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## Eco-system services and territorial competitiveness<sup>7</sup>

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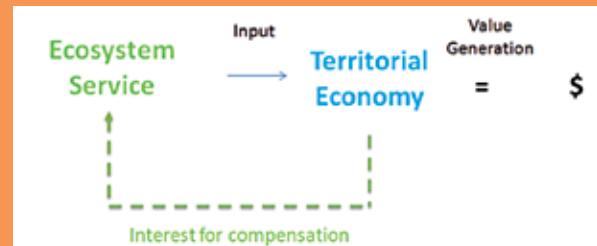
The traditional approach to competitiveness is based on labour or capital productivity (Porter, 1989). Given the over-exploitation of natural resources, today we can observe a changing basis of competitive advantage (Von Weizsäcker, De Larderel, Hargroves et al., 2014). A major challenge and source of future growth is now to increase resource efficiency (in other words, achieving more with less). Regions and nations that produce greater economic value with fewer resource inputs (both material and energy) will become more competitive. The McKinsey Global Institute estimates that resource productivity has the potential to earn US\$2.9 trillion each year by 2030 from resource savings (Von Weizsäcker et al., 2014).

Nature provides valuable environmental services free of charge. All businesses benefit from these services as inputs, but individual firms have no incentive to finance conservation fully (this is called the free rider problem). In that sense, ecosystem services are public goods. It is technically not possible to exclude players who do not pay to use. This typically leads to the situation of overuse and unsustainable exploitation of ecosystems, ending in strong degradation or even depletion. This is called the tragedy

of the commons (Bustos, Gomez, Hausmann et al., 2012; Alemu, 2016), which can be overcome in several ways. The use of environmental resources can be limited, and/or finance conservation activities can be supported:

1. The Government taxes the beneficiaries (mandatory solution)
2. The beneficiaries are self-organising and contribute voluntarily (network solution).

No matter which mode is chosen, companies benefiting from services can be asked to contribute to environmental conservation and sustainable use of natural resources. The graph in Figure 7 illustrates two situations with regard to the relationship between ecosystems and a local economy:



**Figure 7:** Relationship between ecosystem and territorial economy

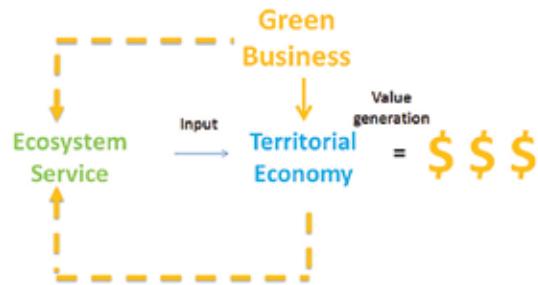
Source: Author's own elaboration

<sup>7</sup> This article was inspired by the collaboration of the GIZ Project Implementation of the National Biocorridor Programme (PNCB) within the context of Costa Rica's National Biodiversity Strategy on behalf of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) as part of the International Climate Initiative (IKI).



Figure 7 shows a simple mechanism of how a territorial economy uses ecosystem services as inputs. Since the territorial economy depends on the integrity and functioning of the ecosystem, economic actors should be interested in contributing to its conservation. However, the willingness to contribute is often less than the benefit received due to the free rider problem.

The alternative way is to increase the benefit of the territorial economy through the use of environmental services by encouraging green businesses. This is expected to generate more economic value without harming the environment, as it could take advantage of the increased value generated to provide more resources for conservation. Figure 8 shows how the combination of green business promotion and a formalised mechanism of compensation – whether voluntary or mandatory – could make the two systems mutually beneficial.



**Figure 8:** intervention for sustainable economic development

Source: Author's own elaboration

If a local community intends starting to fully value the economic benefits of using nature, they should seek answers to the following questions (TEEB, 2010):

- What ecosystem services are central to our local community and economy?
- Who depends on these ecosystem services?
- What natural assets are at risk?



- How will policy action affect these natural assets and the services they provide?
- How can we promote green business opportunities to contribute to a more sustainable location?<sup>8</sup>

A participatory process and dialogue among stakeholders can generate initial answers that will help to direct policy. In conclusion, we can affirm that wasteful use of natural resources and limited concern for natural systems will destroy nature. Maintaining healthy ecosystems is ultimately a better, less expensive option. The promoters of local economic development need to assess and tend their natural resource base to increase long-term competitiveness. Even though not all ecosystem services are influenced by local action, it is easier to introduce compensation mechanisms locally, given that cause and effect are more directly linked (free rider problems can be reduced by social pressure). Finally, a harmonious relationship between local economy and ecosystems can only be created by collective action of public and private stakeholders, which is the basis for development and wellbeing.

### References

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<sup>7</sup> The first four questions are quoted from TEEB (2010). The last question emerged from our advisory practice.

