



MRV in the transport sector



Jane Romero
Climate Change Group
IGES



OUTLINE

- overview
- objective
- how to MRV transport NAMAS
 - lessons from CDM
 - data requirements
- way forward



OVERVIEW

- transport sector emits about 13% of global but share of transport CDM projects is less than 1% of expected total CERs until 2012
- 26 out of 44 (64%) submissions included activities in the transport sector

Nature of NAMA proposals	Number
Full sector strategy	-
Sub-sector strategy	6
Policies	17
Program of activities	-
Single projects	9
Unspecified	8

OBJECTIVE

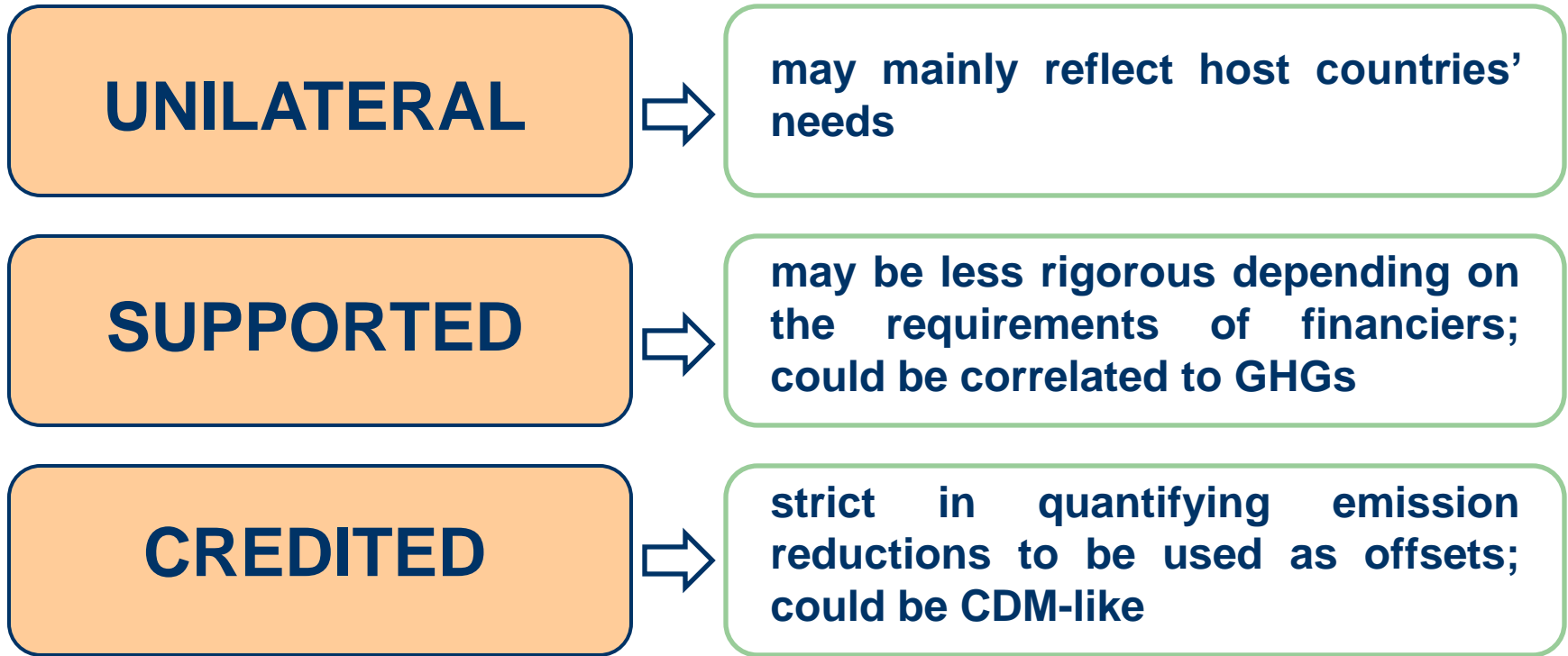
To develop a simplified yet robust and practically applicable MRV methodologies for transport NAMAs / transport activities in new market mechanisms in a post-2012 framework

- no guidance yet from UNFCCC
- explore existing methodologies that may be appropriate to the MRV needs of different types of transport NAMAs

TRANSPORT NAMAs

Content of NAMA proposals	Number
Technology oriented	12
Systems management	4
Integrated land-use planning	4
Economic	3
Regulation / enforcement	6
Mass rapid transit	12
Non-motorised transport (NMTs)	2
Other road	4
Unspecified	1
Public campaigns	6
Additional unspecified activity	9
No details	6

Most likely scenario for MRV



Most likely scenario for MRV

UNILATERAL



no need for new methodologies

SUPPORTED



support is needed at the start;
ex-ante estimation allowed (e.g. using GEF's meth, JICA's, etc)

CREDITED



CDM-like to ensure environmental integrity of emission reductions to be used as offsets

Identified issues

- ❖ How to improve yet simplify existing CDM methodologies?
- ❖ What are the data collected by government agencies? Are those data sufficient enough for MRV requirements?
- ❖ How to transfer accumulated capacity based from CDM experiences of private project proponents to government agencies implementing transport NAMAs?

Differences between CDM and NAMAs

CDM	NAMA
Emission reductions used for Annex-1 country Kyoto compliance	Emission reduction account for NAMA country targets Exception for market based NAMA to be decided
Coordination via private or public sector	Coordination most likely by government body
Baseline and methodology monitoring via CDM	Baseline and MRV system not yet defined
Financed mechanisms through market	Market mechanism only an option
Defined by PDD and CDM methodology	Broad, sectoral approaches beyond CDM possible

Source: Adopted from Sekinger, 2011.

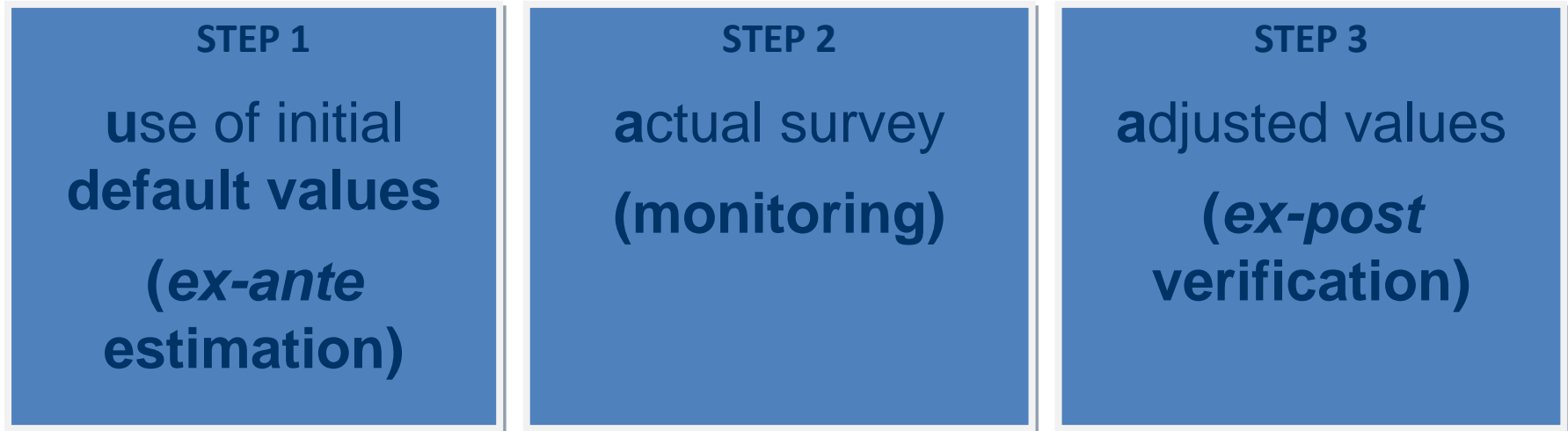
Approved CDM methodologies for transport

Category	Methodology	Purpose
Bus systems	AM0031, ACM0016	Shifting travel to more sustainable modes
Mass rapid transit systems	ACM0016, AMS-III.U	Shifting travel to more sustainable modes
Energy efficiency	AMS-III.AA, AMS-III.AP, AMS-III.C, AMS-III.AT	Improve the efficiency of modes
Fuel switch (bio-CNG)	AMS-III.AP	Improve the efficiency of modes
Fuel switch through retrofit	AMS-III.S	Improve the efficiency of modes
Transportation of cargo	AM0090	Shifting travel to more sustainable modes
Biofuel for transport	AM0047, ACM0017, AM0089, AMS-III.AK, AMS-III.T	Improve the efficiency of modes

Source: Adopted from “CDM in Charts v.14”, IGES 2011.

How to simplify CDM methodologies?

- use of default values
- benchmarking
 - adjustment of initial values after verification



- prioritize more capacity building
- strengthen data collection and management

CDM way of doing MRV

STEP 1

Baseline and project emissions are **measured** and **monitored** by project participant.

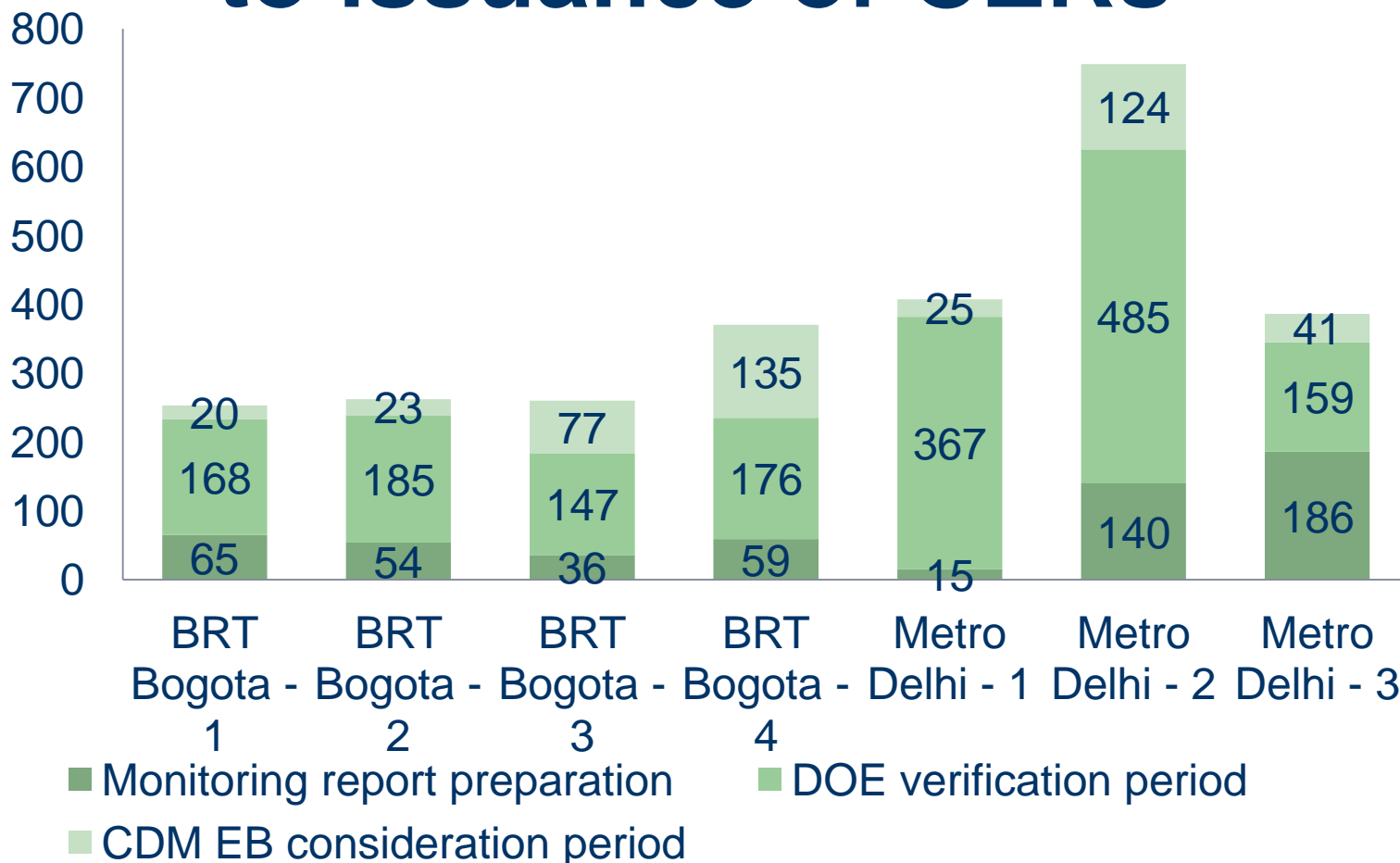
STEP 2

Collected and recorded data are **reported** to designated operational entity (DOE).

STEP 3

Data including procedures are **verified** as well as **certified** by the designated operational entity (DOE).

Number of days from monitoring to issuance of CERs



Source: IGES CDM Monitoring and Issuance Database, August 2011. Data on yearly basis per issuance of CERs.

Challenges in CDM

- Numerous parameters to be monitored which take a long time taken for the DOE/UNFCCC secretariat to verify and check their accuracy
- Monitoring method specified by the CDM methodology is not practical
- Lack of clear guidelines for MRV approaches such as in sampling sizes
- Lack of DOEs capable to do verification

Activities

- To develop simplified transport MRV methodologies
- To map out data gaps between data periodically collected by government agencies and data required to conduct MRV
- To develop tools complementing the transport MRV methodologies

Case studies

- Transport governance and data collection at different level
- Focus on road-based transport emissions in the city level in Beijing, Wuhan, Delhi and Ahmedabad

	National	Provincial	City
Transport Activity	•Who collects data?		
Modal structure	•Mandate and authority of emissions reporting and control?		
Energy intensity	•Action plan with target?		
Carbon content	•Other policies and measures?		

Survey on transport data requirements (Beijing, Wuhan, Delhi, Ahmedabad)

- general transport data
 - number of vehicles, fuel consumption, traffic count, trip length, mode share, vkt, ave. occupancy, ave. distance, travel time by mode, ave. speed, freight tonnes, kms of road, kms of footpaths and bike lanes, fuel efficiency, land use indicators, economic variables
- transport project evaluation / approval
- transport project monitoring and assessment
- future plans on transport

Findings from survey

- not all data required to conduct MRV are routinely collected
- transport data collected are scattered among different agencies
- transport data collected are not the same across cities
- capacity for data collection and management also varies among agencies and cities

Summary and way forward

- considerable experiences already available to MRV transport projects under CDM, GEF, ODAs, multilateral banks, etc
- not re-inventing the wheel, utilize appropriate existing methodologies and capacity
- initial wave of NAMAs will most likely still be project based
- pro-active in effort to continuously simplify, update and disseminate methodologies
- build a strong foundation for MRV – data, data, data

Thank you for your attention.
romero@iges.or.jp