

Business Ecosystems Training (BET) Frequently Asked Questions

*Prepared by Stephanie Hime (KPMG) for WBCSD and Violaine Berger (WBCSD), February 2012
If you have any questions, please e-mail: ecosystems@wbcSD.org*

1. Can coal, fuel and minerals be considered provisioning services?

The question of which resources should be included under the term 'ecosystem service' is continually being debated. However the boundary of the term ecosystem service can be split into those resources where quantity and quality of the resource is dependent upon the living component of ecosystems and those that are not e.g.

- Fuel included as an ecosystem service – biomass, timber
- Fuel not included as an ecosystem service – fossil fuels

In addition, where some resources come from organic material or are produced over long periods of time (100-1000s of years), the timeframe is not considered relevant for business.

2. Are mutation, death or birth regulating services?

Births, deaths and mutation can be considered to be 'regulating processes' in the broader environment rather than ecosystem services. According to the classification system considered at the ecosystem level e.g. a forest, births, deaths and mutations are not regulating services provided by a forest ecosystem. These processes are considered to be a part of biology that sits beneath all aspects of life. As above the quality or quantity associated with these processes is not dependent upon the living component of ecosystems.

3. Does biodiversity include ecosystems?

Yes, biodiversity can be considered to include the following components: genes, species and ecosystems. All of these underpin ecosystem service provision.

For more information, please refer to "Session 2: basic concepts" in BET Module 1.

4. Is biodiversity an ecosystem service?

Ecosystem services are sometimes confused with biodiversity. Biodiversity is not itself an ecosystem service but rather underpins the supply of ecosystem services. The value some people place on biodiversity for its own sake is captured under the cultural ecosystem services as spiritual, aesthetic or educational values. Other ecosystem services closely associated with biodiversity include food, genetic resources, timber, biomass fuel, recreation, and ecotourism.

Source: [Corporate Ecosystem Services Review](#), p6

5. What is the difference between climate change, global climate regulation services, and local climate regulation services?

Climate change refers to any significant alteration in the Earth's temperature, precipitation, or other climatic factors lasting for an extended period of time. Although climate change may result from natural factors, the term is commonly used to refer to alterations resulting from human activities that

increase atmospheric greenhouse gas concentrations such as the burning of fossil fuels or deforestation.

Global climate regulation is the influence an ecosystem has on global climate primarily by altering the concentration of greenhouse gases in the atmosphere. For example, trees absorb carbon dioxide when they grow and release it if they are burned.

Local climate regulation is the influence an ecosystem has on local temperature, precipitation, or other climatic factors through effects such as providing shade, trapping or releasing moisture, and absorbing or reflecting sunlight.

Source: [Corporate Ecosystem Services Review](#), p6

6. What do “enhanced” or “degraded” ecosystem services mean?

‘Enhanced’ and ‘degraded’ ecosystem services are defined with the Millennium Assessment definition; this is covered within Session 5: The global ecosystem challenge BET Module 1.

“For provisioning services, we define enhancement to mean increased production of the service through changes in the area over which the service is provided (e.g., the spread of agriculture) or increased production per unit area. We judge the production to be degraded if the current use exceeds sustainable levels.

For regulating and supporting services, enhancement refers to a change in the service that leads to greater benefits for people (e.g., the service of disease regulation could be improved by the eradication of a vector known to transmit a disease to people).

Degradation of regulating and supporting services means a reduction in the benefits obtained from the service, either through a change in the service (e.g., mangrove loss reducing the storm protection benefits of an ecosystem) or through human pressures on the service exceeding its limits (e.g., excessive pollution exceeding the capability of ecosystems to maintain water quality). For cultural services, enhancement refers to a change in the ecosystem features that increase the cultural (recreational, aesthetic, spiritual etc.) benefits provided by the ecosystem.”

Source: Millennium Ecosystem Assessment, 2005.

Ecosystems and Human Well-being: Opportunities and Challenges for Business and Industry [online]. Pp.6-9. Available from: <http://www.maweb.org/documents/document.353.aspx.pdf>.

7. Are people outside of the ecosystems services definition?

Humans are part of the ecosystems of our planet. The ecosystem service classification system focuses on what goods and products are impacted or depended upon by humans and therefore humans themselves are beyond the scope of this classification.

8. Could you give some examples of positive impacts that a company can have?

Companies can restore natural areas to ensure that they can provide ecosystem services to society in general, this may include: mining companies restoring areas following the extraction of materials or changing processes to ensure a minimal impact on an ecosystem and hence its ability to provide goods and services to society.

Companies can discharge lower amounts of waste to reduce their impacts on ecosystems and their ability to provide goods and services, e.g. limiting emissions of toxins, or discharging water that is treated to a high standard.

Many positive case studies are discussed within each of the BET course modules; please refer to these for further information.

9. What resources do I need to carry out an ESR (time, money, skills, etc.)? Can I use it on my own?

The ESR is designed to be accessible to most business people, but it uses terms and approaches that are probably more familiar to technical people and may need the input of not only operational staff but other specialists e.g. ecologists.

The question of what resources are required depends on factors such as what the objective of the review is; will it inform a particular business decision? Other considerations such as what data your company has, or is freely or available from third parties will also play a part as how the review is scoped and how long it will take.

A table on page 8 of the full review document available [on-line](#) gives the range of time associated with each step. Costing the review will depend on both the scoping of the project, the expertise available and the amount of information available to each company and as such is not estimated.

Source: Modified from Q1 Guide to Corporate Ecosystem Valuation (CEV) [Frequently Asked Questions](#)

10. How can I convince my management that we need to carry-out and ESR or CEV although this is not a legal requirement like an EIA?

The BET Executive Overview presentation gives a good introduction to the topic area and a number of case studies and examples of where companies have already applied these tools and the benefits of having done so. Please refer to the CEO overview presentation for further details.

11. Can biodiversity and supporting services be valued?

While biodiversity and supporting services do have a 'value' they do not tend to be valued directly. The Millennium Ecosystem Assessment (MA) ecosystem service framework tries to categorize ecosystem services according to the benefits that humans gain from them. It is these that tend to be valued directly through the application of environmental economic techniques. As biodiversity and supporting services underpin the provision of these other services, i.e., provisioning, regulating and cultural, the value estimates associated with these main ecosystem service categories capture the value of biodiversity and supporting services.

For further information on valuation, please refer to the [Guide to Corporate Ecosystem Valuation \(CEV\)](#)

12. Can regulating services and/or cultural services be valued?

Yes and no, technically it will depend on which of the services within each of these categories you are trying to value. As a rule some regulating services and cultural services can be valued using a variety of economic and environmental economic techniques. However, this will be dependent on the data available, the time available on a particular project, access to specialists (ecologists, environmental economists etc.) and the scope of a particular project.

For further information on valuation, please refer to the [Guide to Corporate Ecosystem Valuation \(CEV\)](#)

13. What is the “business aspect” that needs to be defined for a CEV?

The ‘business aspect’ refers to the wider business context of a particular project/decision that needs to be understood before embarking on a CEV. In order for a CEV to be successful a definition of the central business question that is being answered and the context for this should be understood.

For further information on valuation, please refer to the [Guide to Corporate Ecosystem Valuation](#) (CEV)

14. What does a “sensitivity analysis” consist in?

A sensitivity analysis consists in determining the sensitivity of the outcome to a few key variables whose values are uncertain, providing a high and low range of values. It usually involves determining high, medium and low values for key parameters, thus giving a range of possible results, depending on future circumstances and conditions. Risk assessments and calculations of statistical levels of significance can be useful measures for these calculations. Another approach to sensitivity analysis is to determine “switching values”. These are the values that a parameter needs to reach in order to change a decision, or to alter the ranking of options from one option in favor of another.

For further information, please refer to p58 of the [Guide to Corporate Ecosystem Valuation](#) (CEV)

15. Other CEV questions

There is a separate set of Frequently Asked Questions available [online](#) for the Guide to Corporate Ecosystem Valuation (CEV).

Please also refer to the CEV additional notes also available on line for further information on [Ecosystem Valuation Concepts and Issues](#) and a [Selection & Application of Ecosystem Valuation Techniques for CEV](#)

16. What is the difference between PES, offsetting and compensation?

The following definitions illustrate the difference between these three terms:

- Payments for Ecosystem Services (PES) - *“An umbrella term often applied to any among a wide variety of schemes in which the beneficiaries, or users, of ecosystem services provide payment to the stewards, or providers, of ecosystem services.”* ([BBOP](#), 2009)
- Offsetting - *“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”* ([BBOP](#), 2009).
- 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.”* ([BBOP](#), 2009)

PES can be used as a way to mitigate ecosystem service impacts or alternatively mitigate the impacts of other company’s on your operations. Offsetting and compensation are different techniques used to mitigate impacts at different stages of the mitigation hierarchy (see below) when the loss or degradation of an ecosystem cannot be avoided.

Please see Module 4 of the BET course for further details on these different approaches.

17. Is offsetting the only way I can mitigate my company's impacts?

No, offsetting is one step in the 'mitigation hierarchy' which includes:

- Avoidance,
- Minimization,
- Restoration,
- Offsetting, and
- Additional Conservation Actions

Each of which can help to mitigate your company's impacts.

Please see Module 4 of the BET course for further details on these different approaches.

18. Is there a standard for offsetting?

There is no specific certification scheme for offsetting however, the Business and Biodiversity Offsets Program (BBOP) has been defining a [Standard on Biodiversity Offsets](#) (Jan 2012).

In addition, certain types of legislation and performance standards (e.g. International Finance Corporation [Performance Standard 6](#)) also define what is expected when considering offsets as a way of mitigating impacts. This field is continually being updated with the [IFC](#) and [BBOP](#) web sites providing information in this area.