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# **Livelihoods for re-settled communities**

**by**

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## Contents

Summary .....	i
Location of the Vu Gia-Thu Bon Basin.....	ii
1 Introduction .....	1
2 The Vu Gia-Thu Bon Basin.....	1
3 Livelihoods .....	3
3.1 Example.....	3
3.2 Traditional livelihoods.....	6
3.3 Future livelihoods .....	6
3.4 Supporting a smooth transition.....	7
4 Management options .....	7
5 Observations.....	8
References and literature.....	9

## Summary

This paper presents some aspects to keep in mind in connection with re-settlement of poor households in mountainous areas.

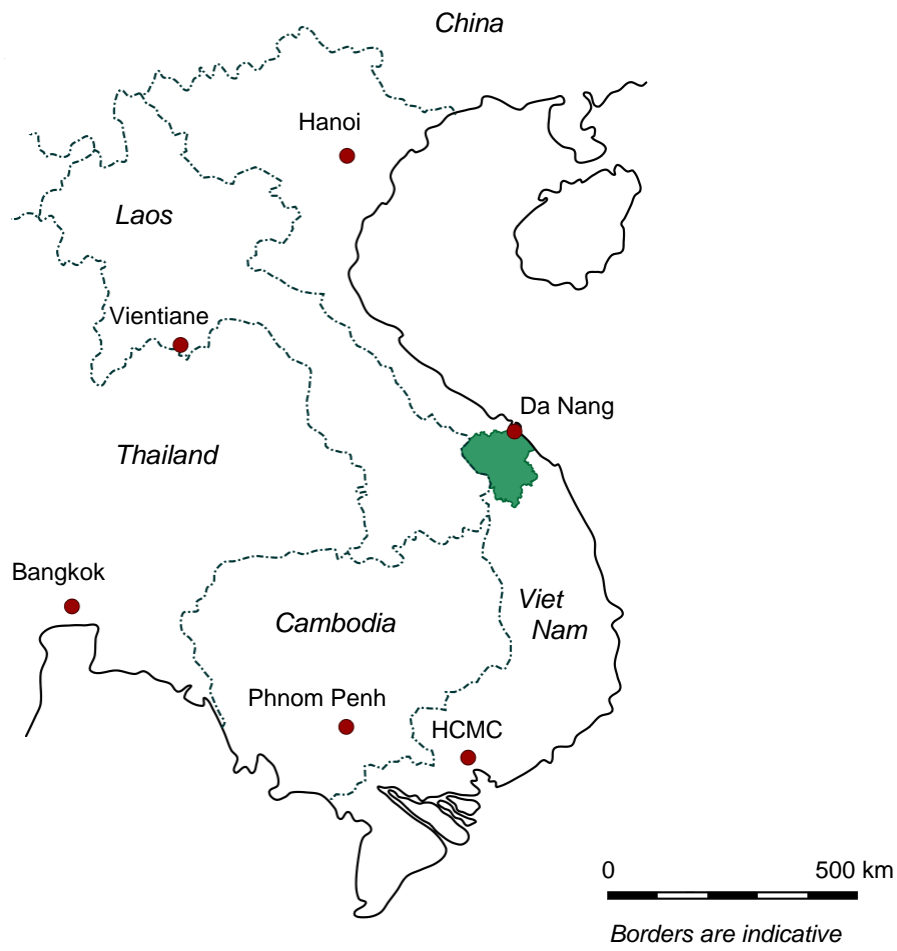
Re-settlement is not merely a question of moving households from one location to another. This will, most likely, cause further problems for people who are vulnerable already. The main challenge is to provide a smooth transition from narrow dependency on existing livelihoods to a situation where a choice can be made from a broader range of options.

There is no single good solution. The efforts must cover a span of measures that, between them, can provide a range of appropriate livelihoods, in the mountains as well as in the lower parts of the basin.

A particular opportunity in connection with hydropower development is that funding is available from compensation and benefit-sharing programmes. It is important that these are long-term rather than once-off. Local authorities must be involved as key players during implementation, and a dialogue must be maintained with the intended beneficiaries.

Re-settled communities are only a fraction of those in need of similar support. Many others, while not re-settled, still depend on unsustainable resource-based livelihoods in mountainous areas.

## Location of the Vu Gia-Thu Bon Basin



## 1 Introduction

Re-settlement is an unavoidable part of economic and infrastructural development. It is a major intervention in human life, and particularly so if households depend on natural resources for their livelihoods and have lived in a specific area for centuries.

On the other hand, a re-settlement can be an opportunity to lift people out of deep poverty.

Illustrated by the Vu Gia-Thu Bon Basin in Central Viet Nam, this paper presents some aspects to keep in mind in connection with re-settlement of poor households in mountainous areas.

## 2 The Vu Gia-Thu Bon Basin

The Vu Gia-Thu Bon Basin has an area of 10,350 km<sup>2</sup> and a population of around 1.8 million. The basin covers major parts of Quang Nam Province and Da Nang City, as well as a small part of Kon Tum Province.

With its abundant natural resources, including land, water, forests and fisheries, the basin has a rich potential for continued economic development. The basin also has a high conservation importance.

The basin is surrounded by forested mountains with a rich hydropower potential (see figure and table below).

Poverty in the basin corresponds closely with elevation. The average poverty rate in the mountain districts is 35.5%, and in two districts the rate is over 50%, well above the provincial average of 14.2%. One of every five households in the mountain districts faces a grain shortage from 3 to 6 months of the year. High poverty levels also correspond with ethnicity. Rough estimates suggest that ethnic minorities account for 70% to 90% of the total number of poor households in the region.<sup>1</sup>

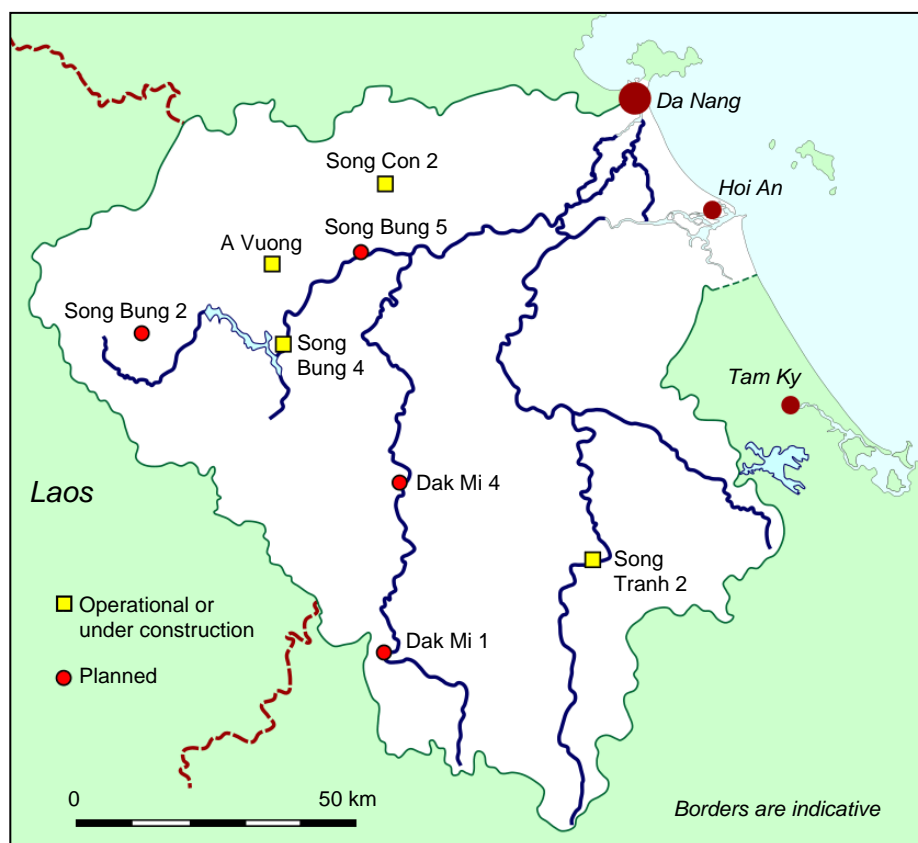
Poverty in the mountainous parts is largely caused by poor conditions for agriculture: Scarcity of arable land, steep slopes, heavy rains and ongoing soil erosion. Slopes of 25-30 degrees are normal. The average area of paddy rice land per capita in the uplands is only 204 m<sup>2</sup>, compared with 376 m<sup>2</sup> in the rest of Quang Nam province.

Shifting (swidden) cultivation is a traditional livelihood in the mountains, originally with a fallow period of 10 years. Today, the fallow period has been reduced below sustainable levels due to population pressure, stricter forest protection, and changed land use, including loss of land to reservoirs.

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<sup>1</sup> This and the following paragraph quoted from DONRE (Jan 11)

Figure 1: Reservoirs and hydropower plants in the Vu Gia-Thu Bon Basin



Source: DONRE (Jan 11), based on ADB (Dec 06) and Pham Ba Huyen (Dec 09)

Table 1: Major hydropower schemes in the basin

<b>Project</b>	<b>Capacity</b>	<b>Reservoir area</b>	<b>Affected people</b>	<b>Re-settled people</b>
	<i>MW</i>	<i>km<sup>2</sup></i>	<i>Persons</i>	<i>Persons</i>
Song Bung 2	100	2.9	4,700	0
Song Bung 4	156	15.8	5,500	953
Song Bung 5	60	2.1	3,700	195
Dak Mi 1	225	4.5	4,000	215
Dak Mi 4	180	10.5	7,300	126
Song Con 2	60	small	3,100	74
A Vuong	210	9.1	?	1,500
Song Tranh 2	135	21.5	9,500	4,050
<b>Total</b>	<b>1,126</b>	<b>66.4</b>	<b>37,800++</b>	<b>7,113</b>

Source: ICEM (Jan 08)

## 3 Livelihoods

### 3.1 Example

Tra Bui Commune provides a typical example of the implications of re-settlement. This commune was affected by the reservoir of the Song Tranh 2 hydropower scheme, by the loss of 1,266 ha of cultivated land.

The affected households are mainly ethnic minorities with low income.

The re-settlement was carried out with good intentions from the investor and the authorities. Still, a variety of problems were encountered, such as

- delayed and/or inadequate allocations of land suited for cultivation in general, and suited for wet (paddy) rice in particular (partly due to steep slopes); and
- inadequate support to cultivation, livestock breeding and aquaculture: Lack of seeds and breeders, and lack of experts for technical guidance; and
- frequent livestock diseases and inadequate veterinary services.

*Figure 2: Newly cleared forest in the Sông Tranh 2 resettlement area*



Only one crop is grown per year, and cassava remains crucial for food security. High rainfall causes problems in the wet season.

84 percent of households reported permanent food shortage. Electricity bills are not paid.

Wet rice fields are in short supply. At least 200-300 m<sup>2</sup> is needed, and preferably more, but suited areas are sparse.

Deforestation for cultivation is practiced by 65 percent of households, causing a loss of around 2,000 ha of protection forest in this area. Unemployment is a concern, as well as safety (against theft) in residential areas. The re-settled households have a lower income than other households.

8 percent of the households preferred to relocate from the re-settlement areas, while another 24 percent was considering to relocate.

*Figure 3: Houses at Trà Bui before resettlement*



*Figure 4: New housing in the Sông Tranh 2 re-settlement area*



A satisfaction survey was conducted after the re-settlement, as summarised in the table below.

It is seen that the satisfaction is less than complete in general, and for livelihoods in particular. Regarding facilities, the re-settled households are better satisfied with their housing, and otherwise, both re-settled and other households are equally (and moderately) satisfied. Regarding livelihoods (apart from food subsidies), the satisfaction of re-settled households is moderate, and in some cases below other households.

At the time of the survey, many households were still using their old lands (not yet inundated) for cultivation and livestock, so that the impacts of the re-settlement had not yet fully materialised.

Table 2: Satisfaction of households affected by re-settlement compared to other households

<b>Facilities</b>	<b>Re-settled households</b>	<b>Satisfaction</b>	<b>Other households</b>	<b>Satisfaction</b>
		0-10		0-10
Housing	Built wall, metal roofing, enamelled tile floor	6	Self-built house, poor quality	2
WC	Yes	4	No	
Drinking water	Concrete tanks for 4 households	4	Use together with re-settled households	4
Power	Often power-cut	4	Often power-cut	4
District road	Paved road	5	Paved road	5
Commune road	Pathway	3	Pathway	3
School	Kindergarten to secondary school	5	Kindergarten to secondary school	5
Medical station	At commune	3	At commune	3
Post office	Not yet		Not yet	
Television	Through discs	5	Through discs	5
Market	Mobile market	3	Mobile market	3
<b>Livelihoods</b>				
Food subsidies from hydropower investor	6 months in cash, plus rice over 12 months	5	None	0
Wet rice field	Using old lands; 2.5-3.5 t/ha/year	4	Mainly subsistence cultivation	4
Dry rice field	Using old lands	4	Corn, rice, cassava, batata (sweet potato)	7
Production forest	Using old lands	4	Cinnamon, tea, paper trees	2
Protection forest	Protection forest not yet handed over	0	Restoration of protection forest in upland areas	5
Livestock	Using old lands	5	Lack of land for grazing	3
Horticulture	None	0	Banana, pineapple	2
Timber processing, mining, others	Seldom	4	Seldom	4

Figure 5: Mobile market in the Sông Tranh 2 re-settlement area



### 3.2 Traditional livelihoods

Traditional livelihoods include

- cultivation: Rice, cassava, other crops. Wet (paddy) rice is a preferred crop, but the cultivation is limited by the availability of suited land;
- forest products (timber and non-timber) (such as rattan, honey, fruits, vegetables, firewood and medicines) (also practised by non-residents). This is socially significant, because food from the forest serves as a safety net when crops fail;
- livestock, a valuable supplement to cultivation;
- fisheries must not be overlooked. ICEM (Jan 08) reports from one village in the Vu Gia-Thu Bon Basin that *'fish is staple food and the major protein source in their daily diet. There are no other protein sources available, as villagers can seldom afford eating meat and they sell most of the beans they grow. Loss of fishing resources will have a devastating impact on the nutritional status and consequently on the health of the villagers. The negative impact will be especially serious on growing children. This pattern is likely to be repeated across the basin'*; and
- hunting and trading. In the Vu Gia-Thu Bon Basin, these livelihoods are practised to a minor extent only, and often by non-residents.

Figure 6: Carrying cassava to the village



### 3.3 Future livelihoods

Existing livelihoods can continue to some extent (and may possibly even be improved). In addition, several new livelihoods will emerge in the mountains:

- Employment at the hydropower stations;
- involvement in forest renewal and conservation, including preservation of reservoir drainage areas (to prevent siltation);
- reservoir fisheries;
- eco-tourism, and tourism and recreation related to the reservoirs (supported by better access); and
- handicrafts (supported by increased tourism and better access to markets).

### 3.4 Supporting a smooth transition

Re-settlement is not merely a question of moving households from one location to another. This will, most likely, cause further problems for people who are vulnerable already. The main challenge is to provide a smooth transition from narrow dependency on existing livelihoods to a situation where a choice can be made from a broader range of options.

Figure 7: Terraced paddy fields, Tay Giang District



## 4 Management options

'Full compensation' is not enough for poor households. Pro-active support is needed to improve their situation.

There is no single good solution. The efforts must cover a span of measures that, between them, can provide a range of appropriate livelihoods.

### **Agriculture**

Cultivation systems must be land-intensive. Two crops per year must be aimed at. Access must be provided to seeds, water, fertilizer, and breeders. Crops other than wet rice must be promoted. Credit (including microcredit) must be available.

A continued development of cultivation and breeding technology must be promoted, including supplementary high-value products and reservoir fisheries. This may include extension services, and pilot-and-demonstration initiatives.

Shifts to new cultivation systems are always risky and must be done with '*due diligence*', and stepwise where practical.

### **Markets, trading**

The hydropower development will improve the access to the remote areas. One side benefit would be development of local markets as a basis for some extent of trading. The improved access to markets will expand the range of viable production systems.

### ***Education***

Basic education is fair (but with an ever-lasting scope for improvement, as it is the case everywhere).

Vocational training must be provided in order to access new livelihoods, such as employment at the hydropower stations, reservoir fisheries, forest conservation; handicrafts, and livestock breeding.

Access to higher education can be supported by scholarships (for example included in compensation packages). Also, a targeted (1-year) entry programme could be considered for bright youngsters from remote areas with a weak educational starting point. A few university graduates from an otherwise isolated mountain community could have unexpected positive effects in the long term. So could locally based extension specialists.

### ***Public health***

Public health must remain a priority, including access to safe water and sanitation, and various health services, in support of achieving the positive effects of various development initiatives.

### ***Implementation arrangements***

A particular opportunity is that funding is available from compensation and benefit-sharing programmes.<sup>2</sup> It is important that these are long-term rather than once-off.

Local authorities must be involved as key players during implementation, and a dialogue must be maintained with the intended beneficiaries.

## **5 Observations**

Land is the main boundary condition for social and economic development in the mountains. There is simply not enough land suited for cultivation to sustain traditional livelihoods for an increasing population. Supplementary options are needed.

Efforts must include access to new opportunities in addition to attempts to continue the traditional ways - including opportunities in the lower parts of the basin. The process should be seen as an expansion of opportunities, rather than a shift.

These efforts must be long-term.

To improve the livelihoods would be a challenge even if the communities were not re-settled. Rather, the re-settlement must be taken as an opportunity to various measures to permanently reduce the prevalent poverty.

Re-settled communities are only a fraction of those in need of similar support. Many others, while not re-settled, still depend on unsustainable resource-based livelihoods in mountainous areas.

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<sup>2</sup>

Please refer to Doan Van Binh (Dec 09) for an introduction to benefit-sharing in the Vu Gia-Thu Bon Basin

## References and literature

*Many of these documents are available on the Internet*

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