



G20 GLOBAL  
LAND INITIATIVE



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DISCUSSION PAPER NO. 23/001

# Enabling resources for land restoration: financing, policies, regulations and technology

AZIM PREMJI UNIVERSITY, BANGALORE, 22.05.2023



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## 1. The problem

Nearly one-fourth of the world's land surface is subjected to some form of land degradation<sup>1</sup>. It is estimated that land degradation leads to a loss of 2 trillion US dollars per year for countries, while also reducing the value of land and forests. Currently, about 2 billion hectares of forest land offers very little economic value due to degradation<sup>2</sup>. There are notable social and economic benefits in restoring land. According to Ding et al (2017)<sup>3</sup>, every \$1 invested in restoring degraded forests can yield between \$7 to \$30 in economic benefits<sup>4</sup>. Restoring 150 million hectares of degraded agricultural land could generate \$85 billion in net benefits to national and local economies, raise \$30–40 billion a year in extra income for smallholder farmers, and provide additional food for close to 200 million people<sup>5</sup>. Despite these potential benefits, only a small proportion of the money needed for this purpose has been allocated towards land restoration.

Ensuring more resources for land restoration requires a set of enabling factors which this paper addresses, namely: financing, policies, regulations and technology. Challenges and opportunities for accessing resources will differ for main stakeholder groups: civil society, communities, public sector, private sector, academia and partnerships. This discussion paper highlights key challenges, opportunities and recommendations for accessing resources per stakeholder group and enabling factors.

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## 2. Challenges for each stakeholder group

### 2.1 Civil society (non-profits, NGOs, philanthropic, consumers):

Civil society is both on the receiving end and an actor in enabling more resources for land restoration. For example, by implementing land restoration projects or raising awareness in politics, private sector and consumers, especially concerning the contribution of resilient ecosystems to climate change adaptation, disaster risk reduction and human wellbeing. Civil society can play an important role in linking government, academia, financial institutions and communities. It can also bridge the gap between large scale finances and markets and local smallholders, as well as provide assistance and capacity building for farmers organizations of small scale farmers to strengthen their role in restoration.

Most urgent challenges include:

- The capacity to design projects concerning new financial mechanisms, such as payment for environmental services (PES), carbon or other possibilities is low in many non-governmental organizations (NGOs), as is their understanding of the profitability and capacity to monitor social and ecological impacts on the ground.
- Additionally there is a missing connection between the local level, where restoration takes place, and large scale projects which are able to acquire resources, but normally have high transaction costs.



## 2.2 Communities

Communities are perhaps the most central stakeholder as they comprise the bulk of landholders. As they are the main stewards of land, their decisions will greatly influence land degradation or restoration.

Most urgent challenges include:

- Lack of insurance schemes or other means to cover risks and lower compensation during the conversion period from conventional cropping to organic farming or restoration agriculture. Small scale farmers, especially, often take huge risks in transforming their land from conventional farming to restoration agriculture. There is a lack of financial support and derisking to support this transition period.
- Being small in scale, farmers are often not able to acquire the necessary funds for conversion to restoration agriculture and cooperatives may lack financial literacy to administer larger funds or loans.
- Furthermore, land users may not have secure land rights in certain contexts. This significantly diminishes their incentives to invest (time and resources) in land, since they do not have access to manage the lands properly (while the ecosystem service provisions are high) and are unsure of capturing the returns on investment, which may be realized over a longer term.

## 2.3 Private sector (e.g. financial, insurance, private companies)

Private sector actors are key enablers who are increasingly acting as major contributors to land restoration. They provide finances as banks or investments and implement their own profitable restoration activities. They can promote innovation as they tend to look for lower cost alternatives and promote the establishment of new products from restoration on larger markets.

Most urgent challenges include:

- Financial flows in capital intensive restoration are back ended, as long term returns and missing risk mitigation mechanisms for investments with large transaction sizes are not attractive for financial actors.
- A reliable policy framework to facilitate the establishment and implementation of profitable restoration businesses and to generate financial flows from investors to implementers is missing, which might include tax incentives or subsidies as well as supporting policies or regulations, including land rights, for restoration and/or restoration friendly products along the value chain.
- Furthermore, entities investing in land restoration may not get full returns on their investments, due to the issue of 'positive externalities'. A major part of the benefits of investment in restoration are in the form of public goods (or other services), which are gained by others. Further, certain outcomes of restoration, such as most ecosystem services, do not have a market value. This 'absence' of markets can be yet another deterrent for investors in restoration.

## 2.4 Academia

Academia can fill important knowledge gaps to promote all enabling factors by providing the underlying science for financing of land restoration; by developing technology; and contributing to the drafting of policies and regulations. Academic research also documents important best practices and standards, which provide a better understanding of restoration at the landscape level. These need to be communicated in easy to understand language and widely disseminated.

Most urgent challenges include:

- Lack of coordination with academia to act as a more effective bridge between government and private sector on the one hand and communities and civil society on the other.
- Academia is not playing a sufficiently important role in developing monitoring criteria, indicators and knowledge products; policy guidance; guidance on sustainability criteria of climate finance.

- There is also a lack of curriculum on the topic of land restoration and of trained professionals to assess financial valuation.

## 2.5 Public sector

The public sector plays a central role in enabling financing by providing initial investments in restoration or derisking, establishing policies that favor restoration, regulations that set targets for restoration and in funding advances in technology that support restoration.

Most urgent challenges include:

- Lack of government capacity to develop enabling policies; a lack of coordination with relevant government departments;
- Competing public resources; lack of human, financial resources of local government; illiquidity of carbon /biodiversity funds.

## 2.6 Partnerships

The role of 'partnerships' is to enable interactions between all stakeholders who are involved in land restoration activities. This is to be encouraged by international organizations/ consortiums and governments at different scales ( international/ national/ local ). Partnerships can be forged in various combinations across the 4 stakeholder groups - public, private, community, academia to promote dialogue, knowledge exchanges and bridges to enable greater funding for restoration. There is a need for better models of private-people (farmers/local cooperatives) partnerships, particularly those which include effective ways of addressing the challenges associated with collective action and fairer risk-sharing. Moreover, there is also a need for credible intermediaries to facilitate such models.

Most urgent challenges include:

- Establishing and maintaining multi stakeholder platforms while ensuring sufficient incentives and respecting institutional mandates and partner goals / mandates.
- Trust-building among partners can create obstacles to partnerships;
- Potential reputational risks in working with private companies;
- Lack of enabling policies to fund private-private partnerships

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## 3. Opportunities for enabling more land restoration include:

### 3.1 Financing:

- Innovation in sustainable land management and restoration practices provides ample opportunities for local low cost solutions.
- New financing mechanisms are providing potentially large funding sources for restoration, including:
  - » Payment for ecosystem services: These mechanisms channelise the benefits from those gaining from conservation to those who bear its cost.
  - » Carbon/Biodiversity Credits/Offsets: Land restoration can lead to carbon sequestration and storage and also the enhancement of biodiversity, both which can generate revenues.

### 3.2 Policies:

- Sale of products and commodities from restoration areas for adequate prices through taxes for goods and products that lead to deforestation and/or incentives for consumers to buy restoration products, which would allow for a good income as well for local smallholders - supporting at the same time risk mitigation for smallholders

### 3.3 Regulations:

- Regulations to cut deforestation (compare to EU Deforestation Regulation EUDR) are as important as regulations to support restoration, including biodiversity.
- Community rights on land tenure and land use can ensure resilience and thus sustainability of restoration actions

### 3.4 Technology:

- Development of technology, not only for monitoring, transparency and traceability, but also for development of products from lesser known forest species to raise diversity of reforestation sites
- To facilitate innovation in agriculture and for land restoration (e.g. ensuring seedling survival through weeding and irrigation)



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## 4. Recommendations: enabling greater access to resources for restoration for key stakeholder groups

### 4.1 Civil society

Recommendations for civil society and how to enable them to gain greater access to resources for restoration:

- Policies: Governments should systematically include representatives of NGOs / Civil Society in multi stakeholder platforms to improve coordination of restoration efforts/initiatives with other stakeholder groups (private sector, public sector, academia etc...).
- Regulations: Governments should systematically include representatives of NGOs / Civil Society in the development of new regulations in a transparent and open way to allow for an independent revision, external input and thus more inclusive policies concerning land management for restoration.
- Financing: Governments/Donors should increase capacities of civil society organizations to develop bankable restoration projects by providing resources, capacity development opportunities and technical assistance to allow them to: (i) access to carbon finance instruments and PES schemes, (ii) increase their understanding of business models for land restoration and (iii) to monitor properly environmental and social benefits and impacts of restoration initiatives.
  - » Furthermore, Governments and civil society should build and offer tools for self-determined development paths and their funding for territories of landscapes that are under control of traditional or indigenous peoples of other groups with a vision for restoration/conservation of natural resources.
- Technology: Private Sector and Academia should develop technological solutions to facilitate monitoring, transparency and traceability to allow for an independent civil society monitoring of restoration to improve biodiversity conservation, resilience and landscape level restoration.

### 4.2 Communities

Similar to civil society, the following recommendations relate to how to enable communities to access resources for restoration.

- Policies: Governments should develop policies to mitigate the risk for small farmers to invest (both in terms of labour and lands) in innovative restoration practices through relevant incentives / insurance schemes or other options such as facilitating access to low interest loans.
- Governments should develop public policies which facilitate the work of local cooperatives, incentivizing them in scaling up and disseminating good practices.
- Governments and academia should develop mechanisms to create justice *"Who pays for the remedy of damaged nature?"*, in order to support affected communities and provide resources for restoration.
- Regulations: Governments should develop regulations to facilitate market access for goods and services produced by restoration initiatives of small scale farmers.
- Financing: Governments/Donors should develop or, when already existing, extend access to small grants / capacity building programmes for local cooperatives / farmer organizations to promote income generation through restoration initiatives and to allow them to become restoration business managers.
- Technology: Private sector and academia should provide low cost solutions for farmers to ensure geo-localization, traceability and transparency of local value chains from restoration sides. Academic research should focus on technologies to cultivate and use lesser known species, thus increasing diversity and resilience of local agricultural systems.

### 4.3 Public sector

The following recommendations relate to how the public sector can enable greater access to resources for restoration by civil society, communities, the public sector and academia.

- **Policies:** Governments should formulate policies to earmark budget specifically for restoration of ecosystems.
- **Financing:** Governments should provide more funds for insurance derisking investments in land restoration/ regenerative /organic farming for farmers, cooperatives and private investors;
  - » Governments and NGOs should provide more incentives to fund farmer's associations for aggregating small farms for larger scale land restoration (e.g. Nabir Bank provides grants for rural development for Farmer Producers Organisers in India);
  - » Governments should allocate more public funds for land restoration, including investing in capacity building for local organisations, thus enabling them to tap into global finance for restoration.
- **Regulations:** Governments should facilitate the import and export of sustainably produced goods by easing tariffs and taxes on such goods.
- **Technology:** Governments should provide more funding of R&D and innovation for more resilient seeds, plants etc; and facilitate and apply the monitoring and evaluation of ecological impacts of restoration financing schemes at the landscape and jurisdictional levels.

### 4.4 Private Sector

The following recommendations relate to enabling the private sector to finance or insure actors in need of resources for restoration and to contribute to more financing of restoration action.

- **Policies:** Multilateral agencies should leverage private capital by providing possibilities to lower the risk of investments in biodiverse restoration practices and facilitate new and innovative finance mechanisms, enabling the cooperation between private sector actors and local cooperatives and small holders.
- **Regulations:** Governments and financial actors should reformulate credit scoring to include the resilience of restoration systems (thus the interest rate decreases).
- **Financing:** Governments should use public finance for de-risking private investments, only if they are supporting biodiversity, including local stakeholders and are integrated in landscape approaches, thus contributing to resilient land restoration.
  - » Governments should be encouraged to use fiscal instruments to fund restoration.
  - » Governments, Multilateral Donors and other Funding Mechanisms should provide international development assistance, altruistic funds and fiscal instruments which are aimed at restoration towards contexts which may not be that attractive to private investments, which often seek normal returns. Governments should provide enabling conditions (e.g. conservation investment regulations, policies, financial literacy, etc.) and minimizing risks for implementers and farmers (e.g. conservation insurance) or as an initial investment to de-risk private investments. Focus should be on supporting smallholders to organize themselves and adapt their production to include restoration and biodiversity-friendly practices.
  - » The private sector should develop effective and viable blended-financing models should be developed by the private sector, wherein altruistic and impact investors share the risk with investors who seek normal returns. However it is important not to use international development aid money to cover high risk shares of the investments.
  - » Investors need to leave their comfort zone concerning risks and returns of traditional investments. Calculations of adjusted lower risk in projects that enhances biodiversity, resilience and local involvement should be included in due diligence processes of investments.
- **Technology:** Academia and civil society should support measures and monitoring of ecological/ ecosystem services/carbon impacts from the restoration finance.

## 4.5 Academia

The following recommendations relate to how Academia can act to bridge and enable greater access to resources for restoration by civil society, communities, the public and private sectors.

- Policies: Academia can be more engaged in developing standards for certification of land restoration products and M&E protocols for certification that are simple and accessible for all stakeholders.
  - » Academia can encourage and contribute to policies which undertake restoration at the landscape level.
  - » Academia can be more active in promoting science on the role of land restoration in reducing impacts of climate and disaster impacts.
- Regulations: Academia can take a more active role in studying the impacts of policies on land restoration outcomes and feedback into the process of regulation.
  - » Academia can provide Inputs to ensure regulations are fair and enable good practices in land restoration.
- Financing: Academia can provide more standard valuation to promote land restoration activities
- Technology: Academia can provide the basic knowledge to develop technologies for :
  - » carbon sequestration stock estimation
  - » models of land restoration at the landscape level
  - » leverage technologies, such as remote sensing to shorten and simplify the certification processes.

## 4.6 Partnerships:

The following recommendations relate to how Partnerships can bridge and enable greater access to resources for restoration by civil society, communities, academia, the public and private sectors. Partnerships can be convened by any of the above actors in any configuration and scale, although may be more sustainable when anchored in an existing process or programme. Partnerships are encouraged to identify and fill the existing gaps in knowledge across financing, technology, policy, regulations around land restoration, while ensuring that individual aspirations of each stakeholder is met satisfactorily alongside common goals of the partners.

- Policies: Partnerships should take a more active role in developing policies which encourage land restoration at the landscape level.
- Regulations: Partnerships should be proactive in identifying and defining the rules of engagement for long lasting partnership towards land restoration.
- Finances: Partnership should identify existing pools of finance available towards land restoration; and to connect stakeholders who supply financial resources and land restorers.
  - » Furthermore, partnerships should promote capacity building activities to empower more actors to seek restoration funding.
  - » Technology: Partnerships should be effective mechanisms for communicating about technologies for land restoration, including scoping out new technologies to simplify M&E processes and facilitate scaling up of land restoration.



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## 5. G20 Global Initiative on Land recommendations

This section is intended for the G20 Global Initiative on Land to enable more resources for land restoration for each stakeholder group. The G20 Global Land Initiative is encouraged to:

### 5.1 Civil Society

- Work closely with the UN Decade on Restoration partners to accelerate dissemination of experiences/ existing knowledge and good restoration practices for civil society by: (i) providing access to information through relevant existing knowledge platform (e.g. WOCAT, Best Practice Taskforce of the Decade on Ecosystem Restoration), (ii) facilitating restoration Communities of Practices, (iii) proposing grants for capacity building and innovation and (iv) providing technical assistance and coaching programmes.

### 5.2 Communities

- Provide clear recommendations for intermediaries / operators for more profits to reach local stakeholders in any given restoration initiative.
- Promote / facilitate understanding of existing ecosystem restoration standards (e.g. Standards of practices developed under the UN Decade on Ecosystem Restoration)

### 5.3 Public sector

- Encourage governments to establish national platforms in emerging countries for collecting restoration funds, linked to multi stakeholder platforms and which encourage restoration at the landscape level and provide resources as well for biodiverse restoration of small holders.
  - » Promote and amplify policies on restoration friendly/ green commodities (e.g. remove perverse regulations for stakeholders to join restoration efforts and facilitate imports of restoration products).
- Promote the role of land restoration in reducing impacts of climate and disaster impacts.
- Showcase good practices in terms of governance, technologies and financial models which facilitate land restoration. These can enable developing countries to adopt such practices.
- Encourage the G20 States to explore the opportunities of international trade which promotes products that contribute to land restoration and biodiversity conservation

### 5.4 Private sector

- Facilitate multilateral agencies to be more active in providing and de-risking restoration funds for smallholder farmers and non-profit non-governmental actors as well as businesses, e.g. by nudging the private investors, philanthropy to provide matched funds.

### 5.5 Academia

- Work with Academia to facilitate new funding streams for innovation in land restoration and science-policy dialogues on land restoration.
- Work with Academia to develop accreditation standards and indicators to measure land restoration, thus inspiring confidence in funders.

### 5.6 Partnerships

- Facilitate common mechanisms for stakeholder dialogues and partnership by setting up multi stakeholder platforms for land restoration.

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## 6. Contributors

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### Endnotes:

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- 2 Ding, H., et al (2017) ROOTS OF PROSPERITY: The Economics and Finance of Restoring Land, World Resources Institute, Washington DC
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- 5 GCEC (Global Commission on the Economy and Climate). 2014. "Land Use." In Better Growth, Better Climate, edited by M. Davis and G. Wynn. Washington, DC: World Resources Institute. <http://newclimateeconomy.report/2014/land-use/>