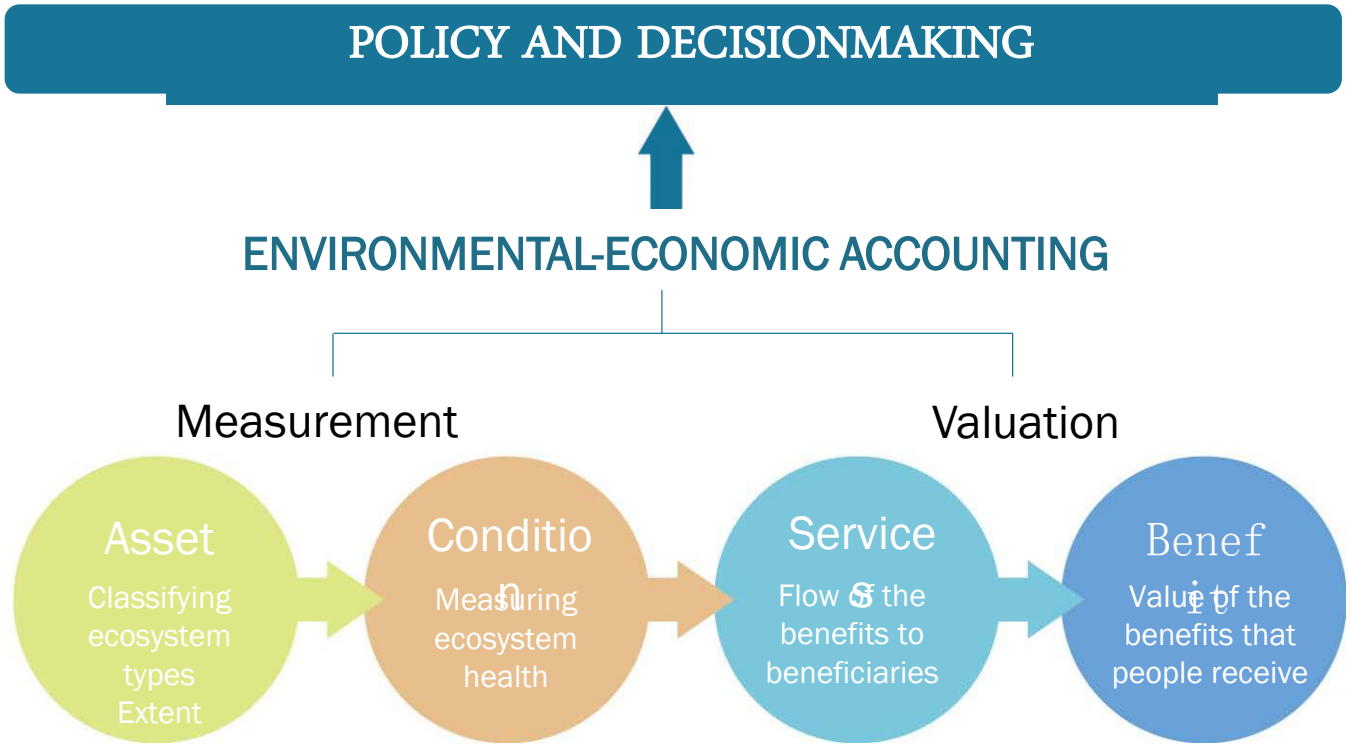
System of Environmental Economic Accounting

SEEA and SDG

United Nations Statistics Division

United Nations

SEEA Ecosystem Accounting



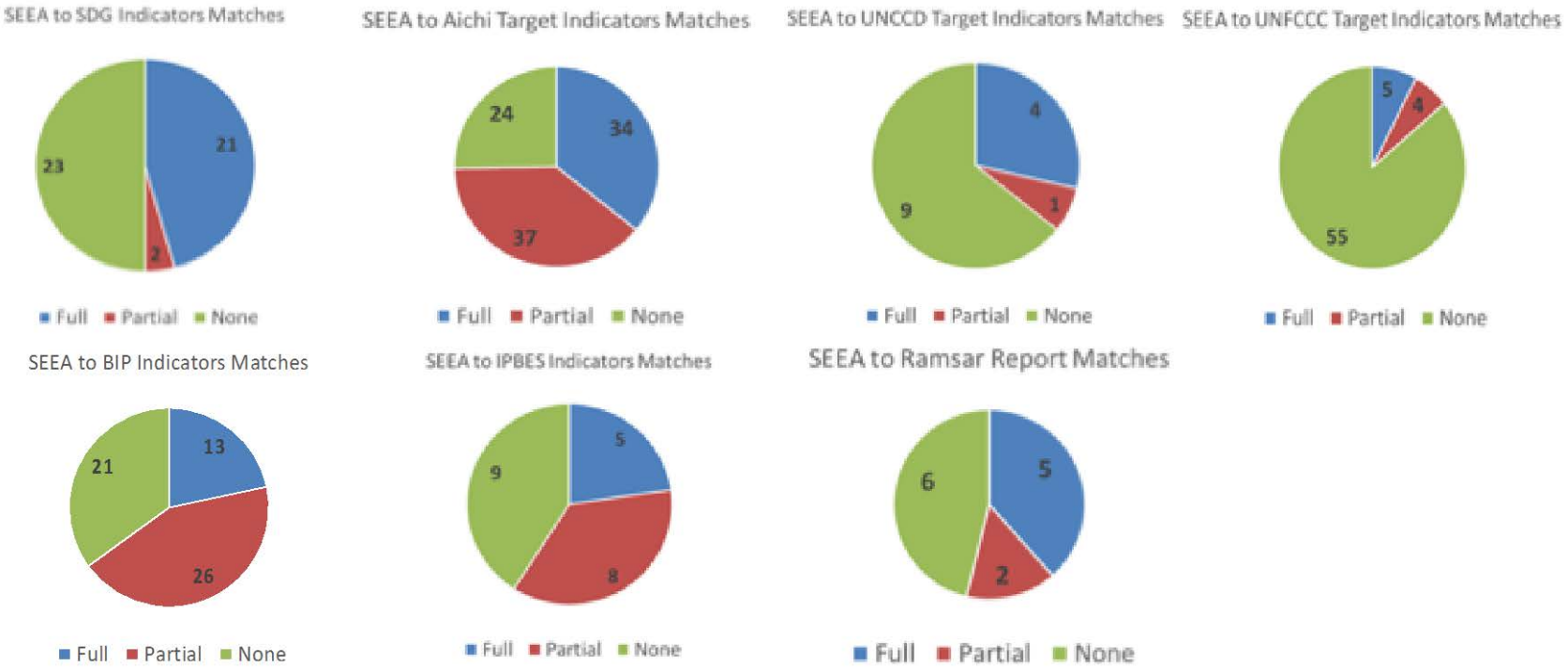
SEEA

Global Indicator Initiatives

- Inter-Agency Expert Group on SDG Indicators (IAEG-SDG)
- United Nations Convention on Biological Diversity (UNCBD) Aicl Indicators
- United Nations Convention to Combat Desertification (UNCCD) Indicators
- United Nations Framework Convention on Climate Change (UNFCCC) Indicators
- Biodiversity Indicator Partnership (BIP) Indicators
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Indicators
- Sendai Framework for Disaster Risk Reduction (Sendai) indicators
- Ramsar Convention on wetlands (Ramsar) Indicators

Assessing the linkages between global indicators, the SEEA & The SDGs

Results by Global Indicator Initiative (314 Indicators)



Assessing the linkages between global indicators, the SEEA & The SDGs

The SEEA and the SDGs

The SEEA supports 40 indicators for 9 SDGs

GOAL 2: Zero Hunger
GOAL 6: Clean Water and Sanitation
GOAL 7: Affordable and Clean Energy
GOAL 8: Decent Work and Economic Growth
GOAL 9: Industry, Innovation and Infrastructure
GOAL 11: Sustainable Cities and Communities
GOAL 12: Responsible Consumption and Production
GOAL 14: Life Below Water
GOAL 15: Life on Land

Assessing the linkages between global indicators, the SEEA & The SDGs

SEEA & Aichi Target 2

DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY XIII/28. Indicators for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

Aichi Biodiversity Target	Generic Indicator	Specific Indicator	Source
Target 2 - By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems	Trends in incorporation of measures of stock and flow of natural resources into national accounting	Number of countries implementing natural resource accounts, excluding energy, within the System of Environmental-Economic Accounting (SEEA)	UNSTATS, World Bank
	Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention	Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020 (indicator for SDG target 15.9)	
	Trends in integration of biodiversity and ecosystem service values into sectoral and development policies	Number of countries that have integrated biodiversity in National Development Plans, poverty reduction strategies or other key development plans	Roe D. (2010)

Recent development on mainstreaming SEEA into SDG and post-2020 Global Biodiversity Framework

- At the tenth meeting of the Inter-agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) held in Addis Ababa, from 21-24 October 2019, members of the group gathered to review proposals for several SDG indicators, including indicator 15.9.1 and 12.b.1.
- Indicator 15.9.1 measures "Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020."
- The SEEA has strong relevance to Aichi Target 2, which refers explicitly to the integration of biodiversity values into policy through national accounting and reporting systems.

SEEA & SDG 15.9.1

- To advance this indicator, the CBD, UN Environment and the UNSD brought a proposal to the IAEG-SDGs, requesting to upgrade the indicator from its Tier III status and called for a two-part indicator,
  - Part A will be determined by a self-assessment of progress towards national commitments and mapped against the components of Target 2, as identified within each submitted NBSAP.
  - Part B looks at the integration of biodiversity values into national accounting and reporting systems, defined as implementation of the SEEA.
    - The indicator for this will look specifically at those countries compiling either the SEEA Central Framework or the SEEA Experimental Ecosystem Accounting.
    - This data will come from the results of the Global Assessment of Environmental-Economic Accounting and Supporting Statistics, which is regularly administered by the UNSD under the auspices of the UN Committee of Experts on Environmental-Economic Accounting (UNCEEA).
- **The proposal was adopted at the last meeting of the IAEG SDG in October**

SEEA & SDG 12.b.1

- The SEEA is now also part of indicator 12.b.1, under custodian of the World Tourism Organization (UNWTO).
- Target 12.b is to develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.
- Indicator 12.b.1 is progress towards implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability.
- Implementation of these standard accounting tools will be measured by implementation of the Tourism Satellite Account: Recommended Methodological Framework 2008 and the SEEA Central Framework. Similar to indicator 12.9.1, data for this indicator will also come from the

The SEEA enables a transformative biodiversity agenda

UNSD has submitted an official comment to the CBD COP on the SEEA and biodiversity.

- A consistent monitoring framework
- Helps make the case for protecting biodiversity by showing links to well-being
- Provides information on the drivers of biodiversity loss
- Can help track effectiveness of investments and policies aimed at biodiversity protection

SEEA

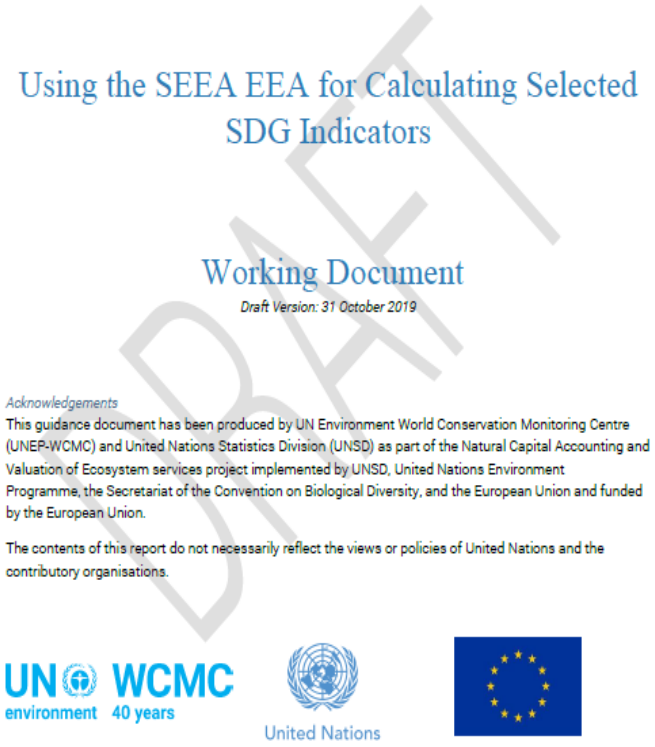
Advisory Group on Mainstreaming of Biodiversity

- "*To advise the Executive Secretary and the Bureau on further development of the proposal for a long-term approach to mainstreaming biodiversity, (…), including on ways to integrate mainstreaming adequately into the post-2020 global biodiversity framework, to be submitted to the Subsidiary Body on Implementation for consideration at its third meeting*"
- UNSD is part of the review group and will receive the first report for input next week
- NCA is being considered in the Post-2020 biodiversity framework

Working Paper: Using the SEEA EEA for Calculating Selected SDG Indicators

- Provides a set of suggested steps for the implementation of a national programme of work for calculating SDG target indicators using the SEEA EEA framework.
- Also provides a set of four technical notes for the calculation of SDG Target Indicators 15.1.1, 15.3.1, 6.6.1 and 11.7.1 using the SEEA EEA.
- Developed by the UN Environment World Conservation Monitoring Centre (UNEP-WCMC) and United Nations Statistics Division (UNSD) as part of the Natural Capital Accounting and Valuation of Ecosystem services project

System of Environmental Economic Accounting



Using the SEEA EEA for Calculating Selected SDG Indicators

Working Document

Draft Version: 31 October 2019

DRAFT

Acknowledgements

This guidance document has been produced by UN Environment World Conservation Monitoring Centre (UNEP-WCMC) and United Nations Statistics Division (UNSD) as part of the Natural Capital Accounting and Valuation of Ecosystem services project implemented by UNSD, United Nations Environment Programme, the Secretariat of the Convention on Biological Diversity, and the European Union and funded by the European Union.

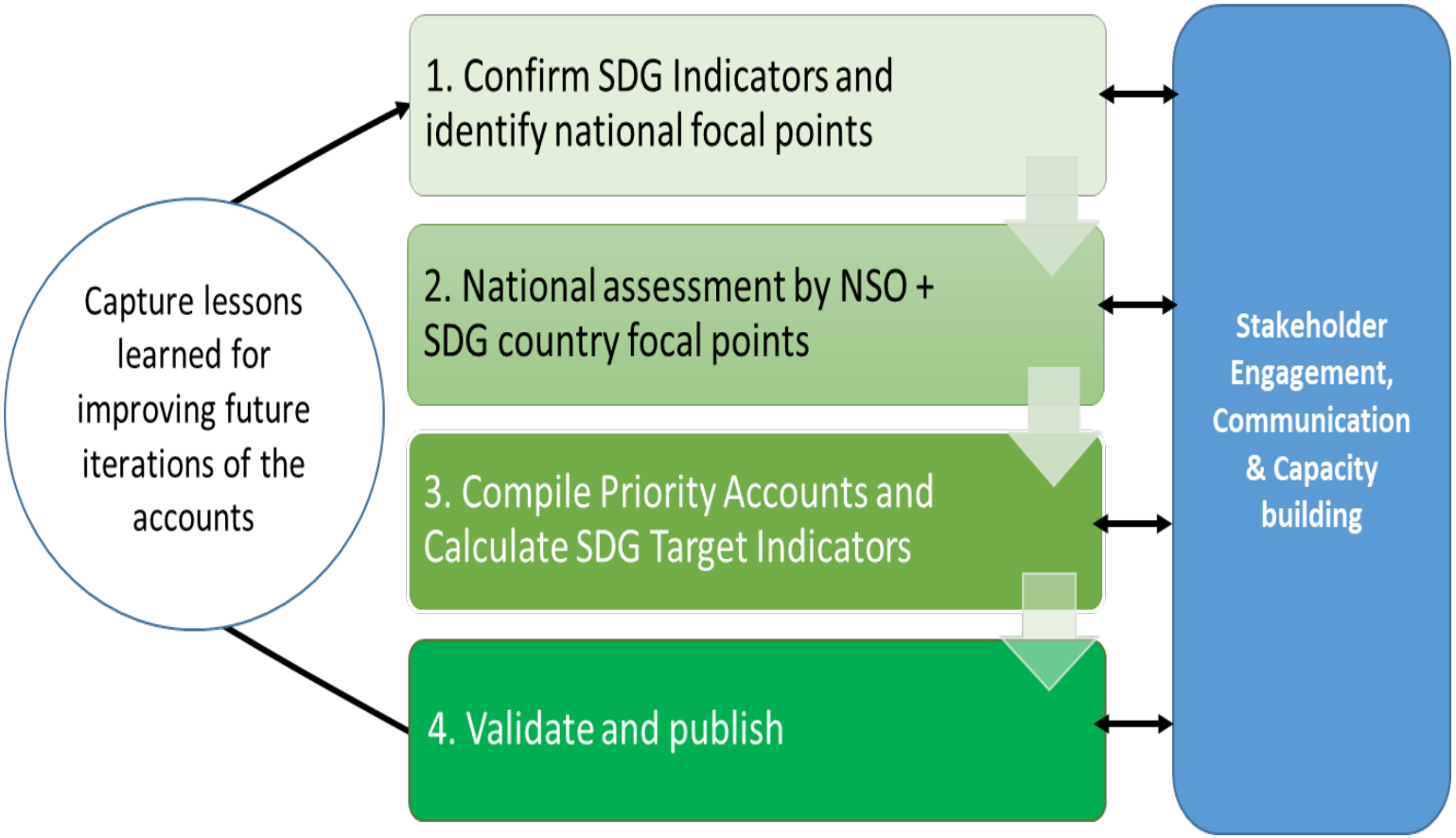
The contents of this report do not necessarily reflect the views or policies of United Nations and the contributory organisations.

UN environment WCMC 40 years

United Nations

SEEA

Implementation step



SDG Indicators & SEEA

- SDG 6.6.1: Change in the extent of water related ecosystems over time
- SDG 11.7.1*: Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities
- SDG 15.3.1: Proportion of land that is degraded over total land area
- SDG 15.1.1: Forest area as a proportion of total land area
- Protected Area Coverage* (SDG 14.5.1; SDG 15.1.2; SDG 15.4.1)

- * = Prioritised by workshop participants

Accounting table for SDG 15.1.1 – Forest Ecosystem Extent

	Ecosystem type (IUCN ET)														
	T1.1Tropical/Subtropical lowland rainforests*	T1.2 Tropical/Subtropical dry forests and scrubs*	T1.3 Tropical/Subtropical montane rainforests*	T1.4 Tropical heath forests*	T2.1 Boreal and montane needle-leaved forest and woodland*	T2.2 Temperate deciduous forests and shrublands*	T2.3 Cool temperate rainforests*	T2.4 Warm temperate rainforests*	T2.5 Temperate pyric humid forests*	T2.6 Temperate pyric sclerophyll forests and woodlands*	T7.3 Plantations*	FT1.1 Tropical flooded forests and peat forests*	FT1.3 Subtropical/temperate forested wetlands*	MFT1.2 Intertidal forests and shrublands*	TOTAL FOREST AREA*
Opening Stock (ha)															
Additions to stock															
Managed expansion															
Natural Expansion															
Upward reappraisals															
Other additions															
Total additions to stock															
Reductions in stock															
Managed regression															
Natural Regression															
Downward reappraisals															
Other reductions															
Total reductions in stock															
Net change in stock															
Closing stock (ha)															

* Green Indicates ecosystem types relevant to forest area of SDG indicator 15.1.1.

SEEA

Accounting table for SDG 15.3.1 –Land Degradation

Classifications >>	T2.2 Temperate deciduous forests and shrublands		T4.4 Temperate wooded savannas		T4.5 Temperate grasslands		T6.4 Temperate alpine meadows and shrublands		T7.1 Croplands		T7.2 Sown pastures and old fields		T7.3 Plantations		T7.4 Urban and infrastructure lands		FT1.2 Seasonal floodplain marshes		FT1.5 Boreal, temperate and montane peat bogs		Total Land		F1.1 Permanent upland streams	F1.2 Permanent lowland rivers	F2.2 Large permanent freshwater lakes	F2.3 Small permanent freshwater lakes	F4.1 Large reservoirs	TOTAL AREA
	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded	Degraded	Not Degraded						
Opening Extent (Ha, 2000)		250		250		100		250		250		250		150		60		60		60	-	1,680	5	10	20	10	10	1,735
Reclassifications (Land Cover Change																												
Degradation									25		25		10		40						100							
Improvement		-		5		5		-										20				30						
Stable		(30)		(30)		(35)		25		(45)		(30)		(35)		65		(15)		-		(130)						
Reclassified Extent	-	220	-	225	-	70	-	275	25	205	25	220	10	115	40	125	-	65	-	60	100	1,580						
Further Additions																												
Land Productivity	5	(5)	3	(3)	20	(20)	10	(10)	45	(45)	35	(35)	2	(2)	-	-	2	(2)	-	-	102	(102)						
Carbon stocks	0	-	-	-	10	(10)	4	(4)	10	(10)	15	(15)	-	-	-	-	-	-	-	-	29	(29)						
*Total additions to stock**	5	(5)	3	(3)	24	(24)	12	(12)	40	(40)	40	(40)	2	(2)	0	0	2	-2	0	0	104	(104)						
Further Reductions																												
Land Productivity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Carbon stocks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
*Total reductions to stock**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Net further additions	5	(5)	3	(3)	24	(24)	12	(12)	40	(40)	40	(40)	2	(2)	-	-	2	(2)	-	-	128	(128)						
Closing (Ha, 2015)	5	215	3	222	24	46	12	263	65	165	65	180	12	113	40	125	2	63	-	60	228	1,452	5	10	20	10	10	1,735

*Further Additions and Further Reductions are not simply the sum of degraded / non degraded areas due to Land Productivity or Carbon Stock trends. This is because a BSU may be degraded by reason of either of these sub-indicators, or due to land cover change. As such, the Net further additions should be expected to be lower that the sum of degraded / non degraded areas due to land cover change, land productivity or carbon stock trends. Where changes in SOC are based on land cover flows these can be captured using a similar 'Reclassifications' approach as employed for the land cover change indicator.

SEEA

Accounting table for SDG 6.6.1 – Freshwater ecosystem extent

	Ecosystem type (IUCN ET)																						TOTAL AREA
	T2.2 Temperate deciduous forests and shrublands	T4.4 Temperate wooded savannas	T4.5 Temperate grasslands	T6.4 Temperate alpine meadows and shrublands	T7.1 Croplands	T7.2 Sown pastures and old fields	T7.3 Plantations	T7.4 Urban and infrastructure lands	FT1.2 Seasonal floodplain marshes*	FT1.3 Subtropical/temperate forested wetlands*	F1.1 Permanent upland streams*	F1.2 Permanent lowland rivers*	F2.2 Large permanent freshwater lakes*	F2.3 Small permanent freshwater lakes*	F4.1 Large reservoirs*	MFT1.1 Coastal river deltas*	MFT1.3 Intertidal marshes*	FM1.2 Permanently open riverine estuaries and bays*	TOTAL AREA OF WATER-RELATED ECOSYSTEMS*	TM1.3 Sandy Shores	M1.7 Subtidal sandy bottoms	
Opening Stock (ha)																							
Additions to stock																							
Managed expansion																							
Natural Expansion																							
Upward reappraisals																							
Other additions																							
Total additions to stock																							
Reductions in stock																							
Managed regression																							
Natural Regression																							
Downward reappraisals																							
Other reductions																							
Total reductions in stock																							
Net change in stock																							
Closing stock (ha)																							

* Blue Indicates ecosystem types relevant to water-related ecosystems and SDG target indicator 6.6.1

SEEA

Accounting table for urban ecosystem for SDG 11.7.1

Classifications >>	Urban							Suburban							Fringe open space					TOTAL URBAN EXTENT (Urban + suburban + fringe open sapce)		
	Public open green space^	Public open blue space^	Other public open space	Area allocated to streets	Private open space*	Building footprint and other infrastructure	Total urban area	Public open green space^	Public open blue space^	Other public open space	Area allocated to streets	Private open space*	Building footprint and other infrastructure	Total suburban area	Public open green space^	Public open blue space^	Other public open space	Not publicly accessible	Total fringe open space area	Public open blue / green space	All public open space	TOTAL AREA
Opening Stock (Ha, 2015)																						
Additions to stock																						
Total additions to stock																						
Reductions in stock																						
Total reductions in stock																						
Net change in stock																						
Closing stock (Ha, 2020)																						

^ Public open green and blue space can be disaggregated by ecosystem type (e.g., cropland, wetland and forests in the city or fringe) or detailed descriptors for open space, such as cemetery, local park, etc.

* Private Open Space could be further disaggregated to green, blue and other spaces

SEEA

THANK YOU

seea@un.org