

**WORKSHOP ON 3E NEXUS AND DEVELOPMENT OF JCM PROJECTS TOWARD
A SUSTAINABLE LOW-CARBON SOCIETY IN MONGOLIA**

23 February 2016, Ulaanbaatar Hotel

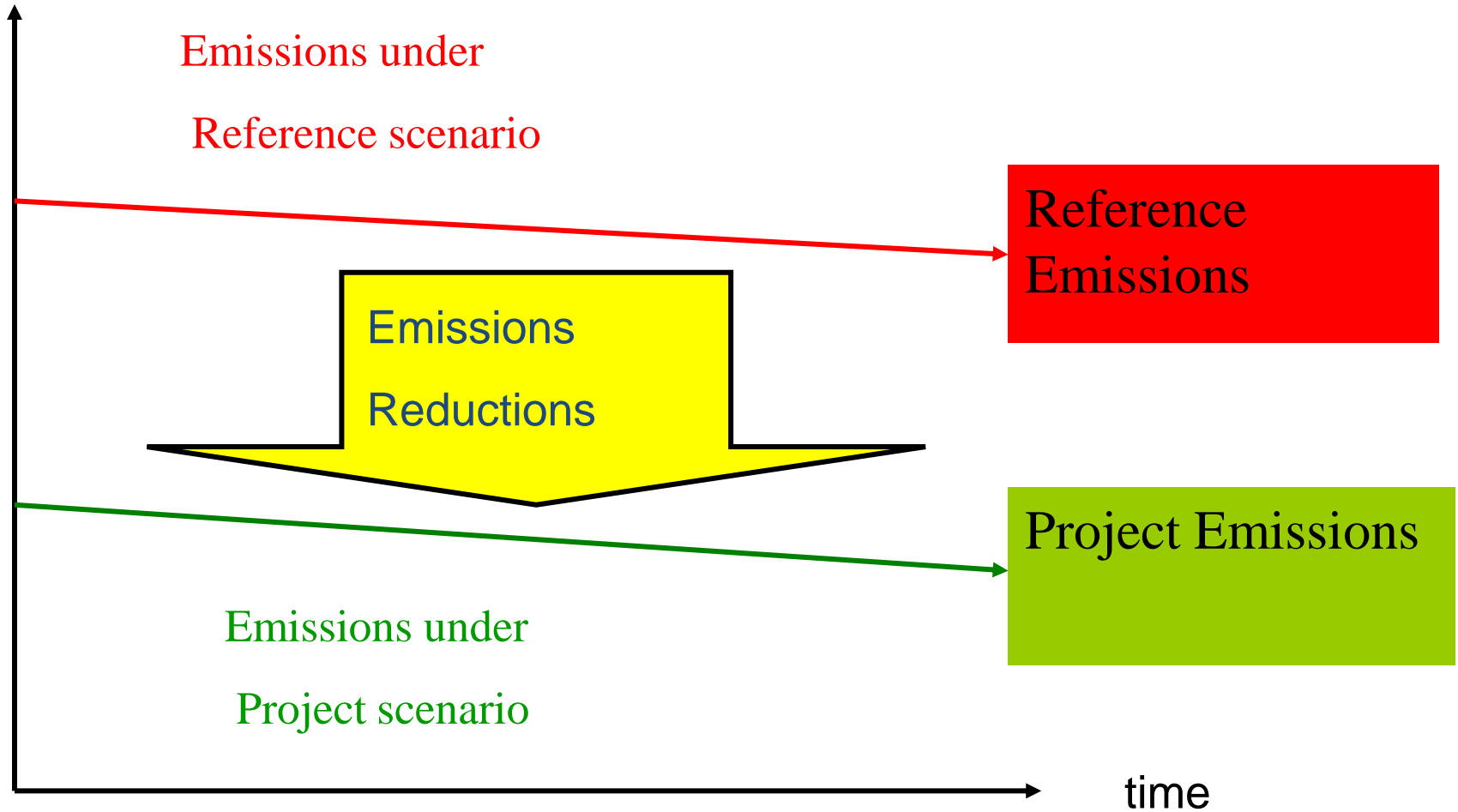
**Introduction on MRV
requirements of JCM Projects
and GHG inventory of Mongolia**

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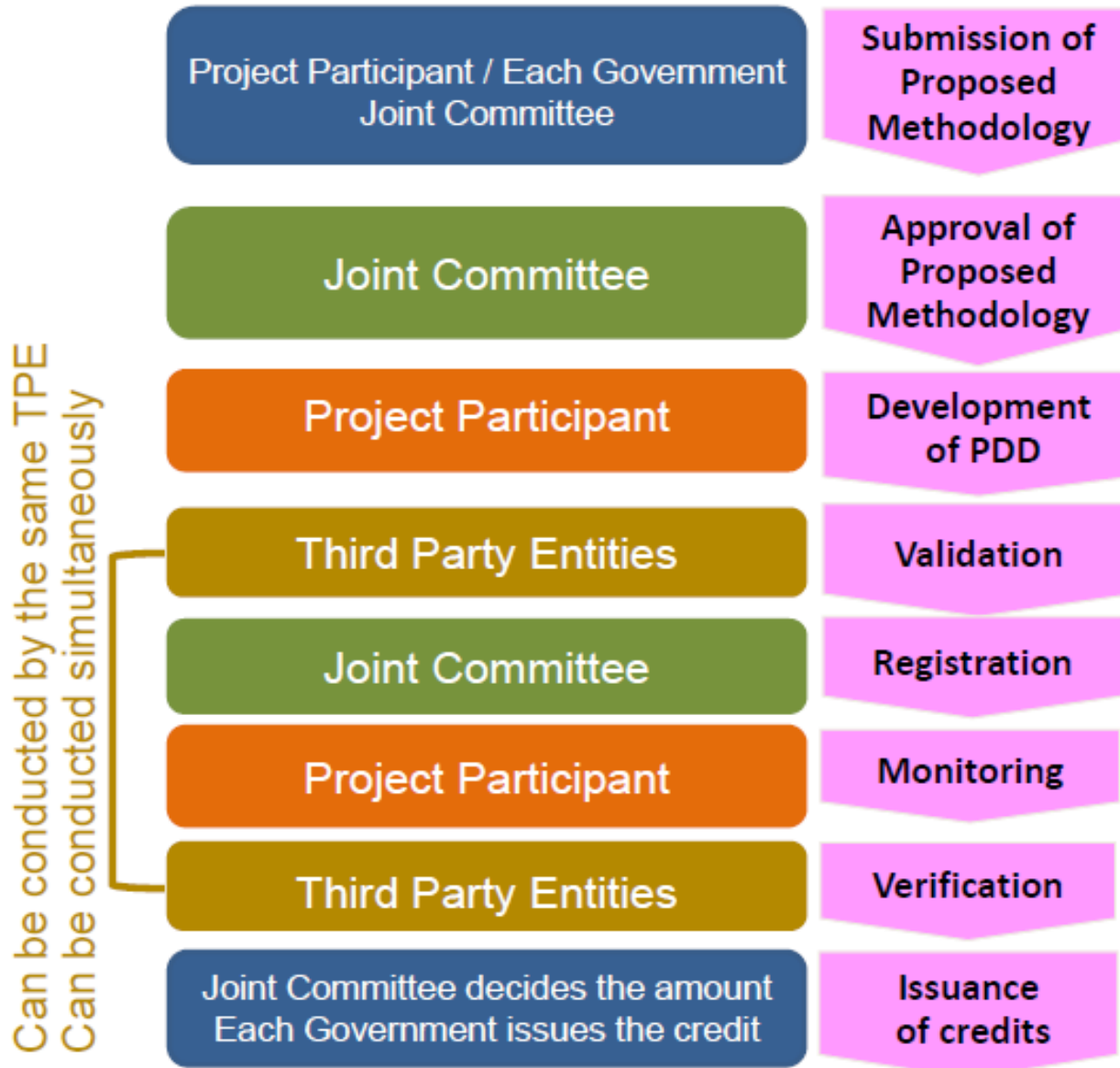
**Climate Change Project Implementing Unit,
Nature Conservation Fund of Ministry of Environment,
Green Development and Tourism of Mongolia**

PART 1. MRV requirements of JCM projects

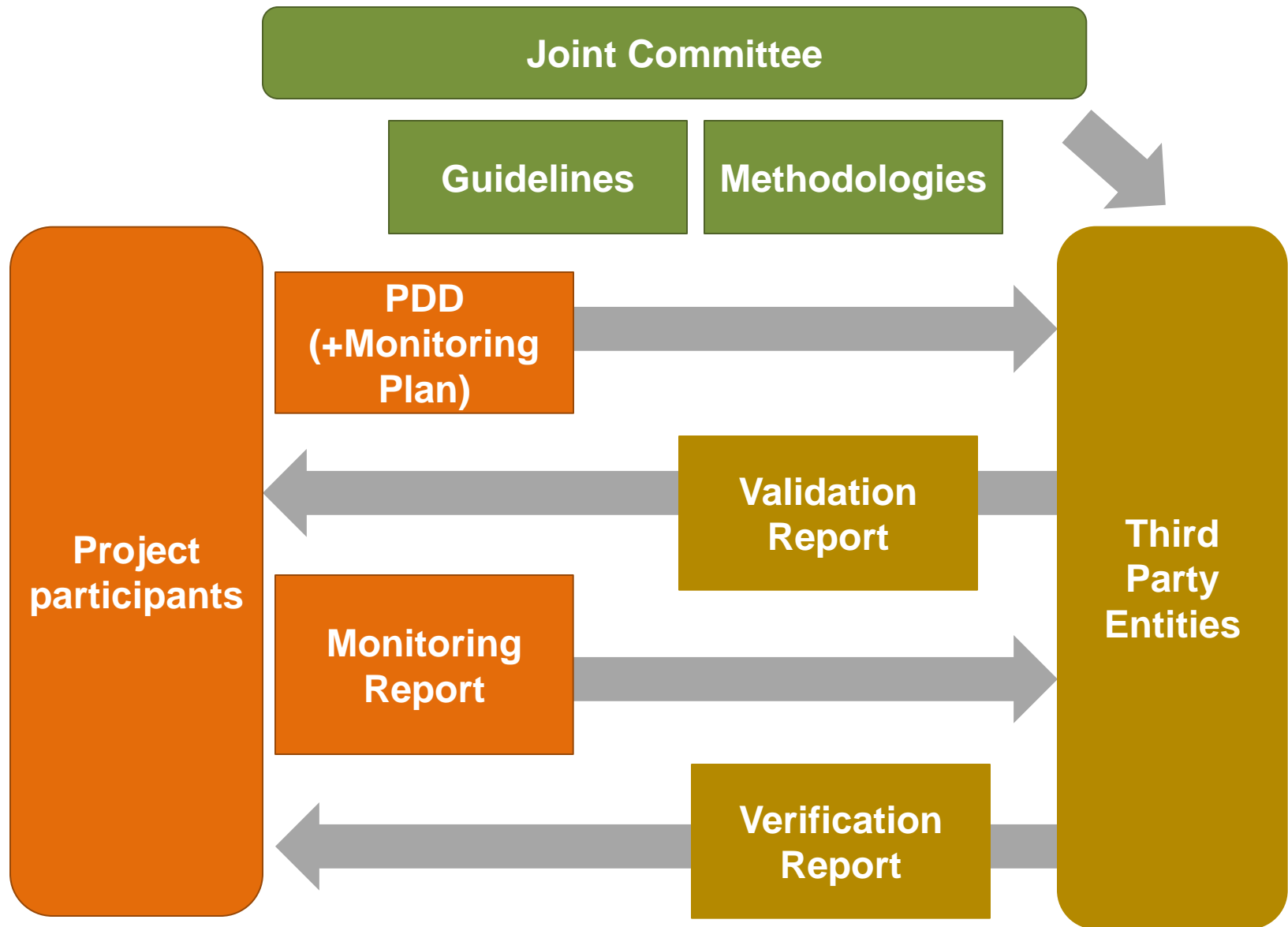
Reference Emissions and Project Emissions



Governance Scheme and Project Cycle of the JCM



General MRV scheme of the JCM



Concept of JCM MRV

M
(Monitoring)

- —Concept of MRV—
Creating M with considering V

PP: Establish the monitoring plan

Verifier: Assessment of the monitoring plan

Approval of the monitoring plan

R
(Reporting)

V
(Verification)

PP: Monitoring and preparation of Monitoring Report

Verifier: Verify whether comply with the monitoring plan or not

Monitoring Plan (Most Important)

Documents for PPs

Documents for Verification Entity



Monitoring Plan	
Section XX Data and parameters to be monitored	
Parameter No.1	
Parameters	EGy
Description of data	Net electricity supplied to the grid
Estimated Values	10,000
Units	MWh/y
Monitoring Pattern	pattern B
Source of data	Sales and Purchase Invoices
Measurement methods	Invoices issued by the grid company
Monitoring Frequency (Monitoring, Reading, Recording frequency)	Monitoring: - Reading: Once a month Recording: Once a month
QA/QC Procedures	PP checks the data from invoices with the data monitored by backup meters. The conservative amount after the cross-check is to be used for the calculation of ERs. The backup meters are to be verified at least every three years in accordance with the national regulation.
Other Comments	NA

Monitoring Report	
Section XX Data and parameters to be monitored	
Parameter No.1	
Parameters	EGy
Description of data	Net electricity supplied to the grid
Monitored Values	9,800
Units	MWh/y
Monitoring Pattern	pattern B
Source of data	Sales and Purchase Invoices
Measurement methods	Invoices issued by the grid company
Monitoring Frequency (Monitoring, Reading, Recording frequency)	Monitoring: - Reading: Once a month Recording: Once a month
QA/QC Procedures	PP checks the data from invoices with the data monitored by backup meters. The conservative amount after the cross-check is to be used for the calculation of ERs. The backup meters are to be verified at least every three years in accordance with the national regulation.
Other Comments	NA
	<input type="checkbox"/> No changes <input type="checkbox"/> Changes occurred (If changes occurred, summarize the fact and reason)

Verification Report	
Section XX Data and parameters to be monitored	
Parameter No.1	
Check if the information such as "Parameters", "Description of data", "Units" in the registered monitoring plan is correctly applied in the monitoring report.	<input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason)
Check if "Monitored Values" are correct.	<input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason)
Check if "Monitoring Pattern" and "Source of data" are in line with the registered monitoring plan.	<input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason)
Check if "Measurement methods and procedures" is in line with the registered monitoring plan and explain how the entity verified it.	<input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason) - how the team verified <input type="checkbox"/> DR (evidences/measures) <input type="checkbox"/> SV (evidences/measures) <input type="checkbox"/> Others (evidences/measures)
Check if "Monitoring Frequency (Monitoring, Reading, Recording frequency)" is in line with the registered monitoring plan.	- Monitoring frequency: <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason) - Reading frequency: <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason) - Recording frequency: <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason)
Check if "QA/QC Procedures" was implemented as per the registered monitoring plan and explain how the entity verified it.	(For each QA/QC procedure) <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, summarize the fact and reason) - how the team verified <input type="checkbox"/> DR (evidences/measures) <input type="checkbox"/> SV (evidences/measures) <input type="checkbox"/> Others (evidences/measures)
Check if there are any changes from the registered monitoring plan such as calibration delay. If the entity identifies the changes, describe how the changes have been treated.	<input type="checkbox"/> No changes <input type="checkbox"/> Changes occurred (If changes occurred, summarize the fact and reason) - If changes were identified, how the team treated them. () <input type="checkbox"/> As per BOCM manual (describe the

Monitoring Plan

Monitoring Report

Verification Report

The Monitoring Plan taken into account of the Verification is most important.

Abstract of ISO14064-series& 14065&ISO14066

•ISO 14064-3

* Specification with guidance for the validation and verification of GHG assertions

•ISO 14064-1

* Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

•ISO 14064-2

* Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements

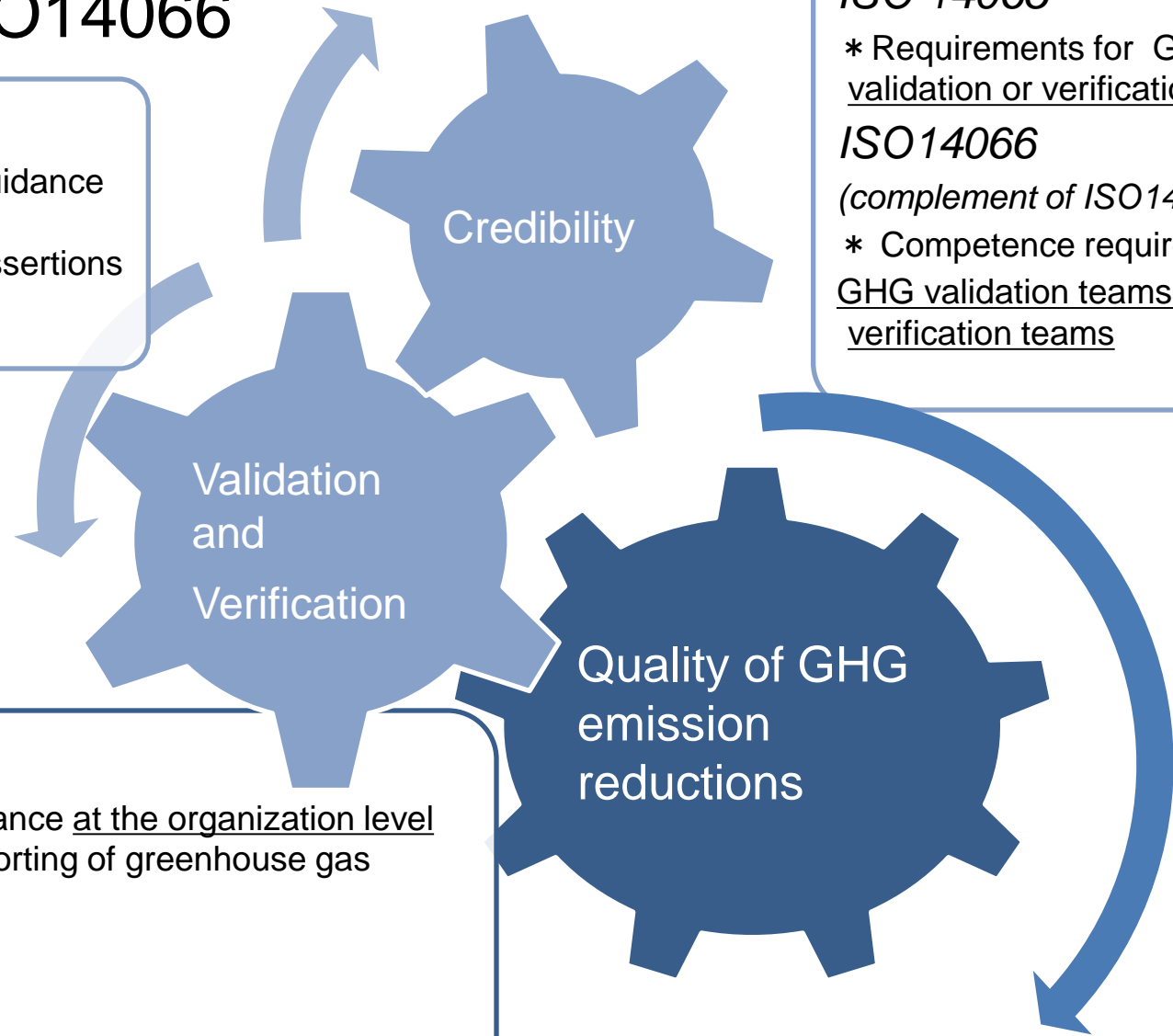
ISO 14065

* Requirements for GHG validation or verification bodies

ISO14066

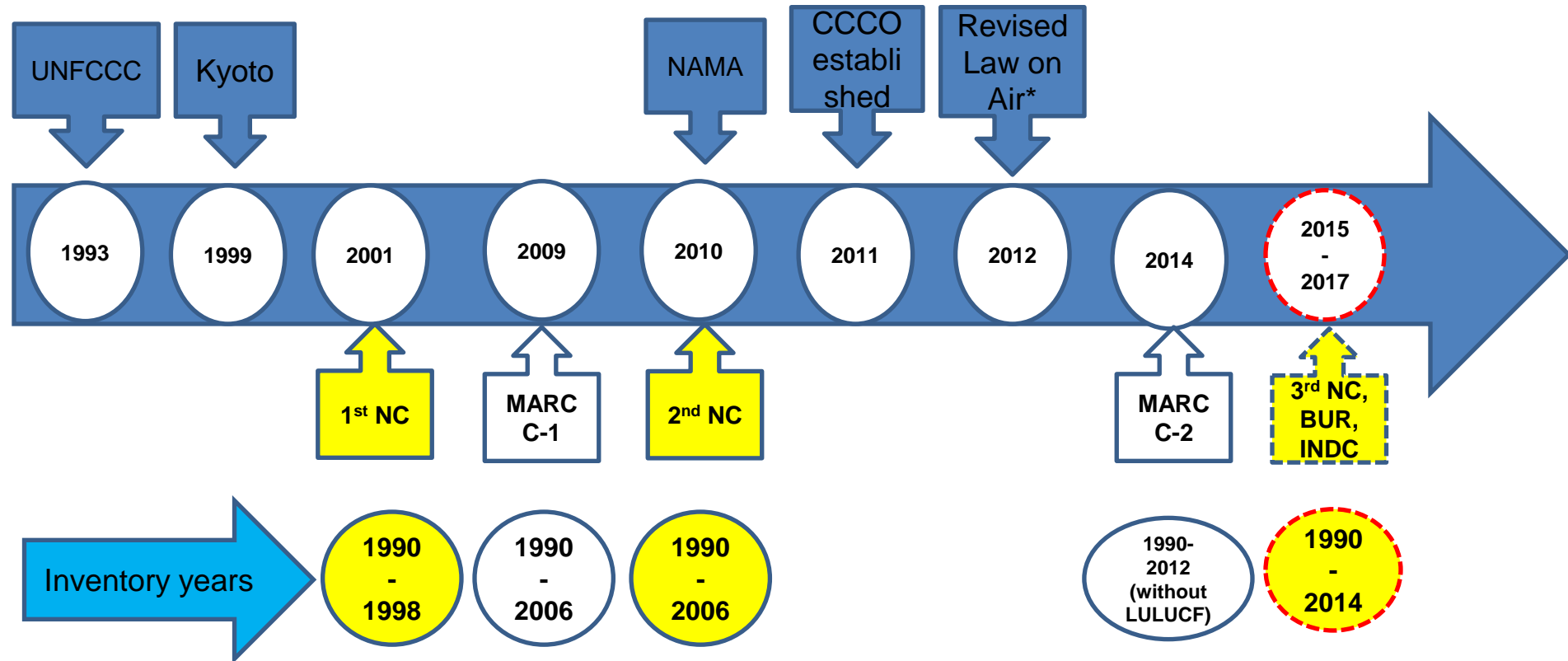
(*complement of ISO14065*)

* Competence requirements for GHG validation teams and verification teams



PART 2. GHG Inventory of Mongolia

Key events of Mongolian Climate Change Policy

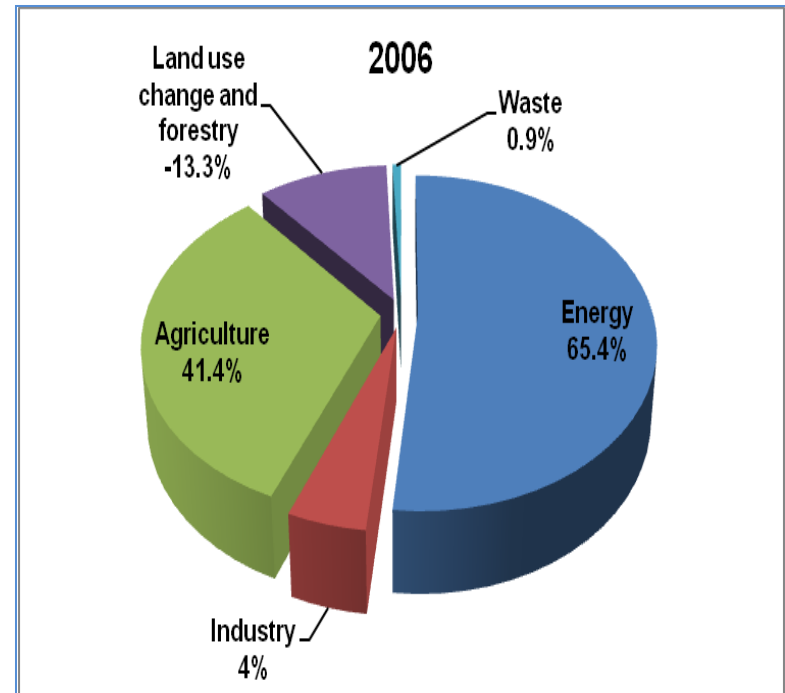
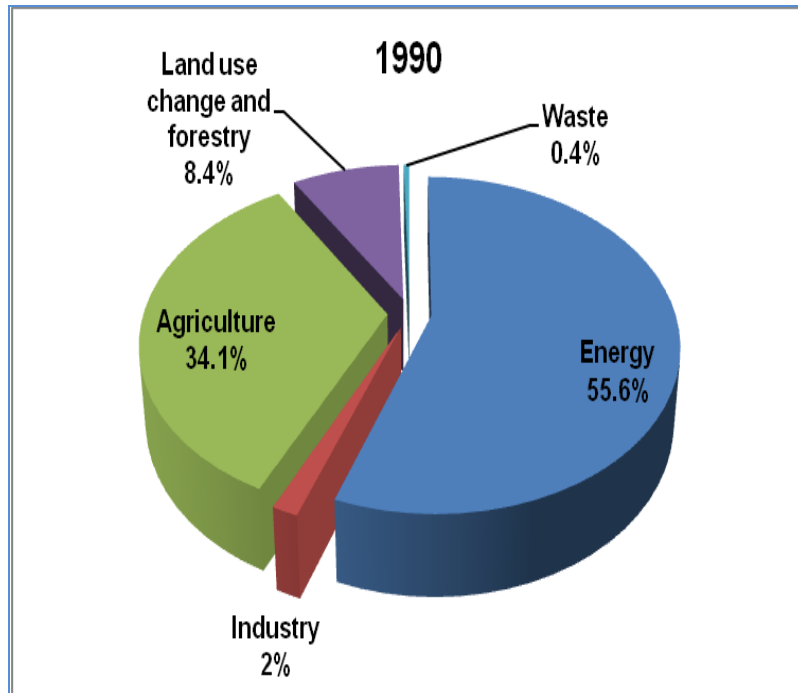


□ The Mongolian Law on Air (revised vers. 2012), Chapter 4, Article 24:

“...24.2. The task force shall run greenhouse gas inventories and uptakes at the national level in accordance with the methodology approved by Conference of the Convention Parties.”

CCCO – climate change coordination unit
 MARCC – Mongolia: Assessment Report on Climate Change
 NC – National communication

Percentage of GHG emissions by sectors in 1990 and 2006



- Energy sector (including stationary energy, transport and fugitive emissions) the largest source of GHG emissions.
- Agriculture sector (mostly livestock) is the second large source of GHG emissions.

Ways forward

- ✓ Discuss, agree and sign MOU with the institutions detailing roles and mandates for full participation in the inventory process
- ✓ Institutionalize arrangements for continuous and sustainable inventory system
- ✓ Collaborate in the training of individual experts and institutions to ensure sustainability of the National Inventory System
- ✓ Coordinate the necessary activities for the update of National Emission Factors for key source categories updated
- ✓ Develop QA/QC plan including framework for implementation and progressive improvements. The implementation of the QA/QC plan will be done both at the level of the inventory and the sectors
- ✓ Upgrade of start-up data management design infrastructure, software and operations, coupled with web-based access and capabilities upgraded

THANK YOU VERY MUCH
FOR YOUR KIND ATTENTION

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