

# Approaches to reporting of LULUCF

Land-based / Activity based

María J. Sanz  
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Food and Agriculture Organization of the United Nations

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# Approaches:

- **Land Base Approach:** all lands
  - Reporting land base information, emissions and removals, done as part of the GHGs inventory submitted through the Convention
  - All Annex I countries
  - Yearly
- **Activity Base Approach:** partial lands through activities
  - Reporting data, emissions and removals, for activities (mandatory and elected) as a supplementary information to the Convention GHGs inventory
  - All Annex I countries that ratified the 1CP of the KP
  - Yearly

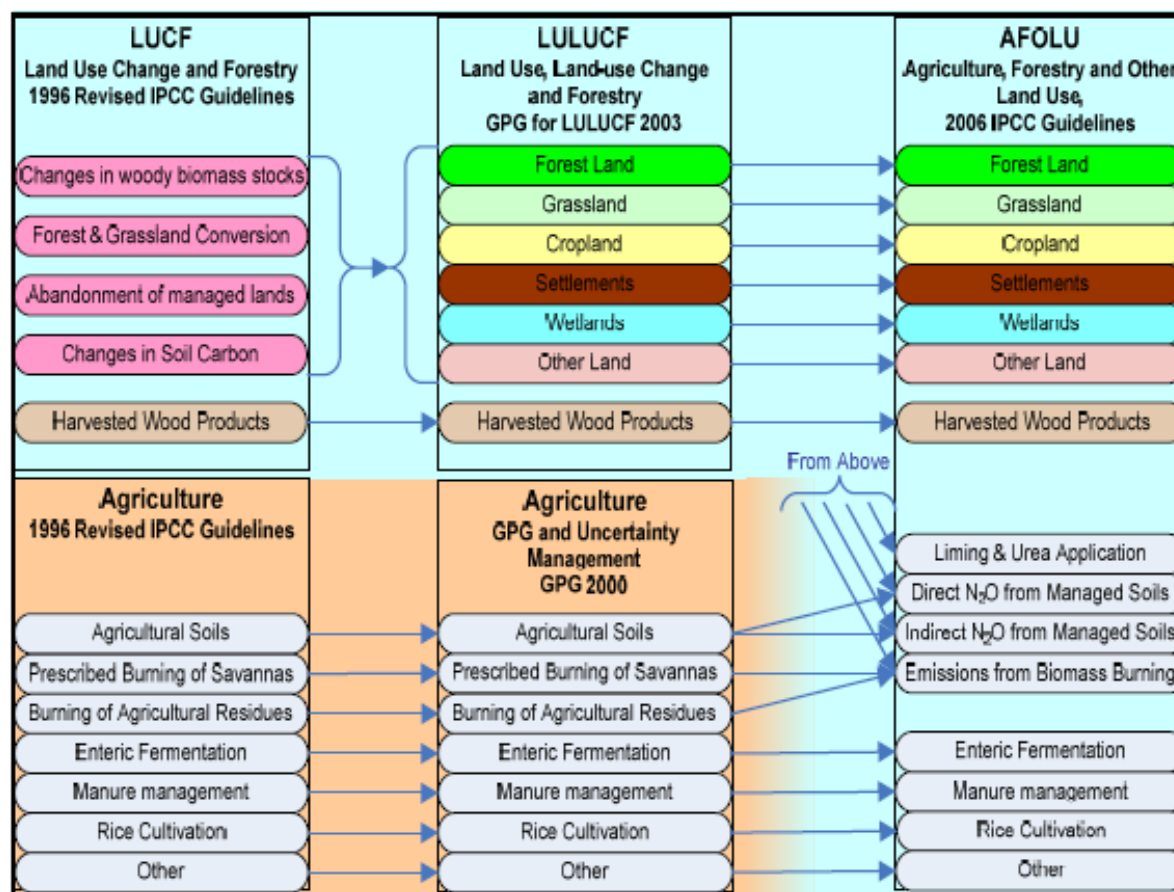


# Methodological guidelines and guidance:

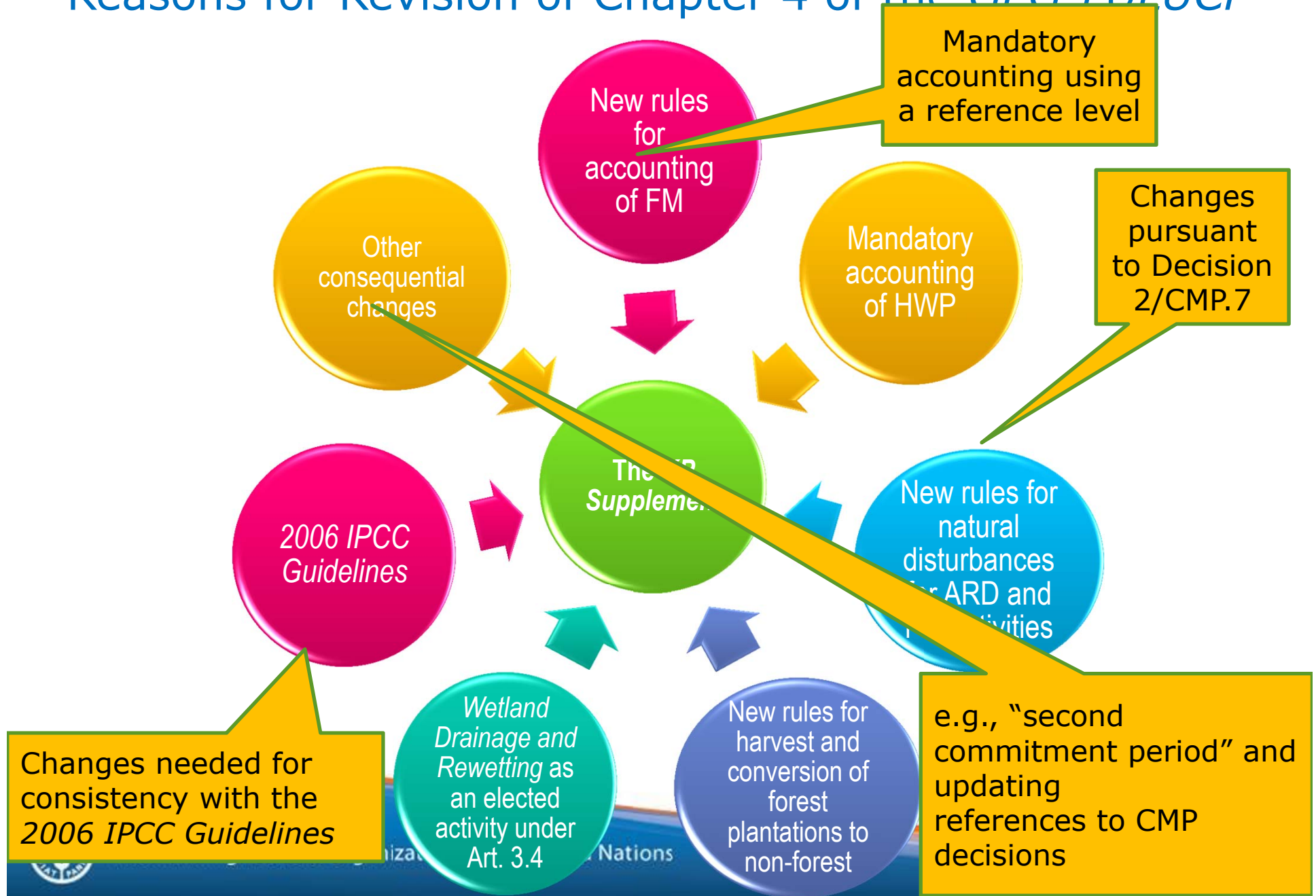
- **Land Base Approach:**
  - *IPCC 2003 GPG*
  - *IPCC 2006 GL (Volume IV)*
  - *2013 IPCC Wetlands supplement*
- **Activity Base Approach: for partial lands through activities**
  - *IPCC 2003 GPG, Chapter 4*
  - *2013 IPCC Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol*
  - *2013 IPCC Wetlands supplement (Rewetting and Drainage methodologies)*



# Evolution of IPCC GL and GPG



# Reasons for Revision of Chapter 4 of the *GPG-III UCF*



# Land coverage

## Activity mapped vs Land Category



**SUMMARY OF THE RELATIONSHIP BETWEEN UNFCCC LAND-USE CATEGORIES  
AND ACTIVITIES UNDER THE KP DURING THE CP**

Transitions are from the "initial" to the "final" land-use category, indicating which KP Article 3.3 or 3.4 activities may have occurred on that land. Bold font indicates mandatory reporting activities; regular font indicates elective activities where the classification depends on the election of Article 3.4 activities by a country. Note that all possible LULUCF transitions have not been included in this table, only those which can be reported under Article 3.3 or 3.4 activities.

<b>Final Initial</b>	<b>Forest Managed land</b>	<b>Cropland</b>	<b>Grassland</b>	<b>Wetland</b>	<b>Settlements</b>	<b>Other land</b>
<b>FOREST Unmanaged land**</b>	<b>FM</b>	<b>D**</b>	<b>D**</b>	<b>D</b>	<b>D</b>	<b>D</b>
<b>Forest Managed land</b>	<b>FM</b>	<b>D**</b>	<b>D**</b>	<b>D</b>	<b>D</b>	<b>D</b>
<b>Cropland</b>	<b>AR*</b>	CM, RV, WDR***	CM#, GM, RV, WDR***	CM,RV, WDR***	CM****,RV	CM****
<b>Grassland</b>	<b>AR*, FM</b>	CM, GM##, RV, WDR***	GM, RV, WDR***	GM, WDR***	GM****	GM****
<b>Wetland</b>	<b>AR*, FM</b>	CM, RV, WDR***	GM, RV, WDR***	RV, WDR***	RV, WDR***	WDR***
<b>Settlements</b>	<b>AR*</b>	CM, RV, WDR***	GM, RV, WDR***	RV, WDR***	RV	
<b>Other land</b>	<b>AR*, FM</b>	CM, RV	GM, RV	RV, WDR***	RV	

WDR: Wetland Drainage and Rewetting.

\* If the conversion is direct human-induced then classify as AR which takes precedence over FM and therefore although the land is subject to FM, it is reported under AR. If the conversion is not direct human-induced, and the definition of FM is met, then the land is reported in FM.

\*\*D takes precedence over cropland/grassland categories.

\*\*\*When elected, WDR only applies on land which is not accounted for under any Article 3.3, FM or other elected Art. 3.4 activity

\*\*\*\* Once land has been reported under any Article 3.3 or 3.4 activity during a CP, it must continue to be reported.

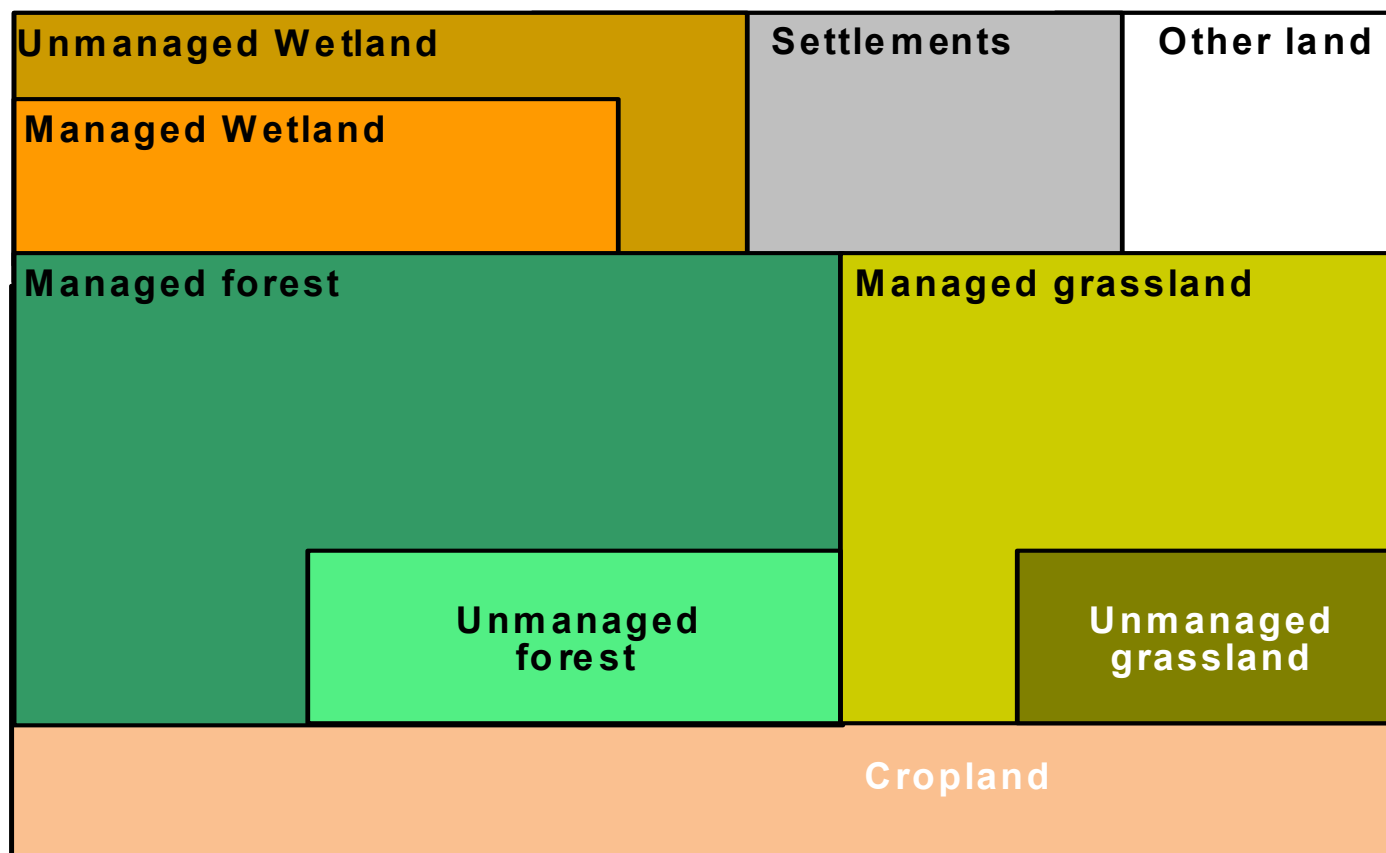
# Only if CM is elected and GM is not elected.

## Only if GM is elected and CM is not elected.



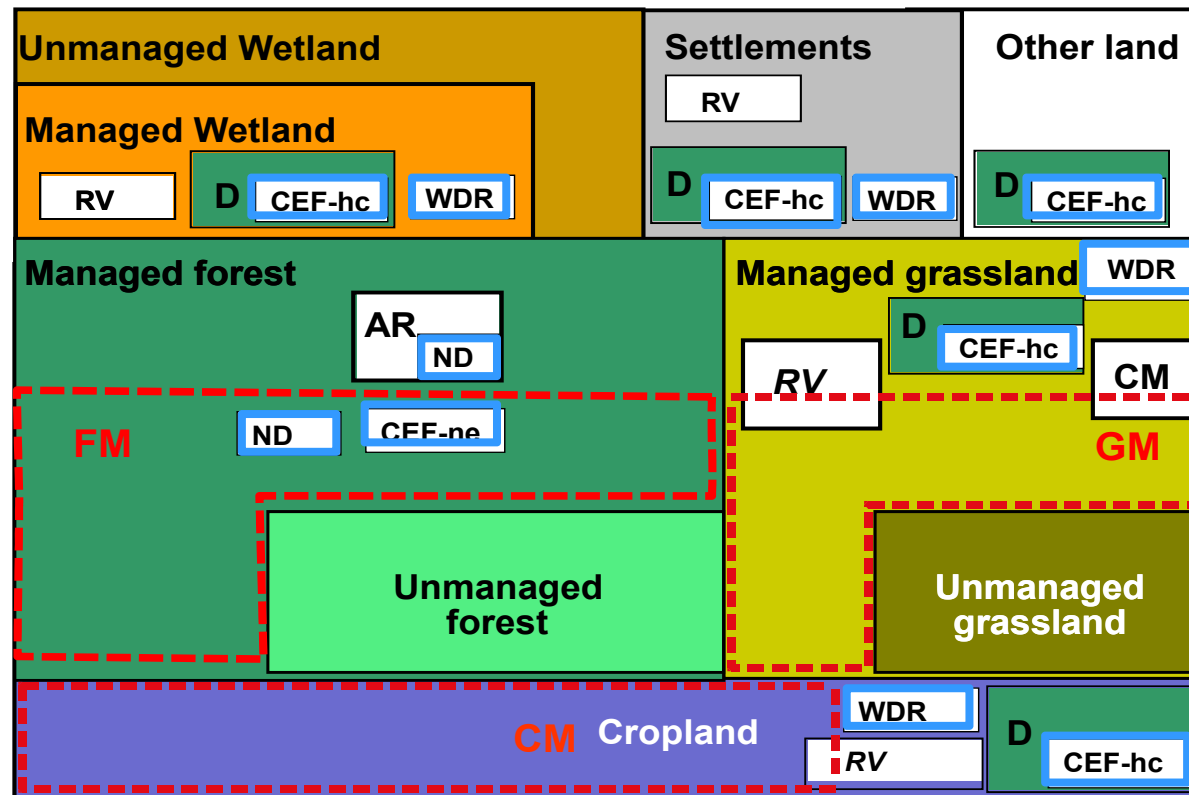
# Land Use Categories in the national inventories under the UNFCCC for a hypothetical country in year X of the CP

Emissions from unmanaged forests and unmanaged grasslands are not reported in UNFCCC inventories.





## Land in Article 3.3 and 3.4 Activities for KP reporting for a hypothetical country in year X of the CP. This classification corresponds to the “final” status in previous graph



A- Afforestation;  
 R- Reforestation;  
 D- Deforestation;  
 FM- Forest Management;  
 CM- Cropland Management;  
 GM- Grazing land Management;  
 RV- Revegetation;  
 WDR- Wetland Drainage and Rewetting;

ND - Natural Disturbances (ND in AR or FM that are subject to the provision to exclude emissions from the accounting.),

CEFC- Carbon Equivalent Forest Conversion,  
 CEF-hc: area where trees have been harvested and converted to non-forest land,  
 CEF-ne: areas where equivalent forest has been newly established;



# Emissions and Removals coverage

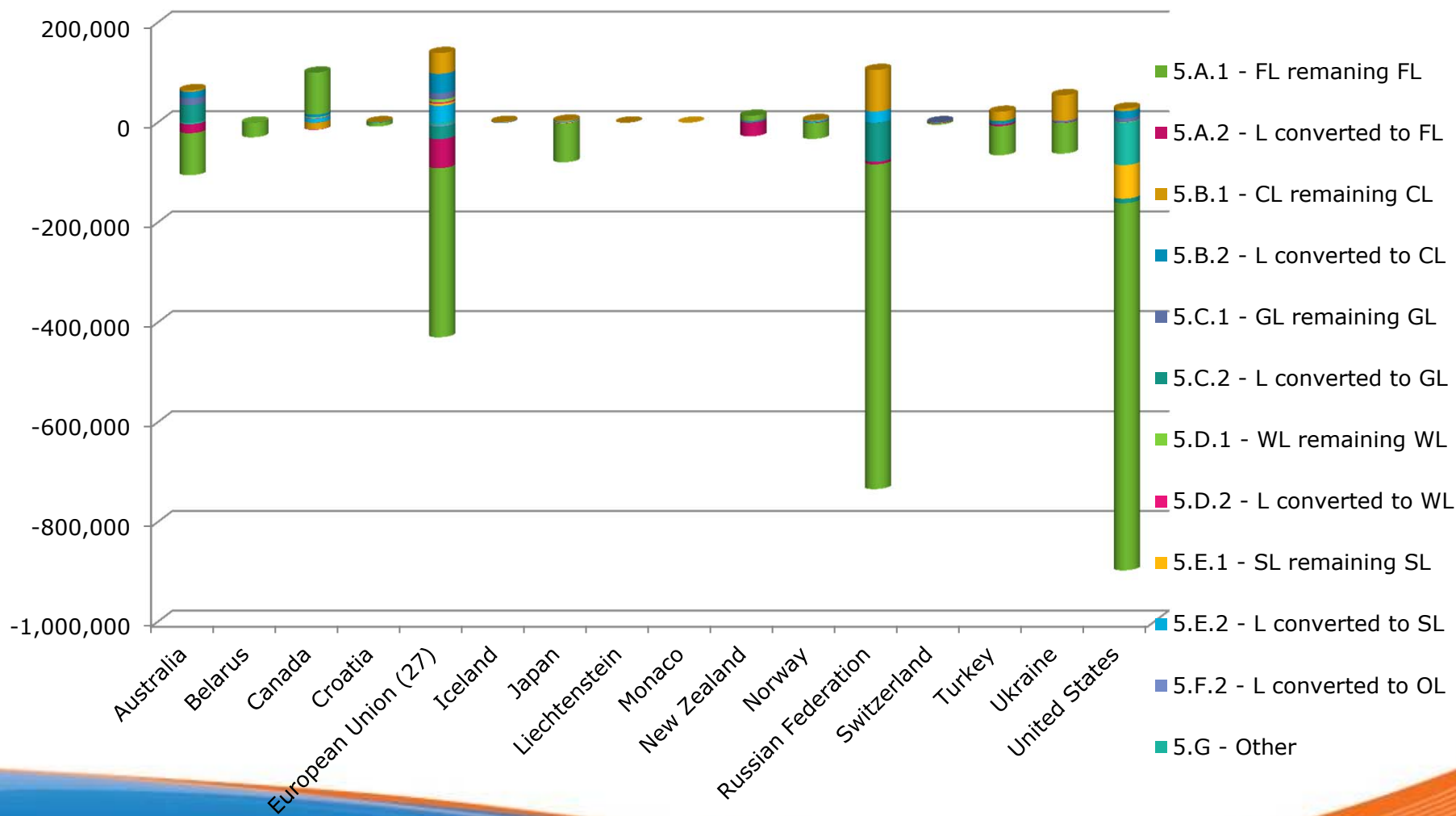


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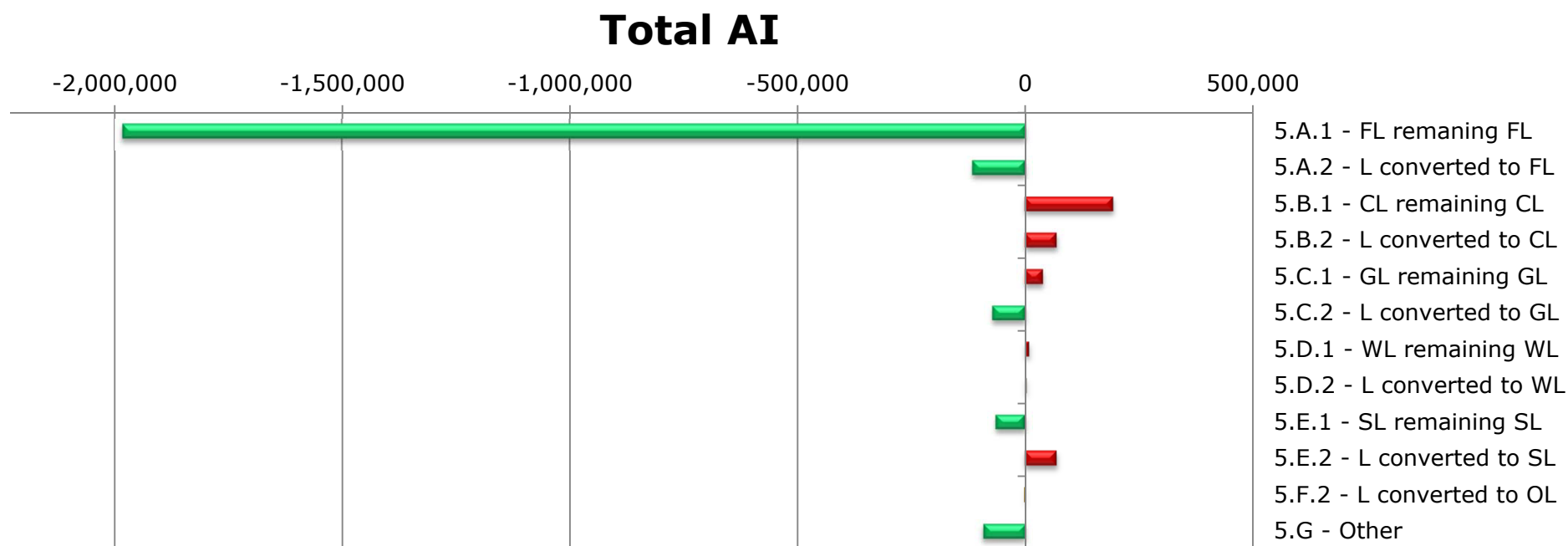
# GHGs Inventory UNFCCC

Emissions/removals in 2011



# GHGs Inventory UNFCCC

Emissions/removals in 2011



## Issues... to be addressed in both approaches

1. Anthropogenic emissions and removals (managed land proxy)
2. Base year, reference level (same or different?)
3. Identify emissions resulting from Natural disturbances
4. Uncertainty
5. HWP pool information



## How comprehensive....

- Most of the removals are in Forest Lands (covered by A,R,FM), having ARD and FM mandatory increase substantially the coverage
- Most of the land is covered if Article 3.4 activities are all elected.
- The inclusion of the HWP pool reflects the better the emissions when they occur
- Uncertainty it is still there, but methodologies improved allowing for estimating better emissions is some lands



# Thank you



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