

Participatory Forest Monitoring and REDD+ MRV in Nepal

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Outline



- **Introduction**
 - **Community Forestry in Nepal**
 - **REDD+ readiness in Nepal**
- **Our engagement on**
 - **Participatory Forest Monitoring (PFM)**
 - **REDD+ MRV**
- **PFM for REDD+ MRV**
- **Opportunities and Challenges**
- **Conclusions**





Community Forestry



VFCC meeting in Baglung



Public auditing of pond maintenance at Hakui



Community Forestry in Nepal

- CF programme started in 1980s
- Became highly popular and successful in 1990s
- It recognizes Community Forestry User Groups (CFUG) as a key body to manage the forest resources
- Fully autonomous institution – with self governance system
- CFUGs decide and prepare forest management and monitoring plans





And, by the end of 2013...

- More than 18000 CFUGs are formed, and continuing..
- More than 1.7 million ha forests being managed by local communities (around 30% of national forest)
- 2.2 million households are involved (apprx. 35% of total population in Nepal)
- CF has a strong federation in Nepal with the highest number of members in the country, with strong political power.

Participatory Forest Monitoring (PFM)



Evolution of PFM in Nepal

Early stage (before 1990s)

UN-REDD
PROGRAMME



United Nations
Environment Programme

Management focus	Forest Protection
Purpose of forest monitoring	To renew CF periodic operation plan
Monitoring indicators	Assess impacts of their activities - mostly by qualitative scale: Such as <ul style="list-style-type: none">-Forest regeneration – (increased/decreased)-Illegal harvesting-Number of forest fire-Prevention of encroachment-etc
Participation	Government (DFOs): mostly/actively Local communities : passively
Basis	Lacked specific guideline

Evolution of PFM



Development stage (1990s to mid 2000s)

Management focus	✓ Forest Protection and management (yield regulation)
Purpose of Forest Monitoring	✓ To renew CF operation plan ✓ To provide inputs to NFS ✓ To make participatory decisions ✓ To increase community ownership
Monitoring indicators	✓ Included both <u>forestry and non-forestry</u> indicators (governance, social etc) ✓ Quantitative indicators (such as growing stock, yield etc) were introduced ✓ Government with bi-lateral projects developed monitoring format – as and introduced collaborative monitoring
Participation	✓ Government (DFOs) ✓ Local communities ✓ Project partners
Basis	✓ CF Guideline provided template for CF - with provision of baseline information on forest's current situation

Evolution of PFM

Implementation stage (after mid 2000s)

Management focus	<ul style="list-style-type: none"> ✓ Forest Protection, management and commercialization ✓ Added objectives of CC mitigation and adaptation
Purpose of Forest Monitoring	<ul style="list-style-type: none"> ✓ To renew CF operation plan – after 5 to 10 years ✓ To provide inputs to NFS ✓ Forest Management Decision Making ✓ Monitoring of forest carbon stock
Monitoring indicators	<ul style="list-style-type: none"> ✓ Included both <u>forestry and non-forestry</u> indicators (governance, social etc) ✓ Quantities forestry indicators were introduced including indicators related to climate change
Participation	<ul style="list-style-type: none"> ✓ Local communities ✓ Government (DFOs) ✓ Project Partners ✓ Donors – REDD/Climate change related
Baseline information	<ul style="list-style-type: none"> ✓ CF Guideline and other carbon monitoring guidelines available

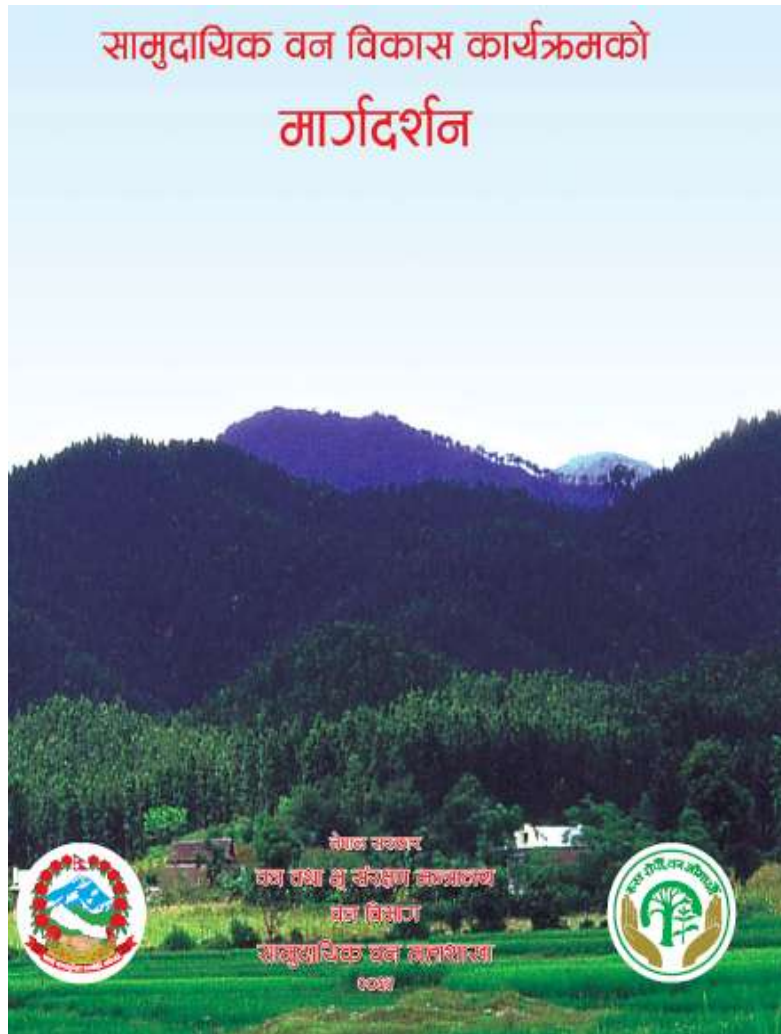


Monitoring Guidelines

- There are different guidelines developed
- CF Guideline is Govt approved guideline that provides comprehensive monitoring form for PFM
- Forest carbon monitoring guideline has been produced and distributed
- Several capacity building activities have been initiated by REDD Cell and other partners on participatory forest carbon monitoring.



CF Guidelines on Monitoring



Annex 15 provides 10 Pages long monitoring form

10 different themes that includes:

Institutional: implementation status of operational plan

Social: Provision for poor and disadvantaged group; employment opportunity, income generation activities

Financial: income and expenditure

Marketing: production and marketing of forest products

Legal: Number of cases

Forest status: regeneration, forest cover change, wildlife, forest management activities

वन कार्बन मापन मार्गदर्शन (२०६७)



वन तथा भू-संरक्षण मन्त्रालय
रेड फरेस्टि तथा जलवायु परिवर्तन इकाई

Nesal

ANSAB
High Biodiversity and
Progressive Communities

ICIMOD



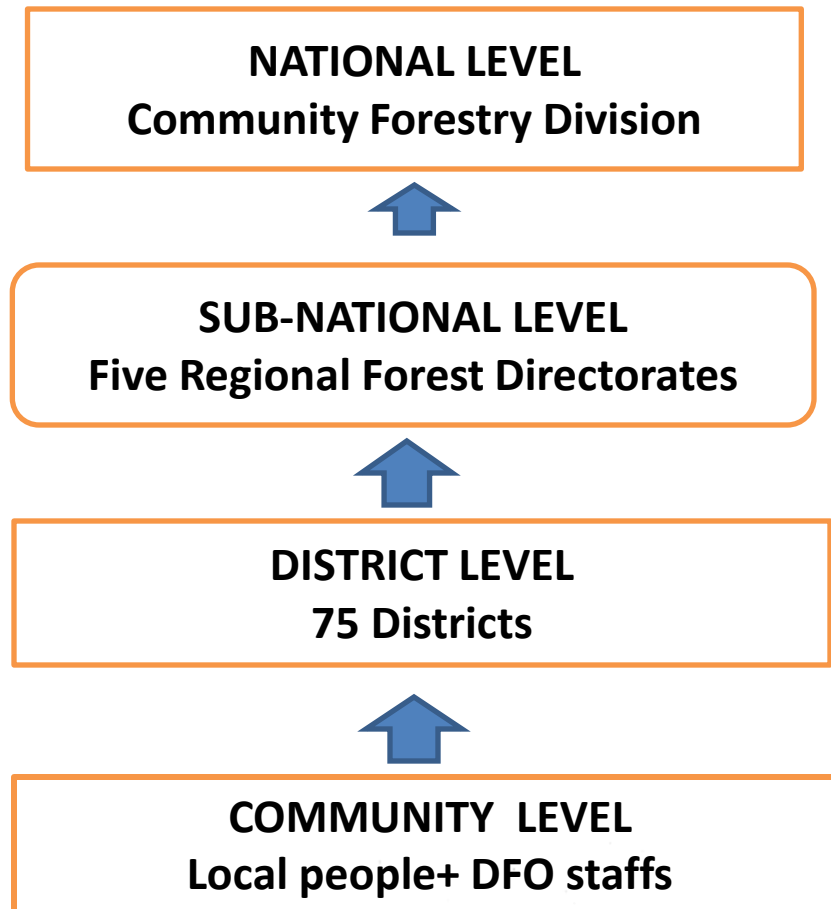
Forest Carbon Stock
Measurement



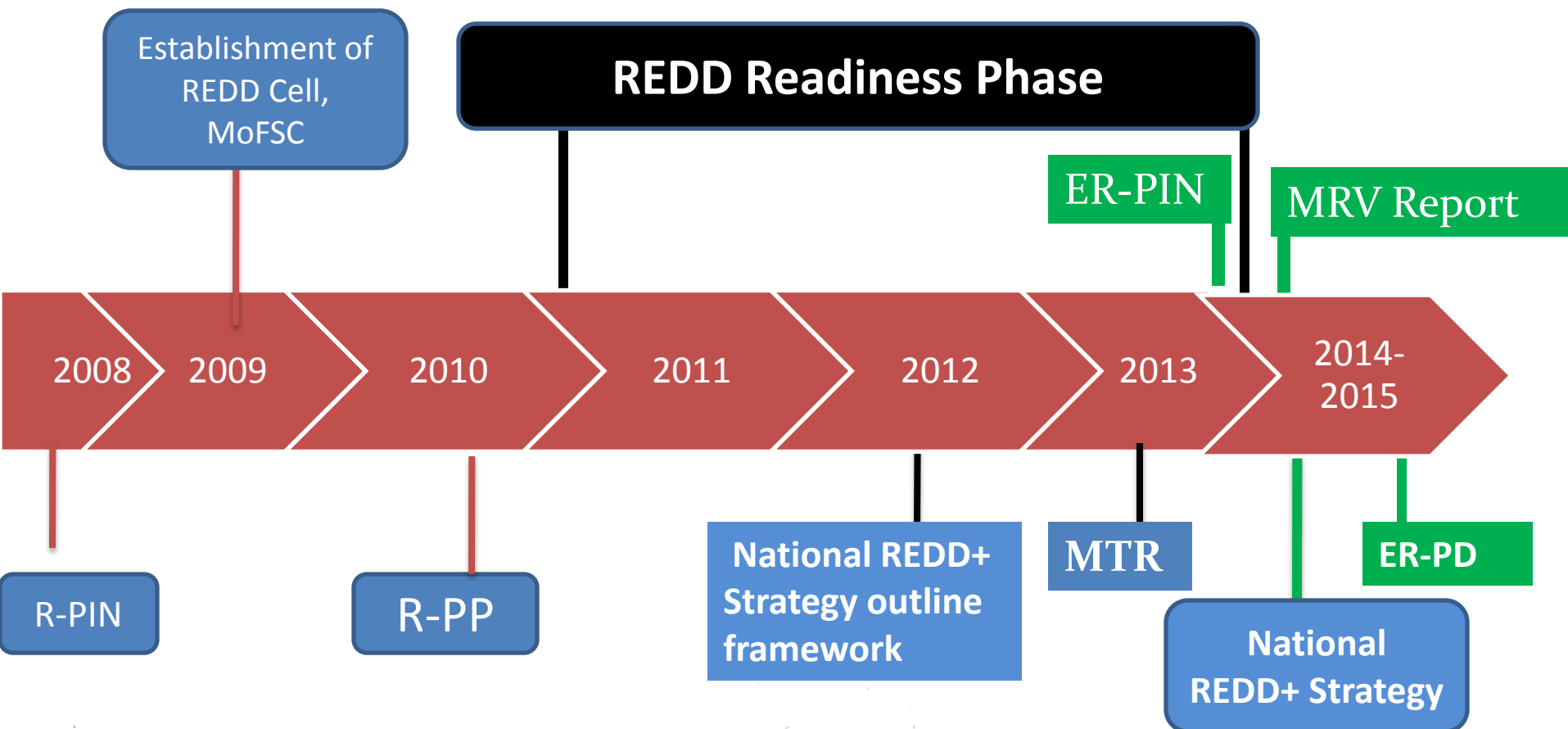
Guidelines for measuring
carbon stocks in
community-managed forests



PFM National Framework



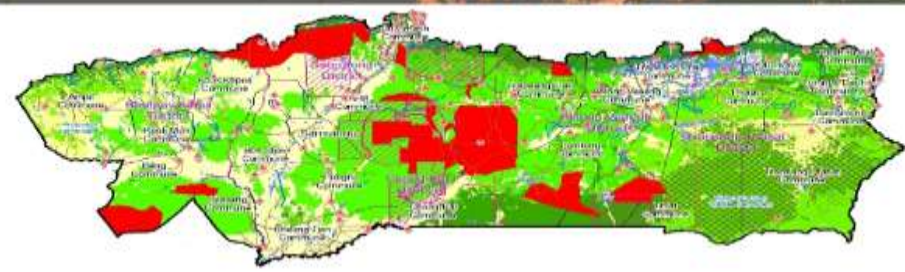
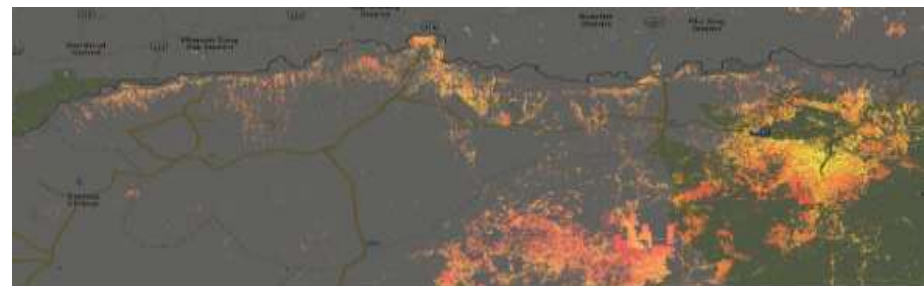
REDD+ Readiness Road map of Nepal



Understanding MRV



A reliable, credible system of Measuring, Reporting and Verifying (MRV) changes in forest carbon stocks. A crucial part of a performance-based REDD+ mechanism.



MRV system development approach applied in Nepal



- One of the key elements of REDD+ readiness;
- Prepared through consultant following procurement process;
- Covers monitoring of the aboveground vegetation carbon pool for forest area changes;
- MRV document includes ten thematic working papers.

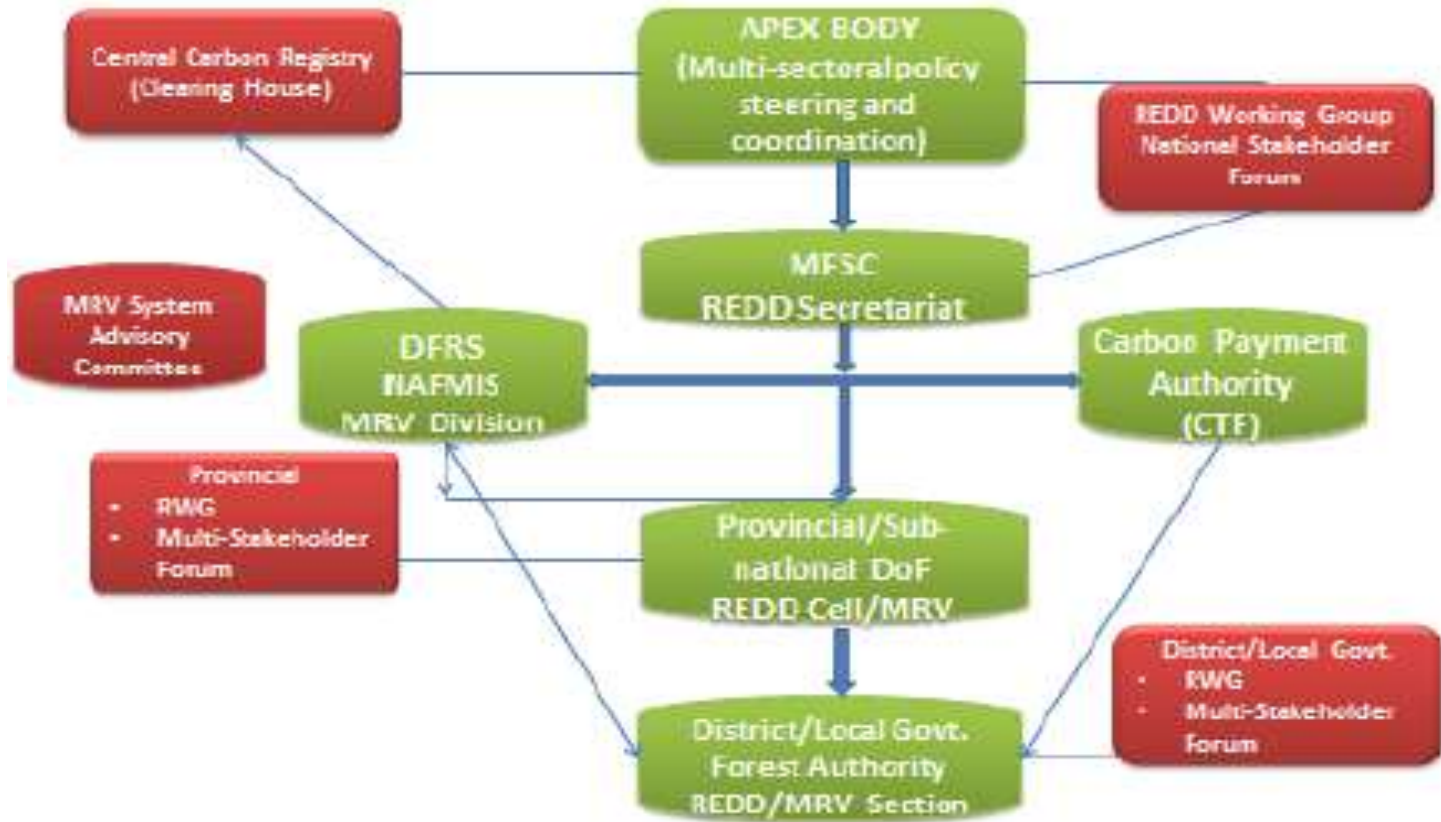


Important features of MRV document

- MRV report adopts nested approach linking national and local MRV → *scope for continuous improvement*;
- All details on technical and institutional aspects have been described
- MRV division under Apex body: *Clarity on executive and advisory entity*;
- MRV recommends wall- to- wall mapping based on Landsat images classified with a limited number of classes using a hybrid approach to be repeated at every reporting time (2 years);
- Highlights to take advantage of integrating PFM database system to generate periodic activity and EF data → *scope to update NFMIS at low cost*;
- Total estimated cost is \$10 million to make MRV system fully functional → *Explore Financing sources for operating NFMIS /MRV*



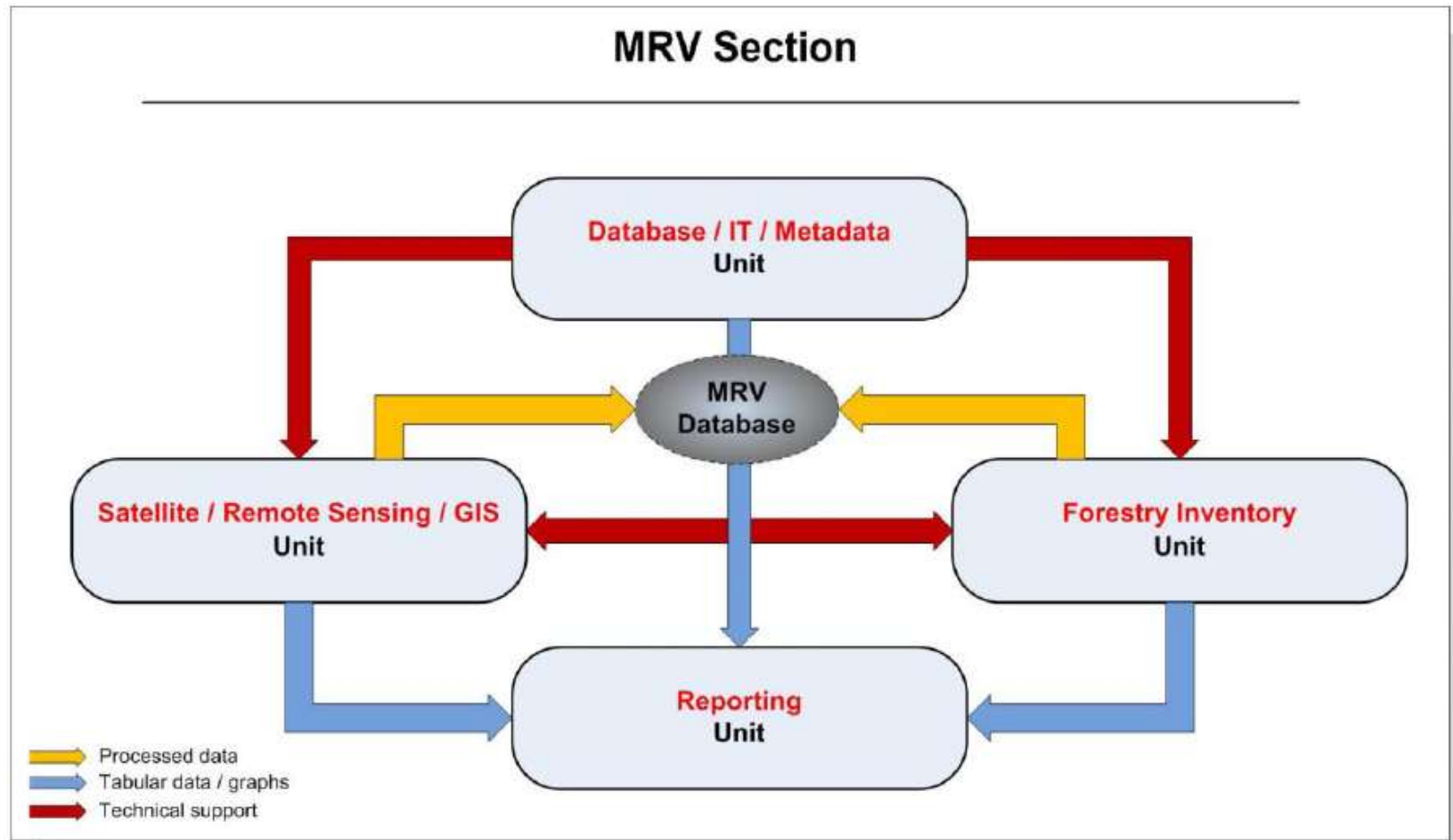
National MRV – Institutional Aspect



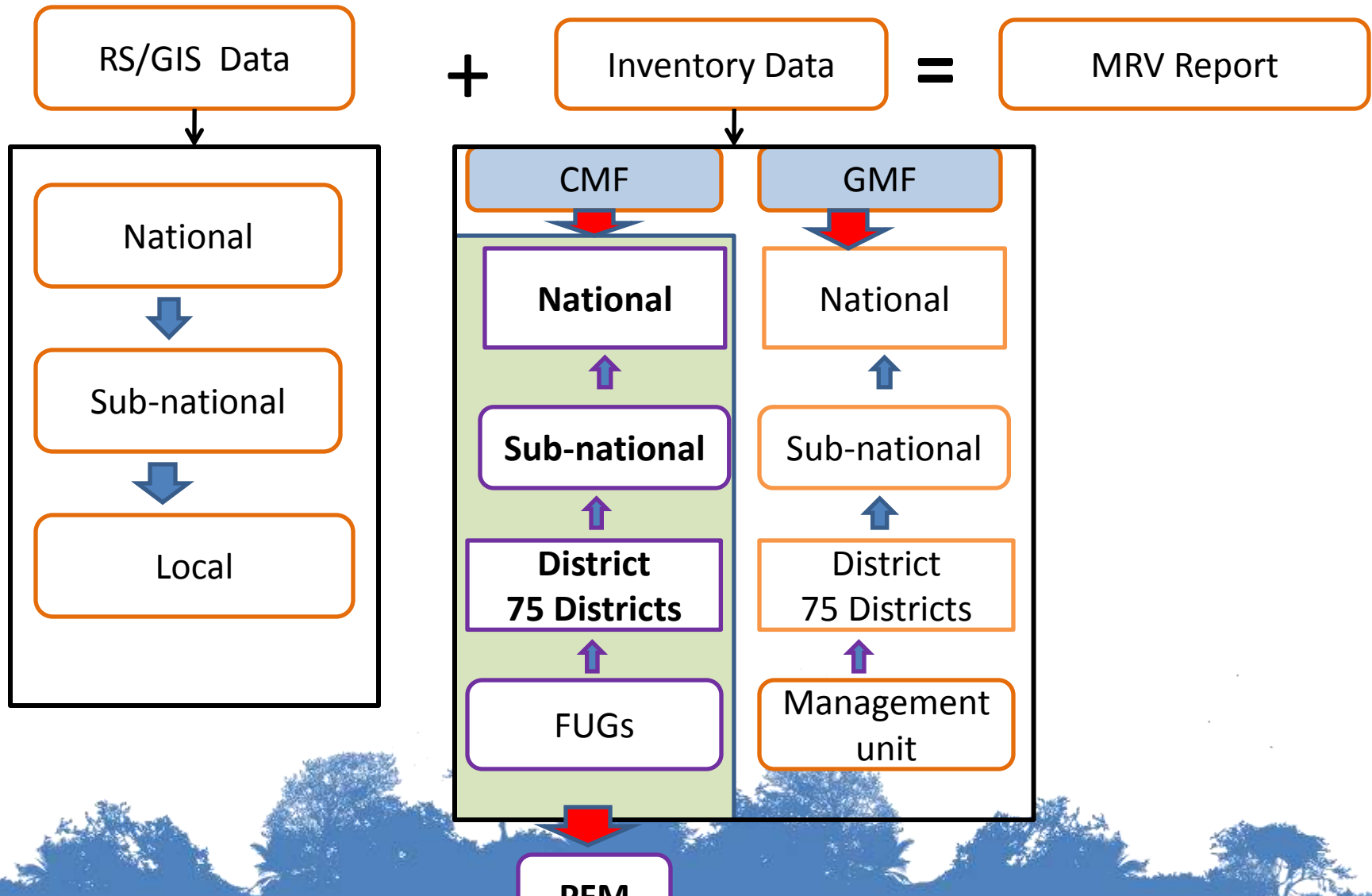
Nepal's proposed REDD+ architecture



Structure of the MRV section



PFM in MRV Framework: Linkage



Steps involved in PFM based MRV



MRV Phases	Step	Responsible body	Output / Product
Preparation	Step 1: Preparation phase	CFUGs / REDD Cell / MRV Section	A formal agreement between CFUGs and the REDD cell / MRV on the establishment of REDD+ activities in given communities.
Measurement of activity data	Step 2: Delineation of project boundaries	CFUGs / DFOs / MRV Section	A digital map with the boundaries of the project area.
	Step 3: Land use and land cover mapping	MRV Section/CFUGs/Local forest officers	The baseline LULC map, and the changes that occurred in the recent past, prior to the project initiation.
	Step 4: Stratification of the project area	MRV Section / CFUGs / Local forest officers	Project area stratification map
Measurement of emission factors	Step 5: Preparation for the field work and capacity building of local communities.	Local forests authorities / NGOs	Local communities are trained for field work.
	Step 6: Pilot inventory for variance estimation	MRV Section / CFUGs / local forest officers	Field sampling design established
	Step 7: Field work	CFUGs, local forest authorities	Field inventory executed



	Step 8: Quality assurance and quality control	Local forest authorities	Validated field data
	Step 9: Data processing and estimation of emission factors and GHG emission	MRV data processing unit	Estimation of GHG emissions (REL)
Reporting	Step 10: Analysis of trends	MRV Remote Sensing unit and MRV data processing unit	Trends in carbon emission balance established
	Step 11: Detection of leakage	MRV GIS unit and local forest officers	Quantification of leakage
	Step 12: Estimation of net (deducting leakage) carbon emissions	MRV Division	Net carbon emission balance established
	Step 13: Collating and presenting the information on GHG emissions/removals.	MRV Reporting Unit	A report in a REDD+ standard and documented format.
Verification	Step 14: Verification	Independent authority	Certified net carbon emissions
Payments of carbon credits	Step 15: Payments of carbon credits	MRV and designated REDD+ authorities	Carbon transactions in place
Follow-up	Step 16: Follow-up	MRV Division/REDD Cell	Sustainable REDD mechanisms are in place



Opportunities and Challenges of PFM to be a part of MRV



- **Opportunities**

- Well established community based forest management system
- Lots of lessons on community initiatives on monitoring
- Many guidelines available
- Govt policy to promote participatory monitoring
- MRV document recognizes PFM as a valid way to acquire data
- Reduce MRV cost



- **Challenges**

- It has become “outsider’s interests” rather than learning and decision making tools for community
- Linking with national forest monitoring system
- Costly for communities – extra burden
- Poor capacity



Conclusions

- **There is a capacity, scope and opportunity for PFM in Nepal. However,**
- **Need to have clear and consistent linkage between PFM and MRV system**
- **MRV methods/system should be community friendly**
- **There should be incentive/motivation for community for their ownership in the process**





Thank you very much

Namaste

