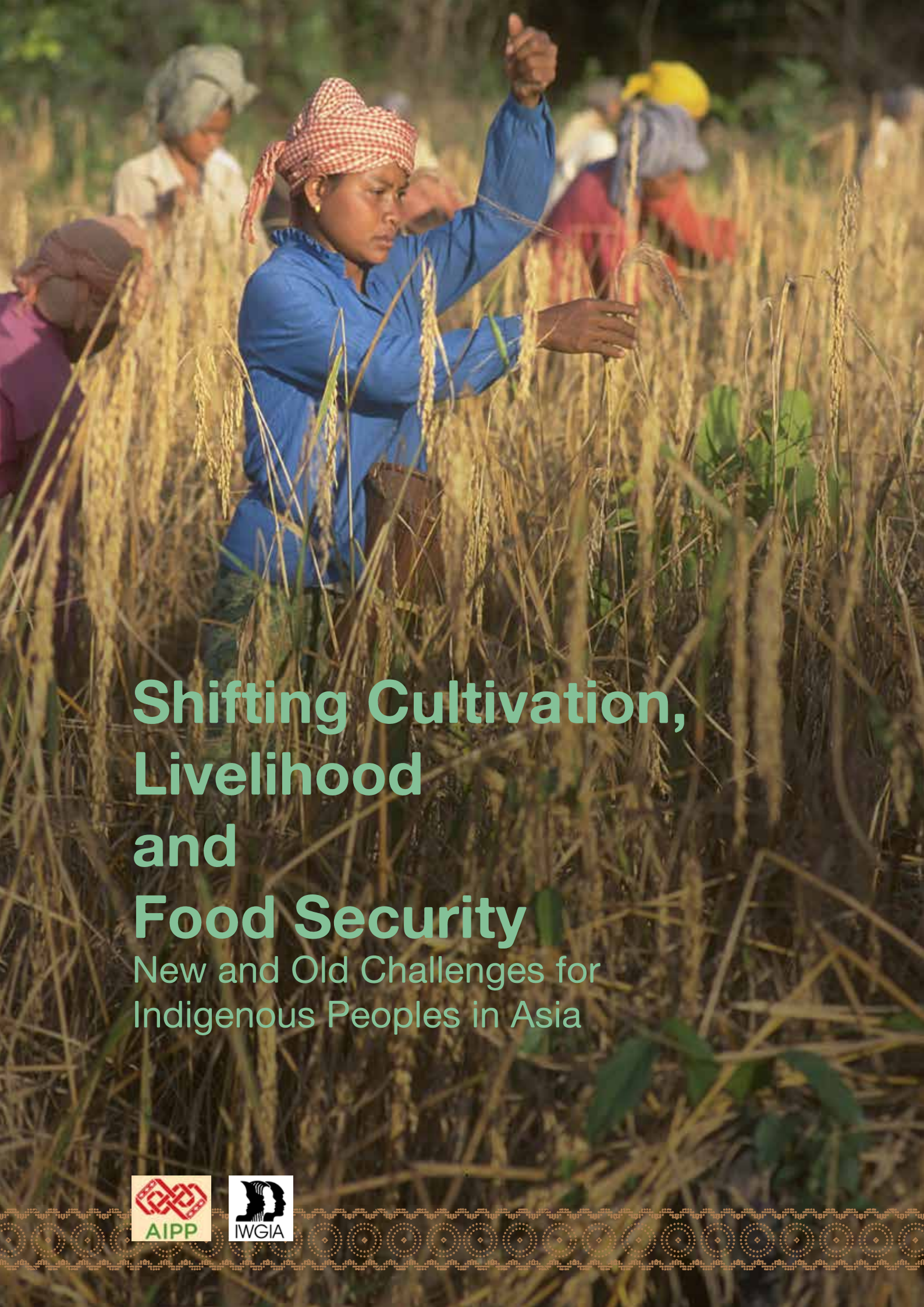

Shifting Cultivation, Livelihood and Food Security

New and Old Challenges for Indigenous Peoples in Asia

AIPP

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Shifting Cultivation, Livelihood and Food Security: New and Old Challenges for Indigenous Peoples in Asia

Across South and Southeast Asia a large number of people depend for their livelihood and food security fully or partly on shifting cultivation. The actual number of these people is not known. Since reliable data does not exist, only rough estimates can be made. For Southeast Asia, the number of shifting cultivators has been estimated to lie between 14 and 34 million people.[1] For South Asia no such estimate was made, but there too, shifting cultivators must number at least several millions.

The majority of the people practicing shifting cultivation in South and Southeast Asia belong to ethnic groups that are referred to as ethnic minorities, tribal people, hill tribes, aboriginal people or, as they increasingly call themselves, Indigenous Peoples. Indigenous Peoples in Asia comprise two thirds of the world's estimated 370 million indigenous people.

The form of land use we are concerned with here is sometimes also called rotational farming, swidden farming/agriculture or slash-and-burn agriculture. The latter carries a negative connotation, reflecting the widespread prejudicial view that it is a destructive and wasteful form of agriculture.

Shifting cultivation comes in variations that are as diverse as the people who practice it. What these forms of land use all have in common is:

1. The removal of the natural vegetation (usually forest or shrub land), in most cases by cutting and subsequent burning
2. An alternation between a short duration of cultivation and a comparatively long duration of bush or forest fallow
3. The regular, in most cases cyclical shifting of fields.

Livelihood misunderstood

Shifting cultivation is probably one of the most misunderstood and thus controversial forms of land use. In 1957, the FAO declared shifting cultivation the most serious land use problem in the tropical world.[2] In the name of forest conservation and development, colonial and post-colonial governments in Asia have since more than a century devised policies and laws seeking to eradicate shifting cultivation.

Many of the arguments brought forward against this form of land use – that it is an economically inefficient and ecologically harmful practice – have been proven inaccurate or outright wrong. Shifting cultivation was actually found to be "an ideal solution for agriculture in the humid tropics [ ] as long as the human population density is not too high and fallow periods are long enough to restore soil fertility. This agricultural system is ecologically sound and meets a variety of human needs with great efficiency, particularly with regard to labor and other agricultural inputs".[3]

In recent years, our knowledge on land use and management practices among shifting cultivators has been further enriched by innumerable studies conducted by researchers of a broad range of disciplines encompassing both social and natural sciences.[4] Notwithstanding all evidence, however, attitudes by decision makers and, consequently, state policies have hardly changed. The current climate change discourse has taken the debate on shifting cultivation to another, a global level: now they are blamed for causing too much carbon emissions and thus for contributing to global warming.

In many parts of Southeast and South Asia, shifting cultivators are currently confronted with a resource crisis as the population-land ratio has reached critical levels. Population growth, caused by natural growth and above all state-sponsored or spontaneous in-migration and resettlement, is however only one of its causes.[5] Government restrictions on shifting cultivation and large-scale alienation of Indigenous Peoples' land have in many cases been the main cause of land scarcity. However, against predictions by concerned policy makers and environmentalists, the crisis did not lead to collapse and shifting cultivators have adapted by modifying their livelihood and land use practices.[6]

Taking stock of challenges and opportunities – The AIPP-FAO initiative

In 2013, Indigenous Peoples' representatives from Asia participating in a regional dialogue with the Food and Agriculture Organization of the United Nations (FAO) again had to draw attention to the fact that indigenous shifting cultivators are still widely neglected and discriminated and that in most countries their land and resource rights are not recognized and protected. Subsequently, the FAO Regional Office in Asia and the Pacific (FAO-RAP) and the regional Indigenous Peoples' alliance Asia Indigenous People Pact (AIPP) signed an agreement on the project 'Regional Support to Indigenous Peoples for Livelihood and Food Security'. The objective of the project was to identify and address key challenges faced by and opportunities open to Indigenous Peoples in the region in achieving and maintaining livelihood and food security.

Seven case studies were conducted in Bangladesh, Cambodia, India, Indonesia, Laos, Nepal and Thailand to take stock of the changes in livelihood and food security among indigenous shifting cultivation communities in South and Southeast Asia against the backdrop of the rapid socio-economic transformations currently engulfing the region. On August 28 and 29, the findings of the case studies were discussed in a multi-stakeholders consultation in Chiang Mai, Thailand. The 51 participants represented government agencies, UN agencies, international NGOs, Indigenous Peoples' organisations as well as indigenous communities and local governments. This briefing paper provides a summary of the main findings of the case studies and the recommendations agreed on at the multi-stakeholders consultation.

Shifting cultivation, sustainability, livelihood and identity

The seven case studies confirmed that despite profound changes taking place in indigenous communities across Asia and the overall decline

of shifting cultivation, it still plays an important role in providing livelihood and food security in many communities. For these communities, the importance of shifting cultivation goes beyond mere economic concerns. It is the pivot around which annual work and ritual cycles revolve and thus an intricate part of their way of life and closely tied to their cultural identity.

The case studies also confirmed what has been pointed out by researchers and indigenous farmers since many years, namely that shifting cultivation is not a driver of deforestation. As long as a minimum cycle of 7 to 10 years can be maintained (with up to 2 or 3 years cultivation and at least 5 years fallow), shifting cultivation per se is a sustainable form of land use that does not lead to deforestation unless land scarcity forces farmers to clear new land in forest areas.

Indigenous women: Managers of shifting cultivation and food security

Women play a key role in Indigenous Peoples' sustainable resource management and in maintaining food security. The case studies showed that indigenous women perform 70% of the work related to shifting cultivation. They are responsible for the selection of seeds, for weeding the fields, gathering, processing, and selling the surplus products. Men do the identification of land suitable for shifting cultivation and the hard physical work in land preparation. But women help in clearing the land, and both make the firebreaks, harvest and conduct the rituals during the shifting cultivation cycle together.

As exemplified by the Kmhmu of Laos and Naga of Northeast India, indigenous women possess a rich knowledge on seeds, crop varieties and medicinal plants. There are at least 50 varieties of grains, tubers, vegetables, legumes, fruits herbs and medicinal plants grown during the cultivation cycle in shifting cultivation. In the case of the Kmhmu of Lao, they grow at least 18 types of native rice varieties. As a result of multiple and staged cropping of a broad range of plant varieties, the harvest of food crops continues even long into the fallow period.

The case studies demonstrate that in the communities covered many of the households would not be able to ensure food security without shifting cultivation. In addition to staple food like rice and tubers they obtain a broad range of vegetables and herbs as well as a large number of medicinal plants growing in fields and fallow. Indigenous women are also the ones preserving seeds, transferring this knowledge to the younger generation, and they thus play a key role in preserving agro-biodiversity.

Likewise, indigenous women have rich knowledge about non-timber forest products (NTFP) which they can harvest during the fallow period. They know where to collect and how to harvest them, as well as the various uses of these products. They know the use of plants, animals and insects for treatment of illnesses, for food in general but also for special nutrition for pregnant and nursing mothers. Many indigenous women are also skilled in producing handicrafts such as baskets, fish traps, kitchen wares, clothes etc., for which they often use NTFP.

Challenges for indigenous women

Indigenous women face considerable challenges when they are prevented from practicing shifting cultivation or displaced from their territories. Their roles in and contributions to food security, sustainable resource management and health care are severely weakened and their traditional knowledge is being lost. Furthermore, they become more vulnerable to violence and exploitation. In the case of Nepal, women who were displaced due to the establishment of national parks ended up as farm laborers with much lower wages than their male counterparts for doing the same work. They are often victims of violence such as sexual assaults by security forces of the national park when they try to enter the national parks to gather NTFP and food products.

Livelihood changes: Drivers, constraints and opportunities

Generally, livelihoods in indigenous communities across the region have become more diversified, partly out of necessity, partly out of choice. Scarcity of land is one of the main external driving forces behind current livelihood changes. Another main driving force is market integration as indigenous farmers are seizing new opportunities to increase their income and improve their living conditions. Furthermore, education and mainstream media bring about changes in views and values and thus livelihood preferences above all among the youth.

Land loss, laws and policies

Throughout Asia, growing populations add pressure on land resources. In many areas land scarcity has reached critical levels making it difficult to sustain sufficiently long fallow cycles for shifting cultivation. However, land scarcity is often not so much caused by increasing populations, but by loss of land. Most frequently, loss of land is the result of outright dispossession as Indigenous Peoples' rights to their land and resources are not recognized and land is given to private enterprises for plantations or resource extraction. Furthermore, throughout the region government policies are still in place that, in the name of environmental conservation, directly aim at eradicating shifting cultivation. Thus, loss of land also occurs when communities are resettled or prevented from continuing to use their traditional land by such restrictive policies.

Non-recognition of land rights and, consequently, either outright dispossession or widespread tenure insecurity, are the main hindering factors for many indigenous communities to maintain or regain, and to sustain livelihood and food security. This includes the possibility to adapt to changing needs and conditions and to seize emerging opportunities for economic diversification.

Failure to comply with international standards

Ultimately, policies and programs by national governments, bilateral or multi-lateral organizations often negatively impact indigenous communities because they are not brought in line with international legal standards such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) or the International Labour Organization's Convention number 169 Concerning Indigenous and Tribal Peoples in Independent Countries and thus, for example, do not respect Indigenous Peoples' right to free, prior and informed consent regarding all development interventions affecting them.

Privatization of land

Where land rights are recognized, the respective laws and policies favour individual private ownership over communal land rights, and likewise, rural development programs offering and promoting alternative farming practices are targeting individual producers and not communities. This weakens – or at least fails to recognize and support – community level land and resource governance and other institutions crucial for maintaining basic livelihood and food security for all.

Land scarcity can be exacerbated for some households with the adoption of cash-cropping in the community. Community members with more resources and better connections often take the lead in adopting cash cropping and convert parts of the common-property land to individual private holdings. The ensuing fragmentation of common property land reduces the land available for traditional forms of land use like shifting cultivation.

Market integration, diversification and the 'dual economy'

Access to markets both for selling products and buying goods has helped improve livelihood and food security in many indigenous communities. Better access to the market for selling goods and the labour market has increased opportunities for cash income.

Engagement in market oriented production and the adoption of the respective new forms of land use is often done in addition to traditional forms of land use, including irrigated rice and shifting cultivation. In these 'dual economies' rice production – both from shifting cultivation and irrigated fields – is self-sufficiency oriented and thus allows for a high degree of food security. This provides a safety net for households since market-oriented production is considered more risky due to fluctuating commodity prices or insecure markets.

However, not in all the study areas do indigenous farmers have the possibility to establish such a 'dual economy'. In some countries they are not allowed to continue with the traditional form of land use, above all shifting cultivation. They are forced to radically change their forms of land use and thus their livelihood system. Where they have sufficient land and the capital needed they engage in the production of cash crops like vegetables, tea, cashew and fruit trees etc. and are able to obtain a decent income. However, due to the volatility of commodity markets they are faced with new uncertainties and the risk of ending up in debt.

In other areas again, like in Nagaland state in Northeast India, where indigenous farmers are not under pressure from restrictive policies and still have sufficient land, some of them voluntarily abandoned rice cultivation and switched fully to cash-crop production. While they are confronted with the same risks and uncertainties as those who were forced to make this transition, they are more flexible as they are at least in the position to resume subsistence-oriented farming if market conditions for their products are not favourable.

Landlessness and labour

In addition to partial or full engagement in cash cropping, many indigenous farmers take up seasonal or temporary on-farm or off-farm employment in order to increase their cash income. This happens more often where possibilities for cash cropping are limited.

Economically most vulnerable are indigenous farmers who do not have enough land to make a living

Counter current: Easing pressure on land

Outmigration of a considerable number of the youth reverses the so far prevailing trend of increasing land scarcity at least in some of the study areas. In some districts of Nagaland state, Northeast India, or in some villages in Mae Hongson province, Thailand, outmigration and off-farm employment opportunities have reduced the pressure on shifting cultivation land and allow for longer fallow periods. Fewer people mean not only a reduction of land needed to feed them, but also less labour to maintain swidden fields.

either as subsistence or as market oriented farmers. In cases where communities have been resettled and have not been provided with sufficient land overall living conditions became worse and food security has been lost. There are cases where resettlement, dispossession and privatization of land and the subsequent accumulation of land in the hands of a few have left other farmers landless or with land holdings too small to make a living no matter what form of land use they practice. These (former) farmers have no choice but to seek employment as labourers for other farmers and in plantations or to migrate to cities or even abroad.

Risks of high-input farming

Cash cropping of vegetables and corn (for animal feed) that demand high inputs of agrochemicals have been promoted to replace shifting cultivation. Farmers can get a decent income when prices are high but may even get into debt when prices drop. Furthermore, permanent cultivation on the same plots of land and the extensive use of agrochemicals have a negative impact on the soil, but even more so on the health of farmers. Both economically and environmentally, these cultivation practices have been found to be unsustainable in the long run.

Migration, education and employment

In addition to economic and policy pressures, changing views and values are also contributing to transformation in livelihood practices. Education, government propaganda and mainstream media have lead to a change of expectations and priorities above all among the youth. Traditional livelihood practices, in particular shifting cultivation, are often considered 'backward' and preference is given to 'having a job'.

Partly in response to increasing difficulties to make a living in the village, partly because of better access to education and opportunities for off-farm employment, many of the young generation are abandoning farming, are taking up jobs in plantations and mines or are leaving the villages temporarily or for good. Urban migration is increasing throughout the region, and parents invest considerably in education for their children. Education expenses often pose a heavy burden on parents. However, even with higher education chances for getting a good job in the government or the private sector are small and most end up doing low-paid jobs with payments barely enough to make a living.

Good practices in adaptive changes

Diversification of land use practices to meet both subsistence and cash needs is occurring among shifting cultivators throughout the region and there are numerous examples of innovative practices, such as combining shifting cultivation with

agroforestry practices (fruit and cashew orchards in Cambodia, rubber gardens in Indonesia), growing high-value cash crops in shifting cultivation fields (various vegetables and herbs, ginger, turmeric etc. like in India and Bangladesh), establishing separate, permanent fields for cash crops (tobacco, corn, flowers, pineapple, vegetables etc. like in Thailand, India or Bangladesh), improving fallow management through planting of specific trees, or the domesticating wild plants that are in high demand (e.g. in India).

Market access can improve food security and the overall living standard in communities, but only where farmers have sufficient land and tenure security. Innovation and diversification is further enhanced where possibilities exist to access credit under affordable conditions. Therefore, it does not come as a surprise that successful adaptation of shifting cultivation (not its replacement) and diversification of land use toward more market oriented production has been particularly successful in Nagaland state in Northeast India, where customary land ownership in this state is recognized under the Indian Constitution. In Nagaland, shifting cultivators have been able to change their farming practices to suit changing needs and conditions and above all to respond to opportunities offered by better access to the market. Farmers have innovatively adapted crop selection and planting strategies to both maintain food security and increase income.

The strength of traditional land use systems and in particular shifting cultivation lies in the diversity of locally adapted practices and crops grown. A large number of local varieties of domesticated plant species that are adapted to the local environmental and climatic conditions are grown in traditional shifting cultivation. The diversity of local domesticated plant varieties but also the biodiversity of fallow forests represent a rich genetic pool of useful plant species. These can play a critical role in adapting local livelihoods to the human-induced changes our climate is currently undergoing. In Nagaland, for example, farmers have started to domesticate certain varieties of wild plants which they used to gather from fallow land and forests and which are in high demand in urban markets.

In fact, there is a large unexploited potential to generate value from fallow forests, both during the fallow period (sale of non-timber forest products) as well as when fields are cut and before they are burned (the sale of timber and poles or making charcoal instead of just burning all). However, as several of the case studies show, traditional knowledge and agro-biodiversity are disappearing fast thus reducing the cultural capital on which these communities can draw when addressing future challenges.

Adding value to their products through artisanal specializations has a considerable potential for improving poor people's living standard. However, there is very little, if any, government support for developing and improving small entrepreneurship, product processing and marketing.

Governance and the management of transition

Shifting cultivation is resource and land management at landscape scale. Customary institutions like village councils have been responsible for and have successfully managed land and resources at communal level. This has allowed not only a sustainable use of but also equity in access to land and resources, thus ensuring livelihood and food security for all. However, these institutions are challenged in times of transition like today, when there is pressure on or dispossession of land, or when government policies and market integration favour individual private land ownership. In Nagaland state, communities in Mokokchung district have reportedly been able to ensure a collective process of decision making on land use for different purposes, thus creating better conditions for a continuation of both sustainable and equitable use of land and resources.

Few are the intervention measures that have successfully promoted good practices in livelihood and food security among indigenous shifting cultivators. Aside from supportive policies and programs in Nagaland state in Northeast India, a recent joint initiative of Mekong Watch and

the government of Pak Beng district of Oudomxay province in Northern Laos shows that alternative approaches are possible. Land and forest allocation, which had previously been done as part of a nation-wide government program and had created severe problems for the livelihood and food security of the communities, was redone in a participatory manner with the eight villages involved. Now, the farmer no longer have to cultivate their swidden fields 'illegally' as long as they follow the rules jointly drawn up by villages and the district government.

COMMON RECOMMENDATIONS

The 51 participants of the multi-stakeholders consultation, comprising representatives of government agencies, UN agencies, international NGOs, Indigenous Peoples' organisations, indigenous communities and local governments came up with a range of recommendations addressing key concerns raised during the workshop.

1. **Strengthening policy advocacy at national, regional and global levels on land tenure, food security and livelihood based upon the principle of equal partnership between states and Indigenous Peoples and adhering to the right to free, prior and informed consent (FPIC) of Indigenous Peoples/tribal peoples/indigenous cultural communities in relation to sustainable management of shifting cultivation, sustainable resource management and cultural integrity.**

    a. Review and amend laws, policies and programmes to guarantee Indigenous Peoples' rights over their lands, domains and forests including shifting cultivation land based on customary laws and forest rights and the right to FPIC

    b. Publication of policy briefs on shifting cultivation as a sustainable form for land use ensuring food security and livelihoods, to dispel the myths on shifting cultivation as a driver and cause of deforestation

    c. Institutionalization of national multi-stakeholders' dialogues and consultations in the context of lands and forests, based on the experiences of the United Nations Forum on Forests (UNFF) and United Nations Conference on Environment and Development (UNCED) processes, with the support and assistance of FAO and other UN agencies

    d. Collaboration/partnership between Indigenous Peoples/indigenous cultural communities/ organizations, UN agencies, civil society organizations (CSOs), research and academic institutions and relevant governments agencies/bodies in sustainable land use planning and policy development and implementation at national and local levels

e. Joint monitoring and collaborative research between indigenous farmers and researchers and government agencies on issues related to shifting cultivation such as changes in forest cover, crop diversity and food security including soil fertility regeneration, fallow management etc.

f. Promotion of the inclusion of shifting cultivation and/or related indigenous agricultural practices in the Globally Important Agricultural Heritage Systems (GIAHS) through supporting proposal(s) formulation by FAO, Indigenous Peoples, research institutions advocacy organizations and others.

2. Awareness raising on Indigenous Peoples' rights addressing consequences of large-scale mono-cropping, large-scale land investments and plantations, capacity building on innovations especially for women and youth, skills in agroforestry, non-timber forest products etc.

a. Establishment of learning exchange platforms on good practices, knowledge and innovations including on animal husbandry at national and regional levels with the support of FAO, governments and UN agencies

b. Production, translation and sharing of information and educational materials, including advocacy materials such as videos, reports etc. by governments, CSOs, FAO and other UN agencies

c. Development of curricula to address misconceptions on shifting cultivations, promote sustainable shifting cultivation practices and the rights of Indigenous Peoples with the support of governments, FAO and academic institutions

d. Training programmes for youth, women, government officials, staff and communities

e. Resource mobilization to support youth and women to practice and implement what they have learned from training and similar activities

f. Recognition and promotion of traditional knowledge of Indigenous Peoples including the roles and contribution of women in sustainable shifting cultivation and biodiversity enhancement by governments, FAO and other UN agencies

g. Transfer of traditional knowledge to the younger generation by Indigenous Peoples

h. Use of media including community radio for awareness raising and capacity building

i. Supporting and strengthening indigenous institutions and leadership

j. Enhancing finance literacy and management and business skills of the stakeholders including Indigenous Peoples

k. Consumer advocacy particularly focusing on natural and cultural sensitivity of shifting cultivation, e.g. its normally chemical free production

3. **Biodiversity conservation and enhancement and protection against bio-piracy and unfair and illegal patenting**
    a. Seed conservation and establishment of seed banks and seed exchanges for improving crop diversity and enhancing traditional food diversity and knowledge systems
    b. Protection of medicinal plants
    c. Protection of mother trees/seed trees
4. **Research and documentation on shifting cultivation and related studies**
    a. Research on the nutritional value of wild and cultivated food in shifting cultivation to be conducted by CIFOR, NTFP-EP and AIPP
    b. Research on shifting cultivation and other land use forms (with a landscape and ecosystem approach, to be conducted by AIPP in coordination with CIFOR and others)
    c. Study on and mapping of credit facilities appropriate for indigenous communities, to be conducted by local governments, CSOs
    d. Further research on the carbon footprint of shifting cultivation, complementing existing studies (e.g. JICA in Laos)
5. **Support services for Indigenous Peoples to enhance their livelihoods, provided by governments with support from FAO, other UN agencies and CSOs**
    a. Access to appropriate credit facilities for specific purposes for livelihood support
    b. Marketing support mechanisms
    c. Community mapping and demarcation
    d. Crop insurance
    e. Appropriate and sufficient provision of basic social services
    f. Value chain development
    g. Promotion of sustainable "creative economy", i.e. the sustainable production and marketing of indigenous handicrafts, designs and other creative products and innovations as means of livelihood and promotion of Indigenous Peoples' diverse cultures

Concrete follow-up action agreed on for 2015

1. To conduct participatory assessments with Indigenous Peoples, at different levels as appropriate, of the impact of past and existing programmes on food security and poverty reduction, to be coordinated by AIPP, FAO and governments
2. To hold a regional consultation/dialogue on food security and poverty reduction in September 2015 in Lombok, Indonesia, to be hosted by the government of Indonesia.

Notes

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