Livelihoods Portfolio Analysis – A Methodology for the social impact assessment of Vulnerable Communities.

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The paper reports on research in Laos in 2011 to 2013 on 11 ethnic minority villages impacted by hydropower development in two Mekong tributaries in Attapeu Province in southern Laos. The research was planned to test an innovative methodology - Livelihoods Portfolio Analysis (LPA). The purpose of this paper is to demonstrate, on the basis of the results from the Attapeu research, the use of LPA as a methodology in standard SIA or ESIA to identify the livelihoods systems of ethnic minority or similar vulnerable communities for purposes of the restoration – or retention – of existing livelihoods systems displaced by hydropower or similar major infrastructure.

While the research applied particularly to impact on the small upland ethnic minority villages typically displaced or losing assets or access to natural resources through the impact of hydropower dams, reservoirs and transmission lines in the upper catchment areas of the Mekong and similar river systems, its results indicate that the methodology and changed procedures for database management which accompany it would be applicable generally among vulnerable communities, lacking formal land rights, including those displaced, for example, by linear projects such as highways, railways or irrigation systems or urban communities regarded as squatters in the context of urban renewal.

LPA differs from and is designed to strengthen standard SIA in three respects:

- Household socio-economic survey is designed to capture data on the household livelihoods portfolio of every household in the affected community, seasonally and for every active household member;
- Household and community data are triangulated with agro-ecological profiling of every village and with data on access to external services and markets;
- the system assumes a change of purpose in data management and reporting procedures among displaced small ethnic minority and similar communities: the data for each household are stored as dossiers for provision directly to local resettlement managers and staff for immediate use in consensual and informed resettlement management and livelihoods retention, restoration and development of the household and of its individual members.

The system assumes an organized basis for this interactive relationship to be achieved as a planned aspect of resettlement and livelihoods or income restoration, for example, through the creation of social and environmental units (SEUs) within the community or project resettlement structure¹.

A strengthening of the consultation process by the engagement of all households in participatory rural appraisal (PRA) was used to determine the sourcing and choice of livelihoods in the natural environment and in external services and markets in existing livelihoods systems.

This harnessing of livelihoods and knowledge systems of displaced ethnic minority communities, would strengthen the capacities of safeguard agencies to support the contribution of displaced ethnic minority

¹ See for example SEU's in the community based resettlement management structure described for the Nam Ngum 3 project in Vientiane Province, Lao PDR (Pilgrim and Kouangvichit, 2012)

communities to sustainable development, including that of their participation in services and markets in the wider local and national economies.

A key factor in the intended avoidance of impact or of impoverishment or 'social disarticulation' to use Cernea's phrase, is the capture of detail in disaggregated household livelihoods portfolios, echoing Ellis and others in the importance shown to households as having agency in sustainable livelihoods management.

Research conducted in 2011 and 2013 in Attapeu Province in southern Laos explored the connection between the social science methodology used in social impact assessment and the avoidance of impoverishment and social disruption experienced by upland communities displaced by hydropower development. The research was designed to explore two needs: for the strengthening of the social science used in SIA of the displacement of vulnerable groups by hydropower or similar infrastructural development; and for change in the procedure for the design and use of the database.

A general conclusion of this and related research has been the need to recognize the primary role of households in vulnerable communities in the management of livelihoods systems, and their function in livelihoods sustainability and in sustainable development. The retention, rather than externally planned or managed restoration of livelihoods systems of ethnic minority communities, captures the cyclical nature of household development and of sustainability in its use and management of natural resources, and of the cultural and knowledge systems which support and inform them, and is critical in the community's management of sustainability.

This linkage of household agency and community resource management have been recognized and seen as implicit in concepts of the developmental cycle in domestic groups (Goody, j. ed, 1957) in Barth's analysis of differential 'spheres of economic exchange' (in Firth, R. ed 1967), and in analysis of preference for and efficiency in resource sustainability in cyclical structures of 'family labour farms' (Chayanov, A.V., 1925 in Thorner, ed. 1965). It is present also in the importance given to this understanding of cyclical household resource management in Ellis, F. (1988) and DfiD (1998), and, for example, in Save the Children and similar guides to good practice in the management of Third World rural development (2008). The Attapeu research suggests a lack, not of the recognition of the empirical reality of these aspects of rural household and community resource management, but of the methodology and its application needed to bring that recognition to bear in major development projects impacting rural societies, in which household cyclical resource management, fundamental to their livelihoods and to community exchange and economic systems, are destroyed or disrupted in community displacement.

The research tested the hypothesis that a strengthened household socio-economic research and survey methodology – Livelihoods Portfolio Analysis – would be relevant to these factors in development financing and its procedure. They would do so by capturing the existing livelihoods activities of every member of every affected household strengthen their, and developer's or safeguard agencies', capacity to achieve the retention or restoration of cyclical features and the knowledge and cultural systems through which they work.

The change which this calls for would move away from the assumption that socio-economic and related environmental data are the business of specialists, and should be packaged and transferred accordingly. This would be achieved, the researcher assume, in acknowledging a demand for the prioritizing of local knowledge and local management; specifically in providing a household database, and drawing on Ellis's

concept of the household livelihoods portfolio to do so by transferring it into a dossier used in the planning, management and monitoring of every households livelihoods system and its retention or restoration. Its contents would include also the data it provides on the household's and the community's sustainable production and exchange systems but also the record of actions taken for resettlement and livelihoods retention, restoration and development.

The record and use of dossiers of every household would include their inclusion and function in the coupling of resettlement with sustainable development.

The research tested the potential of a changed systems of household socio-economic survey to be employed in existing procedures. It examined the potential of a more detailed, disaggregated household survey to enable local and project agencies more effectively to identify and retain existing livelihoods systems of impacted vulnerable communities, and the effect this might have in planning and managing resettlement and to avoid impoverishment and social "disarticulation" (Cernea 2003) as a result of displacement and relocation. For this purpose the research examined the potential for a methodology, primarily directed to detailed recording of household livelihoods, also to identify their interaction with community economic organisation and its basis in exchange, knowledge and cultural systems.

In parallel review of the institutional structure of government and m.f.i. instituted resettlement planning and management, the researchers examined the procedure and documentation being used in 2010 to 2012 in the conduct of SIA and resettlement plan preparation and action. They explored how a changed socio-economic research and data management system which might be introduced under LPA could put a better database of existing livelihoods systems into effect in the instruments and procedures used for resettlement and livelihoods restoration planning and management. In particular the researchers studied the need (widely assumed by local agencies) for resettlement management to be in the hands of local agents or units working closely with the affected people throughout the resettlement process.

Two dimensions of the resulting database are, first , household livelihoods portfolios which would be used as the basis of case files or dossiers by local and project based safeguard units and staff with local knowledge engaged long-term directly with the affected communities and households; and tabulated data for differential production and product use of villages and their basis in access to agro-ecological resources and to external services and markets, which would be stored on EXCEL and used in project resettlement and livelihoods restoration, gender and ethnic development plan preparation, but also in national, provincial and sector and inter-sectoral planning and policy and their monitoring and evaluation.

The system lifts the data management process out of the mechanisms of administrative storage and distribution of data, and the contracting of its analysis and use to disinterested specialists, and into the hands and shared knowledge systems of local people and local agents.

Examination of these social and informational aspects of livelihoods and production systems leads to the conclusion, examined further in analysis of the Attapeu research, that it is the maintaining of livelihoods, production and exchange systems which is the primary key to the retention of social stability in displacement and resettlement. It is the disruption of livelihoods systems as being not only economic bu as having these dimenstions which is a major cause of the impoverishment and social breakdown in the relocation of upland, ethnic minority communities. Their loss or diminishing constitutes an important aspect of the damage to community or social structure which Cernea refers to as "social dislocation". This is clearly illustrated in the Attapeu research, graphically so in the record of a breakdown of marriages and households

and losses of life which occurred in misinformed and poorly researched relocation of the upland village of Navakang displaced by the Sekong 3 Upper Dam reservoir in 2010 to 2012 (Pilgrim, J. 2019 1), which destroying both the status and the production capacities of male heads of families occurred during the research.



Tables and Agro-ecological PRA

Figure 2. Bar Charts on Percentage Labour Allocations by 10 Activities in Six Villages.



A1: Upland, access to primary forest and game, adjacent to main river, impacted by Xekhaman 1.



B1: Lowland, Access to irrigated paddy, 1-2 km distant From main river, impacted by Xekhong 3 Upper



A2: Upland, Access to depleted forest, commercial logging areas, 2km distant from main river impacted by X.Xanxai.



B2: Lowland, Resettled communities, some access to paddy, 2 km distant from main river impacted by Xekhong 3 UpperDam.



C1: Lowland, no immediate access to forest, from river, on main road,development village, 30 km from Attapeu, impacted by TL



C4: Creek/valley terrain, in foothills backing onto NCA, 1 km from main river, large development village& District Centre impacted by TL

Figure 3. Categorisation for PRA of agro-ecological locations and access:

A1: Upland, access to primary forest and game, adjacent to main river, impacted by Xekhaman 1/Xanxai

A2: Upland, Access to depleted forest, commercial forestry and logging areas, 2km distant from main river impacted by Xekhaman 1/Xanxai;

B1: Lowland, Access to irrigated paddy, 1-2 km distant from main river, impacted by Xekhong 3 Upper Dam;

B2: Lowland, Resettled communities with limited access to paddy, 1 to 2 km distant from main river, impacted by Xekhong 3 Upper Dam.

C1: Lowland, No immediate access to forest, 5km distant from river, on main road, large development village hosting multiple resettled ethnic households, suffering land loss from transmission line and from rubber plantation;

C2: Upland, immediate access to primary forest in NCA, on National Road close to Vietnam border, losing forest/hunting areas to transmission line;

C3 Creek/valley in foothills of NCA and production forest, losing forest/hunting areas to transmission line, on recently constructed access road running from NR18A to Cambodian border along the Ho Chi Minh Trail close to Vietnam border;

C4: Creek/valley terrain, in foothills backing onto NCA, 1 km to main river, development village with mainly Brao villagers, with recently installed water supply and mains electricity, and access to some paddy, administrative centre of Bouvong sub-District, losing forest/hunting areas to transmission line, on recently constructed access road running from NR18A to Cambodian border along the Ho Chi Minh Trail close to Vietnam border

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