

Impact case study (REF3)

Institution: University of Huddersfield		
Unit of Assessment: UoA 17 – Business and Management Studies		
Title of case study: Enabling the Sustainable Development of Forests in SW Ethiopia Using Innovative Management and Enterprise Techniques		
Period when the underpinning research was undertaken: 2003–2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Adrian Wood	Professor of Sustainability Lecturer – Professor of Geography	1986–present
Julia Meaton Walter Mswaka	Reader in Sustainability Senior Lecturer in Management	1995–present 2012–2020
Matt Snell	Research Projects Manager	2015–present
Period when the claimed impact occurred: 2013–2020		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact</p> <p>Research by the University of Huddersfield (UoH) has contributed to developing enterprises that allow local people to draw revenue from tropical forests whilst maintaining forest integrity. The research developed a Participatory Forest Management (PFM) method that brought 151,000 ha of degrading forest under management by 61 village communities with 176,000 residents. Twelve forest micro-enterprises and seven marketing cooperatives with 879 members and serving more than 47,000 people helped improve cash incomes from forest enterprises by 25% (after inflation) between 2018 and 2020. Women were especially impacted. They comprise over 50% membership of the 12 micro-enterprises and this challenges their stereotyping. A UoH partner applied the PFM approach in a further 300,000 ha of forest in an adjoining area creating the largest block of PFM-managed forest in the country. The work contributed to the new Federal forest legislation (2018) which will impact all 115m people in the country.</p>		
<p>2. Underpinning research</p> <p>In the 1880s Ethiopia was expanding its borders against colonial incursions and it brought forests in the south under government control as a resource for the feudal administration. However, the government never had the means to properly control how the land was used, and over recent decades more than 75% of the forests have been lost through illegal logging and the encroachment of farmers. The situation was exacerbated because the local population, which relied on the forest to supplement their farming, could not do this legally, and could not invoke the law to object when local forest they relied on was destroyed.</p> <p>Global concerns in the 1970s about badly managed government forest led to the testing of different approaches involving communities. In 1990 the issue was recognised by FAO (Food and Agriculture Organisation of the UN), which recommended Community or Participatory Forest Management (CFM / PFM) as a viable mechanism for maintaining the natural environment and improving livelihoods. Fundamentally, PFM espouses the direct involvement of local communities in the on-going stewardship of the forests they use.</p> <p>Ethiopia has two large remaining forest areas. In the south-east, German development assistance began to implement a PFM scheme in the 1990s. At the same time, in the south-west, a more remote area with generally less development assistance, the University of Huddersfield (UoH) started working with local communities to make seasonal wetlands economically sustainable. The team became aware of the challenges faced by villagers who</p>		

used the forests to supplement their livelihoods and decided to investigate how to develop a PFM-based approach that was tailored to their needs.

The impact described in this case study has arisen from research carried out at Huddersfield led by Dr Adrian Wood (Professor of Sustainability, at UOH since 1986). Other researchers were Dr Julia Meaton (Reader in Sustainability, at UOH since 1995), Dr Walter Mswaka (Senior Lecturer in Management, at UOH since 2012), Matt Snell (Research Projects Manager, at UOH since 2015). From 2000 onwards, a local NGO, Ethio-Wetlands and Natural Resources Association (EWNRA), undertook, facilitated and monitored field activities as a research partner employing a field team of up to 16 staff funded by UOH.

Developing a PFM Approach: UoH research on forest management started in 2003 with the first of three EU-funded research projects (G1). A review of legal options identified the different variants of PFM applicable for the study area. The field team shared them with the communities and village-level views on the most appropriate approach were collected.

The findings revealed a desire for sustainable forest management to use community institutions at the village level, rather than at a higher, politically managed, level, which was used for PFM in SE Ethiopia. This was seen as too far removed from the realities “on the ground”. The institutional and legal options to enable this village level type of PFM were investigated and presented to Ethiopia’s Southern Region government and the communities. The approach chosen devolved forest management to the lowest level, the *got* (village), for the first time in Ethiopia. In order for the approach to be successful, the Forest Management Groups (FMGs) thus formed required legal status as branches of registered district level Forest Management Associations (FMAs) (3.1).

Applying and testing PFM: The PFM approach was rolled out (2007–20) in eight districts through seven UoH-led projects (G2-G8). The research team worked with forest communities in an action research approach that utilised iterative learning. It shared lessons and best practice between villages and introduced external knowledge to accelerate testing and adoption. Once forest management was devolved to the communities they developed management plans which were approved by the government. In order to ensure that local communities were fully engaged in managing the forests long-term, the forests needed to be economically attractive. As the communities started to proactively manage the forest and develop forest enterprises (and raised themselves out of poverty), the research formally measured the health of the managed forests against the rest (3.1, 3.2).

Supporting appropriate forest policy development: For the PFM approach to be successful there needed to be a legal basis for the communities to have clear rights to the forest and its products; this was counter to the traditional philosophy of the national government. Over five years the UoH-led project worked with the regional government to create a new forest policy (2012) that recognised community rights to natural forests and to sustainably utilise all forest products. This was the first truly participatory policy development process in Ethiopia with forest-using communities consulted by government. It provided the legal basis for communities to develop cooperatives and micro-enterprises trading in forest products, hence making forests a more competitive land use (3.3). The legal underpinning was further reinforced following work by Wood, with Lemineh (2013) (cited in 3.1) that led to the testing of Communal Land Certification (CLC) for forest areas.

Developing economic incentives and forest enterprise: With the foundations for the sustainable management of Ethiopia’s south-western forests laid, attention turned to making them economically sustainable.

Early work (pre-2014) had focused on wild coffee as an exploitable crop, but it was not appropriate in all places. New research focused on finding alternatives. Working with communities in an iterative-learning fashion UoH explored the potential of new sellable crops such as spices, honey, wild fruit and tree seeds (3.4, 3.5, 3.6). Some of these focused on

harvesting and processing by women, which added a new angle to the study. The research explored how cooperatives and micro-enterprises could be developed to maximise commercial potential, by encouraging experimentation with different forest products and monitoring the results (G7).

The studies showed 75% of households in the study area supplemented their incomes with forest products (3.5). In addition, improved product quality and better market links increased the forest's value to local communities; the greater economic returns ensured active and sustainable forest management as forest became a more competitive land use (3.1, 3.3).

3. References to the research

This research can be described as crossing the 2* threshold as it features in highly rated peer-reviewed academic journals, or has been produced to support government policy development.

3.1. Wood, A.P., Tolera, M., Snell, M., & O'Hara, P. (2019) "Community forest management (CFM) in south-west Ethiopia: Maintaining forests, biodiversity and carbon stocks to support wild coffee conservation." *Global Environmental Change*, Vol. 59, November, <https://doi.org/10.1016/j.gloenvcha.2019.101980>

3.2 Hwang, B., Wood, A.P., Snell, M., Desyalew Fantaye, Endale Belayneh & Bizuneh Mekuria (2020) *Monitoring Wild Coffee Using Ground Survey and Satellite Observation in Community-Managed Forest in Sheko, South-West Ethiopia*. *Sustainability*, 12(22), 9409; [doi:10.3390/su12229409](https://doi.org/10.3390/su12229409)

3.3. Sutcliffe, J.P., Wood, A.P. and Meaton, J. (2012) Competitive forests – making forests sustainable in south-west Ethiopia, *International Journal of Sustainable Development and World Ecology*, 19:6, 471–481 doi:[10.1080/13504509.2012.740510](https://doi.org/10.1080/13504509.2012.740510)

3.4 Lowere, J., Meaton, J. & Wood, A.P. (2020) "Assessing Value Chain Interventions in Zambian and Ethiopian Forest Beekeeping Systems". *Business Strategy and Development*. <https://doi.org/10.1002/bsd2.136>

3.5. Meaton, J., Abebe, B. and Wood, A.P. (2015) "Forest spice development – the use of value chain analysis to identify opportunities for sustainable development of Ethiopian cardamom (*Korerima*)", *Journal of Sustainable Development*, 23, 1-15 <https://doi.org/10.1002/sd.1563>

3.6. Lowore, J., Meaton, J. and Wood, A. (2018) "African forest honey: an overlooked NTFP with potential to support livelihoods and forests" *Environmental Management*, 62: 15-28. doi:[10.1007/s00267-018-1015-8](https://doi.org/10.1007/s00267-018-1015-8)

Research Grants

G1/2/3 European Union, 2003–07, 2007–15 and 2010–16, Total funding of £4.817m.

G4 Christensen Foundation, USA. 2016-17, £37.5k

G5 Waterloo Foundation, UK, 2016-2019, £150k

G6/7 Darwin Initiative, UK Government, 2012-15, £246.5k; 2018-2021, £347.4k

G8 University of Huddersfield Business School, £540k, QR GCRF £148k

4. Details of the impact

UoH research has paved the way for forest-communities in south-west Ethiopia to manage forests in an economically sustainable way working with local communities to develop successful commercial enterprises and implement participatory forest management (PFM) as well as by influencing policy and applying the legal changes. Beneficiaries included families living in and near the forests, local and national government, and the environment.

The impacts can be summarised under three headings: Developing forest business and livelihoods; Implementing PFM; and Influencing forest policy.

Developing forest business and livelihoods

Enterprises: UoH action research (3.5, 3.6) transformed the local business landscape by providing new opportunities to supplement incomes. Building on the four entrepreneur-led forest product cooperatives developed before 2014, an additional three have been established (2014–20), with total coop membership growing to 733 (5.1, 5.2). These link to 12 new micro-enterprises, which trade in honey, spices and forest fruits. They are spatially located to increase accessibility for communities (spread across thousands of hectares of sparsely populated terrain), have 146 members and are predominantly women-led (5.1, 5.2).

Value chains: The research into value chains (3.4, 3.5) demonstrated the importance of improved national and international trade links. As a result, the cooperatives and micro-enterprises forged relationships with traders from Addis Ababa and through them to European buyers in the fair-trade market such as Original Foods (Germany) and Body Shop (UK). These enabled forest-fringe communities to access national and international markets, which encouraged production of better-quality products that obtained higher prices (5.3). More than 47,082 people have benefited from this work in the area covered by post 2014 activities (5.1, 5.2, 5.4), while several times this number have benefited indirectly.

Gender: The involvement of women has increased, especially through the micro-enterprises and the collection of forest fruits and tree seeds for making jam and cosmetics for an international company, Ecopia. Women now account for nearly 20% of coop membership and 56% of micro-enterprise members (5.1, 5.2). This major change in female engagement has improved women's economic independence (5.4).

Forest products: Forest coffee from south-west Ethiopia used to fetch low prices; it now achieves better grades and prices – mostly 50% higher than before 2014. The volumes exported from the area in 2018/19 were 425 tons with a value of ETB 3.274m (USD 100k) an increase of more than 33x by volume and 70x in value over 2015/16 (5.3). Organic honey is used in over 240 products (3.6). UoH research has helped village enterprises develop links with national-level traders, and with improved quality these products are now exported to Europe (5.3).

Livelihood impacts: The trade initiatives led to major improvements to the livelihoods of the local communities, which is important for motivating forest protection (3.3). Survey data from the independent impact assessment study in showed that from 2018 to 2020 the proportion of family cash income obtained through trade in forest products has increased by 8 to 46%, while the cash income has grown by 25% after inflation (5.4). Ethiopian partner EWNRA came into forest management through the three EU project grants (G1,2,3). It started in 2000 with two staff, had 70 in 2014 and now employs over 180. It has impacted 500,000 people and had a turnover of over \$3m in 2020, with half generated by forest projects (5.5).

Implementing PFM

Forest Management Groups: 61 community-level Forest Management Groups (FMGs), with 7,847 members (5.1, 5.2, 5.4) have been established as a result of UoH work in the Ethiopian Southern Region (SR) since 2014 and now manage 151,000 ha of forest (5.1, 5.6). Regional government supported the expansion, but local officials were often unaware of the 2012 regional Forest Policy. In response, UoH was asked by the regional government to organise training (2018) for its zonal and district teams (senior officials from justice, police, government and community representatives) to raise their awareness. As a result, the legislation was established as the norm for forest management by both government and communities in SR. It has led to enhanced government support for the Forest Management Groups (FMGs), improved forest protection and reduced forest encroachment (5.7, 5.8).

Area covered by PFM forest: The PFM approach developed by UoH has proved compelling. Since 2014, 151,000 ha of forest (the area of Greater London) have been brought under PFM in four districts in Bench-Sheko Zone (5.6). Prior to 2014, 100,000 ha were already under PFM in adjoining areas (a result of previous UoH/EWNRA projects (2003–2013) (5.1)). Additional areas are managed in this way by EWNRA alone in neighbouring regions) (5.5) This makes a total of 450,000 ha of forest under this PFM approach. The area is reported by EWNRA to be “close to half the area of high forest in the country” (5.5).

Independent monitoring of forest loss in one of the four districts with PFM applied by UoH (2010–16), showed that areas with PFM had reduced forest clearance (< 0.2% per annum), compared to 2.6% in non-PFM areas (3.1, 5.9). The better conserved forests retain more non-timber forest products (NTFP), which are vital for commerce, support the Climate Resilient Green Economy (an initiative by the federal government of Ethiopia) and increase the likelihood of UN-related carbon offset payments being made (3.1, 3.3, 5.4, 5.7).

Communal Land Certification (CLC): CLC (3.1) has been applied since 2016 on 67,000ha in three of the four districts in the project area. According to one national expert and government adviser in sustainable forestry, “the area of CLC forest your work has created is the largest in the country and the experience should be shared with government and other(s) across the country” (5.4). This strengthens the legal claim to forest land and the forest-based livelihoods of 30,000 people.

Influencing forest policy

In 2014 a new Ethiopian Federal Ministry (now Commission) of Environment, Forests and Climate Change was created. UoH ran an awareness workshop for its advisers and senior technicians on the devolved approach to PFM (5.8), which also covered the process used in the 2012 regional forest policy. An expert in sustainable forestry said it “provided evidence of successful PFM which was an input into the discussions leading to the 2018 Federal Forest Policy, the first federal confirmation of PFM” (5.4). Given the importance of forest products, the 2012 regional legislation impacts “maybe around 500,000 people” in Southern Region, while “all the 115m in Ethiopia ... will be positively impacted by these new (2018 Federal and 2012 Southern Region) forest policies.” (5.4/5.9). The Zonal government overseeing the project area, commented on “how the forest conditions are improving with this system ... (and how) illegal encroachers have been reported ... (and) this ...is helping reduce illegal deforestation” (5.6).

Commenting on EU-funded (£4.6m) projects (G1,2,3), a senior EU official stated that as a result of the application of PFM, formerly ineffective state conservation has been replaced by “active management and protection of the natural forest by communities”. He added “this applied research...was innovative in many ways and helped test on the ground ... (for) new ways to sustainably manage Ethiopia’s remaining forest” (5.10). These innovations have been disseminated in several ways, including the website: research.hud.ac.uk/institutes-centres/surge/src/forestsandwetlands/forests/.

5. Sources to corroborate the impact

- 5.1. **Data summary table** of aggregate impact of research findings evidenced in 5.2 – 5.10
 - 5.2. **Begashaw Kassa Bekele**, Head, Coop Development Office, Bench Sheko Zone. (*populations, locations, Micro Enterprises and Cooperatives, members by gender, & products*)
 - 5.3. **Alemayehu Ayebra Zostiet**, Manager, Bench-Maji Coffee Farmers Cooperative Union (Details of trade in coffee, honey and spices supported by UOH research.)
 - 5.4. **Dr Mulugeta Lemineh**, Country Representative for UNIQUE Land Use & Forestry (German company) and periodic Adviser to Ministry of Environment, Forests and Climate Change. (*Project’s economic and policy impacts, including Communal Land Certification.*)
 - 5.5. **Afewerk Hailu**, Executive Director, Ethio-Wetlands and Natural Resources Association. (*Extent of the CFM work and growth of EWNRA NGO through forest work with UoH.*)
 - 5.6. **Wubitu Gemta Yatskoms**, Head, Environment Protection, Forest Climate Change Office, Bench Sheko Zone. (*Project impacts on forest protection & govt collaboration.*)
 - 5.7. **Sultan Zoit Dekagus**, Gurafarda Woreda, Attorney Office, Bench Sheko Zone. (*Prosecuting illegal settlers, development of Communal Land Certificates - CLCs.*)
 - 5.8. **Yemer Muhe**, Sheko Woreda, Participatory Forest Management Association. (Translated by Kassahun Adelo, Ethio Wetlands & Natural Resource Association) (*Community conservation of wild coffee and engagement in natural forest management & enterprises.*)
 - 5.9. **Peter O’Hara**, Director, Sustainable Natural Resource Management, (*Influence on Federal Forest Policy through Roundtable Experience Sharing Workshop on PFM.*)
 - 5.10. **Dr Friedrich Mahler**, former Rural Development Adviser at European Union Delegation to Ethiopia. (Forest management changes and their impacts from UOH work.)
- NOTE:** 5.2 and 5.6 are dated using Ethiopian calendar. 2012 = 2020 in Western calendar.