FSC Certified Plantations and Local Communities workshop: Solomon Islands Case Study

Kolombangara Forest Products Limited and subsistence farming by neighboring local communities

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Executive summary

Lack of fertile land has led the communities of Kuraqutoti and Vanusatah to encroach on the Fixed Term Estate (FTE) of the forestry company Kolombangara Forest Products Limited (KFPL) for gardening. Members of these communities invade riparian buffer zones and reserve forests in the FTE to establish gardens for sustenance and cash income. Being FSC certified, KFPL does not permit this practice and therefore in early 2010 initiated an agroforestry system to simultaneously address the lack of fertile gardening land and to stop gardening on the protected and reserve forests. The agroforestry system involves widening the spacing of seedling planting to 10m x 3m. This allows the cultivation of crops between the rows of seedlings for approximately five years after the plantation is established. Among local community members, 40 percent participated in the initiative, 55 percent were against it and the remaining 5 percent were impartial. During initial collaborations, best practices were identified, but the initiative needs to keep progressing over time in order to adequately address the shortage of fertile land for gardening. Overall, the agroforestry initiative has improved KFPL’s relationship with the neighboring communities.

1. Background

In the Solomon Islands, land is both the basis of a group’s cultural and existential integrity and its primary means for a secure future. Lack of land of suitable quality for agriculture is perceived both as a loss of economic wellbeing for future generations and as a threat to a group’s very identity. Because of this highly emotive connection to land, conflict may sometimes erupt regardless of the quality or economic viability of the land in question. The forestry industry is currently the leading income-generating industry in the Solomon Islands. Two thirds of Kolombangara Island is currently under plantation forestry, with the remaining one third under customary ownership (see Figure 1). Local communities are asking Kolombangara Forest Products Limited (KFPL) to release some fertile land for gardening for sustenance, to generate income and to accommodate the Island’s growing population.

Specifically regarding social issues, Forest Stewardship Council (FSC) Criterion 4.4 stipulates that forestry managers should identify and consult with affected groups in order to identify the main impacts of the operation on those groups (Soil Association Woodmark, 2009). Managers then must specify measures to ameliorate identified negative impacts and provide for regular contact with affected groups to monitor the effectiveness of these measures.

In January 2010, Kolombangara Forest Products Limited (KFPL) initiated an agroforestry system across its plantations to allow communities who faced lack of fertile land, and who may have encroached on riparian areas and reserve forest, to plant gardens amidst newly planted areas of the plantation. The practice, being implemented at the northwestern boundary of KFPL’s Fixed Term Estate (FTE) includes increasing the planting spacing from 4m x 2.5m or 5 x 2.5m to 10m x 3m. This allows for a gardening space between the rows and a longer gardening period, and aims to address the communities’ concern regarding lack of fertile land for gardening and to prevent them from planting in the riparian areas and reserve forests. Furthermore, the initiative aims to develop mutually acceptable gardening practices for the communities and KFPL, to achieve the aims of all parties involved and to foster lasting collaborations and relationships between KFPL and the neighboring communities.

There are a total of ten villages in the Kuraqutoti and Vanusatah communities which are involved in the initiative. Three other
Figure 1. KFPL Plantations and Communities
communities, Tawirereko, Londumoe and Tuhigimu, are waiting for their turn to implement the initiative and there are another 12 villages which encroach on KFPL’s land that the company would like to engage with. These communities are located on the northern and western boundaries of the KFPL FTE and have few fertile gardening areas remaining in their customary lands due to large increases in population.

This case study research was made possible through information collated from organized meetings held with KFPL staff and a literature review of available documents at KFPL’s base. In addition, individual interviews with community members were held at their villages between February and March 2011.

2. Case study

Kolombangara Island is circular in shape and KFPL’s FTE of 39 402 ha runs from the South to the West. All of KFPL’s lands are located above the ring road that runs around the circumference of the island (Roger, 2011a). KFPL was established in 1989 and is the Solomon Island’s largest sustainable plantation business. It has held FSC Forest Management and Chain of Custody Certificates since 1998. KFPL’s initial objective in pursuing FSC certification, which is still true today, is to operate with responsible forest management practices that are environmentally friendly, socially sound and economically viable. (KFPL, 2005)

The plantation consists of 14 500 ha planted with mixed indigenous and exotic commercial species such as *Tectona grandis*, *Swietenia macrophylla*, *Eucalyptus deglupta* and *Gmelina arborea* that grow well in the local conditions (Roger, 2011a). The remaining 24 902 ha consists of 3 690 ha of unproductive use (townships, roads and quarries) and 21 212 ha of semi-natural tropical broad-leaved forest (crater and riparian buffer zones) that are classified as protected and reserve forests. The plantation species are mostly sold as round logs overseas, targeting the FSC outdoor furniture industries, as well as the construction and plywood industries in South East Asia.

As of the 2010 census, the population of the Solomon Islands is approximately 580 000, consisting mainly of the three Pacific groups — Melanesians, Polynesians and Micronesians. There are also minority populations of Caucasians and Asians who are naturalized citizens. In the study area, the population is approximately 1 000 and is predominantly Melanesian.

**Problem description**

The local communities on Kolombangara Island typically balance copra cutting (sales of dried coconut fruit kernel), gardening, fishing and working for KFPL. They sell copra, the surplus of their garden products and fish in local and provincial town markets to generate income for school fees, clothing, processed food, medication, housing materials and transport. The earnings are also used to support church and school activities, and local community infrastructure. The need for arable land has become particularly problematic with communities living on the northwestern side of Kolombangara Island, where there is a high population density. Land allocated to community members by their ancestors is becoming less fertile after being tilled continuously for many years.

Looking for good alluvial soils, Kolombangara Island communities have for decades crossed over the ring road, the common boundary separating local communities from KFPL’s FTE, and trespassed on KFPL property in order to plant their gardens. They target failed
plantations and the alluvial soil in the riparian buffer strips. These riparian reserves protect the streams which supply drinking water to the communities. The reserves are also protected as corridors for wildlife and replicates of lowland rainforests identified by the company and the Solomon Islands government (Roger, 2011b).

Allowing communities to farm in the buffer strips and protected areas would result in clearance and destruction of these areas, which would in turn breach FSC standards, have a negative impact on local ecosystem services and potentially lead to KFPL’s decertification or loss of business. For example, the buffer strips provide for communities and marine ecosystems surrounding the island by protecting the rivers from drying, maintaining water temperature and filtering the heavy silted surface runoff that results from plantation activities during wet seasons. Moreover, if communities were allowed to farm in protected areas, a dangerous precedent would be set which may lead to a further loss of land from the plantation estate and possibly result in KFPL’s decertification. On the other hand, if the communities cannot meet their basic sustenance needs on the island, they will have to go elsewhere and KFPL will lose the work force needed to establish and maintain its plantation. One possible solution would be for KFPL to release some of its plantation areas alongside the ring road to these communities. However, most of the fertile land in the estate is in these areas, and loss of these lands could drastically reduce the profitability of the company. In the worst case scenario, the diminishing of the KFPL estate could result in the company having to close, which would heavily impact the local economy and the economy of the Solomon Islands.

The Tuhigimu and the Londumoe communities first confronted the Forestry Division of the Ministry of Forests and Research with a demand for more fertile land for gardening in the early 1980s and later approached KFPL with the same request. Because the issue was not resolved, the communities from Tuhigimu to Vanusatag at the western border of KFPL raised it again. In addition, the FSC Certification body that audits the KFPL had been pressing the company to adopt an acceptable solution that meets the FSC Principles and Criteria.

Thus KFPL has gone to great lengths to develop the agroforestry initiative as a mutually beneficial solution to the problem and has worked to generate better awareness in the communities about the importance of leaving the riparian buffer zones and reserves intact. Each year since the beginning of the initiative, KFPL has harvested around 800 ha of plantation timber and replanted 1 200 ha, of which 25 percent is made available to community members for gardening.

**Process of the agroforestry initiative**

The earliest attempt at an agroforestry model was initiated by KFPL in early 1990s, but the planting spacing was too narrow. The model called for a 5m x 3m or 6m x 3m spacing in stands of *Tectona grandis*, *Gmelina arborea* and *Swietenia macrophylla*. As growth rates for these broad-leaved species are excellent under local conditions, the trees quickly shaded out the root crops and vegetables planted by the communities. In early 2000, a land use planning initiative was initiated by KFPL. Local community members who were faced with lack of gardening areas had a Social Forester at their disposal with whom they could discuss and review their land use planning, but did not want to embrace the advice and knowledge delivered and KFPL management phased out the initiative when interest waned.

By January 2010, with the continuous confrontation with communities over
growing, KFPL decided it needed to revisit the agroforestry initiative. The historical planting spacing of 5m x 3m or 6m x 3m was increased to 10m x 3m and areas were opened to gardening specifically under *Eucalyptus deglupta* stands. The finer leaves and smaller canopies of this species allow the forest to stay open to gardening for 3-5 years. Community representatives known as Residential Advisors (RAs) were informed of the wider planting spacing initiative and information was spread to community members via organized meetings.

KFPL has several goals for the business, and the only way to ensure that it can achieve them all is to put them in a priority framework to avoid over-commitment of resources. The personnel involved in priority-setting are the Forest Operations Manager (FOM), Community Relations Manager, Production Manager, Area Forest Plantation Ranger (FPR), Community Relations Officer (CRO) and RAs. These personnel and community representatives prioritize what KFPL can reasonably achieve in a given timeframe, assessing the company’s priorities in terms of impact and urgency. The priority framework is translated into company plans which include the Plantation Management Plan, Environmental Management Plan, Harvesting Plan and Social Management Plan. Each plan has a lifespan of five years but is reviewed annually to capture important information and updates.

**Figura 2. Participantes en el reunión del Comité Cultural Domoñi Kudao**
Before an area is harvested, the Forestry Department calculates the total area available for gardening and liaises with the CRO to match the number of individuals showing an interest in gardening with the available space. Each individual can receive up to 1 ha of garden space. When community individuals want to have access to the potential garden sites, they see the area FPR and the CRO who screen their interests. In the screening panel the forestry and community personnel examine, discuss and approve the intercropping applications. In cases where community members from one village want to garden above another village, the advice of the RA from the second village is taken into consideration before a decision is made. Such consultation is important to promote good working relationships and safety for women and children. Once approved, individuals fill out and countersign an explained agreement form that binds them to the regulations governing the agroforestry intercropping initiative. The area FPR identifies the individual’s community and village and allocates an allotment as close to the village as possible.

At the planning stage, the FOM raises and prepares the required number of seedlings for the area and schedules replanting operations to be concurrent with the gardening activities. Achieving all of these steps in the three months between harvesting and planting requires prioritization and planning to avoid delays and address urgent requests from the communities. The Forestry and Production Departments are predominantly responsible for this.

The technical information needed to carry out these steps and assist communities comes from the company’s Harvesting Plan, Plantations Management Plan and Social Management Plan, as well as from the expertise of company employees. The information from the plan helps the panel create the schedule of the areas that will be available for gardening after planting is complete. Other types of information that are transmitted to communities concern weather patterns, plantation species, the map of the potential gardening areas and the identity of the FPR in charge. Access to information has improved crop production and attracted community members to participate in the initiative.

Gardeners can make extra money by tending the planted commercial saplings (e.g. weeding and silviculture operations), ensuring that they are not deprived, suppressed or killed and that their potential growth is honored (KFPL, 2010). KFPL often provides pruning saws and bush knives to individuals so that when they maintain their garden they also maintain the trees to allow for access across planting rows. This is one way that the initiative is attracting communities to participate. Another way is to provide some transportation for getting materials to and from the gardening areas.

During the gardening period, the area FPRs and the CRO are open to any suggestions submitted by the gardeners concerning the initiative. These suggestions are received and closely examined and further discussed with managers in the Community Relations and Forestry Departments before decisions are made whether to accept, review or reject any queries submitted.

Outcome

Despite the fact that the initiative and the process was established, the communities that claim the greatest shortage of gardening sites did not fully take up the opportunity to participate. KFPL offered wider planting areas but communities were slow to accept and embrace the opportunity. There is more talking and fewer actions observed. Around 300 ha of gardening land near the ring road is available each year for the agroforestry initiative, but only
A total of 20 families are currently participating. Although there is more land available, nobody is on the waiting list.

The main weaknesses reported by both company representatives and community members were fourfold. First, the communities preferred to garden on alluvial soil which can only be located at the riparian buffer zones and the reserve forests. Second, community members do not want to garden far from where they live because they do not feel secure when they are far from their village. In addition, there is no transportation to hire to move garden implements and products back and forth from the allotment to the villages. Third, community members reported that they want total removal of shade. Because the plantation trees grow vigorously in local conditions, the canopy begins to shade the garden after about a year and yields are reduced from that point onwards. Finally, the company restricted the kind of crops that can be sown in the allotments, citing the need to avoid shading and competition with the young eucalyptus saplings. Gardeners were not happy with these restrictions and some individuals left the initiative. As a result, the company bore the cost of managing a plantation with under-stocked trees per hectare. The tree crops are susceptible to poor quality of stem and wood and the company had to pay the extra cost of pruning when there were no communities gardening the allotments.

Even at the 10m x 3m spacing, the yield decreases each year as the plantation trees grow vigorously and close the canopy. Individuals expressed that the planting spacing of 10m x 3m would only support one good year of gardening, and that they therefore needed either much wider spacing or areas allocated for gardening only. Some did not accept the initiative at all because they wanted areas allocated entirely for gardening to support the increasing population.

Although slow, the initiative is achieving its goals of decreasing gardening in the riparian buffers and remnant forest areas, increasing participation in the intercropping initiative and addressing the fertile land shortage. About 200 ha of protected and reserve forests had been cleared for gardening across the FTE, and almost 50 ha of these have now been abandoned as community members embraced the agroforestry initiative. There are positive signs of few more areas to be abandoned in the near future.

3. Conclusions

The active involvement of KFPL staff and the participating communities was a very positive development for the initiative. In addition, the awareness that was raised by KFPL staff was somewhat successful in down-scaling disturbances in buffer zones. Technical information provided by the company also led to better gardening practices such as pairing crops to soil type and changing the types of crops grown as the canopy closed. Finally, training and awareness on good gardening practice and the potential benefits offered to these communities has boosted individual interest in gardening and has furthered the relationship between the communities and the company.

On the downside, agroforestry in the plantation is not a long term solution as the canopy closes after the fifth year and is no longer suitable for gardening. Therefore the question of what to do with the communities still remains. Community members still desire unplanted areas and the buffer strips for cultivation, and KFPL’s obligation is to manage its leased land in compliance with FSC standards.

Both parties need to review the agroforestry initiative to accommodate each other’s views to further develop it so that they both feel...
ownership over the concept. When both parties see they would benefit from it, they will embrace the idea and implement the initiative with more common understanding. The Island’s communities seem to partially accept the current agroforestry initiative, which should in turn encourage KFPL’s Forestry and Community Relations Departments to expand their program and strive to explain the initiative and the pitfalls of gardening in the riparian buffers to the remaining communities. This initiative should be progressively reviewed in coming years to identify and achieve the best practices for collaborations between KFPL and its neighboring communities.

4. Recommendations

KFPL could:

1. Lease a third truck to western communities to regularly transport agricultural products out of the forest.

2. Assist communities on soil fertility issues (natural fertilizers, chemical fertilizers and raised bed agriculture).

3. Help initiate other small businesses (e.g. honey, fruit, herbs, poultry or piggery) and assist on marketing.

4. Have regular environmental education about the importance of riparian zones.

5. Assist communities with developing alternative revenue streams on the Island.
References


