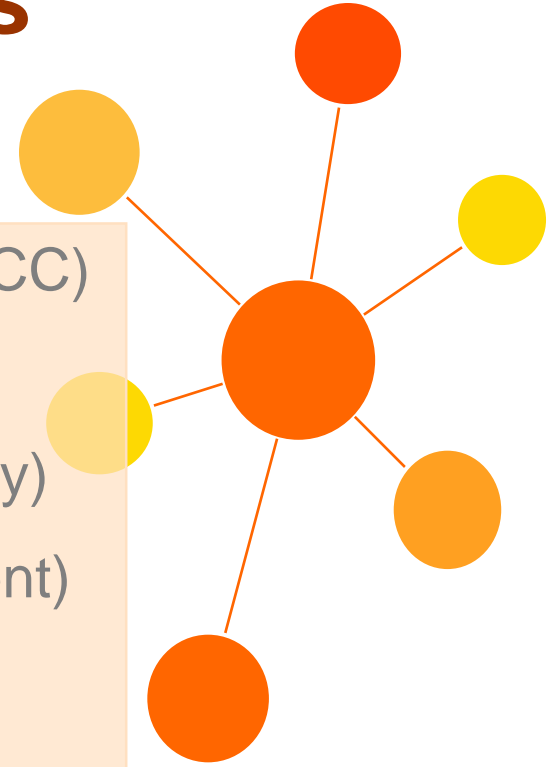
- Define/allocate responsibilities (roles, cooperation of entities involved)
- QA/QC plan
- Processes for official consideration & approval of the GHGI, BTR
- Improvement plan for information, AD, EFs, technical elements (from QA/QC, reviews, verifications)



# Institutional Arrangements: key functions

## Preparation

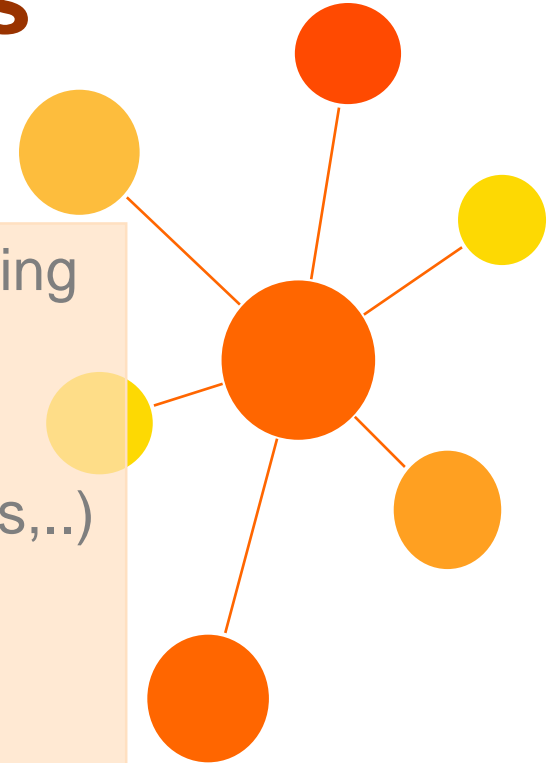
- Prepare estimates in accordance with decisions, guidelines (2006 IPCC)
- Collect sufficient AD, EFs & use appropriate methodologies
- Uncertainty analysis (quantitative, qualitative, for categories, inventory)
- KCA (starting/latest year, with/without LULUCF, trend/level assessment)
- Recalculations, time-series consistency
- Compile the NIR → NID & CRT, ensure **TRANSPARENCY**
- General QC procedures following the QA/QC plan (& category-specific for KCs). Perform QA (focus on KCs)



# Institutional Arrangements: key functions

## Preparation

- Provide the necessary information for tracking progress in implementing & achieving NDC (targets, reference years, indicators, accounting approaches, definitions, ...)
- Provide information on PaMs, actions for NDC (description, objectives,..)
- Prepare and report projections (WM, WAM, WOM)
- Information related to CC impacts & adaptation
- Information related to FTC support needed & received.
- Periodic assessment of the preparation process → re-evaluate the planning process

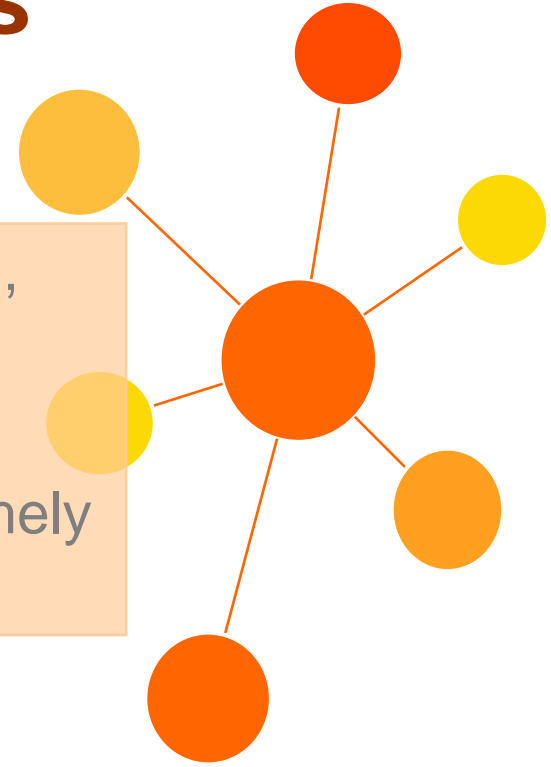




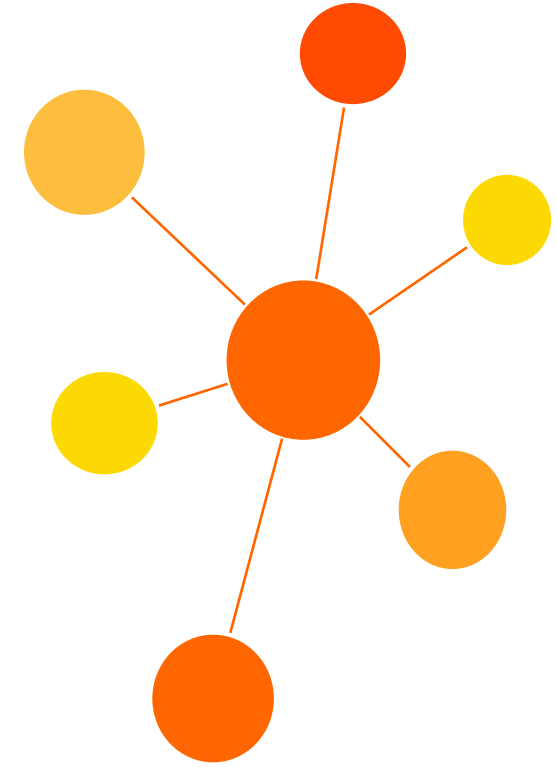
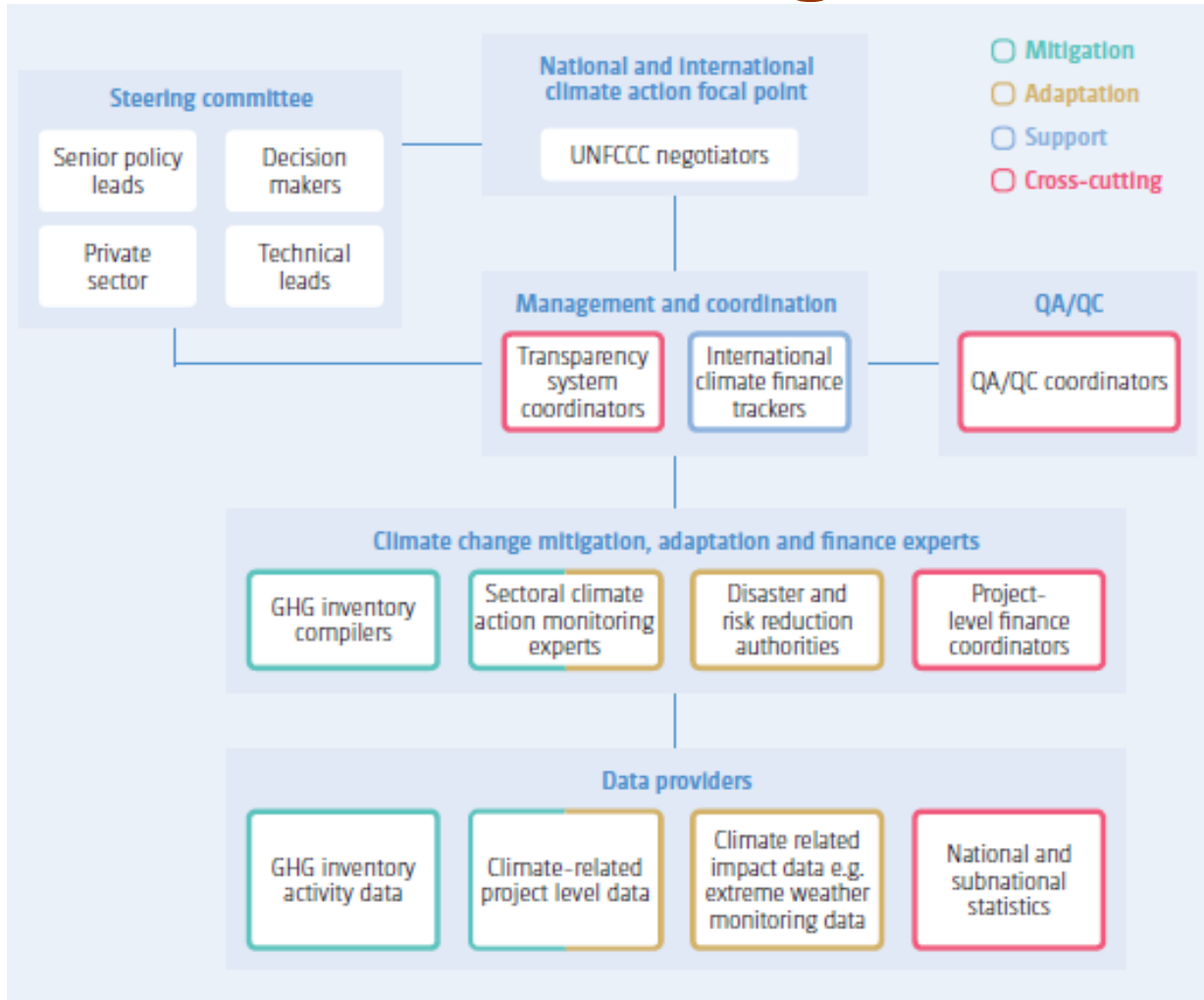
# Institutional Arrangements: key functions

## Management

- Archive all relevant information (whole time series, disaggregated AD, EFs, sources, QA/QC plan/procedures, review documentation, KCA, UnA, planned improvements, etc.)
- Prepared for the review (provide access to review teams, respond timely to review questions)



# Institutional Arrangements: how to?



no one-size-fits-all model

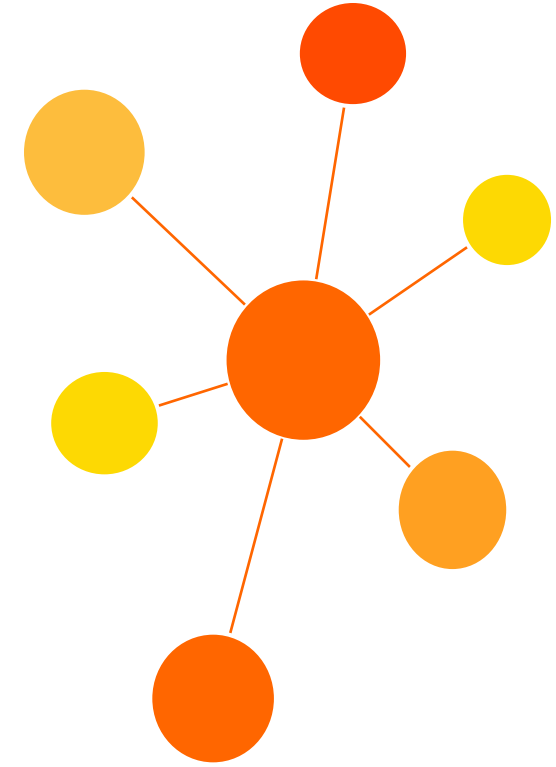
*Handbook on institutional arrangements to support MRV/opacity of climate action and support (CGE, 2020)*



# Institutional Arrangements: challenges

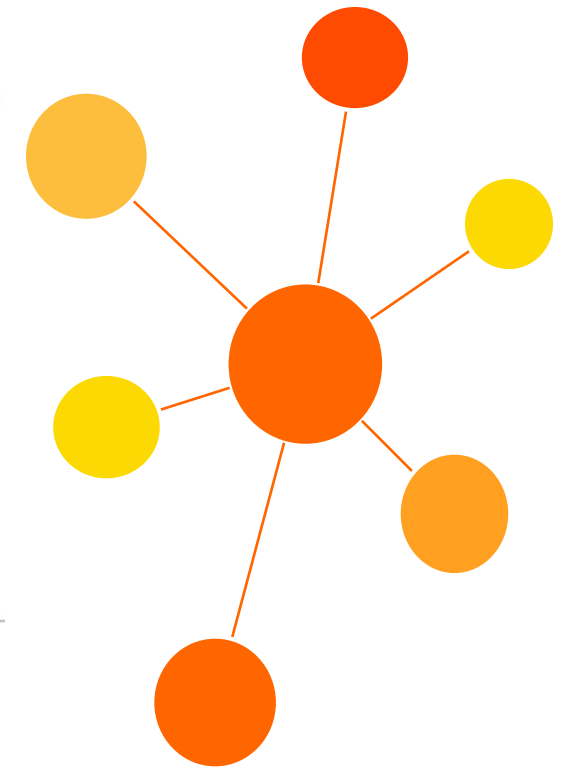
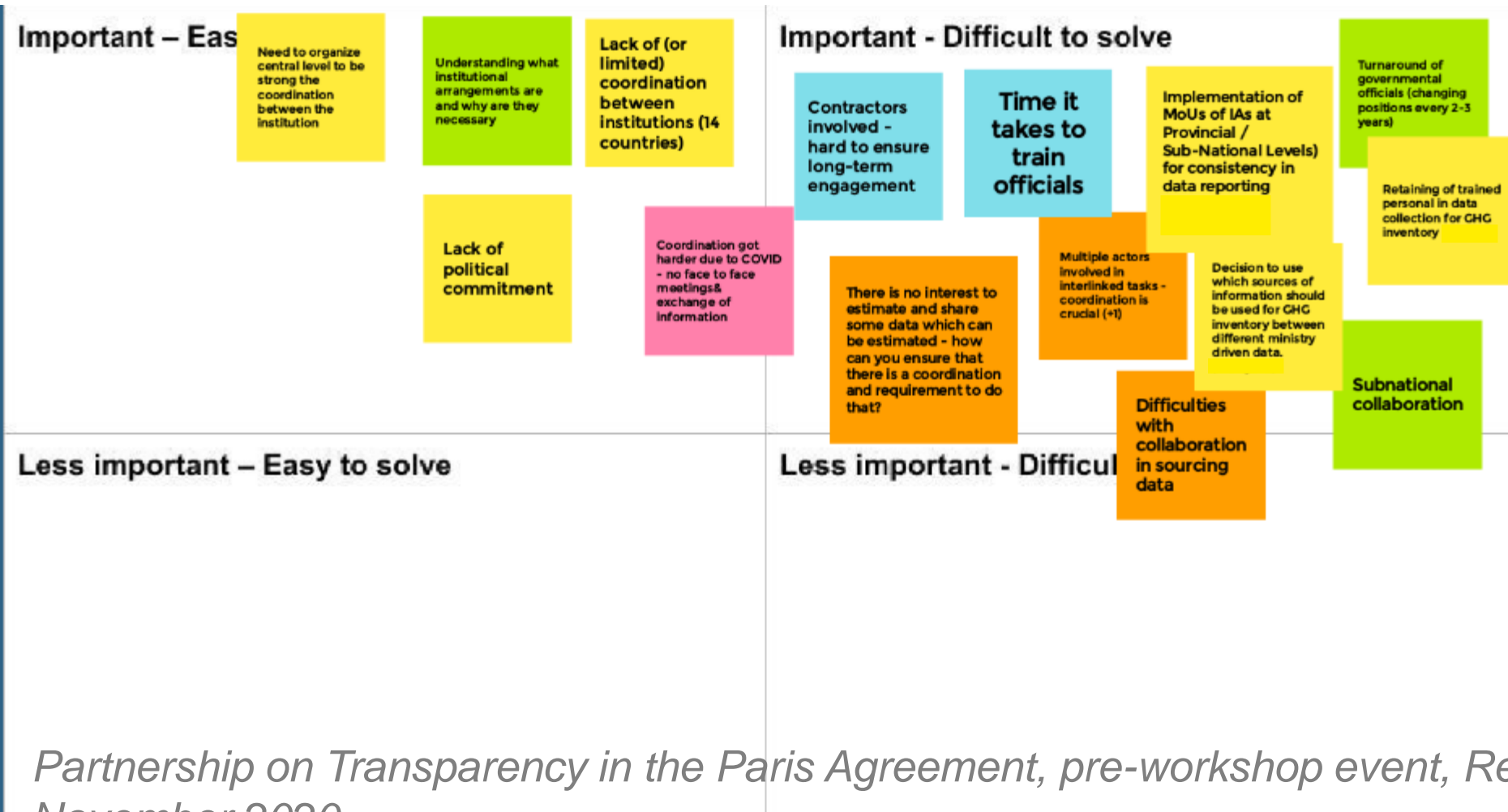
Challenges identified relate to all aspects of their implementation & functions, e.g.

- Understanding
- Inclusiveness
- Long-term vision
- Data flow
- Coordination of involved entities
- Political support
- Legal arrangements
- Archiving processes
- Data availability
- .....





# Institutional Arrangements: challenges



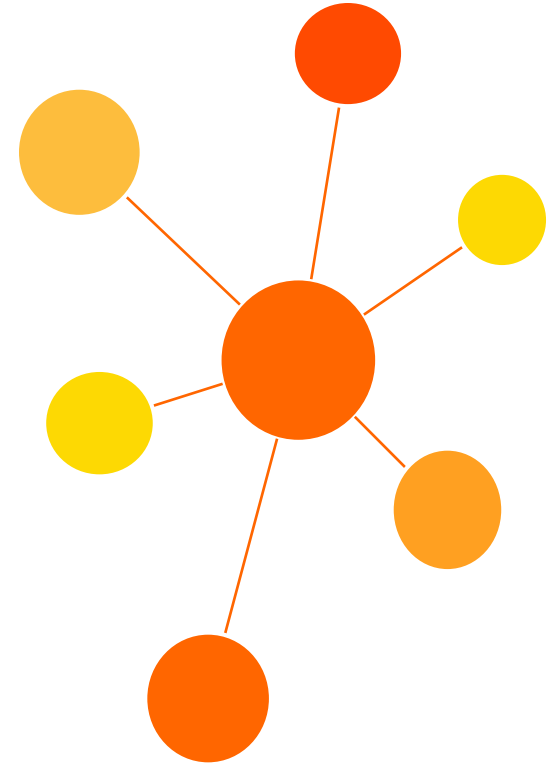
*Partnership on Transparency in the Paris Agreement, pre-workshop event, Regional Group of Asia, November 2020*



# Institutional Arrangements: benefits

Robust institutional arrangements, (characteristics & functions) are key to success

- Reliable information to decision makers (actions, investments, gaps, improvements)
- Decision making for climate action & increase ambition
- Support international commitments & reporting
- Inform international community & build trust
- Ensure sustainability



# FAO and the Enhanced transparency framework

[www.fao.org/climate-change/our-work/what-we-do/transparency/](http://www.fao.org/climate-change/our-work/what-we-do/transparency/)  
[etf@fao.org](mailto:etf@fao.org)

*Thank you !*





# National Inventory System Templates



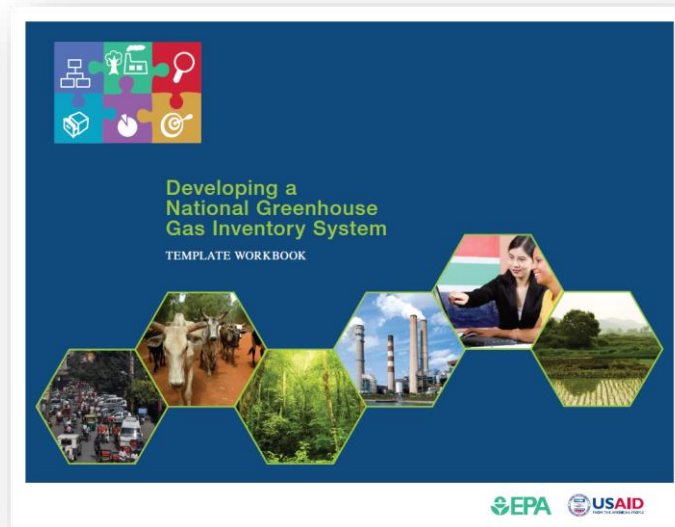
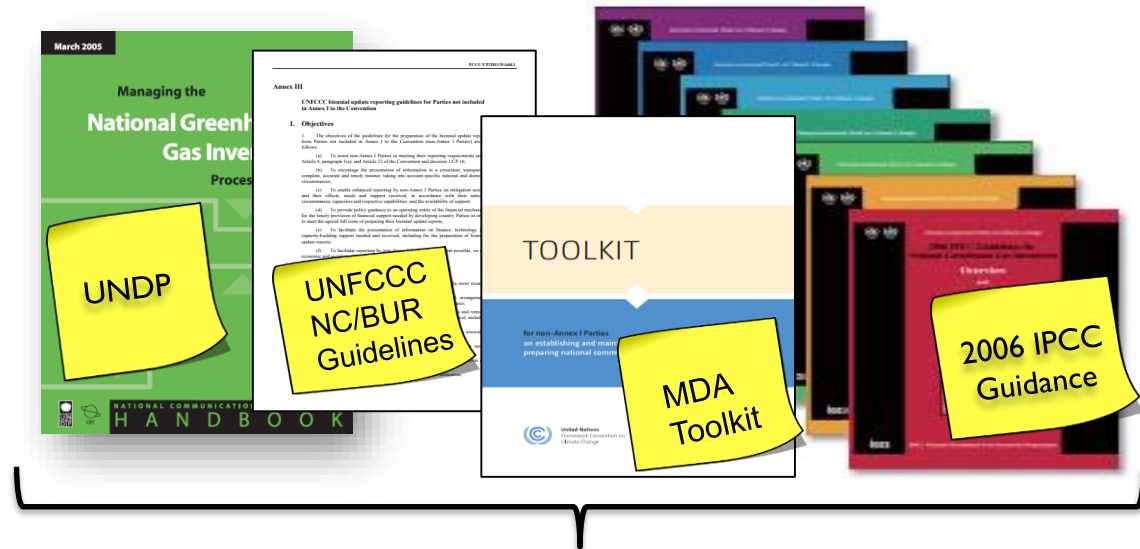
John Steller  
Office of Atmospheric Programs  
U.S. Environmental Protection Agency

FAO ETF Webinar Series  
Institutional Arrangements  
November 19, 2020

- Background and Benefits of Templates
- Overview of Templates
  - How all templates fit together
- Deeper Dive into Templates
  - Institutional Arrangements
  - Methods & Data Documentation
- Outcomes of Completed Templates

## EPA has taken key elements of the UNFCCC and IPCC guidance and condensed them into easy-to-use National Inventory System Templates

- Based on experience working with countries to develop inventory systems with other countries
- Each template facilitates documentation of critical building blocks to support full documentation of your national inventory system
- Can help facilitate task of reporting on national inventory arrangements, QA/QC plans, etc.



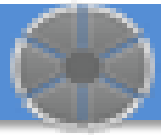
# Benefits of the National Inventory System Templates

- Documents critical information, facilitates review
- Ensures roles and responsibilities are understood
- Standardizes tasks
- Accommodates varying levels of national capacity
- Creates transparency and improves credibility
- **Provides a clear starting point for future inventories**
- **Builds a sustainable national system**
- **Improves inventory quality over time**



# The Seven Templates

How to Use the Templates



Institutional Arrangements



Methods and Data Documentation



Quality Assurance/Quality Control Procedures



Key Category Analysis










Archiving System



National Inventory Improvement Plan



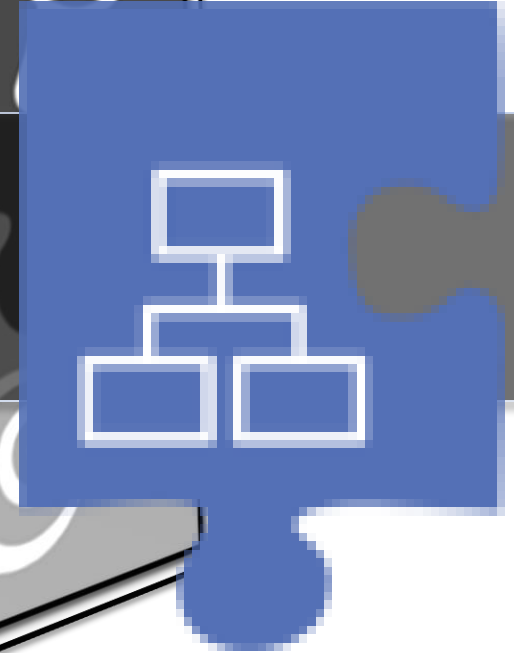
# Components of Templates

Templates	Description	
1. How to Use the Templates	<ul style="list-style-type: none"> <li>• Explains how to use the template series</li> <li>• Tracks progress with completing the other templates in the series</li> </ul>	
2. Institutional Arrangement (IA)	<ul style="list-style-type: none"> <li>• Helps in assessing and documenting strengths and weaknesses</li> <li>• Promotes institutionalization of the inventory process</li> <li>• Ensures long-term integrity of the inventory</li> </ul>	
3. Methods and Data Documentation (MDD)	<ul style="list-style-type: none"> <li>• Document and report the origin of methodologies, AD, EF</li> <li>• Identify future improvements</li> <li>• Provides valuable future reference for each source</li> </ul>	
4. Quality Assurance and Quality Control (QA/QC)	<ul style="list-style-type: none"> <li>• Provides a guide a to establish a cost-effective QA/QC program</li> <li>• Clarifies roles and tasks</li> <li>• Includes both Tier 1 and Tier 2 checks as recommended by IPCC</li> </ul>	
5. Key Category Analysis (KCA)	<ul style="list-style-type: none"> <li>• Identifies most important sources</li> <li>• Provides a focus for improvement efforts</li> </ul>	
6. Archiving System (AS)	<ul style="list-style-type: none"> <li>• Provides guidance on how to establish a cost-effective archiving system</li> <li>• Simply a collection of records and identification of where records are kept</li> <li>• Provides starting point for subsequent inventories</li> </ul>	
7. National Inventory Improvement Plan (NIIP)	<ul style="list-style-type: none"> <li>• Helps countries to identify and prioritize future improvements based on needs identified in the six other templates</li> <li>• Serves as an official national road map for inventory improvements with goal of improving transparency, consistency, comparability, completeness and confidence in the final estimates</li> </ul>	

# Components of Templates

Templates	Supporting Templates, Guides, and Tools
1. How to Use the Templates	<ul style="list-style-type: none"><li>National Inventory Inception Memorandum Template</li></ul>
2. Institutional Arrangement (IA)	<ul style="list-style-type: none"><li>National GHG Inventory Coordinator: Responsibilities and Qualifications Guide</li><li>Sector Lead Roles and Responsibilities Guide</li><li>Memorandum of Cooperation Template</li><li>Statement of Work Template</li></ul>
3. Methods and Data Documentation (MDD)	<ul style="list-style-type: none"><li>Confidentiality Agreement and Amendment Template</li></ul>
4. Quality Assurance and Quality Control (QA/QC)	
5. Key Category Analysis (KCA)	<ul style="list-style-type: none"><li>Key Category Analysis Tool and tutorials</li></ul>
6. Archiving System (AS)	
7. National Inventory Improvement Plan (NIIP)	<ul style="list-style-type: none"><li>Inventory Progress Indicator (IPI) Tool</li></ul>

*Institutional Arrangements*







# How this Template Will Help!

## The IA template helps current inventory staff to:

- Document all parties involved, and their roles and arrangements by sector
- Archive key contacts for each sector/source of activity data
- Identify coordination gaps exist in existing arrangements
- Assess how existing arrangements can be improved and document the proposed improvements
- Communicate arrangements to national counterparts and the UN



## Moving forward, completed IA template helps:

- Get new team members “up-to-speed”
- Make coordinating future inventories easier!
- Ensure long-term continuity
- Know who is responsible for each sector/source
- Know key contacts for data
- Communicate arrangements to stakeholders and UNFCCC





In **STEP I**, review and identify the lead agency and inventory preparation team members



Agency Inventory Lead	Source/Sink Category Leads	QA/QC and Archiving Coordinators	Additional Entities Involved in Inventory	Uncertainty Analysis Coordinator
Inventory Director/ Coordinator	Subject Matter Experts (i.e. compilers)	Direct overall implementation of QA/QC and archiving system	e.g., GHG Policy Specialists who track UNFCCC reporting, donor or capacity building efforts IPCC processes, NC reporting	Conducts/ Directs implementation of uncertainty analysis



Instructions on how to fill in template Tables 2-1 and 2-2 with your country's institutional arrangements are shown **green** text. As you complete the materials, you can remove the **green** instructional text.

*In Table 2-1, record the name of the agency or organization that will lead inventory compilation; your country's UNFCCC focal point and focal point agency; and the arrangements or relationship between the lead inventory agency and UNFCCC focal point agency*

**Table 2-1: Designated national GHG inventory agency and UNFCCC focal point**

Designated National GHG Inventory Compilation Agency/Organization	UNFCCC Focal Point (Name) and UNFCCC Focal Point Agency	Arrangements/relationship between Inventory Agency/Organization and UNFCCC Focal Point Agency, if different

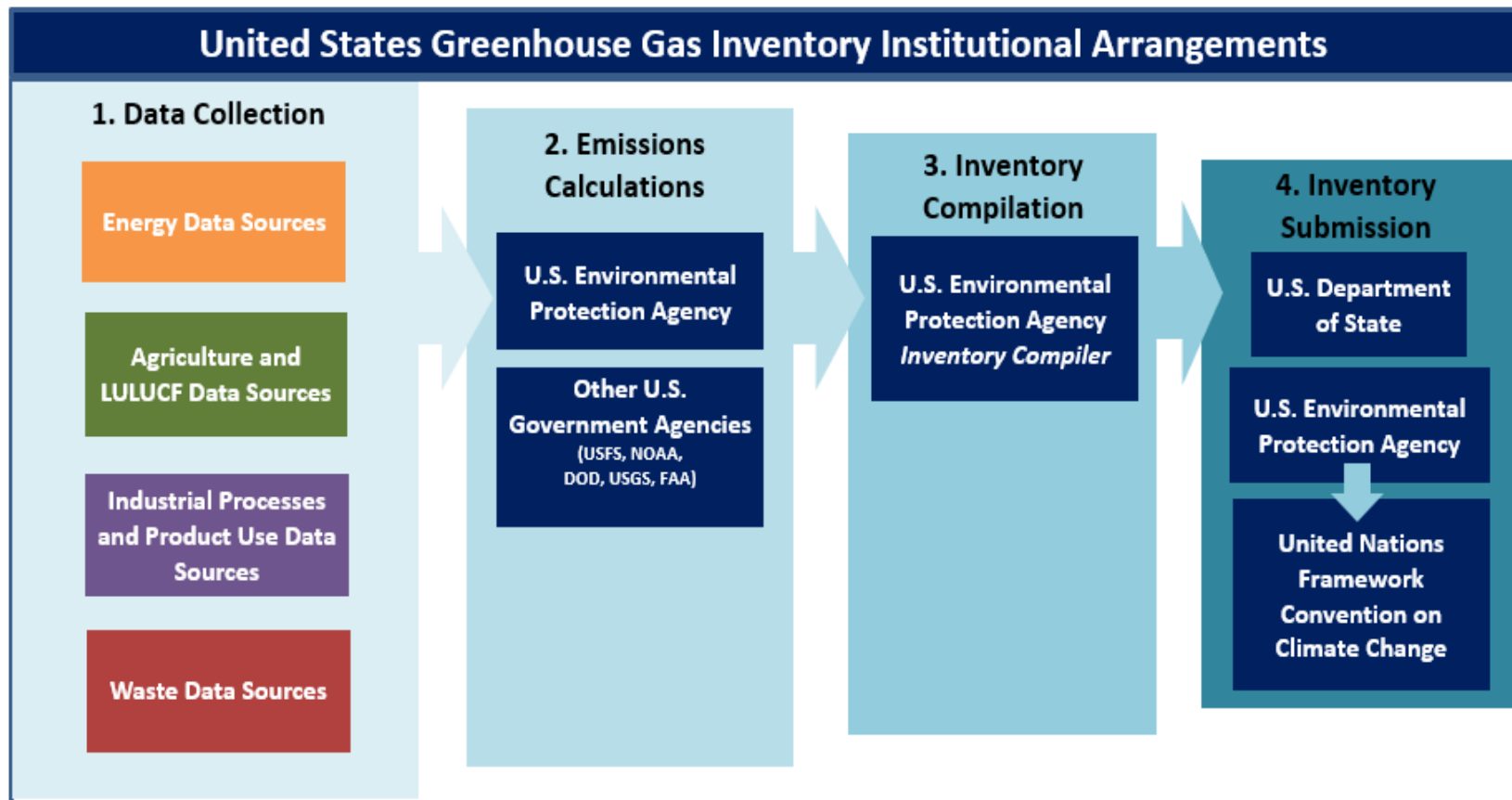
**Table 2-2: National Inventory Leads/Coordinators**

Role	Name	Organization	Contact Information	Comments
National Inventory Coordinator				
Agriculture Sector Lead				
Archive (Data and Document) Manager/Coordinator				
QA/QC coordinator				
Other: e.g., GHG Emissions Policy Specialist who tracks capacity building efforts and IPCC processes				



- **Step I** also provides space for user's to insert institutional arrangement diagrams which can be updated over time, Figure 1.
  - Example is shown, below. The IA Template includes 3 country examples

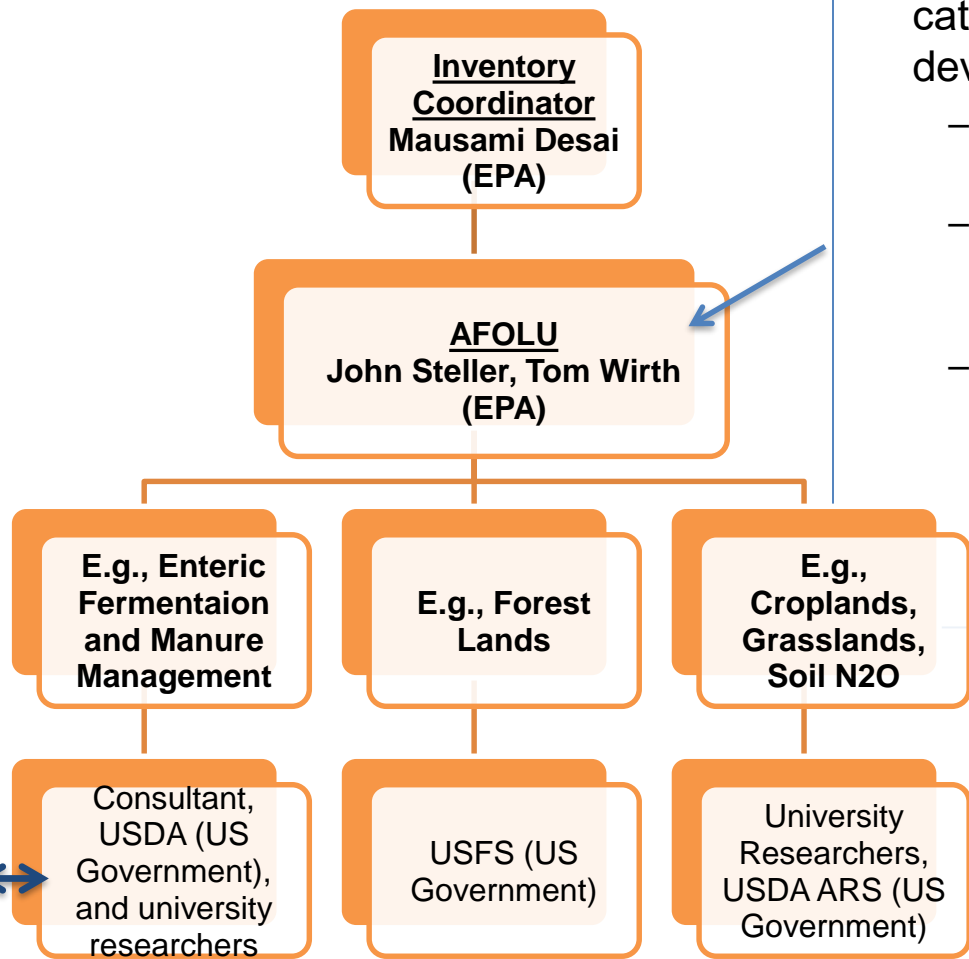
Figure 1. Institutional Arrangements of [insert name of your country]







# U.S. EPA GHG Inventory – Institutional Arrangements by Sector Example



- Individual source lead(s) manage each source category's estimate development
  - Fully versed in IPCC Guidelines
  - Determine methodology, coordinate data sources, manage improvements
  - Manage contracts /(consultants) and arrangements (formal/informal as required) with data providers, manage sectoral budget

Terms of Reference are critical to outline support to EPA and deliverables

Includes compilation and QC support, engaging with data providers



In **STEP 2**, identify and list more specific sector roles and arrangements.

- Table 2-3 allows user's to compile information about the contacts/experts for inventory development for each sector.
- User's should complete one version of this table for each Inventory sector.

**Table 2-3: Institutional arrangements for Agriculture, Forestry and Other Land Uses**

Role	Name	Organization	Contact information	Comments
Technical coordinator				
Consultant(s) compiling estimates				
Expert reviewer(s)				
Institution(s) providing data				
Reporting Manager(s)				
QA/QC Manager(s)				
Uncertainty Assessment Manager(s)				
Other				
Mechanism of data collection:				

## Step 3: Identify Strengths with Existing Institutional Arrangements



In **STEP 3**, list in Tables 2.4 and 2.5, for each sector, where institutional arrangements are well established, conditions that facilitate those arrangements, and where arrangements could be improved.

- ◆ **Strengths in management structure of national GHG inventory system** Table 2.4 instructions: For each sector, describe in what way institutional arrangements that support inventory preparation are well established and likely do not require improvement. For example, communications between the institutions may be active and positive, the institutions may have worked together before and have a good working relationship, or data may be collected and managed adequately.

**Table 2.4 - Strengths in management structure of national GHG inventory system**

Sector	Strengths in management structure of national GHG inventory system	Key conditions for maintaining strengths	Staff in charge of managing arrangements
Energy (stationary sources)			
Energy (mobile sources)			
Energy (fugitive sources)			
IPPU			
Agriculture			
Forestry and Other Land Use			
Waste			



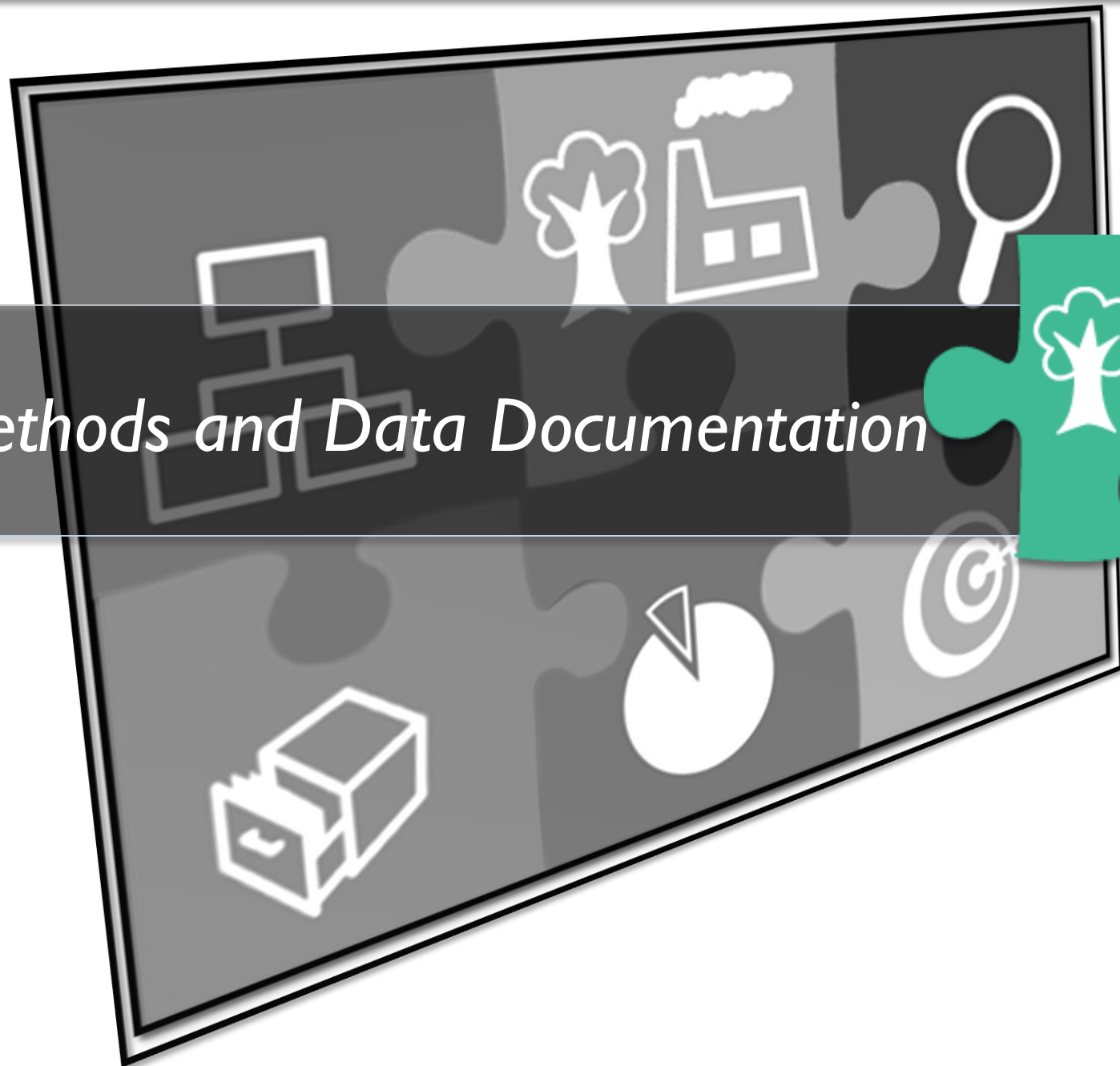
- Potential improvement** Table 2.5 instructions: Taking key categories and existing institutional arrangements within each sector into account, describe potential ways to enhance those institutional arrangements. Consider whether any important tasks for inventory preparation have not been assigned or delegated, and determine whether they could be. Also consider whether the Memorandum of Cooperation (MoC) supporting template from EPA's Toolkit may help improve the institutional arrangements for each sector. Where you decide it may be helpful, record this decision as a needed step in this column.

**Table 2.5: Potential improvements in management structure of national GHG inventory system**

Sector	Potential improvement	Staff in charge of leading this improvement	Priority of improvement (Low, Medium, High)
Energy (stationary sources)			
Energy (mobile sources)			
Energy (fugitive sources)			
IPPU			
Agriculture			
Forestry and Other Land Use			
Waste			
Other <i>(Optional)</i>			



*Methods and Data Documentation*





### In the **Methods and Data Documentation (MDD)** template:

- Document source/sink category information
- Identify method choice and provide descriptions
- List activity data and emission factors
- List uncertainty estimates (optional)
- Include future improvements

### **Help the inventory team:**

- Assist inventory teams in documenting, reporting and archiving methodologies, datasets, and assumptions
- Easily reproduce and review estimates
- Increase transparency
- Respond to inquiries
- Supplement national inventory report itself (e.g. national inventory report submitted with Biennial Update Report, National Communications





## •Step 1: Complete Tables 3-1 through 3-4, for each Inventory category

Category 1: Agriculture, Forestry and Other Land Use: 3.A.1 Enteric Fermentation

**Table 3-1. General information**

Key category in the previous GHG inventory: <i>Record Yes or No</i>	
--	--

**Table 3-2. Methodology**

Greenhouse gas: <i>Record</i>			
Type of Activity data: <i>Equatic Present equatic First or Assum</i>			<i>several Example: rameters.</i>
Reporting unit: <i>This should be the unit in which the data are reported for estimating emissions/removals. Example: metric tons.</i>			
Appropriateness to national circumstances: <i>State how these specific activity data were chosen. Example: The National Cement Association compiles production data from all of its members.</i>			
Time series covered: <i>Record the years for which the activity data are available. Example: 2001-2013</i>			

**Table 3-3. Activity data general information, values, and QA/QC**

Reference (if applicable): <i>List the the 20C Annual Repo</i>			
Type of EF/SCF: <i>Record a descriptive title for the EF/SCF.</i>			
Reporting unit: <i>This should be the unit in which the EF/SCF is reported for estimating emissions/removals.</i>			
Appropriateness to national circumstances: <i>State how this specific EF/SCF was chosen.</i>			
Time series covered: <i>Record the years for which the EF/SCF is available.</i>			
Reference (if applicable): <i>If the EF/SCF is from a publication, record the full reference.</i>			
Date of provision: <i>Record the date of receipt of the EF/SCF.</i>			
Source of EF/SCF: <i>Record the source of the EF/SCF, e.g., the institution and department that provided it.</i>			
Contact details: <i>Record the name, email address, and phone number of the contact person at the entity which provided the EF/SCF.</i>			
Coverage: <i>State whether the association claims to cover all clinker production at the national level.</i>			
Adjustments applied to activity data: <i>Explain any adjustments applied to the original activity data received from the data source to make it usable for the calculation, e.g., unit conversion or gap-filling. Example: The data were provided in kg and recalculated to t.</i>			



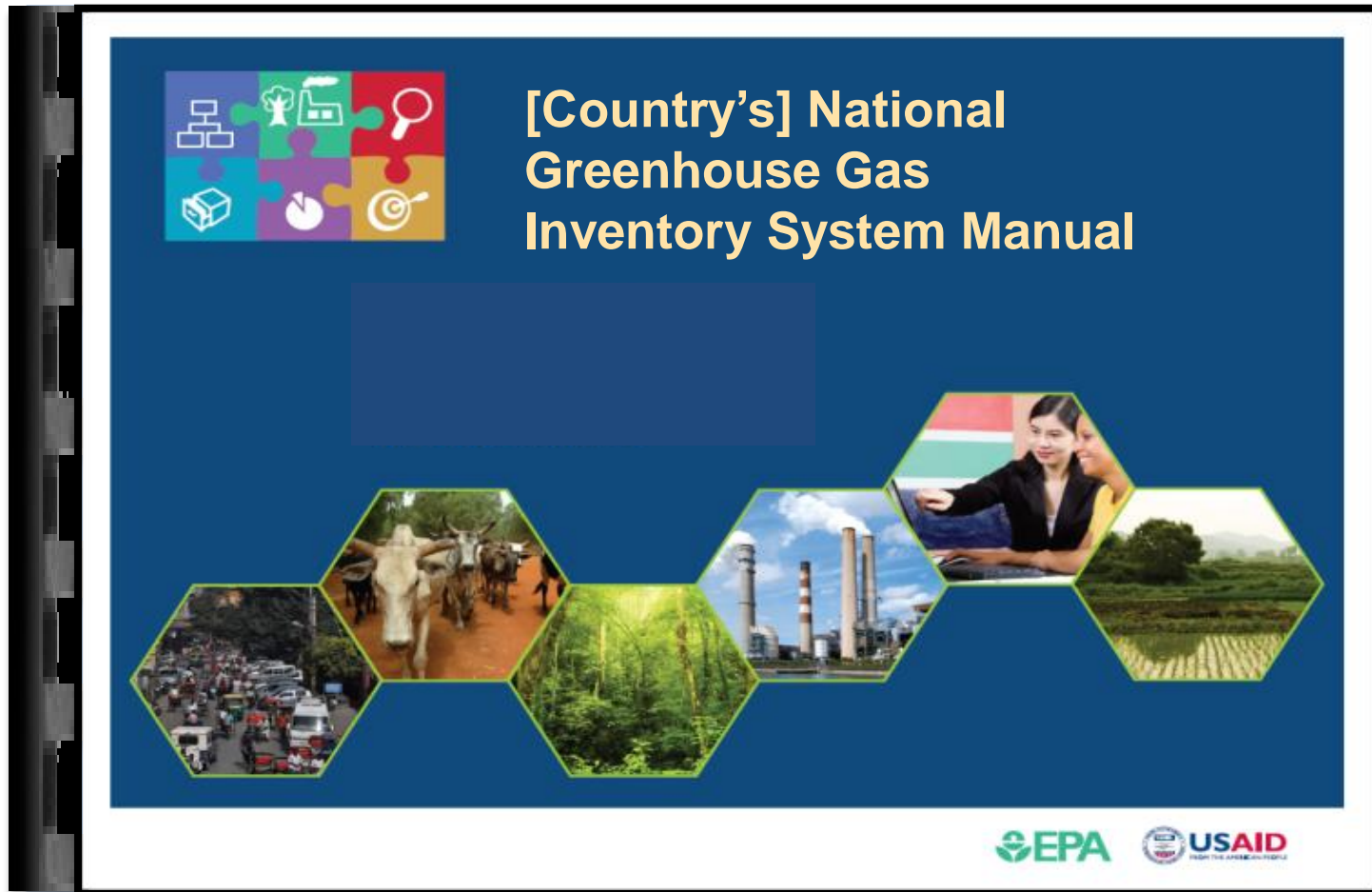
- **Step 2:** Complete Table 3-5 to document improvement options for methodologies and data.

Table 3-5 below provides a list of suggested improvements on a category-by-category basis. These improvements will be incorporated into the national inventory improvement plan (see Template 7).

**Table 3-5. Improvement options related to methodologies and data**

Improvement No.	Category sector <i>Example: Energy, AFOLU, IPPU, or Waste</i>	Category code and name <i>Example: 1A3Bi Cars</i>	Key category in the <u>previous</u> GHG inventory: <i>Record Yes or No</i>	Relevant GHG inventory principle <i>Example: Transparency, Accuracy, Completeness, Consistency, or Comparability</i>	Potential Improvement <i>Record in detail what the improvement entails, i.e. what will be changed and what impact this will have. Example: Replace proxy activity data (projected clinker production) with actual time series activity data collected from a recently completed industrial sector survey covering years 2012-2018.</i>
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

# Completed templates can be compiled into a **National Inventory System Manual**





- **The inventory management template approach provides a foundation for establishing a national **GHG** inventory system**
  - Great organization, management tool, but effort required
  - Does not solve all problems, but helps continuity
  - Create transparency, consistency, and comparability
  - Helps create “institutional memory”
  - Reduces future costs/effort
  - Apply at national or sub-national level

# Thank You For Your Attention!

Contact Us:  
[ghgi.transparency@epa.gov](mailto:ghgi.transparency@epa.gov)