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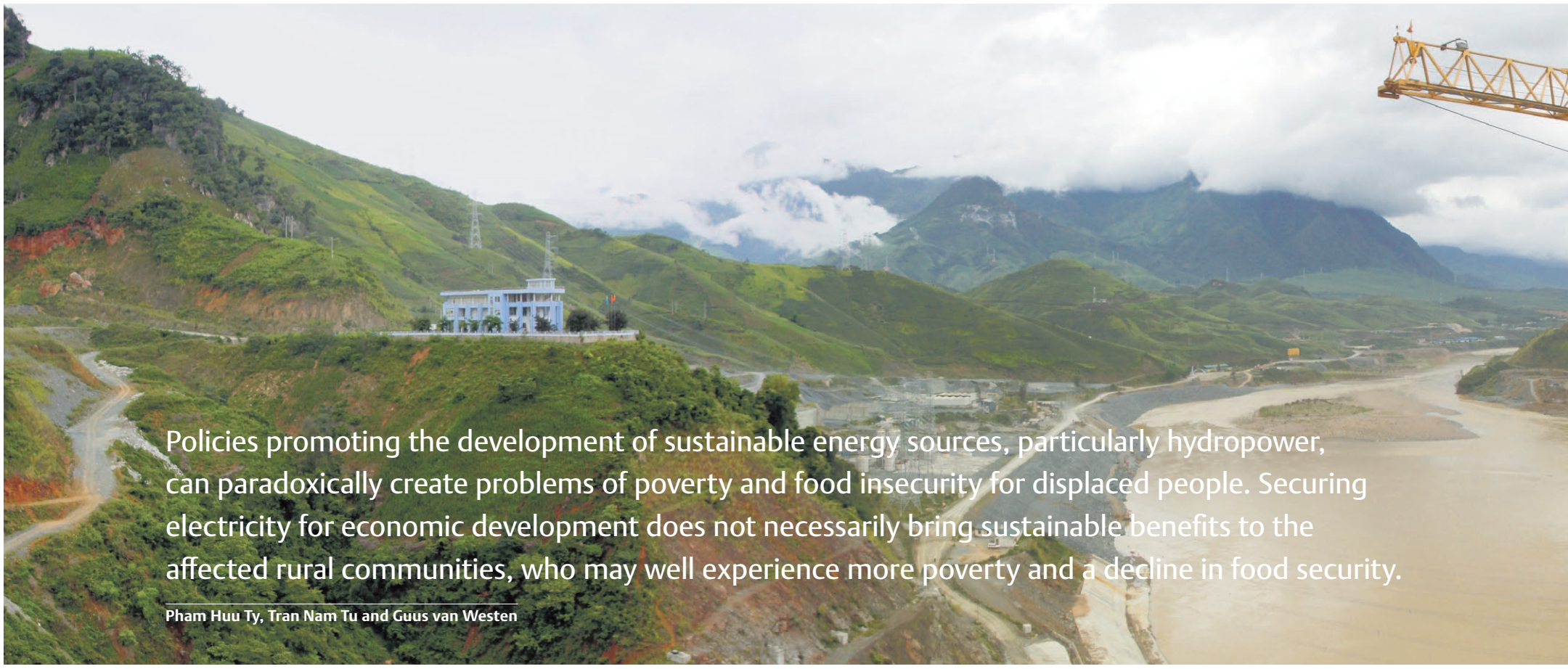
Food security and energy development in Vietnam



Policies promoting the development of sustainable energy sources, particularly hydropower, can paradoxically create problems of poverty and food insecurity for displaced people. Securing electricity for economic development does not necessarily bring sustainable benefits to the affected rural communities, who may well experience more poverty and a decline in food security.

Pham Huu Ty, Tran Nam Tu and Guus van Westen

FOOD SECURITY HAS BEEN RECOGNIZED as an important dimension of 'development' in Vietnam since at least 2002, when it was formally included in the national policy framework. Since the mid-1980s, Vietnam has shifted from a fundamentally agricultural economy to a multi-sector-based one, propelled by a policy of promoting industrialization and modernization more generally. The contribution to the GDP of industry and the service sector has reached 41% and 38% respectively, while the share of agriculture has been reduced to 21% of total GDP (GSO, 2010). The rapid industrialization and modernization process in Vietnam has caused a high and rapidly increasing demand for energy, especially for electricity. As a result, a range of policies and initiatives have been put into practice in order to secure the energy needs for development, including hydropower, nuclear energy, fossil fuel-based energy (coal, gas, oil), wind power, and also imports from neighbouring countries. In an attempt to limit the rapidly rising bill for fossil fuel imports, the exploitation of the hydropower potential of the country's mountainous interior has received special attention in recent years. Currently, hydropower is the major source of energy for the country, accounting for more than 37% of the total energy supply (Ministry of Industry and Trade, 2010). Hydropower dam construction, however, requires land to be converted into reservoirs, forcing the affected rural communities to move out of their homes and surrender their lands. Even before 1990, more than 120 thousand people were displaced due to the construction of the Thac Ba hydropower dam and approximately 90 thousand persons were displaced by the Hoa Binh hydropower project. In the mid-1990s, 60 thousand people and more than 24 thousand persons have been displaced respectively for the Ham Thuan – Da Mi and Yali hydropower dams. In the late-1990s, the number of hydropower dams increased threefold, with 400 thousand people being relocated. Between 1995 and 2009, Vietnam constructed over 20 large-scale hydropower dams (with capacity stations exceeding 100 MW), converting 80 thousand hectares into reservoirs and affecting 49 thousand households. As an example, construction of the Son La hydropower dam required the relocation of over 90 thousand people from 160 settlements in 17 communes and 3 provinces. This paper looks at the food security of such relocated communities before and after displacement due to hydropower dam construction. Data are drawn from our ongoing research on the impact of the Binh Dien hydropower project in Thua Thien Hue province, which considers three main aspects of food security, i.e. food availability, adequacy, and access to food by means of household surveys, interviews, focus group discussions and review of existing documentation.

Once temporary resettlement support is withdrawn, people have to rely on their own resources to acquire the necessary foods. Then they are confronted with a harsh reality that their access to income sources has dwindled.

Food security policies

As an agricultural country, Vietnam has adopted and implemented a comprehensive poverty reduction and growth strategy, and the dimension of food security is included into the policy framework for economic development, health care, women and child care, environmental protection and sustainability since 2002. As a result, poor households have received considerable support from the government so as to be able to escape from poverty and improve their livelihood conditions. They are prioritized for participation in rural development projects funded by the government and international NGOs. Paddy rice production is the major agricultural activity in the country, and as such, development policies have launched a set of initiatives to secure the land area devoted to rice production and to increase productivity. For instance, the Directive 391/2008/QĐ-TTg was issued to facilitate the implementation of the agricultural land use plan and allocate land for rice production. Also, a national land use plan was issued for the period up to 2020 and partly towards 2030 that prescribes that least 3.8 million hectares of land be maintained for the purpose of producing paddy. Meanwhile, the land area under paddy production has in fact declined from 4.2 million hectares in 2000 to 4 million hectares in 2009 (GSO, 2009), due to competing claims on land use.

As can be seen in Table 1, the poverty rate has decreased in both urban and rural areas, but most markedly in the countryside. In 2010, the reported rates were higher because of a raise in the level of income below which people are considered poor. The food security for the poor in both urban and rural areas is a critical problem. Although the productivity of many staple foods has increased significantly since 2000 (Table 2), a majority of poor households have remained trapped in an insecure situation in terms of access to food on a temporary or chronic basis.

Food security for displaced persons due to hydropower development

Displacement and resettlement due to hydropower development has caused transitory or chronic food insecurity for affected families. Displaced people cannot produce food to supply their families' requirements because of their relocation to new localities with limited agricultural land, often of a poor quality. Food has often become less available compared to the old situation where they could easily obtain food from various sources, such as fishing, hunting, collecting from forests, as well as cultivating rice, cassava, and raising animals on common grass and forest lands. As a result, the quantity and quality of the main meals of the study population have declined, especially as a result of lesser availability of rice. Many of the afflicted households have to borrow rice and money from neighbours, a traditional food safety strategy that becomes less effective since most families in such exchange networks are also poor and also because the relationship between people is less cohesive than it was reported to have been in the past. The tradition of exchanging food and money among community members is disappearing gradually. Resettled families have received support from the hydropower companies, but only on a temporary basis, creating a problem in the longer term. Once temporary resettlement support is withdrawn, people have to rely on their own resources to acquire the necessary foods. Then they are confronted with a harsh reality

Table 1: Poverty rate change between 2006 and 2010 in Vietnam (%)

Source: GSO, 2010.

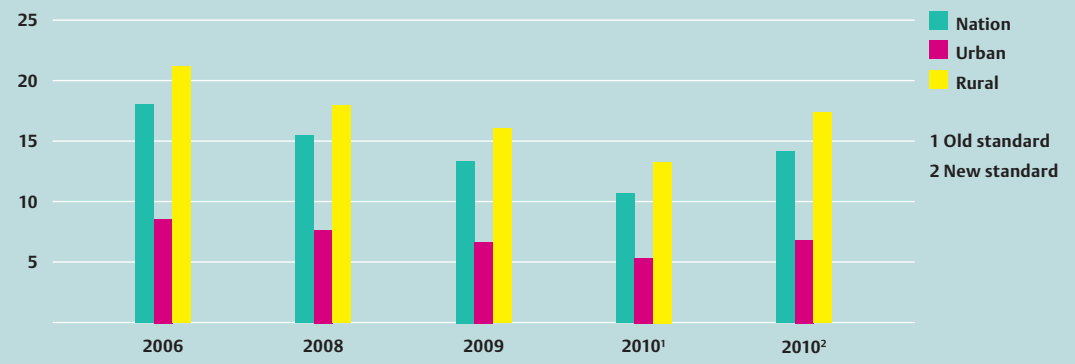
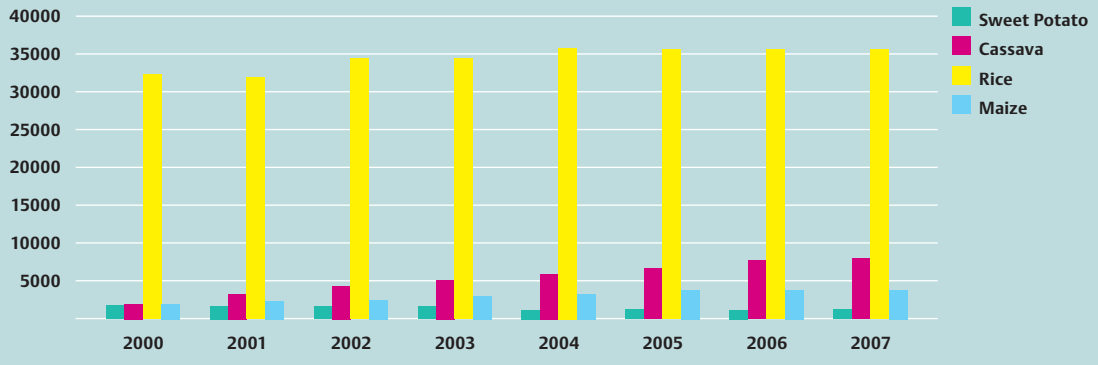


Table 2: Production of some staple foods, Vietnam 2000-2007 ('000 tonnes)

Source: GSO, 2008; Nguyen Van Ngai, 2010.



Left:
The construction of the Son La hydro-power dam in Northwest Vietnam (© Tuăn CaNon panoramio.com/ photo/55081112).

Bottom left:
Preparing family dinner in the new place with taro trunks.

Bottom right:
Cassava leaves and root – a favourite food in the new place.

that their access to income sources has dwindled. The transition from an agricultural livelihood to one that can be labelled as a limited-agriculture livelihood causes displaced people to lose out in terms of both income and sustainability of their livelihood, often leaving little alternative than becoming seasonal labourers.

Binh Dien hydropower dam construction project, Thua Thien Hue province, Vietnam

In 2004, the construction of the Binh Dien hydropower dam necessitated the removal of 50 households of Katu people, one of the ethnic minority groups in the central mountain range of Vietnam. They were moved to a resettlement site in Binh Thanh commune, Thua Thien Hue province. Their living conditions have changed considerably, especially when it comes to food security (see also Nuijen 2011). As stated by the villagers, their food situation had previously been more secure, because of several reasons. In the old settlement villagers were traditionally self-reliant, providing for their families through subsistence agriculture and harvesting of common pool resources by means of hunting, fishing, and collection of honey. In this way, most families could maintain their diet with three regular meals per day. They rarely worried about daily food supplies because foods were usually available locally. They could avail themselves of preferred foods without spending money and rarely needed to rely on borrowing from other households. After the relocation, however, their food supplies dwindled, became less adequate, and more difficult to obtain. In fact, many people are now struggling to meet their daily food needs. Main meals have been reduced from three to two meals per day.

Several reasons can be put forth to explain this situation. Firstly, the loss of agricultural land has decreased their ability to grow food crops. The village as a whole has lost 113.6 hectares of agricultural land, which corresponds to an average loss for each household of 2.7 hectares. Crop lands used to be situated along the river and had been used to plant *Lồ Ô* bamboo trees, cassava, maize, and especially rice paddy. After relocation, all families have shifted their crop lands to acacia forests that take at least six years before they can be harvested, thus making the food supply much more vulnerable. The conversion to acacia planting is not just due to the quality of new lands, but must also be explained by the forest land allocation programme undertaken at the behest of the government and some donors, including the World Bank and JBIC. The forest land allocation programme has attracted the interest of displaced people to create acacia plantations, because they can receive support from those organizations; for instance support for Redbook certification (formalization of land rights), cash subsidies for growing acacia and technical training. Secondly, they have completely lost their access to food sources from common pool properties, such as water bodies, grass and forest lands. Thirdly, the need to spend a lot of money on buying foodstuffs has eroded their financial position based partly on compensation money. The household survey indicates that 33 out of 50 households have dropped below the poverty line and 4 more families have become poorer three years after relocation. Fourthly, they now need to rely more on wage work that is difficult to obtain in this remote area. Hence, the option of acquiring food by means of purchase has also declined. Resettled villagers mostly do seasonal work for other land owners in the region, but this is a temporary and insecure livelihood source. Especially the poorer households have to rely on this option.

Discussion and conclusion

Hydropower dam construction is not the only intervention that puts pressure on small-scale farmers in Vietnam's interior highlands. Changes with respect to forestry management have at least as much impact as dislocation due to reservoir creation. Nevertheless, the policy to increase the supply of 'sustainable energy' has destabilizing consequences for the livelihoods of many thousands of people. Displaced households typically experience three successive stages in terms of food security. The first stage is the situation before displacement, when food was more accessible and adequate because there was sufficient land to grow food crops and further foods could be obtained from common pool resources. The second stage followed displacement, when the villagers received food support from the government and hydropower companies in the first and second year of resettlement. In this phase, food access was secured. Typically, in this phase, people are tempted to spend compensation money on buying clothes, motorbikes, and other commodities at the expense of investing money in agricultural land to produce food or to learn new skills to find alternative jobs. The third phase is when they do not have food support anymore, and the small plots received in the compensation package are not sufficient to meet their needs. They then have to use their money to buy food or rely on assistance from other villagers as they find themselves without sustainable income sources. Food insecurity and poverty have worsened the displaced peoples' living conditions, and they risk being caught in a poverty trap without perspectives.

The experience of the resettled people of the Binh Dien hydropower project shows the risks of assuming that standard compensation packages will be sufficient for displaced people to generate new livelihoods without more targeted assistance. Compensation monies cannot easily replace the loss of lands for villagers, who lack the skills and outlook on life that would enable them to adapt to different economic and social conditions. Alternative employment is in short supply in most resettlement areas, which may eventually force people to take refuge in the densely populated cities on the coastal plain. Many will not experience that as 'sustainable development', nor is the aim of food security in any way served by the current state of affairs.

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