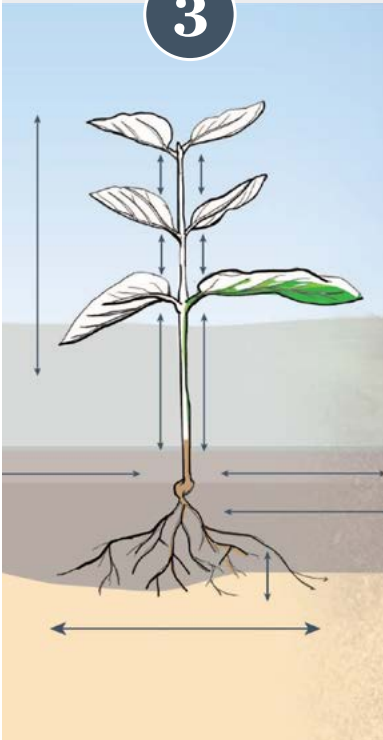


Valuing Nature Tools Overview

Embed tools

3



Several tools can be applied to ensure business decisions are made by considering business value as well as natural capital value. This is how a nature lens is applied to decision-making.

Dow engineers and project managers can access a variety of Valuing Nature tools

Despite the growing interest and awareness of nature’s benefits, ecosystem services have not become a mainstream component of decision making among the institutions that drive global resource use: governments, corporations and business markets.

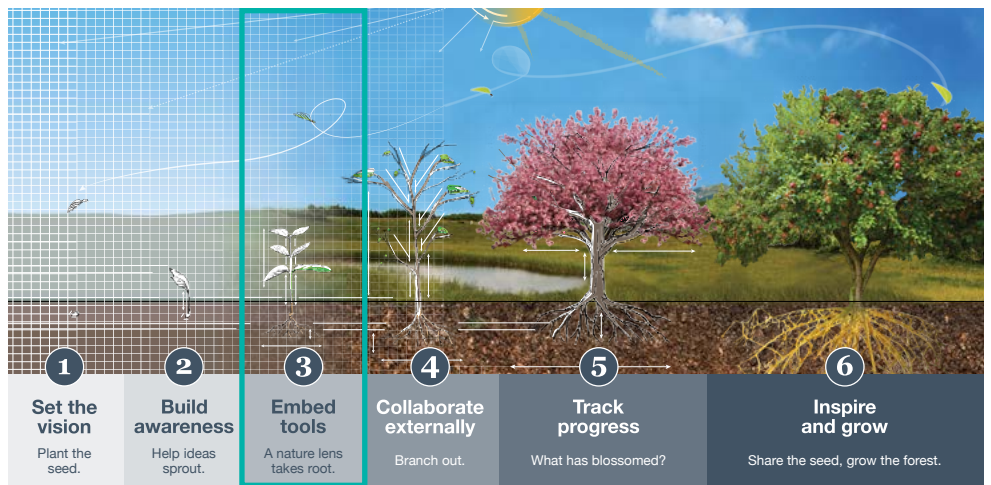
The scientific and practical challenge occurs in the development of credible tools that allow routine consideration of nature’s assets (or ecosystem services) in a way that enables informed decisions at the scale of local communities and corporations up to cross-nation and global agreements. Dow’s overall process for implementing the Nature Goal and further building its reputation within the Company included the launch of the following three-tiered project valuation methodology.

Nature screen

An initial **screening** to identify quickly and easily potential opportunities at a very early stage of project design. During the initial screen, project engineers are asked a few simple “yes or no” questions about their project’s potential impacts on nature.

The Dow/TNC collaboration built the screening tool to reflect the four key elements of nature highlighted in the definition: (i) an ecosystem’s overall functioning; (ii) clean water; (iii) clean air; and (iv) healthy soil.

Ecosystem service	Screening questionnaire
Biodiversity	Will the proposed project incorporate or support biodiversity and/or connect the affected site to adjacent properties?
Clean water	Will the proposed project significantly impact water discharges, freshwater consumption, and/or storm/process water management of the affected site?
Clean air	Will the proposed project significantly impact the consumption of energy and/or other air emissions of the affected site (GHGs and non-GHGs)?
Healthy soil	Will the proposed project impact the land use or land cover of the affected site in a way that may impact soil health and/or erosion control?
Nature-based solution	Have you considered nature-based solution in your proposed project?



Quantification of ecosystem services

The second step of the valuation methodology involves the quantification of the ecosystem service impacts of the project using such methods as a lifecycle assessment or the [Ecosystem Services Identification and Inventory Tool \(ESII Tool\)](#).

ESII tool

The ESII Tool was developed with key collaborators: TNC and EcoMetrix Solutions Group. The ESII Tool, pronounced “easy”, helps users measure multiple potential ecosystem services based on landscape characteristics. The outputs focus on measuring performance for 12 distinct ecosystem services: water provisioning, nitrogen removal in air, particulate removal in air, air temperature regulation, carbon uptake, erosion regulation, nitrogen removal in water, water filtration, water temperature regulation, water quantity control, noise attenuation, and visual screening.

With the ESII Tool, users can evaluate the ecosystem service performance of various project alternatives, as well as use the tool to enhance the design of a particular project to increase the overall ecosystem service performance.

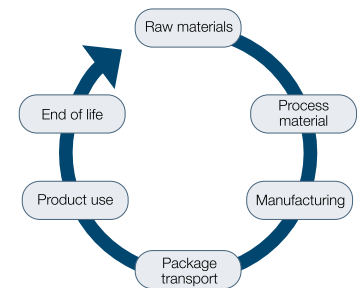
The tool and user’s guide can be found [here](#).



Photo credit: Jen Molnar of The Nature Conservancy

Life Cycle Analysis

The Life Cycle Analysis (LCA) methodology ensures that project designs holistically evaluate the impact, benefits and inclusion of nature. Not unique to Dow, many resources are available to explain the advantages of its application and provide training on how analyses are conducted.



Nature scorecard

The goal of step three of the valuation methodology was to create a scorecard that clearly translated a proposed project’s impact on nature into a distinct metric, or set of metrics, that quantify their value. This metric should complement the traditional financial metrics used to evaluate proposed projects (e.g., NPV and ROI) and be easily comparable across proposed global projects while accounting for the criticality of that metric on the local environment. The completed scorecard should answer two vital questions:

1. How might this project impact the local environment?
2. How vulnerable is the local environment to identified impacts?

The output produced by the scorecard communicates findings to non-conservation professionals like engineers, site managers and senior leaders.