

INTRODUCTION

In rural areas worldwide, poverty is becoming more widespread as inequities in asset ownership and access to common property become more problematic, populations grow, traditional income activities decline, and ecosystems fall into disrepair. Such factors illustrate and emphasize the need for new approaches to socio-economic development and conservation. In Cambodia, as in many countries, community based natural resource management¹ (CBNRM) is being endorsed as a way to increase local empowerment and rural livelihood sustainability, essentially to make environment and development ends meet. Fledgling experiences are, for the most part, positive and promising. However, great challenges remain. There is still a long way to go in building and strengthening the institutional and community capacity, and supportive legal and policy frameworks, required for sustainable management. Also, data on rural Cambodia available for making policy and program decisions is scant as the complexities, tradeoffs, and diminishing choices facing rural dwellers remain under-documented, thus less understood. Making development, CBNRM in particular, compatible with local needs, goals, and priorities presents another hurdle.

Since the latter 1990s, the Sustainable Livelihoods (SL) approach has been touted as a way to deepen understanding of the challenges to rural livelihood sustainability. Its appeal lies in a broader scope for analysis, a participatory, strengths-based, people-centered action strategy, and a focus on fostering the micro and macro linkages necessary to improve, support, and sustain local livelihoods. Proponents believe that a SL approach can provide greater insight into rural dynamics and realities and, in turn, yield a wider reach for reducing poverty and enhancing social and ecological well-being. Further, in facilitating a deeper understanding of rural life, the planning and implementation of better projects and programs is assumed. Investigating these claims, this Major Project proposed to: a) experiment with a livelihoods approach as a way to increase understanding of rural livelihoods, and the factors that affect them, in a less-known region of northeastern Cambodia; and b) explore the implications of a livelihoods approach for CBNRM in Cambodia. The use of various participatory research methods played a significant role in this learning about livelihoods.

The following sections provide: 1) a background to the Cambodian context, including the fieldwork site; 2) an overview of the SL concept; 3) a description of the methods and methodology employed; 4) an account of the main activities; and 5) a reflection of the lessons learned and implications for CBNRM. This report primarily describes the process and various meanings and consequences of using a livelihoods approach. Readers wanting to learn more about village life and fieldwork findings will be referred to the appendices.

1. AN OVERVIEW OF THE CAMBODIAN CONTEXT

1.1 History

Cambodia (Figure 1 and 2) is a country which is slowly emerging from a tragic past, a recent history of war, genocide, instability, and isolation. After gaining independence from the French in November 1953, the country came under the control of King Norodom Sihanouk, who would govern the country for the next fifteen years. Sihanouk's policies included: cutting ties with the United States, and hence US military aid; strengthening alliances with communist bloc countries, most controversially with North Vietnam, in an effort to stay out of the Vietnam War; nationalizing the foreign trade and banking sectors; and pouring significant resources into education, producing a mass of newly trained



Figure 1: Regional map of Southeast Asia
(Source: UNDP, 2002).

¹ This includes activities such as community forestry, community fisheries, community-based wildlife conservation, protected areas management, and participatory land use planning.

people and no new jobs to absorb them (Chandler, 1998). Cambodia was falling into social, economic, institutional, and infrastructural trouble — a reality that Sihanouk was unwilling to face. Slowly turning more and more power over to the Prime Minister, General Lon Nol, and the Deputy Prime Minister, Sirik Matak, Sihanouk hoped that situations would sort themselves out (Ibid.). Indeed, the situation did change. In 1970, anti-Vietnamese protests broke out when Sihanouk was abroad on his annual holiday. Seizing the opportunity, the US-backed Prime Ministers and army waged a coup, ending Sihanouk's regime (Chandler, 1998). Lon Nol remained in as Prime Minister; the King took exile in Beijing.

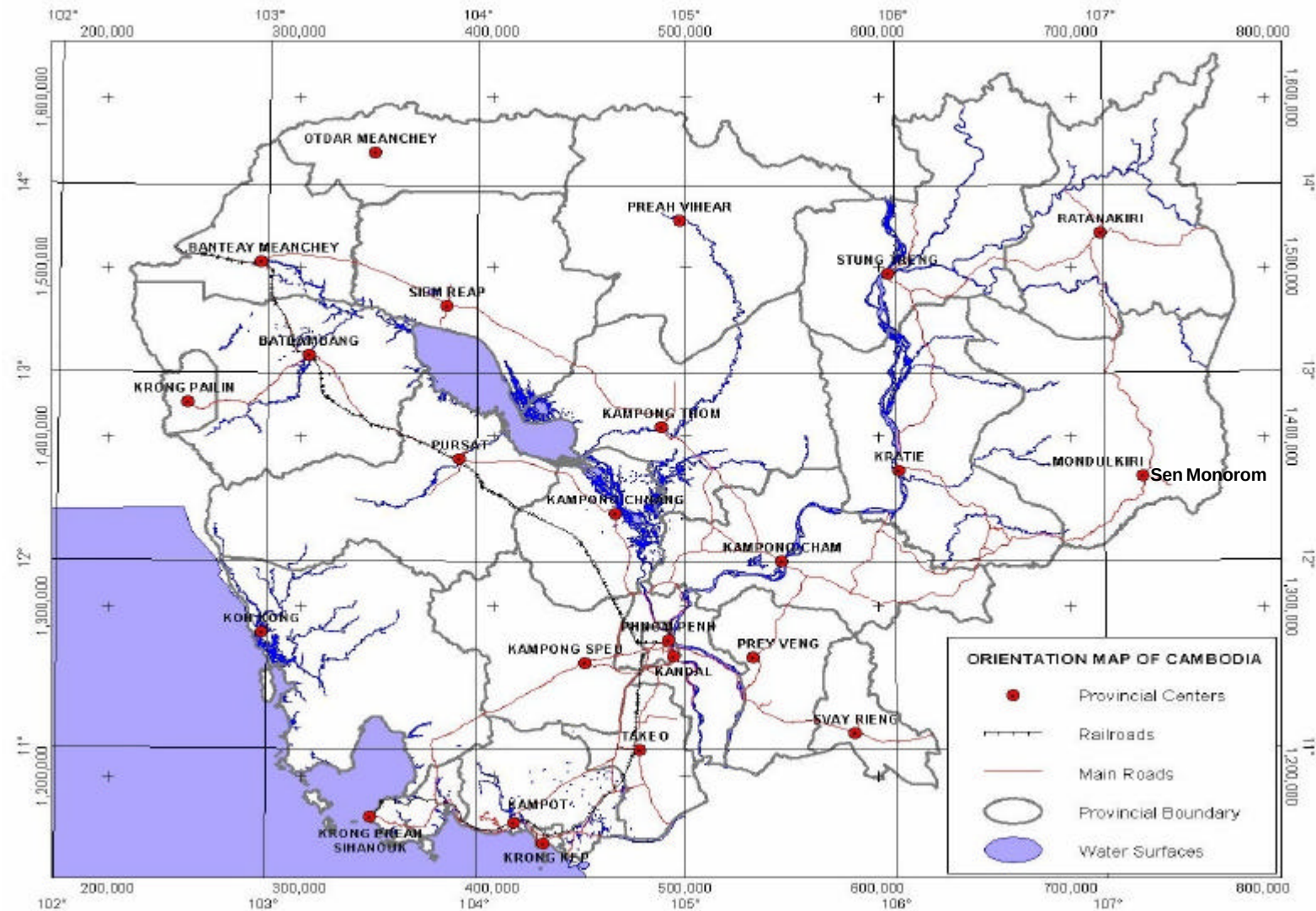
Pursuing his anti-communist politics, Lon Nol allowed the United States to extend the Vietnam War into Cambodia to flush out 'enemy' troops, dragging the Khmer people unwillingly and unknowingly into the conflict (Ibid.). From 1969 to 1973, secret US operations carpet bombed suspected communist base camps in Cambodia, dropping more than five hundred thousand tons of bombs upon the countryside; estimates of these casualties have never been made (Ibid.). The bombings were followed by the invasion of American and South Vietnamese troops into the country in search of North Vietnamese forces, an invasion that drove Cambodia's insurgents, the Khmer Rouge (KR), from the fringes deeper into the heart of the country. The nation was plunged into civil war. In 1975, after savage fighting, Saloth Sar (also known as Pol Pot) and the KR took control of the capital, Phnom Penh, overthrowing Lon Nol's government.

The Pol Pot regime was a bid to seal off Cambodia from outsiders, a radical, utopian dream to restructure the country into a classless, agrarian cooperative (Ibid.). Cities were evacuated as people were sent to work in the rice fields. The northeast, in particular, was a hotbed of KR activity; the region was tightly guarded to prevent against Vietnamese spillover. Under Pol Pot, everything that seemed to be impediments to national sovereignty and social justice, such as "money, markets, formal education, Buddhism, books, private property, diverse clothing styles, and freedom of movement" was abolished so that Cambodia's "long exploited poor" could become masters of their own lives and country (Ibid.:209). Between 1975 and 1979, an estimated two million people perished at the hands of the KR, the majority being the country's educated (Ibid.). Many died in the fields from disease, over-work, and malnutrition, and others from the torture and execution of the "purges", attempts to rid the country of those with Cambodian bodies but "Vietnamese minds" (Ibid.). An adage from the time recalled by survivors is: "Keeping you is no profit; losing you is no loss" (Ibid.: 213). However, paranoid leadership and cracks formed early in the regime started it buckling. Then, on Christmas day, 1978, massive numbers of Vietnamese forces poured into Cambodia at several fronts, capturing the capital and establishing a protectorate that ended Pol Pot's reign of terror (Ibid.). Surviving KR members are still awaiting trials for atrocities. Pol Pot evaded his, dying of a heart attack in 1998.

The 1980s were characterized by Vietnam's Russian-backed occupation in Cambodia. Ongoing guerilla warfare in the jungles on both sides of the Thai border kept the country in the throes of instability, as the fleeing members of the KR were pursued by Vietnamese troops and a Vietnamese-trained Cambodian army. Thai, Chinese, and US forces united to suppress the efforts of the Vietnamese, banding together against what they perceived to be a communist threat. As the Cambodian government strengthened and the price of occupation became too high, the Vietnamese withdrew in 1989. The KR were able again to capture some areas, particularly the sparsely populated mountain areas of the northwest and southwest, raiding villages in the evenings and planting landmines along paths, roads, and rice fields; it was a war waged allegedly against the Vietnamese and it promised a Cambodia free of occupiers and corruption.²

In Paris, in 1991, an agreement between the incumbent government and opposition established a temporary government in Phnom Penh, paving the way for the 1993 elections (Chandler, 1998). Sihanouk came out of exile to be reinstated as king and the provisional parliament formed was a precarious coalition between the two top political parties. Almost twenty thousand United Nations personnel and civilians, known as the United Nations Transitional Authority in Cambodia (UNTAC), were sent to Cambodia to help and to monitor the 1993 elections. However, this outside assistance was seen as coming too late and moving too slowly. Further, the resulting elections were marred by political crisis and so were hardly a triumph for democracy (Ibid.).

² According to estimates by the Cambodian Mine Action Centre, Cambodia continues to suffer the highest rate of civilian landmine casualties in the world (CMAC, 2001). Four to six million land mines still dot the country, planted by the Khmer Rouge in efforts to seal off its 'liberated' agricultural cooperatives, particularly along the Vietnam and Thailand borders, creating a "prison without walls" (Ibid.). Landmines were also planted by KR soldiers during their retreat, as well as by pursuant Vietnamese soldiers (Ibid.).



1.2 Present Day Development Context

1.2.1 Politics and Economy

Since 1998, Hun Sen and his Cambodian People's Party (CPP) have dominated the political scene. Civil unrest, for the most part, has faded except for occasional demonstrations. Although the country keeps company with other rapidly developing Asian nations as a member of ASEAN (Association of Southeast Asian Nations), Cambodia remains a subsistence-based economy. With its relative political stability, more economic development opportunities are starting to surface. However, for now Cambodia remains heavily reliant on official development assistance (UNDP, 2002). Drawn by a situation of poverty, a large rural population, and serious environmental destruction, multi-lateral agencies and international non-governmental organizations (NGOs) have poured into the nation in efforts to install and strengthen health, education, and market systems, communications and transportation infrastructure, and environmental management and protection programs.

1.2.2 Rural Development Issues

The Cambodian landscape consists of the Mekong River basin, Tonle Sap Lake, extensive floodplains and lowland areas, over 400 km of coast line, and upland regions in the southwest and northeast (McKenney and Prom, 2002). Most of Cambodia's 13.4 million people (UNDP, 2002) reside in the lowlands where 90 percent of rice is cultivated (McKenney and Prom, 2002:14). While most rely on rice farming for subsistence, fisheries and forest resources are critical in supporting livelihoods; forests cover more than half the country, functioning to stabilize watersheds and regulate flooding and sedimentation, and Cambodia's inland fisheries are the fourth most productive in the world (Ibid.). Eighty-four percent, or about 11 million people, are rural dwellers (UNDP, 2002); these are Cambodia's poorest people, heavily dependent upon natural resources. McKenney and Prom (2002:1) explain:

As common property resources (publicly held resources to which access is open to all), fisheries and forests provide households a means for diversifying their subsistence and income-generating activities, optimizing their labour resources during different seasons, and "insuring" against risks of agricultural failures. Moreover, people with no land, little money for capital investments, and few alternative livelihood opportunities can still often fish and/or collect forest products for subsistence. In this manner, Cambodia's natural resources not only provide a foundation for food security, income, and employment for most of the population, but also an essential "safety net" for the rural poor.

However, rapidly declining resources due to illegal and unsustainable harvesting of fish and timber by commercial, military, local authorities, and communities is jeopardizing social and ecosystem health (Ibid.). Further, the most productive resources (i.e., fish, forests, and land) are leased by government to the private sector, concessions accounting for about 30 percent of the country's land area (Ibid.).

With greater competition for land, the landless population is increasing and access to resources is decreasing, the conditions of Cambodia's rural poor are deteriorating (Ledgerwood, 2000; Turton, 2000). Turton (2000) states that about 31 percent of rural dwellers have completed less than one year of formal schooling, 82 percent of rural households have no toilet, 96 percent cook with firewood, and less than 1 percent have electricity for lighting. Moreover, census information for 1998 reflects a population in which 55 percent of rural Cambodians were age 19 or under, indicating an impending population explosion (Ibid.). Combined, these conditions make natural resources — the "safety net of the rural poor" — even more critical (McKenney and Prom, 2001). Although the present Royal Government of Cambodia is actively promoting socio-economic and poverty reducing development policies (Hou and Carson, 2001), it is clear that efforts to reduce rural poverty and enhance livelihood sustainability must more fully encompass effective natural resource management strategies (McKenney and Prom, 2001).

1.2.3 Community-Based Natural Resource Management

Recently, conventional, authoritarian rule has been making room for participatory approaches and small degrees of decentralization (Hou and Carson, 2001). Legal frameworks on "Management of National System of Protected Areas", "Community Forestry", "Forest Concession Planning, Management and Control", "Forestry Law", "Fisheries Law", "Community Fisheries", "Land Law", and "Commune Law" are in various stages of preparation and review by the relevant authorities (Ibid.). Further, there is consideration, albeit limited, of the potential negative impacts of not addressing local communities' concerns and interests in the management process (Ibid.) This more liberal policy context has afforded the opportunity to engage CBNRM, in particular, as a strategy to improve rural livelihoods and promote sustainability.

In its various forms, “CBNRM is characterized by local communities playing the central role in identifying resources, defining development priorities, choosing and adapting technologies, and implementing management practices” (Carson, 1998:353-354). CBNRM (also referred to as CBRM — community-based resource management) has two aspects. Boyer (2000:2) explains: “One is actually gaining control over the resource base. The other is developing successful management strategies and mechanisms.” This linking of community empowerment and ecosystem conservation goals is illustrated in Figure 3. CBNRM has “derived from or been modeled after indigenous systems of natural resource management, where local knowledge, norms, and institutions

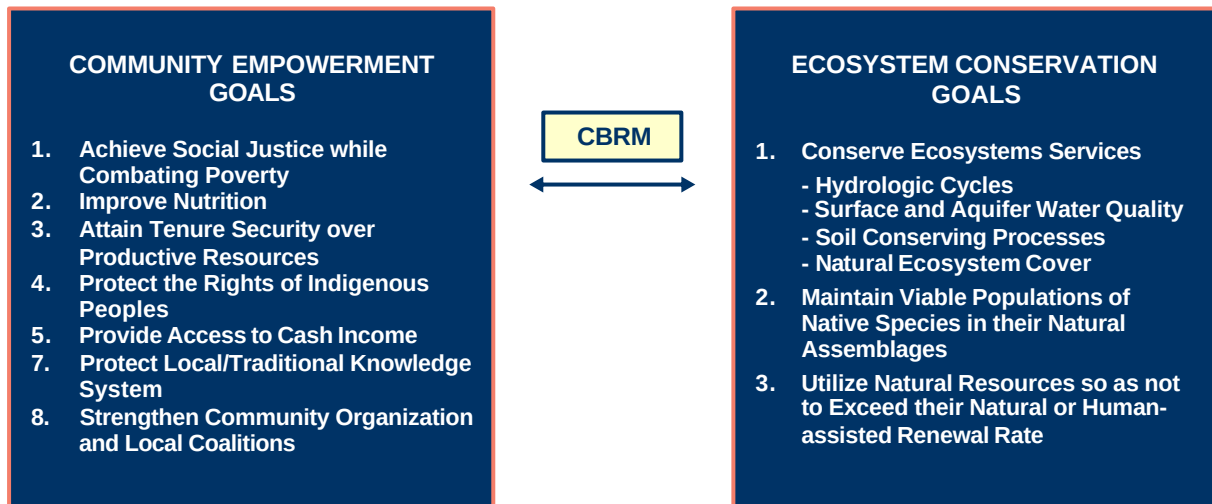


Figure 3: Linking community empowerment and ecosystem conservation goals through CBRM
(Source: Boyer, 2000:2).

have co-evolved over long periods of time with the ecosystem in question" (Uphoff, 1998:1). Brosius et al. (1998:158) explain CBNRM as being based on the following premises:

- Local populations have a greater interest in the sustainable use of resources than does the state or district corporate managers;
- Local communities are more cognizant of the intricacies of local ecological processes and practices; and
- Local communities are more able to effectively manage these resources through local or 'traditional' forms of access.

As a strategy, the community-based approach “recognizes and reinforces the stakeholder role of people living in, on, and around vulnerable natural resources, both for these people’s sakes and for that of future generations, for the people living in the immediate area but also in the rest of the country and the rest of the world” (Uphoff, 1998:3-4). It is this consideration of inter- and intragenerational equity that makes CBNRM compatible with the most commonly held notion of sustainability.

Despite its ‘noble’ premises, some critics argue that CBNRM should not be taken as a ‘magic bullet’. Li (2002:266) describes that the CBNRM approach in the Southeast Asian upland region of her field experience “is at best a partial response to the need of upland people to secure the benefits of a fuller citizenship.” She suggests that there are limits and misconceptions to the principles of development efficiency, social justice, equity, and sustainability upon which CBNRM is supposedly based. Some of these include:

- People occupying public lands often have no legally recognized title, so there is little to no impetus for conservation.
- People moving into uplands in search of land and livelihoods have varying degrees of commitment to a place. Patterns of migration may form a “community”, but these may be only short-term, boom-bust establishments. Also, they may have been formed under government policies of resettlement.

- Communities are often taken as “natural units” when they are clearly diverse in composition and interests.

She goes on to say that outside and Western values placed on 'greening' and 'protection' are not often shared with local people: “‘Sustainability’ is potentially incompatible with ‘community-based’ when the agenda for upland development is set by government officials, NGOs, or donors preoccupied by environmental concerns and convinced about the necessity and wisdom of trees” (Rocheleau and Ross in Li, 2002:270). Such critiques are necessary to improve CBNRM, as well as encourage a broader analysis of livelihood realities, linkages, and dynamics.

A case study and networking project has been underway since June 2001, co-sponsored by World Wide Fund for Nature (WWF), Oxfam America, and Canada’s International Development Research Centre (IDRC), and co-supported by the Regional Community Forestry Training Centre (RECOFTG-Thailand), Mekong Learning Initiative, and LeaRN (the Learning and Research Network for community-based coastal resource management in the Philippines) to build capacity, linkages, and support for CBNRM in Cambodia. Now in its second phase, the initiative is reflecting on lessons learned, recommendations, and requirements identified by counterparts, project partners, and local communities to support and improve CBNRM.

1.2.4 Monduliri Province: Fieldwork on the 'Fringes'

The sparsely populated northeastern province of Monduliri is a varied landscape of forested uplands, rolling hills, jungles, and waterfalls. There are large areas of relatively untouched dry forest, vital habitat for large mammals and other rare and endangered species, some of it now protected in the Phnom Prich Wildlife Sanctuary (PPWS)³ (WWF, 2000). Elephants, tigers, leopards, rhinoceros, stags, banteng, and gaur are among the spectacular examples of biodiversity found here (Ibid.).

Monduliri is home to numerous hill tribes and ethnic groups with distinct customs, traditions, languages, and beliefs, who maintain a subsistence-economy based on shifting (also known as 'swidden' and 'slash-and-burn') agriculture and the gathering of local resources from the surrounding forests (WWF, 2001). Magic and respect for the spirits of animals, forests, land, and water are integral parts of these cultures, although such beliefs, values, and knowledge are being threatened by the encroachment of a host of external forces including modern agricultural techniques, outsider exploitation of resources, and outside religions. Significant, rapid, and illegal fisheries and forest destruction, together with years of civil war, population pressure, lacking environmental management, regulation and enforcement, and the expansion of agriculture and agro-industry have had a pronounced effect on traditional livelihoods of northeastern Cambodia (Ibid.).

The Cambodian government does not officially recognize customary rights, traditional resource management, or communal land title, making resource use and tenure contentious issues between and among villages and government (Ibid.). Also, there is a general negative perception among government staff about traditional livelihood activities, particularly shifting agriculture (WWF, 2000). Bringing greater awareness and understanding to policy makers regarding issues of land title, environmental management, and traditional practices requires more research, information, and documentation on the people and ecology. Moreover, although Monduliri is rich in natural resources, it is weak in institutional and technical capacity. The provincial departments, such as Environment, Rural Development, and Agriculture, have expressed interest in tackling the problems but lack the experience, skills, and financial support (Ibid.). Very little is in the 'implementation' stage.

Compared to the rest of Cambodia, there is an obvious lack of NGO presence in the province due to geographical isolation, health risks, and the absence of communications, health, and education infrastructure (Daniels, 1999). Also, illegal activity and banditry exists, and being a former Khmer Rouge stronghold, landmines dot the landscape (Ibid.). For these reasons, not much is known about Monduliri or the livelihood systems of the ethnic population living in these “less favoured areas” (Turton, 2000).

Fieldwork and research took place in Sre Y⁴ village, located approximately 23 kilometers northwest of the provincial town of Sen Monorom (Figure 4). For more on site selection, refer to Section 4.3.

³ One of Cambodia’s 12 protected areas, Phnom Prich Wildlife Sanctuary boasts a globally significant dry forest ecosystem, prime habitat for key species such as Asian elephant and tiger.

⁴ Sre Y, pronounced "sra-ee", meaning "rice field."

2. SUSTAINABLE LIVELIHOODS (SL)

2.1 What is a “Sustainable Livelihood”?

According to Chambers and Conway (1992), a livelihood comprises the capabilities, assets (both material and social resources) and activities required for a means of living. A livelihood is viewed as sustainable when it can cope with and recover from stresses, shocks, and other context-based constraints and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Ibid.). Bebbington (1999) gives a fuller definition of a sustainable livelihood as including:

- Diverse assets;
- Ways in which people are able to access, defend, and sustain these assets;
- Abilities to combine/transform assets into income, dignity, power, and sustainability so to reduce poverty and increase living quality and human and social capability;
- An asset base that will continue to allow for the same sort of transformations; and
- Abilities to change the rules and relationships governing how resources are controlled, distributed, and transformed into income streams.

Using a Sustainable Livelihoods approach, described below, it is possible to uncover the opportunities and relationships among and within capabilities, assets, and activities.

2.2 What is a SL Approach?

A SL approach, often simply referred to as a livelihoods approach, is a way of thinking about the objectives, scope, and priorities for development; it is an attempt to counter conventional development rhetoric by “putting people at the center of development” (APRLP, 2001; DFID, 1999; Scoones, 1998; Chambers and Conway, 1992). SL offers a broader scope, in contrast to narrow-focused or single objective development strategies, within which to address and scale up poverty reduction and enhance well-being⁵ by considering what people do and can do, as well as the various factors that affect people’s lives. The SL approach builds on the strengths of past development concepts, but it sets out to do development differently by premising itself on *participatory*, *strengths/assets-based* (as opposed to needs-based), *people-centered* (as opposed to technical or project output-based) ways of thinking and doing that link the *micro and macro* in ways that improve, support, and sustain livelihoods.

2.3 How is a SL Approach Different?

In many respects, the SL approach is not new at all as it builds upon decades of thinking about the best ways to approach development problems and incorporates many familiar tools and methods (APRLP, 2001). Differences include stronger emphases on participation, multi- and cross- sectoral coordination, flexibility, and context-sensitivity.

The SL approach necessitates more authentic participation by calling for an understanding of people’s unique strengths, values and priorities, as well as community-held notions and definitions of livelihoods, poverty, and sustainability — an understanding that can only be achieved by working *with* local people. This participation provides the opportunity to gain important insight into the realities facing rural households, especially poor families. In this way, a wider range of livelihood strategies can be illuminated, as well as broader notions of livelihood outcomes that include much more than just income levels or food security (Adato and Meinzen-Dick, 2002).

Because livelihoods are complex, the SL approach attempts to avoid sectoralism and conventional reductionism. It looks beyond the local environment, but is neither exclusively bottom-up, nor top-down; it stresses flexibility and that all levels should work together (APRLP, 2001). A primary objective of SL analysis is to understand how wider policies, institutions, and processes affect local livelihoods and this includes thinking about issues of vulnerability, power, access, and influence (Ibid.). SL-informed programs aim to engage and connect the various levels (individual, household, community, district, provincial, national, and even international) and make

⁵ The meaning of well-being used here includes increased self-esteem, sense of control and inclusion, physical safety, health, access to services, political enfranchisement, and maintenance of cultural heritage (DFID, 1999).

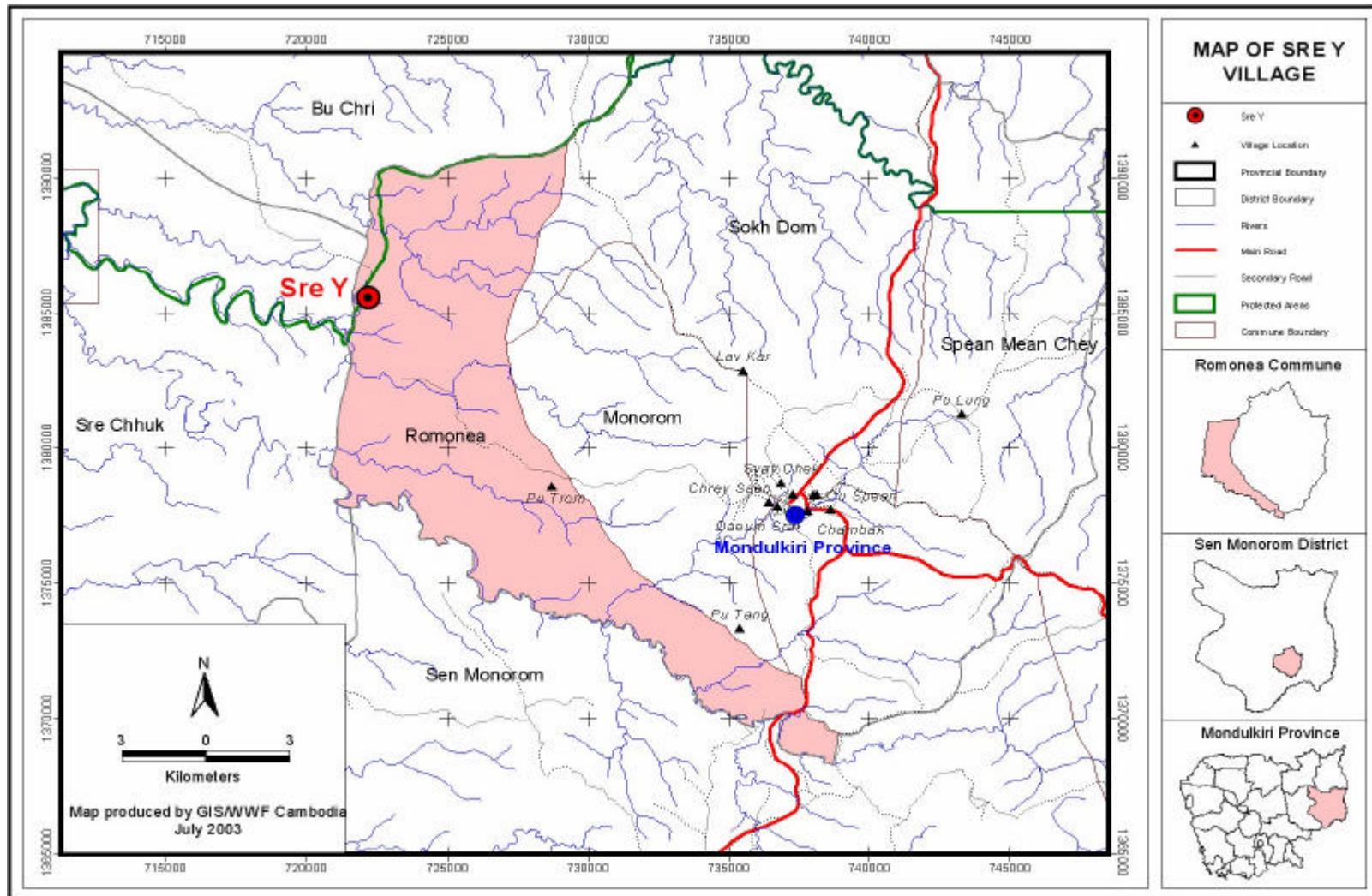


Figure 4: Map of Sre Y Village field site (printed for R. Kinakin by WWF-Cambodia in July 2003). (NOTE: Monduliri Province labelled in blue denotes a local expression for the provincial capital, Sen Monorom).

this wider environment supportive of local livelihood sustainability through policies, laws, networks, and other enabling processes and relationships.

Another main difference of SL approaches is that they are not pinned to any rigid theory or implementation guidelines. As described by the Andhra Pradesh Rural Livelihoods Project (2001): "There is no need to work with the complex-looking DFID SL framework if this does not suit your needs: feel free to break the framework into pieces and redraw it in a way that is more logical for you and your partners." It can be argued principles (i.e., participatory, people-centered, strengths-based, multi-level), not guidelines or how-to's drive SL thinking and doing.

2.4 SL Frameworks

The emergence of SL thinking can be traced back to discussions on poverty in the 1980's, particularly Sen's (1981) work on famine and entitlements that led to deeper probes into issues of poverty, power, access, and equity. Later, Chambers and Conway (1992) produced a discussion paper on sustainable rural livelihoods, influencing a flurry of writing, action and investigation into livelihood issues and analysis. One of the most notable outputs inspired by these conversations and debates was the Sustainable Livelihoods framework put forth by Britain's Department for International Development (DFID) (Figure 5).

A main critique of the DFID model, however, is that it is far too intellectual and conceptual to have practical, on-the-ground application. A central question is: How are field-level staff and practitioners supposed to implement this framework? Other criticisms include the concept's donor-centric nature, as well as the reality of competition between livelihood strategies as development projects tend to favour one over another (DFID, 1999). Also, the model is complicated by the non-straightforward tradeoffs and choices involved with livelihood dynamics (for instance, local livelihood security is often at tension with environmental sustainability). Moreover, important, defining aspects, such as culture and history, as well as intangible, yet crucial assets, such as imagination and ambition, are not given adequate treatment within this particular model. In response to these criticisms, efforts have

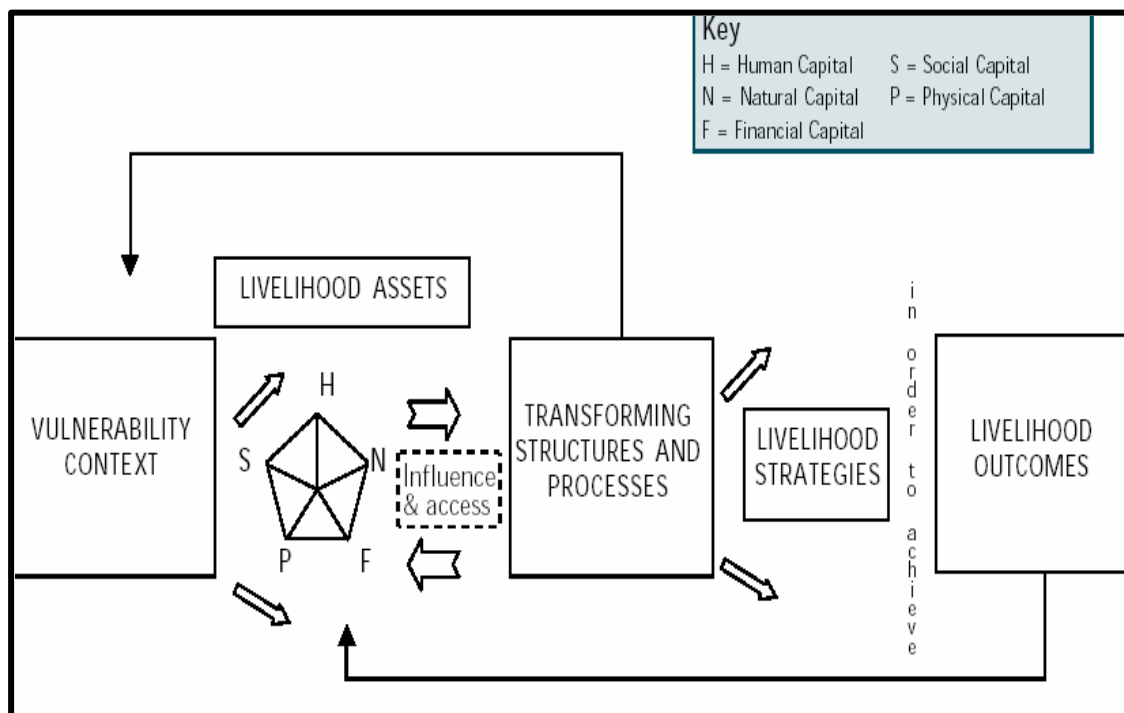


Figure 5: DFID Sustainable Livelihoods framework (Source: DFID, 1999).

been ongoing to develop SL frameworks with greater on-the-ground applicability that incorporate aspects under-represented or absent in the DFID model.

The works of Sen (1981), Scoones (1998), and Bebbington (1999) are particularly important to developing a practical and meaningful framework for investigating livelihoods and sustainability that addresses capabilities (what people can be or do), entitlement (what a person can command depending on the legal, policy, economic, social, etc. context), and stronger roles for social capital and human experience. Figure 6 reflects these works and

illustrates an attempt to understand rural realities based on an analysis of livelihood context, livelihood resources (assets, capabilities, and entitlements), mediating institutions, livelihood strategies, and outcomes.

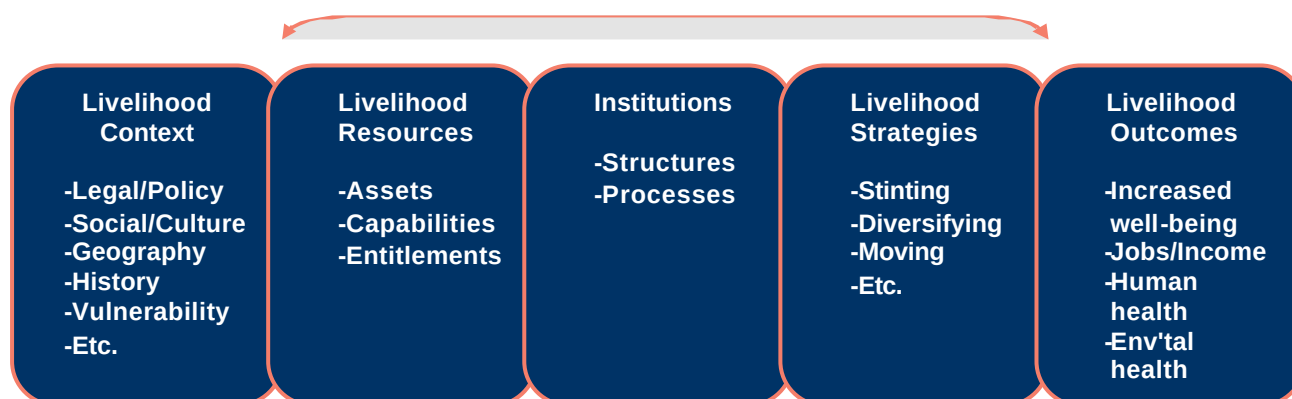


Figure 6: An alternate Sustainable Livelihoods framework. (Adapted from Sen, 1981; Scoones, 1998; and Bebbington, 1999).

2.4.1 Livelihood Context

Sen (1981) suggests that a person's "bundle of commodities" or what he or she can command depends on the various contexts, including the legal, political, social, cultural, geographical, and historical. Livelihoods are further shaped by vulnerability, and the associated forces and factors referred to as trends, shocks, and stresses (DFID, 1999). Trends include population rates, demographics, governance, and political regimes. Shocks are often intense and unexpected such as floods, health epidemics, and violent conflict. Stresses are longer term, such as drought, seasonality pressures, and prices.

2.4.2 Livelihood Resources

'Livelihood resources' refer to the assets, capabilities, and entitlements available for livelihood building. Assets, also referred to as 'capitals', are explained by DFID (1999) as being human, social, natural, physical (or material), and financial (or economic) (Box 1). Bebbington (1999) suggests that capitals are not only inputs, but are also outputs. Moreover, capitals are not static but constantly changing as meanings of development, poverty, and livelihood change. Bebbington (Ibid.:2033) further broadens out the idea of livelihood resources by saying that there should be more concern with not only ways in which assets translate into income, but also how assets impact people's sense of well-being and the "human experience".

Capabilities, or what Sen (1981) refers to as what a person can do or be, combine with and transform assets and entitlements into income, opportunities, and dignity, among other outcomes (Bebbington, 1999). Within capabilities, other personal and psychological aspects that drive human action and thinking should be included. Meijers and Nooyens (2001) suggest that people's perceptions of poverty and of their own poverty situation are critical in livelihoods analysis. Factors such as aspirations, dreams, passions, determination, beliefs in possibility and impossibility, fears, doubts, leadership potential, spirituality, and religious/cultural dedication should also be included as critical livelihood building blocks.

Entitlements control access to policy, power, rights, and claims (eg. ownership rights, contract obligations, and legal exchanges) (Sen, 1981). Entitlement relations, in large part, govern possession and use of livelihood resources.

2.4.3 Institutions

From tenure policies to market networks and credit arrangements, institutions mediate access to livelihood resources and affect the choice of strategies employed (Scoones, 1998). Institutions are comprised of structures and processes. DFID (1999) defines structures as the 'skeleton' or determinants of access to various assets. Institutional structures organize, coordinate, and make processes function. Networks to promote information flow and exchange, as well as task forces to collect information are examples of structures. Change within structures can result from various factors, including education and training, as well as organizational transformation like decentralization. Processes define how people relate to each other and include policy (eg. terms or rules of exchange and returns), legislation (eg. roles, responsibilities, rights, and relationships), institutions (eg. markets), culture (eg. societal norms and beliefs), and power relations (eg. gender, caste, class, and age) (Ibid.).

Just as assets, capabilities, and entitlements can be harnessed to offset vulnerability and enhance well-being, establishing and strengthening institutions can significantly improve livelihood situations. For example, in considering arrangements for bettering livelihood sustainability, Ellis (1998) stresses the removal of constraints to and the expansion of opportunities for diversification as desirable policy objectives because they give individuals and households more capabilities to improve livelihood security and to raise living standards. In his studies on livelihood diversification, removing constraints included reducing risk and increasing micro credit, infrastructure and rural services, non-farm activities, education, crop diversification, market stability, and new markets (Ibid.).

2.4.4 Livelihood Strategies

In Scoones' (1998) framework, livelihood strategies involve combining what can be accessed with what one has control over. Chambers and Conway (1992) term this combining of tangible and intangible resources to reduce vulnerability a "livelihood portfolio". A livelihood portfolio can comprise strategies such as stinting, hoarding, protecting, depleting, claiming, and moving (Ibid.). In considering the sustainability of livelihood strategies, Bebbington (1999:2033) raises an important point:

Livelihood strategies are attempts, from existing and often severe constraints, at a continuous management and modification of these substitutions, tradeoffs and draw downs on different capital assets. How these tradeoffs are made, and which ones are preferred, vary across life cycle and also across the short term. At certain points the resulting strategy may seem sustainable, at other points not.

Clearly, livelihood strategies, like livelihood systems in general, are not static over time. And, because livelihood outcomes are also not fixed, strategies are even more mobile. Livelihood analysis has the difficult task to address and work within this context of moving targets.

2.4.5 Livelihood Outcomes

Livelihood outcomes are the results of livelihood strategies and include increased well-being, income, jobs, economic linkages, human and environmental health, education and the re-circulation of knowledge, decreased vulnerability, risk, and instability, and meaningful life experiences. Outcomes feed back into the livelihood system; they are inputs and outputs in an open and dynamic system.

Box 1: Livelihood assets

Human assets include skills, knowledge, and experience, as well as ability to work and good physical health.

Social assets refer to relationships, for example: the networks between individuals and groups that allow for working together and increasing access to wider institutions (i.e. power); membership of formalized groups with rules, norms, sanctions; and relationships of trust, reciprocity, and cooperative exchanges that form informal safety nets.

Natural assets include: natural capital, meaning the harvestable stocks of resources as opposed to their flows; intangible goods and services like atmosphere, aesthetics, and biodiversity; and tangible goods and services such as trees, fish, and land.

Physical assets refer to basic infrastructure, usually a public good or service not requiring direct payment for use, and goods needed to support livelihoods (eg. tools and equipment). Physical assets include: affordable transportation, secure shelter and buildings, adequate water supply and sanitation, clean, affordable energy, and access to information (communications).

Financial assets refer to financial resources used to achieve livelihood objectives. These include savings, regular income or pensions, loans and access to credit, and liquid assets like land, livestock and jewelry.

Source: DFID, 1999.

2.5 How Can SL Frameworks Be Used?

Applications of the SL approach are numerous and varied. The model can be used as a checklist for asking broad questions in initial livelihood investigation, preventing important aspects being missed out (APRLP, 2001). The framework can also be broken down to focus on particular aspects in greater detail, such as gender or institutions. In some cases, SL-guided programs operate primarily at a policy level. Where this is the case a key objective is to ensure that the policy-making process is adequately informed by local-level realities and outcomes (Ibid.). Such a framework can also be used to recognize and address linkages between livelihood issues, as well as identify new projects, program areas, and partnership building opportunities. Further, a SL framework can be useful in conceptualizing monitoring and evaluation activities, incorporating, for instance, local dimensions and definitions of poverty, well-being, and sustainability and how to measure these (Adato and Meinzen-Dick, 2002).

3. METHODS AND METHODOLOGY

This project employed a SL framework as a starting point (or check list) to help guide livelihood analysis, inquiry and action. In exploring each of the parts of the framework, it was proposed that a deeper understanding of livelihoods, and the factors affecting them, could be gained. This initial livelihoods exploration drew upon various participatory methods for carrying out this research. Figure 7 summarizes how each method and activity contributed to filling in the livelihoods picture. (Note: Activities were only done once; their repetition in the chart suggests their usefulness in helping to understand more than one part of the framework.)

SL FRAMEWORK COMPONENTS	METHOD	ACTIVITY
Livelihood Context	▪ PRA	▪ Village walk ▪ Participatory mapping ▪ Historical comparison matrix
	▪ Village Workshop	▪ Seasonal calendar ▪ Semi-structured interviews
	▪ Photostories	▪ Role-play, discussion, and analysis
Livelihood Resources	▪ PRA	▪ Village walk ▪ Participatory mapping
	▪ Village Workshop	▪ Seasonal calendars ▪ Commodity flow diagrams ▪ Semi-structured interviews
	▪ Photostories	▪ Role-play, discussion, and analysis
Institutions	▪ Village Workshop	▪ Commodity flow diagrams ▪ Venn diagrams
Livelihood Strategies	▪ PRA	▪ Participatory mapping ▪ Historical comparison matrix
	▪ Village Workshop	▪ Semi-structured interviews ▪ Seasonal calendar
	▪ Photostories	▪ Role-play, discussion, and analysis
Livelihood Outcomes	▪ Village Workshop	▪ Semi-structured interviews ▪ Workshop discussion

Figure 7: SL framework components and corresponding research methods and activities.

3.1 Participatory Research

This project drew heavily from the methods and philosophies of participatory research (PR). PR arose as a response to the biases, limitations, and criticisms of conventional research methods and methodologies that were viewed as superficial, extractive, and top-down. The PR concept owes much of its origin to the work of Paulo Freire, a Brazilian educator. In his book, *Pedagogy of the Oppressed* (1970), Freire advocates peasant empowerment through enhanced literacy, an education based on ways to raise people's awareness of how their personal experiences and everyday realities are linked with larger social problems. This process involves researchers and the researched in a co-investigator relationship, as well as the development of "coded" situations, visuals or sketches depicting everyday life. "Decoding" these situations requires the recognition of oneself within and as part of the situation. Termed *conscientization*, this process of critical self-discovery and unveiling of the world through reflection and action is a step to social change and transforming reality.

PR is touted as a social action process that favours marginalized and exploited people and groups, such as the poor, ethnic minorities, women, youth, homosexuals, the elderly, and the disabled (Hall, 1992). Essentially, PR deals with power, social justice, and transformation. Hall (1992:17) draws from the literature to describe PR as a theory and practice that:

presents people as researchers in pursuit of answers to questions of daily struggle and survival (from Tandon, 1988:7); breaks down the distinction between researchers and the researched (from Gaventa, 1988:19); acts as a flow-through mechanism between indigenous and western science (from Colorado, 1988:63); and returns to the people the legitimacy of the knowledge they are capable of producing (from Fals Borda and Rahman, 1991:15).

An important critique of PR is that it may be less 'authentically' participatory and more extractive. Given a less than impressive track record of conventional research, whose voice, knowledge, and reality is being solicited, how, and why should always be questioned (Chambers, 1997).

PR belongs to the family of praxis-oriented methodologies that combine theory with practice, or 'learning-by-doing', and occur as a separate class of methodology outside the quantitative and qualitative divisions (Franklin, 2002). The agency of insiders in praxis methodologies, which is that of co-researchers rather than subject or participants, sets this culture of inquiry separate from more traditional paradigms of research (Ibid.) The 'learning-by-doing' and co-researcher sentiments best illustrate this research process as our interests were as much about learning together with the villagers about livelihoods and the factors that affect them, as they were about capacity building and training ourselves to 'learn how to learn' about livelihoods and do effective community level action work. For these reasons, quantitative methodologies were not entertained; questionnaires and statistical analysis did not seem the best way towards our learning objectives or authentic, non-extractive participation. However, although not employed in this project, the possible usefulness of quantitative techniques for larger projects and programs requiring more detail is not disregarded.

3.1.1 Participatory Rural Appraisal

According to IFAD, et. al. (2001:58), participatory rural appraisal, or PRA, is "a method that facilitates the community's own in-depth look at themselves and of their possibilities, and enables them to articulate these discoveries in their own colourful, meaningful, useable and realistic way." PRA is often understood as "a set of tools with which the community can visualize its own reality... [and deal] with space, time, and relationships (Ibid.:59)." For this project, eight PRA activities were selected to help in fulfilling learning objectives:

1. *Village walk*: to familiarize researchers with the layout and geography of the village/community;
2. *Participatory mapping*: to help identify and analyze the distribution of and the relationships between specific resources or features;
3. *Historical comparison matrix*: to help reveal the characteristics and qualities of listed items, and how they changed over a specified time;
4. *Seasonal calendar*: to provide a pictorial representation of village life throughout the year and highlight the interrelationships of variables and the timing of activities;
5. *Commodity flow diagram*: to show the main products made by the villagers, the path these products take on their way to market, and who and what is involved in this process;
6. *Venn diagram*: to identify and establish relationships between a community and its environment (both internal and external) and highlight the relative importance of particular relationships;

7. *Role-play*: to capture movements, actions, sequence, roles, and relationships of people, things, and practices;
8. *Semi-structured interviews*: to allow for an exchange between interviewer and interviewee, leading to mutual understanding on a given topic or theme.
(Adapted from IIRR, 1996).

The purpose of using these tools was to engage the community in a manner that was fun, creative, and inclusive, produce tangible products that could be left behind for the villagers' own records, and gather information that would help to fill in the livelihood picture. (Examples of these tools can be found in Appendix 1 and 2.)

3.1.2 Village Workshop

The purpose in meeting with villagers in a workshop forum is to produce a specific output, in this case an understanding of community meanings and experiences of 'livelihood' and 'sustainability'. A village workshop offers outsiders a chance to gain insights into community dynamics and perspective, and allows for the use of various methods, dynamic group work, and maximum participation (IIRR, 1996). Further, a village workshop provides a way for research teams to learn, to get instant feedback, and to test, modify, and evaluate new methods immediately (Ibid.). Moreover, it provides a space for villagers to share information and concerns among themselves, perhaps even to come to understanding and consensus on certain issues. In livelihoods research where scale is an important factor, a village workshop also allows for a community-level representation and analysis of conditions and realities in light of different socio-economic classes, genders, cultures, and ages. This information can provide the departure point for deeper household and/or individual investigations.

3.1.3 Photostories

'Photostory' implies telling a story or creating a narrative with photographs. Photography and photostories have been used to show how various (popular) communications can encourage critical thinking and creative action (Barndt, 2001; Wang and Burris, 1997). As explained by Freire (1970), the visual image, or "coded-situation problem", is one way to get people to start thinking critically about their community and the prevalent, oppressive social and political forces. Barndt describes how "photographs and photostory production can be tools in this process, reflecting back to us, like a mirror, and framing our presence in the world, like a window" (2001:41). By exploring, critically analyzing, and actively engaging these images through hands-on creation, we can begin to make sense of the images, and in turn, demystify the world (Ibid.). Wang and Burris (1997) describe a similar process of using photography. Coined "photovoice," the method is based on critical education, feminist theory, and documentary photography. Photovoice has three main goals: "(1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important community issues through large and small group discussion of photographs, and (3) to reach policy makers" (Ibid.:370). Without a need to read or write, both photostories and photovoice take PR farther, further breaking down the power differential between researcher and researched. Cameras, though, can be invasive and there is a danger of unforeseen consequences. Conflict can occur over who controls the use of the camera, who does not, what photos are taken, and which are not, and why. Wang and Burris (1997:375) point out, "photographs are easy to gather but difficult to analyze and summarize because they yield an abundance of complex data that can be difficult to digest." However, livelihoods are inherently and necessarily complex. Quoting Lewis Hines: "If I could explain the story in words, I wouldn't need to lug a camera" (in Wang and Burris, 1997:372).

In an attempt to push creative research boundaries in an area where illiteracy is high, different methods for livelihoods learning and doing were necessary.⁶ Photography and photostories, among other creative, alternative media, can be more effective forms of learning and documenting than written reports in such cases. Also, depending upon the audience, a visual end product is more likely to reach a wider audience quicker and more evocatively than a paper. Moreover, it is easier to integrate and reflect multiple perspectives, as opposed to trying to moderate the bias an author of a report can bring into the paper with him or herself.

⁶ In the original major project proposal, photostories were to be a main activity. However, I underestimated the amount of groundwork needing to be laid in terms of planning, training, field site selection, and rapport building with a village new to my supporting organization. For these reasons, photostory production was incorporated into a more holistic objective: to experiment with various participatory research methods for learning about livelihoods.

4. MAIN ACTIVITIES

This section provides an account of the process and main activities. The mass of information generated from the fieldwork, alone, could form another thesis and so is not given here in any great detail. The appendices provide accounts of village life in Sre Y and fieldwork findings.

4.1 Scoping

A three-month field experience in Cambodia during the summer of 2002 served to lay the groundwork for research. As an intern with WWF's CBNRM Case Study and Networking Initiative, I was exposed to various CBNRM and conservation issues. Further, I was able to meet numerous people, develop contacts and networks, learn some Khmer language, and travel quite extensively within the country while assessing and discussing my research interests and their applicability to Cambodia with a range of individuals. This, together with background reading from course and independent study, comprised the preliminary research phase of this project.

4.2 Team Selection and Training

In order to carry out this project, I required a counterpart that could help me in research and, moreover, in translation, as I only possess basic Khmer language abilities. The counterpart was selected from WWF's national Phnom Penh staff, a woman I already knew from my past internship experience. We also required a Khmer counterpart from the province that could speak the ethnic language, Phnong. Although most of the villagers in Sre Y speak Khmer, some still have a better understanding if concepts are presented in Phnong. A local ranger from Mondulkiri was selected for this role. The core field team consisted of the national counterpart, two provincial WWF counterparts from Mondulkiri, two local rangers, our driver, and myself.

As part of my responsibilities to WWF, I presented information to the national team on SL concepts and the implications of livelihoods approaches for CBNRM. As well, mini-trainings on PRA tools were given to the core team prior to going out into the field. Also, before the SL village workshop, a half-day of leveling-off and training on facilitation, additional PRA methods, and workshop process was carried out.

4.3 Site Selection

From February 12-17, 2003, an initial assessment was undertaken to ascertain a potential site for livelihoods research in Mondulkiri province. Day trips to two villages, Sre Y (23 kilometers northwest of Sen Monorom), and Laoka (20 kilometers northeast of Sen Monorom), were taken, these villages being selected for their accessibility from the provincial capital. Two local rangers, a national WWF counterpart, and myself comprised the scoping team.

At each village, following initial introductions with the headman and other villagers, we described our intentions to learn more about rural life in Mondulkiri and began a discussion about general livelihood issues and conditions. The informal, semi-structured survey, lasting about 1 hour, included questions about village history, social composition, culture, geography, natural resource use, income and non-income generating activities, main challenges and obstacles, health, education, communication with and access to other villages, and knowledge and awareness of PPWS. (Neither village was aware of PPWS, its boundaries or objectives, although a few villagers in Laoka had heard the name before.) Our scoping activities were somewhat rushed and our talks with villagers were limited to those who had not already gone into the forest to do their daily livelihood activities.

Ultimately, Sre Y was selected due to its accessibility (given time restrictions both a short field work period and a rapidly approaching wet season), security, proximity to PPWS, reliance on natural resources, and villager interest and willingness to participate in livelihoods research. Also, because of the permanent field, wet rice farming practiced, people were expected to have more time to participate than Laoka villagers whose shifting agriculture methods kept them extremely busy and far from the village for days at a time. Also, the 5 groups making up Laoka village are sprawled out and so collecting people together to participate in community livelihood research would be difficult; whereas Sre Y is smaller. In a more compact settlement such as Sre Y, where the three composite groups or sub-villages live side-by-side, it is far easier to facilitate the gathering together of community members. Further, Sre Y is a strategic site as it is en route to Memang, a gold-mining town that attracts a daily labour force. In addition, being close to Sen Monorom, Sre Y is of future importance, growing in popularity as a place for tourists to hire elephants and journey into PPWS and surrounding areas. Moreover, as Sre Y is not yet engaged in (formal) CBNRM activities, understanding garnered by using a livelihoods approach may provide clues to how learning about livelihoods can enhance or shape future CBNRM in the region.

4.4 Participatory Rural Appraisal

A PRA was undertaken from March 31 to April 4, 2003, to: a) gain an initial understanding of social, economic, environmental, and historical conditions; b) build trust and rapport; and c) gather information for and assess interest in a community SL workshop. Preparation and post-evaluation of this PRA took place in Sen Monorom, and two half days⁷ were spent in Sre Y conducting participatory village resource use mapping, a village walk, and a historical comparison matrix activity. Refer to Appendix 1 for the fieldwork report and reproductions of the maps and charts.

4.4.1 Participatory Village Resource Use Mapping

The purpose of the participatory village resource use map was to understand: 1) where the village does its daily activities (eg. rice farming, resin collection, fishing, etc.); 2) what natural resources are important to the village and where they are; and 3) the village resource management system. Two groups produced maps, one men's group and one women's group, each having approximately eight members. From the activity, we learned about the main livelihood activities, including: a) rice farming, done primarily by men in the wet season; b) resin collection, and the associated ownership and marketing system; c) fishing, a minor activity as the nearby streams have been fished out by outsiders; d) hunting, a rarely undertaken activity since wildlife numbers have noticeably decreased and the government collected up firearms from people in the region; e) other non-timber forest product (NTFP) collection such as wild fruit and vegetables, honey, thatch, and traditional medicines; f) livestock raising of pigs, chickens, ducks, goats, cows, and water buffalo; and g) home gardening, an activity highly dependent upon water availability. We were also given insight into other livelihood resources, including the presence of two elephants in the village, one owned jointly by family relatives within Sre Y and the other shared with people in Memang. We also learned about the village's spiritual places—nearby waterfalls—where fishing, resin, and other NTFP collection are prohibited. Other main findings came through probing into issues of access to resources, communal and private title, regulation of resource use and activity, and conflicts and threats from inside and outside the village.

4.4.2 Village Walk

The purpose of the village walk was to better familiarize ourselves with the village, as well as to probe further into aspects either absent or unclear in the village resource maps made the previous day. Also, this activity was especially important in showing that research does not need always to appear 'formal,' that is, done sitting down. The walk was taken with the deputy headman, one man, and one woman, these three villagers knowledgeable about the area. The maps were used as sources for "Can you show me..." and "Can you explain..." questions, with the main areas of inquiry being: relationships among the three groups comprising Sre Y, as well as neighboring communities; water; traditional beliefs and practices, including traditional medicine; disease; village history; village demography; decision making; rice agriculture, institutions, and the school and access to education.

4.4.3 Historical Matrix

A historical matrix (or historical comparison chart) was produced to understand changes in livelihood activities, as well as population. The five participants to this exercise, the village headman, the Chief (the eldest man), two female elders, and the teacher (male), responded to questions such as, "What activities did you do?", "Why did things change?", "Were there advantages or disadvantages to these changes?", and "What do you think or feel when you see how things changed over time?". Main understandings resulting from this activity included: the gradual migration of families to the village; the return of villagers to Sre Y after the fall of Pol Pot; the shift from farming rice, fruit, and vegetables all in one plot to establishing a separate rice field to support the food needs of a naturally increasing population and separate private, home gardens for fruits and vegetables; the increasing importance of domestic livestock raising, given negligible hunting; the recent importance of resin collection encouraged by outsider middlemen; and how, in general, external influences have shaped the village's livelihood activities and well-being throughout time.

⁷ Half days beginning early in the morning were preferred by the villagers as then they could both participate in our work, while still having time to go about their daily livelihood activities around the village and in the forest.

4.5 Sustainable Livelihoods Village Workshop⁸

This workshop, held in Sre Y from April 30 to May 2, 2003, was designed to enable researchers and villagers to learn together about livelihoods, and delve deeper than we had gone in the previous PRA work. This was a forum to introduce the terms and concepts of 'livelihood' and 'sustainability' in a manner that initiated community-generated analysis. As well, this workshop provided an opportunity to increase the research team's capacity to use various PRA tools to learn about livelihoods. The specific objectives were:

1. To understand what 'livelihood' means to community members;
2. To understand the different livelihood strategies that households engage in;
3. To examine factors that help and hinder livelihoods (eg. seasonality, institutions, and markets);
4. To think about coping and adapting strategies;
5. To understand what 'sustainable' means to community members; and
6. To provide the research team an opportunity to learn and practice workshop facilitation and PRA tools application.

The workshop was attended by twenty villagers with a variety of backgrounds. Criteria for participation were drawn up together with the headman during the previous visit, this step ensuring participants would be socio-economically diverse, approximately fifty percent female, and representative of the three different locational groups that make up Sre Y.⁹ The workshop was facilitated in Khmer, with translation into Phnong for the few participants who could not follow along or found Phnong instructions to be clearer. Figure 8 shows an overview of the workshop agenda. Refer to Appendix 2 for the workshop proceedings.

	Day One	Day Two	Day Three
Morning	Introductions; Expectations; Workshop Objectives; What is 'Livelihood'? □ what is it that makes up your life?	Looking in-depth at livelihoods: □ Seasonal calendars: illustrating how seasonality affects livelihoods in multiple ways (complexity). □ Commodity flows and their link to livelihoods.	Personal livelihoods stories and sustainability discussion: □ In-depth discussion (semi-structured interviews) on personal livelihood stories; □ Sustainability discussion; □ Wrap-up.
Afternoon	Factors affecting livelihoods: □ Influences, positive and negative.	□ Institutions affecting livelihoods (Venn Diagrams).	

Figure 8: Overview of the SL workshop agenda.

⁸ This workshop was adapted from two previous workshops designed by Ph. D candidate Melissa Marschke and carried out in villages in Koh Kong and Siem Reap. Originally applied to her research on community-based coastal resource management in western Cambodia, the workshop was modified to suit the Sre Y context and my specific needs and learning objectives.

⁹ Underrepresented was Group One, in which only one female participant was present. It is believed that Group One villagers may not have been able to spare the time away from their livelihood activities to have participated.

4.5.1 Day One Summary

The first day was dedicated to learning about all the activities people engage in and arriving at a local term and definition for the concept of 'livelihood.' Participants also identified and discussed which families could participate in the various livelihood activities, leading into a brainstorming session of what made households in Sre Y 'rich', 'medium', and 'poor.' Following this, villagers were asked to think about and list the positive and negative factors affecting their livelihoods, the aspects that made life easy or hard.

4.5.2 Day Two Summary

Day two probed deeper into some main factors affecting livelihoods, particularly seasonality, markets, and institutions. PRA tools were used to facilitate this learning. A seasonal calendar was made to show cycles, trends, activities, and events as they occur in Sre Y during a one year period. This was a graphic means to analyze the complexity of livelihoods, as well as relationships and linkages between and among the parameters explored, which included: weather, income, expenditure, rice farming, resin collection, home gardening, honey collection, hunting, thatch collection, fishing, disease, and social events. Also, commodity flow diagrams were made for the main goods sold or exchanged: resin (wet and dry); livestock (pig, chicken, cow, buffalo); wild game (deer, boar, lizard, and turtle); honey; wax; jar wine (for ceremonies); rice wine (for daily consumption); and thatch. These diagrams showed the path a product takes to market, which people or institutions are involved, as well as gestured to issues and sources of vulnerability and opportunity. Venn diagrams were also produced, despite claims that this PRA tool would never work in Cambodia because it was too complicated, particularly for ethnic minority communities. Done by both a men's group and a women's group, these diagrams were useful for illustrating the institutions affecting the village, their relationships and their importance.

4.5.3 Day Three Summary

On the third day, participants and facilitators met one-on-one to do semi-structured interviews that were designed to encourage the sharing of personal life stories and allow us to gain insight into livelihood changes over time and individual and household coping and adapting strategies. After, the whole group brainstormed what they dream for the future and for their children, an exercise that helped get at and draw out villagers' abilities to engage forward thinking about concepts of sustainability. This brainstorming session produced a village-specific term and definition for 'sustainable'. The workshop, as a whole, aimed to increase awareness of the numerous factors influencing livelihoods, strategies, and outcomes, as well as to provide insight into villager-perception of strengths, constraints, institutions, and priorities. By the end of the workshop, a clearer picture of what 'sustainable livelihoods' meant in the Sre Y context had emerged.

4.6 Photostory Production

Photostories were produced as part of an idea to encourage a creative way to explore reality (refer to the accompanying photostory posters). These photostories were follow-ups to the lessons learned and concepts explored during the SL workshop. While the workshop aimed to generate an understanding of livelihoods and sustainability at the community scale, the photostories, conducted in mid-May 2003, were to provide detail and insight at the individual, and associatively, the household level. In our explanations to the village, we expressed that these photostories would be valuable for:

- Increasing the amount of information on village life in Mondulkiri, because right now there is almost none;
- Helping us (the researchers) explain livelihoods in Sre Y with more than just words and reports;
- Giving the village something it can show other groups and organizations that want to know about livelihoods and the opportunities and challenges facing the villagers; and
- Sharing with future generations (i.e., a historical record).

The original process planned had to be modified many times for several reasons.¹⁰ First, when we discovered that Sen Monorom lacks photo-processing, we decided to use a digital camera. This required us taking a laptop and printer to Mondulkiri so that we could print out the photos at the WWF post in Sen Monorom. Second, perhaps waiting too long to do this portion of research, we encountered considerable difficulty in getting to the village because of the onset of the rainy season. With the road being virtually impassable and very dangerous, we had to make the hard decision to turn three days worth of research into one day and figure out how to maximize this condensed timeframe. Third, when we arrived at the village the fourth participant, a woman from one of the three groups that comprise Sre Y, was nowhere to be found. Her absence was attributed to possible miscommunication and considerations that she probably could not spare the time away from her livelihood activities to be with us. This meant that there would be only one woman among our participants. Nonetheless, we had three willing participants: a widow of a poor family, a male teacher of middle class means, and one of the eldest men in the village who is also the richest man.

With our timeframe very much contracted, we had to figure out a way to shoot these photostories relatively quickly as we only had about 2.5 to 3 hours of battery in the digital camera and knew that we would not be returning to the village again during this field work period due to threatening weather. We decided to have the participants role-play out their daily activities, as opposed to following them around for a full day. Unfortunately I ended up taking the pictures because the villagers were more engrossed in the role-playing process. Also, because they had seen me with a camera so often, they trusted my 'eye'. After a fun, but fast-paced picture-taking phase, we sat with the participants, one by one, showing them their pictures through the view-finder on the digital camera and discussing the photos, probing them and asking about each activity and the factors that make it easier and harder, linking our questions to the concepts covered in the workshop. Regrettably, we had to leave the village without having the opportunity for participants to further exercise their creativity and layout their own stories.

The images were brought back to Phnom Penh where we started the difficult process of selecting which photos to use and how. With our field notes as a guide, we developed a layout scheme and made short text stories to fit to each photostory. The photostories were then taken to the printer and made into posters. Copies of the photographs taken, as well as posters, are set to make their way back to the village as soon as the weather and roads permit.

4.7 Evaluation

Evaluation was generally a post-activity, with the exception of the workshop where reflection was done during each lunch break and at the end of each day in order to modify and plan accordingly for the upcoming sessions. Evaluation took the form of informal team discussions of strengths and weaknesses (the "what worked best", "what did not work", and "how can this be improved for next time" aspects), as well as any environmental factors that required attention (facilities, location, etc.). Most of the ideas and concepts coming out of these reflections are explored in Section 5.1.

4.8 Follow-up and Reporting

After translating and collating information, writing up field reports, and completing this Major Project Report, a presentation in the form of a mini-training workshop on the process and results of this research was given to the WWF team in Phnom Penh. The workshop proceedings report (created as a SL village workshop training manual) and most of the field reports have been translated into Khmer and retained for WWF records. All materials

¹⁰ The planned strategy included taking a pair of individuals, selected from the workshop participants, and following them for a full day as they did their daily activities. A camera was to be given to the pair and they would control the use of it, photographing each other and what they saw as important, trying to "capture the spirit of everyday life" (Wang and Burris, 1997). Researchers would take notes of the comments made and activities engaged in. This process would repeat with a second pair the following day. The pictures were then to be printed out back in Sen Monorom, and taken back to the village on the third day. We were going to gather the four participants together a last time to select the photos that best illustrated their daily realities and challenges; these photos were to provide the starting point for discussion and analysis of emerging themes and issues, concepts that would be linked to those from the previous livelihoods workshop. After, photographers were to be asked to layout the pictures on large poster paper as a draft of the livelihoods posters to be created later in Phnom Penh, and suggest captions for their stories.

produced with the village, originals and copies, have been returned to Sre Y, including a photo record of the workshop.

5. LESSONS LEARNED AND IMPLICATIONS

5.1 Methods For Learning About Livelihoods

As stated above, livelihood realities cannot be captured exclusively in numbers and other quantitative ways; learning about people requires a 'human touch'. Qualitative, participatory research methods were selected because they offered a chance for the researchers to get inside community dynamics and perspectives better than quantitative techniques, and allowed for a mutually-beneficial learning experience for both the village and research team. In addition, such methods and methodology compelled us as researchers to draw on our own strengths, resourcefulness, ingenuity, and creativity, essentially to develop our own style.

The following reflects on the PRA, village workshop, and photostory methods used to learn about livelihoods, and considers the strengths, drawbacks, opportunities, and challenges of each.

5.1.1 PRA Tools

There were numerous benefits to using PRA tools (i.e., participatory mapping, village walk, historical matrix, seasonal calendar, commodity flow diagrams, Venn diagrams, role play, and semi-structured interview) for learning about livelihoods. For Sre Y villagers, PRA brought a new, creative way of interacting with outsiders and researchers.¹¹ Participants to these methods claimed that the tools, which were largely visual, helped them both better understand our learning objectives, as well as become more aware of the livelihood issues within their own village. A few villagers expressed shock and surprise at how numerous the factors affecting their livelihoods are, and others commented that the activities were so thought-provoking that they could not stop thinking about them even after we wrapped up the task! In general, the villagers said that the activities were fun and interesting, sentiments made evident by the numerous people drawn to our activities. In fact, the initial PRA drew so many people that the tasks were almost unworkable; we learned to request certain participant numbers in advance for subsequent work.

Most all of the PRA tools were suited to small group work, which allowed us to mix groups and observe the dynamics of different combinations of people. Observing men's and women's groups, for instance, provided us much insight into social, gender, and institutional issues, as well as the perception of these issues. In particular, Venn diagrams produced by a men's group and a women's group illuminated some significant similarities and differences. For example, both groups placed heavy importance upon the headman and the midwife, and in varying degrees, the teacher, the village Chief (the eldest man who resolves conflicts and leads ceremonies to pray for good luck and remove bad luck), the traditional doctor, and toolmaker. Also, both groups attributed relative unimportance to the provincial hospital in Sen Monorom due to the difficulty involved in getting there. However, the women placed the circle representative of the hospital closer to the village in their diagram, stating that it is still important to them because the doctors from the hospital come to the village to vaccinate the children. The men, by contrast, placed the hospital circle far from the village in their diagram, feeling that because the doctors only helped the children and no one else, it did not deserve to be placed among the institutions they deem close to the village. Another activity that provided insight into the social and gender dynamics at work was the participatory village resource use mapping. Again split into men's and women's groups, the differences that emerged were telling. The men's map of their daily livelihood activities was four flipchart-papers large, showing the village and surrounding area within a twenty or thirty kilometer radius! The women, by contrast, produced a small, one flipchart paper-sized map with only the village and immediately surrounding forest. Just by looking at these maps, one can see that the sheer size of the men's world is considerably larger, while the women's sphere is spatially smaller with most livelihood activities being confined within or close to the village and near the home and children. The women also found drawing this map difficult, claiming they did not have enough knowledge of the area and its resources to do so. The men, on the other hand, are very familiar with the geography and biodiversity in and around the village as their daily activities take them far into the forest, in every direction. This familiarity has produced a confidence and knowledge that made it comfortable and easy for them to discuss such issues with us, as well as to participate in

¹¹ A few other groups researching Phnong language and culture had been to the village a few times prior to our visits.

PRA activities such as this mapping task. When asked, the men's group felt this exercise was not hard, but enjoyable.

With PRA being conducive to drawings and other imaginative forms of expression, it was possible to get all participants involved and sharing, even the most guarded. Such creative methods go a long way in proving that research — *good* research — does not always need to be done 'formally', or sitting down. Further, it was with extreme pleasure that we learned that even complicated PRA methods, such as Venn diagrams, could be done given good facilitation. Putting faith in the participants is half of the research process and most of its success. People are intelligent and can 'get it' given clear instruction, patience, and support. If 'it' does not work out, then the attempt should be considered an experience to feed back into the cycle of learning.

Although there are numerous benefits to working with PRA tools, many challenges also arise. Frequently, we had to maneuver to distract and even lead away the headman whom the villagers were obviously intimidated by, his mere presence thwarting many of our discussion and analysis attempts. Because PRA depends upon rather open sharing, risk of participation may be perceived as high, especially if there is a relatively strong power structure in the village. Another challenge included the initial difficulty in explaining to some research team members that the information and answers given by the villagers were never wrong as, after all, we were interested in villager accounts and perceptions of issues — life as *they* see it. A perpetual lack of time was another hindrance, although in many cases it could not be avoided. A further obstacle was that in this Phnong village, those with a better command of Khmer participated more fully. Having someone knowledgeable in Phnong was a key strength for us, but understanding was always biased towards Khmer speakers. (For villagers to even speak to me, they knew they had to do so in Khmer.) An additional challenge was that although the PRA tools resulted in a plentitude of information, we sometimes ended up with information that differed and conflicted with other previous accounts. Having to sort out 'the story' from numerous drawings, charts, and symbols is time-consuming and difficult, but a consequence that seems to come with the PRA territory.

PRA tools are already used in CBNRM, but have become so standardized that the organic, spontaneous nature of the process — which results in arguably the most important insights — is rapidly fading. Particularly in Cambodia, PRA tools are used but an understanding of the purpose, power, and difference behind their use is largely absent. Further, as in many places, there is a bias towards scientific and technical data collection, such methods discounting and passing over local people's perceptions of poverty situations, well-being indicators, priorities, and goals. Such neglect makes one question for whom this so-called development is supposedly being done. Further, for CBNRM, definitions of 'community' and 'resource' are still either elusive to planners, supporters, and even practitioners, or are at tension with or completely mismatched to local understandings. This beckons to larger debates of the validity of local knowledge, the usefulness of participatory work, and the acceptable trade-offs involved in using qualitative methods at the expense of more quantitative ones; these debates are vastly beyond the scope of this report. However, the point here is that PRA methods, when done well and purposefully, can be a valuable means to vital information. Done without skill, understanding, and direction, the results can be information overload, or worse, information extraction that can break community trust and engagement. We learned that patiently taking time to explain the activities is imperative, as is keeping in mind that the process is more important than the any pretty picture produced. It cannot be stressed enough that facilitation is key. Facilitators must be skilled, flexible, knowledgeable, and confident, and training to these ends has vast benefits. Also, a further critical and very context-specific factor not to be overlooked was the very nature of the community, an extremely receptive and accommodating group which allowed such facilitation to take place. Credit is clearly due to these villagers.

5.1.2 Village Workshop

This workshop has been done in a coastal village, a lowland village, and now in an ethnic minority community in the highlands of Cambodia. Each time, it has been an intense and challenging experience for both the participants and research team, making the use of many games and energizers to re-inspire and refresh villagers and researchers necessary. The use of lesson plans, prepared prior to the workshop, proved to be particularly beneficial in supporting facilitators and keeping them on track given the step-by-step pace of instruction. Again, good facilitation was both a strength and an imperative. The combination of PRA tools, group discussions, and brainstorming sessions was also advantageous in allowing us to gain important insights into village life and the influences on it. This forum provided a space for villagers to bring forth issues and concerns, as well as voice opinions and ideas, in small and large group formats and in visual and verbal ways. Maximum participation is another definite strength of the village workshop. Participation and perspectives drawn from many people were critical ingredients in getting consensus and gaining a better understanding of community dynamics and, in our case, village-based concepts and definitions of 'livelihood' and 'sustainable'.

PRA tools, alone, are an engaging means to rather quick livelihoods information collection. However, 'quick' attempts will always be subject to incomplete and fragmented understanding. This village workshop format was a better kick-start to learning as the information obtained was plentiful, valuable, and garnered from many perspectives over several days.¹² Although this is an event that can be held at any point in project or program life, a workshop like this makes a preferred and positive first step in researching livelihoods and the factors that influence them. What can be learned can be used to identify and plan, focus, or reorient projects and programs. The information gathered can also be used for follow-up events like trainings or wider stakeholder meetings. Further, relationships developed with participants during the course of the workshop can form the basis for in-depth livelihoods investigation with individuals and households, contributing to understandings of scale within a community.

5.1.3 Photostories

There are numerous ways for a photostory process to proceed. Ours included using a digital camera and role-play to capture daily life of three villagers, a process that had its own unique strengths and challenges.¹³ As explained above, we were very rushed for time, given a dying battery and the threat of more rain. Improvising, we asked the participants to role-play out a 'typical' day; we were completely surprised and delighted at how well-received this was. Our activity attracted many villagers to watch. I was concerned that such an audience would be intimidating to our 'performers', but again to our surprise, the participants stated: "We are not shy; we are not Khmer. We are Phnong." This statement suggests that role-play, photography, as well as other creative methods have definite research tool implications for work in Phnong communities. The role-playing proceeded with the participants bringing out tools and equipment as props, even changing clothes to make more real the activity being imitated. We quickly learned that this process had the benefit of being inclusive as even children were able to get involved. This consideration was especially important in getting female participation. Sre Y women had told us previously that much of their day is restricted to tasks that confine them near the house and children, or to work that allows them to take their children along. This photostory process easily accommodated these needs. Another benefit of the role-playing process was the ability to 'freeze' a scene and delve into it by asking questions like "Why is this done?", "Who helps with this?", and "Where did you learn to do this?". When we did this, the power shift that occurred was most striking. When we asked a villager to tell about his or her daily life, a definite role reversal occurred where the researcher was the student and the villager was the teacher, showing how activities are done, why, when, where, and by whom.

Originally, the camera was to be put into the hands of the participants in a bid to relinquish the 'power' of perception and production. I was initially reluctant and disappointed to be the sole camera operator, but soon realized that the villagers were more excited to 'act' anyway. Such a novel process perhaps needs to be done in a step-by-step manner, first having the villagers comfortable with the activity and product, and later having them produce the product themselves. In any case, the images generated out of this process, although not actual portrayals of daily life, gave us something to reflect on and shape our discussions with. In looking at the pictures and talking, we ended up getting additional and some slightly different information than was gathered from the workshop, particularly in the case of the poor widow woman. When we probed at whether she enjoyed any of the activities she was pictured doing in the photographs, she said that she did not. She added that the tasks are difficult and that it is especially hard being a widow and lacking male labour. When we probed at how she felt when looking at the photographs, she expressed that life is hard, as can be seen in the pictures, but that "it's life". The woman went on to say that she does what she does every day to feed her family and provide for her child, and that life was a challenge and she was not happy in hers. This statement differed with comments made earlier during the workshop where, in a semi-structured interview, she claimed that she was happy enough in her life. Because this photostory

¹² Staying in the village for the duration of the workshop also afforded us the chance to experience some of livelihood challenges and coping strategies.

¹³ The technology we chose to work with had strengths and drawbacks, as well. Although we intended to use regular instant cameras, process the film, and work with actual pictures, the absence of photo-processing in Monduliri and village access difficulties prevented this. We were pleased, however, to have the digital camera that at least allowed us to see the pictures as they were taken and later to reflect on them, and not have to leave the village to process film. As well, the digital camera allowed us to take a considerable number of photos at one time. The drawback of going digital, however, is the need to cart along a laptop, printer, and all the necessary adapters and accessories; we felt somewhat like a traveling technological circus.

process came after many visits to the village and much work with the villagers, particularly this woman, more truthful accounts resulted. What this seems to point to is the need for trust and rapport prior to doing photostories. This method is not recommended as a first-off activity in the learning about livelihoods because a good relationship between villagers and researchers makes this process better and truer.

Just as the photostory process had many strengths, the outputs from this process can be seen as having numerous benefits also. These stories can be used to help explain rural life when more than just flat reports or papers are needed; photostories create a kind of visual daily activity calendar or 'snapshot' of livelihood conditions and realities at a given time. Further, photostories offer something tangible that can be returned to the villagers, something reflective of their efforts that they can show other groups and organizations wanting to know about village life. Moreover, these photostories can be shared with future generations as a kind of historical record. The participants in Sre Y expressed happiness in being part of this process, and all the research that had taken place over the last months. The teacher, in particular, said he hoped that more people would learn about his village, and village life in general, so that others could come and possibly help the community in its efforts to create a better future, such development including increased education, health care, food security, safe water provision, and forest protection (including the protection of their income-generating resin trees).

A main drawback was that important activities taking place in the forest, such as resin and other NTFP collection, hunting, and fishing, went un-photographed in this process, even though we attempted to role-play out some of these activities. In fact, the only story that flows as a relatively realistic account of a day is that of the woman, and this is because women tend to do most of their tasks within or around the village, near the house and children. The men's stories, by contrast, are incomplete. An opportunity in the future may be to provide villagers with disposable cameras and allow them to capture these activities themselves and, later, reflect on them with researchers. Other aspects missing in these stories are many of the family members mentioned in the text versions, as well as important features like cows, buffalo, and the elephant. Although it was a role-playing exercise, the picturing of these other aspects would have been possible given better planning. These omissions have led to the pictures being almost dependent upon the text stories, the two giving slightly different understandings.

As stated, it was planned that the participants would take the pictures and come up with their own layout scheme, but our situation did not afford us this opportunity. We are aware that when researchers take control of the 'power' tasks like picture-taking and layout, there are definite ethical concerns. It can be questioned whether a process that has myself framing reality as I perceive it is valid at all. However, it was a first attempt, with all its flaws, and much was learned. Having never undertaken a photostory process before, and without any formal training in documentary photography, we can consider this activity as a first step in a step-by-step learning process. The lessons taken away from this exercise, together with an ignited passion to learn, know, and do more photostories and documentary photography, promise that future efforts will result in improved process and product.

There is still a ways to go to before this photostory process will be as empowering as it can and should be. However, in the effort described above lies the discovery that there is definite value in role-play in Phnong villages; such a method has ready implications and applications for a wide range of rural development work planned and underway in Mondulkiri. Further, and probably most significant, is that after rather rigorous research during previous meetings with the villagers, which included a diversity of new and creative activities most likely pushing them beyond their normal behaviors, these photostories were a chance just to 'hang out' and do something fun together.

5.1.4 Some Additional Comments

It can be argued that perhaps in the end, despite approaches, methods, or frameworks used, livelihoods research may fall into the trap of being just another needs-based assessment. It is difficult to pull away from looking at needs, no matter how focused on strengths or assets one tries to be. Further, NGOs, development agencies, and researchers all have their own agendas and mandates that tend to encompass or revolve around sentiments of help; the needs assessment is almost inevitable within this scope. The choice seems to be whether to save resources and obtain the 'shopping list' of needs through quick methods, or to work in this more round-about fashion, perhaps ultimately getting the same list of needs but at least making the attempt to contextualize the shopping list with understandings of community dynamics and realities garnered by working with local people in a more authentically participatory respect. We choosing to take the latter route and learned that time, energy, and resource expenditure was indeed higher than other similar research projects undertaken by the supporting agency. It took almost 7 months to plan, carry out, evaluate, and write up this relatively short project. This speaks to a major issue and challenge of livelihoods work: if short cuts and quick solutions for rural development (or CBNRM) are being sought, they will not be found in a livelihoods approach. In fact, required are not only more resources, but greater

sensitivity, analysis, genuine curiosity, and patience to just sit back, listen, and learn. A livelihoods approach is part of creating a better, truer, process in general, and value will be added through a process that embraces creative innovations in methods and methodology and finds new ways to communicate, research, and learn; in this, the field of development communication will play an increasingly important function. Creativity and experimentation will help to bring SL frameworks and approaches down to the field level where the real work and progress can be achieved. Also, the documentation of these new processes and experimentations will be (and is already) vital. There is a considerable range of methods and methodologies being tried in Cambodia presently, but due to poor and inconsistent documentation the 'good stuff' happening on the ground is unfortunately not being recorded. Without this record, learning from successes and failures is impossible.

In a time when 'sustainability' is perhaps the most important word in development, project methodology must consider the sustainability of process. How is the project sustainable? Are the methods used contributing to some sort of sustainability? For this project, we left behind with the community all the materials produced, an increased awareness of factors affecting livelihoods, and new linkages and relationships with provincial government staff (i.e. the Department of Environment rangers) and an international NGO (i.e. WWF). Further, information collected on and in Sre Y has been shared with a local NGO in Monduliri, and there is now consideration of the village for involvement in health and education programs. However, a hard realization was that most of the benefits were in fact accrued to the higher levels, not at the local level. At the provincial level, WWF counterparts and local rangers received training in and opportunities to apply PRA tools for learning about livelihoods. At the national level, one Ministry of Environment staff and one Ministry of Agriculture, Fish, and Forestry¹⁴ staff were given the chance to further develop and practice facilitation skills as the two main facilitators for the SL workshop. They expressed that being able to facilitate the event for the third time had boosted their proficiency in both livelihoods issues and facilitation. This was especially beneficial as soon after our workshop they left to the Philippines for a Sustainable Livelihoods conference where they were giving papers on livelihoods work in Cambodia. They said that the Sre Y experience gave them more examples to use and greater confidence to engage and discuss the subject matter. Training in PRA tools and the livelihoods concept was also given to the national WWF team; the organization is currently attempting to secure funding to develop a SL program area as a complement its CBNRM work and wildlife conservation endeavors. And, it goes without saying, the benefits I received in terms of capacity building, networks and linkages, and friendships are enormous, and will be fed back into my future employment experiences in Cambodia and elsewhere.

5.2 Implications of a Livelihoods Approach for CBNRM in Cambodia

Since SL does not use reinvented language, but instead terms already found within the CBNRM (and development) lexicon, the concept is readily accessible. However, there is a rather steep learning curve associated with livelihoods approaches. Further, considerable time is required to reorient projects and programs to a livelihoods approach, and training, or re-training, is critical. Moreover, gathering the comprehensive information demanded of SL requires more time and funds than narrow-focused or single-output agendas; such trade offs seem unavoidable. Also, although the SL framework can help to organize thinking, action, and information collection, and would be particularly beneficial if adapted for use in Cambodia where 'how-to' guides are popular and in great demand, not knowing when to stop collecting information and what to do with it after can be weaknesses. It must be made clear that no framework or concept, alone, is responsible for 'good' or 'bad' planning and implementation. SL is not a 'magic bullet'; it is only as good as its implementers. A framework can help guide inquiry, but sensitivity, genuine curiosity, patience, creativity, and a commitment to learning from people and places should form the foundations for livelihood work.

In general, looking through the lens of another framework or approach, in this case the livelihoods approach, is a good exercise and can help to identify gaps, weaknesses, and opportunities in current projects, plans, and action. For CBNRM, a SL framework can function as a 'checklist' for more comprehensive inquiry, preventing important aspects being missed out. Such a guide can facilitate insight into what CBNRM activities are most compatible, how to undertake them, when, via who, and why. In this research, a SL model was a valuable tool in helping to form the questions and activities that generated a holistic understanding of livelihood assets, preferred coping and adapting strategies, favored outcomes, as well as strengths, vulnerability, opportunities, trade-offs, decision-making processes, and social dynamics. As our insight into livelihood conditions and realities grew, we could begin to sense what type of CBNRM could be most beneficial and also when and under what circumstances

¹⁴ This person is half-time with WWF and its CBNRM Initiative.

CBNRM could be undertaken. Increased operational and strategic effectiveness, such as in the sequencing and timing of projects and activities, is among the most direct advantages of working with a livelihoods framework.

A SL framework is useful for not only for identifying factors affecting livelihoods, but also for placing descriptive data collected in the field into an analytical framework, making connections, and drawing out the relationships between and among factors. Although it is impossible to fully understand or completely simplify complex, dynamic systems such as livelihoods that in some cases have taken generations to 'arrive,' a livelihoods model which encourages exploration of context, resources, institutions, strategies, and outcomes presents the opportunity to gain a larger 'glimpse' into the realities and conditions facing people and communities. A pointed example of what can be understood by broadening the scope, probing, and ascertaining linkages came out of research in Sre Y. After conducting fairly quick PRA work including participatory mapping, village walk, and a historical matrix, rather standard research for natural resource management purposes, we were left with the understanding that resin collection was the significant livelihood activity, the major income generator where the number of resin trees was the primary indicator of wealth. This learning has definite and direct resource management implications. However, it was only after the SL workshop where we addressed, named, and analyzed different factors and influences such as wealth, markets, and institutions, and other livelihood resources and strategies that we began to understand social, class, and gender dynamics better and this changed our original perception of resin collection as being the life defining activity. In Sre Y, most of the villagers are women and, further, they are widows who are unable to journey far away from the home and children to fish, hunt, or collect a lot of resin. The resin they do collect is sold to a middleman in the village or to someone with a motorbike, which women do not have; the price they get is less than that given to those who can take their resin directly to the market in Sen Monorom. This means resin can only be a significant source of income for a few families and a supplement to others. Also, in asking the villagers how *they* defined rich, medium, and poor families — definition and naming important parts of a livelihoods approach — the main point of having cows or buffalo was repeatedly emphasized. Because land is not bought or sold, only expanded, households with many cows and buffalo can work more land for rice farming, becoming rich as they have more food to eat and rice to exchange for other goods and services. These families can sell their cows or buffalo to build a new house or to outside middlemen wanting meat for eating, money usually going to buy medicine. Access to cows and buffalo was stressed with more poignancy than resin collection because these animals are tied to food security, health, the village exchange economy, more free time (most likely to collect resin, hunt, fish, or make baskets), and less physical hardship — the ingredients of wealth for the villagers. An added 'twist' to this is that given a stint of bad luck, in which the spirits look unfavorably upon a person or family, one's cows or buffalo can contract a disease and die, leaving the household poor. This understanding is a far departure from our original conclusions of the all-encompassing importance of resin collection, which now seems more of a symptom of being rich, not the sole reason.

Broad investigation and information collection can make analysis a daunting task. However, in certain cases, using a wider scope can have pointed benefits and many positive spin-offs. Broader livelihood analysis can improve understanding of the institutions present or required, both within and outside the community, for programs like CBNRM, and help in identifying the relevant and necessary stakeholders early in the planning process that can mitigate problems later on. Further, knowledge of who to build linkages with and among can mean more effective and targeted implementation of projects and activities. There are also numerous policy implications of enhanced understanding. Information gained locally through livelihood analysis can be used at the higher levels to inform and create more supportive and appropriate policy. Improving knowledge of the various factors influencing people's livelihoods and choices of livelihood strategies can provide clues to better land use planning and the development of enabling land rights policies and legal frameworks. Moreover, as a more holistic livelihood picture is revealed, examples of sustainable strategies, practices, and attitudes may be discovered, and this could change — even revolutionize — resource and environmental management in Cambodia, and perhaps elsewhere.

CBNRM frequently comes under the criticism of having a 'communities as homogenous units' perspective that neglects the differences within and among communities (Li, 2002). This is particularly problematic in Cambodia where many communities are not natural units at all as civil war and government resettlement policies have shaped and reshaped the geography and composition of communities over time. Moreover, current CBNRM in the country neglects the diversity among the various and different levels of a community, instead remaining focused on the larger, rather superficial level of community. Without understanding the dynamics and workings at the household and individual levels, CBNRM is poised to reinforce and perpetuate existing power, social, and economic imbalances. A livelihoods approach to CBNRM can help to counter this. SL works within an understanding of scale, peeling back the perception of homogenous, unified communities by identifying and addressing the variations in activities, access, power, and influence among and between households and individuals sharing the same geography. Such a 'scaled' understanding of individual and household strengths, needs, goals, and priorities is

likely produce a profoundly different programming reality for CBNRM, and present both challenges (eg. increased research resource requirements) and opportunities (eg. increased relevance and more targeted activities and outcomes).

A main challenge to sustainability has been the concept's elusive nature and rather famous ambiguity. However, if it can be given a definition and meaning, perhaps it can also be shown a direction; if it can be named, maybe it can be created. By attempting to focus on what people have, do, and can do, a livelihoods approach encourages local people to explore and define their own ideas, terms, and conditions of livelihood, poverty, well-being, and sustainability. In this way, it is possible to gain a relatively detailed picture of how to build sustainable rural communities based on people's notions, meanings, and experiences. Some CBNRM practitioners in Cambodia claim that villagers, particularly the ethnic minorities, do not think in terms of the future and sustainability, and simply cannot image how things could be different. This dangerously implies that the alternative is to provide them with an image. Working with communities to ascertain their meanings and experiences of 'livelihood', 'sustainability', and in the case of CBNRM, 'community' and 'resource' is imperative to upholding any degree or consideration of ethics and social justice. Such context-specific definitions, targets, and goals will no doubt result in new forms and roles for monitoring and evaluation as well; generic monitoring and assessment already fail to capture the diverse ways in which people perceive and measure their own situations of poverty and well-being. Livelihoods change as contexts and people's views of what is important change, and so developing new schemes and indicators able to reflect the complexity, dynamism, and progress of livelihood systems is a profound challenge. In taking on a livelihoods approach, CBNRM will need to focus greater attention on monitoring and evaluation to ensure good process and that community goals, as well as CBNRM goals, are being met. Presently, in Cambodia, CBNRM programs are relatively weak in monitoring and evaluation and so there exists an opportunity to develop an assessment process with a livelihoods approach and local people's visions of sustainability in mind.

Theoretically, CBNRM works to safeguard ecosystem integrity and enhance community empowerment (Boyer, 2000). Practically, though, it is questionable whether either goal has ever been successfully achieved (Li, 2002). In Cambodia, although the notion of community-based resource management has existed for generations, the formal concept of CBNRM is relatively recent (Hou and Carson, 2001). This newness affords the opportunity for groups and practitioners to 'do CBNRM differently' by embracing a livelihoods approach that considers how CBNRM can more fully contribute to the overall betterment of livelihood security (eg. improved health care, infrastructure, education, access to credit, land rights, etc.). In working towards increased livelihood security, the SL approach shifts from outputs (eg., number of hectares of forest protected) to people-focused outcomes (eg, increased cultural sustainability because forest products used in traditional income and non-income activities have been safeguarded). CBNRM already focuses on building and strengthening natural, social, and human capital, as well as the associated institutional arrangements. However, with wider knowledge of livelihood realities and conditions, these efforts can be deepened and even extended to address other livelihood aspects and issues, including: enhanced capacity building, education and awareness; conflict resolution; local governance; gender; indigenous knowledge and practices; ecosystem change; concepts of risk, resilience, and adaptation; village economies and alternative livelihoods; communication; and relationships between the local and global, and the resulting impacts. In particular, there is a blaring gap in the CBNRM done in Cambodia with regards to work and research done on gender, institutions, power, access, equity, and influence. There remains a feeling among practitioners, government officials, and other groups that gender is not an issue and that so-called imbalances between men and women really do not warrant investigation. I have witnessed this attitude myself several times while working with national and provincial level staff. *Even after hearing women in a community bluntly saying to us, "we are not allowed to make baskets or go into the forest to fish or hunt,"* these comments were ignored or explained away. Deeper exploration into such issues is desperately needed if CBNRM in Cambodia is to be an empowering process and product.

In Sre Y, villagers identified livelihood sustainability as including food security, health care, education, access to clean and plentiful water, increased income, political enfranchisement, cultural maintenance, and forest protection. It is possible that CBNRM can be a 'jumping off point' to addressing and working towards these preferred outcomes, but linking to other efforts such as integrated agriculture projects, traditional medicine research, literacy and non-formal, village-based education campaigns, infrastructure development, and micro credit and micro enterprise projects will be almost imperative to do so. There is a chance that broader livelihood analysis may show a reduced fit for donors regarding a project or program, suggesting CBNRM mandates will need to expand or refocus. The opportunity in this is for networking and partnership building, however a challenge to such linkages is the requirement of multidisciplinary training and know-how; currently, few people or teams are trained to handle this. Moreover, the mandates and current structures of government in Cambodia and many places elsewhere are not readily conducive to such multiplicity and cross-coordination; corruption and illegal and exploitative activities

remain major impediments to efforts to improve social and environmental health, and transparency and accountability. Fortunately, though, numerous NGOs and multi-lateral agencies in Cambodia have cross-sectoral, capacity building, and institution-strengthening mandates, and within these groups the possibility for building new, support networks is immense. However, hoarding of skills, information, government contacts, and networks by environmental conservation groups is a problem. A shift in attitude would see that scaling up actions and networks could be beneficial to the sustainability of groups and organizations, and that perhaps, a livelihoods approach could hold the possibility of better teamwork and cooperation. Linkages between NGOs, communities, and importantly, government, will become even more imperative as development pushes forward, and particularly in a case like Monduliri, where neither group has the capacity or resources yet to go it alone, such partnerships are absolutely necessary.

Conclusion

In Cambodia, as in rural areas worldwide, serious problems of increasing poverty and ecological destruction are necessitating new approaches to socio-economic development and conservation. CBNRM stands to play an important role in enhancing rural livelihood sustainability; however such programs and strategies are presently facing many challenges. A livelihoods approach has been linked to the better overall planning and implementation of activities, projects, and programs. Proponents of the SL concept claim that it can facilitate a deeper understanding of rural dynamics and realities and, in turn, yield a wider reach for reducing poverty and enhancing social and ecological well-being.

Taking a closer look at SL, this Major Project proposed to: a) experiment with a livelihoods approach as a way to increase understanding of rural livelihoods, and the factors that affect them, in less-known Monduliri province; and b) explore the implications of a livelihoods approach for CBNRM in Cambodia. Participatory research methodology was applied, and methods used to learn about livelihoods included PRA tools (participatory mapping, village walk, historical matrix, seasonal calendar, commodity flow diagrams, Venn diagrams, role-play, and semi-structured interview), a village workshop, and photostories. The main activities, mostly occurring over seven months, included a scoping phase to lay the initial groundwork, team selection and training, and site selection, as well as major fieldwork activities including a PRA, a SL village workshop, and photostory production. Informal evaluation accompanied this field research. Follow-up and reporting wrapped up the project.

Numerous lessons and implications can be drawn out of this experience. The participatory methods used were highly dependent upon skilled facilitation but proved to be effective in learning about livelihoods. PRA tools used were engaging and provided considerable insight into community and household perceptions and dynamics. The SL village workshop combined PRA tools, small group work, and plenary discussion and brainstorming sessions to successfully arrive at village-specific terms and definitions of 'livelihood', 'rich' and 'poor', and 'sustainable'. Although this type of workshop can be undertaken at any point in livelihoods research, it is recommended as a point of departure for exploring villagers' perceptions of strengths, constraints, coping and adapting strategies, institutions, priorities, and goals. The insight that can be gained goes beyond PRA, alone, to a broader, more holistic understanding of rural livelihoods that can inform future plans and projects, refocus current programs, or pave the way for follow-up events, trainings, or wider stakeholder meetings. Further, the relationships developed can form the foundations for in-depth household or individual investigation—in our case, a photostory phase. Whereas the workshop provided insight into livelihood issues and realities at the community scale, the photostory process provided additional detail at the individual and, associatively, household levels. Photostory production was an attempt to test new, creative methods, and although a rather rudimentary attempt, the effort resulted in numerous positive implications such as the discovery of role-play as an effective method in Phnong communities.

In this process of learning about livelihoods, numerous implications for CBNRM in Cambodia, and elsewhere, emerged. A SL framework was found to be an effective guide to asking questions and planning activities that produced a broad, holistic understanding. Further, a livelihoods framework offered a way to take descriptive data gathered from the field and make sense of it analytically, drawing out and making connections between and among the information collected. However, as livelihood approaches require considerable inquiry and information, more time, funds, and resources are needed. Also, being able to generate windfalls of information make keeping on track and knowing when to stop difficult. Even so, gaining greater insight into livelihood realities and conditions can potentially help operationally and strategically, particularly in the planning and implementation (e.g., sequencing and timing) of CBNRM activities. Broader livelihood analysis may also help in the creation of better policy, where the process is informed by an understanding of local level conditions and preferred outcomes. Moreover, livelihood analysis can enhance knowledge of the institutions present or required, both within and outside

a community, for programs like CBNRM, as well as help in identifying the relevant stakeholders early in the planning process, mitigating possible problems later on. Knowing who and what to build linkages with and among can mean more effective and targeted implementation of projects and activities.

A livelihoods approach works to understand scale by identifying and addressing the differences and variations in activities, access, power, and influence among and between households and individuals sharing the same geography. Such an approach can help CBNRM to leave behind the criticism of having a 'communities as homogenous units' perspective. Further, in arriving at an understanding of the unique situations of people and ascertaining context-specific targets and goals, numerous implications for monitoring and evaluation arise. With CBNRM assessment rather weak in Cambodia, SL presents itself as an opportunity to aid in developing new and effective forms and roles for monitoring and evaluating livelihood sustainability reflective of local meanings, experiences, and indicators. In addition, a people-centered livelihoods approach can provide clues to how CBNRM can help in increasing overall livelihood security. CBNRM already focuses on building and strengthening natural, social, and human capital, as well as the associated institutional arrangements. With wider knowledge of livelihood realities and conditions, these efforts can be deepened and even extended to address other aspects and issues of livelihoods, in particular issues of gender, institutions, power, access, equity, and influence. There is a chance that findings from broader livelihood analysis may show a reduced fit for donors regarding a project or program; CBNRM mandates may be required to expand or refocus. However, the opportunity to build networks and partnerships is immense, given that environmental organizations in Cambodia can and are willing to pool together their knowledge, information, networks, and contacts.

The linking of CBNRM and SL has the potential to improve CBNRM practices, the deeper awareness and understanding brought by a livelihoods approach helping to ensure that CBNRM fits appropriately into the lives of people, as opposed to fitting people into CBNRM. In saying this, it must be emphasized that SL is not a magic bullet; a framework or concept is only as good as its implementers. However, it does seem possible, using a livelihoods approach, to gain considerable insight into how to build sustainable rural livelihoods based on local people's meanings, experiences, and desires of livelihood, well-being, and sustainability. If sustainability lies in the definition we give it, the vision we see it as, and the actions we take to get there, then value will be found and added in the process that brings together this definition, vision, and action.

References

- Adato, Michelle and Meinzen-Dick, Ruth. (2002). *Assessing the Impact of Agricultural Research on Poverty Using the Sustainable Livelihoods Framework*. Discussion Paper Briefs 128—March. Food consumption and nutrition division of the International Food Policy Research Institute. URL: <http://www.ifpri.org/div s/fcnd/dp/papers/fcnbr128.pdf>
- APRLP (Andhra Pradesh Rural Livelihoods Project). (2001). Livelihoods Approaches. <http://www.aplivelihoods.org/whylivelihoodapproach.html>
- Barndt, Deborah. (2001). *Chapter 2: Naming, Making, and Connecting—Reclaiming Lost Arts: The Pedagogical Possibilities of Photostory Production*. Participatory Practices in Adult Education. Pat Campbell and Barbara Burnaby (ed.). New Jersey: Lawrence Erlbaum Associates.
- Bebbington, A. (1999). *Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods, and Poverty*. World Development 27(12):2021-2044.
- Boyer, David. 2000. *Community-based Resource Management—A Framework for Action*. A Production of the Program Planning and Learning Unit. Oxfam America.
- Brosius, J.P., A.L. Tsing, and C. Zerner. (1998). *Representing Communities: Histories and Politics of Community-Based Natural Resource Management*. Society and Natural Resources. 11:157-168.
- Carson, Toby. (1998). *Chapter 30: Community-Based Natural Resource Management*. Environment: ETAP Reference Guide Book. IDRC/MoE. p.353-362.
- Chambers, Robert. (1997). Whose Reality Counts? Putting the First Last. London: ITDG Publishing.
- Chambers, R. and Conway, G. R. (1992). *Sustainable rural livelihoods : practical concepts for the 21st century* Discussion Paper 296. University of Sussex. Institute of Development Studies, Brighton, England.
- Chandler, David. (1998). A History of Cambodia- Second Edition. Chiang Mai: Silksworm Books, West View Press, Inc.
- CMAC. (2001). Annual Report 2001. Phnom Penh. Cambodian Mine Action Centre. http://www.camnet.com.kh/cmac/pdf/report/CMAC_Annual_Report_2001.pdf
- Daniels, Tommy. (1999) January-February 1999 Assessment. Cambodia Corps, Inc. (CCi). www.cambodiacorps.org/CCi - Assessment.html#The%20Most%20Impoverished%20Nation%20in%20the
- DFID. (1999). Sustainable Livelihoods Guidance Sheets. London: DFID. http://www.livelihoods.org/info/info_guidanceSheets.html
- Ellis, F. (1998). *Household Strategies and Rural Livelihood Diversification*. The Journal of Development Studies. 35(1):1-38.
- Franklin, Beth. (2002). Lecture: Environmental Studies 6144—Action Learning. May 7.
- Freire, Paulo. (1970). Pedagogy of the Oppressed. Translated by Myra Bergman Ramos. New York: Seabury Press, Continuum.
- Hall, Bud. (1992) *From Margins to Centre? The Development and Purpose of Participatory Research*. The American Sociologist. Winter: p.15-28.
- Hou, Kalyan, and Carson, Tobias. (2001). Community Based Natural Resource Management

- (CBNRM) in Cambodia: Case Study and Networking Initiative. proposal for WWF, Oxfam America, and IDRC. (February 28, 2001).
- IFAD, ANGOC, and IIRR. (2001). *Enhancing Ownership and Sustainability: A Resource Book on Participation*. International Fund for Agricultural Development (IFAD), Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC), and International Institute of Rural Reconstruction (IIRR).
- IIRR. (1996). *Recording and using indigenous knowledge: A manual*. International Institute of Rural Reconstruction, Silang, Cavite, Philippines.
- Ledgerwood, J. L. (2000). Rural Development in Cambodia: The View from the Village. Asia-Society Publications. URL: <http://www.asiasociety.org/publications/cambodia/rural.html>
- Li, T.M. (2002). *Engaging Simplifications: Community-Based Resource Management, Market Processes and State Agendas in Upland Southeast Asia*. World Development. 30(2):265-283.
- McKenney, Bruce, and Prom, Tola. (2002) *Natural Resources and Rural Livelihoods in Cambodia: A Baseline Assessment*. Working paper 23. Phnom Penh, Cambodia: Cambodia Development Resource Institute.
- Meijers, Hanneke, and Nooyens, Tonie. (2001) Community Natural Resource Management and Livelihoods Analysis, Sustainable Livelihoods Approach, Gender, and Local Governance. Version 1 (July/August 2001) Reference Material CD-ROM
- Scoones, I. (1998). *Sustainable Rural Livelihoods: A Framework for Analysis*. IDS Working Paper 72. Brighton: Institute of Development Studies.
- Sen, A.K. (1981). Poverty and Famines: An Essay on Entitlements and Famines. Oxford: Clarendon Press.
- Turton, C. (2000). *The Sustainable Livelihoods Approach and Program Development in Cambodia*. Overseas Development Institute. Working Paper 130. URL: <http://www.livelihoods.org>
- UNDP. (2002). United Nations Development Programme Annual Report 2002—Cambodia. UNDP.
- Uphoff, Norman. (1998) *Community-Based Natural Resource Management: Connecting Micro and Macro Processes, and People With Their Environment*. Presented at the International Workshop on CBNRM, Washington, D.C. May 10-14.
- Wang, Caroline, and Burris, Mary Ann. (1997) *Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment*. Health Education and Behavior. 24(3):369-387.
- WWF. (2001). Initial Assessment of Community Resource Use in Four Communities of Mondulkiri Province. WWF: Cambodia.
- WWF. (2000). Mission Report: Mondulkiri Province, Cambodia. December. WWF: Cambodia.