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## **The Outbreak of Peace: Communal Land Management and Traditional Governance in a Remote Cambodian Province**

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*This paper seeks to understand the changing dynamics of the ownership and governance of land and natural resources, in the context of rapid change in a remote province (Ratanakiri) in north east Cambodia. Due to historical inaccessibility and 30 years of civil war, this area has had limited exposure to outside influences. As well as having to rebuild their communities after conflict and displacement, local indigenous groups which make up the majority of the province's population have to adapt to market driven economic development in less than a generation. Land ownership has been rapidly changing from communal to private. This is resulting in landlessness and dispossession and widespread forest clearing by large scale land concession companies and cash cropping farmers. Action research into traditional conflict resolution and management systems in Ratanakiri carried out in 2006 and 2009 is complemented by investigations into land use and social changes in different villages, and into recently completed pilot communal land tiling.*

*A key element of this analysis is understanding how traditional systems of land and natural resource management systems function, and the role they could potentially play as the basis for communities negotiating their place in a changed world. Learning about how traditional institutions, ownership and governance models function, and could be adapted, can offer options for redefining our key culture-land relationships, and lead to alternative social and environmental land use dynamics which support sustainable agricultural and livelihood pathways for local communities in culturally and biologically diverse forested upland areas.*

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### **1. INTRODUCTION**

Ratanakiri Province in the northeast of Cambodia historically has been one of the remotest corners of the country, but to the indigenous peoples who have lived there for centuries; it is the heartland of their culture. Despite its remoteness, or because of this, Ratanakiri has been in the middle of conflicts between surrounding countries, and colonial powers who have tried to assert their control and influence over the area. Perhaps especially since independence this dynamic between remoteness and strategic importance has been the key political dimension in the Cambodian government's efforts to govern this area.

Ironically because of the civil war which has engulfed this area traditional systems of self governance and land use have survived as the basis of local peoples' coping strategies. This paper seeks to explore these alternative methods of governance and land use. It will also explore the dynamics between land, nature and human institutions, in the context of rapid change presently underway. The control and use of land is central to the context of these change processes.

In biologically and culturally diverse forested areas such as Ratanakiri, the linkages between property rights, land distribution, livelihoods, social inequality and environmental management are highly contested (Buch-Hansen, 2006; Fox, 2000; Ganajapan, 1998; Dove, 1985). Opposing cultural perspectives about land use has prevented open discussion and experimentation in adapting and hybridizing traditional institutions and land use practices to meet changing circumstances. Instead their wholesale replacement with scientifically based management models is advocated. Universal solutions are applied which ignore the social, economic, cultural and political contexts within which social and environmental change occurs (Buch-Hansen, 2006).

This paper will argue that if there are many different cultural relationships to land, why are 'mono-ownership' proscriptions for land so universally applied across such a great diversity of cultural contexts. A greater acceptance of diverse and integrated land uses is required, as well as the management institutions and ownership models necessary for supporting these. Ultimately this can lead to possibilities for creating alternative social and environmental land use dynamics. Developing land use systems which satisfy multiple management objectives requires a shift from paradigms which promote mono-culture and mono-ownership.

Some writers have called for a radical rethink of existing western legal systems, to move away from concepts of land ownership that serve individual/corporate interests to models which recognize and promote ecosystem based governance (Sandberg, 2007; Butler, 2000). There are few examples where ecosystem properties have played a role in crafting property rights (Sandberg, 2007). Recent empirical studies of the way property systems work on the ground have questioned many western assumptions about the need for centralized administrative and legal control over land, and also the idea of the state as the overriding land holder (Benda-Beckmann et. al., 2006). Customary tenure rights and even 'customary' land markets have often been found to distribute access rights more equitably and provide a much sounder basis for economic development (Chauveau and Colin, 2007).

In order to understand what the basis for alternative models might look like, it is important to understand how traditional management/property systems function in terms of community cohesion, livelihoods and natural resource management. The management of forested tropical areas depends in part on learning from knowledge systems which have maintained high diversity with agricultural production over significant periods of time. This includes building on the merits of customary institutions and management, bridging the gulf between these institutions and those of the state and at the same time breaking down existing prejudices and outmoded development approaches. Understanding these kinds of experiences and experiments in developing plural, and adapted traditional systems is crucial both for countries of the Global South and North.

After a general introduction to Ratanakiri Province this paper will summarize the war and conflict which this area has suffered as a background to understanding the present day situation. Since the coming of peace traditional lifestyles, governance systems, beliefs and livelihoods are being overwhelmed in many villages. After an explanation of communal management and governance systems, the issues surrounding changing land uses and management will be discussed. Finally options for recognizing and adapting these communal land and traditional governance systems will be explored.



2006 and 2009 research processes indigenous elders who have the legitimacy and hold the customary knowledge of their group oversaw and provided advice to more literate indigenous youth. During the research group discussions with elders and villagers were conducted in local languages. Follow up visits were made to the village to feedback, check and clarify information. The author's role in 2006 and 2009 was to provide guidance in developing the research process and in conducting the village research, as well as assisting with documenting the results.

### 3. INTRODUCTION TO RATANAKIRI PROVINCE AND ITS INDIGENOUS PEOPLE

Ratanakiri is considered one of the poorest provinces in Cambodia (MOP, 2005). It borders Laos to the north and Vietnam to the east and comprises 11,973km<sup>2</sup>. Eight indigenous groups ranging in size from 4,000 to 30,000 people are found in the province (See Table 1 - MOP, 2008). Despite a low overall population density, settlement and land use is concentrated along main roads and on the fertile 200,000 ha central basalt plateau, which indigenous farmers have long used for swidden agriculture due to its fertile soil, good yields and rapid fallow regrowth.



Figure 2: Ethnic Minorities in Northeastern Cambodia Source: Dolin 1996, modified from Diffloth, 1982

Ratanakiri and neighboring Mondulakiri Provinces, with populations from the 2008 census of around 150,000 and 61,000 people respectively, are the only 2 of Cambodia's 24 provinces where indigenous peoples make up the majority. Compared to the overwhelming Khmer

majority in the country however their numbers are small. Their culture is village based, and only very recently have pan village indigenous organizations begun to develop. There are no precise figures of the populations of these groups. The 2008 census identified 23 different minority mother tongues in Cambodia. Counting mother tongue speakers only the census approximates there are 179,215 indigenous people living in the upland forested areas of the country, or 1.4 per cent of the population. The populations of the main groups of indigenous minorities are given below.

Table 1: Approximate populations of indigenous peoples in Cambodia

Indigenous minorities who speak their mother tongue.	Ratanakiri Province.			Preah Vihear and neighbouring provinces	Mainly in Mondulkiri Province	Mainly in the northeast of the county <sup>4</sup>
	Jarai	Tampuan	Kreung	Kuoy	Phnong	Other
179,203	26,335	31,013	19,998	28,612	37,507	35,738

Source: 2008 National Census (MOP, 2008).

High population growth rates, both within communities and from in-migration, are resulting in increasing land pressure. Annual population growth rates between 1998 and 2008 were 4.65% or the 4th highest provincial growth rate in the country (MOP, 2008). Rural underemployment, a decreasing land area for a growing population in lowland areas and the availability of fertile cash cropping soils continues to attract Cambodians to relocate to these more favorable areas.

The story of the indigenous communities in Ratanakiri province is, like many others in similar situations, one of adaptation to their forest environment over considerable periods of time including; belief systems compatible with coexistence with the natural and supernatural forces that surround them; communal systems of land management which allow for rotation of agricultural plots around the village's land area ensuring forest regrowth and soil fertility regeneration; decentralized autonomous governance systems where each village looks after its own affairs; and systems of community law which resolve conflicts and dispense justice in the interests of maintaining community harmony (Backstrom et. al. 2006; Ironside and Backstrom, 2007b).

In pre-colonial and colonial times these upland areas were a source of forest products (rattan, cardamom, ivory, honey and beeswax, tree resins, etc.) (Maitre, 1912), and before the French banned the trade in 1905 a source of slaves (Aymonier, 1895). The concept of “wildness” has long been associated with the Ratanakiri region. Meyer (1979; 682) writes, “In the middle of last [19th] century the maps of Cambodia mentioned simply, in a vast blank area in the north-east: <savages/wild tribes, forests, frontiers unknown>”<sup>5</sup> These dangerous and wild areas therefore were considered populated by equally dangerous, wild, backward and uncivilized hill tribes. The French traveler and writer Henri Maitre (1912) explains the difficulties that the French colonizers faced in administering these remote upland areas when he wrote;

<sup>4</sup> This figure includes smaller groups found in Ratanakiri including Kachok, Brao, Kavet, Lun, etc. and also groups in neighboring Mondulkiri, Kratie and Stung Treng provinces as well as several other provinces throughout the country.

<sup>5</sup> Meyer (1979; 682). Original French: Au milieu du siècle dernier, les cartes du Cambodge mentionnaient simplement dans un vaste blanc au nord-est: <tribus sauvages, forest, frontiers indéterminées>.

'without the will to devote the capital necessary for its development and the acceptance that investment would not give quick returns, this hinterland was soon to become abandoned like an encumbrance without value – a bellicose population that was poor and difficult to handle, poor soils, no resources, prone to anarchy and disorder.... French administration was intermittent, some of the posts that were established were abandoned, there was no direction or general plan and the area remained *insoumis et inconnu* (un-subdued and unknown).... it was time to end this anarchic situation, to give the 'Moi'<sup>6</sup> region a management that it needs, a unity of organization that it has never had, to sort out what countries had influence over what areas and most of all to give these countries administrators that they like and who don't consider their posting a momentary exile.' (Maitre, 1912; 549-50)

This was written while the French were struggling to exert control Mondulkiri Province, to the south of Ratanakiri, due to an armed insurrection by the Phnong (Guerin, 2003). However the story of the region since Maitre's time is that of its eventual subjugation and 'development', even if this process was not rapid and, given the areas unique history, at times stalled and even 'reversed'. This process is briefly summarized in the next section.

#### 4. CONFLICT AND WAR IN 'POST COLONIAL' RATANAKIRI

In most respects the intervention of the Cambodian government in Ratanakiri and Mondulkiri between 1953 and 1970 was colonialist like other places in Laos and Vietnam (Meyer, 1979). Under the pretext of administrative unification, governments attempted to enforce the destruction of the cultural identity of the so-called ethnic 'minorities', and in some cases they even attempted to physically eliminate them (Meyer, 1979). But the intervention of the government in the northeast was also in some respects different.

Early attempts at governing the area consisted of a radical plan of deculturization by the classic strategy of 'modernization' of settlements and traditional dress, the replacement of local languages by Khmer, and finally their conversion to Buddhism (Meyer, 1979). Meyer (1979) comments that the Cambodian leaders committed a grave political mistake in treating the Phnongs (or Khmer Leu) as citizens of the second zone, considered to be backward, in need of assistance and civilizing by 'Khmerisation'.<sup>7</sup>

Following Sihanouk, Cambodian leaders since have always considered the inhabitants of Ratanakiri and Mondulkiri as having the same rights as people from the rest of the country; however this recognition has always come with a tinge of paternalism. Sihanouk stated for example to the people of these provinces, on January 28, 1965, to, "Let yourselves be guided by the competent services of the province who will council you on the choice of placement of your villages, the best sites for your farming, etc..." (Meyer, 1979; 686). The local populations however were not disposed to accept this advice, and the civil and military functionaries charged with implementing the government's plans were too often incompetent and arrogant.

Following the failure of voluntary settlement by Khmers from the lowlands, due to malaria and the inhospitable environment; the Cambodian government finally settled on the classic formula

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<sup>6</sup> Vietnamese term of denigration for upland indigenous hill tribe groups.

<sup>7</sup> Phnong refers to Cambodia's largest indigenous group found mainly Mondulkiri Province. It is also a Khmer term of denigration for all upland indigenous groups. Khmer Leu or upland Khmer is the term Sihanouk gave for these people to signify that they were part of the Khmer or Cambodian family.

of western colonialism, the creation in 1960 of a large rubber agro-industry. Plans were drawn up to plant 8,000 ha of rubber on the best rich red soils from which the indigenous occupants were expelled. The plantation was directed by French specialists and required 1,000 contract laborers which were recruited from the lowland plains, but few stayed.<sup>8</sup>

Astonishingly, says Meyer (1979), there was no attempt to encourage the growing of food crops in neighboring areas. All supplies for the project were transported from Phnom Penh, 600 kms away. Meyer states that it would have been more normal and intelligent to incorporate the local populations into development projects and agricultural modernization by using their extraordinary knowledge of their natural milieu, or at least to listen to their advice. However governments in Phnom Penh during the 1960s and since have seen no reason to listen to the local people. Sihanouk instead chose to colonize without being preoccupied with the economic role or the land rights of the Brao, Jarai, Tampuan or Phnong. Meyer (1979; 686) comments “Revolt was therefore inevitable”.

Due to a lack of labor, the Government decided to recruit (or requisition) the indigenous villagers who had just been pushed off their land by the plantation. When these workers resisted or rebelled, military detachments pillaged, raped and assassinated people in a number of villages. Through the 1960s, the conflict escalated, beginning with ambushes, followed by ferocious repression, and then guerrilla warfare armed and advised by the Vietnamese (Meyer, 1979). The anthropologist Matras-Troubetzkoy described how atrocities were being committed everywhere on a daily basis, in an attempt to sow terror in the villages. From there, people fled to the forest where the resistance soon organized (Matras-Troubetzkoy, 1983).

Therefore due to the actions of the Sihanouk Government, Ratanakiri was ripe for rebellion in a sensitive area just when revolution was also occurring in neighboring Laos and Vietnam. This unrest meant that the Khmer Rouge found willing allies and initially anyway a 'marriage of convenience' was formed (Colm, 1996). Facing a mass revolt Sihanouk gave carte blanche to his Prime Minister, Lon Nol, to bring under control an uprising blamed on communist subversion. The brutality of the repression contributed to generalizing the guerrilla warfare, and soon road building and rubber planting had to be stopped. The army tried implanting military colonists (and in some cases ex-convicts) in the region (Colm, 1996). Some began to farm and even start family rubber plantations. In common with the present day, the creation of small rubber holdings following the Malaysian model was not even considered by the military people responsible, meaning their incompetence was unfathomable (Meyer, 1979).

Also, in line with the colonialist past, Sihanouk entrusted the governance of Ratanakiri and Mondulkiri to military governors, to be the instruments of economic and social development. Setting the stage for the future, some higher officers transformed themselves into forest exploiters and wood merchants who violated the regulations and creamed the finest trees out of the forest. Others attacked the wildlife; and by 1970, according to Meyer (1979), the magnificent herds of bovines (kouprey, gaur, and banteng) and deer (sambar and Eld's deer) species were only a memory. The craftiest officers collected tithes from transporters and small Chinese merchants.

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<sup>8</sup> In reality due to the many difficulties encountered only around 2,500ha of rubber was planted before war broke out in the region in the late 1960s.

From 1970 the Khmer Rouge took control of the north east of the country (Colm, 1996).<sup>9</sup> As Colm (1996; 4) says, "Possession of this first 'liberated zone' was key to the Khmer Rouge's ultimate victory. The rebel group gained substantial territory in which to recruit and train a military force and increase their support base among the population."<sup>10</sup> After the overthrow of the Khmer Rouge, Ratanakiri remained isolated due to ongoing civil war and general insecurity in more remote parts of the country right up to the late 1990s.

Like all new countries of South East Asia, Meyer (1979) concludes Cambodia did not know how to integrate its ethnic minorities into the national community, nor their mountainous territory into the country's development plans. Rather than making use of local peoples' knowledge of their area, outsiders have consistently been deciding what is best for these groups eroding their traditional systems of natural resource management and their cultural identity.

However to a certain extent also due to the ongoing turmoil, their physical remoteness from central government power and their ability to subsist/hide when necessary in the large forested areas close at hand, Ratanakiri's indigenous groups have been able to avoid the large scale deculturation process which Sihanouk set in train for them in the 1950s and 60s. What is somewhat unique about this situation is that instead of outside influences weakening communal systems, it was because of these systems that the indigenous communities were able to deal with the lethal bombing campaigns, displacement, starvation, etc. It was also because of these systems that people were able to quickly re-establish themselves when returning to their land and homes following war. People demonstrated that given the choice their preference was to return to their traditional village areas and continue their rotational shifting agriculture.

#### 4.1. THE OUTBREAK OF PEACE

With the coming of peace remote upland areas such as Ratanakiri are, in a case of *déjà vu*, now being rapidly opened up both by in-migration and large scale agro-industry. As well as having to rebuild their communities, local groups have to adapt to market driven economic development in less than a generation. Land ownership has been rapidly changing from communal to private. This is resulting in landlessness and dispossession of the local people. Ratanakiri has remained over 90% forested, despite the presence and practices of shifting agriculturists, for some considerable periods of time (Fox, 1998). Recently however widespread forest clearing by large scale land concessions and cash cropping farmers (including indigenous farmers) is greatly simplifying pre-existing 'natural' and modified land cover.

Several contradictions are brought out in this conflicting dynamic. Competing cultural perspectives and belief systems between local groups and more recent in-migrants explains a lot about the way landscapes are being transformed, and the way resources are revalued and used. One particular irony for a country such as Cambodia is that concessionaires and cash cropping farmers (including indigenous farmers) are converting fertile land from food growing

<sup>9</sup> The decision to abandon the northeast of the country following U.S. meant the Cambodian army ceded control to Khmer Rouge and Vietnamese forces an area equivalent to one quarter of the area of the country. Intense, even daily, bombing over all parts of the province continued until 1973. An indigenous villager once described this onslaught as 'breakfast, lunch and dinner bombing'.

<sup>10</sup> In 1968 the Khmer Rouge possessed only ten guns for the entire Northeast Zone, and during the Cambodian Government's 1969 "offensive", they numbered only 150 troops, not all of whom were armed. Even into the 1970s the Vietnamese were a far more powerful force in the area than the Khmer Rouge, with their T 10 division that covered five northeastern provinces (Colm, 1996).

and diverse secondary forest to luxury and non food crops like cashew, rubber, cassava for biofuel, etc.

Given Cambodia's violent past therefore there is a strong analogy between development and warfare, particularly in the remote areas of the country. Both during and post-conflict men and equipment on both sides were used in a war against the forests as much as against each other. Logging and exploitation of resources such as gems by both sides were crucial in financing the civil war. After their invasion in 1979 the Vietnamese extracted payment in logs in fixed ratios for the numbers of soldiers who were killed and for 'development' infrastructure they built. The Thai economy also benefited greatly from Cambodian resources during the civil war.

There are also however considerable differences with the post colonial past in that now villagers don't have the space to flee, like they did in the past. There is not the same threat of war to justify repression, but now the mantra of economic development has become the new *raison d'être*. A sealed road is now being completed linking Ratanakiri with the rest of Cambodia and with Vietnam. This time also workers arriving from the lowlands are staying because of the improved conditions and lack of options in their home provinces.

The nature of the conflict over indigenous peoples' land and forest, during peacetime therefore is different but also worryingly familiar. Now the 'civilizationist project' is able to be recommenced except that this time the colonists are Khmer elites, and companies from Vietnam, China, Korea, etc. Following the Sihanoukist model, Cambodian government policy is to transform the northeast into a 4th pole of economic development, largely through industrial plantations and eco-tourism development.<sup>11</sup> In these processes the actors and story line is much the same; the military, police and their guns heavily involved in forest exploitation and guarding concession companies, military and high officials as major investors in concession development, government and concession company staff cooperating closely together, and villagers with few rights.

Kanat Thom villagers in Andong Meas District for example are dealing with a rubber concession which has been granted over their traditional lands. They said many of them went and fought so the country could be at peace. Now if peace means they lose their land, they wonder why they bothered to go and fight. Villagers said they have never sold any land, and now they are told their land belongs to the state. They were not able to go back to their old village site after the war because of the presence of Khmer Rouge soldiers. Villagers use the land near their old village for shifting cultivation. They said they asked to keep this area but the company just took it.

The post-war recovery and development boom therefore is having a profound and marginalizing effect on many highlanders (Backstrom et. al. 2006). Given that a lot of this economic activity is based on illegal land clearing, logging, unproductive land speculation often through forced and illegal land buying at ridiculously cheap prices, the losers in this process are the indigenous communities and the forests. The many pay the cost of the few villagers who sell or destroy the village resources for their own personal gain. Perhaps the biggest problem is a lack of authority/security for communities to defend their communal land and forest.

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<sup>11</sup> The other 3 poles are Phnom Penh, Siem Reap and Sihanoukville (or Kampong Som).

From this brief sketch of the area's history and present situation it is now possible to look at how traditional governance systems function and understand how they are coping with these changes.

## 5. TRADITIONAL GOVERNANCE

An important aspect of traditional governance in Ratanakiri is the lack of a political hierarchy above the village level. Villages were/are independent from each other and each individual village regulated land use within its boundary. Village affairs are managed through systems of customary governance run by village elders. The more recent artificial delineation of communes which group and administer these previously autonomous villages has created significant conflict and competition, particularly over land along unclear boundaries.

Traditional customary law practiced by hill tribe communities in Cambodia is based on consensus. "Ad hoc tribunals" are established in a community when required. Flexibility allows for adapting the process and the actors involved to the actual circumstances of each case. The most qualified and respected members of the community are chosen to pass judgment following wide participation of community members in the process.

Conflict resolution aims to reach agreement between the parties so that the aggrieved has been compensated, the guilty party is punished, the two parties have been reconciled and harmony has been restored (Backstrom et. al. 2006). Fines go to the victims, with some used (usually from both parties) for the important reconciliation ceremonies which are designed to bury the conflict forever. Many local government officials recognize the important role traditional law plays in local justice.

Kak Thoum villagers described the role of traditional elders as: 'They deal with the conflict in order to make people united, without vindictiveness, to prevent future conflict and to avoid having (or creating) crimes in the village. If the conflict isn't resolved, the unity and communication between people will be broken, there will be more conflicts and there will be anarchy in the village. This conflict resolution process can allow people rights, can give an opportunity to someone to give their opinion without forcing them and can change a serious problem to normality'. (Backstrom et. al. 2006; 20).<sup>12</sup>

The problem for traditional authorities however is that in dealing with present day conflicts village elders are being asked to resolve land and forest/logging disputes involving officials, police, soldiers and/or private business people who either have guns or are much more powerful than them. Without any authority to do this elders in some of the hardest hit villages prefer not to get involved (Khiev, 2006). Young people in several villages said that nowadays the elders are not able to manage land and forests well and this is partly the reason for them losing some respect for their elders.

While the authority of the traditional leaders is being eroded the state authorities are not dealing with illegal land and forest activities either. Villagers said they have noticed that with the increase in the role of the state in people's lives there is also an increase in illegal activities. People said the reason for this was there is a standard body of formal law but, 'no one obeys the

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<sup>12</sup> Kak Thoum Village is Tampuan ethnicity in Kak Commune, Bokeo District.

laws' (Chan and Peung, 2006, in Ironside, 2006; 4). Villagers said that in this situation there is no mechanism to make sure people won't re-offend. An Ul Leu villager described the problem as; 'The traditions, cultures, beliefs, the livelihoods of indigenous peoples in their communities, [including] customary laws, traditional authorities, and natural resources are all being destroyed.' (Ke, 2006, in Ironside, 2006; 4).<sup>13</sup>

Despite this community members overwhelmingly endorsed the traditional legal system and the elders as a viable way for them to be able to manage their affairs and their land and forests. In 2006 it was found that out of 257 cases that had been dealt with in 10 villages in the recent past, only six cases were taken to the courts (Backstrom et. al. 2006).<sup>14</sup> Even in the face of rapid change and even in communities which have been seriously impacted by land loss, etc. the traditional justice system is managing to maintain a strong moral code and trying to deal with and adapt to many new and complex conflicts. This work is directly benefiting these communities through guarding against abject poverty for the most vulnerable, delivering justice and maintaining law and order, etc. In this sense the consequences of the social disintegration that is being caused by new development influences is not yet a widespread social issue.

To avoid the disintegration of indigenous cultures and societies in the face of this change, communities and their elders need to be supported and their work in maintaining social order needs to be recognized. Community practitioners requested training and recognition, as elders at present lack the authority and support to deal especially with new land and forest conflicts. It could be argued that actually maintaining and supporting these systems is the key to indigenous peoples' development and poverty reduction for the foreseeable future.

### 5.1. COMMUNAL LAND MANAGEMENT

Maintaining social unity is a key requirement for maintaining long term, stable land and forest management cycles, and for managing systems of use rights which allow for alternating periods of use and fallow. The basis of the functioning of traditional rotational land use systems is this flexible system of use rights over land. A family has individual rights over a piece of land while they are planting and harvesting crops. When the land is left fallow and the forest grows back the family gradually loses its exclusive rights and the land reverts to being community owned again.

Another feature of hill tribe cultures in Ratanakiri was the dispersed distribution of villages over the landscape (Bourdier, 1995). This decentralized distribution of people allowed for dispersed impacts and rotations allowed for sufficient time for recovery. This points to some very different management practices to the ones usually practiced today. Now instead of spreading impact and allowing for periods of regeneration, agricultural land use is sedentary and populations are concentrated. The result is degradation and deforestation.

Longitudinal land use studies in Ratanakiri have demonstrated how traditional practices have maintained forest cover and ecosystem function over the long term (Fox, 1998; Fox et. al. 2008). Fox (1998) compared land cover change from 1953 to 1996. Analysis of 1953 aerial

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<sup>13</sup> Ul Leu Village is Tampuan ethnicity in Seda Commune, Lumphaat District.

<sup>14</sup> This figure also understates the number of cases dealt with as some villages said they deal with routine conflicts, such as animals eating crops, all the time (Backstrom et. al.). Disputes ranged from family matters, defamation and insults, fighting, theft, destruction of crops, land and natural resource conflicts, etc.

photographs showed that 21% of the area was active swidden and 60% was secondary forest (fallow lands). In other words 81% (21% + 60%) of the land area was being used for swidden agriculture in different stages of the cycle. Over the 43 year period studied Fox found that overall tree cover (forest and secondary forest) remained constant at around 77% of the landscape, despite the fact that 81% of the landscape was being used for swidden farming. Fox (1998; 1) comments that, “while 77% of the landscape remained under forest or some kind of secondary growth, land cover on any particular plot may have changed several times.” He also observes that “In a swidden agriculture system the perceived dichotomy between agriculture and forest is for the most part artificial. Swidden fields, secondary regrowth and forests are all part of the same agro ecosystem.” (Fox, 1998; 20-21).<sup>15</sup>



Traditional communal swidden agriculture systems are not able to function as in the past due to the inability to protect fallow areas from the pressure of an influx of outsiders wanting to buy land. Partly as a way to claim their land and partly for their desire for cash income, swidden farmers have been planting their fields in cashew nuts.

**Photo:** 1953 aerial photograph showing intensive land use for swidden agriculture, near the present day site of Ban Lung town.<sup>16</sup> The area in the south of this photo was planted in rubber in the 1960s.

<sup>15</sup> Fox (1998) also comments that the expulsion of villagers from their homes and the banning of swidden agriculture for 7-8 years by the Khmer Rouge is the most likely cause for the increase in mature forest cover from 18–26% over this 43-year period.

<sup>16</sup> The iconic Yeak Laom volcanic Crater Lake 5 kms to the east of Ban Lung town can be seen in the top right of the photo. The area shown in this photo is slightly south of the area Fox (1998) studied.

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## 6. ADAPTING TO CHANGING CIRCUMSTANCES

Indigenous peoples' traditional systems have long been adjusting and adapting to changing circumstances. The flexibility inherent in these systems means that up to a point change is able to be accommodated. One example of this is the way new cropping systems such as cashew nuts are dealt with in terms of allocating rights to use the communal lands. Customary law acknowledges the right of the individual family to harvest the crops which they have planted on a piece of land, for as long as the trees are productive. However the land remains the community's.

It has been to a large degree through the efforts of many indigenous families planting and tending cashew trees in their upland rice fields that 70,000 hectares has been planted in Ratanakiri Province over the past 10-15 years (Ho Siew, Agricultural Merchant, personal comm.). This area of cashew nuts is the equivalent of developing 15-20 3,500 - 5,000 hectare concessions. While this has had some environmental impact, the social impact could be described as largely positive.

A further study by Fox et. al. (2008) pointed to the role of traditional management in controlling the worst aspects of these kinds of developments. Fox et. al. (2008) again compared land use change from 1989 to 2006 in three different villages. One village (Krola Village, O Chum District, See Appendix 1) have restricted the area of cashew nuts each family can plant to 5 ha and also importantly have controlled land selling in their community. As a result overall diversity and forest cover has been maintained to a large degree. However in two other villages where land pressure was greater and community management was less effective the conversion of land to cashews and the influx of outsiders buying up land for cash cropping has resulted in widespread deforestation. This highlights the difference between villages which are able to act in unison and those where community authority had been fragmented by privatized land regimes. In one village (Tuy, Tingchak Commune, Bokeo District), where village authority has fragmented and land selling and clearing has been out of control, deforestation rates were found to be 5% per year over the 17 year period studied (Fox et. al. 2008, See Appendix 1: Tingchak Area Land Cover).<sup>17</sup>

### 6.1. THE INDIVIDUALIZATION OF THE COMMUNAL LANDS

The other consequence of the conversion of land to cash crops such as cashew nuts is the way this process is interpreted by government officials to fit the mindset of private property and industrial agriculture. The 2001 Land Law grants indigenous communities the right to apply for a communal land title and in the interim the right to continue their traditional management of their lands.<sup>18</sup> Land Titles Dept. officials in Ratanakiri however now argue that planting cashew nuts is not a traditional practice and, because cashews are a long term crop, the community land has become individualized.

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<sup>17</sup> Tuy Village is also bisected by the main road to Vietnam. In 2001 villagers explained that the forced sale of 100 hectares of their land to a powerful business in 1999 was the cause of the breakdown of their ability to control subsequent land selling (Ironsides, 2009).

<sup>18</sup> Land Law 2001, Article 23: '... While waiting for legitimate recognition of the community by-laws, the groups actually existing at present shall continue to manage their community and immovable property according to their tradition and shall abide by the provisions of this law.'

However from the point of view of traditional law a community member planting cashew nuts is no different from the state issuing a concession to a company for a certain number of years. State land does not become private land as a result of a long term concession. Of course the likelihood that a family will give up a piece of land after the cashew nuts have ceased to produce is probably slight. However from the traditional legal perspective the community retains ownership of the land, while bona-fide community members have the right to use it.

The wholesale rejection of the community's rights to its communal land by state authorities from the planting of cashew nuts means that until the community is able to obtain a communal land title, when faced with an economic land concession community members are only able to claim possession rights over lands they are presently using. Instead of excising all communally owned land from a concession therefore, only in-use upland swidden fields are treated as subject to any legal possession rights and excised. Fallow areas, old burial sites and even spirit forest areas are given little recognition. In fact when faced with an economic land concession indigenous community land is defined in the narrowest possible sense. This obviously suits the concession companies and government officials who facilitate their activities. The resulting difficulty in accessing small patches of land surrounded by a mono-culture plantation and the inability to expand their swidden fields means many villagers give in and sell (or are coerced to sell) their land to the company.

A further consequence of this land individualization and lack of recognition of communal lands are several cases of the destruction of burial and spirit forest areas by concession companies. As a result of land clearing bones have been unearthed, and clay rice wine drinking jars which are placed on grave sites have been destroyed.<sup>19</sup> In a notable case in Monduliri Province a concession company has cleared an area inside an important spirit forest area to build their offices. This desecration touches at the heart of indigenous culture and symbolizes the clash of cultures presently in play. There is no indication that traditional management of burial and spirit forests has changed in any way and therefore communities' rights to continue their management of these areas should be recognized. These sites which are so important to local communities represent only a minor fraction of the total area of land under a concession company's control. This is indicative of the weak protection of indigenous peoples' rights despite laws and policies intended for that purpose.

A lot of the arguments made about the limitations of communal land management highlight a general ignorance of communal land systems. The Cambodian legal system (which is based on French/western concepts of individual land ownership) does not recognize dual or overlapping rights over a piece of land. Instead there is an either/or dichotomy where a single private owner is recognized to the exclusion of all other overlapping claims. Where outsiders are able to legally claim a piece of land, through the concession system, there is an inevitable conflict with indigenous communities who were physically first in the area. A bias towards private land ownership means that considering only which party was first to obtain legal rights over a piece of land, leaves little incentive for the private owner who wins this competition to share, cooperate or compromise.

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<sup>19</sup> In the past a buffalo would often be exchanged for one of these jars.

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## 6.2. COMMUNAL LAND TITLING

Communities in the meantime wait for their land to be titled. Three pilot communal land titles are being completed after a six or more year process. This is too late for many, as over the past decade or so many communities have lost significant areas of their traditional lands. Two of the three villages which are in the process of finalizing land titling represent good examples of land and livelihood security, mainly because land selling has been strictly controlled. One of these villages (L'eurn Kren, O Chum District) has planted up to 50% of their land area in cashew nuts, but expansion of this is now more controlled as there is still land available for food production and shifting cultivation. In comparison a neighboring village (Phnom, Ban Lung District), where there have been no titling activities, has sold a large proportion of their land and now a tourism concession company is coercing villagers to sell more of their land.

Another pilot village (Andong Krolung, Monduliri Province) depends on swidden agriculture and resin collection in surrounding forests for their livelihoods.<sup>20</sup> Community members are strongly protective of their lands and have plans for developing community marketing, tourism, etc. The third pilot village (La-en, Kon Mom District) has been impacted much more by land selling; due to the activities of more powerful officials and business people, less effective community management, internal conflicts and also weak outside facilitation. As a result community livelihoods are more precarious than they were 10 years ago. Villagers have sold a lot of their cash cropping land, a lot of their domestic animals and now many are dependent on pre-harvest loans from agricultural merchants for the income to survive from one harvest to the next. Some outside assistance is being given but serious efforts are required in breaking this dependency and indebtedness.

Approximately another 15 villages in both Ratanakiri and Monduliri Provinces have either completed or are in process of obtaining recognition as a legal entity, which would allow them to apply for a communal title. There are plans to significantly increase this number. Again, though it is as yet too early to tell, indications are that this legal recognition can increase villagers' power in negotiating with concession companies. Government representatives see the process as bringing these communities 'under the law'. Insofar as the law is implemented this affords them rights when dealing with these companies, etc. However apart from obtaining official recognition and the right to apply for a communal land title, legal entity status potentially also opens up possibilities for communities to enter into other legal agreements such as supply contracts, community marketing, community rubber development, developing intra and inter village banks, and potentially for accessing outside credit. Ultimately new livelihood systems need to be developed to protect the land and for growing village populations.

The legal entity process therefore represents an interesting adaptation to incorporate traditional leadership into a government recognized village representative structure. During the process communities select (generally by election) a committee to manage their lands. They also develop land and forest management regulations and internal by laws to regulate the functioning of the committee. Committees vary in size but can include 15 or more people, including important elders along with other influential members of the community. Community members' overwhelming motivation for undergoing this process is to have the authority to protect their lands and forest from outsiders, companies, etc.

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<sup>20</sup> This resin comes from dipterocarpus species.

Therefore while there are indications that land titling and legal entity registration will afford protection to indigenous communities' land it is too early to tell how effective this will be. Article 26 of the Land Law states that '...communal ownership includes the same rights and protections of ownership as the private ownership.' This clearly means the right to exclude any and all. However from the above it seems clear that the ability to protect depends on the effectiveness and cohesion of the community structures which manage the land. Livelihood insecurity and indebtedness combined with a general unfamiliarity amongst all indigenous communities with Khmer literacy and legal processes means ongoing assistance will be required for the foreseeable future. Some NGOs and indigenous peoples' organizations are supporting communities so they can better protect and use their land and forests, but they have to compete with the forces driving economic change.

## 7. LOCAL ECONOMIC DEVELOPMENT

Communal systems of land management therefore imply an alternative community driven model of economic development. As Pimbert (2005) argues, local livelihood systems are ignored, neglected or actively undermined by the international development community, and alternatives often offered to poor farmers are migration to urban areas or finding new and better jobs. The current emphasis on market-based approaches, he says, also ignores the huge potential of non monetary forms of economic activity – gifts, reciprocity, etc. in meeting human needs and achieving the Millennium Development Goals (Pimbert, 2005).

Policies that encourage local organizations to manage their food systems and their environment would be perhaps be one of the few viable alternatives to the crisis of governance currently being experienced in Ratanakiri and in other indigenous areas in Cambodia. Following the above discussion these strategies could be summarized as;

- Build on local institutions and social organization.
- Build on local systems of knowledge and management.
- Build on locally available resources and technologies to meet fundamental human needs.
- Use process-oriented, flexible projects.
- Support local participation in planning, management and evaluation. (Pimbert, 2005).

Pimbert (2005; 155) comments 'Linear views of development and narrow assumptions about "progress" and "economic growth" must be replaced with a commitment to more plural definitions of human wellbeing, and diverse ways of relating with the environment.'

Along with communal land titles therefore efforts are needed to ensure the local village economy is strengthened. Links for economic and mutual support needs to continue to be built with neighboring communities. The three pilot land titling villages are receiving NGO support for local economic development, including developing village banks. It is ironic however that compared to the international financial resources which concession companies and private land holders are able to access, local communities have to rely on their own meager funds and limited NGO support for their development. There are some banks, agricultural institutions and merchants beginning to lend to local farm families, but lending to communities who are officially recognized as a legal entity and have their communal land title needs to be explored much more.

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## 7.1. THE DEVELOPMENT OF INDIGENOUS COMMUNAL LANDS

From this discussion and from the experience of the past 50 years, it is glaring that the option of communities organizing production and marketing based on their own structures and processes are neglected. Where concession companies for example are offering assistance to plant rubber, the options are family rather than community managed models. Again the problem comes back to an ignorance of outsiders of the ability of communities to manage these kinds of developments and to allocate use rights and benefits amongst the individual members. This paper argues that it is community models of governance which have demonstrated both sustainable ecosystem management and fair distribution of individual rights. Outsiders take for granted the important role that these community institutions play. The private ownership paradigm invariably leads to the breakdown of these community structures.

Aspects of traditional management therefore need to be incorporated into new farming systems. Polyculture systems incorporating long term tree crops could easily be developed from swidden systems including rubber, fruit and timber trees, understory plants - coffee, cardamom, pineapple, and also incorporating domestic animals and wildlife management and harvesting (wild pigs, deer, monitor lizards) etc. Examples of polyculture systems developed by small scale swidden farmers include the rubber agroforests of Indonesia (Dove, 1990), and coffee grown under the shade of forest trees in Ratanakiri. The incorporation of livestock (pigs and chickens) in fallow systems to more rapidly build fertility, and grazing animals in less productive but extensive dry forest areas has also not been sufficiently developed. All of these examples require flexible systems of use rights over diverse areas for varying periods. The extensive clearing and claiming of land for mono-culture invariably precludes the development of more environmentally and socially compatible agro-ecosystems.

Cashew nuts pose some problems for incorporating into polyculture systems due to their need for light and space but these can be planted to allow for intercropping. Also thousands of hectares of cashew nuts in Ratanakiri are presently being marketed as organic. This is largely due to the fact that no pesticides are used, however the farmers themselves are largely unaware of the organic status of their produce or the possibilities this offers. Again any discussions about compliance with organic certification are held with individual families rather than with communities.

The marketing of forest products, including malva nuts, resin, honey, etc, also is beginning, but there is still a lot to do to convince government officials and outsiders of the benefits of conserving forests rather than converting them to plantations.<sup>21</sup> In southern Mondulakiri Province, for example, perhaps 30,000 indigenous people rely significantly for their livelihoods on collecting liquid resin throughout a forested area of perhaps 500,000 hectares. Each family has around 50-200 trees which they regularly tap and which may remain in the same family's possession over several generations. Trees may be individually owned, shared, leased, etc depending on their availability, depending on the allocation arrangements in each community.<sup>22</sup>

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<sup>21</sup> Malva nuts (*Scaphium macropodum* (Miq.) grow throughout Cambodia and southern Laos. The so called nut expands in water and is in demand as a refreshing drink/desert. Fruiting is sporadic but when crops are prolific, villagers can earn significant incomes. Tree resin is mainly in liquid form from dipterocarpus species but dry resin is also collected.

<sup>22</sup> In this area also efforts are being made by a conservation NGO to establish a Reduced Emissions from Deforestation and Degradation (REDD) project to offset carbon emissions and sell carbon credits.

Defending rural livelihoods therefore requires exploration of alternative social, cultural and agro-ecological systems. Singular forms of land tenure simply do not allow for the effective multiple uses, overlapping production cycles and forms of management of those resources. The adaptive management of multiple species and variables therefore, especially in situations of increasingly fluctuating ecological and meteorological cycles, poses serious challenges to models developed to maximize yield of a single or few discrete products (Sandberg, 2007; Altieri, 2008). Flexibility and experimentation is the key to developing new systems of land use which are economically, socially and environmentally viable. The challenge is to ensure new land uses strengthen diversity instead of imposing uniformity. If polyculture systems offer an alternative to present mono-culture and individualist models (Tane, 2009; Hoare, 2009), the question is what under what conditions, especially what governance regimes, can these systems flourish.

## 7.2. RECOGNITION OF TRADITIONAL GOVERNANCE SYSTEMS

As discussed indigenous forms of governance are not static but have emerged in a landscape of changing political and economic realities. War, revolution, recovery and development have all had far-reaching effects. Although change is arguably taking place at a more rapid pace than any time in the past, and this is undoubtedly causing problems for traditional systems, these systems have always adapted to changing circumstances through history (Backstrom et. al. 2006). With the right emphasis and support, there is no reason why traditional systems cannot also evolve, adapt and cooperate with state structures. In recent research local people suggested changes to reflect new circumstances including allowing women a greater role in adjudicating and decision making during conflict resolution, and working more closely with village youth to document cases and to train them in these processes (Ironsides et. al. 2010).

An important research finding also is the informal cooperation that is occurring between the local level state and traditional authorities (Backstrom et. al. 2006). Cases are brought to the Village Chief and upwards to the Commune and District authorities if they cannot be resolved. This cooperation, along with legal entity registration and communal land titling, could be looked at to understand how to strengthen local level management. Villagers requested state authorities' assistance to resolve conflicts over land, forest and natural resource destruction, etc.

In a situation of a lack of implementation of the law, mechanisms for regulating land and forest management are urgently needed. There is a valuable opportunity to build an important first defense against forest destruction through strengthening the role of the traditional elders and local communities. This is in line with present decentralization policies and with the legal recognition processes underway in these communities.

One option being implemented which could build cooperation between traditional and state authorities is what is known as Peace tables. These are informal processes which allow open discussion of a conflict between all relevant stakeholders. These can be developed to incorporate traditional conflict resolution processes and be conducted at the most appropriate level depending on the dispute.

A further example of recognizing informal management practices is delineating important cultural areas such as spirit and burial forests, which connect the people to their land, as community conserved areas (CCAs). Over the past 10 years international agreements have raised the opportunity and commitment of countries to identify, recognize and provide

appropriate support to CCAs (Borrini-Feyerabend and Ironside 2010). Cambodia is a party to these agreements but as this paper has pointed out CCAs such as spirit and burial areas are not respected or protected during land clearing for concessions.

The Sub Decree of Procedures of Registration of Land of Indigenous Communities (2009) allows for including 7ha of spirit forest and 7 ha of burial forest in the communal title. Often spirit forest areas are much larger than 7 hectares. For ease of management and for more genuinely integrated approaches to resource management, it is important to develop a package of full and partial use rights that allow for the continued protection of these important cultural sites.

The main principle therefore for the whole policy, administrative and management coordination effort in indigenous areas should be to connect the extensive and detailed local knowledge and traditional management practices of indigenous communities to the policy level land and forest management framework. Indigenous communities have so far not been part of this policy discussion and development. Also in Cambodia, because of the weak implementation of the law, it is important to find alternative informal processes which can deliver justice and resolve conflict for people who are not able to access the formal legal system. In other countries with better functioning legal systems depending on informal processes may not be so necessary. As discussed the opportunity in Cambodia is that traditional governance processes are still widely practiced. It is important to learn from these alternative and still functioning methods and processes to help us remember what we have forgotten and in some cases unlearn what we think we know.

## **8. CONCLUSION**

Cambodia is now in an era of peace, stability and economic and social development but the growing number of land conflicts and increasing alienation of communities from their lands and resources are not indicators of peace, stability or well being (Guttal, 2006). What is needed is a development model based on domestic equality and equity, instead of economic development together with growing inequality (Guttal, 2006). Even though indigenous groups have lived in and shaped large areas forest lands it is little recognized that their traditional systems might have an ongoing role in shaping bio-diverse land use development. This biodiversity and the governance systems which have engendered high forest cover, despite their so called destructive activities, are now under threat.

The problem is not so much a shortage of alternative land use systems and techniques which could be tried, but a lack of flexibility in legal systems which only recognizes a single owner with exclusive rights to a piece of land. From this, conventional land use and management also follows a singular approach based only on economic considerations, with an almost total lack of ecosystem management. Once this approach is fully implemented the forest or fallows which once grew disappear along with the knowledge which managed them. Redefining concepts of agri-culture and land use to embrace social/cultural diversity and ecological complexity, requires forms of land tenure which allow for multiple and diverse management systems, as well as the management institutions necessary for supporting these.

An important question therefore is should development necessarily have to happen at the expense of losing a peoples' cultural identity, or should cultural identity be the very basis of the

livelihood development process - development with identity. Communities invariably argue that allowing them the autonomy to manage their internal affairs including the management of their land and forest areas would be a sustainable solution. In recognizing traditional law and governance there is an important opportunity to both protect existing forms of justice which are maintaining indigenous communities and allow them to base their development on their own governance structures.

Indigenous people themselves argue that their legal systems are built on fairness and this strengthens solidarity and friendship. This solidarity in turn also strengthens their culture, identity and confidence to manage their affairs and resolve their problems.

‘...so that their next generations could know that their group also had management rules. This traditional conflict resolution in the community, directly managed by the village leaders with the support of the villagers, would be a good way for them to operate under official recognition. This custom will never lose if the villagers in the village together help and try to conserve it, especially natural resources. If the natural resources are lost, everything will be lost as well.’ (Rean and Vel, 2006; 4).

REFERENCES

- Altieri, M. (2008) Small farms as a planetary ecological asset: Five key reasons why we should support the revitalization of small farms in the Global South. Food First: Institute for Food and Development Policy, www.foodfirst.org May, 2008.
- Aymonier, E. (1895) Voyage dans le Laos. Leroux, Paris, France.
- Backstrom, M. Ironside, J. Paterson, G. Padwe, J. and Baird I.G. (2006) Case Study of Indigenous Traditional Legal Systems in Ratanakiri and Mondulakiri Provinces. UNDP/Ministry of Justice, Phnom Penh, Cambodia.
- Barker, B. 2003. Price gouging. *Economic Standards and Practices* 3 (4): 131-192.
- Benda-Beckmann, F., Benda-Beckmann, K., and Wiber, M. (2006). The Properties of Property. Presented at Survival of the Commons: Mounting Challenges and New Realities, Eleventh Conference of the International Association for the Study of Common Property, Bali, Indonesia, June 19-23, 2006.
- Borrini-Feyerabend, G. and Ironside, J. (2010) Communities and bio-cultural diversity in Cambodia - options for policies and action whose time has come! ICCA Consortium (www.iccaforum.org), CEESP, IUCN.
- Bourdier, F. (1995) Connaissance et pratique de gestion traditionnelle de la nature dans une province marginalisée du Cambodge, Aupelf-Uref, Phnom Penh, Cambodia.
- Buch-Hansen, B. (2006) Rethinking natural resource management in Thailand. *Journal of Political Ecology*, Vol. 13.
- Butler, L. (2000) The Pathology of Property Norms: Living within Nature's Boundaries. *Southern California Law Review*, Vol. 73, pp 927-1015.
- Chan N. and Peung, V. (2006), Results of Village Research from Ka Nat Thoum village, Ta Lav Commune, Access to Justice Study, HA/IYDP, Ban Lung, Ratanakiri, Cambodia.
- Chauveau, J.P. and Colin J.P. (2007) Changes in Land Transfer Mechanisms: Evidence from West Africa. In Cotula L. (2007) Changes in "Customary" Land Tenure Systems in Africa. IIED, FAO.
- Colm, S. (1996) The Highland Minorities and the Khmer Rouge in Northeast Cambodia 1968-1979. Documentation Center of Cambodia, Phnom Penh, Cambodia.
- Dove, M. R. (1985) The Agro-ecological Mythology of the Javanese and the Political Economy of Indonesia. East West Centre, Honolulu, Reprint no. 84, pp. 1-36.
- Dove, M. R. (1990). Smallholder rubber and swidden agriculture in Borneo: A sustainable adaptation to the ecology and economy of the tropical forest. *Economic Botany* 47(2): 136-147.
- Fox, J. (1998) Mapping a Changing Landscape: Land Use, Land Cover and Resource Tenure in Northeastern Cambodia. Programme on Environment, East-West Centre, Honolulu, Hawaii, USA.
- Fox, J. McMahan, D. Poffenberger, M. Vogler, J. (2008) Land for My Grandchildren: Land Use and Tenure Change in Ratanakiri: 1989-2006. Community Forestry International and the East West Center.

- Ganjanapan, A. (1998) The Politics of Conservation and the Complexity of Local Control of Forests in the Northern Thai Highlands, *Mountain Research and Development*, Vol 18, No. 1, pp. 71-82.
- Guérin, M. (2003) Des Casques Blancs sur le Plateau des Herbes. Les Pacification des Aborigènes des Hautes Terres du Sud-Indochinois (1858-1940). PhD Thesis, Université de Paris, Paris.
- Guttal, S. (2006) Land and Natural Resource Alienation in Cambodia. Focus on the Global South, Bangkok, Thailand.
- Hoare, B. (2009) Evolving the Culture of Organics, in *Organics NZ*, Vol 68, No. 4, Soil and Health Association, July/August 2009.
- Ironside, J. (2006) Indigenous Land and Forest Management in Ratanakiri Province, Northeast Cambodia. Community Forestry International, Ratanakiri Province, Cambodia.
- Ironside, J. (2007a) The Role of Women in Traditional Systems of Conflict Resolution and Leadership in Indigenous Communities in Ratanakiri Province, Cambodia. Action Aid, Phnom Penh, Cambodia.
- Ironside, J. (2009) Poverty Reduction or Poverty Creation? - A Study on Achieving the MDGs in Indigenous Communities in Cambodia in Bourdier, F. (Ed) 'Development and Dominion - Indigenous Peoples in Laos, Vietnam and Cambodia.' White Lotus Press, Chiang Mai, Thailand, 2009.
- Ironside, J. and Backstrom, M. (2007b) Compilation of Customary Laws of the Indigenous Groups of Ratanakiri Province. Action Aid, Phnom Penh, Cambodia.
- Ironside, J. and Baird I.G. (2003) Wilderness or Cultural Landscape: Settlement, Agriculture, and Land and Resource Tenure in Virachey National Park, Northeast Cambodia. Biodiversity and Protected Areas Management Project, Ministry of Environment/World Bank, Ban Lung, Ratanakiri Province, Cambodia.
- Ironside, J. Veil, T. Sok, A. (2010) Results of research into Traditional Conflict Resolution, Tiene Village, Kechong commune, Borkeo District, Ratanakiri Province, Highlanders Association, Ratanakiri Province, Cambodia.
- Ke, P. (2006) UI Leu Village Report, UNDP Access to Justice Study, HA/IYDP, Ban Lung, Ratanakiri Province, Cambodia.
- Khiev, S. (2006) Kak Thoum Village Research results, Access to Justice Study, HA/IYDP, Ban Lung, Ratanakiri, Province, Cambodia.
- Maitre, H. (1912) Les jungles moi, mission Henri Maître (1909-1911). Indochine sud-centrale, Exploration et histoire des hinterlands moi du Cambodge, de l'Annam, de la Cochinchine et du bas Laos, Larose, Paris.
- Matras-Troubetzkoy, J. (1983) Un village en foret. L'essartage chez les Brou du Cambodge [A Village in the Forest: Swidden Cultivation among the Brou of Cambodia.] SELAF, Paris, France (Unofficial translation from French to English by C. Mortland, East West Centre, Hawaii, December, 1995).
- Meyer, M. (1979), « Les nouvelles provinces; Ratanakiri-Mondulkiri », *Revue Monde en développement*, 28, éd. C.N.R.S., Paris, pp. 682-690

Ministry of Planning (MOP) (2005), *Achieving the Millennium Development Goals 2005 Update*. Phnom Penh, Cambodia.

Ministry of Planning (MOP), National Institute of Statistics (2008) *General Population Census of Cambodia 2008 Provisional Population Totals*, Phnom Penh, Cambodia.

Pimbert, M. (2005) *Supporting locally determined food systems: the role of local organizations in farming, environment and people's access to food*. In Bigg, T. and Satterthwaite, D. *How to Make Poverty History – the central role of local organizations in meeting the MDGs*. Edited by IIED, London.

Prince, D., R. Ward, and T. Jefferson. 2005. *Life at Monticello*. In *Collective action in Colonial Virginia*, ed. Jefferson, T. and G. Washington. Richmond, VA: University of Virginia Press.

Rean, K. and Vel, T. (2006) *Results of Jarai Group Discussions, Khoun Village Workshop, Access to Justice Study, HA/IYDP, Ban Lung, Ratanakiri Province, Cambodia*.

References should be listed alphabetically, last name first, then first initial, followed by the date of publication. The title of publication, followed by the city and publisher. Book titles should be italicized. Journal titles should be italicized, but not the article title.

Royal Government of Cambodia, (2001) *Land Law*, Phnom Penh, Cambodia.

Royal Government of Cambodia, (2009) *Sub Decree of Procedures of Registration of Land of Indigenous Communities*, Phnom Penh, Cambodia.

Sandberg, A. (2007) *Property Rights and Ecosystem Properties*. *Land Use Policy*, Vol 24, pp. 613-623.

Tane, H. (2009) *Terra-aquaculture: Sustainable farming using water*. *Organics NZ*, Vol 68, No. 2, pp. 10-13.

Wayne, B. 2004. *Helping others help themselves*. Washington, DC: Metropolis Publishing.

# APPENDIX 1: LAND USE CHANGE FROM FOX ET. AL. 2008







