

Restoration Education

Building a Pan-African curriculum on landscape restoration

A collaboration between:

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Preface

Restoration Education is the first initiative looking to build capacity for landscape restoration across Africa. Drawing on the expertise of African universities and international partners, the program is creating a Pan-African curriculum that blends online and in-person training to take landscape restoration to the next level for a more vibrant, resilient future.

A new curriculum integrating knowledge and skills from both the life and social sciences will be initially taught at five universities in Ghana, Malawi, Nigeria, and Rwanda. Our hope is for this modular, adaptable curriculum to take root; then, expand to other willing educational institutions across the region and beyond.

More than a transformational program, Restoration Education is a collective journey uniting African teachers, educational centers, and international institutions to create something that is greater than the sum of its parts. As an Ashanti proverb says, 'Nyansapo wosane no badwemma', meaning 'Wise knots can only be loosened by multiple wise people working together.'

Background

The Restoration Education program aims to integrate landscape restoration into academic and vocational education systems in Africa. The initiative builds on the international momentum created by the launch of the United Nations Decade on Ecosystem Restoration¹ (2021-2030): it led to increased investments and a greater number of restoration projects across Africa and, in so doing, brought to the fore the need for adequately trained professionals. Unlike forest management, landscape restoration has yet to be fully integrated into higher-education curricula across Africa. To build a new generation of landscape restoration professionals, CIFOR-ICRAF teamed up with African universities. With the support of CIFOR-ICRAF's Global Landscapes Forum (GLF) and the International Union of Forestry Research Organisations (IUFRO, we launched a Call to Action² to develop an inter- and transdisciplinary restoration³ curriculum integrating knowledge from the biophysical and social sciences.

¹ UN Decade on Ecosystem Restoration, information to be found on UN Decade on Restoration

² To be found on Restoration-Education---A-Call-to-Collective-Action.pdf (globallandscapesforum.org)

³ Here "interdisciplinary" is defined as: teaching across disciplines, generally by using a common theme, topic, or issue. While transdisciplinary is defined as: the collaboration between students across disciplines, to create a shared understanding to solve a multi-faceted problem. Definitions adapted from: https://citl.news.niu.edu/2020/11/17/transdisciplinaryinterdisciplinary/

What we did

CIFOR-ICRAF partnered with five universities in Africa: the University of Development Studies of Tamale (Ghana), the University of Natural Resources and Environmental Management in Sunyani (Ghana), the University of Ibadan (Nigeria), the Centre for Applied Systems Analysis (Malawi), and the Rwanda Polytechnic in Kitabi (Rwanda). Additional partners were the Global Landscapes Forum, IUFRO, and the UN Convention to Combat Desertification (UNCCD) —a strategic partner given its funding capacity and its mandate of halting and reversing land degradation.

The first step of our collective journey was agreeing on the following objectives and deliverables:

- Establishing a coherent set of principles to guide the creation of a landscape restoration curriculum. Basing the principles on a conceptual framework on landscape restoration.
- 2. Identifying the key capabilities and skillsets needed for landscape restoration professionals in Africa.
- 3. Creating a blueprint for a transformative Restoration Education curriculum, adapting and complementing existing courses with innovative modules, short courses, summer schools, and practical sessions. Using a learning format blending online and offline trainings.
- Preparing a full package of materials universities could use to build their respective training modules. Materials were to include principles, reports, slide decks, videos, and assignments.

How we did it

The first workshop with the partners focused on building a conceptual framework on landscape restoration as the basis for a set of principles on how to implement restoration projects.

Our methodology was largely inspired by *the 'Toolkit for Blended Learning Design' (Wageningen/Bonn, 2022*⁴) designed by the Wageningen Centre for Development Innovation and GLF. As a founding member of the UN Decade on Ecosystems Restoration and IUFRO, the GLF is connected with a wide network of universities across Africa.

As described in the project proposal, CIFOR-ICRAF-GLF sought to conduct all the meetings, workshops, and trainings online to limit our carbon footprint. However, we recognized the need forcertain in-person meetings to fully engage with partners. Additional resources from the GLF's funding from the Federal Ministry for Economic Cooperation and Development (Germany) and UNCCD made it possible to organise a blueprint design workshop in 2022 and a train-the teachers one in 2023, both in Nairobi, Kenya. We also organized an online pilot training. The resulting blueprint was reviewed twice: by practitioners at the GLF event in Nairobi and by scholars/educators during the 2023 TRED conference in Wageningen, The Netherlands. The process resulted in a blueprint for blended training, including five offline modules, each of them tailored to one the universities, and one online course for all the students.

⁴ Wageningen Centre for Development Innovation (2022), to be downloaded for free at https://doi.org/10.18174/564863 or at www.wur.eu/cdi (under publications). ISBN: 978-94-6447-120-5



Results

Partner universities and supporting organizations rapidly recognized the need for an interdisciplinary curriculum on landscape restoration and consistently showed high levels of commitment and motivation. Tapping into additional sources of funding made it possible to conduct important activities that were not part of the original proposal, but the need of which became evident as we started developing the blueprint. We describe each of the deliverables below and attach the blueprint, which is the main deliverable of the project.

Result 1

A coherent set of principles to guide the creation of a landscape restoration curriculum. The principles are based on a conceptual framework on the social and economic factors underpinning landscape restoration.

To ground the creation of a landscape restoration curriculum on the latest scientific evidence, we started by reviewing the existing literature and compiling lessons from restoration practice. The resulting conceptual framework (figure 1) shows the factors underpinning landscape restoration efforts and points to types of knowledge and skills the curriculum needs to build.

The framework

Figure 1 shows the links between social and ecological systems, and how restoration at various scales (forests, ecosystems, or entire landscapes) can impact both societies and the natural world.

The goal of landscape restoration is to create multifunctional landscapes that balance different land uses, building the resilience of societies, economies, and ecosystems to climate and economic shocks. Landscape restoration looks to bring back environmental services and biodiversity to previously degraded lands, while enhancing their productive capacity for purposes like agriculture and forestry. Landscape restoration goes beyond tree-planting: it relies on a variety of approaches to



revive ecological processes operating at large scales, like nutrient and water cycles, and works with different sectors of society to create mosaics of land uses for improved environmental and development outcomes. The cross-cutting nature of landscape restoration requires professionals with skillsets that transcend the forestry field and who feel comfortable working across disciplines and stakeholder groups.

The principles

In addition to producing the framework, we reviewed a wealth of academic and professional literature featuring principles for restoration education; for example, documents by Sayer (2023), CIFOR-ICRAF-GLF (2021), and FAO and partners (FAO, IUCN, CEM, and SER, 2022). Those processes informed our own choice of principles. Below are the ten principles underpinning our landscape restoration curriculum, which capture the inter- and transdisciplinary nature of landscape restoration:

 Global contribution: Landscape restoration contributes to the UN sustainable development goals (SDGs) and the goals of the Rio conventions on biodiversity, climate, and desertification.

- 2. Broad engagement: Landscape restoration promotes inclusive and participatory governance, social fairness, and equity at all stages.
- 3. Causes of degradation: Landscape restoration addresses the direct and indirect causes of ecosystem degradation.
- 4. Benefits to nature and people: ecosystem restoration aims to bring back, as much as possible, biodiversity, ecosystem services, and human and environmental health.
- 5. Many types of activities: Landscape restoration includes a continuum of restorative activities that are complementary and mutually reinforcing.
- 6. Local and landscape contexts: Landscape restoration tailors its interventions to local ecological, cultural, and socioeconomic contexts, while considering landscapes in their entirety.

- Knowledge integration: Landscape restoration relies on various disciplines and integrates scientific and traditional knowledge throughout the process.
- 8. Measurable goals: Landscape restoration is based on well-defined short-, medium- and long-term ecological, cultural, and socio-economic goals.
- 9. Monitoring and adaptive management: Landscape restoration includes monitoring, evaluation, and adaptive management throughout and beyond the lifetime of the project or programme.
- **10. Policy integration**: Landscape restoration provides an opportunity for policy integration. An enabling policy environment is important for the long-term success of restoration initiatives and to make their expansion and replication possible.



Figure 1. A conceptual framework on the social and ecological factors underpinning integrated landscape restoration, as a basis for the ten principles for Restoration Education

Result 2

A set of key capabilities and skills for landscape restoration professionals in Africa.

Core skillsets

Landscape restoration professionals must be equipped with knowledge and skills linked to a variety of social- and life-science disciplines, and be able to engage with, and learn from, a wide range of stakeholders. Landscape restoration initiatives require knowledge from biophysical sciences, as well as the ability to work with local communities, involve policy makers, and create sustainable business models

In defining the skillsets for the curriculum, we reviewed three capacity needs assessments based on global surveys:

- The IUFRO-led Global Assessment of Forest Education⁵
- The FAO-led Global Capacity Needs Assessment: key gaps and capacity priorities for restoration to support the UN Decade on Ecosystem Restoration 2021-2030 (2022)⁶
- The peer-reviewed paper Capable to govern landscape restoration? Exploring landscape governance capabilities, based on literature and stakeholder perceptions (van Oosten et al., 2021)⁷

All three capacity needs assessments note that forestry curricula around the world incorporate the technical know-how for forest restoration. However, few curricula focus on the broader field of landscape restoration, which calls for capacities related to forestry, but also other disciplines like agriculture, natural resource management, economics, and social sciences. This means that many future professionals are failing to acquire the skills to design and implement landscape restoration initiatives that are effective, economically viable, and socially just.



Figure 2. The five core capacities required for integrated landscape restoration

Additionally, we reviewed the paper Landscape Approaches: a State of the Art Review (Arts et al., 2017)⁸, which defines the core skills for landscape restoration (Figure 2): 1) the capacity to think and act from a landscape perspective, 2) to achieve coherence in landscape diversity, 3) to make institutions work for landscapes, 4) to create landscape market value, and 5) the to manage landscape resources sustainably (ibid.).

Towards an inter-dispciplinary curriculum

Building the skills of a landscape restoration professional calls for a truly inter-disciplinary curriculum that combines concepts from various disciplines (e.g. forestry, natural resources management, sociology, economy, political ecology), with practical knowledge (Figures 3 and 4). Hence our interest in the transformative education approach.

From a curriculum to a transformative curriculum

The Transformative Education approach sees teachers as being facilitators and enablers of societal change. It engages both teachers and students in a joint learning process whereby they shall be open to questioning each other's values, attitudes, and behaviours. Drawing inspiration from this approach, we came up with six guiding principles for our blueprint:

⁵ Global assessment of forest education - Creation of a Global Forest Education Platform and Launch of a Joint Initiative under the Aegis of the Collaborative Partnership on Forests (FAO-ITTO-IUFRO project GCP /GLO/044/GER)

⁶ To be found at Global capacity needs assessment (fao.org)

⁷ Capable to govern landscape restoration? Exploring landscape governance capabilities, based on literature and stakeholder perceptions. Van Oosten C., H. Runhaar, B. Arts, Land Use Policy, Volume 104, May 2021. https://doi.org/10.1016/j. landusepol.2019.05.039

⁸ Arts, B. & Buizer, Marleen & Horlings, Lummina & Ingram, Verina & van oosten, Cora & Opdam, Paul. (2017). Landscape Approaches: A State of the Art Review. Annual Review of Environment and Resources. Vol 42. 10.1146/annurev-environ-102016-060932, downloadable at Landscape Approaches: A State of the Art Review (researchgate.net)



T-shaped professional

Figure 3. The single-discipline professional VS the T shaped professional (copied from Oskam, 2009)



Figure 4: the T-shaped landscape restoration versus the Tprofessional, combining single disciplinary fields with generic landscape skills (Arts et al., 2017)



Figure 5:. The Six Principles of Transformative Restoration Education

- 1. A transformative education approach allows students to customize their curriculum by choosing courses from different disciplines. Students receive credit points or micro-credentials upon the successful completion of each course.
- 2. Competence-based learning takes into account the scientific knowledge, practical skills, and attitudes professionals will need to meet market demands. It requires engaging teachers and potential employers in curriculum design.
- 3. Practice-based learning emphasizes the importance of engaging in practical experiences and then reflecting on them. Practice-based learning may take place on- and off-campus, through internships and job placements. The role of teachers is to prepare and mentor students before, during, and after their practical learning experience.
- 4. Lifelong learning can take many different forms: on-the-job learning, e-learning, mentoring, and coaching, as well as short professional trainings. Lifelong learning is important to stay abreast of the latest knowledge and practices in landscape restoration, especially in the context of a changing climate, and to keep up with evolving stakeholder needs, societal values, and market demands.
- 5. Blended learning is a combination of online and in-person learning. It allows for flexible curricula that adapt to different schedules, interests, and learning styles, and gives individuals from different backgrounds and geographies the opportunity to network. Blended learning trajectories may include tailor-made courses, courses facilitated by teachers, and self-paced courses.
- 6. Flexible capacity assessment is necessary to evaluate the competencies of students. It draws on a range of assessment methods tailored to each context, individual, and focus competencies.

Result 3

A blueprint for a transformative Restoration Education curriculum, based on existing courses and complemented with innovative modules, short courses, summer schools, and practical sessions to be delivered in a blended learning format.

A curriculum's blueprint defines the main learning parameters that guide the design of the courses. To develop ours, we used the *Toolkit for Blended Learning Design* of the Wageningen Centre for Development Innovation and the Global Landscapes Forum⁹. The Toolkit's *'blended learning jukebox framework'* (figure 6) lays out the aspects that must be taken into account when creating a blueprint; for example: the objectives of the course; the target audience and their needs; the key topics and expected learning outcomes; the delivery mechanisms and learning modalities; the expected duration and the rhythm of the course; and the summative assessment.

We organized two online workshops and one faceto-face workshop to share this methodology with all of the allies involved in the design of the blueprint for restoration education.

Overall learning outcomes

We defined five overall learning outcomes based on the key capabilities and skills of landscape restoration professionals we had previously identified (figure 2).

In our blueprint, each learning outcome represents one course. In turn, the duration, study load, and rhythm of each course determines sub-learning outcomes, topics, and activities. To identify the learning activities, we used two resources featured in the '*Blended Learning Toolkit*'; (i.e. '*Bloom's taxonomy*' of learning categories and the



Figure 6. Blended Learning Jukebox Framework for blended curriculum design (WCDI, 2022)

⁹ Wageningen Centre for Development Innovation (2022), to be downloaded for free at https://doi.org/10.18174/564863 or at www.wur.eu/cdi (under publications). ISBN: 978-94-6447-120-5

'PIAF process' of designing, developing, and delivering learning pathways.) Annex 1 features the full blueprint with all learning outcomes.

Target audiences

The Restoration Education curriculum has three target audiences: decision- and policy-makers; practitioners, early career professionals, and students; and all the stakeholders who are expected to play an important role in the design and implementation of restoration initiatives.

The curriculum seeks to build the technical and process-related capacities to analyse landscape dynamics and contexts; to co-create and strengthen inclusive partnerships for landscape restoration; and to support the improvement of landscape governance. The curriculum also builds the capacity of learners to design and implement landscape restoration initiatives that are adaptive, economically viable, and contribute to social development.

Delivery of the curriculum

The blueprint (figure 7), which is the main deliverable of this project, emphasizes the role of teachers as facilitators and the importance of capacities to implement restoration projects.

To complement the curriculum, we produced the preliminary outline of a toolkit on landscape restoration, which covers project planning and implementation, communication and advocacy, as well as processes involving various stakeholders.

In addition, we developed a toolkit on innovative teaching methods that focuses on the role of teachers as facilitators and co-creators of knowledge. Finally, a series of sessions on transformative education highlighted the transdisciplinary-, implementationoriented nature of the approach.

The blueprint led to the development of a curriculum (Table 1) featuring six modules, as well as detailed learning objectives, topics, and activities.



Figure 7. A blueprint for integrated Restoration Education, the main deliverable of our project

Module 1

LANDSCAPE RESTORATION DYNAMICS AND CONTEXTS Learning Objective Title Learning Objective **Key Topics** Learning Activities The basics LO 1.1: To describe the principles 1.1.1: Principles of landscape restoration Essays of landscape and distinguish the scales of 1.1.2: Different scales of landscape restoration Sustainability Matrix restoration landscape restoration Puzzle learning Complexities LO 1.2: To explain and explore the 1.2.1: Social-ecological models for Landscapes Debates of landscape social ecological, economic and 1.2.2: Drivers of land degradation and climate change • Drama systems cultural interactions of landscape Pictograms 1.3.1: Social Ecological Systems (SES) involved in LO 1.3: To identify and categorise Actors in Role play Interviews landscapes the actors involved in landscape Landscape restoration restoration 1.3.2: Actors and their roles Guest lectures Landscapes and LO 1.4: To analyse the dynamics 1.4.1: Introduction to landscape contexts Simulations (video and discussion) their functions nature of landscape structure 1.4.2: Introduction to landscape interactions and and appraise their functions innovations in landscape restoration

Module 2

	COLLABORATIONS FOR LANDSCAPE RESTORATION		
Learning Objective Title	Learning Objective	Key Topics	Learning Activities
Understanding landscape partnerships	LO 2.1: To understand landscape partnerships and partnership dynamics	2.1.1: Collaborations in restoration 2.1.2: Stakeholders and landscapes 2.1.3: Principles of stakeholder collaboration 2.1.4: Building landscape partnership	BrainstormingGroup discussionCase studies
Stakeholder collaborations	LO 2.2: To explore methods of stakeholder collaborations and relationships in landscapes	2.2.1: Types of collaborations 2.2.2: Mapping relationships 2.2.3: Power dynamics in landscapes (gender and inclusivity) 2.2.4: Conflict and conflict resolution	 Case studies Debates Lectures Problem solving Tasks
Stakeholder analyses	LO 2.3: To be equipped with skills of stakeholder mapping and analyses	2.3.1: Stakeholder process analysis 2.3.2: Stakeholder roles 2.3.3: Interest and influence 2.3.4: Facilitating restoration practices	Stakeholder toolsRole playChess/checkers
Facilitating landscape partnerships	LO 2.4: To understand and illustrate methods to facilitate partnerships	2.4.1: Power of landscape partnerships 2.4.2: Culturally appropriate collaborations 2.4.3: Consultations and engagement	 Games (telephone link, spin the wheel) Role plays and Drama Debates Simulations (video and discussion)

Module 3

	GC	VERNING LANDSCAPE RESTORATION	
Learning Objective Title	Learning Objective	Key Topics	Learning Activities
Understanding landscape institutions	LO 3.1: To evaluate institutional dynamics governing landscape restoration	3.1.1: Defining landscape governance 3.1.2: Role of governance in restoration 3.1.3: Navigating in governance institution	 SWOT & entry point indentification Group reflection Case studies Success stories
Policy analysis	LO 3.2: To list, describe, and evaluate policies, rules, and norms in landscape restoration	3.2.1: Identify policies governing restoration 3.2.2: Analyse local national and global	Policy analysis toolsGroup work
Institutes governing landscapes	LO 3.3: To analyse institutional arrangements governing landscapes	3.3.1: Institutional arrangements for landscape governance 3.3.2: Ownership and rights to resources 3.3.3: Land tenure and land restoration nexus 3.3.4: Challenges of resource rights	 Policy analysis tools (power, incentives, disincentives, etc) Group work (identifying gaps, knowledge sharing)
Understanding institutional change	LO 3.4: To assess factors associated with institutional change	3.4.1: Defining institutional change and change processes 3.4.2: Sources and causes of institutional change 3.4.3: Relevance of institutional change 3.4.4: Barriers to institutional change	 Case studies Institution mapping analysis

	DESIGNING AND APPLYING LANDSCAPE RESTORATION		
Learning Objective Title	Learning Objective	Key Topics	Learning Activities
Context-based restoration	LO 4.1: To understand and analyse context- based restoration techniques and methods	 4.1.1: Landscape baselines 4.1.2: Integrated and resilient restoration frameworks (agroecology, sustainable forest wetlands, coasts, drylands, etc. management) 	 Case studies lectures Groupp and guided discussion Surveys
Restoration design	LO 4.2: To design relevant restoration techniques and methods	4.2.1: Restoration design frameworks 4.2.2: Project lifecycle management frameworks	 Group/individual projects Seminars, workshops, Lectures Data collection and analysis
Applying restoration techniques	LO 4.3: To apply relevant restoration techniques and methods	4.3.1: Field implementation 4.3.2: Combining design frameworks with multi- stakeholder processes, negotiations, and conflict management	 Role play Field-trips and internships Data collection Innovation competition
MELIA	LO 4.4: To conduct MELIA on applied restoration techniques and methods	4.4.1: Monitoring and evaluation frameworks	

Module 5

	ECONOMICALLY VIABLE LANDSCAPE RESTORATION		
Learning Objective Title	Learning Objective	Key Topics	Learning Activities
Economic evaluations	LO 5.1: To identify and apply appropriate economic evaluation methods to landscapes	5.1.1: Economic evaluation methods 5.1.2: Cost-benefit analysis 5.1.3: Evidence based approaches	 Guided discussion Case studies Projects (posters, surveys) Field trips
Financial flows	LO 5.2: To understand and examine the diversity of financial flows for landscape restoration	5.2.1: Financing (climate, public, co-development, private) 5.2.2: Incentive structure 5.2.3: Financial analysis, mapping tools, and revenue modelling	Case studiesSeminarRole plays
Business models	LO 5.3: To design and apply context based business models for landscape restoration	5.3.1: Social and environmental justice 5.3.2: Blended finance 5.3.3: Entrepreneurial skills 5.3.4: Business model understanding	 Business model canvas Projects Role play Entrepreneurial activities

Module 6

	(CROSS-CUTTING) LAND	SCAPE RESTORATION ADVOCACY AND CO	MMUNICATION
Learning Objective Title	Learning Objective	Key Topics	Learning Activities
Identifying Audience	LO 6.1: To identify and define the audience and appropriate communication channels	6.1.1: Landscape, stakeholder, and institution mapping	 Mapping exercise Discussion and self-reflections Drama and role play
Developing Communication Strategies	LO 6.2: To understand and develop communication strategies and plans	6.2.1: Communication vehicles 6.2.2: Diverse communication strategies	 Brainstorming Group work Presentation and discussion
Applying Communication Strategies	LO 6.3: To demonstrate and evaluate communication skills and strategies	6.3.1: Diverse communication strategies 6.3.2: Evaluating communication effectiveness 6.3.3: Knowledge systems	 Role playing, conflict resolution Deep listening
Refining and Re-applying communications	LO 6.4: To refine, choose, and apply Re-applying context specific communication tools. communications channels, and platforms	6.4.1: Diverse communication strategies	 Brainstorming Self-reflection and evaluation Role plays, drama, and peer-review

Annex

Images of the process

Designing the blueprint (CIFOR-ICRAF in Nairobi. Kenya)



Reviewing the blueprint (Dehradun, India)





Reviewing the blueprint (CIFOR-ICRAF in Nairobi, Kenya)





Train-the-teachers workshop (Nairobi, Kenya)

Online piloting of the first module



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Sec	tion 1 2 / 2 completed	
Pre	e-course Survey	
Sec	tion 2 5 / 6 completed	C
Ch	apter 1 🚀: The Basics of Landscape	
Re	storation	
Sec	tion 3 1/6 completed	6
Ch		pe
Sy	stems 😅 🚀	
~	Introduction	
	Pre- Session Activity: Causes an	d
	Effects of Land Degradation	
•	Assignment: Drivers of	
	degradation and suitable SES	
	models for restoration	
•	Final Assessment Group Activity	r.
	Landscape Dynamics Photo	
	Competition	
	The Landscape Approach: A C	Case
٠	Study	
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Recap and Reflect: Live Session 2 Journey!

Before we embark on this chapter, let's revisit the rich insights from our recent synchronous session. The presentation sidies are ready for your review, offering a comprehensive receas. Additionally, each the recording of the completed live session to reinforce your understanding.

Recap Presentation:

Revisit the presentation from our live session attached at the bottom or on the link below.



For those who couldn't make it or want a replay, the recorded session is available below. Catch up on the valuable discussions and shared knowledge.



Global Landscapes Forum

The Global Landscapes Forum (GLF) is the world's largest knowledge-led platform on integrated land use, dedicated to achieving the Sustainable Development Goals and Paris Climate Agreement. The Forum takes a holistic approach to create sustainable landscapes that are productive, prosperous, equitable and resilient and considers five cohesive themes of food and livelihoods, landscape restoration, rights, finance and measuring progress. It is led by the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF), in collaboration with its cofounders UNEP and the World Bank and Charter Members.

Charter members: CIAT, CIFOR-ICRAF, CIRAD, Climate Focus, Conservation International, Crop Trust, Ecoagriculture Partners, The European Forest Institute, Evergreen Agriculture, FAO, FSC, GEF, GIZ, ICIMOD, IFOAM - Organics International, The International Livestock Research Institute, INBAR, IPMG, IUFRO, Rainforest Alliance, Rare, Rights and Resources Initiative, SAN, TMG-Think Tank for Sustainability, UNCCD, UNEP, Wageningen Centre for Development Innovation part of Wageningen Research, World Farmer Organization, World Bank Group, World Resources Institute, WWF International, Youth in Landscapes Initiative (YIL).

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