The Potential in Participation:

A Viability Assessment of the Southern Shan State Region Market Oriented Community Forestry Development Project



(Source: Swe, 2015)

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Introduction

Institute for International Development

The Institute for International Development (IID) is a rural development consultancy working in locations occupied by some of the most economically, and environmentally vulnerable communities in the world. The consultancy was formed in 1993 by a group of development professionals with a common historical involvement in rural development and a shared inter-disciplinary approach to social and economic change in rural areas. (IID1, 2015)

In practice, the IID promote sustainable development "based on innovative and participatory approaches" (IID1, 2015). In addition the IID are also associated with research and development projects, further reflecting the values of sustainable development through its own development fund and areas of technical research.

The IID are currently developing a project proposal entitled "The Southern Shan State Region Market Oriented Community Forestry Development Project". Myanmar is the target nation for the proposed project, with site specific details discussed in later sections.

Briefly summarised the IID project is aimed towards achieving four main outcomes:

- 1. Promoting increased sustainability through better forestry management practices.
- 2. Involving forest and forest fringe communities in the planning and implementation of forestry management.
- 3. Securing conditional community land tenure, based on forestry agreements as a means of fostering stewardship and an economic diversification of local incomes.
- 4. Contributing to global carbon emission mitigation, and adaptation objectives of existing global initiatives, through a pursuit of complementary objectives, and using possible carbon sales to offset some of the project costs.

The IID have committed to designing a project that incorporates conservation objectives through stewardship and economic diversification, while aiming to significantly improve the livelihoods of forest fringe communities. Among many donors and other development agencies, the IID are willing and prepared to make their own positive contribution towards global objectives of sustainable development. They are now seeking to obtain funding towards this project from the Global Environmental Facility (GEF).

Report aims

This report aims to function as a viability assessment, informed by available academic, and other, forms of literature surrounding the relevant discourse. The intention is that the outcome of this research will contribute to strengthening the IID's bid to gain funding towards their project.

This report aims to:

- Distinguish complementary objectives between the IID, the UN-REDD+ initiative and the GEF (Refer to methodology)
- Identify criticisms of existing approaches in related projects
- Analyse 'Community Forestry', as a potential approach to benefit forest management and livelihood outcomes for project site forest communities
- Determine based on specified aims and research whether the IID's proposed project presents a viable investment opportunity for the GEF

Section one Land management and climate change

1.1 A brief introduction

All land and soils contribute to "globally relevant ecosystems", with soils providing the "largest terrestrial carbon store" (Chabay et al., 2015 p.xix). However, poor management practices which decrease land and soil health, are becoming increasingly detrimental to the terrestrial capacity to process and sequester carbon.

Detrimental management practices are in fact contributing to climate change through increased emissions, coming from increased land clearing and growing masses of dead and decomposing vegetation (UNCCD, 2015 p.7). A significant portion of this negative contribution to climate change is attributed to currently unsustainable global deforestation rates, estimated by the World Wildlife Fund (WWF) (2015) to be at 46-58 thousand square miles of forest lost each year. Deforestation itself is present in many forms, including fire, industrial development, logging enterprises, and clear cutting carried out to establish agricultural land.

A United Nations Convention to Combat Desertification (UNCCD, 2015 p.6) publication, reports "agriculture is estimated to be the proximate driver for approximately 80% of deforestation worldwide ... resulting in a dramatic loss of water, carbon and other regulating services". In Myanmar a significant portion of land degradation occurs in forest fringe areas as part of, or following timber extraction as communities move in. Deforestation and other forms of ecosystem conversion related to agriculture, are expected to continue as demand for food, water and energy increases over the coming decades. The implications of poor management call for more immediate action towards fostering more sustainable management practices, and employing them as tools for carbon management.

The planning and implementation of more sustainable management practices could hold restorative potential; including the potential to increase local environmental stability, safeguard biodiversity and increase lands' carbon sequestration capacity. Forest areas could begin to be rehabilitated and some degraded land stabilised by a conversion to agroforestry. They could also have more immediate, and tangible benefits for vulnerable communities living amongst degraded forest areas, including increased food and water security, and increased long-term resilience and adaptive capacity (UNCCD, 2015 p.4).

Policies moving towards a more sustainable management focus could begin to link land management, rehabilitation and restoration, to human resilience and our communal ability to adapt to, and mitigate, climate change. Ideally, such a direction could begin to transform policy planning to incorporate sustainable management principles across a number of sectors, in recognition of the far reaching developmental benefits which could become available through more comprehensive forest planning and management strategies.

Section Two Contextual Findings

In order to provide a context for the findings of this report, a short summary of major initiatives and actors is here presented, outlining the roles of:

- The Republic of the Union of Myanmar
- The UN-REDD+ initiative
- The Global Environmental Fund
- The World Bank Climate Finance fund(s) and associated financiers including the private sector
 And
- Sustainable Development, a stated aim of all of the above actors

2.1 The Republic of the Union of Myanmar Introduction

Myanmar is a nation experiencing a multi layered transition period. Having been ruled by successive military regimes from 1962 to 2011, it now faces an uneasy transition from 60 years of conflict, towards peace within its border areas, and from an authoritarian military system to democratic governance (DFAT, 2015). Adding further tension during this period, is the additional transition from its previously centrally directed economy towards a market oriented economy (WB3, 2015).

Geographically Myanmar holds a strategic location, sharing borders with 40% of the world's population, residing in China, India, Thailand, Bangladesh and Laos (DFAT, 2015). In addition the nation boasts an extensive eastern seaboard adding to opportunities for regional connectivity and increasing the means of trade.

A prevalence of poverty

Myanmar is currently ranked 150 out of 187 countries on the Human Development Index (UNDP, 2015). A 2009/10 Integrated Household Living Conditions Assessment, found that 26%, or 13.3 million people, of the estimated 51.4 million population were living below the poverty line (WB, 2014 p.12). Further analysis by the World Bank accounting for consumption of non-food items and spatial price differentials found that the actual figure could be closer to 37.5% living below the poverty line (WB, 2014 p.12). The latter percentage comprises of 19.3 million people.

Levels of poverty vary throughout the nation, however levels are consistently highest in rural areas where 70% of Myanmar's population lives. Rates are particularly high among ethnic groups living near border areas emerging from long periods of conflict (UNDP, 2015).

According to Gravers and Ytzen (2014 p.376), the cause of the nation's rampant poverty is "simply, and surely unarguably, the chronic mismanagement of the military regimes that ruled Burma for over fifty years". Recent economic reforms initiated by the current government have been targeted towards increasing the fortunes of the nation. However, reforms face not only the difficult task turning the country's economy around, but doing so without some of the fundamental established institutions critical to the accountable functioning of a market economy (Gravers and Ytzen, 2014 p. 376).

Forestry industry analysis

On March 10, 2014, official figures from Myanmar's Ministry of Environmental Conservation and Forestry were published by Myanmar's Eleven Media group. The figures detailed the country's timber harvesting and export volumes since 1995.

It is a requirement by law that all log exports from Myanmar must be exported by the government body, Myanmar Timber Enterprise (MTE). However according to an Environmental Investigation Agency (EIA) (2014 p.2) analysis, the official export data released comprised of a mere 28% of the globally traded logs from Myanmar. This figure was quantified and verified by referencing Myanmar's global log trade partners' import data. As reported by the EIA, "Myanmar's log trade partners reported a combined 22.8 million m³ of log imports from Myanmar – a massive 16.4 million m³ more than the 6.4 million m³ Myanmar's official statistics claim were exported" (EIA, 2014 p.2). According to these findings, a huge 72% of global trade in Myanmar logs was not recorded as being officially authorised in the Government statistics. The EIA (2014 p.2) assert that "such a gap is indicative of widespread criminality and corruption in Myanmar's timber sector".

Myanmar's Government had claimed that much of this discrepancy could be accounted for by illegal logging and smuggling occurring in areas controlled by ethnic groups. This argument assumed that excluding this source would render illegality to negligible levels, as all other log trade is monitored and regulated by the MTE. EIA analysis began compensating for discrepancies by excluding data where trade was alleged to be controlled by armed ethnic groups. They found that even while excluding overland trafficking via ethnic group controlled regions, Myanmar's export data still only accounted for a mere 38% of the log import figures recorded by China alone (EIA, 2014 p.2). As stated by the EIA "this reveals chronic levels of unlicensed logging and timber smuggling throughout Myanmar – a problem which is by no means confined to ethnic areas, as the Government claims" (EIA, 2014 p.3). The detrimental consequences for Myanmar's forest reserves have been striking.

In the early 20th century forest cover had been estimated at 65% of Myanmar's 67.5 million hectare land area, however by 2011 it had dropped to around 48% (Tint et al., 2011 p.vii). According to conservative estimates from the United Nation's Food and Agriculture Organisation (FAO), "Myanmar lost 1.15m acres, or 1.2% of its total forest cover, per year between 1990 and 2012", which amounts to a total loss of nearly 20% of its total forest cover over just that period, or about 18.4 million acres of forest in 22 years (Woods, 2015 p.3). Tint et al. (2011, p.vii) note that the consequences of the rampant logging have been "particularly dramatic for dense forests, which have more than halved in just the last twenty years, from covering 45.6% of land in 1990, the single largest land use," to just 19.9% in 2011.

Unprocessed export ban

On April 1st 2014, Myanmar enacted a timber export ban in order to stop the unsustainable flow of unprocessed logs from its borders. The ban came largely in recognition of the detrimental effects which raw timber exports have had on the ability of the timber processing industry to manufacture finished products, and create local jobs.

Myanmar wants to institute policies to implement more sustainable forestry management. They desire a more sustainable future, directed towards both development and conservation. However such ambitious objectives call for increased governmental

accountability, and consideration of the needs of industry, society and environment as one. These are requisites if Myanmar is to reach the level of stability necessary to achieve economic growth, increase social well-being, and foster steady conservation of forests.

As part of their pursuit toward these objectives Myanmar became a partner country of the UN-REDD+ Programme in December 2011 recognising "the potential of the REDD+ initiative to contribute to green development by protecting global environmental resources, helping to reverse land degradation, and helping to improve the livelihoods of the rural poor" (UNRP1, 2013 p.5).

2.2 **REDD+**

REDD+ stands for "Reducing emissions from Deforestation and Forest Degradation" (UNRP2, 2015). As stated by the UN-REDD+ Programme, the initiative is "an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development" (UNRP2, 2015).

In pursuit of their objectives REDD+ projects aim to increase carbon stocks in vulnerable forested areas by facilitating decreased deforestation and degradation rates. Success would ideally result an increase in the global capacity for "forest regeneration and rehabilitation, carbon uptake and carbon removal from the atmosphere" (Baruah et al., 2011 p. 101).

Given the proposed increased capacity to offset emissions, REDD+ is poised to potentially offer developed nations a means of meeting emission reduction targets. Developed nations could invest in carbon credit offset units which would be created in developing nations, where forested areas are conserved through REDD+ policy implementation.

By increasing the inherent value of standing forests, REDD+ projects would also affect the value of the environmental services they provide. As listed by REDD+ proponent The REDD Desk (TRD1, 2015), these services include:

- Health inputs through sources of nutrition and disease regulation
- Livelihood stability providing jobs and employment
- Water watershed protection, water flow regulation, rainfall generation
- Food production
- Nutrient cycling and climate security

The listed environmental services operate at a global scale, we are reliant on them, and it is therefore in our collective interests to ensure these services are maintained into the future. Globally however, these services have remained undervalued for far too long. They have posed "no competition for the more immediate gains delivered from converting forests into commodities" (TRD1, 2015). This has created a prevalence of detrimental logging rates especially across developing countries. The REDD+ initiative attempts to address this situation by incorporating the specified market based incentives to create competition.

2.3 The Global Environmental Facility

Established in 1991, the Global Environmental Facility (GEF) started as a World Bank pilot funding program (GEF1, 2015). The GEF supports projects working towards protecting the global environment, and promotes the incorporation of environmental sustainable development (GEF1, 2015). By providing "new and additional grants and concessional funding" the GEF assist organisations in covering the additional costs associated with "transforming a project with national benefits into one with global environmental benefits" (GEF1, 2015).

Collectively funding to and from the GEF support actions which are based on "national priorities designed to support sustainable development" (GEF2, 2015 p.38), and combat major environmental issues. Major environmental issues can include a diverse range of threats including, "Climate change, loss of biodiversity, polluted international waters, land degradation, desertification and persistent organic pollutants" (WB2, 2013).

As previously stated, REDD+ exists to "reduce emissions from deforestation and forest degradation" (UNRP2, 2015). These objectives are considered complimentary to the ends to which GEF mean to achieve. As a result GEF wishes to provide additional investment to selected complimentary projects to cover the incremental costs of attaining further environmental benefits.

The intelligent use of the additional provision of investment has the potential to enhance project outcomes, and there are many organisations that are confident that they can attain these far reaching benefits if they can gain funding.

2.4 Sustainable Development

Sustainable development, as defined in the Brundtland report (UN1, 1987, p. 41) produced by the World Commission on Environment and Development, is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Figure 4.1. below depicts an illustrative model of the sustainability development concept.

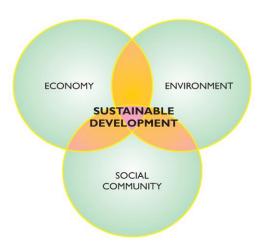


Fig. 4.1. Sustainable Development Model (source: SDN, 2014)

This concept incorporates current social and economic needs, while also considering the impositions they place on our natural environment's ability to meet present and future needs (UN1, 1987, p. 41).

Sustainable development represents a modern direction for policy creation, demanding a collaboration between the spheres of environment, social community, and economy. In the realm of international development these spheres of policy creation can no longer be considered in isolation.

This inter-disciplinary, and inter-sphere approach increases the collaborative possibilities within international development. In addition, it facilitates the creation and enactment of complementary objectives, decreasing chances of failure by promoting collaborative planning and execution of global initiatives.

Presented as a model (See Fig.4.2) the concept of sustainable development allows for an illustration of how the objectives detailed to this point can complement each other in a coherent and comprehensive approach. The model encapsulates the aims of the IID's proposal, purposely identifying and drawing on the collaborative potential of international efforts to create more sustainable, beneficial outcomes throughout the project site and beyond.

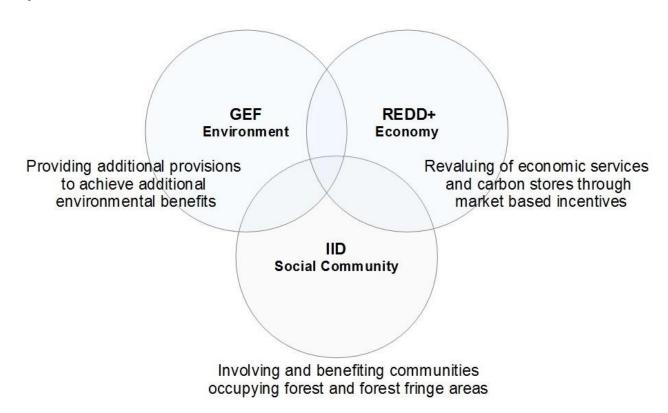


Fig.4.2. Collaborative Sustainable Development Model

Section Three Critical Case Studies

3.1 Case study criticisms

The benefits attributed to the UN-REDD+ initiative are perceived to be abundant by its proposers. Its ambitious objectives are aspired to by many developed and developing nations. This is demonstrated by the global support the initiative has received, with 64 nations now involved in different stages of REDD+ planning and implementation (UNRP3, 2015). However sceptical opposition has also presented itself on a global scale, as concerns have arisen over varied facets of REDD+ implementation and structural integrity.

This section exhibits two case studies expressing criticism over REDD+ initiatives, and one case demonstrating the vulnerability of marginalised communities in the absence of secure land tenure and use rights.

The first case follows the results of an Oxfam investigation into evictions of rural communities in Uganda between 2005 and 2010. The evictions are indicated to have occurred following the issuing of plantation licenses over inhabited lands, to a foreign forestry company.

'Illegal encroachers'

In 2004 a London based organisation named the New Forests Company (NFC) was formed with an ambition of becoming East Africa's biggest forester (Geary and Grainger, 2011 p.2).

The following year the Ugandan National Forestry Authority (NFA) granted NFC licences over a number of plantation areas and began procedures aimed at removing 'illegal encroachers' who were residing on the land. According to conservative Oxfam estimates (Geary and Grainger, 2011 p.2-3), the number of evictees between 2005 and 2010 was in the region of 22,500 people.

The report stated that "Today, the people evicted from the land are desperate, having been driven into poverty and landlessness. In some instances they say they were subjected to violence and their property, crops, and livestock destroyed. They say they were not properly consulted, have been offered no adequate compensation, and have received no alternative land." (Geary and Grainger, 2011 p.3)

Lokuda Losil, 60 years old, provided eye witness accounts to Oxfam after his eviction, he stated: "My land was taken by the New Forests Company. People from New Forests came with other security forces and started destroying crops and demolishing houses and they ordered us to leave ... They beat people up, especially those who could not run. We ran in a group, my children, my grandchildren, my wife and me. It was such a painful time because the eviction was so forceful and violent" (Geary and Grainger, 2011 p.5-6).

NFC have argued that they relied on an "extensive and exhaustive government-driven authentication process" (Geary and Grainger, 2011 p.3), which it says confirmed that only 31 families on specified reserves had legal rights to remain on the land. Therefore, the NFC asserts that it was respecting the rights of the families who had legal standing, and regarding others as 'illegal encroachers' who did not have claim to the land or to compensation for their loss of it.

This is one of many similar stories around the world referring to land grabs, often in developing countries and often displacing already marginalised populations. In terms of the REDD+ initiative, concern has arisen that by increasing the economic value of standing forests, REDD+ could catalyse further evictions (Cabello & Gilbertson, 2012 p.127). Forested land could potentially be considered more valuable where there is no possible risk of instability presented by communities occupying the land. This is unless, roles in management are reconsidered and communities are involved rather than excluded from local management plans.

This case demonstrates the importance of obtaining secure and enforced land tenure rights for rural communities. Such rights are vital to the protection of locals' right to occupy and use the land on which they live and which their livelihoods rely on.

3.2 "Conflict Contradictions and Lies"

The following two cases studies are taken from a document published by the World Rainforest Movement (WRM). The document was intended as a compilation of 24 REDD+ project summaries sharing a common characteristic: "They all show a number of structural characteristics that undermine forest peoples' rights, or fail to address deforestation." (Kill, 2015 p. 5)

The following cases have been chosen specifically from this collection as they demonstrate recurring concerns within the REDD+ initiative discourse.

Kariba REDD+ Project, Northern Zimbabwe

The Kariba REDD+ project is backed by Carbon Green Investments Guernsey with additional partners Black Crystal Consulting and Environment Africa.

According to the project documents, it aims to "tackle main drivers of deforestation, including tobacco cultivation, through providing access to technology and investment in rural subsistence farming" (Kill, 2015 p.38). The project aims to "promote the use of alternative high-value crops such as garlic and chilli, reducing the demand for wood used in the tobacco curing process" (Kill, 2015 p.38). In addition the project outlined aims to "pioneer a bee keeping project activity with communities" (Kill, 2015 p.39), the objective being that the project could serve as a reference for other locations in the area.

It was envisioned that locals would be compensated for any perceived reduced benefits from not using forest resources, by the improved effectiveness of agricultural practices on smaller plots. This increased production approach demonstrated ambitions for the project to eventually become self-sufficient.

Local newspaper, The Herald (Gogo, 2014) stated that since 2009, the project has provided USD 750,000 to fund various community ventures including "beekeeping and conservation farming (and) also repairs to public infrastructure". However, locals have expressed discontent with the outcomes of the project.

A local representative councillor made claims of his constituents not receiving, or having seen "anything really tangible, financially or otherwise" (Kill, 2015 p.39). In other circumstances it was reported that farmers had asked for supplies to construct fences, but had only received seed and chemical fertiliser. It was actually within the farmers' capacity

to afford the seed themselves, however they responded that "without the fence the other option is to cut down trees to construct a barrier "(Kill, 2015 p.39). The councillor added that out of 1800 households, or 4000 people, in the area "only 20 farmers have benefited" from the project (Kill, 2015 p.39).

This study points to either a lack of understanding of the project's initial implementation outline and method, or a simply a lack of delivery on the training and resources, which could have been used to entice local communities to participate. A large part of the participatory approach described in the outline of this project, may have created problems of access for participating communities. As outlined in the project design document (Silber & Von Laer, 2012 p.39) stakeholders were identified and invited only two weeks prior to consultation meetings meant as forums for obtaining locals' viewpoints about the project. In addition a single hard copy of the project design document was made available to each participating rural district council office for communal consideration (Silber & Von Laer, 2012 p.39).

Potentially having under-delivered in regards to these participatory and practical project components, the project is still seeking buyers for the carbon units it has projected it will produce.

N'hambita Community Carbon Project, Mozambique

In 2002 the N'hambita Community Carbon Project was started by Envirotrade. The project received a 1.5 million euro grant from the European Commission, a further 2.1 million US dollars invested by Envirotrade themselves, and 1.3 million US dollars raised from selling carbon credits (Kill, 2015 p.31).

The project aimed to conserve a community owned forest, while introducing agroforestry, improving crop yields and establishing community enterprises. Its objectives also included demonstrating the effectiveness of forest carbon trading schemes (Kill, 2015 p.31). Local people were contracted to plant and care for trees on their land, and communities were tasked with protecting and patrolling a 10, 000 ha forest area.

In 2012 an article by international peasant movement, La Via Campesina, began highlighting a number of problems associated with the project. Firstly, "Villagers in N'hambita are in effect paid for seven years to plant and conserve trees, but sign a contract to do so for 99 years"(Kill, 2015 p.31). In addition a clause within their contract specifically stated "it is the farmer's obligation to continue to care for the plants which they own, even after the seven year period covered by this contract" (Kill, 2015 p.31). A spokesman for Envirotrade added "If a farmer passes away during the contract period, the contract, all the rights contained therein but also all the obligations, are transferred to their legitimate/legal heirs" (Kill, 2015 p.31).

In addition to these contractual obligations, payments to farmers were contingent on an 85% rate of seedling surviving. As a result many farmers had to stop farming in order to tend to tree seedlings, this made food security difficult also as other crops were abandoned, and still some farmers did not receive payment for caring for plantations for up to four years. Compounding these complications, La Via Campesina also found while examining a farmer's contract, that he would only be paid USD 128 over seven years for planting trees in an area of 0.22 ha (Kill, 2015 p.31).

Each of these considerations amount to a great strain on prospects of sustaining local livelihoods or conserving natural resources. In addition and perhaps most controversially, Envirotrade sells 'the 99 years' worth of carbon credits up front, in some cases even before the trees are planted.

This case demonstrates what many would consider exploitation of local labour in pursuit of greater, and more cost effective means of producing and caring for carbon unit stability. It shows a disregard or incomplete understanding of the labour inputs necessary for locals to contribute to global conservation efforts, and retain food and economic security. In summation, it does not allow for diversification of local livelihoods, instead seemingly pressuring communities to re-prioritise their labour inputs based first on contractual agreements and next on personal needs.

3.3 Redressing imbalances

As a viability analysis, a variety of criticisms must be considered as they present an established opposition to carbon sequestration projects which any proposed project should be aiming to overcome.

Briefly summarised, there are three major concerns arising from the case studies:

- 1. Increasing the value of standing forests, including value derived from stored carbon or ecosystem services, in circumstances where land occupants do not have secure tenure rights can catalyse mass evictions (Cabello & Gilbertson, 2012 p.127).
- 2. Projects lacking participatory preparation can lead to a misleading communication of locals' benefits and obligations.
- 3. Projects solely prioritising cost effective means of producing commodities, can undermine local labour inputs, and quickly become exploitative.

In circumstances where these concerns materialise there is little or no opportunity for local communities to benefit from conservation, or development initiatives.

Encompassing each of these concerns, Chabay et al. (2016 p.xx) ask:

"How can we ensure that landless people, who tend to be among the poorest, benefit from land and soil restoration activities?"

Chabay et al. (2016 p.xx), posit that finding viable answers to such a question depends on expanding decision-making processes toward more inclusive and participatory approaches. This position holds that in order to be successful, land and soil restoration activities need to empower those who "are not used to, or are often prohibited from, voicing their opinion and concerns in public" (Chabay et al., 2016 p.xx). Deliberate measures must be implemented in order to empower, and bring these voices forward.

More inclusive and participatory approaches can also bring forward greater opportunities for multidisciplinary inputs, which can in turn enable a greater development of understanding over management problems at hand. The opportunity is for a cohesive and co-developed approach to better suite local resource management efforts, significantly increasing benefits available to local communities through increased adaptive capacity, and diversified livelihood support networks.

In addressing these concerns within the scope of their proposal, the IID propose increased incorporation of forest and forest fringe communities, in forestry management decision making processes. Their approach envisions a greater role for local communities, backed by Myanmar's Forestry Department (FD), in planning and managing forest resources.

Section Four Findings

4.1 Community Forestry

The economic, social and environmental consequences of poor forestry management have posed a critical challenge to societies of developing and developed nations alike. The collaborative forestry management notion promoted by the IID begins to acknowledge the potential strength of forest communities in contributing to national, and global, forestry management solutions. Nepal has previously presented a case in point exhibiting such acknowledgement in practice.

When the Nepalese Government initially began preparing management plans for forested lands they were ineffective, because local people who were using the forests were not involved in the planning process. Viewed as a threat to the forests, local people were often deprived of access to the natural basis of their livelihoods (Gautam & Roberts, 2003 p. 5). This exclusion culminated in a resentment which demolished any sentiments of forest stewardship, which itself led to "over exploitation of forest resources both by the government and local people" (Gautam & Roberts, 2003 p. 5).

In the early 1980s, the Nepalese government began to realise the role and value of the local communities in sustainable forest management (Gautam & Roberts, 2003 p. 5). They came to understand the potential of community forestry and began utilising it as part of a more holistic national forest management system (Gautam & Roberts, 2003 p. 5).

Defined by the Food and Agriculture Organisation of the United Nations (FAO1, 2015), Community forestry (CF) is; "any situation which intimately involves local people in a forestry activity. It embraces a spectrum of situations ranging from woodlots in areas which are short of wood and other forest products for local needs, through to the growing of trees at the farm level to provide cash crops and the processing of forest products at the household, artisan or small industry level to generate income, to the activities of forest dwelling communities".

The use of CF in Nepal was intended as an attempt to "improve the socioeconomic conditions of rural communities and halt environmental degradation (Gautam & Roberts, 2003 p. 5). It involved transfer of management rights to selected forests, from the government to local people. As such, CF in Nepal has presented a significant opportunity for local communities to manage and utilise the forests in ways specific to the needs of those communities.

In Myanmar, government promotion of CF began in 1995 when it aimed to recruit rural communities in the protection of forests and rehabilitation of degraded areas (Tint et al., 2014, p.7). Based on the FAO definition of CF Myanmar's Government was also aiming to help communities procure necessary resources such as fuelwood, and other forest products, consumed, used or sold through community networks. A major problem existed however, in motivating communities to take on the responsibility of managing and rehabilitating local forests (Tint et al., 2014, p.7).

This was assessed to be due to a lack of significant benefits available to local communities, because of the largely subsistence-oriented model of CF, and the limited forest-use rights inherent in them (Tint et al., 2014, p.7). As asserted by Tint et al. (2014, p.7) "years of state-centric forest management have failed to improve the lives of the forest

dependent poor or even sustain the forest resources". After fulfilling basic needs, evidence suggests that only commercial empowerment of local communities can begin to reduce poverty and bolster efforts towards social justice and forest conservation (Tint et al., 2014, p.7).

Complimenting this assertion, Gautam and Roberts (2003 p.1) stated that "local community groups will only manage their forests if it is in their interests to do so," adding that "they must recover their 'costs' and be able to protect those values that they consider important".

Tied to these statements, Gautam & Roberts (2003 p.1) added three aspects they consider crucial to CF in practice:

- That CF is founded on the belief that local residents should play a meaningful role in decisions affecting surrounding forests.
- That the direct results of activities are benefits that accrue back to the community.
- And; that control by the community is either directly or, through management, accountable to the community through representatives.

The FAO definition does not explicitly address these considerations. Using the FAO definition may therefore be limiting the scope of participation and integration of local communities into national forest management. Myanmar's Government must consider a broader understanding of the needs and contributions of rural communities if it is to devise a means of increasing their participation in conservation, and development efforts.

This notion is illustrated in the following summary of Myanmar's net sector output values from 2009 – 2010 (See Table 4.1), which according to Tint et al. (2014, p.7) presents a misleading statistic for the forestry sectors national economic input over the period.

Table 2. Value of net output of different sectors in Myanmar, 2009-2010			
Economic sectors	Value (million MMK)	% contribution to national GDP	
Agriculture	6,043,622	31.87	
Livestock and fishery	1,447,155	7.63	
Forestry	79,063	0.42	
Energy	24,637	0.13	
Mining	108,620	0.57	
Processing and manufacturing	3,269,514	17.24	
Electric power	41,771	0.22	
Construction	837,560	4.42	
Gross domestic product (goods + services + trade)	11,851,942		

Fig. 4.1 Net output of economic sectors, Myanmar, 2009 - 2010 (Source: Tint et al. 2014, p.7)

It is posited by Tint et al. (2014, p.7) that the official statistics above significantly understate the importance of forests for the economy, and the impacts of the sector on the livelihoods of local communities. Firstly, it is argued that "much forest use is non-formal and/or domestic, and therefore not reported" (Tint et al., 2014 p.7). Second, "Fuelwood collection,

and other domestic forest-product gathering, is likely to be a major component of the economy but this kind of non-traded production is not counted" (Tint et al., 2014 p.7), within the table figure. In addition to these factors there are two more, mentioned in preceding sections of this report, which are not reflected in the table. They are; the unspecified value of the environmental services which the forests provide, and the undocumented illegal timber trades, which came as a result of corrupt practices.

Greater attention must be paid at varying levels, from informal domestic consumption of forest products, to large scale export dealings, in order to better inform strategic national forestry management decisions. It is within the scope of this report to begin to pay such attention, within a site specific approach, to the aforementioned factors in order to conduct a more comprehensive viability analysis of the IID's proposed project.

4.2 Analysis of Shan State

The proposed 'Southern Shan State Region Market Oriented Community Forestry Development Project' would take place in the Southern Shan State, in the east of Myanmar (See Fig. 5.1).



Fig.5.1 Shan State, East Myanmar (Source: SDN, 2014)

The state has a total land area of 155, 800km2 (UNICEF, 2012 p.1), and boasts a range of diverse forest types, from 'mixed deciduous and dipterocarp to temperate and hilly evergreen pine forests" (Tint et al., 2014 p. 27).

Myanmar's Forestry department had established 237 Community Forest User Groups (CFUGs) within the state as of the 31st of October 2012. The total population within the state is 4,493,308 people, with a rural component of 3,447,611 people (UNICEF, 2012 p.1). The total number of members within CFUGs currently totals 10,946 members (Tint et al., 2014 p. 27).

In 2014 Tint et al. (2014) released a report, researched and compiled by a number of international development and conservation organisations. It details an evaluation of the economic viability of expanding CFUG coverage, by incorporating market based approaches. The report provides vital state specific, CFUG level, insight into factors influencing local livelihoods. Vitally, the report provided a breakdown of costs associated with local consumption of forest products. This is illustrated in Fig.5.2 below, which highlights the percentage of expenditures per commonly used product over four CFUG areas. The four surveyed CFUG areas are named within the figure, and the estimated local costs are calculated in Burmese Kyat (MMK).

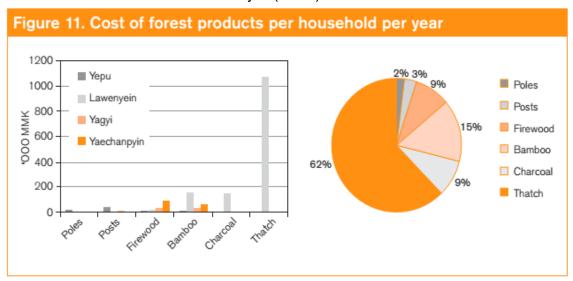


Fig. 5.2 CFUG household expenditure per year (Source: Tint et al., 2011 p.6)

As indicated above, firewood and charcoal account for up to 18% of local household expenditure. In the absence of alternative fuels the local domestic need for firewood is high and increases every year, resulting in firewood extraction being a major threat to forest conservation (Tint et al., 2011 p.6). However, as noted within the report, the Shan people do not often make these products themselves, meaning that they are likely either traded through informal or illegal markets (Tint et al., 2014 p. 30). A number of CFUGs have expressed an interest in exploiting these products in light of increasing market opportunities. Rising demand in the absence of alternate fuels is also increasing internationally. "It has been estimated that wood provides roughly 20% of all energy in Asia and Latin America" (FAO1, 2015), indicating a consistent regional and global market for the products.

Firewood and Charcoal are only two of many products which CFUGs have expressed an interest in exploiting. Other, non-timber forest products (NTFPs), which CFUGs indicated an interest in exploiting included medicinal plants, bamboos, fruits, tea and coffee. Agroforestry is one approach able to use such crops to stabilise soil erosion and degradation in some forest fringe areas where forest re-establishment is no longer viable (Lampkin et al., 2015 p.23).

An opportunity clearly exists for CFUGs to act, as the government would intend, as small and medium enterprises (SMEs) working towards achieving economic innovation, diversification and job creation.

Myanmar in fact relies heavily on SMEs, which contribute more than large enterprises in terms of employment, output and investment. SMEs represent 92 percent of the nation's manufacturing sector, and 96% of production in both urban and rural sectors (Ashwini,

2009 p.7-8). The economic structure of the nation had previously presented a monopolistic presence of military backed businesses in key areas including the forestry sector. However an opportunity now exists to redress past imbalances through a collaboration between the FD and CFUGs which could also bolster the nation's developing economy. The question is now whether the CFUG network can be expanded to increase its production capacity, while also incorporating necessary sustainable forestry management practices, which will directly benefit the livelihoods of forest communities.

4.3 Investing in innovation

In response to the accumulative factors discussed throughout this report, the IID have committed to designing a project which aims to foster local stewardship while improving livelihoods of communities living in forest and forest fringe areas.

The proposed project begins by addressing the critical challenge of securing land tenure in a nation where all rural land is formally state owned. It then continues, to ensure that opportunities are made abundant, and are created in collaboration with the actors who stand to gain the most from them.

The project proposal outlines that a main incentive for a local person in joining a CFUG, is that where these groups occupy registered community forest lands they are able to receive a CF certificate from the FD, securing 30 years land tenure which can be passed down to descendants (IID3, 2015 p.5). They are also supported by the FD who collaborate with CFUGs to create a CF management plan. Liaising with "Forest Department staff to encourage more local households to enrol as CFUGs, register CFs, and attain management plans for them" forms a critical and ongoing component of the proposed project (IID3, 2015 p.8).

The proposal indicates that local people have been planting agroforestry crops, horticultural crops and commercial crops like coffee and tea on their village land and cleared forestry land. However, much of this land has not yet been designated with community forestry titles, so security of their title to the land they have been working on is not clear and there has been little incentive to make long term investments. As a result most farmers and forest users have been acting in isolation towards only their immediate income objectives (IID3, 2015 p.4). This approach has created a lack of incentive to preserve the forest as a resource base, and as a result land and forest use has not been managed for sustainability.

Ideally, the project aims to achieve long-term sustainability with a more market based approach to CF. The proposal itself states that "only by involving local people in NRM activities that also improve their livelihoods will NRM be truly sustainable" (IID3, 2015 p.12-13). In accordance with this approach, CF management plans available to CFUGs would be decided through a collaborative process involving the FD, rural farmers within the project site, the IID and their partners.

The collaborative process would seek to identify "combinations of short, medium and long term crops which are feasible and desired" (IID3, 2015 p.7), based on economic, conservation, and practical considerations. Forest fringe communities for example could benefit initially from shorter cycle crops, while longer cycle crops necessary to rehabilitate forest fringe areas are established. Rehabilitated forest areas could then begin to host more diverse tree crops in the longer term. In this manner, fringe communities could begin

to benefit economically from the rehabilitation of their surroundings. At the same time they would be increasing the stability of degraded forest lands and expanding areas coming under more sustainable forestry and agroforestry management practices.

The IID proposal outlines that as most forest products would take a minimum of three years to harvest, local communities could begin to invest in shorter term crops while longer term crops are being established. This entails a list of actions which could further diversify the incomes of local communities while still contributing to the preservation of forest resources and forest integrity. As considered by the IID (IID3, 2015 p.4), this list could include:

- Collection of non-timber forest products traditional medicine, honey, rattan
- Specific planting of timber products bamboo, rattan, short term fire wood and building poles, Macadamia Nuts, Avocado
- Agroforestry crops such as coffee and tea
- Horticulture for home consumption and sale

Under their project the IID would use pre-existing, in-country networks to facilitate the FD in including these actions within progressive CF management plans. In addition they would begin including considerations within management plans focusing on the inputs that will be needed in terms of "seeds, fertilizer, marketing advice, and venture extension advice".

Once communities become a part of registered CFUGs and have negotiated and attained their management plans, they are also able to join forest product producer associations or coffee producer associations as the case may be, in order to bolster the strength and resilience of their income networks. In addition, the European Union's FLEGT initiative could also provide another potential means of securing transparent and accountable economic connections towards more sustainable international trade.

Myanmar has entered an 'information request', to the European Union which will provide Myanmar's government with further information regarding FLEGT and the Voluntary Partnership Agreements (VPAs) which the initiative can facilitate. A VPA as outlined by the EU FLEGT Facility (2015) "is a legally binding trade agreement between the European Union and a timber-producing country outside the EU". The purpose of the VPA is to "ensure that timber and timber products exported to the EU come from legal sources" (EU FLEGT, 2015). Ideally, "the agreements also help timber-exporting countries stop illegal logging by improving regulation and governance of the forest sector" (EU FLEGT, 2015). The possible addition of this initiative again demonstrates the potential of complimentary international efforts in facing up to local and global challenges. FLEGT could offer a future regulatory system to compliment the efforts of CFUGs and the FD to curb incentives for illegal logging within Myanmar.

Carbon financiers, such as the World Bank, and elements of the private sector could also come to play a role in the potential future of this project. Many economists have warned that failing to spur private investment into deforestation and forest degradation reduction efforts, could lead to heavy financial and environmental losses (UNDP2, 2011).

Working within the framework of the Kyoto Protocol's, Clean Development Mechanism, the World Bank Carbon Finance Unit (CFU) aims to capitalise on the opportunity to foster a healthy forestry-based carbon market. The CFU purchases carbon credits created in developing countries, on behalf of governments and companies in OECD countries, who have in turn contributed funds to the World Bank (CFU, 2015). As an alternative to offering grants the CFU instead enter contractual agreements to pay for carbon credits annually or

periodically, after carbon credit production has been verified by a third party (CFU, 2015). Such activities could add revenue streams, mobilising investment for the protection and rehabilitation of natural forests, concurrently reducing the overall financial risk of projects relying on grants and lent finance (UNDP2, 2011).

The increased stability to be drawn from additional revenue streams offers further opportunities for collaboration across a variety of sectors. The CFU (2015) have stated that their operations have "served as a catalyst in bringing climate issues to bear in projects relating to rural electrification, renewable energy, energy efficiency, urban infrastructure, waste management, pollution abatement, forestry, and water resource management". Collectively, these sectors could play a considerable role in enacting multidisciplinary coordination, developing more locally focused strategic management systems, and checks and balances to monitor their progress. In addition, not only could they be contributing to the mitigation of climate change, but also to the sustainable development of beneficiary programs for some of the most marginalised communities in the world.

The array of collective initiatives coinciding to bolster the potential of the IID's proposed project, offer a diverse range of opportunities for forest and forest fringe communities, and for the environments which they live in. These opportunities would be continually monitored throughout the course of the project in order to inform any further project developments which could become necessary.

Throughout the three year duration of the project, staff would play a key role in monitoring and mentoring CFUG's "making sure that group dynamics continued positively and that groups were able to keep to their management plans" (IID3, 2015 p.8). While closely monitoring and contributing to growing CFUG networks, project staff would also "gather data on the productivity of the CFs, the success rates for the different planting cycles, the sales price and the market volatility for the crops, and the stability of the soil" (IID3, 2015 p.8).

Finally, data would be compiled at yearly intervals detailing the income of project participants in contrast to the income pre-project, and detailing numbers of jobs produced. This data collection process would facilitate analysis of economic, social and environmental outcomes throughout implementation of the proposed project. The process would also act as an ongoing evaluation of CFUG growth and development towards improved forestry management practices, and more economically diverse and sustainable livelihoods.

The IID's proposed project envisions CF, not simply as a management program, but as a complex set of social-ecological interactions (Ashwini, 2009 p.15). These are interactions which the project aims to develop in order to strengthen communal and institutional capacity to simultaneously address environmental degradation and rural development. The project embodies a holistic and participatory approach toward sustainable development informed by conscientious research, experience and professionalism. As a result, the project proposed by the IID exhibits a viable design with the potential to achieve beneficial economic, social and environmental outcomes within the proposed site and beyond.

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