

St. Eustatius: Economic Value of Nature

By Hannah Madden (CNSI)

The Caribbean Netherlands Science Institute (CNSI) hosted two “Economic Value of Nature” workshops on St. Eustatius from 3-6 April 2017. These workshops are part of the “Nature Awareness Project” which is funded by the Ministry of Agriculture, Nature and Food Quality (LNV) (formerly Ministry of Economic Affairs) through the Nature Funds (natuurgelden) and facilitated by CNSI. The workshops were led by experts from Wolfs Company and Wageningen University who have visited the island numerous times to conduct research projects, such as The Economics of Ecosystems and Biodiversity (TEEB) study.

The one-day private sector workshop was attended by representatives from NuStar Terminals, St. Eustatius National Parks Foundation (STENAPA), St. Eustatius Tourism Development Foundation, Scubaqua, and the Chamber of Commerce. The goal of the workshop was to improve the participants’ understanding of how the private sector depends on ecosystem services and how they impact these services. During the workshop, participants used the Ecology Scan tool developed by Wolfs Company to identify these impacts and dependencies. Subsequently, company strategies were discussed to maximize opportunities and minimize threats related to the natural environment.

The three-day public sector workshop was attended by civil servants from various departments such as the Department of Agriculture and Fisheries, public works, public health, infrastructure and

economy, and the licensing unit. The goal of this workshop was for nature managers and civil servants to develop an understanding of why valuing ecosystem services is useful for St. Eustatius, and how to use the valuation results in day-to-day operations. Special emphasis was placed on how this information can be used to develop financial and regulatory policy measures that will improve nature management, support the development of a sustainable island economy and maximize the future well-being of Statia’s citizens.

Both workshops consisted of theoretical sessions combined with interactive discussions and exercises. Working groups were asked to develop cases based on identified policy questions or business operations. The results of the assignments give an insight into how the results of the TEEB St. Eustatius study can be used and lead to recommendations for further research.

The objective of both workshops was to raise awareness of the interdependency of nature and socioeconomic prosperity, as well as to build capacity to incorporate this knowledge into policy and business operations on St. Eustatius. In the public sector workshop, this mainly related to the economy of St. Eustatius as a whole, while the private sector workshop focused on the operations of specific companies.

Participants learned to identify different ecosystems on St. Eustatius and were trained in ecosystem valuation methods and techniques, using

specific Statian cases. They also learned about the valuation of ecosystem goods and services studies that have taken place in the Caribbean, as well as their influence on nature conservation, management, investments and policies in the region. The workshop also saw the discussion of factors that increase the effectiveness of a valuation study, as well as the presentation of socio-economic benefits resulting from influencing nature conservation, management investments, and policies. Additionally, the effects of natural resource conflicts and their relation to ecosystem services were demonstrated.

Background: the value of natural capital on St. Eustatius

Healthy ecosystems such as the island’s coral reef patches and the forests on the hillsides of Boven and the Quill are essential to human well-being on St. Eustatius. The St. Eustatius Strategic Development Plan also acknowledges the importance of the island’s natural attractions to the growth of the tourism sector. Local and global developments have led to an increase in serious threats to these fragile ecosystems, jeopardizing the foundations of the island’s economy. To make well-founded decisions that affect the natural environment on the island, it is key that nature’s contribution to St. Eustatius’ economy and well-being is well understood and highlighted.

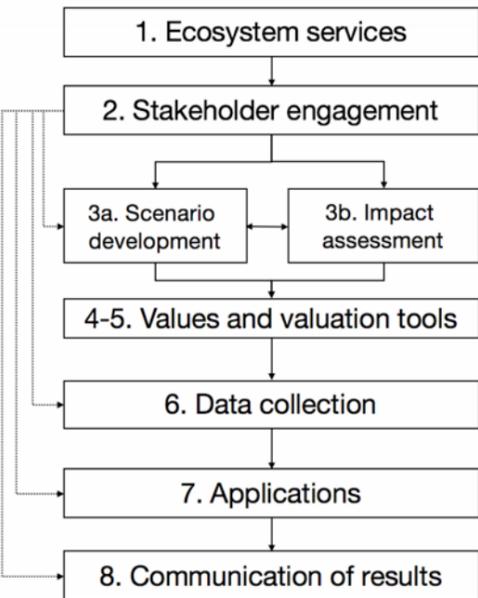
Economic valuation of Statia’s main ecosystem services has drawn attention to the economic benefits of biodiversity and has highlighted the

growing costs of biodiversity loss and ecosystem degradation. The results of the TEEB St. Eustatius study are presented in four reports on the value of Statia’s nature by Wolfs Company and the VU University in Amsterdam. As a part of this study, a survey, which involved over 1,000 respondents including tourists, residents, and citizens of the European Netherlands, demonstrated that natural capital strongly contributes to the island’s economy and the well-being of its residents.

Estimates put the total economic value (TEV)¹ of the ecosystem services provided by the marine and terrestrial ecosystems of St. Eustatius in 2014 at \$25.2 million per year². This TEV and its underlying components can be used to evaluate strategies for effective conservation measures and sustainable development on St. Eustatius. After analyzing the impact of different development scenarios on the value of future ecosystem services, it becomes apparent that there are indeed opportunities to develop the tourism industry. However, expanding the tourism sector beyond levels of sustainable use will cause pressures that the local ecosystems cannot endure. Consequently, degradation of the natural environment will result in fewer tourists coming to St. Eustatius. The current demand on the ecosystems of St. Eustatius and unsustainable development practices is projected to decrease the TEV of the island’s natural environment from \$25.2 million today to around \$18.5 million in 30 years.

¹ For all reports on the ecosystem service valuation study see <http://www.wolfscompany.com/teeb-st-eustatius/>

² Calculations done with currency value in 2014



Where: Total economic value map

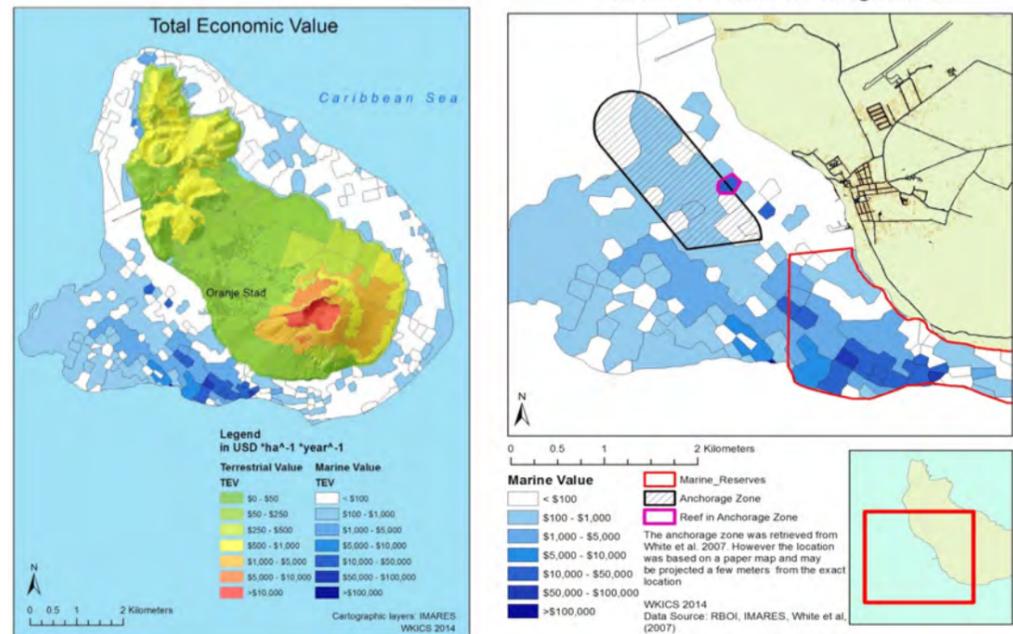


Figure 1 - "backbone" of economic analysis of ecosystem services

Figure 2 - the total economic value (TEV) map for St. Eustatius depicting the annual value of nature per hectare (left) and an inset of the marine value map in the harbour area of St. Eustatius (right).

Public sector workshop (3 days)

The set-up of the public sector workshop was based on the structure presented in Figure 1. The framework reflects the research steps of a natural capital assessment. By combining theoretical presentations, examples from natural capital assessments elsewhere and practical sessions to apply the theory to the context of St. Eustatius, participants were guided through the research process.

Private sector workshop (1 day)

The different steps of the Ecology Scan formed the basis of the private sector workshop set-up. Each step comprised a presentation with theory and practical examples as well as an exercise. The first step, "select the scope", provided participants with an overview of the TEEB St. Eustatius study and described how private companies interact with ecosystem services. In following steps, participating companies determined the most relevant ecosystem services to their business and how these services are developing over time. They then defined the risks and opportunities associated with the identified priority ecosystem services. The assignment in the final step challenged participating companies to come up with innovative strategies to address the risks and opportunities identified in the previous steps.

The workshops began by defining ecosystems and ecosystem services and identifying relevant stakeholders. Participants then helped determine threats to the selected ecosystems, and developed scenarios to assess the changes in ecosystem service benefits over time and their impact on different stakeholders. Different types of values and available valuation techniques were discussed to quantify this socioeconomic impact and data requirements were established based on selected valuation techniques. The workshop ended with a discussion on how the valuation results could support policy-making processes and how these results could be efficiently communicated to relevant stakeholders and decision-makers.



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