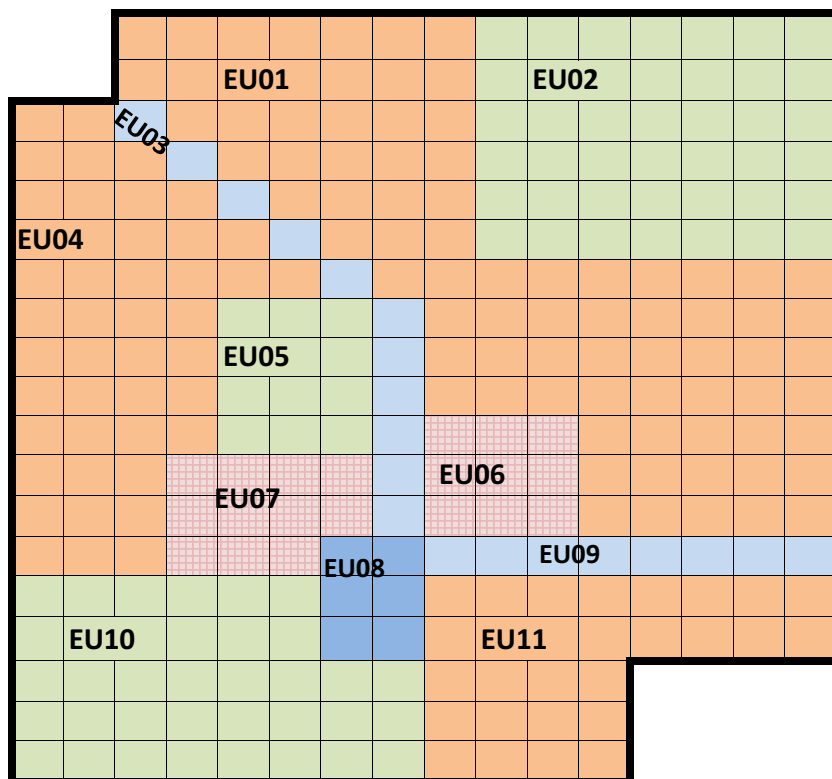


Spatial Units: Group Exercise 1: Calculate area of each EU and EU type



Note: One BSU = 250m*250m = 6.25 ha

EAU area = 288 BSUs = 18 km²

1 ha = (100m x 100m) = 10,000m²

1 km² = 100 ha = 1,000,000m²

EU Table

EU	BSU count	Area (km ²)
EU01 = Herbaceous crops		
EU02 = Tree covered areas		
EU03 = Inland water bodies		
EU04 = Herbaceous crops		
EU05 = Tree covered areas		
EU06 = Artificial surfaces (urban)		
EU07 = Artificial surfaces (urban)		
EU08 = Shrubs..regularly flooded (wetland)		
EU09 = Inland water bodies		
EU10 = Tree covered areas		
EU11 = Herbaceous crops		
Total		

Summary Table

EU Type	BSU count	Area (km ²)
Artificial surfaces (urban)		
Herbaceous crops		
Tree covered areas		
Inland water bodies		
Shrubs..regularly flooded (wetland)		
Total		

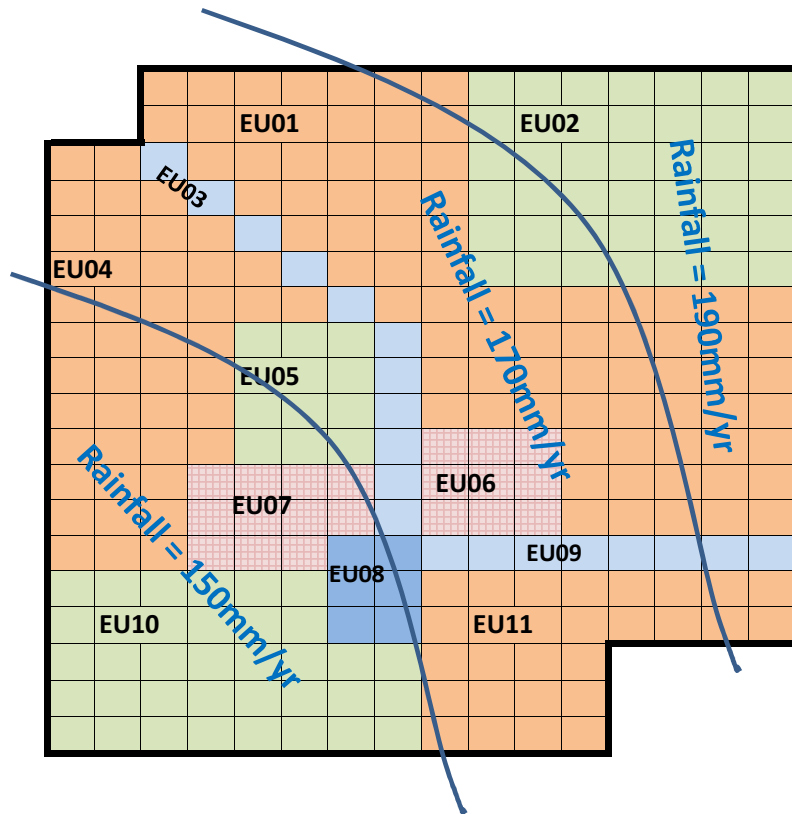
Note: 1 Km² = BSU count / 16

Instructions: (1) Count the BSUs in each EU and record in the BSU Count column of the EU Table.

(2) Calculate the area for each EU

(3) Add the BSU Count and Area for each EU type and record in the Summary Table

Spatial Units: Group Exercise2: Calculate average rainfall (mm/year) for each EU



Rainfall table

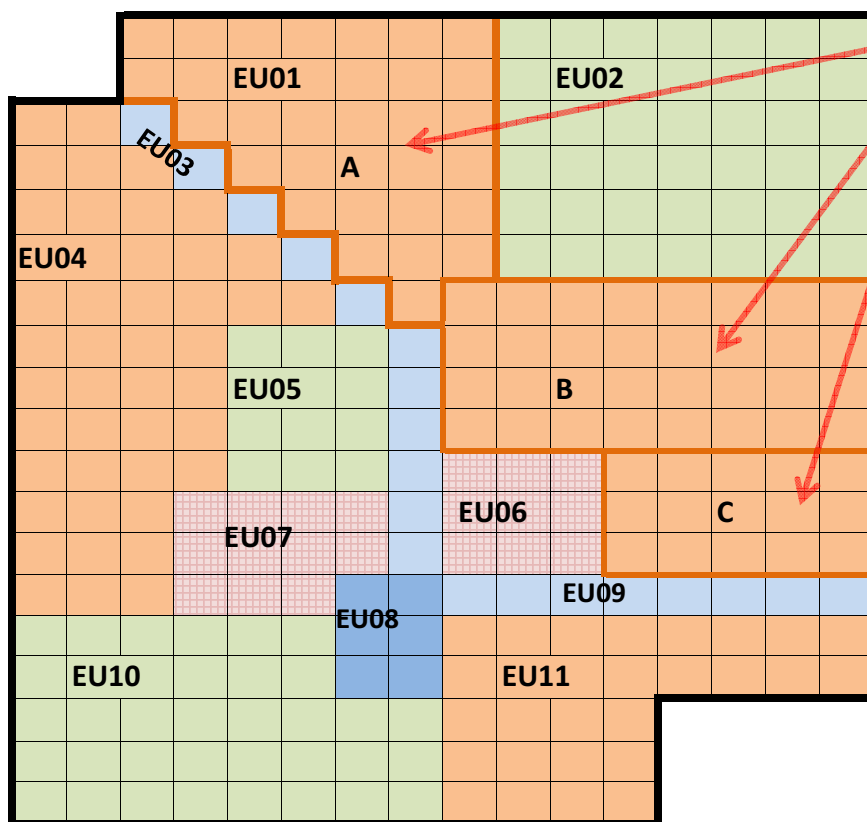
EU02	BSU Count	Total rainfall (mm)
A: Rainfall = 190mm/yr		=BSU*190
B: Rainfall = 170mm/yr		=BSU*170
Total		= A + B

Rainfall summary table

	BSU Count	Average rainfall (mm)
EU02 average Rainfall		=(A+B)/(BSU Count)

- Instructions: (1) For EU02 only, count the number of BSU in each rainfall band. Record in the BSU Count column of the Rainfall Table. Count partial BSUs as well.
 (2) Calculate the Total rainfall
 (3) Calculate the Total BSU Count for EU02.
 (4) Calculate the Average rainfall for EU02 (Total rainfall/total BSU count)

Spatial Units: Group Exercise3: Calculate average production (Tonnes/ha) for EU01



Farm productivity

Farm	Production (tonnes)	BSU Count	Productivity (tonnes/ha)
A	6,500		
B	9,000		
C	3,200		

=Production / BSU / 16

=Production / BSU / 16

=Production / BSU / 16

EU01 Productivity

	Total Production	BSU Count	Average Productivity
EU01			

=Production / BSU / 16

- (1) Count the number of BSUs in each farm (A, B, and C). Record the results in the BSU Count column.
- (2) Calculate the Productivity of each farm (A, B, and C). Record in the result in the Productivity column.
- (3) Calculate the Total Production for EU01. Calculate the Total BSU Count for EU01.
- (4) Calculate the Average Productivity for EU01.

Classification: Group Exercise 1: Classify Land Cover into SEEA Classes

SEEA Land Cover Classification

01 Artificial surfaces (including urban and associated areas)	The class is composed of any type of areas with a predominant artificial surface. Any urban or related feature is included in this class, for example, urban parks (parks, parkland and laws). The class also includes industrial areas, and waste dump deposit and extraction sites.
02 Herbaceous crops	The class is composed of a main layer of cultivated herbaceous plants (graminoids or forbs). It includes herbaceous crops used for hay. All the non-perennial crops that do not last for more than two growing seasons and crops like sugar cane, where the upper part of the plant is regularly harvested while the root system can remain for more than one year in the field, are included in this class.
03 Woody crops	The class is composed of a main layer of permanent crops (trees or shrub crops) and includes all types of orchards and plantations (fruit trees, coffee and tea plantation, oil palms, rubber plantation, Christmas trees, etc.).
04 Multiple or layered crops	This class combine two different land cover situations: Two layers of different crops. A common case is the presence of one layer of woody crops (trees or shrubs) and another layer of herbaceous crop, e.g., wheat fields with olive trees in the Mediterranean area and intense horticulture, or oasis or typical coastal agriculture in Africa, where herbaceous fields are covered by palm trees. Presence of one important layer of natural vegetation (mainly trees) that covers one layer of cultivated crops. Coffee plantations shadowed by natural trees in the equatorial area of Africa are a typical example.
05 Grassland	This class includes any geographical area dominated by natural herbaceous plants (grasslands, prairies, steppes and savannahs) with a cover of 10 per cent or more, irrespective of different human and/or animal activities, such as grazing or selective fire management. Woody plants (trees and/or shrubs) can be present, assuming their cover is less than 10 per cent.
06 Tree-covered areas	This class includes any geographical area dominated by natural tree plants with a cover of 10 per cent or more. Other types of plants (shrubs and/or herbs) can be present, even with a density higher than that of trees. Areas planted with trees for afforestation purposes and forest plantations are included in this class. This class includes areas seasonally or permanently flooded with freshwater. It excludes coastal mangroves (→07).
07 Mangroves	This class includes any geographical area dominated by woody vegetation (trees and/or shrubs) with a cover of 10 per cent or more that is permanently or regularly flooded by salt and/or brackish water located in the coastal areas or in the deltas of rivers.
08 Shrub-covered areas	This class includes any geographical area dominated by natural shrubs having a cover of 10 per cent or more. Trees can be present in scattered form if their cover is less than 10 per cent. Herbaceous plants can also be present at any density. The class includes shrub-covered areas permanently or regularly flooded by inland fresh water. It excludes shrubs flooded by salt or brackish water in coastal areas (→07).

09 Shrubs and/or herbaceous vegetation, aquatic or regularly flooded	This class includes any geographical area dominated by natural herbaceous vegetation (cover of 10 per cent or more) that is permanently or regularly flooded by fresh or brackish water (swamps, marsh areas, etc.). Flooding must persist for at least two months per year to be considered regular. Woody vegetation (trees and/or shrubs) can be present if their cover is less than 10 per cent.
10 Sparsely natural vegetated areas	This class includes any geographical areas where the cover of natural vegetation is between 2 per cent and 10 per cent. This includes permanently or regularly flooded areas.
11 Terrestrial barren land	This class includes any geographical area dominated by natural abiotic surfaces (bare soil, sand, rocks, etc.) where the natural vegetation is absent or almost absent (covers less than 2 per cent). The class includes areas regularly flooded by inland water (lake shores, river banks, salt flats, etc.). It excludes coastal areas affected by the tidal movement of saltwater (→14).
12 Permanent snow and glaciers	This class includes any geographical area covered by snow or glaciers persistently for 10 months or more.
13 Inland water bodies	This class includes any geographical area covered for most of the year by inland water bodies. In some cases, the water can be frozen for part of the year (less than 10 months). Because the geographical extent of water bodies can change, boundaries must be set consistently with those set by class 11, according to the dominant situation during the year and/or across multiple years.
14 Coastal water bodies and intertidal areas	The class is defined on the basis of geographical features of the land in relation to the sea (coastal water bodies, i.e., lagoons and estuaries) and abiotic surfaces subject to water persistence (intertidal areas, i.e., coastal flats and coral reefs).

Classification: Group Exercise 1: Classify Land Cover into SEEA Classes

Land Cover Database

Land Cover	Area (ha)	SEEA Land Cover Class
Urban residential	32	
Urban commercial	15	
Urban park - football fields	8	
Roads	4	
Woodland	23	
Coniferous forest	40	
Deciduous forest	45	
Crops - wheat	30	
Crops - apples	20	
Shrubland - dry	12	
Swamp	5	
Peatland	13	
River	23	
Estuary	30	
Coral reef	20	
Crops - apples and hay	12	
Mineral excavation area	12	
Rocky shore	5	
Desert (sand)	16	
Lake	24	
Total	389	

SEEA Land Cover Class	Area (ha)
01 Artificial surfaces (including urban and associated areas)	
02 Herbaceous crops	
03 Woody crops	
04 Multiple or layered crops	
05 Grassland	
06 Tree-covered areas	
07 Mangroves	
08 Shrub-covered areas	
09 Shrubs and/or herbaceous vegetation, aquatic or regularly flooded	
10 Sparsely natural vegetated areas	
11 Terrestrial barren land	
12 Permanent snow and glaciers	
13 Inland water bodies	
14 Coastal water bodies and intertidal areas	
Total	

Instructions: Step 1: Classify National land cover database items according to SEEA Land Cover Classification. Record SEEA Land Cover Class

Step 2: Add areas with the same SEEA classes and record totals in SEEA Land Cover Class table

Extent Account: Step 1 - Calculate Opening and Closing Land Cover (hectares)

Opening Land Cover

M	M	M	M	M	S	G	G	S	S
G	M	M	S	S	S	G	S	S	S
T	G	S	G	G	G	G	S	S	S
T	G	A	A	G	G	S	T	T	T
T	G	A	A	A	A	T	T	T	T
T	T	T	A	A	A	C	C	C	T
E	T	A	P	P	A	A	C	C	T
S	S	A	P	P	P	C	C	T	T
S	A	A	P	R	R	R	G	T	T
S	S	A	R	R	R	R	T	T	T

Note: Each cell represents one hectare.

Closing Land Cover

P	M	M	M	M	S	G	G	S	S
G	M	M	S	S	S	G	S	S	S
C	G	S	G	G	G	G	C	C	S
C	C	A	A	G	G	S	C	C	T
C	G	A	A	A	A	C	C	C	T
T	T	T	A	A	A	C	C	C	T
E	T	A	A	A	A	A	C	C	T
S	S	A	A	P	P	C	C	T	T
S	A	A	P	R	R	R	G	T	T
S	S	A	R	R	R	R	T	T	T

Note: Each cell represents one hectare.

Opening Land Cover		Code	Count (ha)
Artificial surfaces		A	
Crops		C	
Grassland		G	
Tree covered area		T	
Mangroves		M	
Shrub covered area		S	
Regularly flooded areas		R	
Sparse natural vegetated areas		P	
Terrestrial barren land		E	
Permanent snow, glaciers and inland water bodies		X	
Total			100

Closing Land Cover		Code	Count (ha)
Artificial surfaces		A	
Crops		C	
Grassland		G	
Tree covered area		T	
Mangroves		M	
Shrub covered area		S	
Regularly flooded areas		R	
Sparse natural vegetated areas		P	
Terrestrial barren land		E	
Permanent snow, glaciers and inland water bodies		X	
Total			100

Instructions: Count the number of cells (hectares) for each land cover type and record in the Land Cover table.

Extent Account: Step 2 - Calculate Land Cover Change Matrix and Physical Account for Land Cover

Table 1: Net Land Cover Change Matrix (hectares)

		Closing Land Cover										
		Artificial surfaces	Crops	Grassland	Tree covered area	Mangroves	Shrub covered area	Regularly flooded areas	Sparse natural vegetated areas	Terrestrial barren land	Permanent snow, glaciers and inland water bodies	Opening
Opening Land Cover	Code	A	C	G	T	M	S	R	P	E	X	
Artificial surfaces	A											
Crops	C											
Grassland	G											
Tree covered area	T											
Mangroves	M											
Shrub covered area	S											
Regularly flooded areas	R											
Sparse natural vegetated areas	P											
Terrestrial barren land	E											
Permanent snow, glaciers and inland water bodies	X											
Closing												

Note: Rows represent reductions in stock; columns represent deletions in stock

Instructions: (1) Transfer the Opening and Closing areas from the Land Cover Tables.

(2) Count areas with no change and record on the diagonal.

(3) Record changes from Opening to Closing in rows (e.g., 1ha grassland changed to Crop)

(4) Check: Rows add to Opening; Columns add to Closing.

Extent Account: Step 2 - Calculate Land Cover Change Matrix and Physical Account for Land Cover

Table 2: Physical Account for Land Cover

	Artificial surfaces	Crops	Grassland	Tree covered area	Mangroves	Shrub covered area	Regularly flooded areas	Sparse natural vegetated areas	Terrestrial barren land	Permanent snow, glaciers and inland water bodies	Total
Opening Stock											
Additions to Stock											
Reductions in Stock											
Closing Stock											

Note: Reductions are sum of row, excluding areas that remained the same

Instructions: (1) Transfer Opening Land Cover to Opening Stock row

(2) Transfer Closing Land Cover to Closing Stock row

(3) Add columns (excluding areas that stayed the same) to obtain Additions to Stock

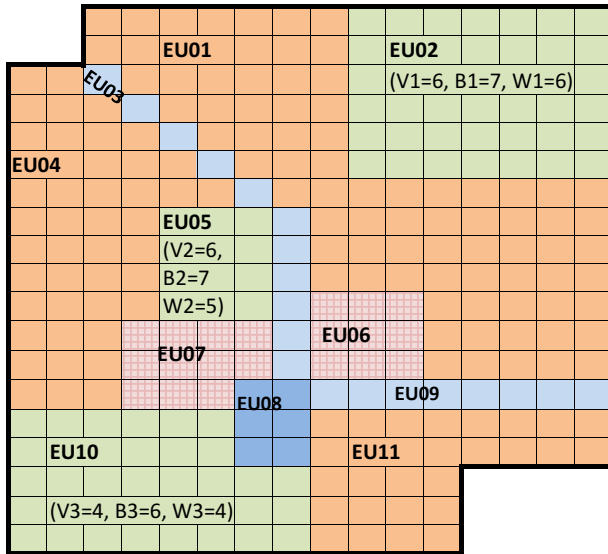
(4) Add rows (excluding areas that stayed the same) to obtain Reductions in Stock

(5) Check: Total Stock = 100; Additions = Reductions

Carbon Accounting: Step 3 - Calculate Carbon Stock Account and Carbon Sequestration Services

Condition Account: Group Exercise 1: Calculate improvements and reductions in condition

(Opening Conditions)



Condition Table

EU	Extent (BSU)	(V) Vegetation	(B) Biodiversity	(W) Water	Index
EU01 = Herbaceous crops	80	4.00	3.00	5.00	4.00
EU02 = Tree covered areas	42				= $(V+B+W)/3$
EU03 = Inland water bodies	11	5.00	6.00	6.00	5.67
EU04 = Herbaceous crops	45	3.00	2.00	4.00	3.00
EU05 = Tree covered areas	12				= $(V+B+W)/3$
EU06 = Artificial surfaces (urban)	9	2.00	2.00	4.00	2.67
EU07 = Artificial surfaces (urban)	11	2.00	1.00	3.00	2.00
EU08 = Shrubs..regularly flooded (wetland)	6	5.00	7.00	5.00	5.67
EU09 = Inland water bodies	8	3.00	3.00	4.00	3.33
EU10 = Tree covered areas	36				= $(V+B+W)/3$
EU11 = Herbaceous crops	28	3.00	2.00	3.00	2.67
	288				

EU Type	Extent (BSU)	Vegetation	Biodiversity	Water	Index
Artificial surfaces (urban)	20	2.00	1.45	3.45	2.30
Herbaceous crops	153	3.52	2.52	4.34	3.46
Tree covered areas	90				= $(V+B+W)/3$
Inland water bodies	19	4.16	4.74	5.16	4.68
Shrubs..regularly flooded (wetland)	6	5.00	7.00	5.00	5.67
Total	288	4.01	3.96	4.57	4.18

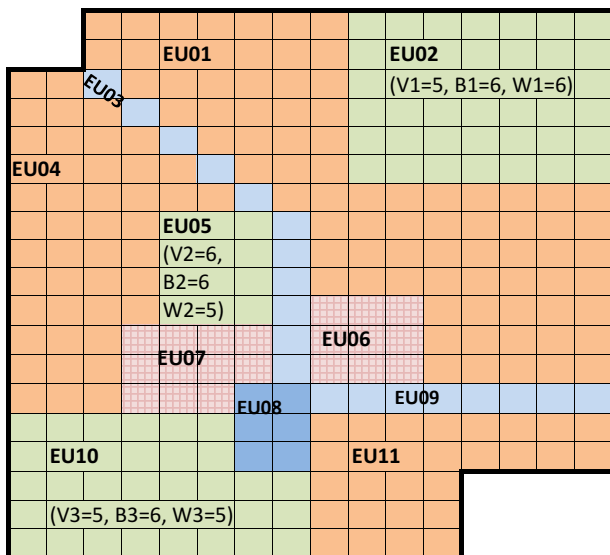
Instructions: (1) Transfer the condition measures from the map to the Condition Table for EU02, EU05 and EU10.

(2) Calculate the Index $(V+B+W)/3$

(3) Calculate the pro-rated condition measure for Forest Tree Cover (multiply measure * BSU Count for each area; add and divide by total BSU Count). Calculate the index.

Condition Account: Group Exercise 1: Calculate improvements and reductions in condition

(Closing Conditions)



Condition Table

EU	Extent (BSU)	Vegetation	Biodiversity	Water	Index
EU01 = Rainfed herbaceous cropland	80	4.00	3.00	6.00	4.33
EU02 = Forest tree cover	42	5.00	6.00	6.00	5.67
EU03 = Inland water bodies	11	5.00	6.00	7.00	6.00
EU04 = Rainfed herbaceous cropland	45	3.00	3.00	5.00	3.67
EU05 = Forest tree cover	12	6.00	6.00	5.00	5.67
EU06 = Urban and associated developed	9	2.00	2.00	4.00	2.67
EU07 = Urban and associated developed	11	2.00	1.00	3.00	2.00
EU08 = Open wetlands	6	5.00	7.00	6.00	6.00
EU09 = Inland water bodies	8	3.00	3.00	5.00	3.67
EU10 = Forest tree cover	36	5.00	6.00	5.00	5.33
EU11 = Rainfed herbaceous cropland	28	3.00	3.00	4.00	3.33
	288				

EU Type	Extent (BSU)	Vegetation	Biodiversity	Water	Index
Urban and associated	20	2.00	1.45	3.45	2.30
Rainfed herbaceous cropland	153	3.52	3.00	5.34	3.95
Forest tree cover	90	5.13	6.00	5.47	5.53
Inland water bodies	19	4.16	4.74	6.16	5.02
Open wetlands	6	5.00	7.00	6.00	6.00
Total	288	3.99	4.03	5.32	4.45

Condition Account

	Extent (BSU)	Vegetation	Biodiversity	Water	Index
Opening Conditions	288				
Improvements in condition					
Reductions in condition					
Closing Conditions	288	3.99	4.03	5.32	4.45

Instructions: (1) Transfer the values for Opening and Closing Conditions to the appropriate row of the Condition Account.

(2) Calculate difference between Opening and Closing Conditions (Closing - Opening)

(3) Record Improvements (positive values) in the Improvements row

(4) Record reductions (negative values) in the Reductions row

Services Supply Account: Group Exercise 1

Services Supply Database

EU	Extent (ha)	(C) Crop	(R) Recreation	(W) Water	(S) Carbon Sequestration	
		tonnes/year	trips/year	m ³ /year	tonnes /ha/year	tonnes /year
EU01 = Herbaceous crops	500.0	18,700.0	500.0	600.0	20	
EU02 = Tree covered areas	262.5	0.0	1,500.0	500.0	30	
EU03 = Inland water bodies	68.8	0.0	1,600.0	15,000.0	5	
EU04 = Herbaceous crops	281.3				20	
EU05 = Tree covered areas	75.0				30	
EU06 = Artificial surfaces (urban)	56.3	0.0	500.0	500.0	0	
EU07 = Artificial surfaces (urban)	68.8	0.0	700.0	400.0	0	
EU08 = Shrubs..regularly flooded (wetland)	37.5	700.0	5,000.0	10,000.0	40	
EU09 = Inland water bodies	50.0				5	
EU10 = Tree covered areas	225.0				30	
EU11 = Herbaceous crops	175.0				20	
Total	1,800.0					

- Instructions: (1) Calculate unknown services from nearest neighbour for (C), (R), W); e.g., Crop for EU04 = EU01/500*281
 (2) Carbon, calculate from lookup table (S); e.g., Carbon for EU01 = 20*500
 (3) Calculate EAU Total for each service

Biodiversity Account: Group Exercise 1, Step 1: Select three key species and reasons for selection

Species prioritization and rationale

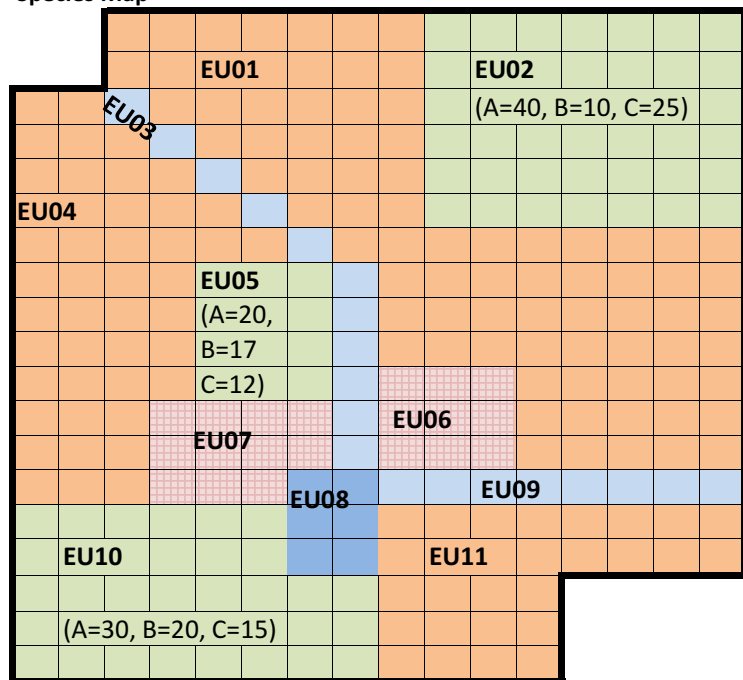
Species	Species name	Reason for selection
A		
B		
C		

Instructions:

- 1. Write down the three key species you will prioritise and why. When picking your key species, keep in mind the goal of the Biodiversity Account and how including that species will provide information to achieve that goal.**

Biodiversity Account: Group Exercise 1, Steps 2-4: Calculate Shannon Index and Evenness for three Forest EUs

Species Map



Species Table

EU	Individuals	p_i	$\ln(p_i)$	$p_i * \ln(p_i)$
EU02 = Forest tree cover				
Species (A)				
Species (B)				
Species (C)				
EU05 = Forest tree cover				
Species (A)				
Species (B)				
Species (C)				
EU10 = Forest tree cover				
Species (A)				
Species (B)				
Species (C)				

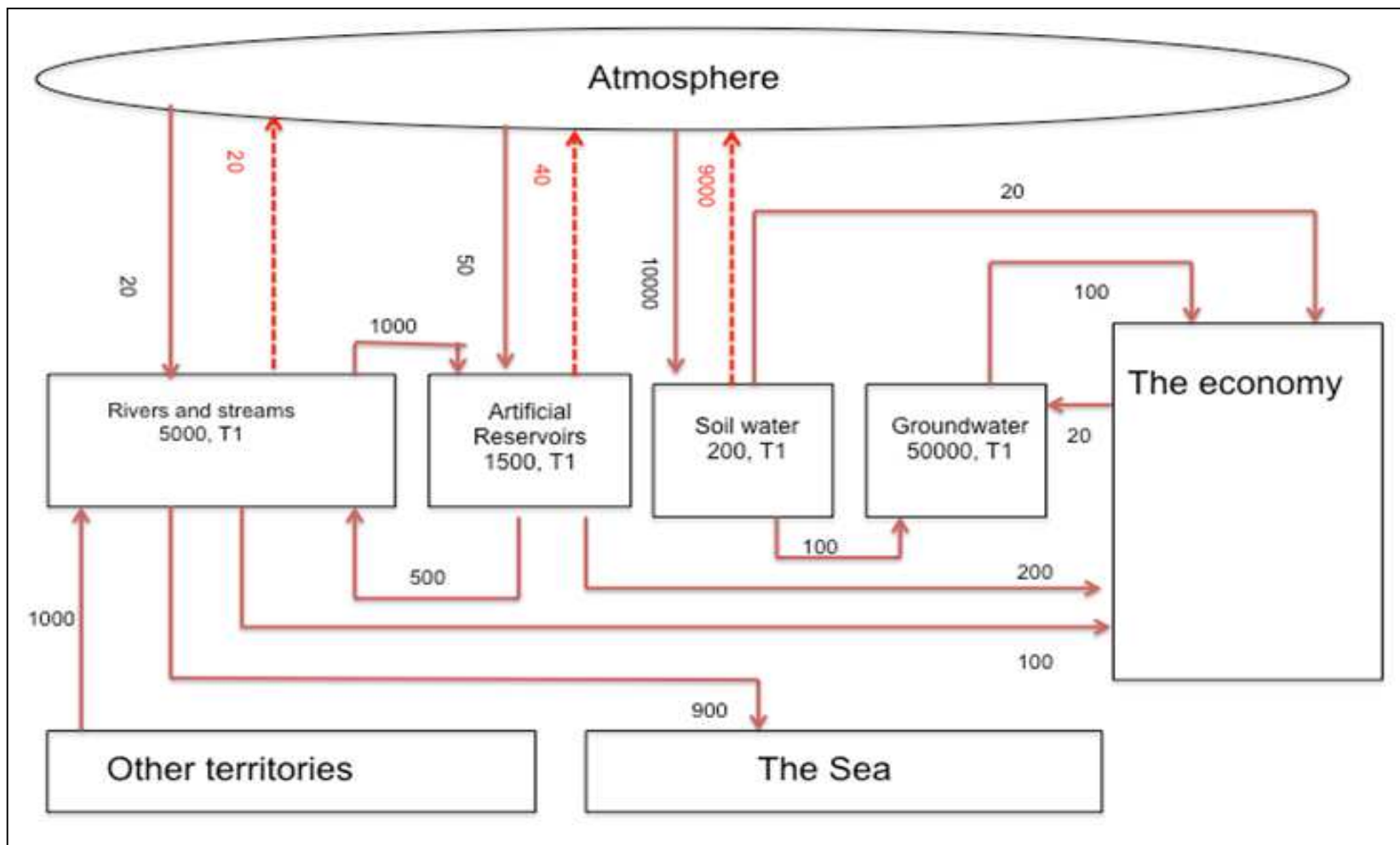
Summary Table

EU	Shannon Index	Evenness
EU02 = Forest tree cover		
EU05 = Forest tree cover		
EU10 = Forest tree cover		

- Transfer the counts of individuals for each species from the map to the Species Table for EU02, EU05 and EU10.
- Sum the total number of individuals ($A + B + C$) for EU02, EU05 and EU10.
- Calculate p_i (individuals in species i as a proportion of total number of individuals in the EU)
- Calculate $\ln(p_i)$ for each species
- Multiply p_i by $\ln(p_i)$ for each species
- Calculate Shannon Index (add $p_i * \ln(p_i)$ for each species in EU); Multiply by -1
- Calculate Evenness = Shannon Index / $\ln(3)$

Water Accounts: Group Exercise 1: Water asset account (m³)

Stock and Flow Diagram



Water Accouts: Group Exercise 1: Water asset account (m³)

Water Asset Account (m³)

	Type of water resourcs				Total
	Surface water		Groundwater	Soil water	
	Artificial reservoirs	Rivers and streams			
(A) Opening stock					
Additions to stock					
(B) Returns (from Economy)					
(C) Precipitation					
(D) Inflows from other territories					
(E) Inflows from other inland water					
(F) Discoveries of water in aquifers					
<i>(G) Total additions to stock</i>					=B+C+D+E+F
Reductions in stock					
(H) Abstraction (to Economy)					
(I) Evaporation and evapotranspiration					
(J) Outflows to other territories					
(K) Outflows to the sea					
(L) Outflows to other inland water					
<i>(M) Total reductions in stock</i>					=H+I+J+K+L
Closing stock					=A + G - M

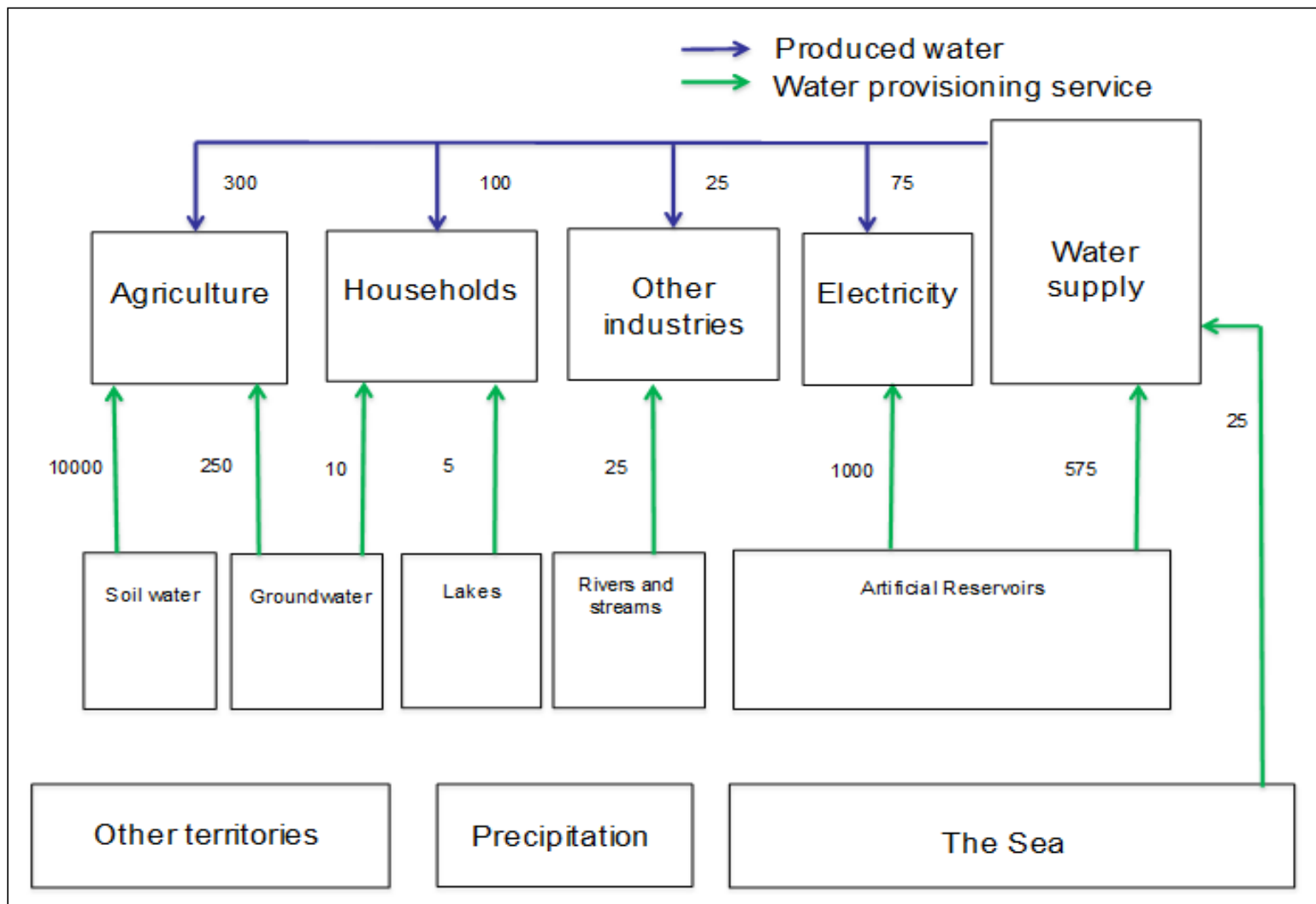
Instructions: (1) Transcribe Opening Stock and flows from Stock and Flow Diagram

(2) Calculate Totals and Closing Stock

Note: (E) and (L) are transfers among Rivers & Streams, Artificial Reservoirs, Groundwater and Soil Water

Water Accouts: Group Exercise 2: Water Use Table (m³)

Water Use Diagram (m³)



Water Accouts: Group Exercise 2: Water Use Table (m³)

Water Use Table (m³)

	Use of water					Total use
	Agriculture, forestry and fishing	Electricity, gas, steam and air conditioning supply	Water collection, treatment and supply	Other industries	Households	
Sources of abstracted water						
Inland water resources						
(A) Surface water						
(B) Groundwater						
(C) Soil water						
(D) Sea water						
(E) Total abstracted water						=A+B+C+D
Abstracted water						
(G) Distributed water (to other economic units)						
(H) Use of water (from other economic units)						
(I) Own use						
Total use of water (abstracted and distributed water)						=H+I

Note: Surface water = (Lakes + Rivers and Streams + Artificial Reservoirs)

Note: Own use for Water collection, treatment and supply = Abstracted - (total distributed)

Instructions: (1) Transcribe values for Distribution and Abstraction from Water Use diagram

(2) Calculate Total Use (column and row)

Carbon Accounting: Group Exercise - Calculate Simplified Carbon Stock Account from Physical Account for Land Cover

Table 1: Physical Account for Land Cover

	Artificial surfaces	Crops	Grassland	Tree covered area	Mangroves	Shrub covered area	Regularly flooded areas	Sparse natural vegetated areas	Terrestrial barren land	Permanent snow, glaciers and inland water bodies	Total
Opening Stock	16	7	14	23	7	19	7	6	1	0	100
Additions to Stock	3	11	0	0	0	0	0	1	0	0	15
Reductions in Stock	0	0	1	8	1	2	0	3	0	0	15
Closing Stock	19	18	13	15	6	17	7	4	1	0	100

Carbon Accounting: Group Exercise - Calculate Simplified Carbon Stock Account from Physical Account for Land Cover

Table 2: Simplified Carbon Stock Account

	Artificial surfaces	Crops	Grassland	Tree covered area	Mangroves	Shrub covered area	Regularly flooded areas	Sparse natural vegetated areas	Terrestrial barren land	Permanent snow, glaciers and inland water bodies	Total
Carbon Stored (tonnes/ha)	5	40	10	200	800	80	300	8	0	0	
Carbon Stock (tonnes)											
Opening											
Increases											
Decreases											
<i>Net change</i>											
Closing											

Note: Opening = Opening Land Stock * Carbon Stored

Net change = Increases - Decreases

Instructions: (1) Multiply each value in the Physical Account for Land Cover by the corresponding value for Carbon Stored.

(2) Calculate net change

(3) Calculate totals for Opening, Increases, Decreases, Net change and Closing

Carbon Accounting: Group Exercise - Calculate Simplified Carbon Stock Account from Physical Account for Land Cover

Table 3: Account of Ecosystem Services from Carbon Sequestration (tonnes/year)

	Artificial surfaces	Crops	Grassland	Tree covered area	Mangroves	Shrub covered area	Regularly flooded areas	Sparse natural vegetated areas	Terrestrial barren land	glaciers and inland water bodies	Total
Carbon Sequestration (tonnes/ha/year)	1	20	2	30	100	5	40	1	0	0	
Carbon Sequestration (tonnes/year)											
Opening: Carbon Sequestration											
Closing: Carbon Sequestration											
<i>Net change</i>											

Note: Opening = Opening land area * Carbon Sequestration

Net change = Closing - Opening

Instructions: (1) Multiply Opening and Closing stock in the Physical Account for Land Cover by the corresponding value for Carbon Sequestration.

(2) Calculate Net change

(3) Calculate totals for Opening, Closing and Net Change

Biophysical Modelling: Group Exercise - Timber stock account

Timber stock account

	Year 1	Year 2	Year 3	Year 4	Year 5
	m ³ timber				
Opening stock	1,000.0				
Reductions					
Harvest	50.0	40.0	60.0	40.0	50.0
Fire and storm damage	20.0	15.0	25.0	18.0	10.0
Total reductions	70.0	55.0	85.0	58.0	60.0
Additions					
Regrowth	50.0				
Total Additions	50.0				
Closing stock	980.0				

=5% of opening stock

Instructions: Calculate Opening Balances, Closing Balances, Regrowth, and Total Additions for Years 2 to 5.

- Opening Stock for Year 2 is Closing Stock for Year 1
- Regrowth is 5% of Opening Stock

At year 5:

Indicator	m ³ timber	
Average harvest		
(B) Average fire and storm damage		
(A) Expected "Year 6" additions		= 5% of Year 5 closing stock
Recommended "sustainable" harvest		= (A) - (B)

Instructions: Calculate

- Average Harvest for Years 1 to 5
- (B) Average fire and storm damage for Years 1 to 5
- (A) Expected "Year 6" Additions (= 5% of Year 5 Closing Stock)
- Recommended "sustainable" harvest (= (A) - (B))

Services Use: Group Exercise 1: Allocate Services Supplied to Beneficiaries

Services Supply Account

EU Type	(C) Crop	(R) Recreation	(W) Water	(S) Carbon Sequestration
	Tonnes	Trips	m ³	tonnes
Artificial surfaces (urban)	-	1,200	900	-
Herbaceous crops	35,764	956	1,148	19,125
Tree covered areas	-	3,214	1,071	16,875
Inland water bodies	-	1,164	25,909	594
Shrubs..regularly flooded (wetland)	700	5,000	10,000	1,500
Total	36,464	11,534	39,028	38,094

Beneficiary allocation table

Beneficiaries (based on survey)	(C) Crop	(R) Recreation	(W) Water	(S) Carbon Sequestration
	percent			
Households	30	80	20	20
Enterprises	60	-	30	20
Government	-	-	50	-
Rest of the world	10	20	-	60
Total	100	100	100	100

Services Use Account

Beneficiaries (based on survey)	(C) Crop	(R) Recreation	(W) Water	(S) Carbon Sequestration
	Tonnes	Trips	m ³	tonnes
Households				
Enterprises				
Government				
Rest of the world				
Total	36,464	11,534	39,028	38,094

Instructions: Step 1: Apply percentages provided in Beneficiary Allocation Table to totals in Services Supply Account

Step 2: Calculate proportion of each service used by each beneficiary type.