

Rome, 12-13/6/2018

# The Natural Capital Report

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Italian Ministry of Environment / Sogesid TA



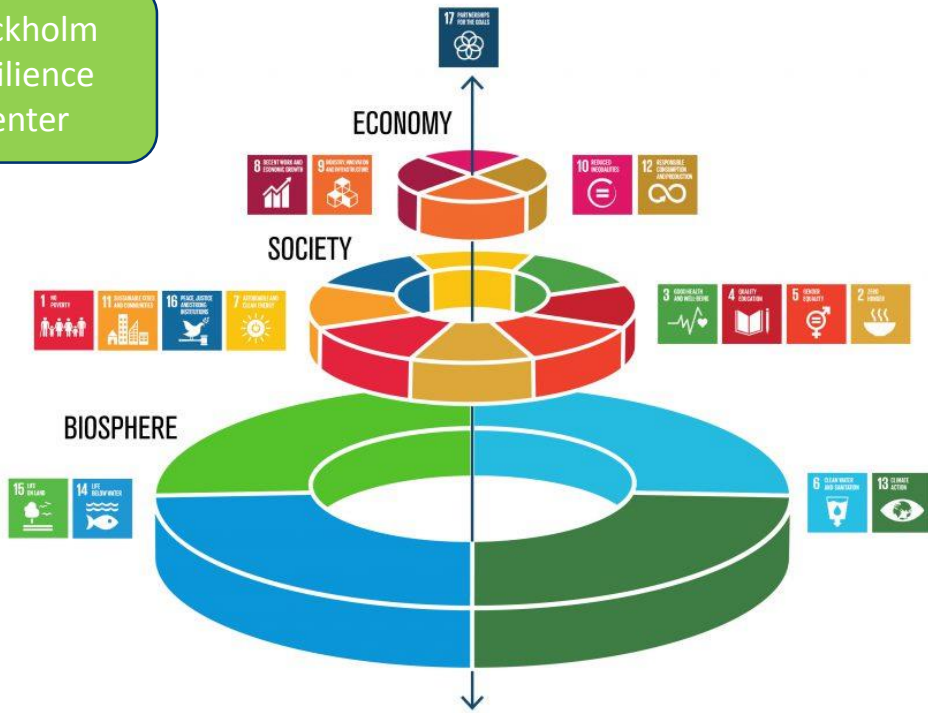
## CReIAMO PA

Per un cambiamento sostenibile

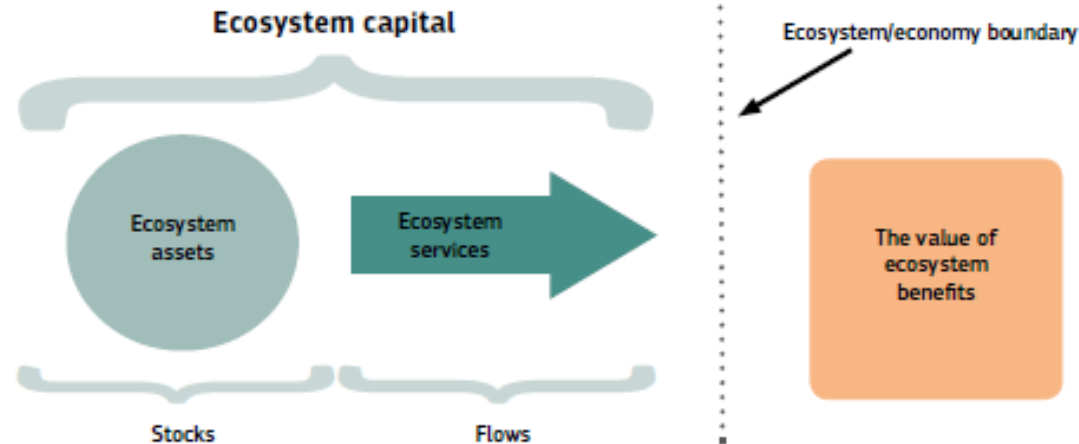
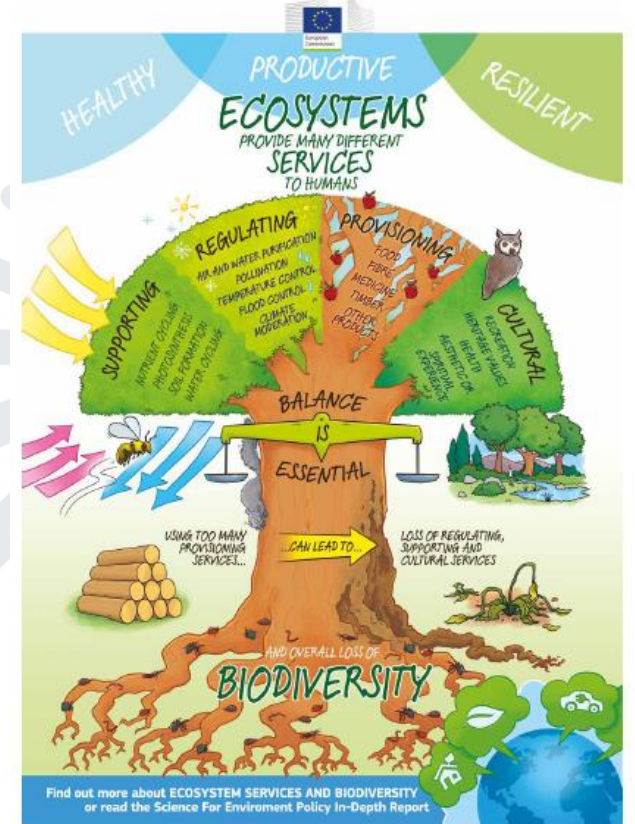
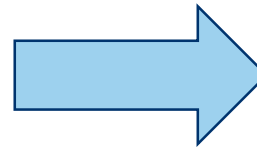


# NATURAL CAPITAL CRUCIAL FOR SUSTAINABILITY

Stockholm Resilience Center



Science for Environment Policy (2017) *Taking stock: progress in natural capital accounting.*



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# NATURAL CAPITAL: MULTI-LEVEL CONTEXT

	INITIATIVES / STRATEGIES	ACCOUNTING / VALUATION
INTERNATIONAL	<ul style="list-style-type: none"> <li>➤ AGENDA 2030 (17 SDGs)</li> <li>➤ Biodiversity Strategic Plan 2011-2020 (CBD)</li> <li>➤ IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services )</li> <li>➤ Sendai Framework for Disaster Reduction</li> <li>➤ MEA (Millennium Ecosystem Assessment)</li> <li>➤ Natural Capital Coalition (Natural Capital Protocol)</li> <li>➤ Natural Capital Project</li> <li>➤ World Forum on Natural Capital</li> </ul>	<ul style="list-style-type: none"> <li>➤ TEEB (The Economics of Ecosystem and Biodiversity)</li> <li>➤ WAVES (Wealth Accounting and the Valuation of Ecosystem Services)</li> <li>➤ SEEA (System of Environmental-Economic Accounting)               <ul style="list-style-type: none"> <li>✓CF (Central Framework)</li> <li>✓EEA (Experimental Ecosystem Accounting)</li> </ul> </li> </ul>
EU	<ul style="list-style-type: none"> <li>➤ 7<sup>th</sup> Environment Action Plan</li> <li>➤ Biodiversity Strategy</li> <li>➤ Green Infrastructure Strategy</li> <li>➤ Action Plan for Nature, People and the Economy</li> </ul>	<ul style="list-style-type: none"> <li>➤ CICES (Common International Classification of Ecosystem Services)</li> <li>➤ MAES (Mapping and Assessment of Ecosystems and their Services)</li> <li>➤ KIP-INCA (Knowledge Innovation Project on Accounting for Natural Capital and Ecosystem Services)</li> <li>➤ Eurostat Environmental Accounts</li> </ul>
ITALY	<ul style="list-style-type: none"> <li>➤ Biodiversity Italian Strategy (MATTM)</li> <li>➤ Committee on Urban Greening (MATTM)</li> <li>➤ Report on Policies for Landscape (MIBACT)</li> <li>➤ Tourism Strategic Plan (MIBACT)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Italian Natural Capital Committee</li> <li>➤ Report on Land Consumption (ISPRA)</li> <li>➤ Material Flows, Environmental Accounts (ISTAT)</li> </ul>

# NATURAL CAPITAL: THE NATIONAL COMMITTEE

Art. 67 Law 221/2015 => With a decree of the Presidency of Council of Ministers, under proposal of MATTM, the **Italian Natural Capital Committee (INCC)** is established ...

## ➤ Task of INCC:

✓ Preparing, by 29<sup>th</sup> february every year, an **Annual Report on the state of Natural Capital in Italy**, including:

\*Environmental data on both physical and monetary units, according to the UN and EU environmental economic accountability systems (SEEA, MAES)

\**Ex ante* and *ex post* assessment of impacts of public policies on Natural Capital and Ecosystem Services

✓ Promoting the adoption, by **local administrations**, of **environmental accounting systems and environmental budgets / reports**



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## ➤ INCC STRUCTURE

- ✓ 10 Ministries (lead MATTM)
- ✓ 5 Public Institutions
- ✓ 2 Representatives Regions / Cities
- ✓ 9 Experts
- ✓ Scientific Support (public research centers and universities)
- ✓ Technical and Drafting Support (MATTM, DG SVI & PNM)



MINISTERO DELL'AMBIENTE  
E DELLA TUTELA DEL TERRITORIO E DEL MARE

Ho

Acqua Aria Energia Natura Territorio

HOME IL MINISTRO ▾ MINISTERO ▾ AMMINISTRAZIONE TRASPARENTE ▾ UFFICIO STAMPA ▾

Capitale Naturale

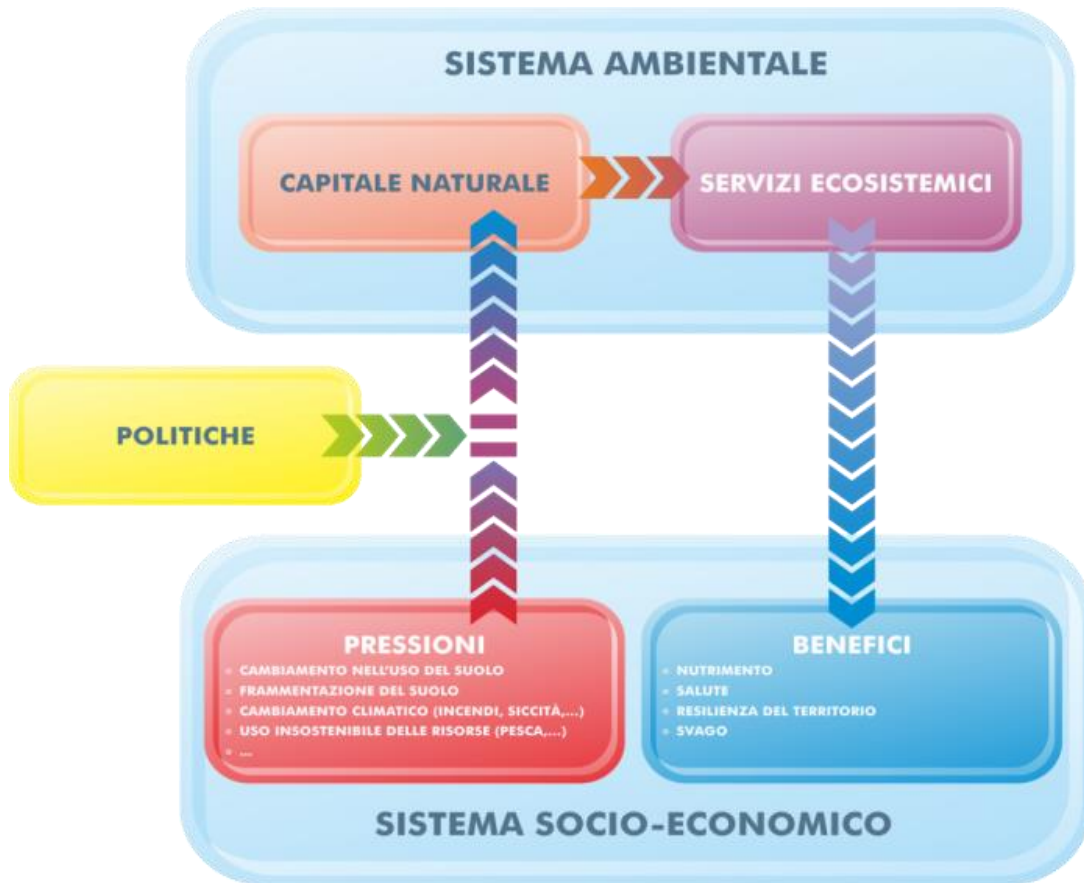
**CAPITALE NATURALE**



> Primo Rapporto sullo Stato del Capitale Naturale in Italia (2017)

> Secondo Rapporto sullo Stato del Capitale Naturale in Italia (2018) **NEW**

# 2° REPORT ON NATURAL CAPITAL: STRUCTURE



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- **BIOPHYSICAL ASSESSMENT**
- ✓ FOREST ECOSYSTEMS (ECOREGIONS)
- ✓ MARINE ECOSYSTEMS (MARINE PROTECTED AREAS)
- ✓ HYDROLOGICAL BUDGET
- **PRESSURES**
- ✓ CLIMATE CHANGE AND CARBON SEQUESTRATION POTENTIAL
- ✓ LAND FRAGMENTATION
- ✓ FOREST FIRES
- ✓ DROUGHTS
- **ECONOMIC VALUATION AND ACCOUNTING**
- WILD POLLINATION
- RECREATION SERVICES
- WATER PURIFICATION
- SOIL EROSION CONTROL
- HABITAT QUALITY
- CARBON SEQUESTRATION



# 2° REPORT ON NATURAL CAPITAL: ECONOMIC VALUATION

<i>Ecosystem Services</i>	<i>Typology of Service</i>	<i>Valuation Method</i>	<i>Source</i>	<i>Results</i>
WILD POLLINATION	<i>Regulation &amp; Provisioning</i>	<i>Agricultural Production - value added share</i>	<i>JRC</i>	<ul style="list-style-type: none"> <li>• (2000) = 212 Mln € (5.2% share of agricultural value added)</li> <li>• (2012) = 167 Mln € (4.5% share of agricultural value added)</li> </ul>
RECREATION SERVICES	<i>Cultural</i>	<i>Zonal Travel Costs</i>	<i>JRC</i>	<ul style="list-style-type: none"> <li>• (2000) = 1,9 Mld €</li> <li>• (2012) = 3,0 Mld €</li> </ul>
WATER PURIFICATION	<i>Regulation</i>	<i>Replacement Costs</i>	<i>JRC</i>	<ul style="list-style-type: none"> <li>• (2005) = 1,1 Mld €</li> <li>✓ (0,2 Mld € sustainable threshold)</li> </ul>
SOIL EROSION CONTROL	<i>Regulation</i>	<i>Replacement Costs</i>	<i>ISPRA</i>	<ul style="list-style-type: none"> <li>• (2016) = 35-149 Mld €</li> </ul>
HABITAT QUALITY	<i>Regulation &amp; Cultural</i>	<i>Meta-analysis</i>	<i>ISPRA</i>	<ul style="list-style-type: none"> <li>• (2016) = 13,5 Mld €</li> </ul>
CARBON SEQUESTRATION	<i>Regulation</i>	<i>Net Present Value</i>	<i>Bank of Italy</i>	<ul style="list-style-type: none"> <li>• (2016) = 15-58 Mld €</li> </ul>

# 2° REPORT ON NATURAL CAPITAL: RECOMMENDATIONS

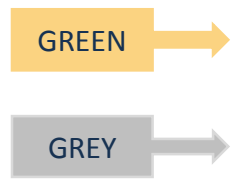
## MAINSTREAMING NATURAL CAPITAL IN

- ✓ ASSESSMENT AND MONITORING PROCEDURES (8)
- ✓ ECONOMIC POLICIES (5)
- ✓ LAND PLANNING (10)

EEA Report | No 14/2017

Green Infrastructure and Flood Management  
Promoting cost-efficient flood risk reduction via green infrastructure solutions

© EEA 1977 8439



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Table 6.1 Overview matrix and ranking of green versus grey infrastructure measures

Costs data represent an average of the standardised unit costs for different GI projects realised across the EU.

Direct effects represent biophysical characteristics of infrastructure measures that provide protection to flooding.

Indirect effects represent ancillary benefits that the infrastructure measure provides in terms of additional eco-system services. Effect scores range from 0 (no effect), 1 = low effect, 2 = medium effect and 3 = high effect, which are sourced from the NWRM project.

	Costs		Direct effects			Indirect effects (eco-system benefits)											
	EUR/ha (m)	EUR/ha/y	0/1/2/3			0/1/2/3											
Wetland restoration and management	13 302	348	3,0	2,0	1,7	2	3	2	3	2	2	1	2	2	2	2	2
Re-meandering	92 592	2	2,0	2,5	1,7	2	2	3	3	2	3	3	2	3	3	3	3
Stream bed re-naturalisation	20 114	n.a.	0,0	2,5	1,7	1	1	2	3	0	1	3	2	2	2	2	2
Floodplain restoration	153 279	2 412	3,0	3,0	2,3	3	3	3	3	2	3	3	2	3	3	3	3
Dike building or reinforcement	2 283a	1 %	n.a.	3,0	n.a.	0	0	1	0	0	0	0	0	0	2	1	1
Longitudinal barriers	1 440 000a	5–10 %	n.a.	3,0	n.a.	3	0	0	0	0	0	2	0	1	0	0	0

Note: n.a., not applicable.

(\*) Costs in euros per metre of dike or longitudinal barrier (assuming a 1 m elevation).