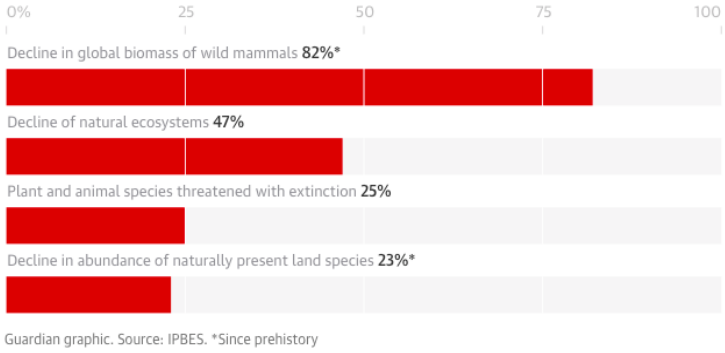
Summary of the IPBES report

Introduction

The UN-backed Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is an independent intergovernmental body established in 2012. On 6 May 2019 they released the most comprehensive report on biodiversity to date, involving 132 governments with more than 450 experts reviewing 15000 scientific papers on biodiversity and ecosystem services from around the world. The IPBES report stress the importance of social and political action to address the climate and environmental crisis, to avoid a continued loss of biodiversity. The sustainable development goal 15 (SDG 15 - Life on Land) is highly relevant to the IPBES report. We will here give a brief summary of the report in an accessible way.

Human actions and biodiversity

The first part of the IPBES report stress the importance of nature for the human well-being (quality of health, and good lifestyle) and for the most important human activities. Nature provides important ecosystem services such us the production of goods as food and feed or medical and genetic resources. Furthermore, increases in the production of some of nature's contributions cause decline in others, which also affect people differently. For example, cleaning of the forest for agriculture has increased the provision of food and other materials but has reduced other kind of important ecosystem services such as pollination, water and air qualities (S. Diaz et al, 2019, p. 10). Ecosystem services are of fundamental importance for life on earth. The SDG15 target and the IPBES report aim to make known the causes and changes of today's land use. Ellis and Ramankutty (2008) concluded that more than 75% of Earth's ice-free land area could no longer be considered wild. Of Earth's ice-free land area, 83% is likely directly influenced by human beings. The IPBES report describes how the current exploitation of natural resources and services puts biodiversity at risk and describes the consequences of this exploitation. The loss of diversity, in different fields such as loss of habitat, loss of biodiversity and natural functions can permanently reduce the possibility of discovering new ecosystem services and benefits. Technology can replace some ecosystem services but often at a financially prohibitive cost and at a quality inferior to nature (S. Diaz et al, 2019, p. 11). Human activity and the subsequent deterioration of habitats, is the main cause of the extinction of several species of animal: vertebrate, bird, insects, invertebrate and plant groups. More than 500,000 species do not have the sufficient habitat conditions to survive. Public policy does not seek to strengthen the protection of several hotspots and wild crop relatives that are exploited and at risk. The conservation of wild relatives that is deteriorating is important because these wild relatives, as the IPBES report show: "represent critical reservoirs of genes and traits that may provide resilience against future climate change and may improve current heavily depleted gene pools of many crops and domestic animals" (S. Diaz et al, 2019, p. 14). Even when there are policies and plans about the recovery and the management of habitat, in general these management plans ignore rapid evolutionary changes. Analysing the environment's main problem, linked with the humans survival and well-being, the study promoted by IPBES fully matches the objectives of SDG15 that are: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.



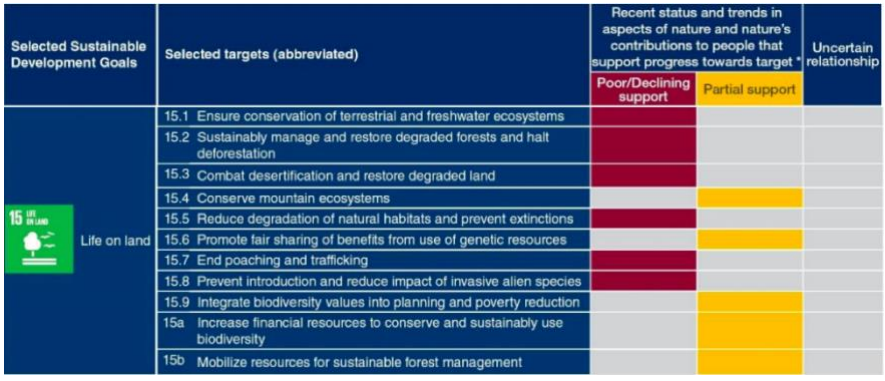
Figur 1: The graph shows how human activity impacted, from the prehistory to contemporary times, the abundance and diversity of animal and plants.

What has happened the past 50 years?

Different direct and indirect drivers of change have accelerated during the past 50 years. One of the direct drivers, with the largest impact on terrestrial and freshwater ecosystems is land-use change. Land-use change has had the most negative impact on nature since 1970 (S. Diaz et al, 2019, p. 4). It is driven by urbanization, agriculture and forestry. All of these are also associated with water, soil and air pollution. Extraction of fish and other seafood has had the largest impact on biodiversity in the oceans over the past 50 years. Another direct driver is climate change. This is increasingly worsening the impact of other drivers on nature, from genes to ecosystems. Changes in species distribution, phenology, population dynamics and composition of species assembly are accelerating in both marine and terrestrial systems. Already 47% of terrestrial mammals (excluding bats) and 23% of birds are threatened and have been negatively affected by climate change (S. Diaz et al, 2019, p. 17). Different types of pollution and invasive alien species are increasing the negative impact on nature. This has been seen in coral reefs, savannah and the arctic systems. In particular, marine plastic pollution has increased tenfold since 1980, which has affected at least 267 species (86% of marine turtles, 44% of seabirds and 43% of marine mammals) (S. Diaz et al, 2019, p. 4). The rate of change will of course differ among the many countries and regions of the world.

Will we reach the goals for sustainability?

Past and ongoing rapid declines in biodiversity, ecosystem functions and many of nature's contributions means that most international societal and environmental goals will not be achieved. These declines will undermine other goals. The negative trends in biodiversity and ecosystem functions are projected to continue or worsen. Policy responses and actions has progressed, but not sufficiently. Some of the Aichi Biodiversity Targets will be partially achieved, for example those related to protected areas, invasive alien species, national biodiversity strategies and the Nagoya Protocol, but not all targets will be met. While protected areas now cover significant areas it only partly covers important sites for biodiversity and are not fully ecologically representative. There has been growth in support of biodiversity aid reaching 8.7 billion USD annually. However, current resource mobilization is not sufficient. Nature is essential for achieving the SDG, however, current negative trends in biodiversity and ecosystems will undermine progress towards 80 per cent (35 out of 44) of the assessed targets of SDGs 1, 2, 3, 6, 11, 13, 14, and 15 (S. Diaz et al, 2019, p. 24). Figure 2 shows the status of SDG 15. Important positive synergies between nature and SDGs 4, 5, 10 and 16 were found. However, current focus and wording of targets in these goals obscures or omits their relationship to nature, thereby preventing their assessment. Some potential options to achieve the goals and targets related to some SDGs could have positive or negative impacts on nature and therefore on the achievement of other SDGs. Areas of the world, vulnerable to changes in nature, are home to large concentrations of indigenous peoples and many of the world's poorest communities. Those communities will be disproportionately hard hit by those negative changes. Without transformative change, negative trends in nature are going to continue to 2050 and beyond. Climate change is projected to become important as a driver of changes in nature.



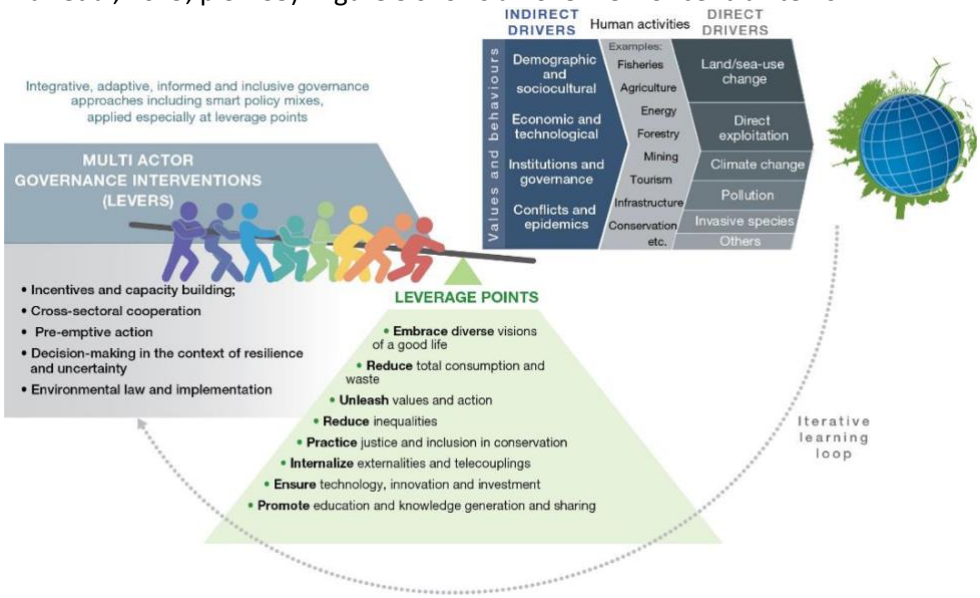
Selected Sustainable Development Goals	Selected targets (abbreviated)	Recent status and trends in aspects of nature and nature's contributions to people that support progress towards target *		Uncertain relationship
		Poor/Declining support	Partial support	
Life on land	15.1 Ensure conservation of terrestrial and freshwater ecosystems	■		
	15.2 Sustainably manage and restore degraded forests and halt deforestation	■		
	15.3 Combat desertification and restore degraded land	■		
	15.4 Conserve mountain ecosystems		■	
	15.5 Reduce degradation of natural habitats and prevent extinctions	■		
	15.6 Promote fair sharing of benefits from use of genetic resources		■	
	15.7 End poaching and trafficking	■		
	15.8 Prevent introduction and reduce impact of invasive alien species	■		
	15.9 Integrate biodiversity values into planning and poverty reduction		■	
	15a Increase financial resources to conserve and sustainably use biodiversity		■	
	15b Mobilize resources for sustainable forest management		■	

Figur 2: 6 of the SDG 15 targets are estimated to have poor or declining support by policy maker and the reminding 6 goals are only partially supported.

Scenarios show that the SDG and the 2050 Vision for Biodiversity depends on taking climate into account. The impacts of climate change are likely to be more pronounced in the next decades.

Bold action and transformative change

The executive secretary at IPBES, Anne Larigauderie, emphasized a message of hope in the opening remarks of the media launch of the report. In order to reach the 2030 sustainability goals and 2050 vision for biodiversity, the report repeatedly calls for transformative change. According to Sandra Diaz, global assessment co-chair, there needs to be a "transformative change, especially in production and consumption of energy and food". According to assessment co-chair Eduardo S. Brondizio, humanity has dramatically reconfigured life on the planet but in many sectors changes are already happening toward accomplishing goals - but they need to be bolder. Mr. Brondizio highlighted that we cannot meet the SDGs in isolation from social inequities or climate change, and we need to think in integrative ways incorporating cross-sectoral planning. Further, both direct, but most importantly, indirect drivers needs to be addressed as the root causes. The economic system needs to incorporate responsibility from production to consumption with positive incentives. He also noted that developed countries needs to transform "the narratives that associate wasteful consumption with quality of life" ("(175) #IPBES7 Media Launch #GlobalAssessment Webcast EN - YouTube," n.d.). The IPBES report includes a table of possible actions over four pages that lists many interventions, actions and pathways to achieve transformative change (S. Diaz et al, 2019, p 32-35). Figure 3 shows an overview of central items.



Figur 3: Overview of direct and indirect drivers along with interventions and leverage points for transformative change.

References:

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Sandra Díaz, J. S., Eduardo Brondízio (2019). "Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental
Science-Policy Platform on Biodiversity and Ecosystem Services." (Advance Unedited Version).