Climate Change, Land Tenure Rights, and Resource Management in Cambodia: The case of Rokha Community Forestry in Khleang Meang village, Anlong Thnoat commune, Krakor district, Pursat province

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The connection between land tenure and climate change is not so obvious. Tenure, or a man's relationship to land, has traditionally been viewed from the perspective of an individual or household's use, management, and disposal of the resource.

Climate change, on the other hand, is viewed from a global perspective and is attributed to the collective or human use or abuse of natural resources. It requires an understanding of the interplay of various ecosystems and the consequences of resulting imbalances.

As an example, consider a given landscape where changes in land use and management would have a significant impact on ecosystem services such as carbon sequestration, water regulation, replenishment of underground water supply, and prevention of soil erosion.

The connection becomes clearer when viewed from a broader perspective. Landscapes dominated by poor community forestry members and vast pasture lands provide a panoramic view from which these relationships can be observed.

The story of the Rokha Community Forestry (CFo) members – a group of people with an intimate relationship with the forest – in the Khleang Meang village, Anlong Thnoat commune, Krakor district, Pursat province, Cambodia illustrates the role that forestland plays in providing additional income for the 189 households comprised of 707 members (387 females, 320 males). It directly benefits 66 percent of the 287 households in Khleang Meang village.

The Rokha and Khleang Meang Village

Rokha means "forest" and Khleang Meang¹ is the name of a village, located between the Central Cardamoun Mountain National Park and Tonle Sap Biosphere Reserve.

¹ Khleang Moeung or Sena Moeung is a legendary recorded sixteenth century military innovator in Cambodia, and a watchman whose field of activity reaches out to the whole west of Tonle Sap Lake.

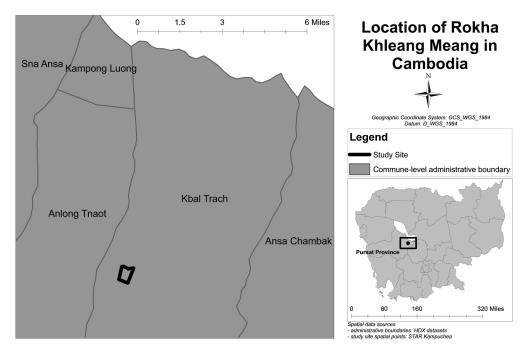


Figure 1. The Khleang Meang location in Cambodia

From this area flows vital water resources that support an eco-forestry system, fish habitats, and agricultural production, thus contributing to the needs of 80 percent of the 74,222 households in Krakor district, Pursat province.

It is these same natural resources, however, that have also made the area a place of conflict because of competing interests of groups such as rice farmers, forestry/natural resource management groups, and those involved in economic development projects.

As part of their individual mandates, various government agencies are trying to resolve these multi-layered conflicts.

The majority or 80 percent of the Rokha Community Forestry members tending to forestland are Buddhists, while the rest are Christians, Muslims, and from other faiths.

The members earn a living mainly from rice production, non-timber forest product collection, and production or from working in the capital of Phnom Penh or overseas in Thailand.

From February to March, some members hunt for insects and spiders that they sell to middlemen, bringing them earnings of between USD 5 and USD 10 a day. From April to June, they sell wild mushrooms, from which they can earn USD 5 a day. Then from August to September, the locals collect wild bamboo.



Rokha Community Forestry's members collect wild-forest fruit. Photo by STAR Kampuchea

Aside from selling products collected from the forest, the Rokha Community Forestry members plant rice, and they can harvest an average of three to four tons of paddy rice per hectare. A kilogram of rice could be sold for between USD 0.15 to USD 0.20 each.

Rice brings in additional income to the people in Anlong Thnoat, Kbal Trach, and other communes in Krakor district, Pursat province.

Along the way to the forestland of the community is a cottage or shelter called "Khleang Meang Hut" where the people come together to celebrate the rice harvest. They also come here to rest or relax on hot days.

The Rokha Community Forestry sits at the upper portion of National Road Number 5. Inside the forests classified as shrub forests is a tributary river called "Ou Kambot" that flows to the Tonle Sap Lake.

The major concern of the people is the Economic Land Concession (ELC) controlled by Pheamphimix at the upper mainstream that has blocked water to supply the ELC's plantation and other crops. Water from the Ou Kambot River is pumped for rice production in that area.

Land tenure and forest rights

The Rokha Community Forestry (CFo) was one of the forestry communities in Krakor district of Pursat that was signed in 2017 through an agreement with the Provincial Forestry Administration

for the management of the 47 hectares of forestland (out of the total 500 hectares) in Anlong Thnaot commune.

It was on its way to be officially registered in the Ministry of Agriculture, Forestry, and Fisheries' sub-decree of community forestry along with the supporting document of the 15-year Community Forestry Management Plan (CFoMP). However, it has so far been unable to complete the process. Instead, the Rokha CFo proceeded with the forestry inventory assessment; and



The Community Forestry Signing Agreement Ceremony on 20 December 2017. Photo by STAR Kampuchea

in 2020, it got to the second step of the forest block division process provided under the CFoMP.

Under the forest block division system, the user rights of community forestry members would include: a) Customary User Rights prescribed in Article 40 of the Forestry Law; and, b) the right to barter, process, transport, and sell non-timber forest products (NTFPs) as described under Article 40(B), Item 5 of the Forestry Law of 2002 (Chy, 2017b).

The CFoMP must be authorized under Article 37 of the Forestry Law, and the rights granted under a Community Forest Agreement within a specific area should ensure the sustainable use of forest resources (ANGOC, 2017).

Areas under a Community Forest Agreement may harvest, process, transport, and sell forest products and NTFPs under the following conditions:

- Harvest of forest products for selling or bartering shall not be allowed within the first five years of approval of the CFoMP. If the Community Forestry Agreement has been operating with a CFoMP before the passage of the Sub-Decree, then the moratorium on harvesting forest products shall be considered from the date of approval on that CFoMP;
- Payment of any required royalties or premiums on forest products and NTFPs as prescribed in Article 55 of Forestry Law; and, terms and conditions in an approved CFoMP; and,
- Based on the Community Forest Agreement, a CFo member has the right to plant, manage, harvest forest products and NTFPs, and sell tree species as approved in a CFoMP. Community Forest Agreements shall be in effect for not more than 15 years from the date of approval by the Forestry Administration Cantonment Chief.

But according to the Rokha CFo Management Committee and its members, they are unable to fully protect the forest resources because it was in an area where there is a constant risk of the water being blocked because of the ELC, land grabbing, forestry clearance, and farming.

Moreover, there is private land in and around the community forest that is being used for rice production. This has led to disputes and conflicts over resources, particularly water.

Because of these Rokha CFo issues, the Anlong Thnoat commune and Krakor district established a working group to resolve the issues through an Alternative Dispute Resolution (ADR). Unfortunately, the group was not successful in resolving the disputes.

Land Tenure Issues, Deforestation, and Impacts on the Community

Following the passage of the forestry land and community forestry sub-decree, the Forestry Administration was designated as the governing body to protect CFo rights.

Unfortunately, actual forest and landscape management and mitigation of climate change by the Forestry Administration was limited to just helping formulate the CFoMP and gathering the resources necessary to have a functioning Rokha CFo.

Because of this, the lines separating farms/cropland, State-owned forest land, residential land, and the ELC are unclear, leading to disputes.

In 2001, people living near the ELC urged the Royal Government of Cambodia (RGC) to reduce the size of the land allocated for the ELC.

Fortunately, the petition was granted such that at the end of 2011, the RGC issued an Announcement Letter of the Council of Minister No. 289 on 14 March 2011 to grant 1,500 hectares of forestlands from the ELC to the various community forestry organizations within the three communes of the Krakor district.

From then to 2012, STAR Kampuchea worked in these areas and supported the establishment of the Rokha CFo – one of 27 CFos in Krakor district of Pursat province.

However, the presence of an ELC in the upper land areas of Rokha CFo has wreaked havoc in the natural water systems as it blocks the flow of water from the Ou Kambot River to the Tonle Sap Lake.

This artificial diversion of the water system plus the changing weather patterns due to climate change have adversely affected the Rokha CFos of Khleang Meang village.

From 2017 to 2020, the Rokha CFo of Khleang Meang village was included in the annual update of the Participatory Rapid Assessment on Climate Change Adaptation of Anlong Thnoat commune.

Data showed that over the past five years, the Anlong Thnoat commune suffered from many natural disasters such as drought, strong winds, storms, floods, outbreak of animal disease, and fire, which can all be blamed in part on the changing climate.

Participation in the Climate Change Adaptation and Mitigation Action Plan

With support from STAR Kampuchea's SNC program on Sustainable Natural Resource Management and Climate Change (SNC) in Khleang Meang village,² the area's hazards and vulnerabilities to climate change were assessed.

Representatives of Khleang Meang and Rokha CFo were consulted and included in the planning and development of a Climate Change Adaptation Action Plan for the commune.

In 2020, for example, 21 action plans to adapt to climate change were prioritized by villagers, commune councilors, and other relevant stakeholders.

The Adaptation Action Plan (AAP) aligned with or complemented the Commune Development Plan (CDP) of Anlong Thnoat.

To respond to drought, for example, vulnerable families were provided different forms of support such as seed varieties that can cope with the changing weather conditions, technical assistance for poultry farming and animal healthcare, and construction of ponds as well as restoration of water wells.

The water wells were constructed not just to provide water during a prolonged dry season but also to meet needs for cooking, drinking, bathing, and animal raising.

For flood response, the CDP of Anlong Thnoat called for the reconstruction of the water gate and construction of a canal. The water gate was constructed to release water and to protect the gravel road during the flash flood season. The canal, meanwhile, was constructed to ensure water supply during the rice planting season.

Also, to help mitigate the ill effects of climate change, the Rokha Community Forestry (CFo) plants new trees every year.

² STAR Kampuchea implemented the SNC program with the support of Forum Syd Organization from 2012 to 2014 and 2017 to 2020.

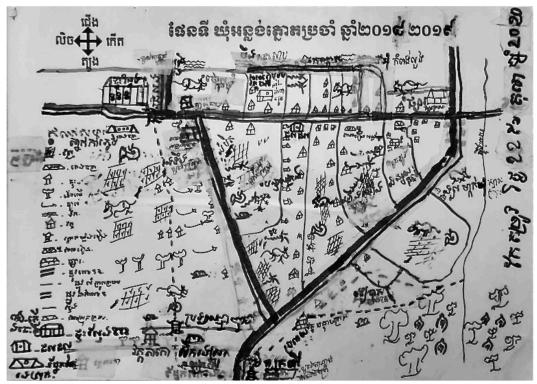


Figure 2. Hazard Map of Anlong Thnoat commune (Date: 22 October 2020)

Some 800 to 1,000 trees have been replanted inside the Rokha CFo area, the ancestor (Nak Ta) cottage areas of Khleang Meang, Wat (pagoda), and school. Nurseries and wild-forest trees were provided by the Provincial Forestry Administration of Pursat.

Increased Forest Cover in the Rokha and Khleang Meang Ancestor Cottage Areas

Since the agreement signing of the Rokha CFo with the Provincial Forestry Administration of Pursat on 20 December 2017 to manage the 47 hectares of forestland, the area had grown so fast due to the people's patrolling activities and technical support from Forestry Administration Officers, Village Chief, Commune Police Officer, and members.

Around 1,500 trees had grown in the endangered forest (about 10 hectares) inside



Figure 3. Rokha Community Forestry Map



The Khleang Meang Ancestor Cottage Areas. Photo by STAR Kampuchea.

the Rokha CFo because of increased vigilance against illegal logging and commitment to take care of the forest that sustains the community.

Additionally, the private sector and individual people from the ruling party provide the Community Forest Management Committee (CFoMC) patrolling team USD 25.00 per month as an incentive to continue to protect the forest.

Reforestation through the Payment for Ecosystem Service

Since the Rokha CFo was issued, the members have had more opportunities to work with other local stakeholders to ensure the environmental integrity of the Rokha CFo landscape.

Moreover, the integration of five forest block divisions in the action plan of the Provincial Forestry Administration for conservation, reforestation, and forest protection raised the probability that the reforestation program will succeed.

Various conservation programs have also improved the earnings of poor community members from the collection of non-timber forest products.

As for the contribution on Payment of Ecosystem Service, the Rokha CFo by-laws on articles 30th, 34th, 35th, 37th, 39th, 49th, 50th, 51st, and 52nd mandated for the payments for non-timber forest collections

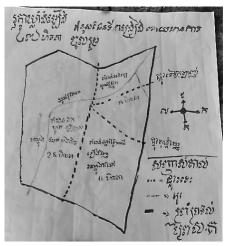


Figure 4. Forest block division for forest conservation and reforestation

from the non-members – given strict compliance with the Forestry Law and approval from Forestry Administration. All of the payments have alloted 20 percent of total charging/punishment services in support for Rokha CFoMC.

Lessons and insights

The story of the Rokha CFo is not one of desperation.

The members in the Krakor district of Pursat province and in the entire country are facing the same challenges in organizing and managing the grants of forest State land. They are also hard-pressed to



Community Forestry Management Committee and Provincial Forestry Administration Conducted Forest/Tree Inventory List. *Photo by STAR Kampuchea*

legalize the CFo so that they will be able to effectively implement the 15-year CFoMP.

The CFoMP enumerates the activities and action plans to be pursued to mitigate the effects of climate change and enable the community members to better adapt to it.

Even though the required registration with the Ministry of Agriculture, Forestry and Fisheries (MAFF) has not yet been completed, three major lessons from the Rokha CFo can already be derived:

- The committees and community forestry members understand their rights to access, manage, and conserve the forest land areas. Their commitment to preserve the forest, to patrol, and protect it contributed to the integration of the CFo Action Plan into the Anlong Thnaot Commune Investment Development. The community leaders and members have been working more closely together to better manage and implement the activities related to mitigating the ill effects of climate change.
- Local authorities and key institutions supported the CFo and its efforts to preserve and nurture the forests by engaging the CFoMC in the local development planning processes of Anlong Thnoat commune, District Counselor Group of Krakor and representative of CFo at Provincial CFo network of Pursat.
- Major national events contributed in raising awareness of community campaigns in educating the public on climate change and the risks that citizens may potentially be exposed from disasters. These events also encouraged the people to help protect and regenerate Cambodia's forests.

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