

## *Discussion Document*

# **Biodiversity Means Landscapes**

Transforming towards Sustainable Agriscapes for Nature and People

(As a part of “Biodiversity means Life” campaign, EU-India, 2021)

<https://leadthegreenchange.in/>

### **Disclaimers**

This Discussion Document has been prepared to frame and anticipate the event above. It is distributed to invite further comments, and suggestions. It will be further revised and enriched by IUCN India in light of the speeches, key notes, panel discussion, questions, and comments (from speakers as well as the audience), made during the event, under Chathamhouse rule.

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### **Problem Statement**

The global population is 7.8 billion people and growing. Demography and increasing per capita wealth are driving up the demand for food, while demand for (bio)fuels, biomaterials and other commodities place further pressure on forests and agricultural land. Globally we produce enough food for the population of 2050 – some 9 billion people – yet one third of this is currently lost or wasted. There is great inequality in food access, quality and consumption worldwide and the number of people suffering obesity (800 million people) has overtaken the population faced with food insecurity (700m).

By focusing on food production goals in isolation from other considerations, conventional agriculture has become the leading driver of global land-use change and biodiversity loss (IPBES, 2019), while also contributing malnutrition, exacerbation of inequitable land and resource rights, and other undesirable outcomes. The environmental hazards generated by conventional, resource intensive forms of agriculture threaten the very viability and sustainability of production. Land degradation, pollution of water sources, decline in pollinators and other hazards are already compromising the agriculture yields, as well as ecosystem services like water supply or climate regulation.

Several influential reports have recently highlighted the scale of damage caused by agriculture, through its contribution to climate change, deforestation, pollution and other hazards.<sup>1</sup> One of the major barriers to sustainable agriculture, and to achieving the Sustainable Development Goals (SDGs), is land degradation, which is defined by the United Nations as the “loss of the biological or economic productivity and complexity of land” (UNCCD, 1994). Agriculture contributes to land degradation by degrading farmland and also by expanding into, and converting, non-farmland. Unsustainable farming practices that deplete soil resources, compromise fertility and degrade farmland eventually drive further agriculture expansion and habitat loss, as farmers look to replace

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<sup>1</sup> Including The High Level Panel of Experts on Food Security, Nutrition and food systems (2017) and the EAT–Lancet Commission on healthy diets from sustainable food systems (Food in the Anthropocene: Willet et al. 2019)

their exhausted land (Larbodière et al., 2020). Forty percent of the world's agricultural land is estimated to be degraded, undermining food security (SDG2) and water supply (SDG6), contributing to climate change (SDG13), and threatening forests, grasslands and other biodiversity (SDG15). This ecosystem degradation also undermines economic development and exposes communities to new risks, such as flood and drought, which are then further amplified by climate change.

SDG Target 15.3 (land degradation neutrality) requires no net loss of land by 2030 (measured against 2015 values). To achieve land degradation neutrality (LDN), many developing countries will have to increase productivity on established agricultural land while maintaining and enhancing land health and avoiding conversion of new land for agriculture. Progress towards sustainable agriculture is hampered by the difficulty to measure its conservation benefits, especially the abundance of biodiversity on sustainably farmed land, and related socioeconomic impacts.

The Ministry of Environment, Forest and Climate Change; the Ministry of Rural Development; and the Ministry of Agriculture and Farmers' Welfare run policies that outline India's approach to land degradation and biodiversity conservation and sustainable use of resources. Policies like National Environment policy of 2006 that highlights sustainable development processes; the non-negotiability and incomparable value of environmental resources; Equity in the use of environmental resources; among others; along with National Action Plan for Climate change (NAPCC) that includes 8 missions including **National Mission for Sustainable Agriculture (NMSA)**, Sub-Mission on Agroforestry, and so on.

#### Vision

*"Step up cooperation and encourage research in the area of soil biodiversity, sustainable agriculture, and conservation, sustainable management and use of forests, in line with relevant international and national laws and policies of each of the two parties." **India-EU Strategic Partnership: A Roadmap to 2025, July 15, 2020***

*"We will cooperate closely on food, nutrition and agriculture including on sustainable food systems in view of the upcoming UN Food Systems Summit and Pre-Summit consultations". **Joint Statement EU-India Leaders' Meeting, 8 May 2021***

Conserving biodiversity on farms and in agricultural landscapes (soil, trees, pollinators, natural predators, livestock and crop genetic diversity etc.) will be instrumental to secure the provision of ecosystem services) and minimize the impacts of climate change, especially to achieve food and water security, and secure the livelihoods of the world's most vulnerable people, who rely on subsistence agriculture, timber and non-timber forest products. Within a landscape, the proportion of land used for agriculture, forestry, natural habitat and other purposes depends on how different stakeholder groups value different ecosystem services. It is not a simple task to balance different ecosystem services in complex mosaic landscapes, and there is a need to develop a neutral and evidence-based methodology that help achieve optimal outcomes while averting unforeseen risks. Stakeholders could then use this information in negotiations to inform land use planning (notably buffer zones and corridors) and to balance the loss, recovery and sustainable use of land.

Sustainable agriculture and agro-ecology can boost on-farm biodiversity, conserves off-farm biodiversity in agricultural landscapes, and safeguards against habitat loss by maintaining or increasing long-term viability and productivity of existing land. Sustainable agriculture is a central element of forest landscape restoration, ecosystem-based adaptation and many other approaches that IUCN supports, including IUCN's 'Common Ground dialogues' which position land health at the

heart of sustainable agriculture, an effective concept for convening stakeholder dialogues. EUs 'Farm to Fork Strategy' is at the heart of the European Green Deal aiming to make food systems fair, healthy and environmentally-friendly. This event is an opportunity for EU and India to discuss the potential and challenges for those greener approaches, and to bridge positions and priorities ahead of the UN Food System Summit (September 2021).

### Possible way forward

The following is a preliminary list of top challenges and potential solutions identified. The list is non-exhaustive and will be added upon based on the outputs of the virtual event.

Problem Statement	Potential Solution
Agriculture contributes to land degradation by degrading farmland and also by expanding into, and converting, non-farmland.	To achieve land degradation neutrality (LDN), country will have to increase productivity on established agricultural land while maintaining and enhancing land health and avoiding conversion of new land for agriculture. Globally there is evidence that the total area of agricultural land is approaching its peak, but agricultural land is still expanding in developing countries.
Unsustainable farming practices that deplete soil resources and degrade farmland contribute to the need of agriculture expansion and to further habitat loss	Conserving biodiversity on farms and in agricultural landscapes (soil, trees, pollinators, natural predators, livestock and crop genetic diversity etc.) will be instrumental to secure the provision of ecosystem services) and minimize the impacts of climate change, especially to achieve food and water security
Rising input costs for farming including agrochemicals which have negative impacts on ecosystems and biodiversity	Building understanding on flow of ecosystem services from biodiverse landscapes for agriculture . Aligning private sector to strengthen market chains for such products
Smallholder and marginal farmers account for 86.2% of all farmers in India. Many are tenant farmers. Integrating biodiversity and landscape conservation in their scheme of things difficult	Financial incentives for biodiversity positive farming flowing through market chains. Large scale farmers to be incentivised to adopt sustainable farming integrating landscape and biodiversity conservation, certification schemes etc for larger impacts
Little knowledge of agroecological/landscape based approaches and insufficient trust that these approaches work; Risk, and perceived risk, associated with failure of farming practices during transition to new approaches; including amongst governments, private investors such as food distribution and processing enterprises, and service providers such as banks and insurance companies	Incorporating biodiversity-based models of agriculture might not only ensure a sustainable intensification of agriculture (increased yield without causing substantial environmental impact and without conversion of non-agricultural land) but could also help augment nutritional security and rural livelihood opportunities.
Weak public extension services and capacity development for agroecology/landscape based	Mobilising private sector /public sector investments .

approaches and low access to the resources needed to change farming practices;	Linking BMCs (Biodiversity Management Committees) as nodes at village level and building their capacities
Farmers operate individually, collective strengths not harnessed for better prices, better technologies, safety nets etc	Building skillsets of farmers to set up FPOs, negotiating prices, integrating technological advances in farming and communication into their scheme of things. Developing an IoT system on sustainable farming for farmers

### Outlining the Panel Discussion

The panel discussion will be held along the following guiding headline:

“The role of EU-India partnerships for fostering /mainstreaming sustainable agriculture through biodiverse, healthy landscapes: Challenges and opportunities ahead.”

Panellists would be speaking on various elements weaved around IUCN’s Theory of Change as well as EU Green Deal: benefits for farmers , as explained below:

The Theory of Change (TOC) illustrated below shows some of the main elements required to influence adoption of agroecological approaches in order to rehabilitate agricultural landscapes to strengthen rural resilience.

The TOC assumes that, when farmers adopt agroecological approaches that are recognized as Nature Based Solutions: their farming is more productive and their livelihoods improve. Farming becomes more resilient, and generates additional benefits to society, and to biodiversity conservation and restoration. The wider societal benefits, which are co-benefits of large-scale adoption of such agroecological approaches, can provide incentives to encourage further adoption. These co-benefits can also be rewarded directly by markets and contribute to household income. Increased access to markets can contribute to resilience as a standalone measure, but can also be aligned with the adoption of agroecological approaches to accelerate the shift towards more sustainable land management practices.

According to this theory of change, large numbers of farmers would adopt agroecological approaches if they had:

- the knowledge, trust and capacity to implement them;
- encouragement by their trusted peers and leaders to change the way they farm;
- access to the resources, finances and services they need;
- mechanisms to offset the risks (real or perceived) of changing farming practices, including related to tenure security; and
- (better) access to (better) markets for the products they generate.

Public and private actors would allocate resources to support agroecological approaches if they:

- understood the economic benefits of large-scale adoption;
- had unambiguous, favourable evidence of the costs and benefits of transition;
- were supported by a broader range of stakeholders, including influential leaders in farming and as well as other constituencies; and
- understood the role public policy and private investment can play in incentivising scale-up.

The EU Green Deal focuses on benefits for farmers through embedding the concept of sustainability in the way we produce and consume food, which will bring benefits for all the actors in the food chain and in particular for farmers.

The proposed events aims to illustrate multiple approaches to sustainable agriculture and to foster dialogue between actors in the agriculture and conservation sectors which would pave the way towards transforming conventional agriculture to sustainable mode : i) a reduced environmental footprint and ii) conservation of biodiversity on farms and in farming landscapes.

The sessions will be organised as follows:

- a. Opening Session: Context setting
- b. Policy Perspective Session : Biodiversity and Sustainable Agriscapes
- c. Technical Session 1: Biodiversity, Sustainable Agriculture and Nature Based Solutions
- d. Technical Session 2: Measuring progress towards targets (SDG, CBD) for Sustainable Agriculture and assessing improvements in benefits for Biodiversity in India

The key questions the consultation aspires to address:

- How can the conservation value of sustainable agricultural production be better recognised and incentivised? Necessity of sustainable agriculture for a just rural transition that achieves food security and resilience, and contributes to human health
- How can we measure and monitor the contribution of semi-natural ecosystems, like agriculture landscapes, to biodiversity conservation, for mobilising relevant institutions, policies, financing
- How can we engage and mobilize action from all food systems actors, from public to private, from producers to consumers.
- How can the agriculture sector contribute to the proposed CBD targets in a clear, quantitative and ambitious way?