

Natural capital for governments: what, why and how

Government Dialogue on Natural Capital 2018



Natural capital for governments: what, why and how is developed in the context of the Government Dialogue on Natural Capital (<https://naturalcapitalcoalition.org/projects/government-dialogue-on-natural-capital/>). It is written by a core-team of authors from the Netherlands Ministry of Agriculture, Nature and Food Quality, Green Economy Coalition, World Bank WAVES Programme and Natural Capital Coalition and builds on contributions from the Narrative Working (France, Germany, Ghana, Japan, Netherlands, Nigeria, South Africa, United Kingdom, CISL, European Commission ICAEW and IUCN, plus the core-team members mentioned before). It also builds on the wealth of best practices that is collected by the Best Practices and Accounting Working Groups, as well as on examples published by the Green Economy Coalition and the World Bank's WAVES Program.

This document contains over 50 examples of government best practices that show that many governments already do act on natural capital. All examples in the text are underlined and hyperlinked..

A first draft of this narrative is discussed at the **Policy Forum on Natural Capital** that convenes at 26-27 November 2018 in Paris (see the [summary report](#) for the details of this discussion). Based on the outcome of this discussion the document is adapted and open for final suggestions by the Working Group. finalized and published at the beginning of 2019.

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We will not be able to tackle the climate challenge without support of our ecosystems as our first ally in this battle. The two problems are inseparable.

Plan Biodiversité, French government (2018)

Nothing is stronger than an idea whose time has come.

Victor Hugo

Introduction – What is natural capital?

This paper explains what natural capital is, why it is relevant for governments, and how they can act on it. It is written to clarify and demonstrate the opportunities of implementing natural capital approaches in different policy areas. Four key messages stand out:

1. Wealth and wellbeing depend on natural capital
2. Natural capital generates environmental, economic and social returns that contribute to achieving policy ambitions, providing that policy is managing trade-offs between those returns
3. Governments have seven levers to maximize the returns that natural capital delivers
4. Many governments already support natural capital approaches to support their ambitions and contribute to achieving SDGs

This paper is written to inform policy makers in diverse areas, ranging from planning and economy to development and labour, what opportunities natural capital approaches can deliver to improve their decisions. The paper builds on experiences of countries from all regions in the world and is developed with senior policy decision makers working in different contexts on a wide area of topics in mind, ranging from planning, economic development and finance to industry policy and more. Therefore, this paper is purposely generic, and presents the arguments for the relevance of natural capital in different contexts, that can be adapted later to more specific audiences if necessary.

MANAGING 'CAPITALS' IS THE FRONTLINE OF GOVERNMENT LEADERSHIP IN THE 21ST CENTURY

In increasingly globalised systems our national economies face increasing systemic risksⁱ but also new opportunities. Risks today stretch further and further beyond our own borders. Deforestation in the Amazon is disrupting rainfall in the USAⁱⁱ and global climate change is likely to trigger more extreme weather events around the world.ⁱⁱⁱ Equally, opportunities are emerging as our economies respond to resource scarcity. For example, the global green bond market is set to reach US\$ 250 billion by the end of 2018.^{iv} And [Philippines mangroves](#) prevent damages to homes and industry to a value of more than US\$ 1 billion annually^v Grasping these new opportunities while also managing the risks is the frontline of leadership in the 21st century.

Meeting national and global ambitions requires us to manage a range of assets or 'capitals'^{vi} at the same time, short- and long-term. That includes our material goods, infrastructure and revenue (Financial/Physical capital), our communities and workforces (Social/Human capital), and our natural resources, ecosystems and ecosystem services (Natural capital, see Box 1).

Box 1 What is natural capital?

Natural capital is another term for the stock of renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that yield a flow of benefits to people. The broad range of services provided by natural capital include food, water, energy, shelter, medicine, and the raw materials we use in the creation of products. It also provides less obvious services such as clean air, flood defence, climate regulation, pollination and recreation.^{vii} Ecosystem services are the multiple benefits we derive from well-functioning ecosystems and describe our critical dependence on nature for our basic needs, wellbeing and prosperity that natural ecosystems create.

NATURAL CAPITAL IS ESSENTIAL FOR ACHIEVING WEALTH AND WELLBEING.

Evidence now shows how essential natural capital is for all aspects of an economy. Even by conservative estimates, in low income countries natural capital accounts for up to 50% of national wealth while in high income non-OECD countries it amounts, on average, to 30% of their wealth^{viii}. Yet, traditional measures of progress such as GDP fail to show this underpinning value of natural capital to an economy.

Using the concept of natural capital helps to make the underpinning value of our natural resource base visible for decision makers. Natural capital accounting and assessments (see Box 2) provide a strategic lens for taking responsibility for the connections between the economy and our environment, equipping us with a sustainability metric fit for the 21st century. Information on the state of natural capital provides important practical information for evaluating different policy trade-offs, investment objectives and financial risk management.

However, it is important to stress that using the concept of natural 'capital' to highlight the economic value of nature does not preclude nature's other important values, which include cultural and spiritual values as well as a natural heritage perspective and the intrinsic value of nature beyond what humans need. It rather provides an additional lens for understanding how economic and social outcomes are dependent on natural capital (*Figure 1*).

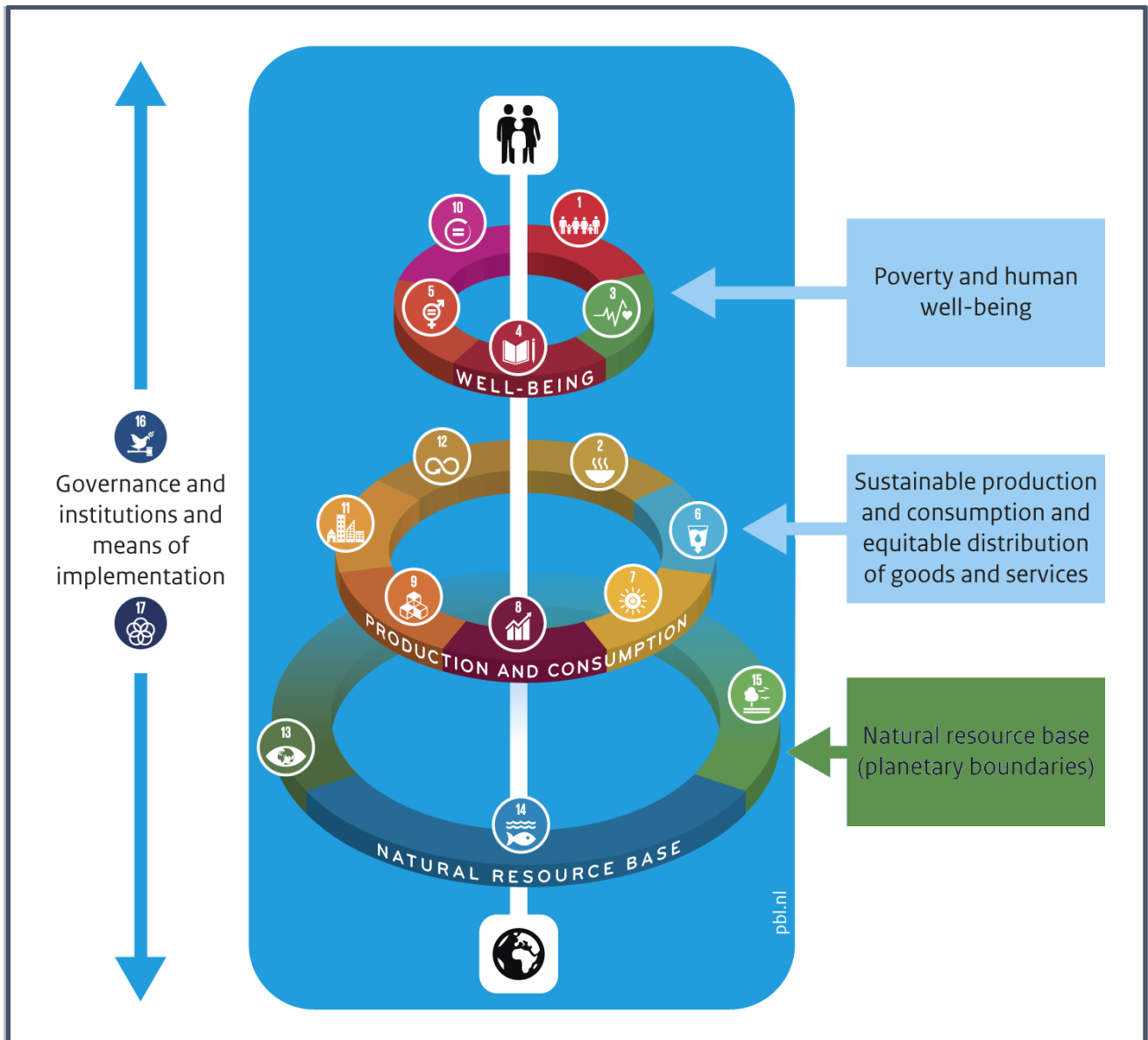
Box 2 Accounting and assessing natural capital

Natural capital accounting: *Compiling consistent, comparable and regularly produced data using an accounting approach on natural capital and the flow of services generated in physical and monetary terms to show the contribution of the environment to the economy and the impact of the economy on the environment. The System of Environmental Economic Accounting (SEEA) is the agreed statistical framework for natural capital accounting. The SEEA uses the same accounting principles and structure of the System of National Accounts, which is the basis for GDP as well as other macro-economic indicators including produced assets. This enable countries to better understand how the environment underpins wealth and economic activity and to monitor environmental degradation and its costs.*

Natural capital assessment: *The process of assessing natural capital impacts and dependencies. The scope can be broad and it is primarily about providing information to inform decisions. The data used can be both accounting data and other types of data and statistics.*

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Figure 1 Our societies and economies depend on natural capital



This figure is adapted from *"Towards a safe operating space for the Netherlands"* (PBL, 2018). It goes back to the 'SDG wedding cake', developed by Pavan Sukhdev and Johan Rockström. It was adapted by PBL to strengthen the message that human wellbeing depends on sustainable production and consumption, which are in turn depends on a natural resource base. Or, in terms of multi-capitals: Social and human capital depend on financial/physical capital that in turn depends on natural capital.

Why does natural capital matter for governments?

NATURAL CAPITAL GENERATES MULTIPLE RETURNS

Businesses and financial organisations are already incorporating natural capital into their strategy. Governments have much to gain from taking action on natural capital. Several policy objectives can be achieved by good natural capital management, including:

- ✓ New jobs and livelihoods
- ✓ Poverty reduction
- ✓ Improving people's well-being
- ✓ Reduced pressure on public health systems
- ✓ Better information to manage competing economic demands
- ✓ Delivering multiple national and global policy goals
- ✓ Increased ecological resilience
- ✓ More resilient businesses and financial markets
- ✓ Innovation and investment

Natural capital supports achieving these objectives through the 4 returns it can generate (*figure 2*).

Figure 2 Natural capital generates multiple returns



NATURAL CAPITAL GENERATES SOCIETAL RETURNS

Poverty alleviation: As all people are dependent on healthy natural systems, in general poor people are the most vulnerable to environmental failure (often caused by excessive use of natural systems by rich people). Well designed, natural capital-based mechanisms, such as Payment for Ecosystem Service schemes and social conditional transfer initiatives, can incentivize change in the way people use nature and provide new and direct income for the poorest.

EXAMPLES | China's [Eco Compensation schemes](#); Brazil's [Bolsa Floresta Programme](#), and India's [Rural Guarantee Employment scheme](#) have all had proven benefits for poor communities.

Jobs and livelihoods: Restoring ecosystems and natural species is generating new jobs and livelihoods in both rich and poor countries. In some instances, ecological restoration is generating more than traditional industries such as mining and the oil and gas industries. For example, in the USA natural capital restoration initiatives support 33 jobs per \$1 million invested, relative to 5.2 jobs per \$1million invested in oil and gas industries^{ix};

EXAMPLES | South Africa's [Working For Water schemes](#) employ over 50,000 people a year while restoring 1 million hectares of land; and [Rewilding Europe](#) is creating new business and jobs in tourism by restoring nature.

Public health and wellbeing: A healthy environment is critical for mental and physical health. By investing in natural capital, governments can reduce their public health bill as well as invest in societal wellbeing.

EXAMPLE | [London's parks](#) alone save the city over £950 million per year by reducing disease risk through higher levels of physical activity and improved mental health.

NATURAL CAPITAL GENERATES ECONOMIC RETURNS

Business and industry: Returns will only be delivered if business and industry are managing their dependencies on natural capital. Supporting businesses to understand their dependency on natural capital helps them build resilience into their business models (e.g. anticipating price changes, informing strategy and supply chain decisions) as well as driving circular economies, new markets and partnerships.

EXAMPLES | Olam International has launched a [Living Landscapes Policy \(OLLP\)](#) to prompt a "Net-Positive" approach to agricultural supply chains and landscape management.

Sustainable wealth: Natural capital is essential for all aspects of an economy, yet only a tiny proportion of that value is 'visible'. As states before, natural capital accounts for up to a third to a half of national wealth. At the sector level, that dependency tends to be much higher (see how the transport sector depends on natural capital for example^x).

EXAMPLES | £1 million spent on [Agri-environment schemes](#) in the UK has returned £25 million in natural capital benefits^{xi}; and [Investing in key natural systems](#), such as peatland restoration, is estimated to generate 4:1 benefit to cost ratio over a 40 year period ^{xii}.

Benefits and cost savings: Large scale natural capital investment schemes have proven good for the economy. By choosing to invest in 'green infrastructure' over manmade 'grey infrastructure' governments can also reduce their expenditure and enhance flows of benefits and resilience.

EXAMPLE | [Green Infrastructure solutions](#) form an essential element in a portfolio of solutions to increase the resilience of industrial business operations and often demonstrate financial advantages compared to gray

infrastructure due to a reduction of initial capital expenses and ongoing operational expenses and can be used to strategically recapitalize aging assets.

Innovation and investment: Financial markets are already responding to the risks and opportunities of natural capital. There has been a sharp increase in green bonds and mutual funds to invest in companies offering solutions to natural capital problems (e.g. waste bio-refineries, biodiversity conservation banks)^{xiii}. These products are driving new markets for natural capital investment.

EXAMPLES | A novel [insurance policy to protect coral reef](#) has been developed in Mexico. And Washington DC's [Environmental Impact Bond](#) supports green space to absorb stormwater which is bringing a 3.43% return for investors.

NATURAL CAPITAL GENERATES ENVIRONMENTAL RETURNS

Resilience: Social and economic returns will only be delivered if natural systems can continue to adapt and function as human activity increases. Enhancing ecological resilience is essential for our life (e.g. pollinating our crops, providing us with medicines). Mangroves, salt marshes, peat bogs, tropical forests are examples of key ecosystems that ensure essential nature-based solutions for adapting to climate change.

EXAMPLES | [Ecological restoration projects](#) have been proven to increase biodiversity and ecological services by 44% and 25% respectively^{xiv}.

Traditional and intrinsic values of nature: When well-managed, implementing a natural capital approach can help to strengthen knowledge of traditional and intrinsic values of nature.

EXAMPLE | [Assessing Ecosystem Services](#) helps indigenous groups in the Amazon to identify impacts, to defend their territory and make and influence decisions.

THE THREE RETURNS WILL ONLY BE MAXIMIZED IF POLICY MANAGES TRADE-OFFS

In delivering the environmental, economic and societal returns, trade-offs can occur. E.g. economic returns can be achieved at the expense of societal returns that can at the same time be achieved at the expense of environmental returns. Policies role is to manage these trade-offs, by ensuring that the necessary information is available and taking into account by decision makers.

Information and decision making: A reliable physical inventory or stock of a nation's natural capital, including its physical extent, condition and economic value, and how that supports wealth creation, is essential for deciding what kind of growth you want particularly in context of competing economic demands.

EXAMPLES | Guatemala's [Forest accounts](#) link forest resources with the economy, Nigeria's [Forestry principles](#) address climate and forest protection, and Australia's [Water accounts](#) inform policy to tackle impact of drought.

Multiple policy aims: Natural capital accounting and assessments offer a systemic approach for understanding how public investments support each other. For example, how investment in biodiversity can support innovation in agricultural policy and how this is profitable for both economic development as biodiversity.

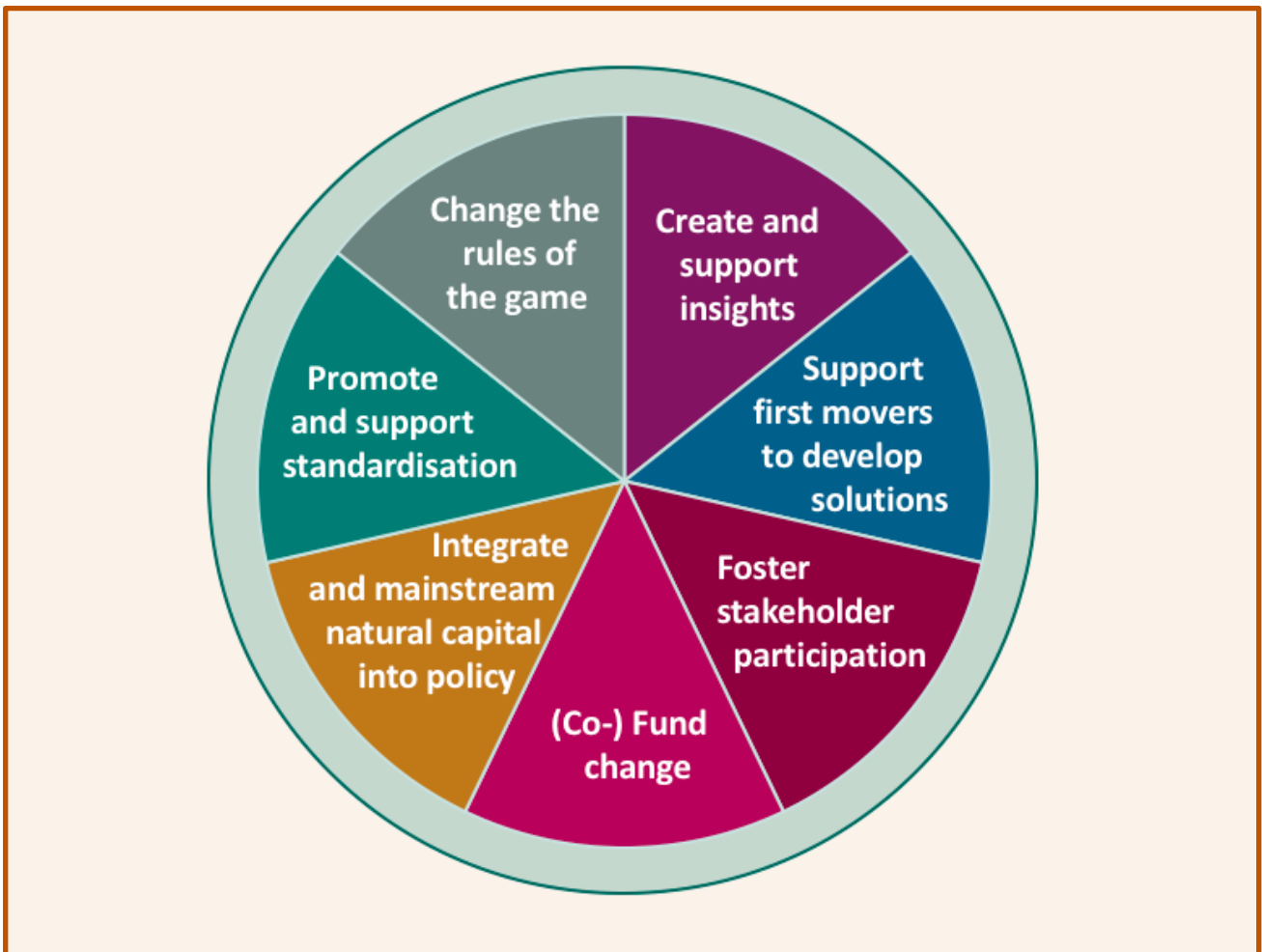
EXAMPLES | The EU adopted a [Pollinators Initiative](#) that sets the framework for an integrated approach to pollinator decline, that focuses both on action plans for habitats as well as mitigate action in several sectoral policy areas, including agriculture, climate change and health.

How can governments act on natural capital?

GOVERNMENTS HAVE SEVEN KEY LEVERS TO SPEED AND SCALE-UP THE TRANSITION

All stakeholders – government, businesses, finance institutions, communities - depend on natural capital and many are starting to take action. Government intervention is essential for speeding and scaling up the transition. Seven levers for change can be distinguished (*Figure 3*). Some levers are focusing on information and planning, others on levelling the playing fields and getting action on the ground. Every country is unique, and change will require a different combination of actions in each context.

Figure 3 Seven key levers for change



CREATE AND SUPPORT INSIGHTS

To better understand its relationship with nature governments could and should monitor and support insights in economic and societal dependencies from natural capital and promote a dialogue on values and valuation of natural capital.

1. Compile a consistent, comparable and regularly produced national natural capital account based on the UN-SEEA framework. The insights from such accounts can be used to identify and manage risks for achieving SDGs and other policy targets, at both (sub)national and corporate level.

EXAMPLES | Many countries are implementing the UN-SEEA framework to complement GDP. Among them Australia developed several natural capital accounts, including for [Marine and Coastal Ecosystems \(Port Phillip Bay\)](#) and [Victoria's Parks](#); Brazil developed [Environmental-economic accounting for water and EEB-services](#). Japan has been supporting a research for developing an [Accounting system to record values of ecological stocks and ecosystem services](#) and the Netherlands developed a [SEEA-EEA based Carbon-account](#).

2. Develop and adopt a framework that links natural ecosystems and socio-economic systems through the flow of ecosystem services. Offer guidance how to integrate these services into decision making.

EXAMPLES | UK's Forest Enterprise has used natural capital approaches to [Assess alternative options for changing the landscape](#) through planting new forests. The EU maps ecosystems and their services in the context of its project [Mapping and Assessment of Ecosystems and their Services \(MAES\)](#).

Natural capital accounting can provide insights for both by public and private actors. How the approaches can be compared is described in [Accounting for Natural Capital](#), a narrative focusing on creating more alignment between public and private accounting approaches.

SUPPORT FIRST MOVERS AND DEVELOP SOLUTIONS

3. Support frontrunning private actors to share knowledge and develop solutions by creating business learning circles and public-private partnerships to experiment with natural capital accounting and assessments and promote upscaling.

EXAMPLES | Japan started a [Community of Learning for Natural Capital Valuation](#) and Netherlands a [Community of Practice Financial Institutes & Natural Capital](#) that both supported the private sector to implement natural capital approaches. Botswana founded a [Water accounts community of practitioners](#) to share knowledge and exchange country experiences, and the [EU Business@Biodiversity Platform](#) brings together government, non-government organizations and business representatives to discuss experiences on natural capital accounting, innovation and finance.

4. Support upscaling by bundling tools, knowledge hubs and streamline innovation funds.

EXAMPLE | Israel created a [Functional toolkit](#) supporting companies to implement environmental guidelines.

FOSTER STAKEHOLDER PARTICIPATION

5. Enhance public participation and democratic decision making on the environment and natural capital in order to raise awareness of the added value of different approaches for taking the value of nature into account and to develop a common understanding of the do's and don'ts with respect to valuation of nature.

EXAMPLES | In Brazil the [PainelBio Initiative](#) played an important role in the participative construction and implementation of the National Strategy and Plan of Action for Biodiversity. And the Netherlands organised a [Natural Capital Dialogue](#) on pros and cons of a capital-approach.

6. Create public-private partnerships to scale and speed-up change.

EXAMPLES | United Kingdom developed sectoral Sustainable Growth Agreements to work directly with businesses to engage them in [Scotland's One Planet Prosperity policy implementation](#). Costa Rica supported [Water accounting for decision making by business](#), and Australia a farm [applying natural capital accounting to increase farm gate profits](#).

(Co-) FUND CHANGE

7. Develop new government investments in specific ecosystems or ecosystem services. Alternatively, develop public-private partnerships for blended finance proposals, e.g. by setting up finance facilities with credit lines for natural capital conservation or by supporting projects and businesses to reach market maturity ("bankable projects").

EXAMPLES | New Zealand created a [Freshwater Improvement Fund](#) to improve water quality in one of its rivers, and Israel an [Open Spaces Conservation Fund](#) to restore open spaces.

INTEGRATE AND MAINSTREAM NATURAL CAPITAL INTO POLICY

8. Develop macro indicators and/or information systems alongside economic indicators such as GDP and integrate information on the state and change of the country's natural resources to its economic growth in order to inform policy on green growth and sustainable consumption and production.

EXAMPLES | New Zealand developed a [Living Standards Dashboard](#) to connect natural capital to their Wellbeing Framework and uses natural capital insights to inform its [Sustainable seas program](#). Similarly, Scotland (United Kingdom) formally included natural capital growth as an indicator of success in its [National Performance Framework](#), France had included a carbon footprint and soil sealing as environmental indicators in a [Dashboard of 10 complementary wealth indicators](#), and the Netherlands used natural capital data to create a broad [Monitor of well-being](#).

9. Create institutional links to mainstream natural capital in other policies (e.g. by breaking down the silos between ministries, provide means for data sharing, create channels for integrating different policy areas and establishing interdepartmental steering committees). Another option is to use the insights from natural capital accounts that are developed to prioritize the national agenda.

EXAMPLES | Mexico created an [Inter-Ministerial Commitment to reduce deforestation](#) and Scotland (United Kingdom) a [One Planet Prosperity Regulatory Strategy](#) to integrate nature in its regulatory framework.

PROMOTE AND SUPPORT STANDARDIZATION

10. Promote and support standardization of tools and methods to incorporate natural capital considerations into socio-economic decisions.

EXAMPLES | Japan developed [Guidelines for Private Sector Engagement in Biodiversity](#). And Germany a [Handbook on the evaluation of environmental damages](#) and the Netherlands an [Environmental Prices Handbook](#) with standardized environmental prices for natural resources

11. Encourage research coordination and support to academia and advocate the implementation of Open Data in all sectors. By this governments help to establish a level playing field and can scale up practices.

EXAMPLES | New Zealand [Sustainable Seas](#) is one of the NZ Government's eleven National Science Challenges that are designed to frame and deliver a more strategic approach to the government's science investment by targeting a series of long-term goals. The EU supports [Oppla](#), a web-based community and innovation hub for sharing knowledge about natural capital, ecosystem services and nature based solutions.

CHANGE THE RULES OF THE GAME

12. Promote inclusion of natural capital related non-financial information in decision making and reporting of companies. Such regulation increases insights in impacts and dependencies on natural capital and triggers innovation.

EXAMPLES | France has pioneered [Mandatory disclosure](#) on climate change since 2015 and biodiversity since 2017, while transposing an EU directive on non-financial information in French law. Also France adopted a [National strategy to eliminate deforestation from the French supply chain](#) that contains non-mandatory objectives about increasing the monitoring and reporting of deforestation by companies (all links refer to texts in French).

13. Develop price and market incentives (including tax incentives and sustainable procurement) to promote sustainable use of natural capital.

EXAMPLES | [Sweden](#) and [South Africa](#) green their tax policies using insights from their natural capital accounts. Brazil developed a [System of Incentives for Environmental Services](#) and is ensuring proper values for socio-economic products through its [Minimum Guaranteed Price Policy for Socio-Economic Products](#).

14. Develop regulation to ensure proper natural capital management and enshrine the protection of natural capital into legal frameworks and business requirements.

EXAMPLES | Brazil supports the [Review process of the forest compensation law](#). France is currently reinforcing the strategic and operational character of its [National ecosystem assessment](#) (the EFESE program) to influence decisions in all sectors. And the Australian and Netherlands governments have supported the development and implementation of an international [Standard on Biodiversity Offsets](#), through collaboration with several organizations in the Business and Biodiversity Offset Program.

What's next?

GOVERNMENT LEADERSHIP IS ESSENTIAL

The first two chapters of this document shows why natural capital is the underlying layer of sustainability on which both society and the economy depend. As such, enterprises and industries, communities and citizens, public sectors and local authorities all need to be alert to their dependency on natural capital and enabled to act. Only through proactive government leadership can collective action take place at scale.

THE TRANSITION IS UNDER WAY

The third chapter of the document shows with over 50 examples from 18 different countries natural capital approaches are underway and decision makers in governments are already seeing the results, from jobs to cost savings, from poverty alleviation to better public health (etc.). Thus, contributing to our economic and societal national ambitions as well as our global commitments (see Annex). However, there is still much work to be done. Natural capital is not merely a question for environmental ministries but needs to be mainstreamed and 'hard-wired' into the core government strategies, policy, and investment decisions.

NEXT STEPS

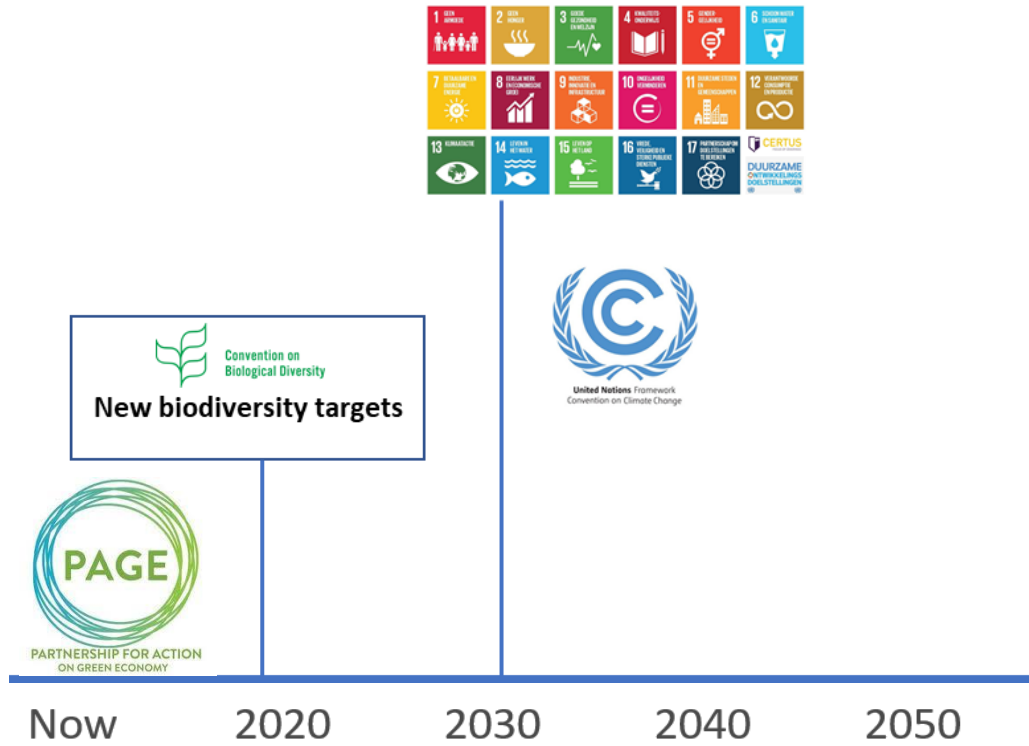
Governments can build on all experiences gained so far by developing a natural capital policy approach that is tailored to their specific context and needs, Focusing on the returns of natural capital and levers of change that are most relevant in its national/local context (societal, economic or environmental). In doing so governments need to address two key questions, both at the level of an individual government, but also internationally:

1. Is my policy-mix to manage the trade-offs between the different returns of natural capital adequate?
2. Are all relevant policy makers needed to manage the trade-offs involved in an appropriate way?

The first question focuses on the interdependencies of the different returns that effect the contribution of these returns to the achievement of the – also interdependent – Sustainable Development Goals. The second question focuses on mainstreaming natural capital approaches into biodiversity, climate change and SDG policies and may require more targeted narratives for which this paper provides building blocks and relevant examples.


















TIME TO ACT

In 2020 new global biodiversity targets will be set and SDG goals and indicators will be updated. Therefore, now is the time for governments to act and mainstream natural capital approaches into these policy areas, by taking decisive steps at national, regional and global level. The momentum is building. The future is at our doorstep. What contribution can you make?




















Annex | SDG-contribution of the presented examples of natural capital approaches

This table provides an indication of SDG contributions from all examples presented in this document. The SDGs are presented in an order derived from figure 1. SDGs related to the natural resource base (13, 14, 15) are at the bottom of this table; SDGs related to production and consumption (2, 6, 7, 8, 9, 11, 12) and related to poverty and human well-being (1, 3, 4, 5, 10) in the middle, while SDGs related to governance and institutions and means of implementation (16, 17) are presented at the top. The examples are presented in order of appearance in the document.

			1 Eco Compensation (China)	2 Bolsa Floresta Programme (Brazil)	3 Rural Guarantee employment scheme (India)	4 Working for water schemes (South Africa)	5 Rewilding Europe (EU)	6 London Parks (United Kingdom)	7 Living Landscapes Policy OLAM (United Kingdom)	8 Agri-environment scheme (United Kingdom)	9 Investing in key natural systems (United Kingdom)	10 Green infrastructure solutions	11 Insurance policy to protect coral reefs (Mexico)	12 Washington DCs Environmental Impact Bond (USA)	13 Ecological restoration projects	14 Assessing ecosystem services (Brazil)	15 Forest accounts (Guatemala)	16 Forestry principles (Nigeria)	17 Water accounts (Australia)	18 Pollinators Initiative (EU)
	16	PEACE, JUSTICE AND STRONG INSTITUTIONS																●	●	
	17	PARTNERSHIPS FOR THE GOALS															●			
	1	NO POVERTY	●	●	●	●									●	●				
	3	GOOD HEALTH AND WELL-BEING					●													
	4	QUALITY EDUCATION																		
	5	GENDER EQUALITY																		
	10	REDUCED INEQUALITIES																		
	2	ZERO HUNGER	●	●	●	●			●	●								●	●	
	6	CLEAN WATER AND SANITATION				●					●							●		
	7	AFFORDABLE AND CLEAN ENERGY																		
	8	DECENT WORK AND ECONOMIC GROWTH	●	●	●	●	●		●							●	●		●	
	9	INDUSTRY, INNOVATION AND INFRASTRUCTURE										●								
	11	SUSTAINABLE CITIES AND COMMUNITIES										●		●	●	●			●	
	12	RESPONSIBLE PRODUCTION AND CONSUMPTION							●	●	●		●			●	●	●	●	
	13	CLIMATE ACTION									●	●		●	●		●			
	14	LIFE BELOW WATER					●						●		●					
	15	LIFE ON LAND	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	

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			19 Natural capital accounts for Marine and Coastal ecosystems (Australia)	20 Natural capital accounts for Victoria Parks (Australia)	21 Environmental-economic accounting for water (Brazil)	22 Accounting system for values of stocks and services (Japan)	23 SEEA-based Carbon-accounts (Netherlands)	24 Assess alternative options for changing the landscape (United Kingdom)	25 Mapping and Assessment of Ecosystems and their Services (EU)	26 Community of Learning for Natural Capital Valuation (Japan)	27 Community of Practice Finance & Biodiversity (Netherlands)	28 Water accounts community of practitioners (Botswana)	29 EU Business@Biodiversity Platform (EU)	30 Functional toolkit (Israel)	31 PainelBio Initiative (Brazil)	32 Natural Capital Dialogue (Netherlands)	33 One Planet Prosperity policy implementation (United Kingdom)	34 Water accounting for decision making by business (Costa Rica)	35 Applying natural capital accounting to increase farm gate profits (Australia)	36 Freshwater Improvement Fund (New Zealand)	37 Open Spaces Conservation Fund (Israel)
	16	PEACE, JUSTICE AND STRONG INSTITUTIONS	●	●	●	●	●	●	●							●	●	●	●	●	
	17	PARTNERSHIPS FOR THE GOALS							●	●	●	●			●	●					
	1	NO POVERTY										●			●						
	3	GOOD HEALTH AND WELL-BEING														●					●
	4	QUALITY EDUCATION																			
	5	GENDER EQUALITY																			
	10	REDUCED INEQUALITIES																			
	2	ZERO HUNGER	●	●	●							●								●	
	6	CLEAN WATER AND SANITATION	●	●	●	●						●			●			●		●	
	7	AFFORDABLE AND CLEAN ENERGY																			
	8	DECENT WORK AND ECONOMIC GROWTH					●	●	●	●	●		●	●	●	●			●		
	9	INDUSTRY, INNOVATION AND INFRASTRUCTURE						●	●	●	●		●	●		●					
	11	SUSTAINABLE CITIES AND COMMUNITIES													●						●
	12	RESPONSIBLE PRODUCTION AND CONSUMPTION	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	13	CLIMATE ACTION	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	14	LIFE BELOW WATER	●	●						●	●		●	●	●	●					
	15	LIFE ON LAND	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

ⁱ For example, see the World Economic Forum (WEF) Global Risks Report 2018: <https://www.weforum.org/reports/the-global-risks-report-2018>

ⁱⁱ <https://e360.yale.edu/features/how-deforestation-affecting-global-water-cycles-climate-change>

ⁱⁱⁱ <http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=354>

^{iv} <https://www.bloomberg.com/professional/blog/blossoming-green-bond-market-growing-toward-250-billion-year/>

^v Similarly, studies in France show that investing in coral reefs as a means of protecting coastal flooding is worth 600M€/year in oversea territories (Report [here](#), p. 5 (In French))

^{vi} We follow the International Integrated Reporting Council, that identifies six different capitals. See:

<http://integratedreporting.org/what-the-tool-for-better-reporting/get-to-grips-with-the-six-capitals/>

^{vii} <https://naturalcapitalcoalition.org/natural-capital/>

^{viii} The Changing Wealth of Nations, World Bank 2018

<https://openknowledge.worldbank.org/bitstream/handle/10986/29001/9781464810466.pdf?sequence=4&isAllowed=y>

^{ix} For example, some US natural capital restoration initiatives from 2006-2013 are estimated to have supported between 6.8 and 39.7 jobs per \$1 million invested ([BenDor et al. 2015](#)) – with an average of 17.6 jobs per \$1 million. The number of jobs supported depended substantially on the geographic, ecological, economic and regulatory context - but overall compares highly favourably with the estimated 5.3 jobs supported per \$1 million invested in US oil and gas during 2007 ([Pollin et al. 2009](#))

^x Allianz, 'Measuring and Managing Environmental Exposure, A Business Sector Analysis of Natural Capital Risk'.

https://safety4sea.com/wp-content/uploads/2018/06/Allianz-Measuring-And-Managing-Environmental-Exposure-A-Business-Sector-Analysis-of-Natural-Capital-Risk-2018_06.pdf

^{xi} Natural England, "Agri-Environment Schemes in England 2009," Defra, UK, 2009, 120,

http://www.naturalengland.org.uk/Images/AE-schemes09_tcm6-14969.pdf.

^{xii} The UK Natural Capital Committee, Third report to the Economic Affairs Committee, 2015.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/516725/ncc-state-natural-capital-third-report.pdf

^{xiii} https://naturalcapitalcoalition.org/wp-content/uploads/2018/04/Connecting-Finance-and-Natural-Capital_Supplement-to-the-Natural-Capital-Protocol-1.pdf

^{xiv} Rey Benayas JM (et al), Enhancement of biodiversity and ecosystem services by ecological restoration: a meta-analysis. Science. (2009). <https://www.ncbi.nlm.nih.gov/pubmed/19644076>