Post-Displacement Community Resilience: Considering the Contribution of Indigenous Skills and Cultural Capital

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Abstract

Despite an improving regulatory framework and policies governing compensation and resettlement, the majority of the millions displaced worldwide each year by hydropower dam construction continue to experience economic, social and psychological marginalization and impoverishment, suggesting that external aid and financial support for individual households must be supplemented by strengthened community-based resilience. In order to understand more about the innate resources of displaced rural communities, we applied a community resilience approach to two resettled Co-tu ethnic minority villages in an upland area in central Vietnam to identify their community capitals and their application in improving livelihoods and living conditions. We found that weak human and financial capital constrained the ability of the resettled residents to adopt new livelihoods or migrate to seek employment. Reduced forest and river access also problematised a flexible response to a lack of agriculturally productive land. However, since village units remained mainly intact after resettlement, traditionally strong village affinity and social networks were retained. In addition, indigenous skills such as housing construction, honed by a highly mobile traditional lifestyle, allowed residents to construct culturally significant structures like community houses and modify or augment received housing stock. These elements of social and cultural capital eased the process of post-resettlement adaptation. We conclude that governments should reassess current resettlement policies that prioritize financial compensation and economic measures for rehabilitation and incorporate awareness of the adaptive resilience and limitations fostered by indigenous knowledge and practices.

Keywords: Dam-induced displacement, resettlement, community resilience, community capitals, sustainable rural livelihoods

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Post-Displacement Community Resilience: Considering the Contribution of Indigenous Skills and Cultural Capital among Ethnic Minority Vietnamese

1. Introduction

This paper will attempt to apply a sustainable livelihoods approach to a case study of dam-forced displacement in order to gain enhanced understanding of the contribution of social, cultural and other community capitals to adaptation after development-forced displacement. The authors will first define and discuss the concepts framing this analysis.

1.1 A community resilience approach

Many governments and intergovernmental organizations have enacted legislation or guidelines to ameliorate the harm caused to those uprooted from residence, land and community by construction of dams, roads and other infrastructure. Most policies focus on terms of compensation, livelihood assistance, and reformulation of resettlement as a development initiative that can improve living conditions for displaced residents. However, although 'community disarticulation' is one of the eight risks of displacement posited by Cernea's influential impoverishment risks and reconstruction model (2000: 20), less consideration has been paid by researchers or policy-makers to non-economic factors such as community-based resilience after resettlement.

The concept of 'community resilience' has been defined both in terms of individuals' perceptions of local adaptation and robustness (see Kimhi & Shamai, 2004: 442 and Norris, *et al.*, 2008: 129) and comprehensive assessments of a community's capacity to cope with shocks or disturbances (Maguire and Cartwright, 2008: 3). For this paper we will apply the definition adopted by Norris *et al*. (2008: 131): 'a process linking a set of networked adaptive

capacities to a positive trajectory of functioning and adaptation in constituent populations after a disturbance'. Although the term has been frequently applied to communities impacted by or at risk from natural disasters (see Paton, *et al*., 2001; Cutter, *et al.*, 2008; and Joerin and Shaw, 2011), most definitions do not confine its use to natural disasters, instead referring to 'stressors', which Norris, *et al*. (2008: 131) defined as 'aversive circumstances that threaten the well-being or functioning of the individual, organization, neighbourhood, community or society.' Community resilience differs from adaptive capacity, another ecological concept that is often applied to human social systems, in its focus on responses to aversive events.

The community resilience concept has been applied in describing local responses to conflict (Clauss-Ehlers and Levi, 2002), traumatic loss (Walsh, 2007) and high levels of violence (Amed, *et al.*, 2004). In recent years the concept has also been applied broadly to include local response to terrorist attacks (e.g. USDHS, 2011). It can be argued that, although it is often anticipated by affected populations, displacement functions as a stressor equivalent in severity to those posed by many types of manmade or natural disasters. Indeed, Cernea has likened forced displacement to 'the cultural-economic equivalent of a major earthquake' (2003: 40).

The concept of resilience originated in studies of ecological stability and dynamics, originally used to describe the capacity for an organism or community to return to its pre-disruption functioning (Norris, *et al.*, 2008: 127) but as Folke (2006: 257) notes, social and ecological systems often must undergo change and adaptation to remain viable, manipulating, renewing or developing structures and processes in an adaptive renewal cycle (Hollig ad Gunderson, 2002: 47). Accordingly, a resilient community needs to develop the ability to adapt to and manage change and large-scale transformation by utilizing its internal and external resources (Birkes and Ross 2013: 7). These resources, also described as 'community capitals' (Flora, 2004:8), include natural, human, financial, political and social capital. Yet

developing and maintaining these forms of capital is not sufficient for community resilience to be achieved; as Magis (2010: 410) writes, 'Developing community resilience requires action taken, not simply the capacity to act.' In resilient communities resources are operationalised through individual and collective efforts in order to sustain and energize the community (USDAFS 2011).

To understand how community members employ their resources and respond to change we must also consider the operant institutional framework, laws and policies and the possible strategies that individuals adopt to improve livelihoods. A theoretical model that has been widely applied in rural contexts to understand a community's resources (or capitals), its legal and administrative context, individual livelihood strategies and resulting outcomes is the sustainable livelihoods approach (SLA) described by Scoones (1998), drawing on concepts espoused earlier by Robert Chambers and Gordon R. Conway. This approach, positing individuals as dynamic actors rather than passive subjects of change and development, has been used to assess community resilience to impacts of climate change in arid regions (Osman-Elasha, *et al*., 2006) and to analyze pre- and post-resettlement livelihoods of households resettled due to hydropower dam construction in northwestern Vietnam (Bui and Schreinemachers, 2011), among others, but in this paper we will apply a slightly modified SLA approach to examine indigenous practices, village-based identity and other cultural attributes as significant factors in the formation of resilient communities (see Figure 1).

[FIGURE 1]

Many nations with ambitious hydropower generation goals, including Vietnam, China and India, have enacted laws or guidelines governing resettlement compensation and post-resettlement services, with most prioritizing land-for-land and/or cash compensation and provision of housing, infrastructure and services in order to restore the previous level of livelihoods and living conditions. However, few national involuntary displacement policies

include consideration of the need to protect and conserve social or cultural attributes that may enhance post-resettlement adaptation (although international financial institutions like the World Bank integrate cultural considerations in project planning when the affected population is mainly composed of indigenous minority residents, as per its indigenous peoples operational policy OP.4.10). As the case study site described here consists of two Co-tu ethnic minority villages formerly situated in a remote mountain location with little contact with the ethnic majority Kinh Vietnamese, indigenous traditions and practices have exerted continuing influence on living conditions, livelihood strategies and other adaptive responses to displacement and resettlement.

Although infrastructure projects may provide compensation and short-term livelihood support, external assistance frequently ceases after the project term concludes, leaving resettled communities to draw on innate resources for adaptation and betterment. This paper examines a case study to better understand this process. We will first discuss cultural and historical factors that have shaped Co-tu village life and community ties in order to appreciate the importance of village affiliation and geospatial orientation. We will then explain about the research site, resettlement process, and research methodologies. In the results section we will describe the composition of community capitals, with emphasis placed on social and cultural capital. We will then discuss how these capitals have been operationalised to improve living conditions and inform livelihood strategies, with attention also paid to adaptive limitations of indigenous practices and beliefs. Finally we will discuss implications for resettlement policy in Vietnam and internationally.

1.2 Village and community among the Co-tu

The Co-tu are among the 54 recognized ethnic groups in Vietnam, and are included in the Katuic branch of the Mon-Khmer language family. They number 61,588 according to the

2009 national census, with the majority living in the vicinity of the Annamite Cordillera mountain range (*Truong Son* in Vietnamese) in Quang Nam or Thua Thien Hue provinces in central Vietnam. The Co-tu are patrilineal and patriarchal, with women primarily responsible for farming (mainly swidden cultivation) and men for hunting, fishing, and carrying out ritual activity such as the buffalo sacrifice ceremonies that mark harvests and other seasonal events. The Co-tu cultural identity is closely tied to traditional subsistence production of upland rice and hunting (Arhem, 2010: 24), and the latter has been greatly affected by forest degradation, curtailment of access to protected forests, and bans on the hunting of large game.

Arhem (*ibid*.: 108) writes that the rural Co-tu village is both an administrative unit identical to those of all recognized Vietnamese villages and a cultural unit embodying unique Co-tu traditions, identity and myths. The former is the smallest unit in the Vietnamese local government structure of (in ascending order) village, commune, district and province, led by an elected headman and vice-headman and an appointed Communist Party secretary. Subsidiary to these leaders are the elected local heads of mass organizations such as the Farmers' Union, Women's Union, Youth Union and Fatherland Front. The official village leadership in the villages examined here also includes an elected elder, a resident with wide experience whose knowledge and judgment is well-regarded by the other villagers.

The village as a cultural unit denotes the traditional Co-tu administrative framework, headed by an informally selected group of elders, the most respected members of the village, who may lack official authority but are consulted by the elected headman and vice-headman for all important decisions. Until the outbreak of warfare with the French in the 1950s and subsequent Vietnam-American war, which fomented frequent movement and forced dissolution of upland villages in central Vietnam, Co-tu villages in the A Vuong river watershed were semi-permanent in composition, although characterized by frequent resettlement due to declines in game or resources, the ill-omened occurrence of illness or

deaths of villagers, or conflict with neighbouring villages (Ta, 2002: 10). Villagers at the study site reported moving roughly every 20-30 years in pre-war days, but they typically moved within a particular territory, a section of the A Vuong river basin. Originally village populations were small, with most pre-war villages averaging 40-60 members and composed of a small number of lineages, or clans. Inter-village conflict was common, either to propitiate spirits by causing enemy bloodshed, as a display of courage by young men, or as revenge for earlier attacks (*ibid.*: 12). Traditional villages were constructed in concentric layouts with an external wall to enhance protection, and strangers were regarded with suspicion. Recent Vietnamese government sedentarisation policies have forced many villages to move far from their original sites to more accessible lowland areas for easier provision of infrastructure and social services and more consolidated government control.

As Arhem wrote, 'the idea of the village as a "safe place" is strong and enduring' among the Co-tu (2010: 150). The Co-tu believe that each village is linked to a supernatural 'guardian spirit', whose protection must be sought through holding rituals and animal sacrifices (Luu 2007: 56). These rituals are conducted in or beside the community house, or *guol*, a thatch-roofed stilted wooden building which functions as the 'soul' and 'symbol' of the village (*ibid*.: 34). Today meetings of village organizations or visiting officials take place at the community house, as do New Year's celebrations and other village-wide events, and it is where unmarried men gather. The *guol* houses the ceremonial village drum and skulls of hunted wildlife, which are said to be vessels for the village spirits.

2. Field study site and methodologies

A 'community' is a social construct, variously defined as constituting block groups, urban districts, counties and other units (Sherrieb, *et al.*, 2010: 236). This paper identifies the two adjacent villages (*thon* in Vietnamese) of Aden and Tro Gung as two discrete communities.

The research combined qualitative and quantitative methods, and the cross-disciplinary research team included specialists in housing and architecture, agriculture and land use, and development studies. Household surveys were complemented by focus group meetings, semi-structured household interviews and interviews with local district and commune officials, schoolteachers, village officials, elders and other influential residents during nine visits over a 25-month period.

In the past, despite frequent changes of location Co-tu village identity remained intact, as did the village name, which typically referred to the place where a village was first established. The study villages, Tro Gung and Aden, bear the same names as the original inundated villages, although Aden includes several residents from an adjacent village, Ta Reng, which was dissolved after resettlement. The villages were resettled to a location near two streams known as Cutch and Run; the new resettlement site is thus known as Cutchrun, although the residents tend to use their original village names.

Members of the original three villages were resettled due to construction of the A Vuong hydropower dam in Ma Cooih commune, Dong Giang district, Quang Nam Province in central Vietnam. The dam was completed in 2006, and residents living beside the A Vuong river, a tributary of the Vu Gia river, were resettled in the same year to three different locations. The two adjacent villages in Cutchrun, Aden and Tro Gung, are approximately 20 kilometres from the dam reservoir. The combined permanent population of the villages is 569, and 95% of the population are ethnic Co-tu.

Terms of land-for-land and cash compensation and provision of services to resettled households were decided in line with national legislation in effect at the time of resettlement, Decree No. 22/1998/ND-CP, although subsequent legislation stipulated more generous compensation. As required by law, a committee on compensation consisting of representatives from the hydropower authority and province and district officials was

established to decide terms of compensation based on current local market rates. Householders were recompensed in cash for homes, land, annual and perennial crops, and productive trees and fish ponds.

The resettled households were each allocated a residential plot measuring 400 square meters (Asian Development Bank, 2007), 750 square meters of land for upland cultivation and 500 square meters for wetland rice cultivation. The villages were provided with roads, piped water for household use, and electricity, along with a shared primary school. According to government records, resettled households were compensated an average of 448 million Vietnamese Dong (VND) each (approximately US$21,400 as of March 2013) for land, house and other assets (Asian Development Bank, 2007), funded by the national electric utility company, Vietnam Electricity (EVN). However, villagers reported much lower amounts in the 2012 questionnaire, claiming to have received a house valued at 75 million VND (US$3,583) and additional compensation for land, crops, fruit trees and other assets that ranged from 0 to 150 million dong (US$7,167) and averaged 21.9 million VND (US$1,045).

3. Results

3.1 *Assessment of community capitals*

The innate resources possessed by the residents of the two resettlement villages after displacement are described below, categorized as physical, natural, financial, human, social and cultural capital. A description of each category and relevant indicators can be seen in Table 1. No quantitative comparison with their pre-displacement status could be made, but villagers were asked in the survey and in household interviews for subjective assessments of changes in livelihood and living conditions. Because this paper focuses on social and cultural endowments, the other types of capital will be described in brief.

[TABLE 1]

3.1.1. *Physical and natural capital*

According to interviews and survey responses, natural and physical capital both changed greatly after resettlement. When asked how living conditions have improved, the 120 survey respondents universally cited improved infrastructure, notably provision of electricity, roads, and a primary school; 57 also noted greater access to nearby towns and villages. However, they also expressed concern about poor quality housing, impassable roads due to mudslides during the rainy season, high electricity costs, the remoteness of the nearest medical clinic, which is 10 kilometres away, and the difficulty of bringing children to distant secondary schools. In the survey, 93 of the 120 households reported that either their toilets or external staircases, or both, had been rendered unusable. The majority had repaired or replaced the staircases themselves but were unable to repair the toilets, forcing them to defecate in the stream or fields.

In the December 2012 survey, when asked about changes in living standards since resettlement, 56.8% responded that living standards were neither better nor worse overall, 2.7% indicated improvement and 40.5% reported that living standards have deteriorated. Several respondents explained that improvements in infrastructure and services were balanced by declines in food security.

In focus group meetings, the top concerns since resettlement were with soil productivity and environmental services. In order of frequency, they cited the poor quality and quantity of arable land, lack of irrigation for rice paddies, high livestock morbidity and poor water supplies during the dry season. Cassava, the main cash crop, now takes two years to harvest in upland plots, rather than one year as before the move, and rice yields are reported to be half pre-displacement levels (focus group, Tro Gung, January 2012). Forest cover has declined due to illegal logging and conversion for agricultural use, both for plots

designated for sedentary agriculture received from the hydropower authority and due to self-initiated clearing and burning of foliage by villagers who were unable to produce enough crops to secure food security with their designated plots. They reported a concomitant decrease in wildlife available for hunting, while local fisheries declined after dam construction. While 14.2% practiced hunting before resettlement, only 6.7% currently hunt wildlife (hunting of large or endangered animals is officially forbidden). In addition, villagers were not allowed access to the dam reservoir for fishing and their new site is far from the river. The villagers were allotted some paddy field land beside a stream, but the land is poorly watered so rice yields are low.

While villagers received some livestock from NGOs following district training courses in animal husbandry, most of the livestock died from disease. Fresh water provision was also a casualty of resettlement, as water pipes from the adjacent stream, which fed into central tanks, have broken in several locations. In the survey 116 of 120 respondents cited more arable land as their principal need, followed by support for raising livestock and access to fishing in the reservoir.

3.1.2. *Financial and human capital*

Most of the cash compensation received by displaced households in 2006 was spent on motorcycles, televisions, furniture and other household durables rather than invested in land or other productive assets. Only four reported that they have savings or financial assets in the 2012 household survey. Twenty-three households receive monthly disability payments, and 15 receive monthly pensions or veterans' benefits; other sources of non-farm income are from irregular manual labour, particularly for road or housing construction for local dam projects or harvesting cane or acacia for state forest enterprises. A few village officials, such as the village headman and vice headman, receive nominal government wages. Based on self-

reporting in 2012, mean monthly household income is 660,614 VND (US$31.52), with 92.8% officially identified as ‘poor’ (which the government defines as being at or below the rural poverty line of 400,000 VND per month per person) and the remaining 7.2% as ‘near poor’ (401,000 – 520,000 VND). This percentage compares with a 2011 national average poverty rate of 12% and a rate as of 2006 of 54% in Dong Giang district an 68% in Ma Cooih commune, which contains three other villages besides Aden and Tro Gung.

This amount is cash income only, not including agricultural production for household consumption. Income inequality appears to be fairly negligible, but 45% indicated that wage differentials have grown since resettlement, with the most frequent comment (34%) being that ‘an intelligent, robust man will earn more than others’, and an additional 6% noting that ‘those with regular salaries will have better lives’. The latter remark is indicative of the fact that income is generally derived from non-crop-based sources. Although several villagers stated that ‘those in good health can earn more income’, monthly disability and pension payments are higher than reported income from manual labour, so households with disabled or retired members report relatively higher average household income.

The average level of education for household head and spouse is 5.7 years. Although nearly all children now complete primary school and more than two-thirds attend junior high school, few children advance to the distant high school or to university. No villagers report training in non-farm skills such as carpentry or mechanics and the main non-farming income sources are sales of daily goods, work as security guards and small stipends for village administrative posts. Farming is practiced by all but one household, although some also hunt wildlife or practice aquaculture in household ponds. Other income sources include construction, livestock production, sales of rattan and other non-timber forest products, and for a few, basket-weaving or rice husking.

Health has slightly improved overall since resettlement, with a decline in malaria reported after moving to a less remote and less forested location, but two villagers identified a decline in crop production and lower consumption of wild vegetables as contributing to increased malnutrition among children.

Prior to resettlement villagers grew paddy rice in irrigated plots beside the river as well as rain-fed upland rice. For the Cutchrun residents, as for most Co-tu, paddy rice remains subordinate to traditional upland rice, cultivated by rotating fields approximately every six to seven years and burning off vegetation to enrich the soil. With shifting cultivation they have gained knowledge of growing crops in a variety of soils and locations. Due to a tradition of residential mobility, most villagers exhibit skills in constructing homes and community houses from bamboo and thatch they procure from local forests.

3.1.3. *Social capital*

Norris *et al*. (2008: 138-139) define social capital in a community resilience context as including social support, social participation and community bonds. This includes attachment to place and sense of community, perceived social support and social embeddedness, or informal ties. This category also includes the related concept of 'social support', which has been defined as the social interactions that individuals have with significant members of their community that embed them within a web of relationships that they can call upon in times of need (Kaniasty and Norris, 2000: 546). Those possessing greater social capital have greater access to and control of valued resources such as wealth, power and status (Lin, 2001: 21).

Social capital also refers to broader relationships between individuals and their communities, including organisational affiliation and leadership. It should be noted that organisational affiliation in a Vietnamese context is problematic as an indicator of robust social capital, particularly in rural areas, due to the existence of mass organisations, including

the Farmers' Unions, Women's Unions, Youth Unions and Fatherland Frontier groups that operate in every village and municipality, which Lux and Straussman (2004: 178) described as 'state-led civil society. These Communist Party-linked groups serve as conduits for government information, training and financial assistance, leadership opportunities and participation in development initiatives, so few villagers would reject the potential benefits that accrue from membership. As noted by Dalton *et al*. (2002: 372), however, although this type of 'mobilized participation' differs from the prevailing definition of civil society, which assumes voluntary affiliation in groups that are autonomous of the state, membership in dynamic social groups like these can nurture interpersonal skills, provide leadership experience and strengthen local bonds. Yet it should be noted that these village-level groups provide limited opportunities for access to status or influence beyond the village. In addition, elected Farmers' or Women's Union leaders may be quite young and not particularly influential, as the positions are considered to be time-consuming and not strongly contested. While all households report that members belong to one or more village-level mass organization, particularly the Farmers' Union, Women's Union and Youth Union, a minority (41.4%) regarded union membership as particularly helpful, with most citing as primary benefits food or cultivation assistance when families experienced health problems or other setbacks, and support for weddings and funerals.

Village identity continues to be an important source of continuity, with most villagers living beside neighbours from their original village, either Aden, Ta Reng or Tro Gung. When asked about community cohesion in interviews, several stated that feelings of cohesion and social harmony had improved since resettlement due to closer physical proximity of homes in the new villages, averaging 12 meters apart in Aden. In particular they noted that domestic violence had declined, and that they spent more time than before talking with neighbours and other villagers. In terms of general relations, 117 of 119 respondents

indicated that village relations were not greatly changed from before; two respondents felt that they had improved.

In March 2013 interviews, 17 respondents were asked to indicate their general satisfaction with their current situations, their lives before resettlement, and their expectations for five years hence, on a 0-10 scale, with 10 being 'the best possible life for you', based on the Cantril Self-anchoring Striving Scale used by the Gallup Poll and other groups to assess subjective well-being. The mean response concerning current conditions was 4.0, while the mean response for pre-resettlement was 4.1. The mean response for five years in the future was 4.7.[1] While not statistically significant due to the small sample size, the larger figure for expected future well-being suggests a degree of optimism that livelihoods and living conditions will improve, and optimism has been regarded as a positive factor in honing personal and community resilience (Berkes and Ross: 2013, 10).

Villagers are involved in a complex variety of interactions with neighbours, including daily chats, monthly meetings at the community house of unions or local government officials, occasional village rituals such as Tet or harvest celebrations, training courses with agricultural extension workers, and collective activities such as house-building, repairing the community house roof, acacia cultivation for village income, meetings with teachers, officials or NGO leaders and consultations with village elders or headmen. This frequent daily contact facilitates diffusion of new skills and information, such as prices paid by the Kinh traders who visited the villages by motorbike to purchase crops and goods.

3.1.4. *Cultural capital.* Although the term 'cultural capital' was most prominently employed by the French sociologist Pierre Bourdieu to refer to the knowledge, skills, education and other attributes that confer power and status in society (Bourdieu, 1986: 243), that usage nearly duplicates the meaning of 'human capital' as used in recent community resilience

research. Instead, our definition is closer to that of sociologist Nan Lin, who described cultural capital as '[social] resources captured through social identification and reciprocal recognition' (2001: 43), with identification in this case as being with a particular ethnic group, the Co-tu. Cultural capital may include values, rules and norms, but it can also encompass traditional knowledge and indigenous practices. According to Norris *et al*. (2008: 145), 'any earnest attempt to explore resilience in a particular community will feature local culture and norms prominently'. Although this category is not commonly included in resilience approaches, in this case the contribution of indigenous practices in improving housing conditions and community ties among the Co-tu merited special emphasis.

As mentioned previously, one of the most distinctive characteristics of a Co-tu village is its community house, or *guol*. National decree 181-2004-ND-CP allows for allocation of land for construction of a district government-approved 'religious establishment' for resettled communities. This supported the district people's committee's decision to encourage the villagers to construct a traditional community house of thatch and wood shortly after they resettled in 2006. They received some funding from the district government as well as approval to procure logs from protected forests for the main beams. The community house was constructed with labour and materials provided by each household, with construction supervised by village elders. It is now mainly used for meetings by visiting officials or mass organizations but also serves as something of a community centre and focal point for village gatherings, festivities like the Tet New Year's feast and casual activities. The villagers gather at the community house throughout the day, with young men playing football and other games at dusk in the adjacent open field and villagers taking shade in the well-ventilated building during hot summer afternoons. Community leaders ensure regular maintenance and periodic replacement of the thatched roof with labour from all households. However, several villagers indicated that due to a lack of funds, village rituals such as buffalo sacrifice festivals

and Tet celebrations had been abandoned or minimized, with chickens or pigs substituting for cows or water buffalo and fewer festivals being held at harvest time.

While members of a January 2012 focus group claimed to be proud to be Co-tu, stating that Co-tu 'have beautiful traditions with an heroic history', individual interviews revealed some ambivalence among villagers towards their ethnic identity. When asked in March 2013 if they would choose to be born Co-tu or Kinh, nine of 16 respondents selected Kinh, with most explaining that this would enable them to access greater financial and educational attainments. Seven respondents chose Co-tu identity, stating that they were proud to be Co-tu, they were accustomed to their culture or they 'have no choice but to be Co-tu'.

Traditional beliefs and daily practices have undergone rapid change since resettlement, in part due to greater contact with non-Co-tu and exposure to television and other media. Respondents in March 2013 interviews said that young people behave more like the majority Kinh Vietnamese and often have little knowledge of Co-tu traditions. However, in other respects traditional views linger. Although there is increasing recognition of the importance of family planning and education, the villagers continue to marry younger and have more children on average than Kinh Vietnamese. Men continue to be the dominant decision-makers in the village, with no women in official positions besides head of the Women's Unions. Women rarely leave the village for visits to nearby towns or cities. Several residents voiced the fear that women who leave the village risk being captured and sent as wives to China or the widely accepted view that livestock die due to pathogens brought by itinerant Kinh traders carry disease germs, reflecting the traditional aversion to outsiders.

3.2 *Operationalising capitals to improve adaptation*

The sustainable livelihoods framework developed by Scoones (1998) provides a context for understanding how the villagers harnessed the abovementioned capitals in order to improve

living conditions and how they adopted livelihood strategies, influenced by laws and institutions, government, and policies.

3.2.1 Living conditions

Housing satisfaction and adaptation has not been extensively studied in development-forced displacement and resettlement (DFDR) research, but given that the bulk of resettlement funds here, as elsewhere, goes to housing, and that interview respondents identified 'unsatisfactory housing' as their third greatest source of concern post-resettlement, it can be regarded as an important indicator of overall community resilience. Although housing and living conditions are subsumed under the category of 'livelihoods' in Scoone's original SLA framework, the extent of housing adaptation and traditional building construction found in the villages and its contribution to overall wellbeing make it worthy of separate discussion here.

The A Vuong dam hydropower authority contracted with a local construction firm to erect concrete block homes on piles for resettlers, consisting of one room with an open area beneath, as well as adjacent detached 13-square-meter concrete block structures containing kitchen, bath and toilet chambers (see Figure 3).

[Figure 3]

Villagers claimed that the 40-square-meter houses were poorly constructed and that the small kitchen provided poor ventilation for cooking fires. Most of the external wooden staircases were damaged in a 2008 storm, but few residents received compensation to cover repairs. Several stated that the houses, with the living area sitting atop 1.85-meter-high pillars, were particularly dangerous for the elderly and young children. In interviews, older residents professed a preference for traditional Co-tu-style homes of woven bamboo with thatched 'tortoise-shell' oval roofs as sites for cooking, sleeping and socializing (Matsuda, 2012: 11).

Villagers applied their indigenous construction skills to adapt and enhance their housing in several ways, including modifying the provided houses and constructing traditional and Kinh-style buildings. More than half of the households in Aden converted the ground floor space into living space by erecting wooden siding or bamboo walls and laying down tile flooring. The majority also added new balconies and staircases or extended the roof to keep out the rain and wind. Most villagers constructed bamboo 'kitchen houses' on low piles adjacent to their received housing (see Figure 3).

FIGURE 3

Several villagers constructed ground-level Kinh-style wooden houses within their compound after their sons married, with funds received from two government programs for vulnerable households and materials often procured from the forest. Some households had up to five structures crowding a compound of 400 square meters. Relatives and nearby neighbours, notably those from the same original villages, often lent their labour for house construction. The hosts repaid them with large meals, requiring purchase of a chicken or pig.

3.2.2 *Livelihood strategies*

The SLA framework identifies three main types of rural livelihood strategy options: agricultural intensification or extensification, livelihood diversification and migration (Scoones, 1998:9). Only one Cutchrun villager was reported to have migrated to a nearby town for employment but he returned to the village after a few months. Nine of 17 respondents in 2013 interviews indicated a willingness to migrate for employment, but the remoteness of large urban centres, lack of education, need to care for children or elderly parents, and few contacts outside the village were cited as principal factors impeding out-migration.

The most common strategies by village residents to overcome a reported decrease in food security due to poor soil productivity and declines in fisheries and wildlife were expansion of agricultural land by cultivating new plots, continuing to cultivate original plots near the dam site as well as the land received after resettlement, and diversification by adding new income sources and crop varieties. The Co-tu traditionally diversified their livelihoods by engaging in livestock husbandry, fishing and hunting as well as agriculture, but constrained access to rivers and the reservoir, reduced fisheries, restrictions on hunting large game and high post-resettlement livestock morbidity have limited traditional non-crop-based responses here. Instead, the residents have tried to expand sources of farm income and home consumption by building fishponds to practice aquaculture, planting fast-growing acacia trees, or cultivating novel cash crops like banana and pineapple, but with limited success, which they primarily ascribe to poor quality soil or, in the case of acacia, lack of available land.

4. Discussion

4.1. *Livelihood outcomes and community resilience*

Oliver-Smith (2006: 173) wrote of the need to apply local knowledge to better predict resettlement outcomes and conceive more viable approaches. An examination of Co-tu village outcomes suggests that traditional practices and beliefs, or cultural capital, significantly influenced the reaction to resettlement, both fostering adaptation and limiting adaptive capacity. The Dong Giang district government was the main implementing agency for resettlement, and although the A Vuong dam was the first dam-induced resettlement for the district, local officials could draw on examples from nearby dam sites and experience in administering Co-tu villages in an area where the population is 71% ethnic Co-tu (Luu, 2007: 6). The most significant decision was to resettle villages intact, when possible. As mentioned, Aden and adjacent Tro Gung had existed near each other before resettlement, so both internal and inter-village relations were well-established. Residents from the smaller village of Ta

Reng were incorporated into two other villages post-resettlement, but the 98 former Ta Reng residents now living in Aden were settled separately on the east side of the village. House sites within the Aden and Ta Reng compounds were determined randomly by lottery, but families were allowed to adjust locations by negotiating with neighbours to allow relatives to live in close proximity. Retaining the original Co-tu village names also helped to foster a sense of continuity and cohesion.

Although villagers noted that households with members engaged in manual labour garner additional income, the fact that nearly all of the villagers are identified as poor or near poor suggests limited income inequality. Ahern and Galea (2006: 768) found that poor individuals tended to suffer from a higher level of post-disaster depression if they were from a neighbourhood characterized by high income inequality. In the case of Cutchrun, this would argue for the maintenance of greater social cohesion. Residents possess strong bonding social capital within the village and equitable access to extremely limited village resources but have weak bridging social capital to provide access to resources, prestige and livelihood opportunities outside the village.

Construction of the community house helped to foster strong community ties and ethnic identity. Maintaining the elected post of village elder implies local government recognition of the important advisory role played by Co-tu village elders.

The provision by the hydropower authority of poorly constructed houses that residents described as cramped, uncomfortable and alien to traditional housing styles had direct economic and environmental consequences, as residents felt compelled to expend money and effort and log forest wood in order to repair broken stairs and toilets, convert the first floor to living quarters, and build supplemental structures on adjacent land. In addition, by using scarce land for building construction they were forced to forgo revenue or food security that could accrue from home-garden cultivation.

4.2 *Implications for resettlement practices*

Resettlement policy and research understandably have tended to prioritise consideration of compensation and economic factors for preventing impoverishment and securing sustainable livelihoods. Household income and assets are quantifiable, ubiquitous indicators for gauging successful outcomes. Yet purely economic approaches may miss crucial factors like community links and cultural or religious influences on daily life. Resettlement planners, seeking maximum efficiency and applicability, often disregard the complex cultural and social conditions that prevail in pre-resettlement communities (Koenig, 2006: 105).

Scudder (2009: 33) analyzed 44 cases of dam-induced displacement in order to test the accuracy of five of Cernea's IRR model risks (landlessness, joblessness, food security, marginality and access to common property) in predicting impoverishment. The risk most highly associated with an adverse outcome, he found, was marginalisation, which he defined as the loss of economic power, often accompanied by social and psychological marginalization. A related risk, social disarticulation, was impoverishing in 34% of the cases. In most of these cases, he noted, resettlers were unable to move as a unit. As noted by Downing and Garcia-Downing (2009: 230), disruption of pre-existing spatial or temporal orders through displacement may cause uneasy residents to feel that life has become chaotic and unpredictable.

In his 2003 critique of the theory that compensation for lost assets is sufficient to restore displaced populations to previous levels of functioning, Cernea noted that 'displacements instil loss of confidence in self and in society and render much capital obsolete. Cultural effects, combined with the seizure of assets accumulated through prior generations' labour, result in the near killing of enterprise and entrepreneurship. Discouragement strikes deeply at the human ability for recovery. These cultural and

psychological pains and losses – whose lethal combination has been revealed through perceptive sociological research – inflict in turn long-term harm to resettlers' (2003: 40).

In writing about the 'psycho-socio-cultural (PSC) impoverishment inflicted by involuntary displacement' (2009: 225), Downing and Garcia-Downing posit a transition during displacement from 'routine culture' to the appearance of a 'dissonant culture' while displaced persons are trying to adjust to the upheaval of dramatic change, and then the emergence of a new routine culture, where informal and formal linkages are re-established and new socio-cultural articulations become the norm (*ibid*.: 235). In Cutchrun eight years after resettlement, a new routine culture has taken hold.

Community resilience in Cutchrun could have been enhanced had residents been allowed to build their own housing. In addition, although the compact village layout may promote cohesion and good behaviour, the practice of constructing detached homes for newlywed sons, encouraged by stipends awarded by national poverty alleviation programs, implies that the already cramped village space will soon reach its limit.

Agricultural land is similarly constrained: due to the poor productivity of upland plots, villagers have converted protected forest land for upland rice cultivation. The district government could enhance food security by allowing the villagers access to draw-down areas of the A Vuong reservoir for fishing and paddy cultivation, which they currently prohibit. Providing financial support for traditional rituals such as the buffalo sacrifice at harvest time would foster greater ethnic pride and community cohesion.

This paper in no way seeks to rationalize resettlement practice or to argue for abrogating the ethical obligation to avoid or minimize involuntary resettlement when possible. However, infrastructure construction is now estimated to displace 20-25 million people per year throughout the developing world (Cernea, 2013), lending urgency to the need to improve resettlement policies and measures. Generous cash and land-based compensation, while

essential, does not alone ensure successful outcomes. In reference to Cernea's IRR model, Koenig wrote that 'both social disarticulation and marginalization can be mitigated by resettlement strategies that emphasize the reconstruction of communities and social networks and deliberately pursue strategies of social cohesion' (2006: 108). In an examination of a Greek urban community Hirschon (2000: 405) noted that cultural practices and values played a crucial role in helping resettled urban dwellers adjust to new living conditions.

It can be argued that certain indigenous Co-tu practices and beliefs may constrain post-resettlement adaptation. A patriarchal tradition, with women largely excluded from decision-making or positions of authority, has limited the roles that women may play, while the traditional reluctance to leave safe village environs, dating from earlier periods of inter-village conflict, may limit adoption of migration or other adaptive livelihood strategies. Nevertheless, there are many positive contributions to community resilience of indigenous knowledge (defined by Agrawal (1995: 413) as 'local knowledge and technology').

In the face of a persistent and widening gap in average income between ethnic minorities and the majority Kinh, poverty alleviation has long been privileged over conservation of indigenous skills and knowledge as the government's primary ethnic minority policy objective. Government policy promoting 'Vietnamisation' of ethnic minorities has regarded expensive funerary customs and other indigenous practices and beliefs as a handicap to upward mobility at best, 'backward' and a threat to national unity at worst (see Baulch, *et al.*, 2007: 1168). Such dismissive attitudes, combined with the loss of agency for ethnic resettlers accruing from both displacement and top-down local governance, underline the need to reappraise indigenous traditions.

Based on previous recommendations by anthropologists and practitioners (see Scudder, 2005: 135 and Koenig, 2006: 111), we suggest that resettlement authorities can address many

of these concerns by incorporating the following socio-cultural considerations in project planning:

1. Move communities intact, preferably retaining the original name, general spatial layout and other characteristics.
2. Relocate communities in sites as close as possible to previously accessed rivers and common natural resources as well as non-inundated cultivated land.
3. Respect cultural traditions by assisting in moving or protecting burial grounds and supporting construction of village shrines and temples, community houses and other buildings with spiritual or social significance to local residents.
4. Incorporate understanding of traditional land use practices and respect for and preservation of sacred sites in forests and landscape in official land-use planning.
5. Provide administrative and/or financial support for the maintenance of traditional community rituals, practices and events that will foster continued unity and wellbeing, and for formal instruction of youths in indigenous arts and language.
6. Allow a high level of community self-administration, respecting local traditions of community leadership. This implies a high degree of participation in resettlement decision-making by community residents.

In the case of Vietnam, prospects for communities to achieve marginally greater participation in resettlement decisions seem to be improving with passage of a 2007 ordinance linked to the 1998 grassroots democratisation law (Order No. 06/2007/L-CTN) that specifies that compensation and resettlement schemes should be subject to village-level votes, but as yet there have been few attempts to integrate the internationally recognized principle of free, prior and informed consent (FPIC) in resettlement planning.

5. Conclusion

This research applied a community resilience framework combined with a sustainable livelihood approach to identify the innate forms of capital that resettled ethnic minority residents could instrumentalize to recover from the shock of displacement and resettlement due to construction of a hydropower dam in Quang Nam province, central Vietnam.

Although forest land quality and quantity, forest access and food security have worsened since resettlement, overall subjective assessments of wellbeing have not greatly changed, suggesting that non-livelihood-related factors are also influencing the villagers' ability to adapt. Weak capacity in human and financial capital, particularly in education, status and non-farm-based skills, has constrained residents' ability to implement successful livelihood strategies such as migration or diversification. However, the ability of the community to remain spatially intact, individual skills in adapting received housing and constructing traditional structures, and indigenous practices such as community house construction and consultation with elders can be seen to have contributed to a higher than expected level of community resilience.

While a critical need exists for external assistance by government, the hydropower authority, and other agencies for rehabilitation after displacement, displaced populations must also draw upon their own resources and livelihood strategies. Understanding the extent of these innate resources and the capacity for resilience will allow external assistance to be applied more effectively, while fostering greater autonomy and confidence among the displaced.

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TABLE AND FIGURES LEGENDS

Table 1. Capital assets

Capital Assets	Includes
Human capital	Health, nutrition, education, knowledge and skills, capacity to work, capacity to adapt
Social capital	Networks and connections, relations of trust and support (bonding), formal and informal groups, leadership, shared values
Natural capital	Land, crops, water, forest resources, wildlife, biodiversity, environmental services
Physical capital	Infrastructure, tools and technology, household assets
Cultural capital	Indigenous practices, rituals, shifting cultivation, crafts, construction, identity
Financial capital	Savings, credit and debt, remittances, pensions, wages

Figure 1. Conceptual model of community response to displacement

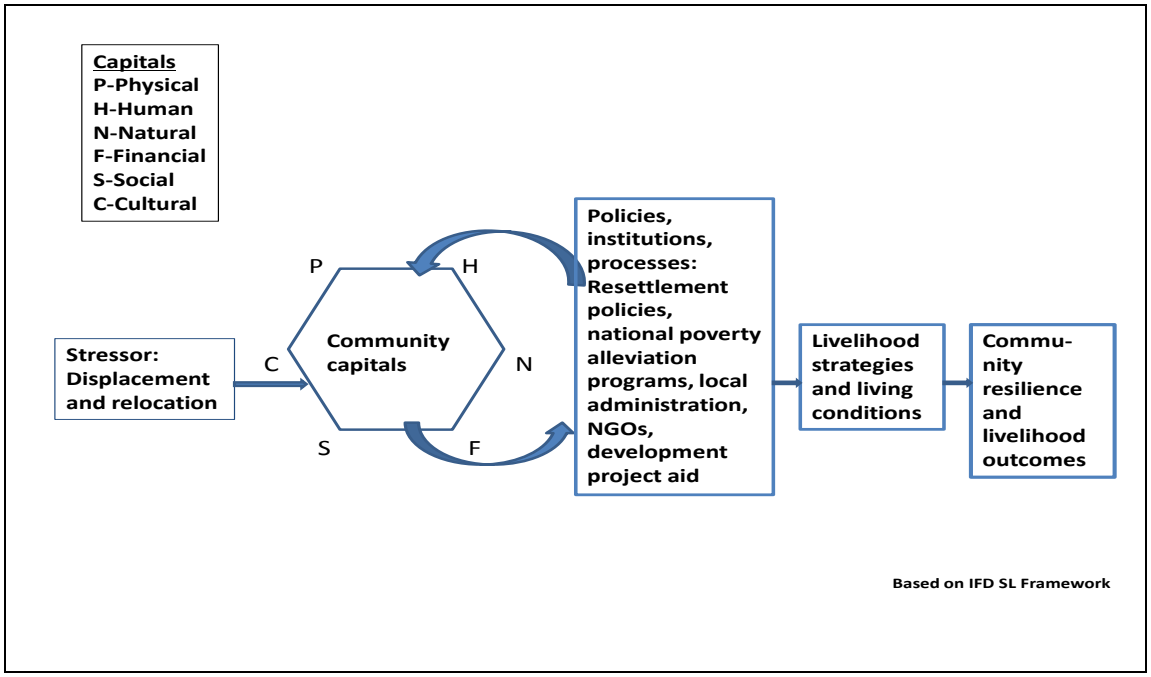
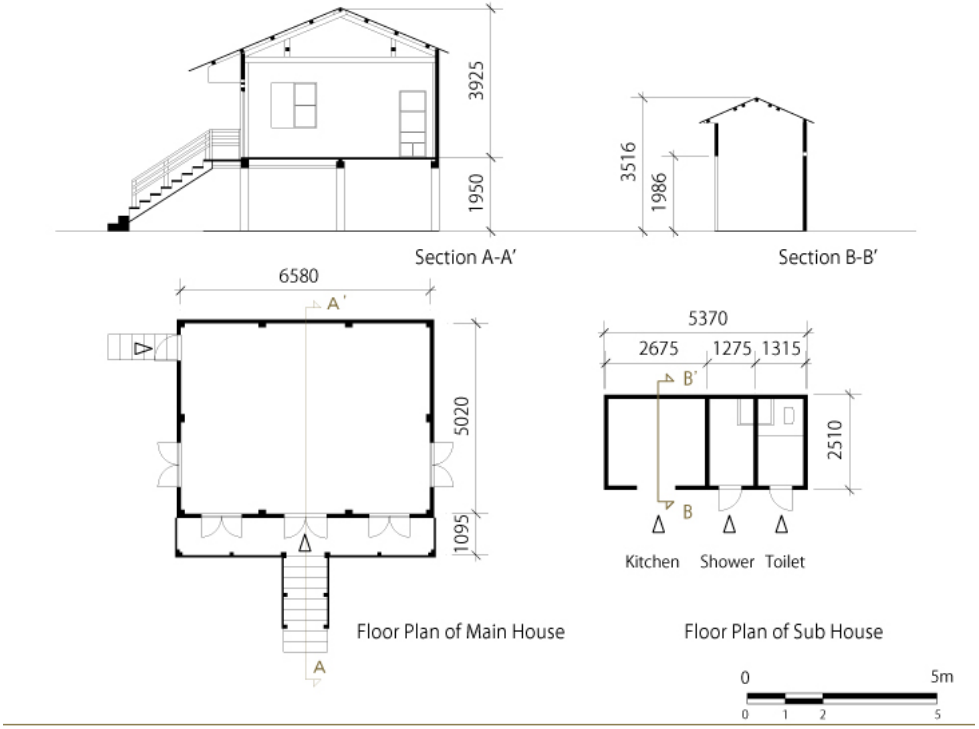


Figure 2. Floor plan of constructed house, resettlement villages



Source: Y. Matsuda, 2012

Figure 3.

a. Original construction

b. Modified staircase, bottom floor

c. Traditional home

ENDNOTES

[1] These averages were lower than the national average recorded for Vietnam of 5.8 for current experienced well-being or the global average of 5.4. However, it should be noted that researchers have found a strong correlation between income levels and levels of subjective well-being (Sacks, et al., 2010), with wealthy individuals reporting greater satisfaction with their lives.