MRV of GHG:
How can we apply to NAMAs?

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MRV of GHG:
Sufficient experiences and knowledge

- MRV of GHG is not a new issue
- Sufficient knowledge and experiences accumulated through implementation of ETS, GHG reporting programme, CDM and other GHG schemes over the past decade
- MRV systems in the existing schemes have been well established
- The issue: How can we "MRV of GHG" apply to NAMAs based on the past experiences and accumulated knowledge?

Types of GHG-MRV

Type of MRV	Purpose	Methodology (for M/R)	Methodology (for V)	Implementation body (for M/R)	Implementation body (for IV)
Type I MRV: GHG emissions at organisation level	Determination of GHG emissions from covered entity	Monitoring reporting guideline	verification guideline	Covered entity	Third party verification body
Type II MRV: GHG reduction at project level	Crediting of GHG reduction realized by individual project	Monitoring/ baseline/ calculation methodologies	verification guideline	Project participant	Third party verification body
Type III MRV: GHG emissions at national level	Determination of GHG emissions at national level/ compliance assessment for Kyoto Protocol	IPCC Guidelines and UNFCCC COP/CMP Decisions	UNFCCC COP/CMP Decisions and Kyoto Protocol Art.8	National government	Expert Review Team under UNFCCCC/ Kyoto Protocol Art.8
Type IV MRV: Evaluation of GHG reduction induced by policy/measure incl. NAMAs	Evaluation of GHG reduction induced by policy/measure incl. NAMAs	International MRV guidelines/ Domestic general MRV guidelines (unavailable)	International MRV guidelines/ Domestic general MRV guidelines (unavailable)	Unknown (but likely to be national government that implemented policy/measure)	Unknown (but likely to be International Consultation and Analysis :ICA)

Types of GHG-MRV

Type of MRV	Characteristics	Examples in the world	Examples in Japan
Type I MRV: GHG emission at organisation level	- Required MRV level is very high - Sufficient knowledge/ experiences accumulated - Well-established MRV system	- EU-ETS - Climate Registry (US) - California Climate Action Registry (US), - Korean ETS - Australian ETS - NZ-ETS	-JVETS (MoE) - Tokyo Metropolitan Government ETS - Saitama Prefecture ETS
Type II MRV: GHG reduction at project level	- Required MRV level is very high -Well established MRV system, -Some technical issues remain for further improvement in monitoring/baseline setting/additionality demonstration	- CDM - VCS - K-VER (Korea) - T-VER (Thailand) - NCS (Indonesia)	-J-VER (MoE) -Domestic Credit Scheme (METI) -BOCM (under development)
Type III MRV: GHG emission at national level	- Required level of MRV: Medium -Well established MRV system at developed countries - Not yet well established at developing countries	-Submission and review of National GHG Inventory	- Submission and review of Japanese National GHG Inventory
Type IV MRV: Evaluation of GHG reduction induced by policy/measure incl. NAMAs	- Undeveloped MRV system -Required level of MRV is unknown (probably Medium?) - Will be important for effective implementation of the Cancun Agreement	- Unavailable	-Unavailable

MRV of GHG reduction induced by policy/measure incl. NAMAs?

- NAMAs can include various types of policies ranging from project level to macroeconomic approaches

- MRV of NAMAs (Type IV) can be a complex structure overlapping with any of Type I – III, but also building its own cross-sectional form

- Establishment of Type IV is highly intellectual work that needs comprehensive knowledge and experiences with the existing Type I - III

MRV of GHG reduction induced by policy/measure incl. NAMAs?

- NAMAs can be divided into project, organisation and national levels and cross-sectional policy/measure
  - For NAMAs at project level: Type II can be applicable with standarised baseline setting, but without very high accuracy and additionality demonstration
  - For NAMAs at organisation level: Type I can be applicable without very high accuracy
  - For NAMAs at national level: Type III can be directly applicable without major changes
  - For NAMAs by cross-sectional policy/measure: *remains for further research*, but possibly a rough estimation with standarised baseline in a very conservative manner