

GUARDIANS OF PRODUCTIVE LANDSCAPES (GPL)

Project of the Max Planck Institute for Social Anthropology, Halle/Saale

State-of-the-art paper

By Marco Bassi

Coordinator of the GPL

Version 10.10.2017

Contents

1.	By way of introduction	2
2.	Terminology: Initiative, Project, Program	3
3.	Outline of the Guardians of Productive Landscapes Initiative (GPLI)	4
3.1.1.	The interdisciplinary research component.....	4
3.1.2.	Sustainable agricultural development and the agro-ecological approach	5
3.1.3.	Promoting agro-environmental policy under the holistic agricultural development approach.....	6
3.1.4.	Ethnographic films.....	7
3.1.5.	Country approach.....	7
4.	Relevant international organizations	7
4.1.1.	FAO	8
4.1.2.	IFAD.....	9
4.1.3.	UNESCO LINKS Program	10
4.1.4.	The GEF.....	10
5.	GPL - Ethiopia.....	10
5.1.	Ethiopia as pilot country.....	10
5.1.1.	Cultural and agro-biological diversity in Ethiopia	11
5.2.	GPL-Ethiopia	11
5.2.1.	Outline.....	11
5.2.2.	The productive landscapes as project units	12
5.2.3.	Federal institutions	13
5.2.3.	National (sub-federal) institutions.....	13
5.2.1.	International organizations	14
	References	15

1. By way of introduction

Before venturing into the main 'state-of-of-the-art' presentation it may be useful to briefly point out two recent developments in the GPL project:

1) Firstly, as part of the preparations for the four major workshops planned for the GPL project (see appendix) Dr. Marco Bassi and Mitiku Gabrehiwot (M.A.) visited the Max Planck Institute for Social Anthropology in Halle/Saale in August 2017, and took part in a 'Preliminary Symposium' entitled, "Modelling the Guardians of Productive Landscapes Program".

The presentations were as follows:

Ivo Strecker (Mainz and Arba Minch): Components of a model for the “Guardians” project.

Günther Schlee (Halle/Saale): The “Guardians” as part of the MPI research agenda.

Echi Gabbert (Goettingen): The “Guardians” within the “Lands of the Future” initiative.

Mitiku Gebrehiwot (Mekelle): The relevance of the “Guardians” for Tigray, Northern Ethiopia.

Valeri Liebs (Goettingen): The “Guardians” and related research agendas in Africa.

Nikolaus Scharaira (Goettingen): Conservation and the role of local knowledge in the “Guardians” project.

Marco Bassi (Rome): The “Guardians” in the context of international organizations and aid flow.

2) Secondly, in August 2017 a first overview of the international scholars who are currently involved in the GPL project was attempted. The (provisional) list contains the following names and assignments:

Project co-directors:

- Dr. Feleke Woldeyes, Deputy Director General, Ethiopian Biodiversity Institute (EBI)
- Prof. Dr. Guenther Schlee, Director, Max Planck Institute for Social Anthropology, Halle/Saale (MPI)
- Ivo Strecker, Professor Emeritus, Johannes Gutenberg University, Mainz

Project coordinator:

- Dr. Marco Bassi, Max Planck Institute for Social Anthropology, Halle/Saale

Workshop convenors:

- Mitiku Gabrehiwot, Assistant Prof. Mekelle University, Department of Anthropology
- Yohannes Yitbarek, PhD candidate at MPI, Arba Minch University
- Eyob Defersa, MA, Arba Minch University

Cooperation partners:

- Dr. Christina Gabbert, Institut für Ethnologie, Georg-August-Universität Göttingen
- Prof. Dr. Nikolaus Schareika, Institut für Ethnologie, Universität Göttingen
- Dr. Valerie Liebs, Institut für Ethnologie, Universität Göttingen
- Jean Lydall, Freelance anthropologist, Melle

Advisors (some of them still prospective, others soon to be added):

- Prof. Mitiku Haile, Soil Scientist, Mekelle University
- Dr. Yechale Kebede, Vice President for Academic Affairs, Arba Minch University
- Prof. Claudia Carr, Department of Environmental Science, Policy, & Management, UC Berkeley
- Prof. Dr. Thomas Bierschenk, Institute of anthropology and African studies , Johannes Gutenberg University
- Prof. Paul Sillitoe, Durham University, Dept. of Anthropology
- Johannes Schilling, GIZ, Ethiopia
- Prof. Dr. Pierluigi Bozzi, International University Network Cultural and Biological Diversity (IUNCBD)

2. Terminology: Initiative, Project, Program

The ‘Guardians of productive landscapes’ (GPL) is a multilevel and polycentric initiative which in due course will include a combination of funding sources supporting - at different scale - both the research and development components. It is important to distinguish the following terms right from the beginning:

Guardians of Productive Landscapes Initiative (GPLI): All the activities correlated to Guardians of Productive Landscape, whoever sponsors or implements them, in any part of the globe.

Guardians of Productive Landscapes Project (GPL Project): These are the activities currently supported by the Max Planck Institute for Social Anthropology (MPI), mainly consisting in producing ethnographic films in Ethiopia and supporting GPL symposia and events. It is a project own by MPI Halle (Saale), with global scope but with a strategic priority on Ethiopia.¹

Guardians of Productive Landscape – Ethiopia (GPL - Ethiopia). It is the GPLI component dealing with Ethiopia. The GPL Project has already started documenting productive landscapes in Ethiopia. It will also support a number of workshops and dedicated events in Ethiopia and in Germany to develop a GPI country project in Ethiopia.

Guardians of Productive Landscape Program (GPL Programme). The GPL Project aims at promoting the global ‘Guardians of Productive Landscape Program’, eventually run by a UN agency or a combination of UN agencies, in coordination with national cooperation agencies (GIZ, SDC...) and research institutions (universities and research centers in the North and in the South, MPI...)

¹ Feleke Woldeyes, Guenther Schlee, and Ivo Strecker, "Guardians of Productive Landscapes (Gpl). Project Proposal," (Halle (Saale): Max Planck Institute for Social Anthropology, 2017).

3. Outline of the Guardians of Productive Landscapes Initiative (GPLI)

3.1.1. The interdisciplinary research component

The present outline builds on and extends ideas and arguments already contained in the GPL project proposal by Feleke, Schlee and Strecker (version of 21. August 2017, see appendix), and it recalls that in broad terms the GPLI combines research with sustainable agricultural development. It focuses on valuable traditional agricultural practices and it promotes their documentation through both research in the humanities and the natural sciences.²

Indigenous and local agricultural knowledge has been acknowledged as key asset for the small-holders livelihoods, resilience and climate change adaptation. Many efforts are currently made to combine indigenous with scientific knowledge to achieve improvement in livelihoods and reduced vulnerability, but the existence of ontological differences between the two types of knowledges pose some specific problems³. Therefore, in addition to the standard documentation and systematization of indigenous and local knowledge for development objectives, the anthropological research component will address fundamental questions of local conceptions of space and time, identity issues, perceptions of the environment, production and transmission of knowledge, and world-views.

The organization of production is framed into modalities that are partly the result of self-organising and partly externally imposed. The complex interrelation of the factors regulating rights and title over the natural resources needs specific attention. Based on such knowledge, it is also possible to promote policy that can enhance positive change and innovation. The study of the local land tenure, with explicit consideration of collective and individual rights, formal, informal and customary land titles, and the inherent formal and customary institutional settings is therefore an important component of the GPLI research, within the broad field of political ecology.

Several traditional agricultural practices have scientifically been investigated, disclosing the rationality of traditional practices in terms of crop associations or soil conservation. This type of scientific research on traditional agricultural practices will also be supported. The natural sciences component may include ecological research on combinations of cultivated species, interaction between cultivated and wild species, soil ecology, impacts on soil, research on soil ecology and plants' performance, landscape ecology, genetic research on crop varieties, ecosystem services, by applying up-to-date research methods, including metagenomics and DNA sequencing, remote sensing techniques and GIS analysis.

In short, research in both humanities and natural sciences will address issues of fundamental research in addition to components that are directly relevant to the agro-ecological study of the local agricultural system in support of the local farmers (see par. 3.1.2 below).

² For backup voices on traditional agricultural systems see *ibid.*

³ Paul Sillitoe, "The Development of Indigenous Knowledge: A New Applied Anthropology," *Current Anthropology*, no. 2 (1998); Paul Sillitoe, Alan Bicker, and Johan Pottier, eds., *Participating in Development: Approaches to Indigenous Knowledge*, Asa Monographs (London ; New York: Routledge, 2002); Paul Sillitoe, Peter Dixon, and Julian Barr, *Indigenous Knowledge Inquiries: A Methodologies Manual for Development*, Indigenous Knowledge and Development Series (Rugby, U.K.; Dhaka: ITDG Pub. ; In association with the University Press Limited, 2005).

Findings from all research components will be aggregated and elaborated as background knowledge for policy innovation.

3.1.2. Sustainable agricultural development and the agro-ecological approach

The selected farming communities will be assisted with sustainable development initiatives aimed at supporting small-holding agriculture, by adopting the agro-ecological approach. In many UN documents support to small-holding agriculture has been acknowledged as key to right to food.⁴ Small-holders develop cultural attachment to the environment and take care of the natural resources they depend on. The interiorized values and knowledge transmitted from generation to generation underlie their sustainable productive practices, and stewardship of the landscape, with relevant outcomes in terms of soil conservation, conservation of both wild and domestic biodiversity and other ecosystem services.⁵ Small-holders agriculture is also acknowledged as a flexible and resilient arrangement capable to accommodate adaptation and mitigation strategies to climate change.⁶ The agro-ecological approach to agricultural development valorizes small-holding agriculture by building on the existing ecological interactions.⁷ It is based on indigenous and local agricultural knowledge and practices, introducing innovations that can be managed by the small-holders and are environmentally sustainable. Innovation includes both soft knowledge of cultivation techniques, and intermediate mechanization tailored on the needs of the farming community.⁸

Market-oriented initiatives have proven to be effective in supporting small-holding farmers. Priority should be given to create direct producer-consumer links, short value chains, and linking the global market with the local producers, including by internet sale. Food processing and appropriate packing are pre-conditions for good marketing, to be achieved by provision of intermediate technology and by promoting self-organizations (cooperatives, consortiums, associations ...) for agricultural services and for transport to local and national markets. The adoption of the agro-ecological approach offers better opportunities in terms of access to the ethical market through eco, social, health and cultural labeling and certifications. The GPLI aims at creating the conditions for achieving such developments and it promotes the engagement of certifying international organizations, or the establishment of ad hoc certifications using the GPL website as a facility for global communication.

⁴ Olivier De Schutter, "Report Submitted by the Special Rapporteur on the Right to Food, Olivier De Schutter," (United Nations General Assembly, 2010).

⁵ For backup voices on small-holding agriculture see Woldeyes, Schlee, and Strecker, "Guardians of Productive Landscapes (Gpl). Project Proposal."

⁶ IFAD, *The Traditional Knowledge Advantage. Indigenous Peoples' Knowledge in Climate Change Adaptation and Mitigation Strategies* (Rome: International Fund for Agricultural Development (IFAD), 2016).

⁷ Miguel A. Altieri, *Agroecology: The Scientific Basis of Alternative Agriculture*, Westview Special Studies in Agriculture Science and Policy (Boulder, Colo.: Westview Press, 1987); *Agroecology: The Science of Sustainable Agriculture*, 2nd ed. (Boulder, London: Westview Press; IT Publications, 1995); "Agroecology: The Science of Natural Resource Management for Poor Farmers in Marginal Environments," *Agriculture, Ecosystems & Environment* 93, no. 1-3 (2002).

⁸ Stéphane Parmentier, *Scaling-up Agroecological Approaches: What, Why and How*, Discussion Paper (Belgium: Oxfam-Solidarity, 2014); Laura Silici, *Agroecology What It Is and What It Has to Offer*, ed. IIED, Issue Paper (2014).; Miguel Altieri, van A. Petersen, and Fernando Funes-Monzote, "Agroecologically Efficient Agricultural Systems for Smallholder Farmers: Contributions to Food Sovereignty," (Springer Verlag (Germany), 2012).; *ibid*; Altieri, "Agroecology: The Science of Natural Resource Management for Poor Farmers in Marginal Environments; Miguel A. Altieri and Susanna B. Hecht, *Agroecology and Small Farm Development* (Boca Raton, Fla.: CRC Press, 1990).

3.1.3. Promoting agro-environmental policy under the holistic agricultural development approach

Small-holding agriculture is an alternative to agro-industrial development based on large scale investments. The latter aims at maximizing food or biofuel production by technological transformation, but it also often implies transferring land rights — either formal or informal, individually or commonly held — from local farmers or from agro-pastoral communities to business oriented corporations and enterprises. Industrial agriculture is characterized by drastic reduction of cultivated species and varieties, use of improved or GMOs seeds, massive application of pesticides and herbicides, soil degradation, application of capital intensive and standardized techniques.⁹

The negative environmental impacts of industrial agriculture have been addressed in the European Union from the 80s onwards, by adopting agro-environmental policy, mainly consisting in paying farmers to continue good practices. It initially focused on marginal environments, particularly mountain areas, and then it developed to systematically provide incentives for integrated agricultural and conservations schemes. EU expenditure on agri-environment measures amounts to 22 % of the expenditure for rural development.¹⁰

In developing countries, the approach has been attempted especially in Latin America, but did not yet develop into explicit policy. It rather consists in considering the different policy sectors that may contribute to achieve sustainable rural development.¹¹

Since many governments in the developing countries have given priority to agricultural development by means of large scale investments, there is an urgent need to promote agricultural policy in support of small-holders and that it is also capable to assure environmental sustainability in terms of both soil quality and biodiversity conservation.

In developing countries agro-environmental policy can complement the existing national agricultural policies by focusing on the valuable traditional agricultural systems. Farmers have limited access to knowledge, technology and market. Rather than paying farmers for their environmental and ecosystem services, incentives can be provided in form of assistance to development to selected communities.

The GPLI takes the holistic approach to agricultural development, by focusing on the farmers themselves and their culture, enhancing their own capacity to accommodate the required technological innovation and adaptation to climate change, while simultaneously promoting agro-environmental policy through research on the added environmental and identity values of meaningful traditional agricultural systems, and by disseminating the research results.

⁹ IPES-Food, "From Uniformity to Diversity: A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems. International Panel of Experts on Sustainable Food Systems," in *Report* (International Panel of Experts on Sustainable Food systems, 2016).

¹⁰ https://ec.europa.eu/agriculture/envir/measures_en

¹¹ FAO, *Voluntary Guidelines for Agro-Environmental Policies in Latin America and the Caribbean* (Santiago: FAO, 2016).

3.1.4. Ethnographic films

The production of ethnographic films on specific agricultural traditions is the central strategic element of the GPL project. The ethnographic films do not replicate written texts, but are artistically constructed around the central theme of the farmer's dedication to their landscape. They use the potential of visual communication to document local and indigenous knowledge embedded in daily productive activities. The ethnographic films are edited for the large audience. Accordingly they have also high potential in disseminating knowledge both among decision-makers and the larger audience. As such they complement other program's components in documenting the farming systems, promoting policy change and ethical trade of the local agricultural products.

3.1.5. Country approach

The GPLI deals with global problems and global themes, but the need to build trans-disciplinary synergy while also promoting the wellbeing of farming communities induce to strategically restrict the geographical focus in the initial phases. For the sake of development, UN agencies and national organizations for international development tend to privilege the country approach. The reasons in support of the country approach are: 1) organizing a coherent set of activities in a homogenous legal and policy environment; 2) addressing the policy level; 3) presence of country representatives of international organizations; 4) possibility to build on established experiences with existing national institutions.

4. Relevant international organizations

With the recent transition from the Millennium Development Goals to the Sustainable Development Goals (SDG) all UN agencies are confronted with the need to simultaneously address several goals, combining those focused on alleviation of poverty with environmental and socio-political concerns. This makes it easier for the GPLI to catalyze resources for agro-ecological development and policy from the agricultural development sector — as it happens in the EU —, being the sector with the largest available share of international funding.

Table 1. Main international conventions directly relevant to the GPL Initiatives

Convention	Relevant rights/ key concepts	Main relevance of GPL	Main reference UN agency
International Covenant on Economic, Social and Cultural Rights (ICESCR)	Right to food	Small-holding agriculture	IFAD FAO UNDP
UN Framework Convention on Climate Change (UNFCCC)	Climate change adaptation	Agro-forestry Resilience in agriculture	UNEP
UN Convention to Combat Desertification (UNCCD)	Land conservation Watershed approach	Landscape management Resilience in agriculture Research/policy interface	Secretariat of the UNCCD (Bonn, Germany) UNEP
UN Convention on Biodiversity (UNCBD)	Biological diversity	Agro-biodiversity	UNEP Secretariat of the CBD
Convention concerning the Protection of the World Cultural and Natural Heritage Convention for the Safeguarding of the Intangible Cultural Heritage Convention on the Protection and Promotion of the Diversity of Cultural Expressions	Cultural landscapes Intangible heritages Cultural diversity	Local and indigenous knowledge Diets, identity-related crops Productive landscapes Scientific / indigenous and local knowledge interface	UNESCO

4.1.1. FAO

The Food and Agriculture Organization (FAO) is reshaping its strategic objectives to make agriculture, forestry and fisheries more productive and sustainable. It is adopting the sustainable

development goals, especially by linking different agricultural sectors. Resilience, inclusion, biodiversity and ecosystem services¹² have come to the forefront of its strategic objectives.

The Globally Important Agricultural Heritage Systems (GIAHS) programme is particularly relevant to GPLI. It was established under the initiative of the former Director Parviz Koohafkan (even before the adoption of the SDG), to raise international awareness about the relevance of traditional agricultural systems.¹³ It consists in a list of selected sites defined as ‘a living, evolving system of human communities in an intricate relationship with their territory, cultural or agricultural landscape or biophysical and wider social environment’.¹⁴ Among its goals and objectives it includes:

- Capacity building of local farming communities and local and national institutions to conserve and manage GIAHS, generate income and add economic value to goods and services of such systems in a sustainable fashion
- To promote enabling regulatory policies and incentive environments to support the conservation, evolutionary adaptation and viability of GIAHS¹⁵

Parviz Koohafkan is now Director of the World Agricultural Heritage Foundation, whose aim is to provide technical support for the GIAHS program, also by promoting agro-ecology and solid scientific research associated to GIAHS sites.¹⁶

4.1.2. IFAD

The International Fund for Agricultural Development (IFAD) is as an international financial institution established to address the food crises from the 1970s, hence addressing poverty and vulnerability of the farmers in developing countries. It provides loans and grants for agricultural development to developing countries, with focus on small-holding farmers. The strategy is based on intensification of agriculture, promotion of soil conservation farming techniques (‘conservation agriculture’), market integration, and policy dialogue. The IFAD policy on indigenous peoples specifically addresses relevance of traditional agricultural knowledge for biodiversity conservation and its use in combination with modern knowledge to improve livelihoods. Several IFAD supported cases of promotion of agro-ecology, agro-biodiversity and biodiversity conservation related to agriculture have been described in the IFAD review entitled *The Traditional Knowledge Advantage*.¹⁷ Both indigenous peoples and rural communities not formally recognized as such have been supported under this approach.

¹² FAO considers ‘cultural services’ a sub-category of eco-system service: “Cultural services are non-material benefits people gain from ecosystems, for e.g. aesthetic and engineering inspiration, cultural identity and spiritual well-being”. <http://www.fao.org/ecosystem-services-biodiversity/en/> (access 08/08/2017)

¹³ P. Koohafkan and Miguel A. Altieri, *Forgotten Agricultural Heritage: Reconnecting Food Systems and Sustainable Development*, Earthscan Food and Agriculture Series (2017).

¹⁴ <http://www.fao.org/giahs/background/en/> (access 08/08/2017).

¹⁵ <http://www.fao.org/giahs/background/goal-and-objectives/en/> (accessed 30/08/2017).

¹⁶ <http://www.worldagriculturalheritage.org/> (accessed 30/08/2017).

¹⁷ IFAD, *The Traditional Knowledge Advantage. Indigenous Peoples’ Knowledge in Climate Change Adaptation and Mitigation Strategies*.

4.1.3. UNESCO LINKS Program

The Local and Indigenous Knowledge Systems (LINKS) program of UNESCO specifically aims at valorizing indigenous knowledge in relation to science and policy. LINKS is one of the 4 Priority Areas of work in the Natural Sciences Sector.¹⁸ Specifically, it facilitates advocacy at international fora and promotes publications on:

- Integration of IK with science
- IK and indigenous resource management for biodiversity conservation
- Climate Change Assessment and Adaptation based on IK
- Inter-generational transmission of IK within the community

4.1.4. The GEF

The Global Environmental Facility (GEF) is a financial mechanism developed for the implementation of the United Nations Convention on Biological Diversity (UNCBD), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC) and two more environmental conventions. It is coordinated by UNDP, UNEP and other agencies.¹⁹ Under the ‘biodiversity mainstream’ approach GEF is supporting biodiversity friendly production practices outside the protected areas system, on sectors that have significant biodiversity impacts, especially agriculture and forestry. Attention is accordingly given to productive landscapes and to the livelihoods of the people that depend on those resources. GEF estimates that from the mid-1990s to 2013 it has invested more than US\$1.6 billion providing protection for more than 350 million hectares of productive landscapes and seascapes in 135 countries.²⁰

In response to the SDG number 2, 6 and 15, GEF has launched a new flagship program on food security in Africa, focusing on safeguarding the natural resources—land, water, soils, trees and genetic resources—that underpin food and nutrition security. It brings a holistic perspective on natural resources management, soil health and *in-situ* conservation of agro-biodiversity.²¹

5. GPL - Ethiopia

5.1. Ethiopia as pilot country

The GPL project is already producing three ethnographic films on the guardians of productive landscapes, and organizing a series of symposia in Ethiopia and in Germany to launch a project in Ethiopia. In connection to visual documentations some field teams have already been formed in Ethiopia and valuable agricultural landscapes have been identified.²² The experience so far made provides the model for the Ethiopian component of the GPLI.

¹⁸ <http://www.unesco.org/new/en/natural-sciences/priority-areas/links/science-policy/>

¹⁹ <https://www.thegef.org/about-us>

²⁰ <https://www.thegef.org/topics/productive-landscapes-and-seascapes> (accessed 10/10/2017).

²¹ https://www.thegef.org/sites/default/files/publications/SDG_new_boilerLR_0.pdf

²² Woldeyes, Schlee, and Strecker, "Guardians of Productive Landscapes (Gpl). Project Proposal."

5.1.1. Cultural and agro-biological diversity in Ethiopia

Ethiopia is a country characterized by an exceptionally high diversity of ecosystems and cultures. Located in a tropical area, it extends from wet highlands at an altitude of about around 2,000–2,500 m to the dry lowlands in the south, east and west of the country. It has been estimated that in the country 83 different local languages are spoken, reflected in the constitutional and administrative set-up. Such unique geographical and cultural settings produce a variety of agricultural, agro-pastoral and pastoral systems, with several endemic crops and high agro-biodiversity. Crops such as *teff* (*Eragrostis tef*) and *enset* (*E. ventricosum*) are staple food and have become markers of national identities. *Enset* is cultivated in the farmers' gardens in association with other crops and plants. Different subsystems have been identified.²³ Coffee (*Coffea arabica*) is native to the Ethiopian forests and it is likely to have been domesticated in this country²⁴. In Ethiopia coffee is still cultivated in a combination of different agro-forestry combinations, in wild as well as human-managed forests.²⁵ Coffee is the major Ethiopian export. In the lowland of the lower course of the Weitu River the small Arbore community cultivates more than 130 vernacular names of local varieties of sorghum cultivated by flood-retrieve agriculture have been identified²⁶.

Although studies on the Ethiopian agricultural systems and correlated agro-biodiversity have been implemented, the over-all potential of the country is highly under-estimated and it has not been explicitly addressed in agricultural policy. Under-representation of Ethiopia in global programmes is evident. FAO is implementing a relevant project on agro-forestry coffee cultivation and trade, but it is focused on Latin America. So far no agricultural system from Ethiopia is registered under the FAO GIAHS.

5.2. **GPL-Ethiopia**

5.2.1. Outline

In line with the GPL Initiative, GPL-Ethiopia aims to:

- identify relevant productive landscapes and the inherent communities of farmers

²³ T. Abebe, "Determinants of Crop Diversity and Composition in Enset-Coffee Agroforestry Homegardens of Southern Ethiopia," *Journal of Agriculture and Rural Development in the Tropics and Subtropics* 114, no. 1 (2013); Tesfaye Abebe, K. F. Wiersum, and F. Bongers, "Spatial and Temporal Variation in Crop Diversity in Agroforestry Homegardens of Southern Ethiopia," *Agroforestry Systems* 78, no. 3 (2010); Bizuayehu Tesfaye, "The Enset (*Ensete Ventricosum*) Gardens of Sidama: Composition, Structure and Dynamics of a Traditional Poly-Variety System," *Genetic Resources and Crop Evolution* 55, no. 8 (2008).

²⁴ P. Lashermes et al., "Molecular Characterisation and Origin of the *Coffea Arabica* L. Genome," *Molecular and General Genetics MGG* 261, no. 2 (1999); F. Anthony et al., "The Origin of Cultivated *Coffea Arabica* L. Varieties Revealed by Aflp and Ssr Markers," *Theoretical and Applied Genetics* 104, no. 5 (2002);

²⁵ Raf Aerts et al., "Semi-Forest Coffee Cultivation and the Conservation of Ethiopian Afromontane Rainforest Fragments," *Forest Ecology and Management* 261, no. 6 (2011); Jean-Pierre Labouisse et al., "Current Status of Coffee (*Coffea Arabica* L.) Genetic Resources in Ethiopia: Implications for Conservation," *Genetic Resources and Crop Evolution* 55, no. 7 (2008); Kristoffer Hylander et al., "Effects of Coffee Management on Deforestation Rates and Forest Integrity," *Conservation Biology* 27, no. 5 (2013); Christine B. Schmitt et al., "Wild Coffee Management and Plant Diversity in the Montane Rainforest of Southwestern Ethiopia," *African Journal of Ecology* 48, no. 1 (2010).

²⁶ Yukio Miyawaki, "Sorghum Cultivation and Cultivar Selection by the Arbore of Southwestern Ethiopia," *Nilo-Ethiopian Studies* 1994, no. 2 (1994).

- document them and promote small holding agriculture by adopting the agro-ecological development approach

In order to achieve the objectives, inter-sectoral agro-ecological policy needs to be promoted. In Ethiopia the Regional States apply policy adopted at Federal Level. Accordingly, GPL-Ethiopia needs to produce evidence from on-ground selected cases, for aggregation to take place under the auspices of relevant federal institution in the field of biodiversity conservation and agriculture. In order to achieve support from below the most important national components within Federal Ethiopia should be involved at local scale. Equally important is the international pressure, to be achieved by linking to a) international organizations engaged with the relevant SDG (see previous paragraph), b) to the national organizations for international development that might financially sustain the process, and c) to international research institutions.

GPL-Ethiopia will therefore take the holistic development approach, promoting agricultural development, interdisciplinary research, aggregation of research findings for policy outputs (publications, policy briefs), and influencing public opinion for marketing and decision making through documentary films. Each of these actions needs to be articulated at the proper level: the project will take shape through a number of scheduled forthcoming events.²⁷

5.2.2. The productive landscapes as project units

GPL-Ethiopia will build on relevant productive landscapes to convince decision makers at all levels about the relevance of traditional agricultural systems and small-holding farmers with their own knowledge, practices and institutions. It will therefore consist in identifying and documenting them by promoting interdisciplinary research on the farming communities and their agricultural system, while promoting agricultural development by the agro-ecological approach.

In line with the decentralized and federal governance of the country, each identified productive landscape will constitute one research and development unit within the country project. Each unit will independently build its own partnerships with national and international research institutions and will locally identify the appropriate support development organization.

By a project 'unit' it is here meant first and foremost a community of farmers, with its own culture, local knowledge, identity, world-views and farming practices. The focus is on the people rather than the agricultural system, since it is the local community of farmers that care for the landscape. However, the community will be selected because of the positive outcomes of their livelihoods practices in shaping the landscape, conserving biodiversity and assuring eco-system and cultural services. Documentation (research) will focus on their culture and productive practices, and on the elements relevant to their agricultural development and well-being.

Each project unit needs one responsible researcher, or group of researchers, or local department /research institute to closely follow up the process, with continuity in time. The responsible researcher/local institutions will provide the link with the federal and international organizations, will coordinate research and will oversee the whole local process. This includes making sure that,

²⁷ Woldeyes, Schlee, and Strecker, "Guardians of Productive Landscapes (Gpl). Project Proposal."

in their relationship with the local community of farmers, national and international researchers adopt collaborative methodologies in line with appropriate ethical standards.²⁸

Ideally, each project unit should include all components to make sure that it is self-sufficient in relation to research (research is specific to the site) and in planning and implementing agro-ecological development.

5.2.3. Federal institutions

Due to the inter-sector approach of GPLI, GPL-Ethiopia needs to be based in at least two federal institutions, one in the field of biodiversity conservation and one in agriculture. Their main role is:

- Providing technical support to the decentralized units
- Facilitate the activities of the decentralized units
- Organising federal events to aggregate data for publications, dissemination and policy
- Liaise with international actors
- Keep documentation and manage website

In biodiversity, the Ethiopian Biodiversity Institution (EBI) is already involved.²⁹ EBI is the federal institution in charge of implementing the CBD, having the official mandate to deal with genetic resources, indigenous knowledge, to establish participatory conservation mechanisms and to promote development compatible with bio-diversity conservation. It is the ideal lead organization for GPL-Ethiopia.

Synergy needs be built in the agricultural sector. The Community-Based Integrated Natural Resources Watershed Project (CBINReMP) is a government-run programme with many affinities to the GPLI. In line with the UNCCD approach, it promotes small-holders agricultural development along with community-run soil conservation measures. The programme has been supported by several international organizations. It should accordingly be possible to build on such experience.

5.2.3. National (sub-federal) institutions

Due to the federal governance of the country, national institutions should actively engage in GPL-Ethiopia.

The Oromia Forested Landscapes Programme (OFLP) was established as a pilot implementation of the Redd+³⁰ in Ethiopia, directly under the responsibility of the Oromia President's office. It

²⁸Paul Sillitoe, *Indigenous Studies and Engaged Anthropology : The Collaborative Moment* (Farnham, Surrey, UK: Routledge, 2015), Book.; Alan Bicker, Paul Sillitoe, and Johan Pottier, *Investigating Local Knowledge: New Directions, New Approaches* (Aldershot, Hants, England Burlington, VT: Ashgate, 2004). See also the ISE Code of Ethics. <http://www.ethnobiology.net/what-we-do/core-programs/ise-ethics-program/code-of-ethics/>

²⁹ Woldeyes, Schlee, and Strecker, "Guardians of Productive Landscapes (Gpl). Project Proposal."

³⁰ The 'Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries' (REDD+) approach under the UNFCCC aims to reduce emissions and enhance removals of greenhouse gases through a variety of forest management options, by providing technical and financial support to developing counties for these efforts.

takes the landscape approach.³¹ The OFLP provides a relevant institutional link to promote agro-forestry coffee plantations, with the specific objective to stop converting this traditional form of cultivation into full-sun coffee plantations.

5.2.1. International organizations

The Max Planck Institute for Social Anthropology (MPI) is running the GPL project with ethnographic film making and workshops. It will play a key role in promoting planned workshops and producing ethnographic films.³² MPI is the ideal organization to act as an umbrella organization for the forthcoming GPLI. With reference to GPL- Ethiopia key activities include:

- Film making
- Inviting, coordinating and building links with international actors, including potential donors, relevant officers from IFAD, UNESCO, FAO, UNEP, UNCCD, UNDP, key scholars, research institutions in the natural sciences, national organization for international development, organizations and experts in the field of ethical trade and international certifications
- Managing the documentation and promoting publications
- Website
- Organizing workshops for the researchers of MPI-Ethiopia on collaborative methodology and research ethics.

MPI will be supported by the Institut für Ethnologie, Georg-August-Universität Göttingen, for building inter-disciplinary synergies, for research in the humanities and ethnographic filming.

³¹ André Rodrigues de Aquino and Robert J. Griffin, "Financing Emissions Reductions in Oromia, Ethiopia," in *Towards Productive Landscapes*, ed. Jorge Chavez-Tafur and Roderick J. Zagt (Wageningen, the Netherlands: ETFRN and Tropenbos International, 2014).

³² Woldeyes, Schlee, and Strecker, "Guardians of Productive Landscapes (Gpl). Project Proposal."

References

- Abebe, T. "Determinants of Crop Diversity and Composition in Enset-Coffee Agroforestry Homegardens of Southern Ethiopia." *Journal of Agriculture and Rural Development in the Tropics and Subtropics* 114, no. 1 (2013): 29-38.
- Abebe, Tesfaye, K. F. Wiersum, and F. Bongers. "Spatial and Temporal Variation in Crop Diversity in Agroforestry Homegardens of Southern Ethiopia." *Agroforestry Systems* 78, no. 3 (March 01 2010): 309-22.
- Aerts, Raf, Kitessa Hundera, Gezahegn Berecha, Pieter Gijbels, Marieke Baeten, Maarten Van Mechelen, Martin Hermy, Bart Muys, and Olivier Honnay. "Semi-Forest Coffee Cultivation and the Conservation of Ethiopian Afromontane Rainforest Fragments." *Forest Ecology and Management* 261, no. 6 (2011/03/15/ 2011): 1034-41.
- Altieri, Miguel A. "Agroecology: The Science of Natural Resource Management for Poor Farmers in Marginal Environments." *Agriculture, Ecosystems & Environment* 93, no. 1-3 (2002): 1.
- . *Agroecology: The Science of Sustainable Agriculture*. 2nd ed. Boulder, London: Westview Press; IT Publications, 1995.
- . *Agroecology: The Scientific Basis of Alternative Agriculture*. Westview Special Studies in Agriculture Science and Policy. Boulder, Colo.: Westview Press, 1987.
- Altieri, Miguel A., and Susanna B. Hecht. *Agroecology and Small Farm Development*. Boca Raton, Fla.: CRC Press, 1990.
- Altieri, Miguel, van A. Petersen, and Fernando Funes-Monzote. "Agroecologically Efficient Agricultural Systems for Smallholder Farmers: Contributions to Food Sovereignty." Springer Verlag (Germany), 2012.
- Anthony, F., M. Combes, C. Astorga, B. Bertrand, G. Graziosi, and P. Lashermes. "The Origin of Cultivated *Coffea Arabica* L. Varieties Revealed by Aflp and Ssr Markers." *Theoretical and Applied Genetics* 104, no. 5 (April 01 2002): 894-900.
- Bicker, Alan, Paul Sillitoe, and Johan Pottier. *Investigating Local Knowledge: New Directions, New Approaches*. Aldershot, Hants, England Burlington, VT: Ashgate, 2004.
- De Schutter, Olivier. "Report Submitted by the Special Rapporteur on the Right to Food, Olivier De Schutter." United Nations General Assembly, 2010.
- FAO. *Voluntary Guidelines for Agro-Environmental Policies in Latin America and the Caribbean*. Santiago: FAO, 2016.
- Hylander, Kristoffer, Sileshi Nemomissa, Josefien Delrue, and Woldeyohannes Enkosa. "Effects of Coffee Management on Deforestation Rates and Forest Integrity." *Conservation Biology* 27, no. 5 (2013): 1031-40.
- IFAD. *The Traditional Knowledge Advantage. Indigenous Peoples' Knowledge in Climate Change Adaptation and Mitigation Strategies*. Rome: International Fund for Agricultural Development (IFAD), 2016.
- IPES-Food. "From Uniformity to Diversity: A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems. International Panel of Experts on Sustainable Food Systems." In *Report: International Panel of Experts on Sustainable Food systems*, 2016.
- Koohafkan, P., and Miguel A. Altieri. *Forgotten Agricultural Heritage: Reconnecting Food Systems and Sustainable Development*. Earthscan Food and Agriculture Series. 2017.
- Labouisse, Jean-Pierre, Bayetta Bellachew, Surendra Kotecha, and Benoît Bertrand. "Current Status of Coffee (*Coffea Arabica* L.) Genetic Resources in Ethiopia: Implications for Conservation." *Genetic Resources and Crop Evolution* 55, no. 7 (July 29 2008): 1079.
- Lashermes, P., M.-C. Combes, J. Robert, P. Trouslot, A. D'Hont, F. Anthony, and A. Charrier. "Molecular Characterisation and Origin of the *Coffea Arabica* L. Genome." *Molecular and General Genetics MGG* 261, no. 2 (March 01 1999): 259-66.
- Miyawaki, Yukio. "Sorghum Cultivation and Cultivar Selection by the Arbore of Southwestern Ethiopia." *Nilo-Ethiopian Studies* 1994, no. 2 (1994): 27-44.

- Parmentier, Stéphane. *Scaling-up Agroecological Approaches: What, Why and How*. Discussion Paper. Belgium: Oxfam-Solidarity, 2014.
- Rodrigues de Aquino, André , and Robert J. Griffin. "Financing Emissions Reductions in Oromia, Ethiopia." In *Towards Productive Landscapes*, edited by Jorge Chavez-Tafur and Roderick J. Zagt, 45-50. Wageningen, the Netherlands: ETFRN and Tropenbos International, 2014.
- Schmitt, Christine B., Feyera Senbeta, Manfred Denich, Helmut Preisinger, and Hans Juergen Boehmer. "Wild Coffee Management and Plant Diversity in the Montane Rainforest of Southwestern Ethiopia." *African Journal of Ecology* 48, no. 1 (2010): 78-86.
- Silici, Laura. *Agroecology What It Is and What It Has to Offer*. Issue Paper. edited by IIED2014.
- Sillitoe, Paul. "The Development of Indigenous Knowledge: A New Applied Anthropology." *Current Anthropology*, no. 2 (1998): 223.
- . *Indigenous Studies and Engaged Anthropology : The Collaborative Moment* [in English]. Farnham, Surrey, UK: Routledge, 2015. Book.
- Sillitoe, Paul, Alan Bicker, and Johan Pottier, eds. *Participating in Development: Approaches to Indigenous Knowledge*, Asa Monographs, vol. 34. London ; New York: Routledge, 2002.
- Sillitoe, Paul, Peter Dixon, and Julian Barr. *Indigenous Knowledge Inquiries: A Methodologies Manual for Development*. Indigenous Knowledge and Development Series. Rugby, U.K.; Dhaka: ITDG Pub. ; In association with the University Press Limited, 2005.
- Tesfaye, Bizuayehu. "The Enset (*Ensete Ventricosum*) Gardens of Sidama: Composition, Structure and Dynamics of a Traditional Poly-Variety System." *Genetic Resources and Crop Evolution* 55, no. 8 (December 01 2008): 1347-58.
- Woldeyes, Feleke , Guenther Schlee, and Ivo Strecker. "Guardians of Productive Landscapes (Gpl). Project Proposal." Halle (Saale): Max Planck Institute for Social Anthropology, 2017.