Mapping the contribution of the Turkish forestry sector to the SDGs

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Shortly - Turkish National MRV system design

▶ establish a quality and content framework for GHG reporting in the Turkish Forestry Sector.

▶ assess the current reporting and data environment for forest carbon MRV in Turkish Mediterranean Forests,

▶ provide good practice examples and methodologies for carbon quantification and activity impact modelling

REPORT

TURKISH NATIONAL MRV SYSTEM DESIGN

VERSION 1.1

Project area (source: UNDP Project Document)
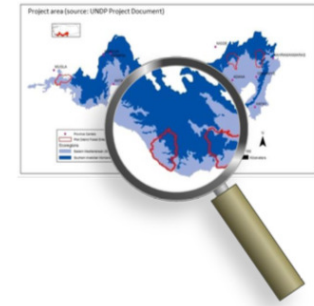
Prepared by
Gold Standard Foundation & TREES Forest Carbon Consulting LLC
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Gold Standard

TREES*
Forest Carbon Consulting

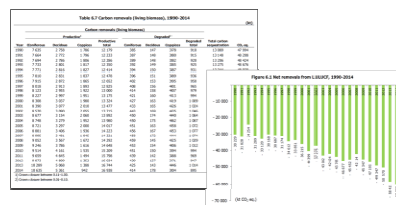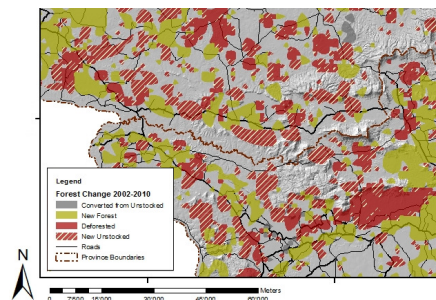# MRV Goals: Valuable Information for Forest Management and Reporting

Forestry MRV system

- (National) Greenhouse Gas Inventory and Reporting
- Forest management strategy & plans
- Climate change mitigation and adaptation
- Sustainability monitoring

Maps (GIS data)
Communication, publication
Spatial data analysis and modeling
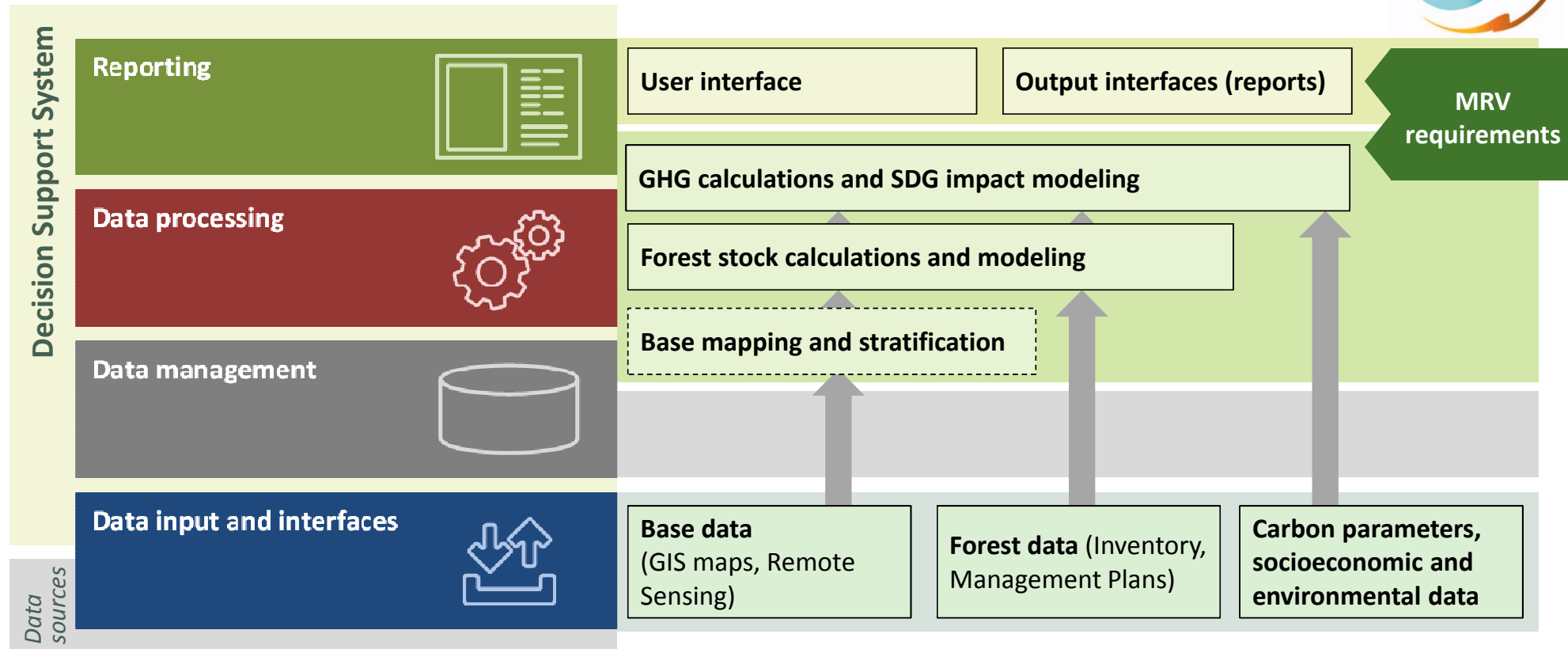Change visualization (historic or prospective)
Land use management

Cockpit report
Policy or management reporting ("at-a-glance reports")
Scenario impact modeling (comparison of activity options)
Change visualization
Decision support

Data tables
Consolidation into higher-level reports (e.g. UNFCCC reports)
Data analysis, research
Further processing (in other systems)

MRV Architecture: General Setup for Turkey

Decision Support System

Reporting	User interface	Output interfaces (reports)

MRV requirements

GHG calculations and SDG impact modeling

Data processing

Forest stock calculations and modeling

Data management

Base mapping and stratification

Data input and interfaces

Data sources

Base data (GIS maps, Remote Sensing)

Forest data (Inventory, Management Plans)

Carbon parameters, socioeconomic and environmental data

Linkage to SDGs

Sustainable Development Goals	Activity Type						
	A/R		IFM			Conservation	
SDG Goal	Timber Harvest	Conservation	Prevent loss of stocks	Increase stocks	Increase HWP	Conservation	Restoration
SDG 1 - No Poverty							
Instigation or increase of smallholder income from forestry and forest products	green	gray	green	green	green	gray	gray
SDG 2 - No Hunger							
Instigation or increase of food productivity from forests	green	green	green	green	green	green	green
Contribution to agricultural quality and resilience	orange	orange	green	green	green	green	orange
SDG 3 - Good Health							
Instigation or improvement of production of medicinal products	green	green	green	green	green	green	green
SDG 4 - Quality Education							
Provision of forestry access, skills, training and education to the public, students and workers	green	green	green	green	green	green	green
SDG 5 - Gender Equality							
Provision of quality employment and leadership roles for women	orange	orange	orange	orange	orange	orange	orange
Enabling womens access to forest benefits	orange	orange	orange	orange	orange	orange	orange
SDG 6 - Water and Sanitation							
Water filtration - improved water quality and quantity outputs from forested areas	orange	orange	green	green	green	green	green
Contribution to watershed management including water supply, access, flows etc	orange	orange	green	green	green	green	green
Contribution to reducing flood risk and improving resilience to flood events	green	green	green	green	green	green	green
Forest impact on stressed water sheds	orange	orange	green	green	green	green	green
SDG 7 - Renewable Energy							
Production of bioenergy and woodfuel materials	green	gray	green	green	green	gray	gray
SDG 8 - Good Jobs and Economic Growth							
Domestic timber and other produce enhances domestic economy and improves resilience	green	gray	green	green	green	gray	gray
Enhanced quantity and quality of employment in forests and supply chains	green	green	orange	green	green	orange	gray
Combat enforced or slave labour and exploitation	orange	orange	orange	orange	orange	orange	orange

Created a drive to carry out the work forward (map the contribution of the forestry sector to the SDGs)

This prototype showed that MRV of SDG benefits is possible and we decided to continue

Mapping the contribution of the Turkish forestry sector to the SDGs
(*Work in progress*)

Why:

▶ To understand the contribution of forestry sector in achieving the SDGs

▶ Highlight the importance of the sector from an SDG perspective

▶ To try out a specific sector process for SDGs.

Mapping the contribution of the Turkish forestry sector to the SDGs
(*Work in progress*)

Aim:

▸ To identify the ecological, social and economic input of and explore how it links to the SDGs

▸ Create a discussion paper to consult/enrich with

Who:

▸ A multi-disciplinary team

▸ Experts on biodiversity, forestry, natural resources economy, sociology, gender, localisation of SDGs and development.

Process

- ‣ Process Planning
- ‣ Linking process
- ‣ Development of indicators
- ‣ Assessment and review process

Indicators cards	
Suggested Indicator (s)	Lorem ipsum lorem ipsum etc. Lorem ipsum lorem ipsum etc.
Related SDG	SDG #
Related target (s)	#
Related indicator(s)	
Nature/attribute	Qualitative: Quantitative:
Existing data situation in relation to the indicator	Available (specify source): Not available:
What/who should be the data source and/or **what should the be the data collection strategy? Please specify**	
Cycle/period	Every 5 or 10 years
Responsible institution (Collecting data)	e.g. TÜİK (Turkish statistical office)
Related institution (area of operation)	
Notes	

...nciples

...e goals that will

1. Group (Social)	2. Group (Biodiversity)	3. Group (Economy)	4. G... (Gen...
SDG 1	SDG 6	SDG 7	SDG 5
SDG 2	SDG 13	SDG 8	SDG 10
SDG 4	SDG 14	SDG 9	
SDG 11	SDG 15		
SDG 12			

...able
...keholders
...ls

8. Based on international consensus
9. Dynamic goals
10. High-quality and consistent measurement

Indicator cards

Suggested Indicator	Number of houses having access to clean water and sewage systems in forest villages
Linked SDG	**Goal 6. Ensure availability and sustainable management of water and sanitation for all**
Linked target	**6.2** By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
Affiliated indicator set	**6.2.1** Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
Nature/attribute	Qualitative: Quantitative: X
Existing data situation in relation to the indicator	Available (Specify source): Not available: X
What/who should be the **data source** and/or what should be the **data collection strategy?** Please specify?	
Cycle/ period	Once every 5 or 10 years
Responsible institution (Data collection)	TÜİK
Related institution	
Notes	

Process

▸ Assessment and review proce

SDG	Nur
SDG 1	
SDG 2	
SDG 3	
SDG 4	
SDG 5	
SDG 6	
SDG 7	
SDG 8	
SDG 9	
SDG 10	
SDG 11	
SDG 16	
Total	

157 indicators	→	Discussion over 67 indicators	24 removed
			43 reformulated

Indicator assessment Criteria Definition and level of importance

Criteria	Definition	Importance
1. İlgililik (Relevance)[1]	Hedef ve/veya alt hedef ile ilgililiği Hedefin ölçmek istediği konu ile uyumluluğu	High
2. Yeterlilik (Efficiency)[2]	Ölçmek istenilen hedefi/alt hedef ölçmede etkili olması Göstergeye bakılarak, hedefe ulaşılıp ulaşılamadığı söylemenin mümkün olması	High
3. Uygulanabilirlik (Feasibility)[2]	İlgili veriye erişim kolay olması ya da uygulamasının zor olmaması Veriye erişim başka koşullara bağlı olmaksızın mümkün olması ya da ölçümlemesi kolay üretilebilir veriye dayanıyor olması	High
4. Basitlik (Simple, Single-variable)[3]	Basit ve tekil olması Birbirinden farklı birden fazla şeyi bir arada ölçmeyi hedeflemiyor olması	Medium
5. Ayrıştırılabilirlik (Disintegrated)[3]	Toplumsal cinsiyet, yaş, gelir düzeyi, engellilik gibi değişkenlere göre ayrı karşılaştırmalar yapmaya imkân sağlaması	Medium
6. Sonuç odaklılık (Mainly Outcome-focused)[3]	Sonuçlara odaklanması, süreçler ile değil sonuçlar ile ilgili olması Araçları, etkinlikleri değil sonuçları izlemeye yönelik olması	Medium
	İleride geçerliliğini koruyabilmesi, değişen koşullardan etkilenmemesi Gelecek 15 yıl boyunca aynı şekilde ölçümleyebilmesi	Medium
	Uluslararası standartlar ile ya da veri toplama sistemleri ile uyumlu olması Yalnızca uygulanan ülkeye ait özgün özelliklere bağlı olmaması	Low
9. Anlaşılabilirlik (Comprehensibleness)[3]	Kolay anlaşılabilir olması Farklı kişi / kurum ve uzmanlar tarafından aynı şekilde anlaşılması	Low
10. Özgüllük (Specitivity)[3]	Özellikle ilişkilendirildiği hedefi ölçmeye yönelik olması Spesifik olarak ilişkilendirildiği hedefe yönelik türetilmiş olması	Low

Process

▸ Assessment and review p

Re-scoring	133 indicators
Re-assessment	58 indicators (scoring less than 3.5 average)
Result of the process	
Reviewed	37 indicators
Removed	21 indicators

122 Indicators updated

Finally
112 Indicators

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Forestry sector's contribution in achieving SDGs – Affiliated SDG indicators

Number of affiliated SDG indicators

153 Indicators

Examples

Indicator	Related Goal	Related Target
Surface area (ha) selected according to conservation objectives in forests designated as nature conservation function	15	15.1
Proportion of forest areas to national land surface area (%)	15	15.1 - 15.2
Reforestation area (ha) except in steppe and maquis ecosystem areas	15	15.1 - 15.2
The proportion of rehabilitated mining areas (where mining activities stopped) within forest zones	15	15,1 / 15,2

| Indicator	Related Goal	Related Target
Forest area per inhabitant (m²/kişi) within urban zones	3	3,4 / 3,9 / 11,6

Update of SFM Criteria and indicators in Turkey

Time line	November 2017 – September 2018
Drivers	▸ The need to address the gaps within the existing indicator sets ▸ Update the system according to the built-up experience and developed data collection capacity ▸ Forest Europe update process ▸ Implementation of the Integrated Forest Management Project
Working groups	1) Forest Resources and Carbon Stock 2) Forests Health, Vitality and Integrity 3) Production Functions of Forests 4) Biological Diversity Function 5) Protective Functions of Forests 6) Socio-Economic Functions of Forests
Result	6 criteria and 40 indicators adapted to the Turkish context
Linkage with Forestry SDG Mapping	Assessment of the linkages between the SFM C&I and SDGs

SDG – SFM Criteria & Indicators

SDG - SFM C&I Linkage
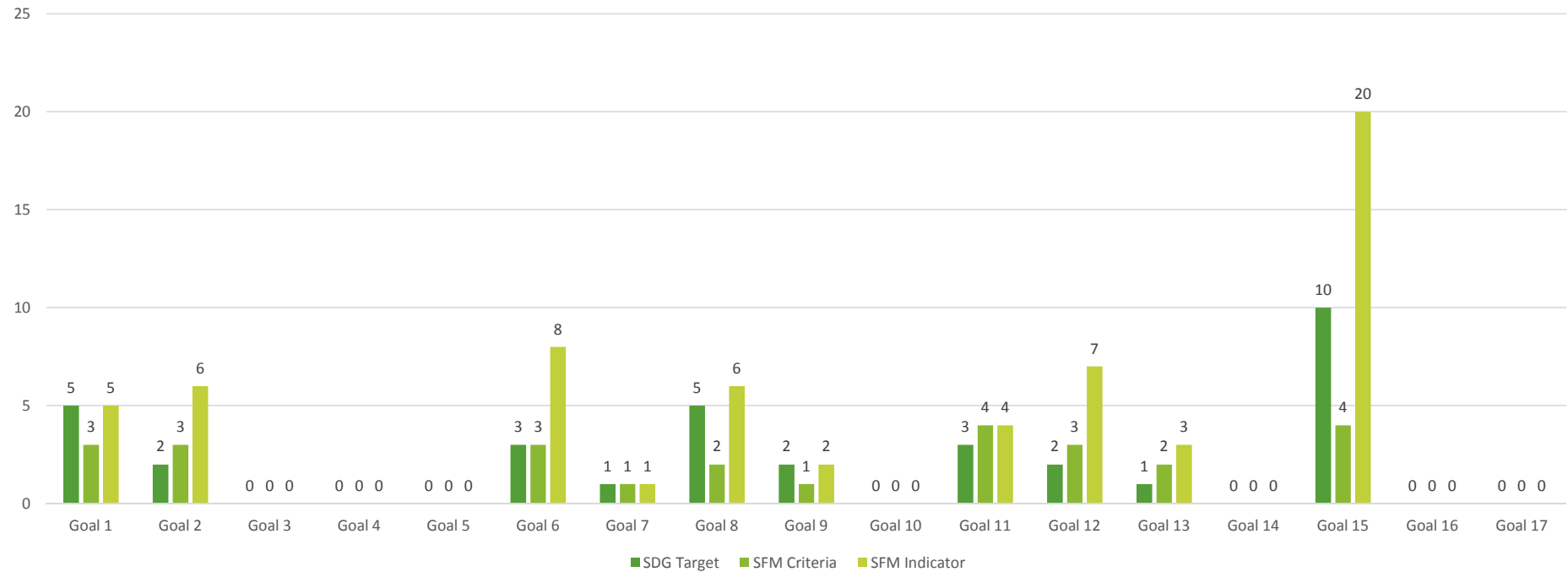
Related SDGs

## Potential SFM C&I providing data to monitor contribution to SDGs

C1: Forest resources and carbon stocks	C2: Forest Ecosystem Health and Vitality	C3: Productive Functions of Forests (Wood and Non-Wood)
I1.1 Forest area I1.2 Growing stock I1.3 Forest carbon I1.5 Forest areas managed through plans	G2.1 Forests affected by natural factors G2.2 Silvicultural activities G2.3 Human induced damages G2.4 Grazing damages G2.5 Authorisations and allotments G2.6 Air pollution and areas affected by climate change G2.7 Forest roads and facilities	G3.1 Increment and production G3.2 Non-wood products and services G3.3 Certified forests
C4: Biological Diversity Functions of Forest Ecosystems	**C5: Protective Functions in Forest (notably soil and water)**	**C6: Socio-economic Functions of Forest Ecosystems**
G4.1 Tree species diversity G4.2 Regeneration G4.3 Naturalness G4.4 Introduced tree species G4.5 Dead wood G4.6 Genetic resources G4.8 Threatened forest species G4.9 Protected areas	G5.2 Water protection forests G5.3 Natural disaster and infrastructure protection	G6.1 Contribution of forest sector to GDP G6.2 Forest products supply/demand/ balance G6.3 Employment G6.4 Financial power of forestry G6.6 Forest dependent communities G6.9 Research & development, Education and extension

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SDG – SFM Criteria & Indicators

Criteria	6
Indicators	30

Criteria	Indicators
C1: Forest resources and carbon stocks	4
C2: Forest Ecosystem Health and Vitality	7
C3: Productive Functions of Forests (Wood and Non-Wood)	3
C4: Biological Diversity Functions of Forest Ecosystems	8
C5: Protective Functions in Forest (notably soil and water)	2
C6: Socio-economic Functions of Forest Ecosystems	5

Legend: ■ SDG Target ■ SFM Criteria ■ SFM Indicator

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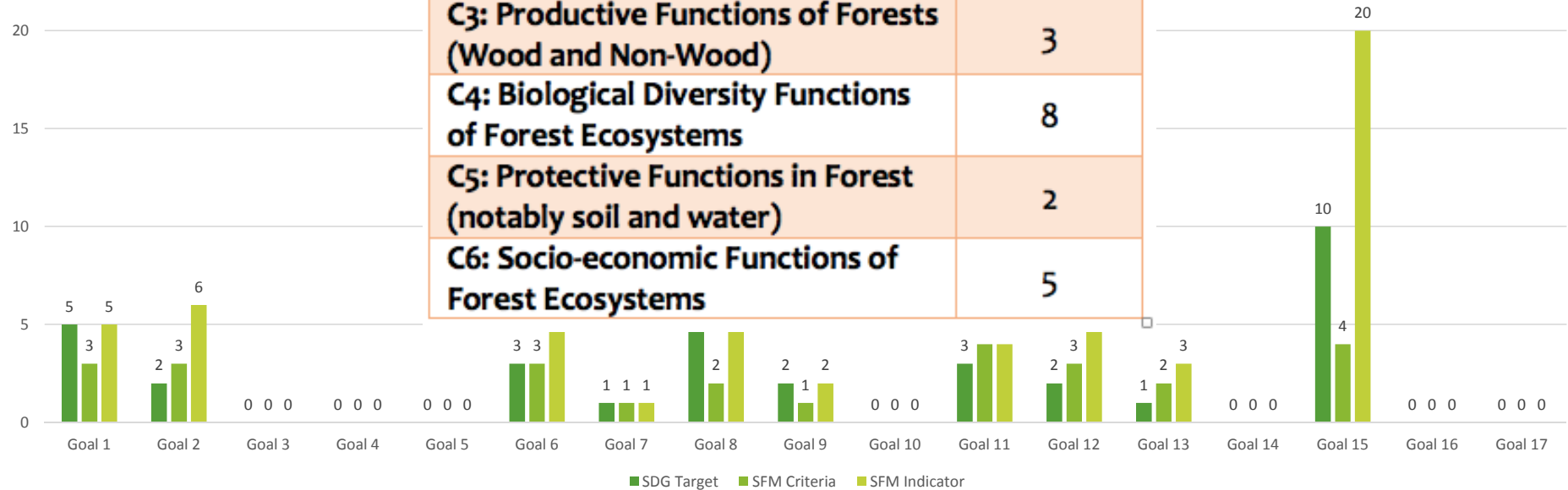
The way forward
(*Work in progress*)

- A methodology created to map the SDGs within the MRV architecture

- A list of indicator to MRV the contribution of forest in achieving SDG at national level

- An updated set of SFM C&I at national scale (beyond forestry sector)

- An assessment of linkages between SFM C&I and SDGs

The way forward;

Discussion paper to move the dialogue with a wider audience

- At national level
- At international level

Thank you

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