wbcsd business ecosystems training

Business Ecosystems Training (BET)
Glossary of Terms and Acronyms

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Glossary of Terms

Air quality regulation: The influence ecosystems have on air quality by emitting chemicals to the atmosphere (i.e., serving as a "source") or extracting chemicals from the atmosphere (i.e., serving as a "sink"). [1] [2]

ARIES: *"A web-based technology offered to users worldwide to assist rapid ecosystem service assessment and valuation. Its purpose is to make environmental decisions easier and more effective. ARIES helps discover, understand, and quantify environmental assets and what factors influence their values, in a geographical area and according to needs and priorities set by its users. ARIES can accommodate a range of different use scenarios, including spatial assessments and economic valuations of ecosystem services, optimization of payment schemes for ecosystem services, and spatial policy planning."* [3]

Australian government biodiversity policy consultation: The Australian government carried out an extensive consultation in the development of their Biodiversity Conservation Strategy. In producing their consultation document, they engaged with actors from various sectors, including business and industry in the region.[4]

Avoidance: Activities that either change or stop actions before they take place, preventing their expected impacts on biodiversity. Avoidance involves a decision to change the expected or normal course of action. E.g. A haulage road may be redesigned during project development or expansion to avoid the clearance of habitat with high conservation significance, changing the normal course of action and resulting in longer haul distances.[35]

Beneficiaries: Determining the population which benefit from the provision of goods and services. In the context of BET beneficiaries refer to those who benefit from ecosystem services such as the beneficiaries of storm protection from mangrove swamp would be all of the individuals and companies which live and operate within the protection zone.[5]

Biochemicals, natural medicines, and pharmaceuticals: Medicines, biocides, food additives, and other biological materials derived from ecosystems for commercial or domestic use.[1]

Biodiversity: Is the variability among living organisms within species, between species, and between ecosystems. It is this genetic variability (phenotype, genotype and environment) which gives organisms within ecosystems the ability to respond to stress. By having a range of organisms adapted to thrive in different circumstances, the ecosystem is more resilient. [1]

Biodiversity offsets: "*Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting after appropriate prevention and mitigation measures have been implemented". There are numerous approaches to what are broadly termed 'biodiversity offsets'; some with strict and complex criteria others based on simple quantity metrics (e.g. area of land or number of breeding pairs)*".[6]

Biodiversity and Wine Initiative: In 2004, the South African wine industry formed partnerships with the Botanical Society of South Africa, Conservation International and The Green Trust, which led to the establishment of the Biodiversity and Wine Initiative (BWI). This initiative takes a 'no net impact' approach – conserving one acre of natural growth for every hectare of land committed to vineyard (and moving towards a net positive impact).[7]

Biomass fuel: Biological material derived from living or recently living organisms – both plant and animal – that serves as a source of energy. [8]

Business and Biodiversity Offsets Program (BBOP): *"A partnership between companies, financial institutions, governments and civil society organizations to explore biodiversity offsets. The BBOP partners wish to show, through a portfolio of pilot projects in a range of industry sectors, that biodiversity offsets can help achieve significantly more, better and more cost-effective conservation outcomes than normally occurs in infrastructure development. The BBOP partners also believe that demonstrating no net loss of biodiversity can help companies secure their license to operate and manage their costs and liabilities."* [9]

Business case: The rationale for making a specific business decision, such as an investment, divestment or the opening of a new facility. The business case is usually based on a range of strategic and financial analysis, presenting the costs and benefits of taking a particular course of action.

Carbon footprint (CF): also named carbon profile – is the overall amount of carbon dioxide (CO_2) and other greenhouse gas (GHG) emissions (e.g. methane, etc.) associated with a product, along its supply-chain and sometimes including from use and end-of-life recovery and disposal. [10]

Climate regulation: The influence ecosystems have on global climate by emitting greenhouse gases or aerosols to the atmosphere or by absorbing greenhouse gases or aerosols from the atmosphere. [8]

Compensation: *"Generally, compensation is a recompense for some loss or service, and is something which constitutes an equivalent to make good the lack or variation of something else. It can involve something (such as money) given or received as payment or reparation (as for a service or loss or injury). Specifically, in terms of biodiversity, compensation involves measures to restore, create, enhance, or avoid loss or degradation of a community type, in order to compensate for residual impacts on it and / or its associated species."* [35]

Conservation bank: *"A conservation bank is a parcel of land managed for its conservation values. In exchange for permanently protecting the land, the bank owner is allowed to sell credits to parties who need them to satisfy legal requirements for compensating environmental impacts of development projects. See Carroll et al. 2008."*[35]

Convention on Biological Diversity (CBD): *"The Convention is like a textbook that explains how parties should turn those goals into action. It suggests ways for Parties to help each other by sharing resources and technology so that all biodiversity benefits"* [11]. Its three key objectives are the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

Corporate Sustainability: Managing resources to ensure that a business can survive and maintains conditions under which it can produce goods and services and exist in harmony with nature.[46]

Cost: (of an object or action) require the payment of (a specified sum of money) before it can be acquired or done (e.g. *each issue of the magazine costs £1, costs can be non-monetary e.g. the loss of a recreational area impacting on social welfare but not necessarily in monetary terms).*

Cultural services: The nonmaterial (social and cultural) benefits obtained from ecosystems such as recreation, spiritual values, and aesthetic enjoyment.[1 2]

Direct economic impacts: Include the capital investment, gross revenues, and jobs created through use of an ecosystem service – for instance, the annual jobs and revenues associated with dive tourism at a given site. [2]

Direct use values: Raw materials and physical products that are used directly for production, consumption and sale. [12, 2]

Discounting: This is a procedure used when comparing costs or benefits that occur at different magnitudes at different dates in the future (see Time-periods). The procedure converts future costs or benefits to present values so that they can be compared on an equal basis, taking into account time preferences and the opportunity cost of capital. It is an important and contentious topic, as discounting future impacts gives them a lower value than if they were to occur today. [13]

Disease regulation: Influence that ecosystems have on the incidence and abundance of human pathogens. For example, some intact forests reduce the occurrence of standing water –a breeding area for mosquitoes– which can lower the prevalence of malaria.[8]

Ecological Asset Inventory and Management (EcoAIM): A tool to *"(1) inventory ecological services and help in making decisions regarding development, transactions, and ecological restoration; (2) develop specific estimates of ecosystem services in a geographically relevant context, and (3) offer the means for evaluating tradeoffs of ecosystem services resulting from different land or resource management decisions."* [14]

Ecological footprint: Measures the land and sea area people require to produce resources that we consume. This includes our food, our clothes, fuel we use for our cars and building materials for our homes. It also measures how much land and water is required to deal with the waste products of our consumption, such as carbon dioxide and rubbish. [15]

EcoMetrix: *"An environmental measurement and modelling tool that supports sustainable infrastructure, restoration projects, and enterprise-level program decision-making. EcoMetrix models and quantifies changes within an ecosystem, enabling users to evaluate the positive or negative effects of different scenarios and alternative designs on ecosystem services."* [14]

Economics: the branch of knowledge concerned with the production, consumption, and transfer of wealth, it is about the allocation of scarce resources.

Economic impact: This is a measure of the economic activity generated through the use of an ecosystem service. Economic impact tends to be something that governments and businesses are accustomed to measuring – it would include, for example, the contribution to GDP or total jobs created by an activity. [13]

Ecosystem: A dynamic complex of plant, animal, and micro-organism communities and their nonliving environment interacting as a functional unit. Examples of ecosystems include deserts, coral reefs, wetlands, rain forests, boreal forests, grasslands, urban parks, and cultivated farmlands. Ecosystems can be relatively undisturbed by people, such as virgin rain forests, or can be modified by human activity, such as farms. [2]

Ecosystem dependency: A company depends on an ecosystem service if that service functions as an input or if it enables, enhances, or influences environmental conditions required for successful corporate performance.[1]

Ecosystem drivers: Are factors—natural or man-made—that cause changes in an ecosystem and its ability to supply ecosystem services.[1]

Ecosystem impact: A company impacts an ecosystem service if the company affects the quantity or quality of the service.[1]

Ecosystem services: sometimes called "environmental services" or "ecological services"—these are the benefits that people obtain from ecosystems. Examples include freshwater, timber, climate regulation, protection from natural hazards, erosion control and recreation.[2]

Ecosystem Services Review: It consists of a structured methodology that helps managers proactively develop strategies to manage business risks and opportunities arising from their company's dependence and impact on ecosystems. It is a tool for strategy development, not just for environmental assessment. [1]

Endangered Species Act: Passed in the USA in the 1970s, this act was designed to protect plant and animal species that are deemed to be near extinction or highly vulnerable, specifically to the effects of economic growth and development. The act has been a significant driver of conservation efforts in the US.[16]

Energy and Biodiversity Initiative: The Centre for Environmental Leadership in Business (Conservation International) convened this initiative, bringing together *"leading energy companies and conservation organizations to develop and promote a framework of best practices for integrating biodiversity conservation into upstream oil and gas development. The partners have created a set of practical guidelines and tools to minimize impacts to biodiversity and maximize contributions to conservation wherever oil and gas resources are developed. The guidelines address all stages of the project lifecycle – from pre-bid to decommissioning – and are designed to be integrated into existing company management systems."*[17]

Engaging with policy makers: Please refer to "**Policy-maker engagement strategy"**

Environmental and Social Impact Assessment (ESIA) and **Strategic Impact Assessments (SIAs):** provide systematic approaches for evaluating the potential environmental and social impacts of developments, programmes, and policies.

Environmental Liability Directive EU: The first EC legislation whose main objectives include the application of the "polluter pays" principle, this Directive establishes a common framework for liability with a view to preventing and remedying damage to animals, plants, natural habitats and water resources, and damage affecting the land. The liability scheme applies to certain specified occupational activities and to other activities in cases where the operator is at fault or negligent. The public authorities are also responsible for ensuring that the operators responsible take or finance the necessary preventive or remedial measures themselves.[18]

Environmental Management Systems: Internal frameworks designed to manage a company's environmental impacts.

Environmental thresholds: This describes a situation when a natural resource system exhibits rapid change or even a sudden collapse when a threshold is reached. Beyond this threshold, an irreversible change to the ecosystem may occur, resulting in permanent loss of services provided by that ecosystem. Examples include water quality in lakes impacted on by nutrient inputs and marine fisheries suffering from over-fishing.[1]

Erosion regulation: The role vegetative cover plays in soil retention. For example, vegetation such as grass and trees prevents soil loss due to wind and rain and prevents siltation of water ways.[8]

ESValue: *"A strategic decision support tool that integrates scientific and economic information to show the impact and value of alternative environmental management strategies on ecosystem services. The objective of the tool is to integrate existing information and expert opinion with stakeholder values to efficiently and effectively identify the key site-specific ecological effects and resulting change in economic value for different management strategies."*[14]

Externality: An activity whose effects are not completely reflected in prices and market transactions. *"Environmental externalities refer to the economic concept of uncompensated environmental effects of production and consumption that affect consumer utility and enterprise cost outside the market mechanism. As a consequence of negative externalities, private costs of production tend to be lower than its "social" cost."*[19]

Fiber: Timber and other wood fiber: Products made from trees harvested from natural forest ecosystems, plantations, or non-forested lands (e.g. Industrial round-wood, wood pulp, paper). Other fibers (e.g. cotton, hemp, silk): Non-wood and nonfuel fibers extracted from the natural environment for a variety of uses. [8]

Freshwater: Inland bodies of water, groundwater, rainwater, and surface waters for household, industrial, and agricultural uses.[8]

Full (environmental) cost accounting: Recognizes all costs and benefits associated with an activity, including economic, environmental, health and social costs.[20]

Genetic resources: Genes and genetic information used for animal breeding, plant improvement, and biotechnology.[8]

GHG protocol: Protocol for quantifying and reporting the greenhouse gas (GHG) emissions benefits of climate change mitigation initiatives. It has been adopted as a corporate Standard and Corporate Value Chain Standard by the International Organization for Standardization (ISO) and The Climate Registry.[21]

Global Reporting Initiative (GRI): *"Is a network-based organization that produces a comprehensive sustainability reporting framework that is widely used around the world. GRI is committed to the Framework's continuous improvement and application worldwide. GRI's core goals include the mainstreaming of disclosure on environmental, social and governance performance."* [22]

Global Water Tool: Launched by the WBCSD in 2007, intended as a free and easy to use tool for companies and organizations to map their water use and assess risks relative to their global operations and supply chains. The tool was updated in 2009 and again in 2011 to incorporate more recent issues.[23]

Government-mediated payments: The government (and/or a non-profit organization) acts as a sole 'buyer' when it fulfils public demand for biodiversity goods and services by purchasing land or conservation easements.[24]

Green Development Initiative (GDI): Is an international response to the 10th Conference of the Parties of the Convention on Biological Diversity (CBD COP10), particularly with respect to the strategies for resource mobilisation and business engagement. It aims to establish an international green development certification scheme for land management.[25]

Green Economy: *"A Green Economy is one that results in improved human well-being and social equity, while significantly reducing environmental and ecological scarcities."*[26]

Green Growth: *"Green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this, it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities."* [27]

Indirect economic impacts: Include the flow-on effects on the wider economy from, for example, tourist expenditures on other items (eg food and accommodation) and through purchases from upstream domestic suppliers and employee expenditures. Economic impacts are seen as being extremely important for dealing with poverty alleviation, and an important aspect that companies can assist with (see the WBCSD's Measuring Impact Framework, 2008).[2, 13]

Indirect use values: These include the ecological functions that maintain and protect natural and human systems through services.[2]

Integrated Biodiversity Assessment Tool (IBAT): "*IBAT for business is an innovative tool designed to facilitate access to accurate and up-to-date biodiversity information to support critical business decisions. The tool is the result of a ground-breaking conservation partnership among BirdLife International, Conservation International, IUCN and UNEP WCMC*."[28]

Intrinsic values: Ecosystem valuation will never be able to put a monetary value on the non-anthropocentric component of 'intrinsic values', which relate to the 'right' for plants and animals to exist. It is important that intrinsic values are acknowledged as another element of the environment that cannot be 'valued' monetarily.[13, 13]

InVEST: *"Is designed to help local, regional, and national decision-makers incorporate ecosystem services into a range of policy and planning contexts for terrestrial, freshwater, and marine ecosystems, including spatial planning, strategic environmental assessments, and environmental*

impact assessments. InVEST models are based on production functions hat define how an ecosystem's structure and function affect the flows and values of ecosystem services. The models account for both service supply (e.g., living habitats as buffers for storm waves) and the location and activities of people who benefit from services e.g., location of people and infrastructure potentially affected by coastal storms). Since data are often scarce, the first version of InVEST offers relatively simple models with few input requirements. These models are best suited for identifying patterns in the provision and value of ecosystem services. With validation, these models can also provide useful estimates of the magnitude and value of services provided."[29]

IPIECA Ecosystem Services Guidance: International Petroleum Industry Environmental Conservation Association Guidance – *"The aim of this guide is threefold. Firstly, it explains the relationship between biodiversity, ecosystem services and the oil and gas industry. Secondly, it provides a set of checklists to help identify the main ecosystem service dependencies and impacts of oil and gas developments. Thirdly, it highlights key associated risks and opportunities for oil and gas companies, and provides guidance on potential measures for managing them."* [30]

IUCN Redlist: *"The IUCN (International Union for Conservation of Nature) Red List of Threatened Species™ provides taxonomic, conservation status and distribution information on plants and animals that have been globally evaluated using the IUCN Red List Categories and Criteria."* [31]

Lacey Act: Passed in the USA in 1900, this act creates civil and criminal penalties for any violation against plants and wildlife. It covers a range of acts, such as illegal hunting and fishing, and illegal trade of plant and animal resources.[32]

Legislation: The laws and regulations enacted by governments which can place specific requirements on companies and give authorised officials/agencies the powers to enforce these requirements. The term legislation is used throughout the BET training course to avoid confusion with the natural "regulating services" provided by ecosystems which are described below.

License to Operate: This may refer to specific government licenses required to undertake specific activities (e.g. water abstraction permits). However, as with sustainability, there are a variety of definitions for companies obtaining their License to operate (also referred to as Social License to Operate). The World Bank illustrated this principle in their extractive industries report 'Striking a better balance', which directs companies to ensure that local communities benefit from their activities by engaging in *"consent processes with communities and groups directly affected by projects in order to obtain their free, prior and informed consent."* This concept has been generally translated to all industry sectors.

Living Planet Report: A WWF analytical report examining the current status of the planet (the biosphere) and the impacts of human activity. The report highlights that the current demands placed on nature exceed the natural environment's sustainable capacity. [33]

Marine Strategy Framework EU Directive: Intended to enforce the protection of the European marine environment to ensure that it is healthy, productive and safeguarded for the use of future generations. It outlines an ecosystems-based approach for managing human activities, supporting the sustainable use of marine goods and services. It binds member states to develop marine strategies for their waters.[34]

Measuring: Determining the size, quantity or quality of an object or process. For example, the Health and Safety engineer may measure the number of accidents at a site to determine if a new safety management system is needed.

Mitigation: ***"****Reducing the severity of impacts on biodiversity that result from actions already under way; reducing the likelihood/magnitude of biodiversity impacts (though not completely preventing them). E.g. The confined deposition of benign tailings material to create beaches on which wetlands can be established."* [35]

Mitigation hierarchy – This is a set of steps taken to reduce and alleviate residual environmental harm as much as possible, through mitigation, reduction, restoration, and avoidance. Offsetting and compensation are the last two steps of the hierarchy when all other steps have been taken.[35]

NAIS: *"The Natural Assets™ Information System (NAIS) was developed by Spatial Informatics Group (SIG) to estimate Ecosystem Service Values (ESV) using "state of the art" value transfer methods and geospatial science. Value transfer involves the adaptation of existing valuation information to new policy contexts where valuation data is absent or limited. For ESVs, this involves searching the literature for valuation studies on ecosystem services associated with ecological resource types (e.g., forests, wetlands, etc.) present at the policy site. Value estimates are then transferred from the original study site to the policy site based on the similarity of ecological resources at the policy site. Value transfer is a 'second-best' approach for gathering information about the value to humanity of ecosystem goods and services. However, the alternative, primary valuation research is extremely costly and is rarely feasible in the context of the policy and planning process. Therefore, value transfer integrated with geospatial science has proven to be a critical tool in decision making and planning."*[36]

Natural hazard regulation: Capacity for ecosystems to reduce the damage caused by natural disasters such as hurricanes and to maintain natural fire frequency and intensity.[12]

Non-use values: The value of ecosystems regardless of their current or future use, for cultural, spiritual, aesthetic, heritage and biodiversity reasons. [2, 13]

Nutrient cycling: The role ecosystems play in the flow and recycling of nutrients (e.g., nitrogen, sulfur, phosphorus, carbon) through processes such as decomposition and/or absorption. [8]

Offsets: *"Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting after appropriate prevention and mitigation measures have been implemented."* [37]

Option values: This is the 'premium' placed on maintaining a pool of habitats, species and genetic resources for future possible uses, some of which may not be known now.[2, 13]

Payment: the act of pay, which is to give (a sum of money) in exchange for goods or work done or to settle a debt (e.g. t*he company was rumoured to have paid 450p a share*), this can also include in kind payments.

Payments for Ecosystem Services (PES) – "PES can be defined as *voluntary* transactions where a *well-defined* ecosystem service (ES) (or land-use likely to secure that service) is 'bought' by at least one ES buyer from at least one ES *provider*, if and only if the ES provider secures ES provision (*conditionality*)".[38]

Pest regulation: The influence ecosystems have on the prevalence of crop and livestock pests and diseases. For example, predators from nearby forests – such as bats, toads, and snakes – consume crop pests. [8]

Policy-maker engagement strategy: A productive corporate strategy for addressing ecosystem service-related issues, by engaging policy-makers and government agencies to establish good policies. Companies can voice support for (or provide input to) incentives or effective rules for sustainable management of ecosystem services.[1]

Pollination: The role ecosystems play in transferring pollen from male to female flower parts.[8]

Poverty and social impact analysis (PSIA): Involves the analysis of the distributional impact of policy reforms on the well-being of different stakeholder groups, with a particular focus on the poor and vulnerable. PSIA is a systematic analytic approach, not a separate product.[39]

Price: The amount of money expected, required, or given in payment for something (e.g. land could be sold for a high price, or price could be paid for a particular ecosystem service e.g. flood protection)

Primary production: Formation of biological material by plants through photosynthesis and nutrient assimilation.[8]

Private good: A product that must be purchased in order to be consumed, and whose consumption by one individual prevents another individual from consuming it. If there is competition between individuals to obtain the good and if consuming the good prevents someone else from consuming it, a good is considered a private good.[2]

Provisioning services: The goods or products obtained from ecosystems such as food, freshwater, timber, and fiber.[12]

Public goods have two distinct aspects: non-excludability and non-rivalrous consumption. "Non-excludability" means that the cost of keeping non-payers from enjoying the benefits of the good or service is prohibitive. The second aspect of public goods is what economists call "non-rivalrous consumption", meaning the relevant consumption is nonrivalrous.[2]

REDD: programme that was launched by the United Nations Framework Convention on Climate Change (UNFCCC) in 2007 at Bali (COP-13), with an initial focus on deforestation and degradation, but at Cancun 2010 was updated to the **REDD+**, to include: forest conservation, sustainable forest management and enforcement of forests as carbon stocks.[40]

REDD Additionality: refers to the near-impossibility of predicting what might have happened in the absence of the REDD project.[41]

REDD Leakage: refers to the fact that while deforestation might be avoided in one place, the forest destroyers might move to another area of forest or to a different country.[41]

REDD Measurement: refers to the fact that accurately measuring the amount of carbon stored in forests and forest soils is extremely complex – and prone to large errors.[41]

REDD Permanence: refers to the fact that carbon stored in trees is only temporarily stored. All trees eventually die and release the carbon back to the atmosphere.[41]

Rehabilitation: Sites must be restored to a state where biodiversity values are equal or higher to the originally disturbed habitat.[35]

Regulating services: The benefits obtained from an ecosystem's control of natural processes such as climate, disease, erosion, water flows, and pollination, as well as protection from natural hazards.[12]

Rescue: In the context of ecosystems, this relates to saving or preventing significant degradation to a habitat, species or population. For example, rescuing the last remaining members of a species of amphibian from extinction due to habitat destruction and relocating them elsewhere.[42]

Rivers for Tomorrow Toolkit: *"The toolkit is a suite of spatial tools and data designed to: help scientists and planners analyze their river basins; run what-if scenarios; and collaborate with colleagues to develop sustainable water resources policies. These tools combine rich graphics and dynamic mapping capabilities to enable users to visualize the effects of different management scenarios on the overall health of their river basin."* [43]

Sector or stakeholder engagement strategy: The strategic approach where companies address some of their risks and opportunities by partnering with industry peers, collaborating with other sectors, or structuring transactions with stakeholders.

Social Impact Assessment (SIA): Includes the processes of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment. [44]

Social impacts: *"The consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to*

the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society".[44]

South African Water Act: There was recognition of water as a scarce and unevenly distributed natural resource, and so this bill was enacted to facilitate the necessary policy reforms to the South African water system, in terms of accessibility, sustainability, and an integrated management system that decentralized control over the resource.[1]

Supporting services: The natural processes that maintain the other ecosystem services, such as nutrient cycling and primary production.[12]

Surplus: An amount of something left over when requirements have been met; an excess of production or supply (e.g. *in the case of environmental economics a surplus might occur if someone is willing to pay more for say recreation, than they currently do).*

Sustainable procurement: Is the process by which organizations buy supplies and services taking into consideration the best value for money and the environmental and social aspects that the product/service has over its whole life cycle.[45]

Sustainability: There are a variety of definitions for sustainability. The 1987 Brundtland report provides the following general definition: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*[46]

Time-periods: It is always necessary to identify an appropriate time-scale for the CEV analysis over which the flow of costs and benefits are considered. This may for example relate to the expected life of the product, project or asset, or perhaps be more arbitrarily set at a reasonable duration between say 25 to 100 years. The time period should enable important longer term implications to be accounted for, but also bear in mind that going too far into the future leads to i) considerable uncertainties and ii) future money flows potentially becoming significantly reduced as a result of 'discounting' (see Discounting).[13]

Uncertainty: Considerable uncertainty exists surrounding both the functioning and valuation of ecosystems. There is a potential lack of understanding about certain aspects, for example, what services are provided by different ecosystems, how these may change over time and how changes to ecosystems may affect the quantity and quality of the services they provide. It is prudent to undertake a sensitivity analysis that identifies areas of uncertainty and tests how sensitive the ecosystem valuation outcomes are to changes in values or assumptions used.[13]

Value: The material or monetary worth of something (e.g. prints seldom rise in value), value may also be non-monetary e.g. existence value (this can however be articulated through the application of environmental economic techniques).

Water cycling: The flow of water through ecosystems in its solid, liquid, or gaseous forms. [8]

Water Framework EU Directive: Commits the European Member States to a qualitative and quantitative improvement of bodies of water. This includes marine waters up to 1 nautical mile offshore. This directive has resulted in the publishing of many important documents, such as the River Basin Management Plan.[47]

Water footprint: The definition of 'water footprint' is currently being debated. It is expected that future definitions will account further for impacts / dependencies on both quality as well as quantity of water resources. The following definition is from the Water Footprint Network. "*The water footprint of a product is an empirical indicator of how much water is consumed, when and where, in the production of a product. The water footprint is therefore a multidimensional indicator, showing volumes but also making explicit the type of water use (evaporation of rainwater, surface water or groundwater, or pollution of water) and the location and timing of water use.*" As with a carbon footprint, this may cover direct consumption in the production process, along its supply-chain and sometimes including from use and end-of-life recovery and disposal.[48]

Water purification and waste treatment: The role ecosystems play in the filtration and decomposition of organic wastes and pollutants in water; assimilation and detoxification of compounds through soil and subsoil processes.[8]

Water regulation: The influence ecosystems have on the timing and magnitude of water runoff, flooding, and aquifer recharge, particularly in terms of the water storage potential of the ecosystem or landscape.[8]

Acronyms

ARIES: Artificial Intelligence for Ecosystem Services

BBOP: Business and Biodiversity Offsets Programme

BES: Biodiversity and Ecosystem Services

CBD: Convention on Biological Diversity

COP: Conference of the Parties

CEV: Corporate Ecosystems Valuation

CF: Carbon Footprint

CSR: Corporate Social Responsibility

EcoAIM: Ecological Asset Inventory and Management

EIA: Environmental Impact Assessment

ESR: Ecosystem Services Review

GDI: Green Development Initiative

GDM: Green Development Mechanism

GHG: Greenhouse Gas

GRI: Global Reporting Initiative

HydroSHEDs: Hydrological data and maps based on SHuttle Elevation Derivatives at multiple Scales

IBAT: Integrated Biodiversity Assessment Tool

IFC: International Finance Corporation

IUCN: International Union for Conservation of Nature

MA or **MEA**: Millennium Ecosystem Assessment

MIF: Measuring Impact Framework

NOAA: National Oceanic and Atmospheric Administration

NNL: No Net Loss

NPI: Net Positive Impact

OEE: Other Environmental Externalities

PES: Payments for Ecosystem Services

P&L: Profit and Loss Statement

REDD: Reducing Emissions from Deforestation and Forest Degradation

SIA: Social impact assessment

TEEB: The Economics of Ecosystems and Biodiversity

UNEP: United Nations Environment Programme

WBCSD: World Business Council for Sustainable Development

WRI: World Resources Institute

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