

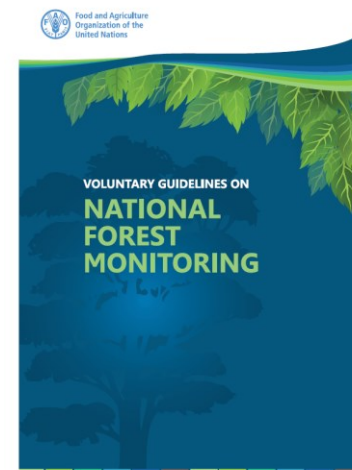
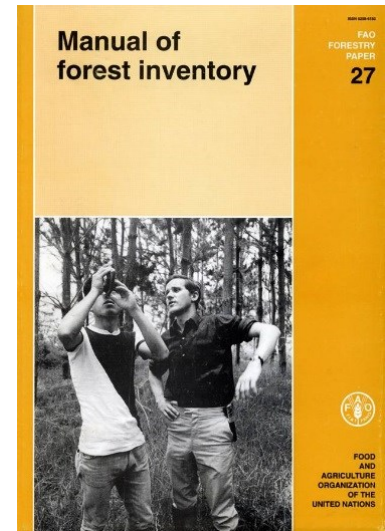
# National Forest Monitoring and REDD+ at FAO

Julian Fox  
National Forest Monitoring Team Leader (*a.i.*)  
FAO Forestry Department  
12 September 2017

# National Forest Monitoring (NFM)



- NFM has a long history at FAO (from the 50's)
- Forest Monitoring has evolved through time;
  - Timber inventory
  - Biodiversity and socio-economic information
  - Most recently;
    - REDD+ *National Forest Monitoring Systems* (NFMS)
    - *Measurement Reporting and Verification* (MRV) of REDD+ actions
- Work complimentary to FRA
- Over-riding objective: *Strengthen national capacities for long term forest monitoring*
- Over-riding motivation: *Better information leads to better decisions, which leads to better actions in the forest sector and beyond*



# NFM country support

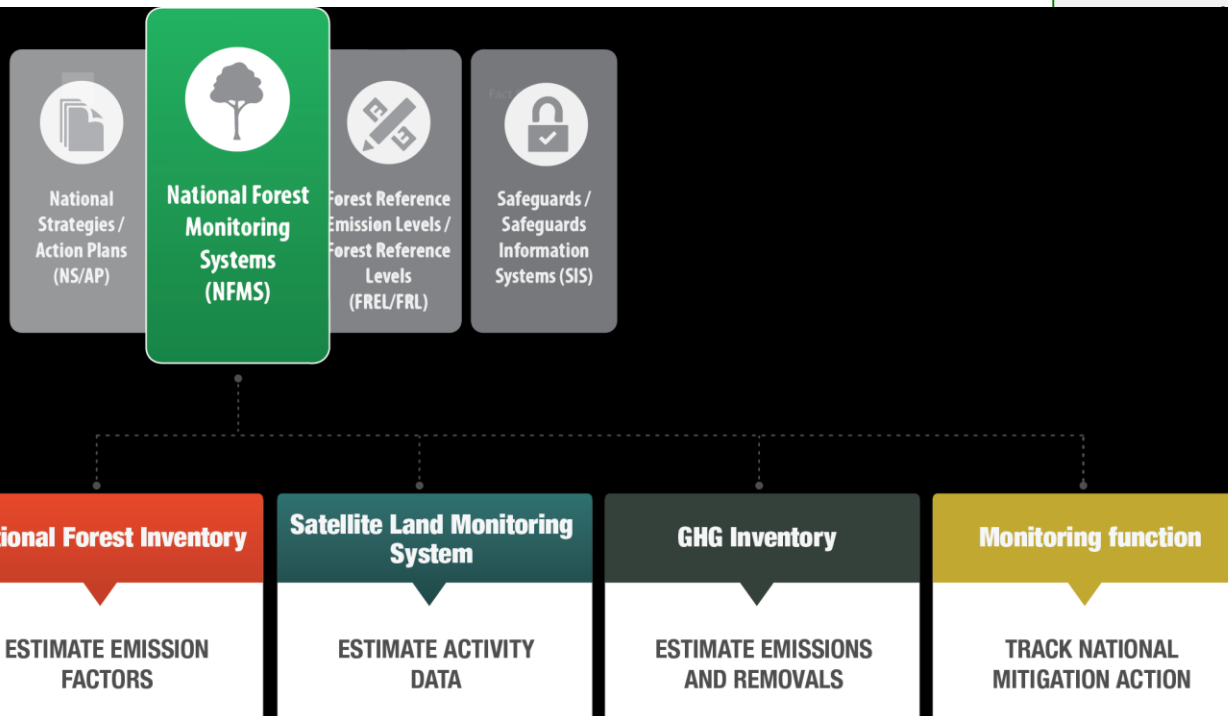


Broad technical support on NFM to all **FAO member countries**

- Demand Driven
- Capacity Building
- Participatory process
- Address National and International Reporting Requirements  
(harmonization to national and global

ards)  
Knowledge Sharing (e.g. south-south  
oration)  
ationalized & Sustainable

Technical support to **REDD+**  
countries on **NFMS, FREL** and  
beyond





# NFM tools



## **Open Foris Initiative:** Free and Open Source Tools and Methods for Data Collection, Analysis and Reporting



Collect



Collect  
Mobile



Collect  
Earth



Calc



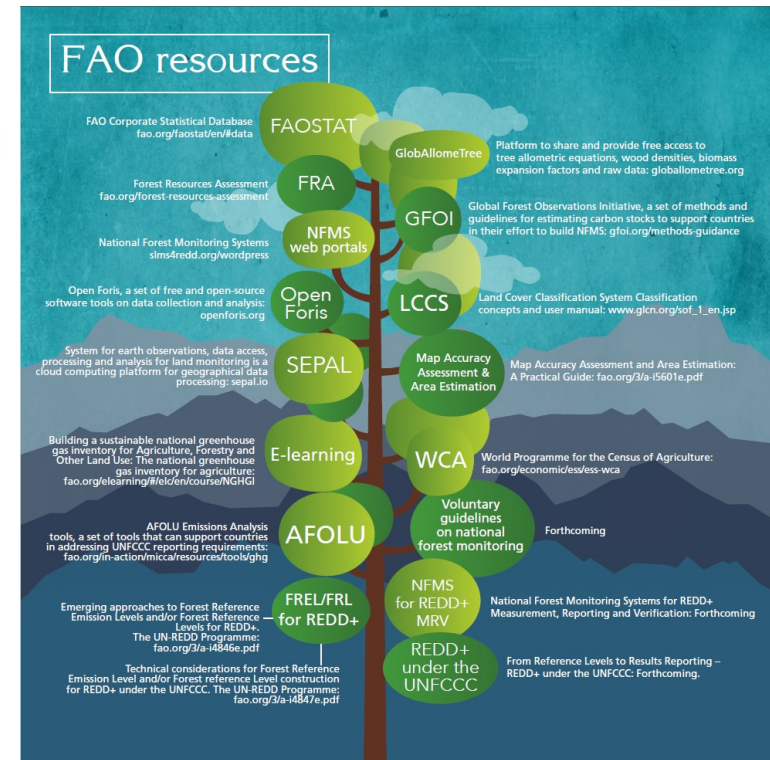
Geospatial  
Toolkit

<http://www.openforis.org/>

## **SEPAL** Cloud-based Processing



<https://sepal.io/>



<http://www.fao.org/3/a-i7210e.pdf>

# NFM country support



NFM team provides expert support and capacity building to over 70 countries:

1) National Forest Inventory

- *Active support to 36 countries*

2) Satellite Land Monitoring Systems

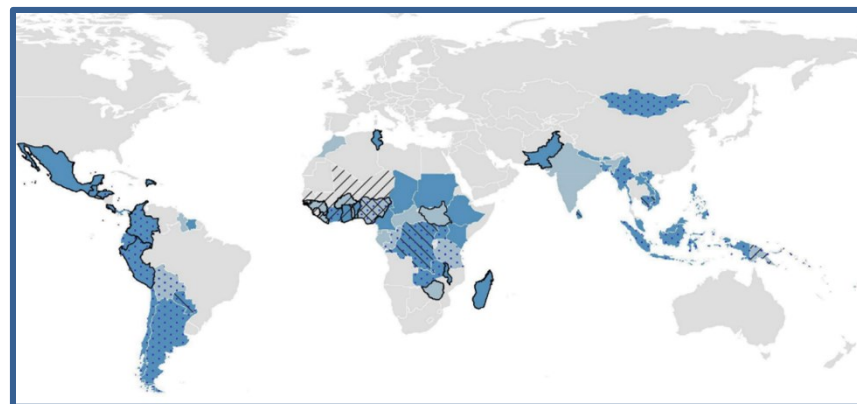
- *Active support to 40 countries*

3) Forest Reference (Emission) Levels and GHGi

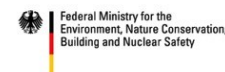
- *Active support to 20 countries*

4) Current and future global NFM projects

Global, regional and national programmes



Supported by:



based on a decision of the German Bundestag

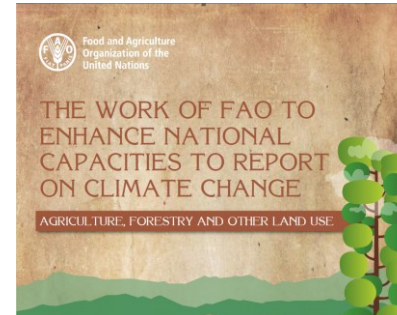


# NFM publications

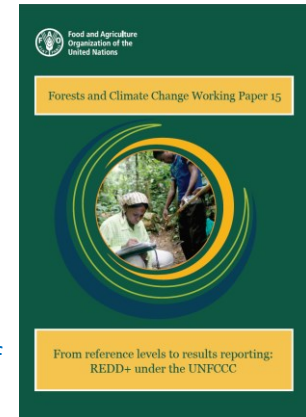


## Recent publications

- *From reference levels to results reporting: REDD+ under the UNFCCC*
- *The work of FAO to enhance national capacities to report on climate change*
- *Voluntary Guidelines for National Forest Monitoring*



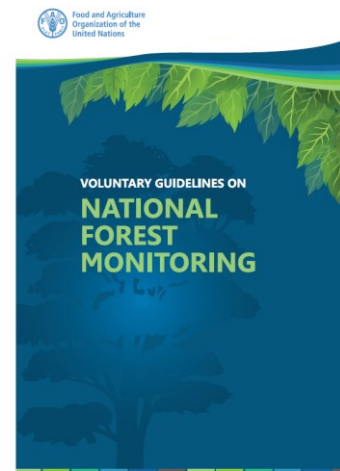
<http://www.fao.org/3/a-i7210e.pdf>



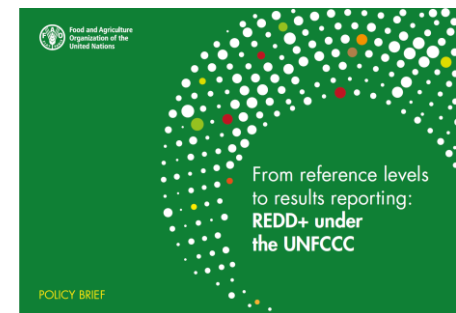
<http://www.fao.org/3/a-i7163e.pdf>

## Forthcoming publications

- *National Forest Monitoring Systems for REDD+*
- *Scientific papers & proceedings*



<http://www.fao.org/3/a-l6767e.pdf>

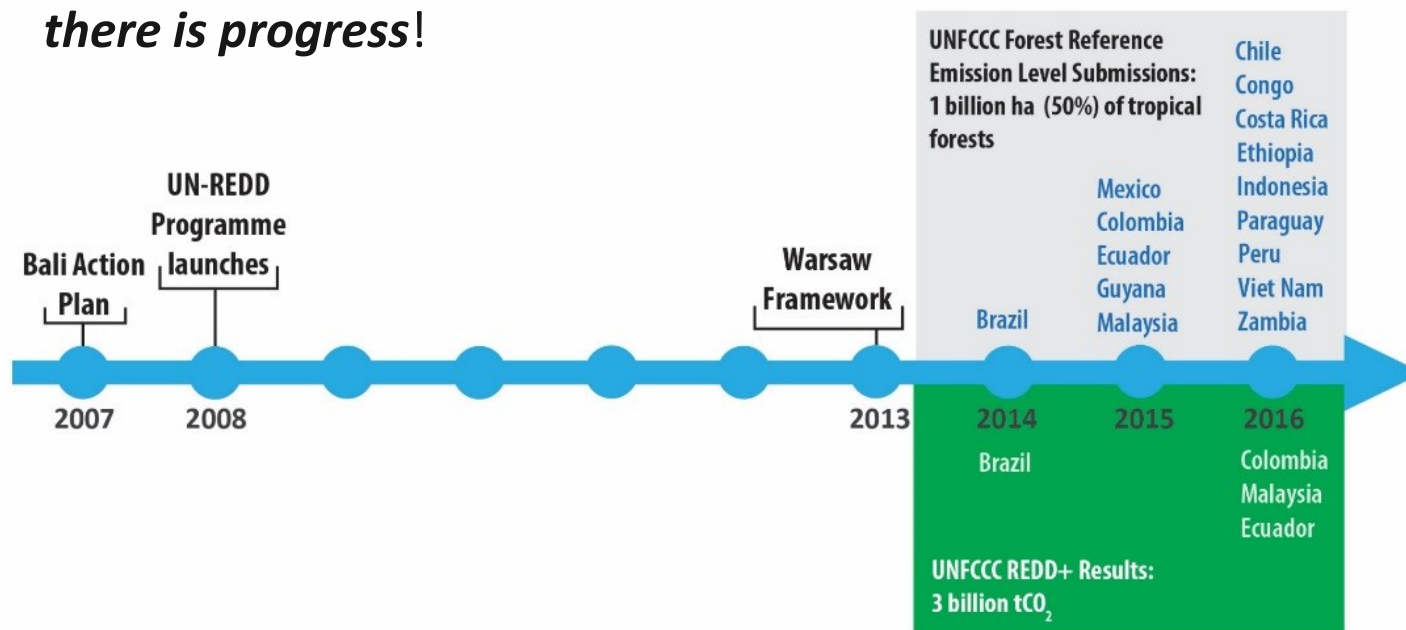


<http://www.fao.org/3/a-i7352e.pdf>

# NFM and REDD+



- UNFCCC REDD+ modalities completed and **enshrined** in Article 5 of the Paris Agreement
- **Significant** mitigation potential with political and financial backing - over 70 forest countries actively engaged for REDD+
- Technological and institutional barriers to REDD+ have centered on countries being able to measure, report and verify REDD+ actions – but – **there is progress!**

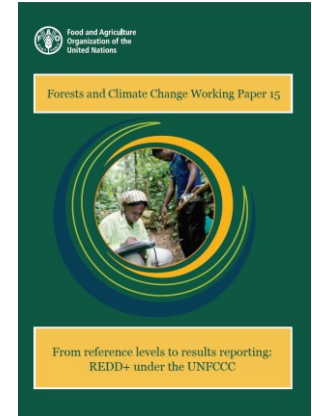




# REDD+ MRV - Key observations



- Technological and institutional barriers to REDD+ MRV are being **overcome**
- **Unprecedented** transparency of countries' forest-sector data and information
- Technical assessment under the UNFCCC is **key** to improvement of countries' forest sector data
- **Improved** country data is contributing to informed forest sector policies, and contributes to SDG and NDC reporting
- Country data and the quality of submissions **need to improve overtime** to meet donor expectations for payment
- **Further investment** in REDD+ MRV readiness is necessary to improve country data and facilitate broad country participation in REDD+



<http://www.fao.org/3/a-i7163e.pdf>



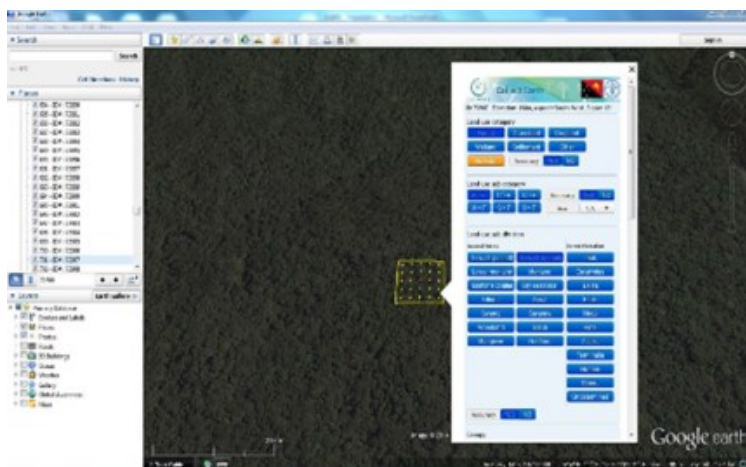


# PNG MRV



## ACTIVITY DATA

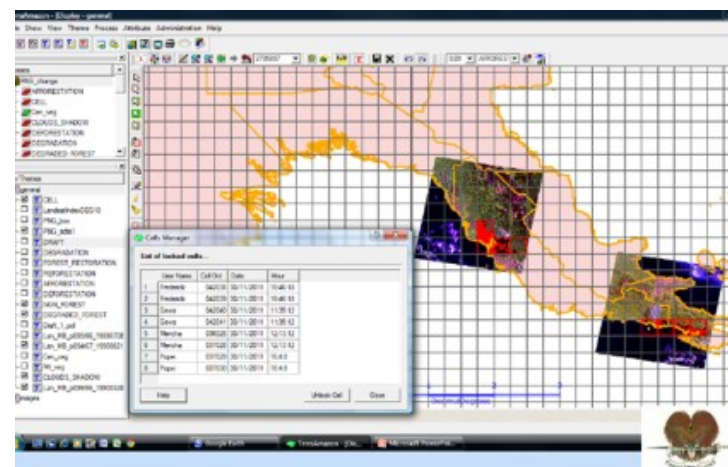
Robust system with in-country verification consisting of two different SLMS systems operated by two different government agencies (CCDA & PNGFA) .



### Collect Earth

#### Point sampling

Annual assessment of land use and land use change 2000-2016.



### Terra PNG

#### Wall to wall mapping

Historical mapping (2000, 2005 & 2010) and 2016 recently completed



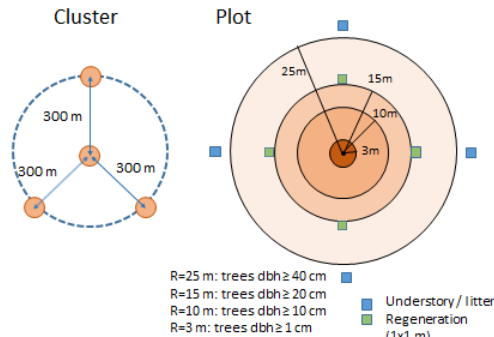
# PNG MRV



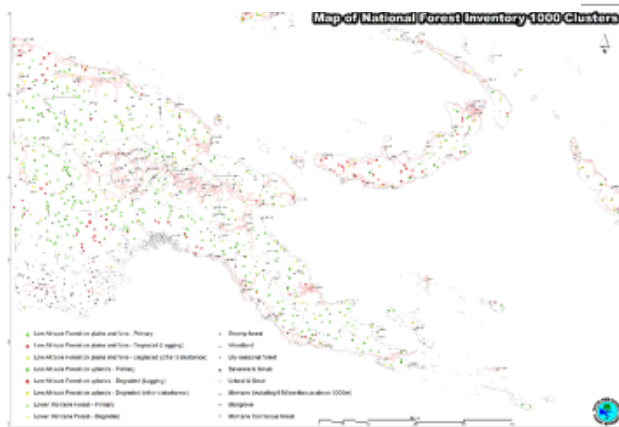
## EMISSION FACTOR

## National Forest Inventory

Trainings conducted. Methodologies established.  
Field measurement commenced in December 2015.



Cluster and plot design to be finalized after field testing.







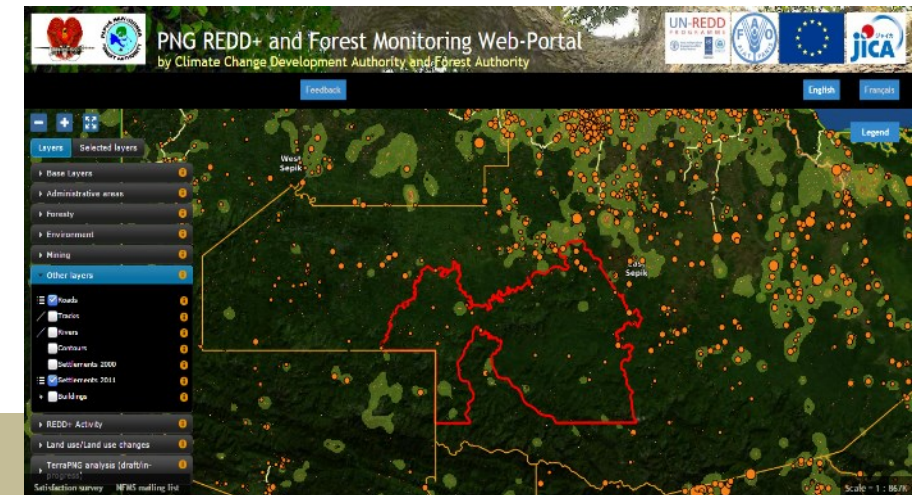
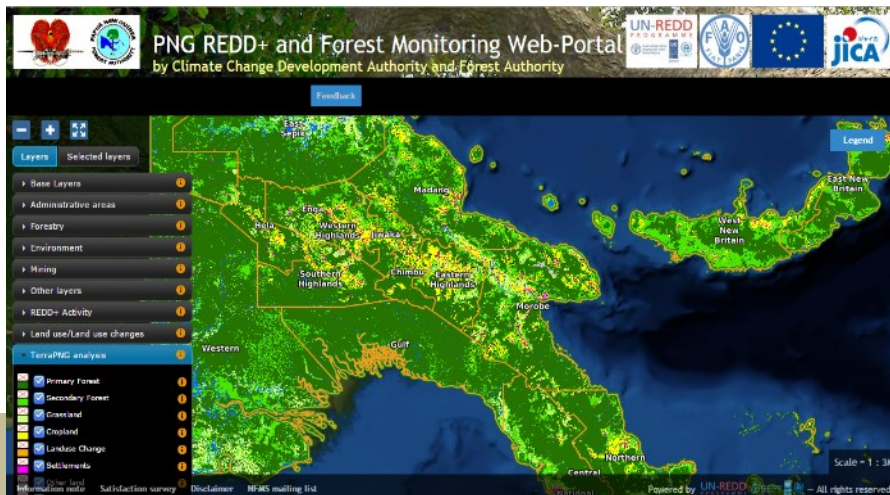
# PNG MRV



## TRANSPARENCY

<http://png-nfms.org/portal/>

Web-portal was established for disseminating forest and land use information to public for ensuring the transparency of PNG REDD+ process. Web-portal was launched by the Prime Minister of PNG in 2016.



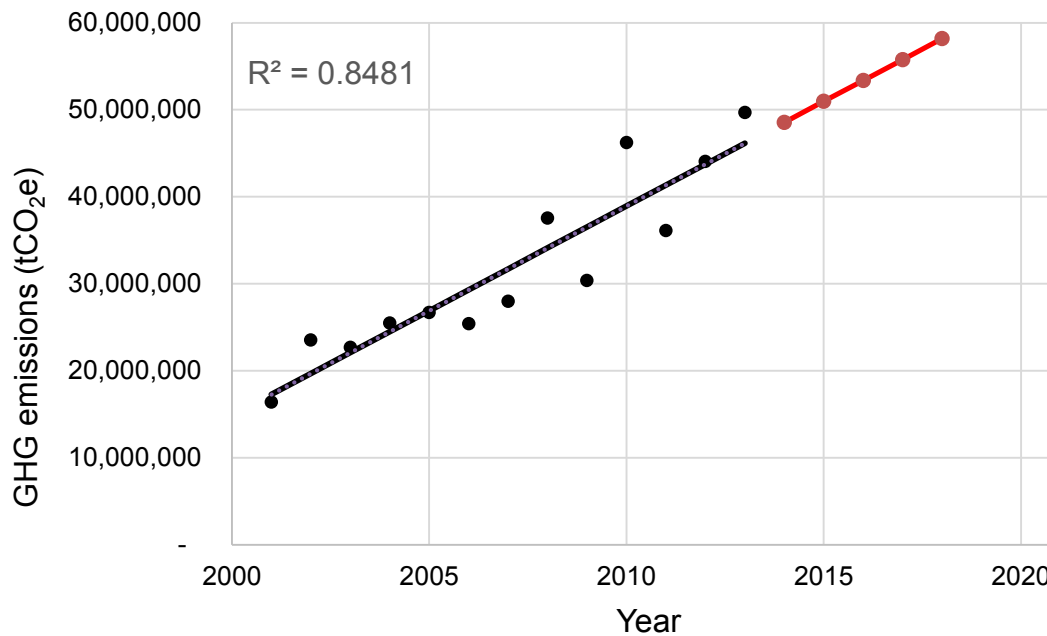




# PNG MRV



## PNG's REDD+ Forest Reference Level



Submitted to UNFCCC in January 2017

Scale: National scale

Activities: Deforestation, forest degradation, carbon enhancement

Carbon pools: Above & below ground biomass



# PNG MRV



## Main streaming of Forest Monitoring in PNG



Web-portal and NFI was launched by the Prime Minister on 9<sup>th</sup> March 2016.



# Thank You!

## Financial support provided by



Supported by:



Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety

based on a decision of the German Bundestag



**WORLD BANK GROUP**

**UN-REDD**  
PROGRAMME



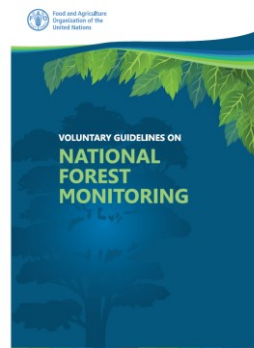
Food and Agriculture  
Organization of the  
United Nations



Empowered lives.  
Resilient nations.



<http://www.fao.org/3/a-i7163e.pdf>



<http://www.fao.org/3/a-l6767e.pdf>