

Developing an Archiving System



Africa Regional Workshop on the Building of Sustainable National Greenhouse Gas Inventory Management Systems, and the Use of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Maseru, Lesotho
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Question:

In the process of preparing your inventory, has it been difficult to:

- find documentation on how things were done for the previous inventory?*
- track down sources of activity data and emission factors?*
- find previous electronic files?*



- 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**





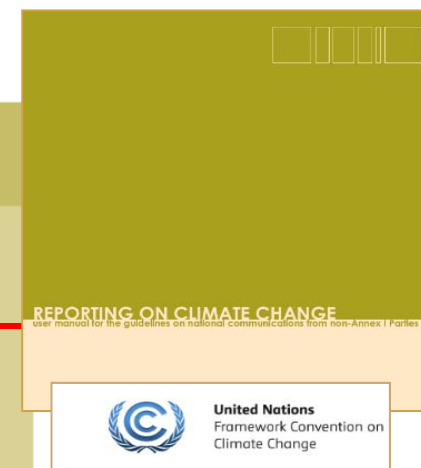
National GHG Inventories – Section B. Reporting

Institutional arrangements

Paragraph 13: Non-Annex I Parties are encouraged to describe procedures and arrangements undertaken to collect and archive data for the preparation of national GHG inventories, as well as efforts to make this a continuous process, including information on the role of the institutions involved.

Synthesis

Parties are welcome to provide information about the procedures and arrangements (e.g. institutional) established in order to sustain the process of data collection and archiving. This is intended to help make inventory preparation a continuous process.



The Six Templates of the Template Workbook

Institutional Arrangements



Methods and Data Documentation



Description of QA/QC Procedures



Description of Archiving System



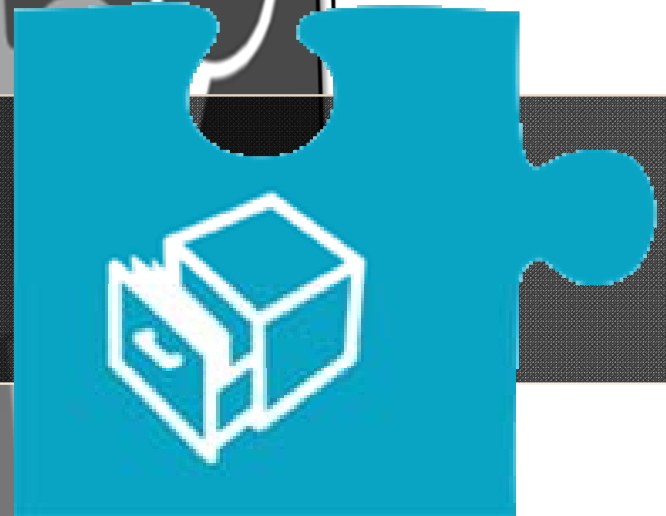
Key Category Analysis



National Inventory Improvement Plan



Archiving System





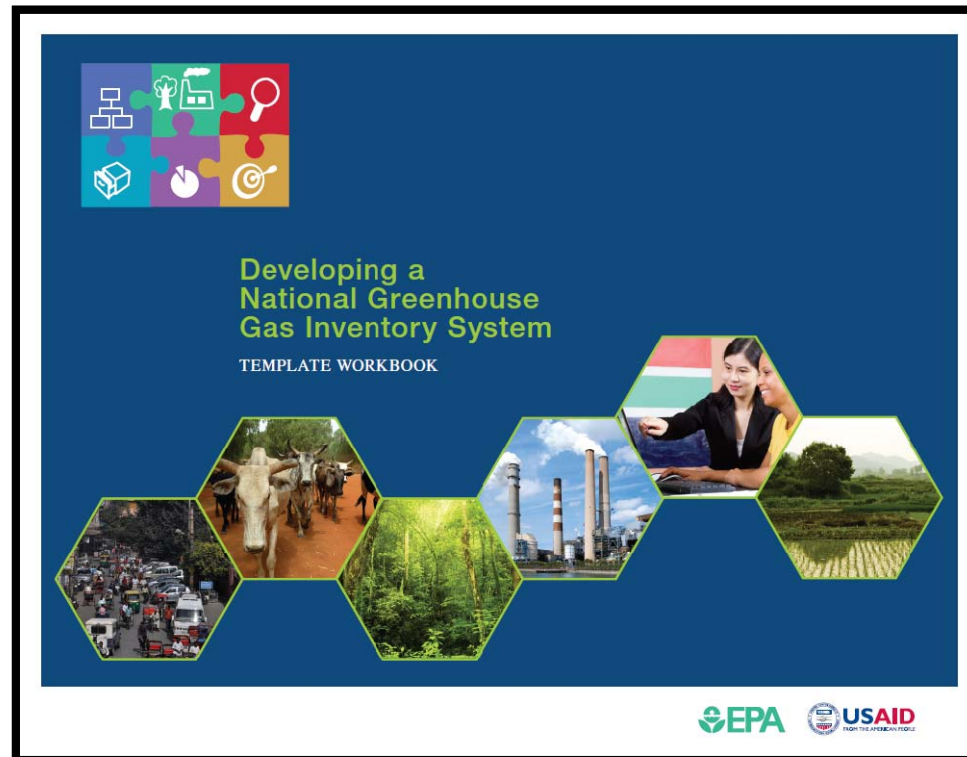
An archive will help the inventory team:

- Access previous records
- Easily reproduce estimates
- Ensure credibility
- Respond to government, expert, or public inquiry
- More easily review estimates
- Safeguard against loss of information

An archive:

- Need not be expensive or complicated.
- Can be electronic and/or hard copy





Overall Trend

Year	Current Year Emissions (kt CO ₂ eq/yr)	Current Year Emissions (kt CO ₂ eq/yr)	Contribution to Overall Trend	Cumulative Contribution to Overall Trend
2015	100	100	25%	25%
2016	120	120	24%	49%
2017	150	150	26%	75%
2018	180	180	27%	102%
2019	200	200	28%	130%
2020	220	220	29%	159%
2021	240	240	30%	189%
2022	260	260	31%	220%
2023	280	280	32%	252%
2024	300	300	33%	285%
2025	320	320	34%	319%
2026	340	340	35%	354%
2027	360	360	36%	390%
2028	380	380	37%	427%
2029	400	400	38%	465%
2030	420	420	39%	504%
2031	440	440	40%	544%
2032	460	460	41%	585%
2033	480	480	42%	627%
2034	500	500	43%	670%
2035	520	520	44%	714%
2036	540	540	45%	759%
2037	560	560	46%	805%
2038	580	580	47%	852%
2039	600	600	48%	900%
2040	620	620	49%	949%
2041	640	640	50%	1000%
2042	660	660	51%	1052%
2043	680	680	52%	1106%
2044	700	700	53%	1161%
2045	720	720	54%	1218%
2046	740	740	55%	1276%
2047	760	760	56%	1336%
2048	780	780	57%	1397%
2049	800	800	58%	1460%
2050	820	820	59%	1525%
2051	840	840	60%	1592%
2052	860	860	61%	1661%
2053	880	880	62%	1732%
2054	900	900	63%	1805%
2055	920	920	64%	1880%
2056	940	940	65%	1957%
2057	960	960	66%	2036%
2058	980	980	67%	2117%
2059	1000	1000	68%	2200%
2060	1020	1020	69%	2285%
2061	1040	1040	70%	2372%
2062	1060	1060	71%	2461%
2063	1080	1080	72%	2552%
2064	1100	1100	73%	2645%
2065	1120	1120	74%	2740%
2066	1140	1140	75%	2837%
2067	1160	1160	76%	2936%
2068	1180	1180	77%	3037%
2069	1200	1200	78%	3140%
2070	1220	1220	79%	3245%
2071	1240	1240	80%	3352%
2072	1260	1260	81%	3461%
2073	1280	1280	82%	3572%
2074	1300	1300	83%	3685%
2075	1320	1320	84%	3800%
2076	1340	1340	85%	3917%
2077	1360	1360	86%	4036%
2078	1380	1380	87%	4157%
2079	1400	1400	88%	4280%
2080	1420	1420	89%	4405%
2081	1440	1440	90%	4532%
2082	1460	1460	91%	4661%
2083	1480	1480	92%	4792%
2084	1500	1500	93%	4925%
2085	1520	1520	94%	5060%
2086	1540	1540	95%	5197%
2087	1560	1560	96%	5336%
2088	1580	1580	97%	5477%
2089	1600	1600	98%	5620%
2090	1620	1620	99%	5765%
2091	1640	1640	100%	5912%
2092	1660	1660	101%	6061%
2093	1680	1680	102%	6212%
2094	1700	1700	103%	6365%
2095	1720	1720	104%	6520%
2096	1740	1740	105%	6677%
2097	1760	1760	106%	6836%
2098	1780	1780	107%	6997%
2099	1800	1800	108%	7160%
2100	1820	1820	109%	7325%

ATTACHMENT 1

Source Category Estimate | Total Contribution to Overall Trend

Use a line to help to address critical questions for reporting national level contribution to the overall level of national emissions. Key issues for this trend of emissions over time:

Key to consider more accurate methodologies, develop country specific data all require additional resources, and it is not possible to make the analysis as up provide a quantitative tool for the national greenhouse

Overall Trend

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- Based on inventory systems developed in concert with other countries
- Each template becomes a chapter of the National Inventory System Report
- Each template provides documentation of critical building blocks





The archiving template will assist countries:

- Assess past archiving system
- Guidance to develop an archiving system (e.g. procedures)
- Establish roles/responsibilities /procedures consistent with inventory schedule
- Future improvements



Applying and completing the template will help the inventory team:

- Access previous records
- Easily reproduce and review estimates
- Ensure credibility
- Respond to inquiries
- Safeguard against loss of data/information





- List and Copies of References
- Expert Judgment
 - (Documentation, Contact Information)
- Key Category Analysis
- Uncertainty Analysis
- QA/QC Measures
- Changes and Recalculations
- Improvement Plan
- Archiving Plan
- Review Findings and Responses
- Templates for Future Work
- Results, Analyses, Plans, Measures

✓ **For EACH Submission**



Archive All Materials for Each Inventory for Easy Retrieval



Process Descriptions

How to prepare the inventory, meeting materials, instructions for those to follow in your footsteps



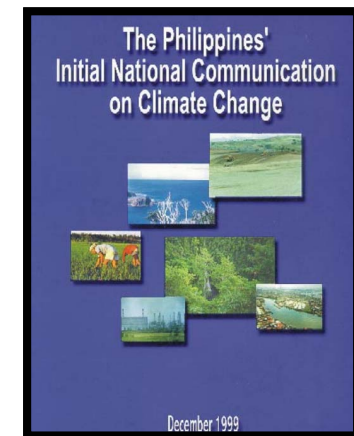
Activity Data

Sources of information, contact persons, other contact information



Methods and Emission Factors

Sources/references, reasoning for methodological choice, spreadsheets, models, instructions



Final inventory products

National Communication, National Inventory Report, other materials submitted to the UNFCCC



Template 4: Description of Archiving System



Subtask	Date Due	Task Completed	
		Initials	Date
Compile electronic versions of final versions of inventory document.			
Collect copies of expert review comment response documents from each category lead.			
Collect copies of public review comment response documents from each category lead.			
Catalogue all documents using a unique tracking number and index.			
Collect completed Institutional Arrangements and Methods and Data Documentation templates.			
Compile electronic versions of Key Category analyses. (Some files will be duplicated from the previous subtask.)			
Compile electronic versions of QA/QC checklists.			
Save all electronic files on archive CD-ROM.			
Ensure all hard copy materials are present in official archive by reviewing contents against index.			
Ensure all necessary electronic files are contained on CD-ROM and ensure that it is placed with other official archive materials.			
Distribute electronic files at start of next inventory update.			
<i>[List additional tasks]</i>			
Category Lead			
Send electronic versions of spreadsheets used to estimate net emissions to Inventory Coordinator (using naming convention).			
Send final text documents for sector or category to Inventory Coordinator.			
Send Methods and Data Documentation reports for category.			
Create index of draft documents and files for electronic and hard copy storage.			
Create index of final documents and files for electronic and hard copy storage.			
Compile and send electronic versions of any Key Category analyses and documents to Inventory Coordinator (add "key" to naming convention).			
Send summary or list of QA/QC steps and corrective actions (by category) to Inventory Coordinator.			
Save all final electronic files on archive CD-ROM. Label as "FINAL" with name of category/sector, date, and contact information, and send copy to Inventory Coordinator.			





1. Naming Conventions:



Biomass_2000_23_05_2001.xls

IPCC
Category
Name

Inventory
Year

Date the
File was
Modified



2. Organization:

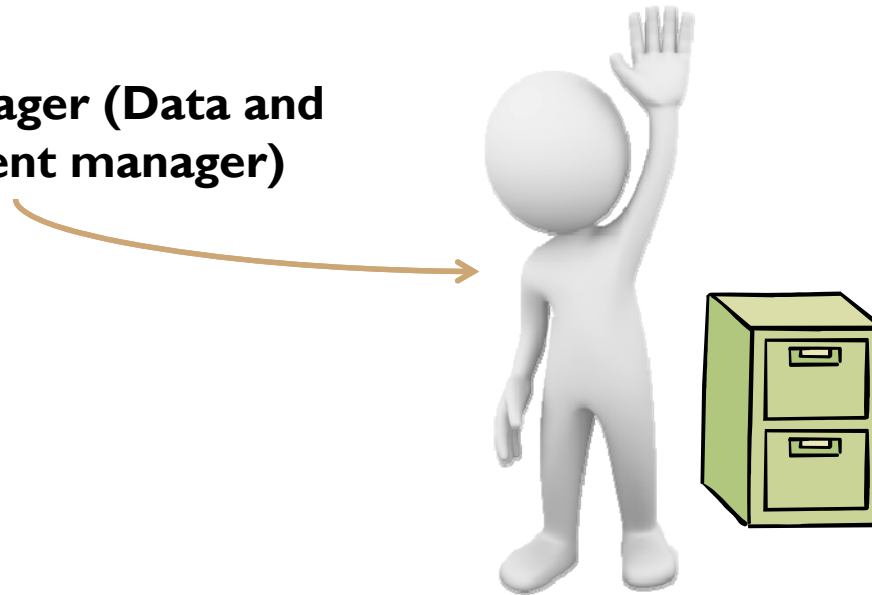


Agriculture Sector
Spreadsheets

Agriculture Folder



Archive manager (Data and Document manager)



- Designate an Archive Coordinator
- Source Lead responsibilities should be communicated in the kickoff memo so each source has a point person

Document Retention	Comment/Response	Data Retention
References, Publications	Comments from Public Review	Calculations, Spreadsheets





- Information should be stored in a single location.
- Both electronic and paper storage.
- Include all emission factors, activity data, and documentation of how these factors and data have been generated and used (e.g., MDD template).
- Documentation of QA/QC procedures, reviews, key categories, and planned inventory improvements (e.g. use QA/QC template)
- Multiple copies, just in case!

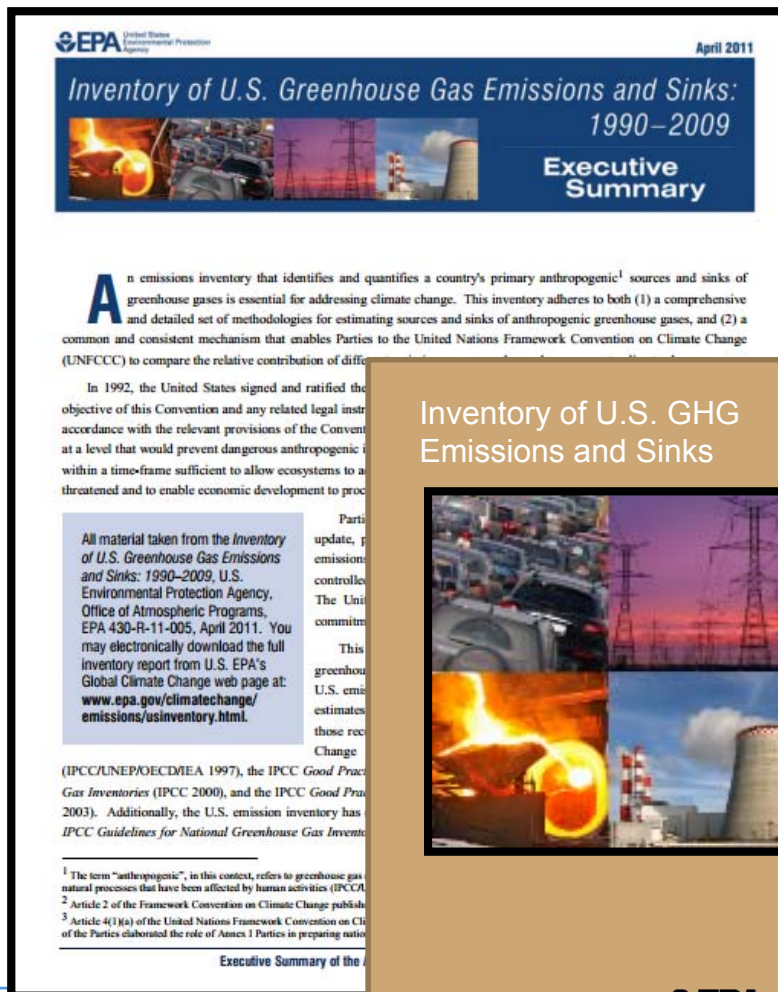




Archive of the Published Inventory Book

The Annual U.S. GHG Inventory book is formatted and printed in color

Copies are stored in the National Service Center for Environmental Publications (NSCEP) warehouse in Cincinnati, OH





Docket of Source Materials



Hard Copy System

Each reference used in the GHG Inventory is printed and placed in the docket and **Tracking numbers** are assigned to each component of the docket

Electronic System

Each reference used in GHG Inventory is either scanned or converted to Adobe PDF and placed in an electronic docket



You need both!



Archiving Various Types of Source Materials

Books, Databases or Large Reports:

1. Print and scan cover/title page
2. Print and scan relevant pages of the book/report or screenshots of the database showing the actual source data

Small Reports, Websites, Spreadsheets:

1. Print and scan entire report, full website, or spreadsheet ensuring all source data is included

Personal Communications/Interviews with Experts:

1. Create a log listing the expert, interview date, mode of communication (email, in person interview, phone), and the experts contact information
2. Include as much detail as possible from the expert source, including all source data
3. Print and scan the log





Each New Inventory Has its Own Archive CD

The screenshot shows a Windows XP file explorer window titled "1990-2005 Inventory Archive CD". The address bar shows the path "D:\1990-2005 Inventory Archive CD". The left sidebar shows a tree view with folders: "documents", "spreadsheets", "Uncertainty 05", "Memo-05BY Inventory Guidelines Final", and "US CRF Tables and Reporter Database 1990-2005".

Two windows are open to show the contents of these folders:

- documents window:** Shows a list of folders: "Expert Review Draft", "Final Delivered to UNFCCC", "post-final minor edited versions", and "Public Review Draft".
- spreadsheets window:** Shows a list of folders and files: "Ag", "Energy", "IP", "key category", "LULUCF", "Solvents", "trends", "Waste", "Recalcs 1990-2005_v4", "SUMMARY 05_14", "SUMMARY 05_24", "SUMMARY 05_26", "SUMMARY 05_27", and "SUMMARY Comparison1-25".

At the bottom left of the slide, there is an illustration of three overlapping CD-ROMs.



National Inventory Schedule





Question:

After hearing Archiving described, what systems do you have?

How does your current archiving system handle:

- *Data retention?*
- *Document retention?*
- *Storage mechanisms?*

Do you have lessons learned from past experiences?

What could be improved and what systems might work best for your country?

Thank you !



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