SMASHED LIVELIHOODS: LIFE AS A CHARCOAL PRODUCER IN PKWS, KOH KONG

A CASE STUDY

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RESEARCHED AND WRITTEN BY THE PMMR TEAM, KOH KONG PROVINCE
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Abstract
This case study examines illegal charcoal production activities in Peam Krasaop Wildlife Sanctuary (PKWS), Koh Kong province, Cambodia. The rise of charcoal production is detailed, along with government legislation and action towards reducing or preventing these activities. Government policy has focused on the detection and destruction of unlicensed charcoal kilns. Charcoal producing families, who have had their kilns smashed, were interviewed. One Commune Chief's attempts to deal with this "crisis" situation is discussed, along with insights provided by the Participatory Management of Mangrove Resources (PMMR) project that is working in PKWS. Finally, an analysis of this situation and a few suggestions for potential solutions within this difficult context are detailed.

INTRODUCTION
"It is really difficult for us [DoE] to smash the [charcoal] kilns because people are really poor. However, we are just doing our job and following national government policy to protect the environment so that there will be a future in PKWS. There are far more sustainable ways to earn a livelihood from the mangroves, for example, fishing. ...People come [to PKWS] thinking that they will become rich but few do. Life as a charcoal producer is difficult, unsustainable and unstable."
~ Department of Environment (DoE) official, December 1998

Koh Kong is one of four coastal provinces in Cambodia, and has the countries biggest area of mangrove forests. Within Koh Kong province, Peam Krasoap Wildlife Sanctuary (PKWS) boasts a unique mangrove ecosystem (23 750 ha that is granted 'protected area' status). PKWS plays a very important role in fisheries and energy production (i.e. charcoal) to supply domestic needs and for the export market. In PKWS, people are dependent upon natural resources. Indeed, many Cambodians have migrated to PKWS because of the rumoured abundance of resources and cash potential opportunities through fishing or charcoal production.

The following case study, documented by the PMMR team, was undertaken to gain a local perspective about charcoal production in PKWS. The more we understand about the situation, the more able we are to transfer our experience to relevant government authorities in order to get the best support for affected people and to consider the most effective policies for PKWS. Equally important, it was a chance for our team to learn how to research and write a case study and to share our experiences and results with other interested persons. This case study does not shed in-depth insights into community-based coastal resource management (CBCRM) practices in

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1 Cambodia's system of protected areas (PA's) was created in 1993, after the Ministry of Environment (MoE) was established. PA's are state land; therefore, the MoE is responsible for the protection, management and development of a PA.
2 The Participatory Management of Mangrove Resources (PMMR) project is supported by IDRC, Canada. This is a participatory research project, composed of an interdepartmental team, that has spent two years working with local communities in PKWS and government officials on resource management and livelihood issues.
PKWS. For more information on the process of CBCRM in PKWS, Cambodia, refer to the PMMR case study Mangrove Reality.

**History of Charcoal Production in This Area**

Before 1975, in what is now known as PKWS, charcoal production legally existed and was controlled through permits provided to charcoal producers by the Department of Forestry, Fishing and Hunting. Charcoal was produced for local consumption. From 1975 - 1979, the country was under Pol Pot's power (known as the Khmer Rouge (KR)). During this horrific regime, people were forcibly relocated to work on communal rice farms: this substantially reduced the exploitation of mangrove forest resources.

After Cambodia’s liberation from the KR in 1979, Cambodians were able, again, to live individually as family units, to own private property and, importantly, to establish businesses to earn their livelihood. Koh Kong was quite unpopulated, and national government policy encouraged people to live in Koh Kong. There has been a net influx of people since 1979; in fact, it is estimated that the average annual growth rate in Koh Kong is 16%. Unfortunately, over time the increase in population has put pressure on mangrove resources.

In the mid-1980’s, charcoal producers dramatically increased in numbers as more people came from throughout central and eastern Cambodia to make money. A few people were lucky and made huge profits from charcoal production or various resource extraction activities; however, most people came with little money and found that they were just able to survive. Although there were large profits to be made initially by charcoal production, as government enforcement increased and more people came to produce charcoal, profits dramatically decreased. Charcoal producers are now extremely poor.

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This case study documents the process of CBCRM, specifically pointing out the difficulties and the time required for such initiative to really work.

When this area was designated, in 1993, as a wildlife sanctuary, it was named Peam Krasaop (perhaps after the oldest village found in this area).

This Department is now the Department of Agriculture.

The end of the catastrophic KR regime resulted in many internally displaced Khmer. At this point, villages had been destroyed and KR guerilla activities continued in parts of Cambodia; therefore, some people could not return to their villages and instead sought to make their livelihood elsewhere.


These provinces are traditionally the most heavily populated and are characterized by poor rice yields.
EXISTING LEGISLATION

Legislation is in place to prohibit the cutting of mangrove wood for charcoal production. Prior to 1993, mangrove forests were under the mandate of the Department of Fisheries. For example, Decree No 33 on Fisheries Management was approved by the National Assembly on 09 March 1987. Article 18, Section (d) and (e) states that:

The cutting of forest or burning of flooded forest, and the carrying or selling of flooded forests, must be banned; in case each activity can be done, when there is a special licence from the Technical Institutions.

Mangrove forests are considered to be coastal flooded forests. In the late 1980’s, the government announced that cutting mangrove forests is an illegal activity in order to stop charcoal production and to protect the forests. But charcoal activities continued; in fact, more and more people began to make charcoal in PKWS given the expanding Thai market. In 1991, the Committee against Illegal Charcoal Production was established by the Provincial Authority to implement Decree No 33.

As more migrants came to earn money and the government started to destroy some charcoal kilns, kiln construction became smaller (perhaps kiln size decreased with fewer large trees and the need to build further inside the forest). As more kilns were destroyed, some former charcoal producers became middlemen while poor people fled deeper into the mangroves to avoid detection. Because of a lack of budget for monitoring and enforcement, the government had difficulty in stopping these illegal activities. Enforcement tended to be random: committees were set up to destroy charcoal kilns over a certain period before funding ran out. During this time (in the early 1990’s), the area began to gain national and international recognition for its’ unique, relatively pristine mangrove ecosystem culminating in the designation of protected areas status and Ramsar recognition.

THE PMMR TEAM AND LOCAL INITIATIVES

At the end of 1997, the PMMR project started to research and to consider how to conserve mangrove resources in PKWS. This project supports a strategy of CBCRM initiatives for the management of PKWS. The PMMR project has worked hard to establish good relationships and co-operation with all governmental levels: the PMMR team facilitates between the national level government and local people. The importance of this type of co-operation cannot be undervalued, and in Cambodia is imperative if government policies and laws are to implemented in a successful manner. In the capacity building of provincial and local authorities, the PMMR team has held training courses and sent provincial and local leaders to participate in training courses on mangrove forest management in Thailand.

Among these participants was Mr. Chup Tit, the chief of Peam Krasoap commune within PKWS. Chup Tit holds 20 years of governmental experience as a commune Chief. After participating in a series of study tours in Thailand, Chup Tit tried to create a ‘new village’ in which former charcoal producers could legally reside. The ‘new village’ is a pilot project. Chup Tit explains his reasons for wanting to create a model ‘new village’:

“I felt it was my responsibility as commune chief to do something...charcoal producers can find other, more sustainable⁹, ways to earn their livelihood. Villagers could then be involved in

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⁹ Mangrove forests are flourishing ecosystems, teeming with life. Many types of fishing activities take place within mangrove forests and these forests hold enormous potential in terms of possible livelihood activities. Of course, such activities need to be appropriate to a give context – a challenge in isolated Koh Kong, Cambodia. Even charcoal production could be practiced at a small-scale level.
protecting and managing the mangrove forest resources. This village could possibly serve as a model for other villages in PKWS.”

Under the management and administration of Chup Tit, 32 families that formerly produced charcoal came to live in the ‘new village’. Even though Chup Tit provided extensive support to these former charcoal producers and rice was donated from several sources\textsuperscript{10}, only 16 families are now living in the ‘new village’. Unfortunately, the siting of the village is less than ideal (lack of potable water supply, sandy infertile soils exposed to storms): life has not yet become easier for former charcoal producers. From September 1999 until January 2000, the PMMR team paid regular visits to the ‘new village’. What follows is one families’ story:

My name is Koy Koann and I am 27 years old. I live with my husband and child. We lived in Kagnchreach District, Prey Veng Province as farmers. Unfortunately, during the last 3 years that we lived in Kagnchreach District we harvested less rice because of floods in our rice fields. At the same time, I was told that I can easily make money by charcoal production in Koh Kong Province.

Then we decided to move here. Until now my family has lived in Koh Kong for 7 years. First we made charcoal in Loa Deumsavy Village. This village was not set up by the government; we lived with other migrant people here. Early this year (1999), all our charcoal kilns were destroyed by the government forces. Our village was easy for the local authority to see. So, we went deep inside the mangroves to make charcoal, in Preak Chrung in Koh Kang Village. This village was deeper in the forest and filled with good mangroves. However, the local authority also found us here.

When arrived to Koh Kong Province we did not have enough money to produce charcoal by ourself, therefore, we needed to borrow money from the middle person by giving back 50 per cent of the total sale price of the charcoal production. However, the 50 per cent profit that we get per month from charcoal production was not enough to cover the cost of living. We needed to pay for rice, medicine, gasoline, boat maintenance, secondhand clothes and others. Therefore, we had to borrow money and/rice from the middle-man, and pay back this money with a high interest if we were to survive from day to day. This loan never finished.

Still, we were not sure if we wanted to leave.

While my family relocated in the new village, we are still facing a lot problems including: lack of fresh water, no specific occupation, no fishing gear and it is difficult to trap crabs\textsuperscript{11} in this area. Today, my husband went to cut trees for house construction to sell to people in Peam Krasoap; also, he sells his labour for house foundation construction. I harvest thatch from grasses and bind it for frames that are used for roof and wall construction. I can produce 10 to 12 pieces a day. Even though we are facing all these problems, my family wants to struggle to live here because we would have nothing to do in our home province. We don't want to return to our home village even if we had enough money because we still shame.

\textsuperscript{10} Rice was donated by the Provincial Governor and the PMMR team.

\textsuperscript{11} Many families in the area are now trapping crabs, which is perhaps adding to the decrease in yields.
our neighborhood as we have no land. Some people returned to their home village because they still have their own land.

Presently, my child is sent to study at Pream Krasoap school that is not so far from our home. We would say health is not so big a problem, only getting a few bad colds and headaches.

THE 'NEW VILLAGE'

The 'new village' is located along the coastline of Peam Krasoap commune: the village faces a sandy beach and the open sea with mangroves and streams surrounding the rest of the village. At the beginning there were 32 families (September 1999), then there were 22 families (October 1999), then there were 19 families (November 1999) and now only 16 families are remaining. It is not exactly clear where all these families went. Those families that initially fled are suspected to have either returned to charcoal production (perhaps in the forest or in another village) or to their birth provinces.

In this village, Casuarina trees and various mangroves of the genus *Rhizophora* and *Heritiera* grow. The soil is poor in nutrients and there is no fresh water source. These two factors do not allow people to plant vegetables on a scale sufficient to sustain their livelihood. People dug three wells; however, these wells provide very little water and the watercolour is brown and smelly. Many of the existing Casuarina trees were cut before the new villagers came, leaving no protective barrier for wind and sea storms. Accessing the village through the open sea can be difficult when there are waves, and the path through the mangroves is long and not so easy to find or walk on. People are afraid of the snakes found on the path to this village.

Transportation for local people to and from this village is difficult because only a few people have small rowing boats. Sand fly bites inflame peoples skin: red, infected blotches are seen on everyone's body. During the rainy season people collect drinking water from Mr. Chup Tit, although they only have small containers for water storage (perhaps 30 litres). It is not clear where

12 Perhaps these villagers were lured by the high market prices of charcoal (a result of the recent initiative to stop the selling and buying of charcoal) and potential profits. One of these families built a kiln in the 'new village'; however, other villagers immediately reported this to Chup Tit who informed the relevant Park Rangers. Their kiln was destroyed and this family fled.

13 There are 24 villages in PKWS: many are fishing villages, some rely on upland farming, a few rely on illegal logging activities, and a few have agricultural land. All villages are resource dependent, many mixing their activities to earn enough of an income. All charcoal villages have been destroyed, forcing villagers to switch their livelihood or to make charcoal deeper inside of the mangrove forests.

14 Many inflamed sand fly bites were noticed by PMMR team members on each occasion visiting the village.
people will obtain their water in the dry season. Some people do not cover their water containers properly, resulting in insects breeding in the water and causing diseases. Villagers build their houses with small Rhizophoran mangroves (Ceriops sp.). The roof is made from the thatch (Nipa leaves and grasses) and the wall is made from thatch and wood boards. The overall situation in the ‘new village’ is poor: people do not have access to many resources.

The people in this village have no long-term jobs. Men are hired to cut poles for house construction in Peam Krasoap village, to drive these poles into the water when building the base of a house and to trap crabs. The women harvest and weave thatch and a few women repair traps and fishing nets. Sometimes the children help their fathers with their jobs. People only earn a little money from these jobs and it is difficult for villagers to buy food. When the PMMR team asked villagers to compare their current situation to when they were making charcoal, they all felt it was easier to live when they were making charcoal (when they could borrow money or rice from the charcoal middle-man and catch fish).¹⁵

The education of the children is not regular because the children need to take boats across the stream (about 1km) to Peam Krasoap village where the nearest school is. Children miss classes when parents use the boats for their purposes. These boats are small and old, carry a few people and cannot be used during the rainy season and or winds. On the other hand, school is not regular in Peam Krasaop because the teacher must also fish to earn enough money to support his family. The health system is very poor because the clinic does not exist in Peam Krasaop village. If someone is sick, their neighbours send the patient to the hospital in Koh Kong town, 10 km away.

Some villagers suggested that if they could not earn a livelihood in the ‘new village’, they would return to cutting mangroves for charcoal production deep in the forests. People need to eat. Even though their chances of having their kiln destroyed again are great, charcoal activities is the one thing that many ‘new villagers’ know how to do. Former charcoal producers are aware that charcoal production destroys the environment but argue that they have little choice because they have to feed themselves and their families.

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¹⁵ Villagers have always suggested that charcoal production is easier and less labor intensive than fishing. There is a reluctance for some villagers to take up fishing, perhaps because there continues to be a lucrative market for charcoal in Thailand.
produce charcoal. If someone had money to produce charcoal by themselves, they could go back to their home province. However, I was a labourer only, and I could not go anywhere else. I was told that before there were powerful middle-men who could protect your charcoal kiln from destruction but now there are only small (i.e. less powerful) middle person and they face many problems with the government forces in the process of breaking charcoal kilns.

We came to live in this new village because Mr. Chup Tit asked us. If we go back to our home province we have no job or land. We know that we cannot live deep inside the mangroves any longer because the government does not allow us to live there. It is difficult for us to choose where to live. If we had a job, we would want to live in the new village. When we don't have a job, we are not sure where we should live. Recently, we are struggling to make a livelihood. We don't have money to buy fishing gear, no experience in fishing, trapping crab near our village does not seem to be effective, we have no fresh water or large water containers. Also, transportation is difficult and all the people here, including my family, have itchy skin and cannot afford any medicine.

Today, my husband went to cut small trees from the mountain to sell to Peam Krasoap villagers and is hiring his labour for house base construction but this job is short term and does not solve our problem of how to earn a livelihood. If our standard of living becomes lower, we will go back in the same place and continue cutting mangroves again without fearing the authority, because, if we don't cut mangroves, we will die from starving.

According to Chup Tit,

"I wanted to create a model village with former charcoal producers where people take care of their environment. However, I feel overwhelmed and find this more difficult to do that I thought. It seemed easy to set up a model communities when I went to Thailand."

Chup Tit spent time in the former charcoal village discussing the importance of protecting mangroves and for finding more sustainable livelihoods. He has supported the villagers by providing 4 kg of nails for each family for house construction, an initial 5 kg of rice per person, old crab traps, fresh water and water containers. Moreover, he has helped villagers find odd jobs, lending out his boat and providing gas when necessary. He hires local labour when someone in Peam Krasoap village needs to build house base construction or for other odd jobs.

Even though Chup Tit has provided extensive support, this is a different relationship and support system than former charcoal producers would have had with a charcoal middle person. Indeed, it is important to understand the charcoal producer / middle person relationship. Understanding this relationship sheds insight into why kiln production continues and why villagers continue to return to charcoal production even though production is so unstable and short-term.

During the one-month period that it takes to burn mangrove wood into charcoal, producers need to eat and have some cash for gasoline and incidental costs i.e. boat repair, medicine. When a charcoal producer find themselves without money or rice, they met the middle person to borrow necessary supplies and money. An agreement is made between the middle person and the
charcoal producer. In return, the charcoal producer always sells their production to the middle person at a low price and/or repays the middle person at a high interest rate. In this cycle, the charcoal producer never earns enough money to pay back their 'loan'. While charcoal producers dig themselves deeper and deeper into debt, they always have someone to borrow money or rice from. The daily need for food outweighs the problem of long-term debt.

**The Government’s Recent Policy’s and Perspectives**

The government has been trying, unsuccessfully, to curb charcoal production for many years. Although the policy to prevent charcoal production is in place, it is difficult to find funds to break charcoal kilns, and then to monitor and enforce this policy. According to the Royal Decree on Protected Areas, the Provincial Authority gives the task of charcoal kiln destruction to the provincial Department of Environment (DoE) to undertake in co-operation with related departments.

In 1995, the Provincial Authority nominated the Inter-committee on Breaking Charcoal Kilns. This committee included: the chief of Agriculture, Forestry and Fisheries as chairperson; the chief of the DoE as a permanent member; and members from the Defence and Police departments. Its purpose was to enforce the Royal Decree on the Protected Areas and destroy charcoal kilns in PKWS. A series of charcoal kilns were destroyed under this initiative. However, people responded by building their charcoal kilns deeper inside of the mangrove forests.

Therefore, in 1996 the Provincial Authority again established an anti-charcoal initiative. The Inter-committee Against Charcoal Production Activities nominated the First Deputy Governor as chairperson, the chief of DoE as vice chairperson, and other related departments as members. This implementation, similar in nature to the 1995 anti-charcoal committee, also destroyed many charcoal kilns: again there was no follow-up to this initiative. Since the DoE lack funds for monitoring and enforcing anti-charcoal legislation, people move their kilns elsewhere. The DoE randomly broke charcoal kilns whenever funds allowed in the following years. Therefore, it was a known risk for anyone to produce charcoal, and unless backed by a powerful middle person\(^{16}\), the chance of someone's kiln eventually being destroyed was a reality that charcoal producers faced.

It was during the 1998 election period that the most pristine, beautiful, tall mangroves, nominated and protected as a Ramsar site, were destroyed in PKWS. The area is now a clear-cut of what once was an area abundant in wildlife and fish. PKWS was established because of its unique ecosystem, yet these mangroves have been decimated in recent years because of market demands for charcoal and logs in Thailand. Perhaps seeing such vast destruction spurred the provincial and national government to really consider how to stop charcoal production and illegal logging activities in PKWS. It became obvious that in the long run, illegal charcoal production activities would result in no one being able to earn a livelihood in PKWS, in addition to destroying an important ecosystem.

On 30 September 1999, the Provincial Authority (DoE) declared that the selling or buying mangrove charcoal was illegal and must be stopped by November 1st, 1999. This is the first time that the government has attempted to control middle person. Cutting the middle person is a final attempt by the DoE to try to successfully stop these illegal activities. The DoE is now working with

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\(^{16}\) However, those kilns that were supported by a powerful middle person (i.e. police or military) were not destroyed. It was generally the poorest of charcoal producers whose kilns were destroyed.
local villagers to find out where charcoal kilns are and is attempting to destroy the kilns in an equal manner.\footnote{Now it does not matter who is supporting charcoal production, every charcoal producer’s kiln will be destroyed. DoE staff are, generally, no longer involved in accepting bribes to allow charcoal production to continue.}

Provincial policy supporting environmental protection exists. Unfortunately, other than charcoal kiln destruction there are few additional activities implemented in PKWS because of a lack of budget. The DoE has indicated that should their be the potential budget and personal capable of management they would like to introduce consistent mangrove replanting schemes in addition to managing selected areas for charcoal production for local consumption. However, the priority of the DoE is to first stop the charcoal activities and then to introduce sustainable management concepts. The DoE is working closely with the PMMR team to consider potential management options and opportunities for environmental education. Still, there is room for any NGO or company to help solve charcoal production issues and to work with the DoE to find solutions. The DoE has few trained personnel in resource management issues.

From a national planning perspective, the draft \textit{Sub-decree on Protected Areas (PA’s) Management} provides an overall framework for which PKWS could be managed\footnote{There is room for communities to practice CBCRM within this sub-decree. In fact, specific management guidelines will have to be established for each PA.}. Each PA will be divided into different zones: core zone (protection), buffer zone (community subsistence) and community development zone (where people live). Such zones will determine what type of activities can occur in what area. Communities will work with the MoE to determine appropriate guidelines for each PA. However, new villages cannot be created in PA’s. Although this piece of legislation potentially provides an excellent ‘management’ framework, it will be difficult to implement in reality unless communities, relevant institutions and government authorities all agree to cooperate in implementing this piece of legislation. For instance, all players will need to agree to monitor and enforce charcoal production activities and regulations.

\textbf{The PMMR Team: Facilitating a Process}

According to the DoE,

\begin{quote}
"The IDRC project has been important in participating in mangrove protection and replanting because the government does not have enough money to implement that job (1999)."
\end{quote}

The PMMR team has close connections with the provincial authorities. Because team members have spent much time in PKWS, members are able to advise the provincial Governor. The PMMR team is in a position to work with the provincial government to encourage the government to curb the selling and buying of charcoal for export and to think about poor people in PKWS to find sustainable solutions for income generation. Therefore, the PMMR team has been working with Chup Tit, local villagers and the Governor in bringing people together to find solutions in addressing the plight of former charcoal producers.

In response to the 'new village', the PMMR team gave 1 ton of rice to the villagers, distributed through Chup Tit. Also, the team undertook this case study to gain a more in-depth perspective of charcoal production and the various players involved. Through spending time in the village, informal environmental education took place discussing the value of mangrove resources and why illegal activities only offer very short-lived benefits. Suggestions have been made on how to keep
the environment clean (i.e. burn garbage, protect their water resources) and techniques for home gardening. Even though villagers have had some support from the commune chief and PMMR project, life in the new village is not easy.

In an informal discussion that took place between PMMR team and the provincial government in October, the provincial government supported the creation of the ‘new village’ for displaced charcoal producers. The government recognises the need to do something to help former charcoal producers\(^\text{19}\) and suggested relocating people to a more ideal spot such as Tropeng Rhung, Koh Kong District (perhaps 50 km from Koh Kong town, outside of PKWS). After this meeting, the PMMR team undertook a strengths and weakness analysis of the situation as a tool for considering potential options for the ‘new village’. Relocation initiatives are never as good an option as they first appear.

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<thead>
<tr>
<th>NEW VILLAGE IN PKWS</th>
<th>RELOCATION TO TROPENG RHUNG</th>
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<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>- Support from commune chief;</td>
<td>- Dry, hot, sandy village;</td>
</tr>
<tr>
<td>- Community policing of illegal activities;</td>
<td>- Poor/infertile soils;</td>
</tr>
<tr>
<td>- Potential model village or a test site;</td>
<td>- Exposed to storms and sea surges;</td>
</tr>
<tr>
<td>- Possible fish, shellfish and crabs in the surrounding area.</td>
<td>- No fresh water;</td>
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<tr>
<td></td>
<td>- Isolated from nearest village;</td>
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<tr>
<td></td>
<td>- Health risks – lack of sanitation, contaminated water.</td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>- Land available with potential of land title;</td>
<td>- Health problems - the area is a malaria zone;</td>
</tr>
<tr>
<td>- Close to road #18 - being reconstructed - future transportation links;</td>
<td>- Unidentified support for relocation initiatives;</td>
</tr>
<tr>
<td>- Agricultural land (rice / upland farming) and nearby fishing grounds;</td>
<td>- Local residents not prepared, potential social conflict;</td>
</tr>
<tr>
<td>- Planned area for tourism and small industry;</td>
<td>- Unclear role of the District and potential &quot;Powermen&quot;.</td>
</tr>
<tr>
<td>- Land value will increase.</td>
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</tbody>
</table>

The PMMR team did not come up with any specific conclusions on the idea of relocation. Far more thought is necessary before this would ever be a viable option. Moreover, many villagers are not interested in relocation: people said they only wanted to move if it was a good, safe place that offered long-term livelihood security. This is something to consider if, and only if, families that do not have the option of returning to their home province are interested. If this option is considered by the provincial government, the PMMR team is ready to raise some of the serious issues regarding relocation initiatives with the Governor.

At the January, 2000 workshop on *Participatory planning and Management for PKWS*, the Chief of Cabinet stated that:

"We really supported the idea that Chup Tit had for creating the new village. However, not all people were even interested in staying in the village and many returned to the mangroves or to their homeland. We wanted to provide more support to Chup Tit but we have no money. In the future, we need to find more support for these initiatives or else they will not work."

\(^{19}\) This meeting highlighted how the Governor supported the activities of and suggestions from the PMMR Project.
Both local and provincial authorities requested that our project help with relocation initiatives or in finding solutions for dealing charcoal producers. Authorities recognize that poverty forces many people to continue destructive practices. As the understanding of the importance of the mangrove environment among government officials increases, officials are beginning to struggle with ways to help poor people. It is difficult to find sustainable solutions; however, everyone commended Chup Tit for trying to do something rather than just discussing the difficulties.

CONCLUSIONS AND RECOMMENDATIONS
Although the situation in the 'new village' is difficult, settlement in a recognized village\textsuperscript{20} offers a better chance at a future in PKWS than life as an illegal charcoal producer deep in the mangroves. This is the first time that anyone is thinking about charcoal producers once their kilns are destroyed. Chup Tit was trying to establish a model village that could provide an example for other villages in PKWS and this itself is an excellent idea. Unfortunately, the area where the 'new village' is located is less than ideal and the type of support being offered to these villagers is very different from the type of relationship that the charcoal producers held with middlemen.

Short-term survival needs require immediate assistance before longer-term options can even be considered. In order for villagers to improve their livelihood, they need to have a permanent income to support their living. In addition, they also need advice and training on subjects relating to their livelihood. Often local people can provide such support but sometimes there is a need for outside agencies to work with local people. Unfortunately, the plight of former charcoal producers is only one of a series of issues that need to be addressed in the area.

There is no doubt that charcoal kiln destruction is a tough action that leaves people in a desperate situation. If there is to be a future for anyone in the area, such illegal activities must be curbed; however, it is hardly fair that the poorest of the poor are forced to pay the cost of such environmental protection. The Ministry of Environment, through working with local communities, needs to find innovative solutions to resource management issues.

Indeed, long-term strategic strategies need to be considered rather than opting for short-term visible strategies like charcoal kiln destruction. This is especially difficult in PKWS where there is a serious lack of trained officials, money for enforcement and management options to encourage other activities or to prevent more newcomers for coming into the area to extract resources. However, there is a growing awareness of these issues and this is an integral part in the process of working towards future management and livelihood options in PKWS.

EPILOGUE
When the PMMR team contacted Chup Tit in January, we learned that eight more families had left the 'new village' to begin crab trapping in another village in PKWS. These families had borrowed money from a fishing middle person for gear and food, thus beginning a cycle of debt. There were only eight families remaining in the 'new village'.

\textsuperscript{20} The 'new village' is considered part of Peam Krasaop village.
Chup Tit was disappointed in the outcome of creating the 'new village'. The village had not been successful: the area was poorly sited and he did not have the resources to provide short-term work or rice for all of the villages. Only a few families were trapping crabs with some success. Chup Tit suggested that he was not sure of where to begin with training initiatives or longer-term options and wondered if the PMMR team could help him in this area.

What will happen to these families remains to be seen. Unfortunately, PKWS faced flooding in early January, with the 'new village' being in an especially vulnerable location. Crops, which had been growing nicely, were all inundated with water. This was easily the most difficult visit for the PMMR team, as these remaining villagers were trying so hard to survive in such a harsh environment\(^{21}\).

Those families remaining in the ‘new village’ are very poor. One of the men was ill with malaria\(^{22}\), and other families spoke of having typhoid fever. In spite of their poverty, they indicated that they did not want to leave the area or return to charcoal production. People are remarkably resilient. Remaining villagers are hopeful that crab trapping will pick up in the area surrounding the 'new village'. Villagers want a future in this area, and are trying not to become in-debt to a middle person. A number of families registered to be part of Peam Krasaop village, indicating their seriousness in staying in the area.

Life in the 'new village' is in a state of flux: no one knows what the future will hold. While this initiative was founded in hope for the future of PKWS, the difficulties faced in the area provided greater challenges than envisioned and have somewhat squashed people’s hopes. Somehow this initiative needs to be built upon, to illustrate that this is the beginning of a process in working towards sustainable livelihood options in PKWS.

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\(^{21}\) This re-emphasized how poorly sited the 'new village' was, being so vulnerable to flooding, erosion, winds and storms.

\(^{22}\) Ironically, he contacted malaria when he was cutting poles to sell for house construction to Peam Krasaop when he first came to the ‘new village’.