Planting forests, not trees: reforestation and the challenge of sustainability

For the UN, the 2020-2030 decade is the decade of ecosystem restoration. To achieve this goal, we need to appreciate the extreme complexity and gigantic diversity of the planet's ecosystems. Forests, the main carbon sink alongside the ocean, are the best example: tropical, temperate, coniferous, humid, dry, mangrove, boreal... Affected by massive deforestation, these areas are on the front line of the climate emergency.

Temps de lecture : minute

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However, 45% of new reforestation projects are single-species plantations (World Resources Institute), with only one tree species reinstated. This practice is counter-productive in terms of regenerating biodiversity, long-term carbon capture and soil solidification. In the context of carbon credits, only 12% of reforestation projects involve more than 10 tree species. To continue down this path is to go against sustainable reforestation of the planet.

Reviewing success indicators

Three approaches emerge when we talk about reforestation. Firstly, ecological restoration, which is the process of recovering degraded areas by assessing and reproducing the original ecosystem with little or no human intervention, represents the approach most respectful of natural ecosystem dynamics.

Secondly, native vegetation silviculture focuses on planting native trees for economic production, including both diversified plantations and monocultures. Finally, forest and landscape restoration is a comprehensive initiative that blends ecological restoration and forestry, also integrating agriculture and livestock farming to enhance ecological and economic sustainability.

Both distinct in their objectives and techniques, these approaches should also be characterised by more nuanced indicators of success than the simple “number of trees planted”. It would therefore be beneficial to develop common evaluation systems to measure the co-benefits of these projects (for biodiversity, fauna, flora, the economy and local populations). Rating agencies exist, but the adoption of a single, transparent repository of measurements and indicators would help transform commitment into concrete, sustainable action.

Beyond planting, the art of restoring ecosystems

The key to an effective and sustainable reforestation project is not simply “planting trees”. We need to understand the extent to which a forest is not just a pile of trees, but a particular ecosystem, depending on the continent, the nature of the soil, the local climate... We need to restore ecosystems in which flora and fauna can once again thrive. A more complex objective, but an essential one.

A sustainable reforestation project therefore requires a precise analysis of the environment and long-term monitoring of the ecosystem. As part of the environmental analysis, each area to be reforested must be thoroughly studied: the specific features of the terrain, the sediments, the air, the density - everything must be taken into account. In order to plant effectively and, above all, guarantee long-term growth, the right species must be selected for planting, depending on the nutrients available on

site.

Moreover, CO2 storage and the fight against global warming are only possible with a healthy biotope. Planting is not an end in itself. It requires rigorous monitoring and possible corrections over several years to ensure growth and prevent risks. The forest must be balanced, and the plant and animal biodiversity once present must regenerate. Soil, air and water quality will be all the better for it, benefiting fauna, flora and humans alike.

Finally, the forest must also directly benefit local communities, by creating jobs, establishing partnerships and improving social conditions.

It's no longer just a question of quantity, but also of the quality of the effort: a commitment to diversified, balanced and integrated ecosystems will always be more effective in making reforestation projects around the world sustainable. Meeting this challenge requires a deep and respectful understanding of nature, and the involvement of the communities who will be its primary beneficiaries and guardians. Only such a balance will enable us to truly restore our ecosystems and ensure the sustainability of our forests.

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