



Joint OECD/UNECE Seminar on Implementation of SEEA

13-15 March 2023, Room XIX, Palais des Nations, Geneva

#SEEAseminar2023

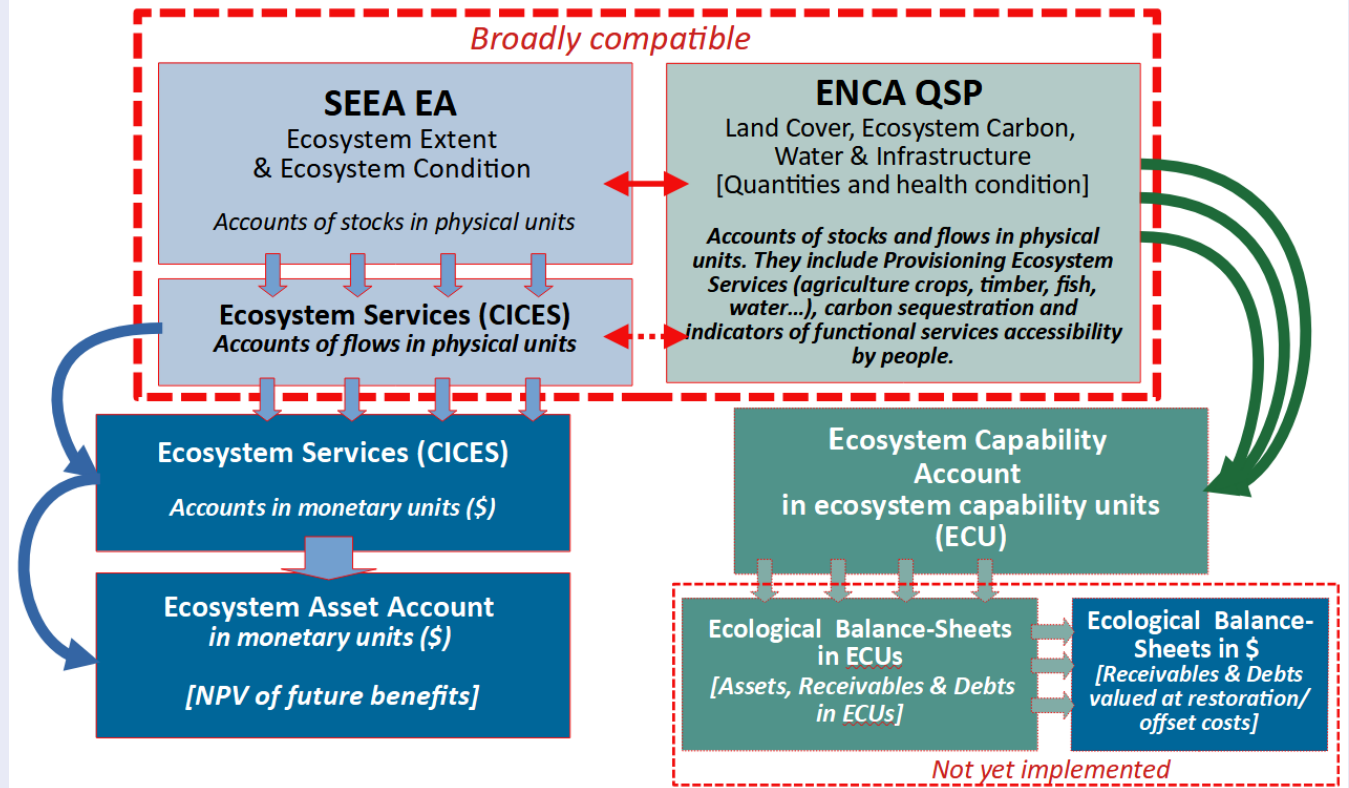
Outcomes of projects of implementation of ecosystem natural capital accounts in Africa and the Guiana Shield

Jean-Louis Weber,

International Consultant in Economic-Environmental Accounting

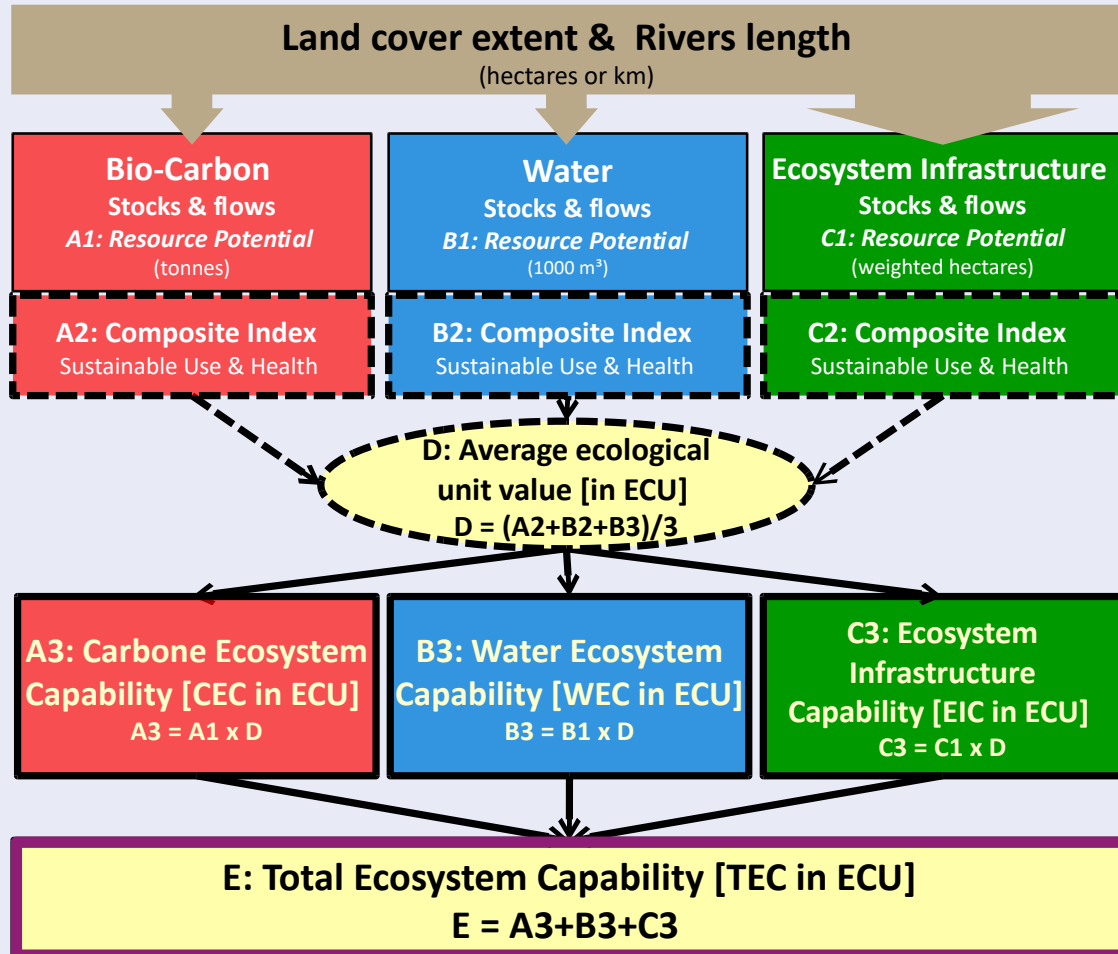
ENCA QSP, a variant of the SEEA-EA

- **Ecosystem Natural Capital Accounting “Quick Start Package” (ENCA-QSP)** is a methodology published by the CBD in 2014 to support the implementation of ecosystem accounts as requested by the 2010 Aichi Biodiversity Strategy Target 2.
- **ENCA-QSP is a variant of SEEA-EA.** While the SEEA-EA aims to measure the economic monetary benefits of ecosystem services considered as assets, the ENCA Quick Start Package addresses the potential and resilience of ecosystems in biophysical terms in order to measure their degradation.



SEEA-EA and ENCA-QSP accounts in physical terms are broadly compatible

ENCA QSP : MEASURING TOTAL ECOSYSTEM CAPABILITY (IN ECU)



Secretariat of the Convention on Biological Diversity

CBD Technical Series No. 77

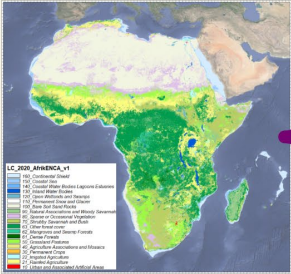
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ECOSYSTEM NATURAL CAPITAL ACCOUNTS:
A Quick Start Package

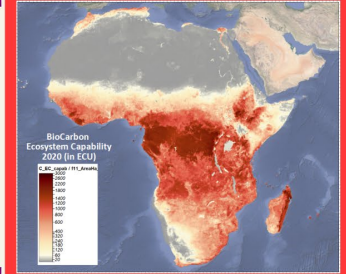
AfriKENCA : first ENCA application at the continental scale by the Observatory of Sahara and Sahel (OSS)



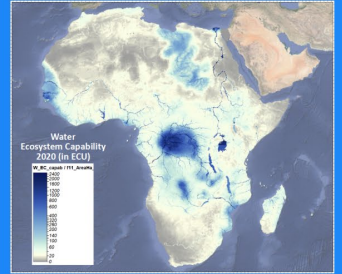
LAND COVER



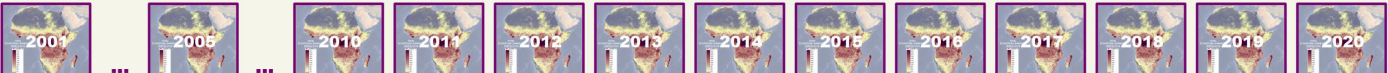
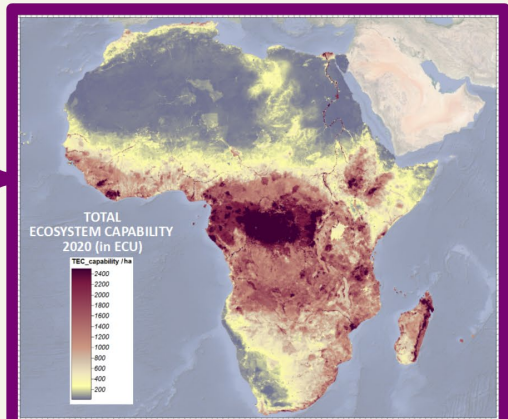
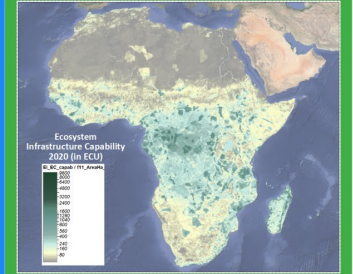
BIO-CARBON



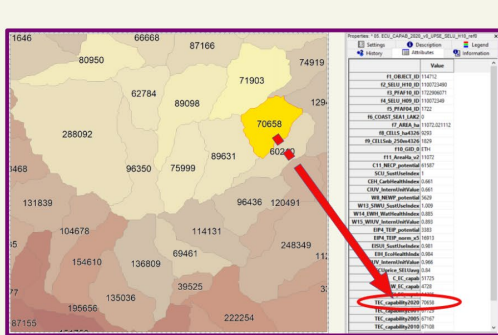
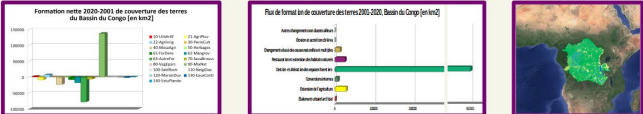
WATER



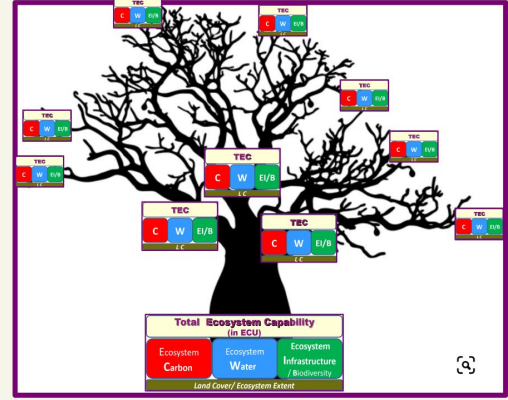
ECOSYSTEM INFRASTRUCTURE



Compte de la couverture des terres (étendue des écosystèmes) 2000-2020 en km ²		Bassin versant du fleuve Congo		Total														
Année	Terres	Terres	Terres	Terres	Terres													
2000	1471	225414	2155	1277	140980	52339	81259	198873	2666204	108890	11	136744	359	0	75182	71061	117	9713533
2020	2099	29068	1398	138	84614	2700	8478	20398	282214	28655	4	138187	88	0	5007	2400	0	184538



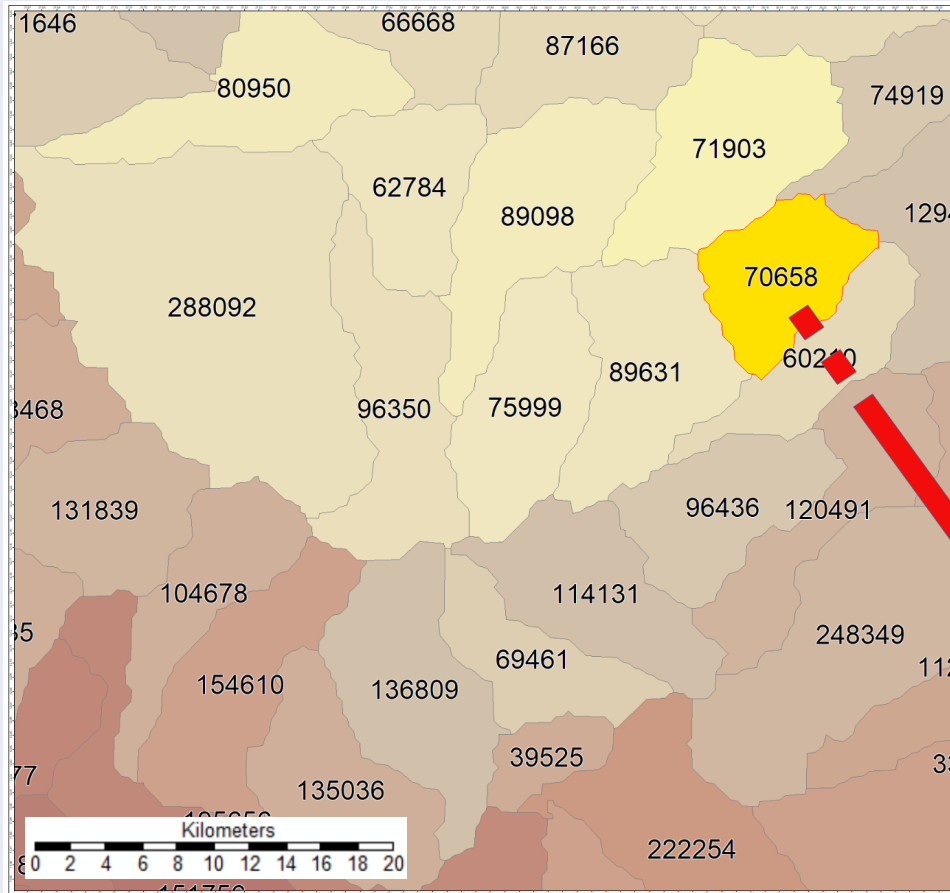
Code	Terres	Terres	Terres	Terres	Terres
11	136744	359	0	75182	71061
12	136744	359	0	75182	71061
13	136744	359	0	75182	71061
14	136744	359	0	75182	71061
15	136744	359	0	75182	71061
16	136744	359	0	75182	71061
17	136744	359	0	75182	71061
18	136744	359	0	75182	71061
19	136744	359	0	75182	71061
20	136744	359	0	75182	71061



← The ENCA accounting framework can be implemented at any scale →

The Observatory of Sahara and Sahel (OSS) is an international organization created in 1992. OSS is composed of 26 African countries, 7 non-African countries and 13 Member organizations (incl. FAO, UNCCD, regional bodies and NGOs).

AfrikENCA : full accounts of socio-ecological landscape units (SELUs) aligned to small river basins (~ 150 km² – more than 200 000 for Africa)



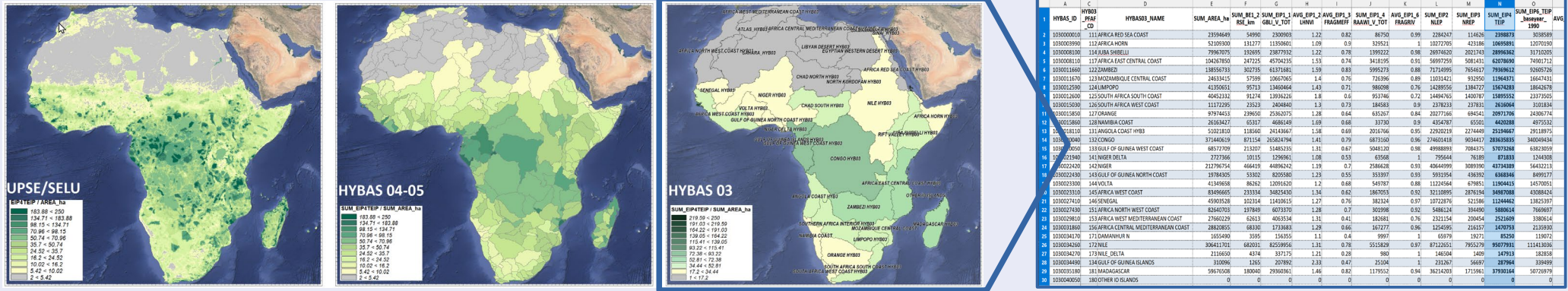
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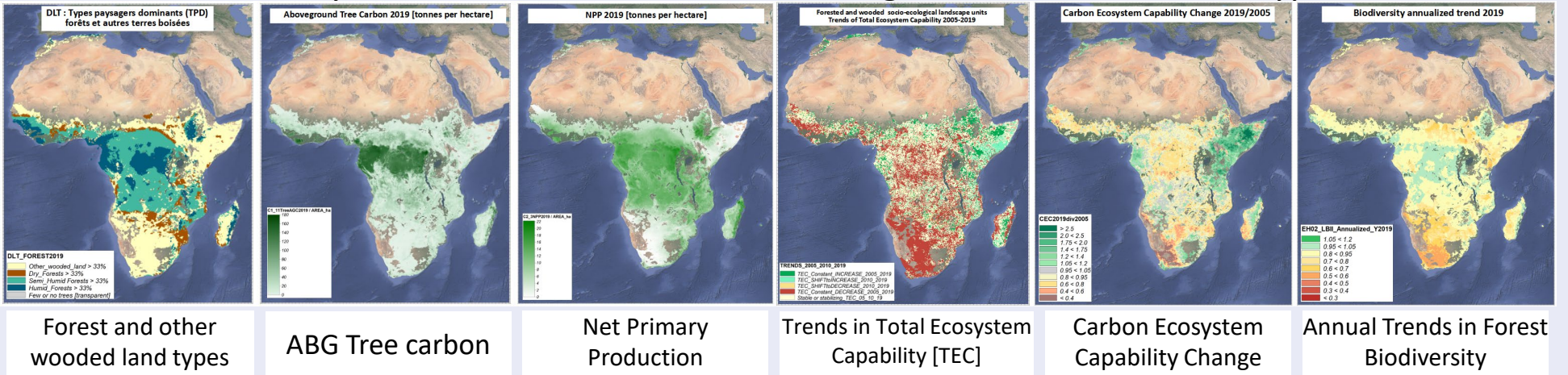
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f8_CELLS_ha4326	9293
f9_CELLSnb_250m4326	1829
f10_GID_0	ETH
f11_AreaHa_v2	11072
C11_NECP_potential	61587
SCU_SustUseIndex	1
CEH_CarbHealthIndex	0.661
CIUV_InternUnitValue	0.661
W8_NEWP_potential	5629
W13_SIWU_SustUseIndex	1.009
W14_EWH_WatHealthIndex	0.885
W15_WIUV_InternUnitValue	0.893
EIP4_TEIP_potential	3383
EIP4_TEIP_norm_x5	16913
EISUI_SustUseIndex	0.981
EIH_EcoHealthIndex	0.984
CIUV_InternUnitValue	0.966
TEC_Uprice_SELUavg	0.84
C_EC_capab	51725
W_EC_capab	4728
TEC_capability2020	70658
TEC_capability2007	67729
TEC_capability2005	67167
TEC_capability2010	67108

Examples of ENCA accounts and derived indicators

EIP4 indicator - Ecosystem Infrastructure Potential by elementary SELUs and aggregated by catchment



Extraction of indicators by forested SELUs classified according to USGS [ELU] climate types



Forest and other wooded land types

ABG Tree carbon

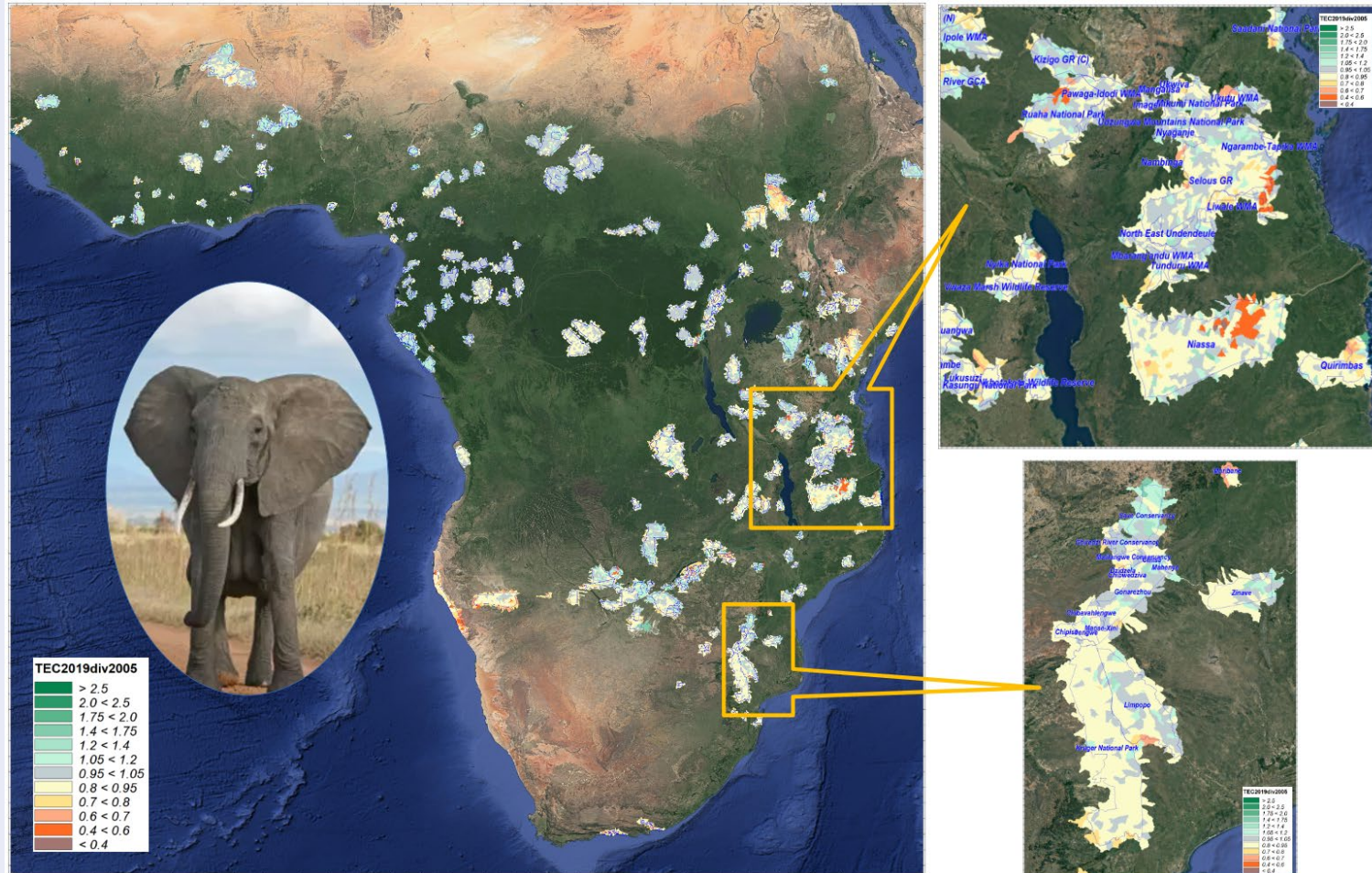
Net Primary Production

Trends in Total Ecosystem Capability [TEC]

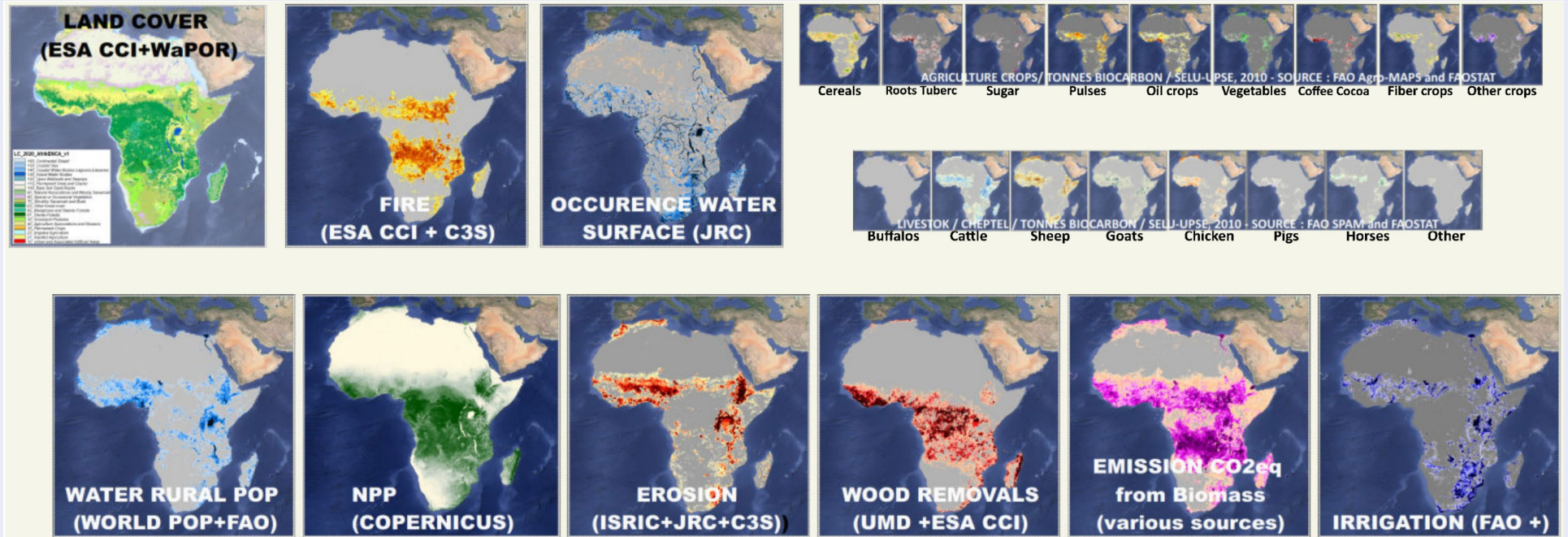
Carbon Ecosystem Capability Change

Annual Trends in Forest Biodiversity

Change in Total Ecosystem Capability 2005-2019: Nature Protection Parks with Elephants



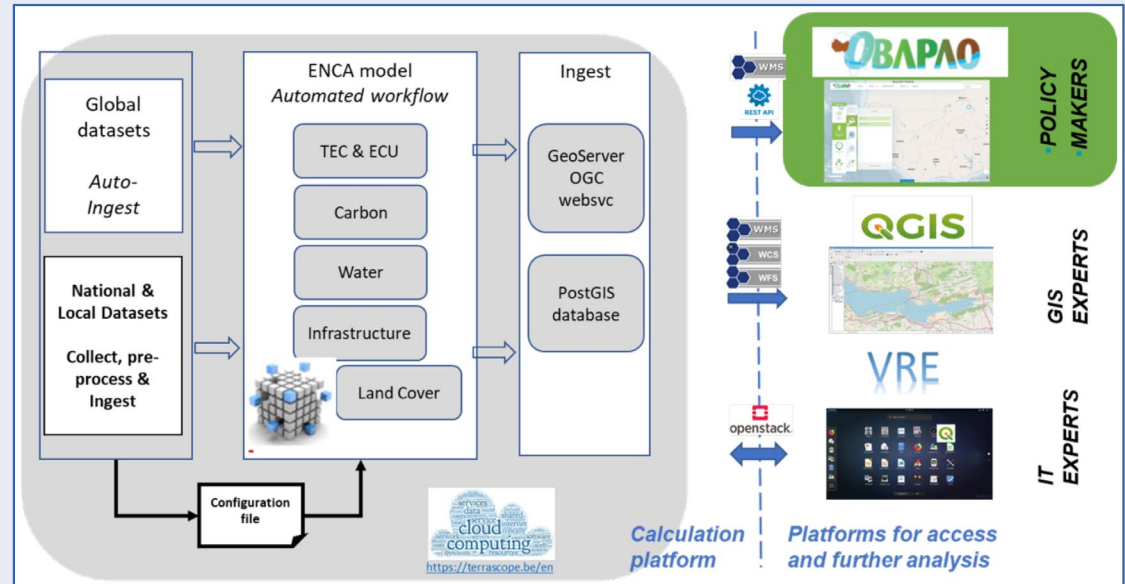
Examples of primary datasets reprocessed for ecosystem accounting



Using more than 50 international datasets and statistics, AfriKENCA full accounts are compiled for more than 200 000 statistical units, for 2001, 2005, 2010 and then annually up to 2020. ENCA tables, as well as reprocessed (resampled, extrapolated, corrected...) data, will be made available on the OSS website (but not the primary data themselves, which belong to providers).

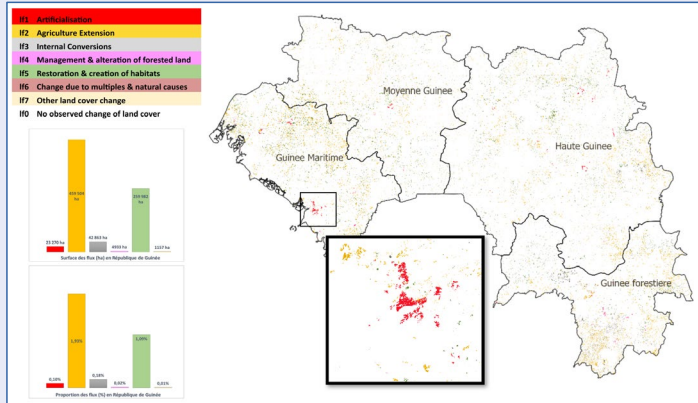
COPERNICEA beyond AfriKENCA : National Projects for 6 Countries

- **Six participating countries** : Burkina Faso, Guinea-Conakry, Morocco, Niger, Senegal and Tunisia
- Nation wide and thematic or local projects (coastal zones, oasis, argan forests, water, ...)
- **Vocational training** of national teams to ENCA (environment agencies, forest agencies, statistical offices, universities...) using the **KANGARÉ-ECOSYSTEMS Tutorial**. First round of on-line training in 2021 and 2022; 7 training sessions **followed by 100 persons in total**. In situ training sessions by countries started...
- Collection, processing and ingestion of national and local datasets, using the **Sys4ENCA processing platform** developed by VITO in the context of the IUCN PAPBio project financed by the EU. Training of national teams in May 2023.

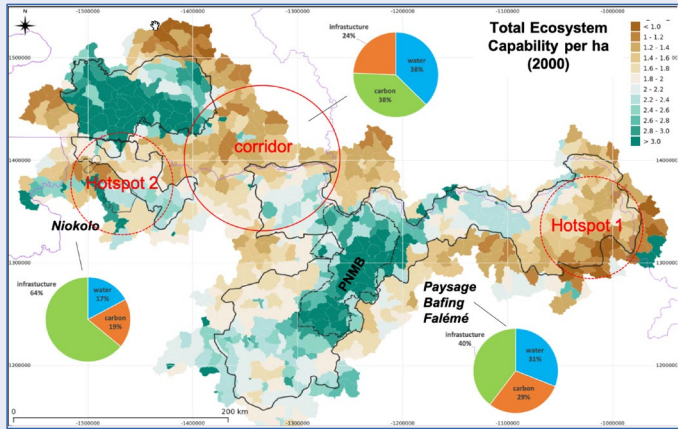


The Sys4ENCA processing platform developed by VITO for semi-automatic Ecosystem Natural Capital Accounting (ENCA) following the ENCA Quick Start Package (QSP)

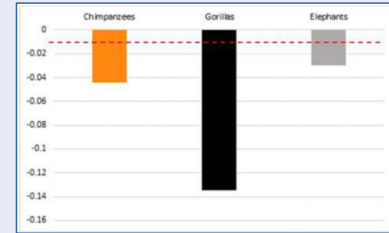
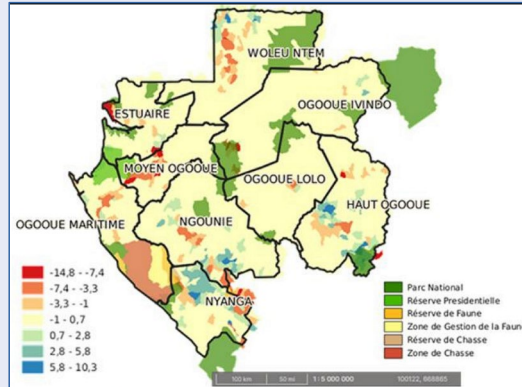
Other ENCA projects in Africa



R. GUINEA Agro-Ecological Zoning and accounts by Min Agri, IGN-FI and CIRAD

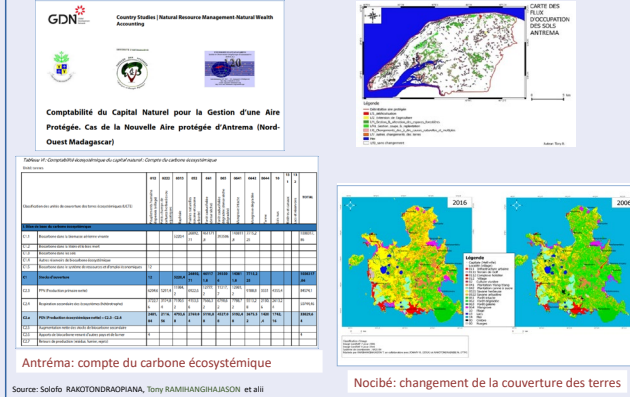


R. GUINEA and SENEGAL: Nature Protected Areas by IUCN and VITO plus experts



GABON: Country and Nature Protection for 3 species, by IUCN, WWF Gabon and ONFI

CECN Antrema et Nocibé [Université de Madagascar]



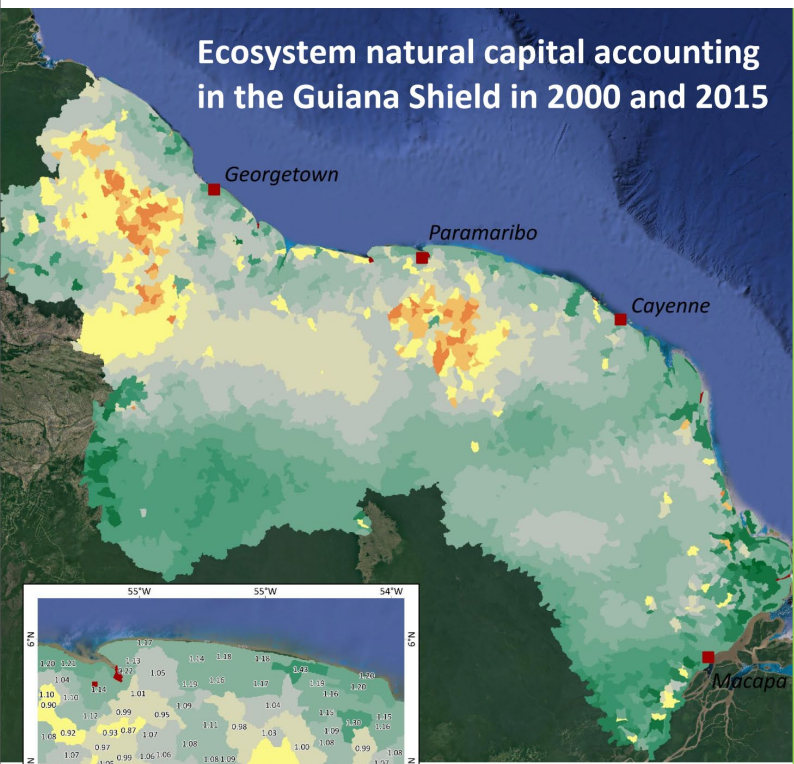
MADAGASCAR: Nature Protected Areas by U. Antananarivo

And:

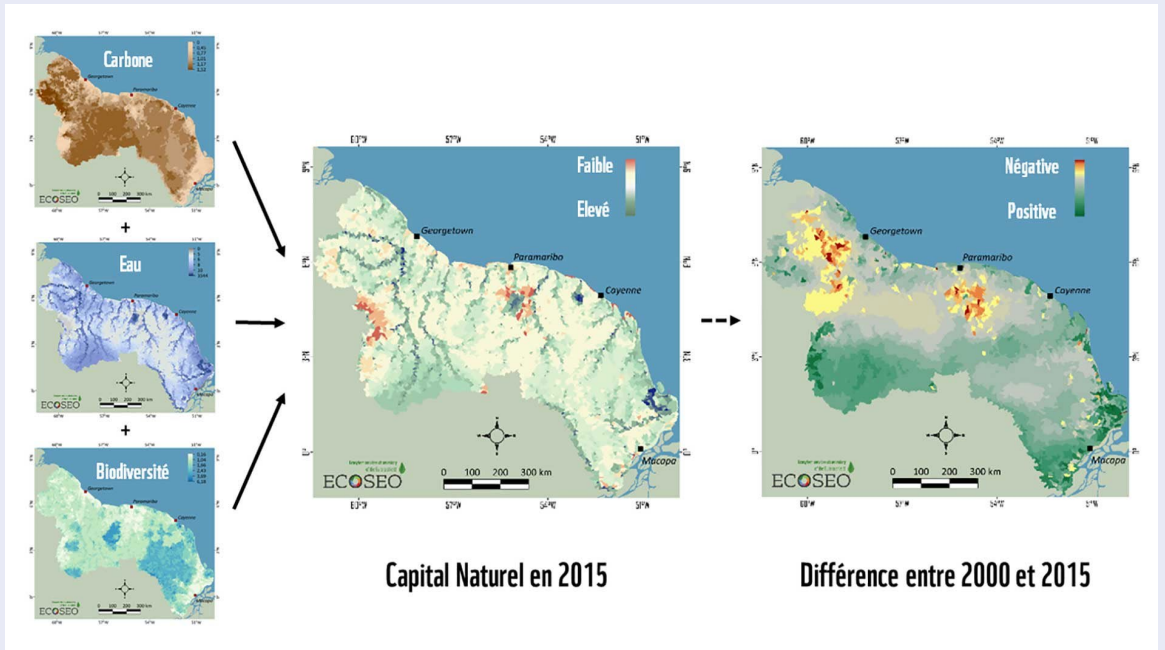
- Mauritius Second Generation (University of Mascareignes)
- ENCA Kenya by IUCN and ONFI
- ENCA Park of the Niger W (incl. Guinea, Burkina Faso and Benin), by IUCN and VITO

ENCA in the Guiana Shield 2000 & 2015

by WWF and ONFI with National Teams of Guyana, Suriname, French Guyane and Brazilian Amapá



ECOSEO – Ecosystem Services Observatory of the Guiana Shield



<https://www.wwf.fr/projets/proteger-la-foret-amazonienne-du-plateau-des-guyanes>

FINDINGS

- High quality land cover maps provided by national teams, with a focus on Gold mining
- Full set of accounts
- Water quality accounts reflecting in particular gold mining impacts on rivers
- Total losses of trees = 2.6 times roundwood removal recorded in statistics
- Broad use of international data sets; understanding of the need of more than 2 dates

APPLICATION OF THE QUICK START PACKAGE OF THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD) FOR IMPLEMENTING AICHI BIODIVERSITY TARGET 2 ON INTEGRATION OF BIODIVERSITY VALUES IN NATIONAL ACCOUNTING SYSTEMS



30 ans
years

au service de l'Afrique
serving Africa

Jean-Louis Weber
International Consultant
Scientific Adviser to the OSS
for the COPERNICEA project

