



At what price rice? Food security, livelihood vulnerability, and state interventions in upland northern Vietnam

Christine Bonnin, Sarah Turner *

Department of Geography, McGill University, 805 Rue Sherbrooke West, Montreal, Canada

ARTICLE INFO

Article history:

Received 12 July 2010

Received in revised form 27 June 2011

Available online 23 August 2011

Keywords:

Vietnam
Ethnic minorities
Resistance
Everyday politics
Food security
Livelihoods

ABSTRACT

In the northern uplands of the Socialist Republic of Vietnam the state is taking dramatic steps to (re)configure agricultural production through the introduction and subsidisation of hybrid rice and maize seeds. These require yearly cash investments and access to state supplied inputs, a far cry from earlier upland ethnic minority livelihood strategies. In this paper we develop a conceptual framework that brings together an actor-oriented livelihoods approach with concepts from everyday politics and resistance, to examine the relations now at play as ethnic minorities, namely Hmong and Yao households in Lào Cai province, react to the introduction of these hybrid seeds, negotiate with the state over their use, and contest and subtly resist the wholesale adoption of this programme. Our framework takes us beyond an investigation into financial benefits and yields, to focus upon the social, cultural and political aspects inherent in upland farmer decision-making regarding state interventions. Our findings reveal that such agricultural programmes have resulted in new food insecurities and vulnerabilities overlaying more established concerns. Yet in turn, ethnic minority households evaluate these innovations according to their own terms, and have responded by negotiating, accommodating, and also contesting the state's initiatives using creative and innovative everyday politics and livelihood strategies. In so doing, they have worked to maintain autonomy over choices and decision-making vis-à-vis the economic, social and cultural reproduction of their household units; a delicate balancing act in a socialist state.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

At a conference on “Borderlands: Enclosure, Interaction and Transformation” organised by the Asian Borderlands Research Network in 2010, political scientist James C. Scott was invited to talk about his recent book *The art of not being governed. An anarchist history of upland Southeast Asia* (2009). In this, he argues that prior to World War Two the Southeast Asian uplands were a ‘zone of refuge’ for ethnic minorities wishing to remain largely outside state political control. Since then however, “the power of the state to deploy distance-demolishing technologies has changed the strategic balance of power between self-governing hill peoples and nation-states” (Scott, 2009, p. xii). In his conference remarks he stated categorically that anyone wanting to make claims about ethnic minorities still being able to withdraw from the state, post-World War Two, would be “on your own” (Scott, conference keynote address, 5 November 2010).

It is our contention here, that while certainly more directly under the state's gaze than ever before, ethnic minorities in the

northern mountainous region of the Socialist Republic of Vietnam are still able, in carefully negotiated, subtle ways, to contest the state's latest modernisation plans; plans that Scott argues were implemented “to ensure that [upland dwellers'] economic activity was legible, taxable, assessable, and confiscatable or, failing that, to replace it with forms of production that were” (Scott, 2009, p. 5). By drawing on Ben Kerkvliet's work on everyday politics (1995, 2003, 2005, 2009), and James Scott's earlier concept of everyday resistance (1985), while taking an actor-oriented livelihoods approach, we unravel the complexities of local minority reactions to state attempts to reshape upland agricultural production. We propose that the Vietnamese state's construction of upland modernising development programmes to increase rice productivity and food security has been met with differing degrees of resistance, reworking, and acceptance among upland dwellers, using creative and innovative everyday politics and livelihood strategies.

In Vietnam, rice is intimately linked to the country's food security and is a key element of government policy. A constant preoccupation of the central government concerns appropriate profit margins for farmers' rice, along with apprehensions over rice exports, maintaining rice storage systems, brand recognition, and ensuring food security and incomes for rural producers (IRIN, 14 April 2008; United Nations Vietnam, 2008; Vietnam News, 5 March

* Corresponding author. Tel.: +1 514 398 4955.

E-mail addresses: christine.bonnin@mail.mcgill.ca (C. Bonnin), sarah.turner@mcgill.ca (S. Turner).

2009). As the Vietnam Government has worked to improve food security in the country, government research institutes have been experimenting with new rice technologies, including hybrids.

Hybrid rice – as distinct from high yield variety (HYV) rice – is selectively bred for particular seed traits by crossing two genetically distinct parents, producing “heterosis or hybrid vigour” (Husain et al., 2001, p. 5). These seeds lose their capacity with successive replanting, thus farmers must buy new seeds for each planting season (Kloppenborg, 2004; Pray and Naseem, 2007). Hybrid rice seeds first gained popularity in China where they were diffused on a large scale from 1976. Because these were supplied by, and the final crop procured by the state, quality and seed cost did not limit the technology's adoption. However, since the early 1990s and economic liberalisation, hybrid rice adoption in China has been declining (Dalrymple, 1986; Husain et al., 2001). India and Bangladesh began trials of hybrids in the early 1990s, and in both locales farmer reactions have been mixed (Chengappa et al., 2003; Hossain et al., 2003). In Vietnam, hybrid rice seeds were first distributed in the early 1990s in the country's north. The socialist government has been working hard to increase the national coverage of hybrid rice and by 2008 it was being grown in 31 provinces in the north and five provinces in central Vietnam (Dang Quy Nhan et al., 2008).

In Vietnam however, the jury is still out. On the one hand, state officials contend that “Vietnam is considered the next ‘success story’ in hybrid rice adoption after China” (Dang Quy Nhan et al., 2008, p. 128); on the other, an analysis focusing on yield and economic returns has tended towards the negative (Tran Duc Vien and Nguyen Thi Duong Nga, 2009). What is deeply troubling is that despite staunch official enthusiasm (also applauded by the FAO, 2004a), we could find no research focusing on the social, cultural and political ramifications of the seeds' adoption in Vietnam. As such, the everyday realities and experiences of upland minority groups who have been strongly encouraged to grow these crops have been ignored. To help fill this gap, we focus here on ethnic minority farmers' socio-economic and cultural experiences of this rice, the implications for their broad livelihoods, and their interactions with a government relentlessly promoting hybrid seeds.¹

Since the country was reunified in 1975, the Vietnamese state has worked consistently to integrate highland ethnic minorities into the national economy, while incorporating them politically into the communist state and ideologically into the *Việt* nation. This integration has taken place by a variety of means including the extension of infrastructure into the highlands (including schemes for hydropower dam and roads), the delivery of education in the Vietnamese language, and the economic reorganisation of the uplands (including marketplace construction) (McElwee, 2004; Turner, 2011). In addition, upland agricultural production has been (re)shaped through numerous rural development plans and policies to encourage a transition from ‘backwards’ semi-subsistence farming to productivist agriculture based on ‘modern’ technologies. Nevertheless, despite these state manoeuvres, upland ethnic minorities have continued to remain relatively autonomous in both socio-political organisation and economic production (Michaud and Turner, 2000; Turner and Michaud, 2008).² Now, as the state advances these integration measures, ethnic minorities are increasingly faced with decisions regarding whether and how to diversify their livelihoods in response. Such processes are creating new sites and forms of compliance, contestation,

debate, and struggle (c.f. Edelman, 2001; Hollander and Einwohner, 2004; Kerkvliet, 2009).

The aim of this paper is to examine how ethnic minority Hmong and Yao household members in Lào Cai province, northern Vietnam (see Fig. 1), have responded to what we argue is one of the key elements in the state's push to (re)configure upland agricultural production in northern Vietnam; namely the introduction and subsidisation of hybrid seeds (see *SRV Resolution No. 30a/2008/NQ-CP*). We have three core objectives. First, to develop a conceptual framework that brings together an actor-oriented livelihoods approach with concepts from everyday politics and resistance, to better understand the role of agency and culturally rooted, ecological knowledge in ethnic minority Hmong and Yao livelihoods. Second, to investigate how ethnic minority households have reacted to these new hybrid seeds, their negotiations with the state over their use, and their livelihood trials and tribulations along the way. Third, to analyse the degree to which these individuals and households are flexing their agency as they reinterpret and rework widespread, state-run development programmes, to better understand whether the state has indeed managed to bring all “nonstate spaces and people to heel” (Scott, 2009, p. 4).

To meet these objectives, next we introduce the conceptual ideas that underpin our study. Then we present the actors at the heart of this investigation, before briefly examining the multiplicity of government programmes reorganising upland agricultural production, including hybrid seed distribution. We subsequently focus on the impacts of the hybrid rice programme, analysing the unanticipated consequences that uplanders have faced while adopting state sponsored seeds. We find a diversity of everyday politics at play as ethnic minority Hmong and Yao in Lào Cai province react – within the limits of a socialist political and upland agro-ecological context – to far-reaching macro-level policy initiatives and their unforeseen impacts.³

2. Actor-oriented livelihood approaches, everyday politics and resistance

A livelihoods approach offers an important critique of, and way forward from, earlier overly structural explanations of unequal development, demonstrating a more comprehensive understanding of the dynamic and complex nature of how people endeavour to create and sustain a meaningful living (Scoones, 2009). Although a diversity of livelihood frameworks has emerged, their core concerns include an attention to assets and vulnerabilities (the existence or lack of financial, physical, natural, social and human resources or ‘capitals’); the factors constraining or enabling access to mobilise these resources; and the activities or strategies that are undertaken, at individual, household and community/group levels (Chambers and Conway, 1991; de Haan and Zoomers, 2005). Awareness of the wider structural context in which livelihoods are rooted remains essential, as resource access and subsequent decisions regarding activities and strategies are shaped and

³ As hybrid varieties differ from the original Green Revolution HYV varieties, we do not undertake a further review of Green Revolution impacts in Asia (c.f. Griffin, 1979; Harris-White and Janakarajan, 1997; Yapa, 1979). However two differences, irrespective of rice type, are of interest. First, in upland northern Vietnam, Hmong and Yao – introduced next – manage semi-subsistence, household-based farms, within an agro-ecological environment that supports only limited land for rice; predominantly grown for *own consumption*, not the market (a distinction from lowland Vietnam and many other areas of Asia). Second, while there can be considerable differences in Hmong and Yao land holding size as an historical consequence of land allocation and customary inheritance practices, the introduction of hybrid seeds and associated technologies are *not* presently leading to social differentiation as occurred earlier in India with HYVs. Indeed, our research shows that households with larger landholdings tend to be those that *continue* to plant traditional rice varieties, rather than switching completely to hybrid seeds.

¹ Such promotion includes posters on markets, government buildings, local stores, and houses extolling the virtues of hybrid seeds, calendars distributed to households with similar advertising, loudspeaker announcements of seed qualities broadcast in communes and towns, and extension service officials supporting these seeds visiting local communes.

² By autonomous we are not suggesting autarkic. Never entirely self-sufficient, the monetary economy has always played a role in these highlanders' livelihoods and they have regularly undertaken small-scale trade.



Fig. 1. Lào Cai province, northern Vietnam.

mediated not only by economic opportunities, but by social–institutional processes, including social relations, ideologies, local/customary rules, state-based policies and development programmes, across a range of scales (Ellis, 2000; Scoones, 2009).

Livelihoods that are resilient in terms of their capacity to respond and adapt to change and uncertainty are conceptualised as ‘sustainable.’ According to Chambers and Conway (1991, p. 6) a sustainable livelihood is one that can ‘cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term’. A sustainable livelihoods approach stresses the importance of considering the ‘long-term flexibility’ of livelihoods (de Haan and Zoomers, 2005, p. 31) including how access to different types of capital – such as hybrid seeds, the financial capital to purchase them, the physical capital to transport them, and the human and social capital to maximise productivity – might alter livelihoods over time (c.f. Ellis, 2000; Murray, 2002).

Despite its appeal however, a recurring criticism of the livelihoods approach is a failure to acknowledge and understand the everyday politics of rural, local individuals, in large part because of a continued focus on the economic aspects of livelihoods. Consequently, a more inclusive, actor-oriented approach that recognises and incorporates the context-specific cultural, historical, gender, spatial, and power dynamics of livelihoods is warranted (Arce and Long, 2000; Bebbington, 1999, 2000; Long, 2001). Power and politics are central elements influencing individual and group access to resources, particularly through formal and informal social–institutional processes that mediate livelihood strategies and trajectories (Ashley and Carney, 1999, p. 35; de Haan and Zoomers, 2005, p. 33; Scoones, 2009, p. 180). While keeping in mind potential limits on one’s actions in the face of wider structuring ele-

ments, an actor-oriented approach places central emphasis on an individual’s agency in constructing their life world and negotiating power relations (Drinkwater, 1992; Long, 2002, 2004).

We suggest that everyday politics and resistance are two concepts that can help us better understand the construction of these life worlds. Everyday politics have been defined by Ben Kerkvliet (2009, p. 232) as including ‘people embracing, complying with, adjusting, and contesting norms and rules regarding authority over, production of, or allocation of resources and doing so in quiet, mundane, and subtle expressions and acts that are rarely organised or direct’. Specifically, Kerkvliet (2009, p. 233) sub-divides everyday politics into four categories: ‘support, compliance, modifications and evasions, and resistance’. Such approaches seldom entail consciously organised efforts, and tend to remain low profile and private forms of behaviour. Indeed, such actions are undertaken by individuals unlikely to even consider their actions as political (Kerkvliet, 2009, p. 233).

Conceptually more established than everyday politics, the literature on resistance is also more extensive, spanning peaceful or forceful overt forms such as social movements and protests, to more covert approaches (Amoore, 2005; Edelman, 2005; Sharp et al., 2000). Of direct relevance to our case concerning ethnic minorities in a socialist state, and to the everyday politics approach above, are everyday forms of covert resistance. James Scott (1985, 1990) defines these as individual or collective tactics undertaken by workers and small-scale farmers trying to reduce inequalities and protect their material and physical interests. These are never openly declared, formal challenges, but might include such approaches as discreetly stealing landlord seeds or small portions of harvested crops, covertly destroying farm equipment, working slowly, and, in the case discussed here, manoeuvring around state development objectives. It is their clandestine approach that makes these tactics effective, distinguishing them from more overt

forms of resistance (Scott and Kerkvliet, 1986; Kerkvliet, 1990, 2005; Turner and Caouette, 2009; Walker, 2009).⁴ At the heart of these everyday acts are struggles over the rights and possibilities for making a materially viable and culturally meaningful living.

However, it is important not to romanticise such forms of resistance. Bebbington (2000, p. 498) argues that there has been a tendency within the development resistance literature to “essentialize peasant motivation and to invoke voluntaristic interpretations of cultural politics”. He suggests that by re-embedding resistance interpretations within an analysis of livelihoods practices in order to “[make] clearer how very situated are such practices and politics, then we might anticipate forms of political behaviour and responses to development that are neither necessarily resistant nor antipathetic to the logics of markets and modernity” (Bebbington, 2000, p. 498). This argument supports our use of a framework that builds not only upon everyday resistance literature, but also an actor-oriented livelihoods approach and an everyday politics lens.

To put our framework to task, we analyse data gathered during long-term field research in Lào Cai province. During January–July 2009 and June 2010, semi-structured and conversational interviews were completed with 37 Hmong and Yao rice producers in Sa Pa district, Lào Cai province, twelve traders of different ethnicities selling rice seed in local markets throughout the province, three rice distribution state officials, and three representatives from an international non-governmental organisation (NGO) concerned with upland rural development. These data are supplemented by information gathered since 1999 from ten People’s Committee representatives at the district and provincial levels; and from over thirty oral histories with long term residents in the province including male and female Hmong, Yao, Tày and Vietnamese regarding upland, rural livelihood strategies. Furthermore, additional discussions with traders and farmers across Lào Cai province and other highland provinces (Lai Châu, Yên Bái, Hà Giang) corroborate our evidence.⁵

3. People and the state in the northern Vietnam uplands

3.1. Hmong and Yao rice cultivators in Lào Cai province

Fifty-four officially recognised ethnic groups reside in Vietnam including lowland Vietnamese (*Kinh*). Among the national minorities (*các dân tộc thiểu số*), the Hmong and Yao together comprised 1.8 million of the country’s population of 85.8 million at the time of the 2009 census (Socialist Republic of Vietnam, 2010), consisting of, respectively, the fifth and seventh most numerically important ethnic minorities. In Lào Cai province, one of the most northern upland provinces in Vietnam, sharing a border with China’s Yunnan province, Hmong and Yao constitute the largest ethnic minority groups along with the Tày. Rice and maize have always been the mainstay of Hmong and Yao livelihoods here (Culas and Michaud, 2004), but we focus on those concentrating on rice production, given the government’s preoccupation with this crop vis-à-vis national food security. Indeed, within Lào Cai it is officially estimated that between 50% and 60% of the population are vulnerable to food insecurity (FAO, 2004b, p. 16; see also Pandey et al., 2006).

⁴ This approach is critiqued by Pelzer White (1986), Hart (1991), and Korovkin (2000) who disagree with aggregating a wide range of farmer practices and labelling them as ‘resistance’ (see also Popkin, 1979; Bernstein and Byres, 2001). We attempt to disaggregate farmer approaches here.

⁵ Interviews with Hmong and Yao were completed with the help of Hmong and Yao interpreters; those with Vietnamese were completed either with or without interpreters. We are cognisant that every Hmong and Yao individual and household in upland Northern Vietnam may have different livelihood strategies, and by no means have we covered them all. Our objective instead, is to explore a range of local approaches and coping strategies. All names are pseudonyms.

Nowadays Hmong and Yao annually harvest one subsistence rice crop in high elevation districts due to topographic and climatic conditions. In such areas, a household that does not produce enough rice for the year is considered poor by Hmong and Yao endogenous wealth definitions. The household remains the primary economic unit, tending to look after its own rice fields. Both Hmong and Yao are patrilineal and when a son marries, following clanic exogamy, he inherits his own fields. In the context of the northern highlands – an agro-ecological environment with limited areas capable of supporting irrigated paddy cultivation – this practice combines with factors such as population growth, state-sponsored sedentarisation, land allocation and resettlement schemes to put intense pressure on available arable land (World Bank, 2009). If a household finds itself short of land, members may pool resources with kin or, failing that, may purchase additional rice fields, although more commonly these are rented following a number of informal procedures.⁶

Completing these livelihoods, Hmong and Yao maintain small produce gardens for everyday use, while some also depend upon rotational swidden plots, albeit officially banned. The collection of forest products provides further food such as honey and game, as well as medicinal herbs. To supplement these predominantly subsistence livelihoods, highlanders also engage in small-scale commercial exchanges, gaining cash via the sale of cultivated cardamom, textiles, livestock, and rice and maize alcohol (c.f. Leisz et al., 2004; Tugault-Lafleur and Turner, 2010; Vuong Duy Quang, 2004).

3.2. State development programmes in the mountainous north

During successive Vietnamese states, a fundamental preoccupation has been with the assimilation of ethnic minority peoples; helping the highlands to ‘catch up’ with the lowlands in terms of economic productivity and market integration (McElwee, 2004; Sowerwine, 2004; Turner and Michaud, 2009). Prior to economic renovation (*đổi mới*) – which state officials publicly subscribed to in 1986 – government discourse concerning upland minorities was couched in terms of ‘sedentarisation’ and ‘resettlement’; attempting to promote fixed agriculture and eliminate shifting cultivation.⁷ This discourse continues to underlie current policies although the language has shifted since the early 1990s towards ‘poverty alleviation’ and ‘socio-economic development’ (Nguyen Thi Thu Phuong and Baulch, 2007, p. 4; Pham Anh Tuan, 2009).

By 1998 there were 21 different national policies and projects aimed at driving development in ethnic minority and upland areas. Some have since been amalgamated, but the list remains diverse (Nguyen Thi Thu Phuong and Baulch, 2007, p. 1). Among the most far reaching are the Programme for Socio-Economic Development of Extremely Difficult Communes in Ethnic, Mountainous, Boundary and Remote Areas (Programme 135), and the Hunger Eradication and Poverty Reduction Programme (HEPR, or Programme 143). Others focus more specifically on land, forest, education and health. Ethnic minorities living in the northern uplands are

⁶ Hmong and Yao interviewees explained that land may be borrowed for a certain time for cash, with the original ‘owner’ often using the funds to purchase livestock for breeding in the meantime. At the end of the agreed upon period, the owner returns the money in exchange for their original land. Alternatively, some land-short individuals may work other people’s land with the rice harvest split 50/50.

⁷ The state continues to blame shifting cultivation practices for poverty and environmental destruction although this is contested by numerous analysts who explain that its non-sustainability relates to factors such as increasing population pressures, land shortages, commercial deforestation, and natural disaster, rather than to this landscape management system itself (see Corlin, 2004; Sowerwine, 2004; Vien Tran Duc et al., 2006). Land pressure is also directly related to state campaigns that encouraged mass migrations of lowland Kinh to upland areas during the 1960s and 1970s (Corlin, 2004).

therefore currently entitled to a complex array of support from a diversity of state sources, which can be on an ongoing basis, seasonal, ad hoc, or arrive in the shape of one-time emergency assistance.

A key component of both Programmes 135 and 143 is the provision of agricultural extension and technology. Farmers' access to improved varieties of rice, maize or cassava is ensured via either subsidised or free seeds (Swinkels and Turk, 2006, p. 9). Officially, this support aims to increase agricultural production yields and improve local food security. The state also encourages hybrids so as to promote 'high quality rice' through controlling consistency, as opposed to the typical upland rice cultivator approach of planting a range of rice. For upland farmers, adapting this method of combining a variety of rice seed types has been an essential strategy for mitigating the risk of crop failures within an upland context where climate conditions can fluctuate dramatically from year to year, as well as because different local varieties fulfil a number of culturally-specific purposes. Yet, this 'mix' is not viewed by the state as marketable nor valuable (UNEP, 2005, p. 31), and until now there appears to be little official concern with local biodiversity.

Government Decree 20/1998/ND-CP, promulgated in 1998, introduced price subsidies for agricultural inputs (hybrid seeds, fertilisers and pesticides) in communes classified as upland and ethnic minority areas ('Zone 3' communes), to equalise input costs with lowland areas (Oxfam, 2001). The majority of upland communes in Lào Cai fall under this classification. Although the provision of agricultural inputs is guided through national-level frameworks, the practical mechanisms by which this occurs vary widely (Nguyen Thi Thu Phuong and Baulch, 2007; author observations). The Ministry of Trade and Commerce coordinates and directs the implementation of Decree 20, however provincial governments themselves are tasked with deciding how to assign subsidy rates (Lùng Phìn commune official interview, 22 March 2009; Oxfam, 2001, p. 40). Consequently, subsidies both between and within provinces can be inconsistent. Subsidised hybrid seeds are then delivered to district and/or commune distribution centres by the provincial Seed and Agricultural Services Company, with fertilisers distributed by the provincial Agricultural Materials Company (a semi-private, joint-stock corporation). Subsidised rice seeds and inputs are not generally distributed beyond these centres, due to administrative and financial constraints. This results in targeted households living in more remote hamlets having to travel long distances to gain these inputs, with additional difficulties if road conditions are poor or transportation lacking (Oxfam, 2001, pp. 41–42). Such struggles led us to delve further into local reactions to the implementation of these programmes.

4. At what price rice?

The current programmes of hybrid rice seed and input support began in Lào Cai province in 1999. Initially introduced as free seeds, since 2001 the Lào Cai provincial government has provided a 30 per cent price subsidy on hybrids to specific communes. According to a 2003 study focusing on Mường Khương district, this has resulted in an average increase in rice yield productivity of between 30% and 50% (DFID and LCPC, 2003, p. 13). Fertiliser is also subsidised, sometimes supplied without cost via the sedentarisation programme. Despite claims of improved returns, NGO officials working in Lào Cai province noted that Hmong and Yao households were initially reluctant to switch to the new seeds. Consequently, in one district, government officials asked Tày households in a commune situated far lower in a valley – with a better suited micro-climate than reluctant Hmong and Yao hamlets – to plant the rice as a trial, 'model village' (NGO local officials, 2 March 2009).

Although Hmong and Yao have since taken up hybrid seed cultivation, they have remained cautious of becoming entirely dependent upon these new technologies, adopting the new seeds at different rates and to different extents.

Hmong and Yao interviewees explained that prior to the introduction of hybrid varieties, if a household did not have sufficient rice for the year, they would make do eating potatoes, maize and cassava. However, this was now seen by interviewees as a temporary strategy that households turn to only in times of emergency. Rice is the preferred staple and few are now willing to substitute it with other foods unless absolutely required (c.f. Castella and Erout, 2002, p. 180). Xang, a male Hmong farmer, summed up what many interviewees noted; the government subsidised rice is 'better for production' but Hmong traditional rice tastes far superior (31 January 2009).⁸ A paradox has thus emerged. Hybrid seeds are viewed positively due to increased output levels (usually), but deep-seated apprehensions remain, not just over taste, but due to the wholesale reliance on the government's management of the subsidised programme.

4.1. Tasty rice versus practical rice

Hmong interviewees recalled that previously in their hamlets 'everyone grew Hmong rice' (also known as 'traditional rice') which grows taller but gives less yield per stalk than the recently introduced hybrids. Hybrid rice is planted close together in paddy fields, produces a short stem and is sown in bunches of 2–3 plants, while traditional Hmong rice requires more space between seedlings and is transplanted in bunches of 5–6 plants. For Hmong and Yao households facing decreasing areas of cultivatable paddy fields, replacing traditional rice with the new seeds is therefore one intensification strategy for coping with land constraints. At the same time, the central role that rice plays within both Hmong and Yao identity, customs, beliefs, health practices, and in sustaining social relations, means that households continue to try to dedicate a small area of their terraces to traditional varieties, especially sticky rice, important for a number of cultural rituals and celebrations, particularly New Year festivities. Interviewees reported growing between 1 and 8 varieties of traditional rice.⁹ Dry rice is also grown by a few families in small quantities as an emergency food supply and for livestock feed, though this is now perceived as very labour intensive due to the substantial weeding required, and maize is more commonly cultivated to serve these functions. Reflecting a global trend, no hybrid seeds are available for dry, upland rice, perhaps also due to the state's association of the latter with shifting cultivation.

The window of opportunity for sowing traditional rice seeds is wider than for hybrids, allowing human and draft animal labour to be shared among households, as well as the completion of other household duties. Moreover, interviewees noted that after harvesting, the stalks of traditional rice can be fed to buffalo – essential for ploughing the steep terraced rice fields – but hybrid stalks are too tough. This means that nowadays, farmers must seek other feed sources for their buffalo, often travelling beyond their district, and at times the province, to find suitable grass for feed. This results in increased human and physical capital outlays (labour and

⁸ Hmong interviewees estimated they can grow 600–800 kg of rice from 10 kg of hybrid seeds, without extensive chemical fertiliser and depending on climatic conditions. If fertiliser is applied this can rise to 1200–1500 kg. In comparison, from 10 kg of traditional seeds, Hmong interviewees deduced they can grow 500–600 kg of rice.

⁹ Today, some land-strapped households will continue to sow a minute area with traditional varieties to maintain their seed stock. Kin or community-based systems of reciprocal exchange with traditional variety growers (such as hybrid seeds for local seeds or grain) help to ensure that these varieties can still be accessed if needed (Lu, 6 June 2009).

transportation), and more stress on the local environment as opposed to the consumption of a rice by-product.

Each and every Hmong and Yao farmer we interviewed was adamant that their traditional rice tastes much better than current 'Chinese rice' (as locals call the hybrid, owing to the fact that it is predominantly imported from China) which they think tastes 'only so-so'.¹⁰ As a young female Hmong farmer, May (15 February 2009) noted, 'we'll eat it if we have to, to get through the year'. Hmong farmer Kia (27 June 2009) elaborated, 'Hmong rice is a little bit softer to eat, it smells good, and tastes better'; while Shu (27 June 2009) added 'Hmong rice tastes better because it is stickier and nicer to eat. But Chinese rice produces more so that makes people think that it is better'. Interviewees also explained the superior cooking characteristics of traditional rice which retains its quality throughout the day, while Chinese rice has to be eaten immediately after it is prepared to taste best. Traditional rice also produces a greater sense of being satiated or, as May (27 June 2009) explained, traditional rice 'is a little bit like sticky rice, so it makes you feel fuller when you eat it'.

Overwhelmingly, interviewees explained that if they could – in relation to food security needs, rice terrace size, and number of sons that land must be divided among – they would *only* grow traditional varieties given quality preferences and other factors discussed below. Many associate traditional rice with wealth: those still growing relatively large proportions of it on their terraces are considered 'rich households' because they tend to have more land holdings. Hmong and Yao interviewees explained that when their land is no longer sufficient to grow enough traditional rice for household needs, then the decision is made to switch to 'Chinese rice'; but only then. Undeniably, changes in the size of household land parcels, for reasons discussed above, are an ongoing factor in the negotiations that households make over when and whether to change to hybrid varieties. For example, a Hmong woman, Shu (15 February 2009), noted that because her grandfather had only one son, all the rice terraces had passed to her father, and in 2010 her family, considered 'rich' by local Hmong standards, was still able to grow a majority of traditional Hmong rice, purchasing only 5–10 kg of hybrid seeds; whereas other households nearby were oftentimes purchasing 20–25 kg. However Shu has two brothers and now has five nephews, so she foresees a need to turn to harvesting Chinese hybrid rice in the future, a prediction she feels resigned to.

4.2. Increased financial outlays

In comparison to traditional seeds, for which a portion of harvested seed is selected by farmers and stored for next year's planting, farmers must purchase hybrid seeds annually. As has been found elsewhere in Asia, the costs of cultivating hybrid seeds are far greater than traditional varieties; not only do they have to be bought, but they also require additional outlays of financial capital for fertilisers and pesticides (as well as requiring regular irrigation supplies) (Husain et al., 2001; Tran Duc Vien and Nguyen Thi Duong Nga, 2009). For instance, in Lào Cai province, hybrid rice seeds are often between 5 and 10 times more expensive to grow than local seeds (DFID and LCPC, 2003, p. 21). While in theory these additional overheads are offset by improved yields, farmers are often discouraged by this need for increased financial and physical capital investment (Oxfam, 2001, p. 42).

Not surprisingly, given such expenses, Hmong and Yao interviewees consider their traditional rice to be far more practical than

hybrid seeds as, from the former, 'you can save some seeds and grow from those each year' (Bao, Hmong farmer, 31 February 2009). In comparison, the annual purchasing of hybrid seeds demands an additional household cash flow. Moreover, hybrid seeds require repeated applications of chemical fertilisers: when seeds are initially sown; during transplanting; and then at least twice during the growing season. The subsidy on fertiliser for hybrid seeds is minimal, and the government aims to phase this out once farmers reach 'sustainable' production levels (Hoang Xuan Thanh and Neefjes, 2005, p. 15). Indeed, such fertilisers are considered by farmers to be the most costly aspect of cultivating hybrids. In comparison, interviewees explained that traditional rice varieties need only be fertilised twice. Fertiliser for traditional rice varieties tends to be derived from local, organic sources: a mix of dried buffalo dung and ash that farmers gather themselves from kitchen fires, hence reducing financial costs considerably. Hybrid seeds have also been found to be susceptible to a broader range of disease and pests than traditional rice in the region, so chemical control is needed, adding further financial capital outlays (c.f. Nguyen et al., 2005, p. 20).

Prices for hybrid seeds themselves are also rising rapidly due to the increasing cost of imports from China. Hmong and Yao informants noted that in 2005–2006, one kilogram of rice seed from government supply centres had cost 12,000 Vietnamese dong (VND), whereas in 2009 this rose to 28,000–30,000VND/kg.¹¹ This increase was confirmed by Kinh rice distribution officials in Bắc Hà district (22 March 2009). Nevertheless, prices from small-scale traders in the province, some of whom cross to China to privately import seed, remain even higher, with our investigations in border marketplaces in Si Ma Cai, Mường Khương and Bát Xát districts revealing a kilogram of hybrid seeds in 2009 selling between 40,000VND and 80,000VND.

4.3. Delivery and access

Despite private traders charging higher prices, consumers purchase from them due to a number of problems concerning government delivery of subsidised varieties. One Hmong interviewee, Pao, from Tả Phìn commune in Sa Pa District, explained that there, each year between December and the end of January, households must register their seed requirements by volume and type. By February, the commune is obligated to submit the finalised information to the district. For households who require greater time flexibility in reporting their requests, such a system poses a number of problems. As landholding size is becoming squeezed, Hmong decision-making regarding food security must often shift on an annual basis. For example, households with sufficient or surplus land who need to have immediate access to cash or wish to purchase livestock may choose to 'rent' some of their terraces for a season to a household in need. However, these decisions only tend to be settled around March, closer to the planting season, but well after households must report their seed requirements to the commune.

Rice planting timing was recurrently noted as a critical concern for local farmers: stocks of rice seeds often do not arrive punctually at the official distribution centre, pushing the planting season back by 2–4 weeks and adding anxiety over growing and harvest timing vis-à-vis the rainy season. One Hmong interviewee, Kia, explained that her family never purchases all their rice seed from the government distributor, not trusting that it will arrive in time for optimal planting. Her father prefers to travel to *phố Lu* (on the Red River, approximately 75 km away) and buy seed there instead from private merchants, regardless of the increased expense. Another Hmong farmer, Pa explained 'sometimes people get very angry if

¹⁰ Up to 80% of Vietnam's hybrid seeds are supplied by China because Vietnam's domestic supply cannot keep up with demand. The state is attempting to boost domestic hybrid seed production to reduce dependency on these imports (Tran Duc Vien and Nguyen Thi Duong Nga, 2009).

¹¹ At the time of writing, the exchange rate was 1 USD ~ 20,000 VND.

they have to wait a very long time, because other people have their rice, but if yours is late it grows slowly and it does not grow as well' (26 February 2009).

Some Hmong and Yao households also wish to purchase rice seed *earlier* than it is available from government distribution centres. These households rely upon indigenous knowledge of seasonal planting calendars and local weather patterns to determine optimal sowing times, a factor ignored by the government delivery schedule. The change in the decision-making process regarding the planting period is striking here: for traditional rice, this period is announced by the first shrill sounds of cicada calls; for hybrid seeds it is announced by the sound of the delivery truck horn. Also, rice planted at higher altitudes can take longer to mature; hence households with terraces situated at greater elevations prefer to plant earlier. Moreover, interviewees explained that following the delivery schedules of the government means that households of a given area are all planting simultaneously, leaving limited leeway for labour exchanges within or beyond kin groups. Given this labour crunch, some households are starting to employ labour from outside the immediate area, such as Lu May, a Yao farmer who employs 2–3 ethnic minority Nùng from neighbouring Lai Châu province for 3 or 4 days during the transplanting period (Lu May, 29 March 2007). To pay the labourers, she began selling textiles to tourists visiting her hamlet (a strategy reported by Hmong farmers too).

Even more distressing for informants are the occasions when rice stocks at distribution centres simply run out. District authorities sometimes estimate the quantity of rice seed a particular commune will require, based on (often outdated) data of commune landholdings. Since the amount of land actually under cultivation in a commune is frequently greater than that statistically reported, when the distribution centre receives the seeds, supplies are insufficient to meet demand. This problem is exacerbated by people deciding to borrow extra land for rice cultivation, as noted earlier. Additionally, although commune households are asked in advance how much rice seed they require, individuals are free to then purchase greater quantities directly from distribution centres. One Hmong interviewee, May, explained 'this makes people very angry and they either have to wait for a new supply – because we will have paid for it in advance from the government – or buy the seeds themselves, which is more expensive' (21 February 2009). Xi, a Hmong respondent from a different commune reiterated that in such circumstances 'people get angry. Because if you've given them your name, or put down your thumb print [as a signature], but when you go to collect the seeds they are finished and they say "sorry" to you, you get angry – even you [nodding at us] would get angry' (Xi, 20 February 2009). These examples highlight very pressing reasons why upland farmers feel hesitant to depend on the state programme of seed distribution, preferring to retain back-up or alternate methods for accessing rice seed.

4.4. Sensitive rice – climate and topography

Hybrid seeds record the most favourable growth under very specific conditions and hence they do not always succeed optimally within the extremely wide diversity of growing environments that characterises upland Vietnam (Nguyen et al., 2005, p. 20). This was a repeated concern among interviewees. A commune in Sa Pa district had their entire hybrid crop fail in 2004 and again in 2008, yet the government had not been forthcoming with financial support. One young Hmong woman, Kia, recalling the earlier disaster, explained 'the government rice there didn't form any rice heads – only tall stems – and the families there went short of rice for the year. The government didn't help them out with extra funds or anything and the families had to eat a mix of rice and maize flour for the year and potatoes' (21 February 2009; NGO local offi-

cial, 2 March 2009). Many Hmong and Yao explained that this situation had occurred because the government supplied an inappropriate type of seeds. Needless to say, each year there is a high degree of wariness as to whether suitable seeds will be provided.

Given their historical reliance on the environment, Yao and Hmong individuals are intimately in tune with local climatic and topographic conditions, and they know exactly which hamlets are having problems with the government subsidised rice. In Tả Van, a commune in Sa Pa district, Chue carefully detailed that 'it depends on if the temperature is very good, if the winds don't come, if the rain comes, then if the flower is right' (20 February 2009). Besides deciding to purchase rice seed privately because of concerns over official delivery times, and ability to meet local demand, some households do so because they do not trust the government's seed selection. Choice is highly centralised. At the distribution centres we visited there were only ever two (often differing by centre) seed types available, while a greater range of options are available from petty traders in upland marketplaces. One Yao interviewee, Chao Ta May (17 March 2009), noted that in the previous year only 80% of her subsidised hybrid rice crop had germinated, and that which did 'was not good to eat'. She explained that members of her hamlet had approached local officials and asked for a specific type of rice seed to be made available; they knew from experience the precise type that was most appropriate to their local environment, yet their requests were ignored. Chao Ta May explained that in late 2008 she had to buy rice to eat because the seed types supplied did not produce enough rice for her household's annual consumption, a common situation in her commune. In order to prevent this from happening again, in early 2009 she and her husband travelled to Lào Cai city to purchase their choice of seed from private traders.

5. Everyday politics of rice in the uplands

As noted earlier, the majority of Hmong and Yao with whom we spoke reported that, overall, hybrid rice is a 'good thing'; they now have enough rice to see them through the year, and their annual food security – in most cases – has improved. Indeed, some farmers are even willing to travel great distances in order to access hybrid rice seeds privately or from another distribution centre. But yet, paradoxically, Hmong and Yao also perceive that the government's upland programmes and related changes in their agricultural livelihoods are frequently leaving them more vulnerable; having to cope with *reduced* food security. Uplanders are keenly aware of the new assortment of shifting vulnerabilities now embedded in their livelihoods due to the state's subsidised rice programme being superimposed over existing, long term concerns, such as land availability, climatic variability and buffalo well-being.

Being in such a situation – learning to cope with and make the most of opportunities that arrive from 'the outside' such as government interventions – is not new to minority upland agriculturalists. Commencing in the 1800s with government encouragement, opium production formed part of their economy, until cultivation was forbidden by Vietnamese State Decree 327 and Decree 06/CP in the early 1990s.¹² An historical trade in timber with lowlanders and Han Chinese was also a supplementary economic opening, until the state banned such practices during the same period (Vuong Xuan Tinh, 2001). During the core period of collectivisation in the northern uplands in the 1960s, highlanders also 'made the best of it', deciding just how far they would take up state directives, or alternatively how

¹² The cultivation of the opium poppy was already discouraged by the state in earlier directives, but eradication programmes were not wholly implemented until the 1990s (UNODC, 2003).

they could 'work within the cracks' of the system. More recently, some Hmong and Yao households have engaged in the small-scale trade of highland textiles, become involved in local tourism activities, and have extended their trade in forest products, especially cardamom for which there is strong demand in China (Turner, 2007; in press). These livelihood choices have frequently been responses to external factors. Changing political regimes, government decrees, new border regulations, and fluctuating demand for specific goods from Vietnamese lowlanders, consumers in China, and tourists, have each led highlanders to search for new opportunities. Similarly, hybrid seeds arrived in Lào Cai province from the 'outside' and are correspondingly negotiated by ethnic minorities drawing upon historically rooted local understandings of livelihood response, adaptability and flexibility.

We are witness here to individuals and households acting and adjusting to what the state hopes to make the norm regarding the composition and allocation of rice resources in the uplands. Without a doubt, a key aim behind promoting hybrid rice is to improve food security, but we also argue that the way this is being implemented is linked to the state's desire to control how upland agriculture is being pursued, according to a lowland model of agricultural modernisation and homogeneity. The state has ushered in and is pushing a capital-intensive agricultural system based on external inputs, that demands a monetary system far beyond historical levels in the uplands. Cash flow has suddenly become a much greater cause for concern for these households than ever before, resulting in further shifts towards market integration for subsistence producers. Nevertheless, as has been found among Yao and Tày uplanders elsewhere in the northern Vietnam highlands, 'having been subjected for years to policies developed far away, with little preference given to their own thoughts and opinions, it is not surprising that farmers are ambivalent about the benefits of participating in 'remotely controlled' top-down development projects' (Alther et al., 2002, p. 144).

Among Hmong and Yao rice cultivators we observe coping mechanisms and tactics that are part and parcel of these highlanders' everyday politics, linked to the ongoing evaluation of agricultural innovations. These everyday politics certainly involve complying with and adjusting to, but also quietly contesting, the socialist state's latest efforts to control the distribution of resources in the uplands. As has been shown in the above analyses, for some this means sidetracking from the wishes of the Vietnamese state in subtle, 'under the radar' ways, such as holding out for as long as possible and continuing to grow traditional rice while their family land share is large enough (c.f. Nguyen et al., 2005). Other Hmong and Yao have adopted the new seeds, but with a reasonable scepticism regarding the local government's ability to provide appropriate varieties and quantities at the right time. Farmers hence work the system to gain suitable seed supplies through kin or community exchanges or else in local markets, while maintaining a series of 'back up plans', such as retaining maize, dry rice and traditional wet rice crops. At times of hybrid crop failure or reduced yields, uplanders temporarily fall back on century-old understandings of food security, drawing upon upland crops and food sources from the forest, as they have done in the past, including during the 1979 China–Vietnam border war (Tugault-Lafleur and Turner, 2009).

Indeed, to inform livelihood decision-making processes in light of the state subsidised rice programme and as a means of coping with unforeseen consequences – hence reducing livelihood vulnerabilities – a diverse range of social networks, informal information channels, and agricultural strategies are called upon by local households. We have seen here how these range from borrowing or renting land, buffalo and labour, to carefully adjusting and managing annual livelihood calendars. Hmong and Yao households grapple with delivery delays of hybrid rice seed, and if necessary

will hop on the back of a relative's motorbike and venture beyond the local district or province to gain access to a wider variety of rice seed. Due in part to clan exogamy, knowledge is exchanged among extended family members from different hamlets and communes during visits, and among friends in weekly marketplaces, so that individuals relay information across broad regions regarding planting conditions, seed availability, fears over water scarcity, and crop failures.

Accommodating, taking on board elements of, or at times tacitly opposing the government programmes, these diverse highlander responses have led to strategic adaptations regarding seed purchasing, crop diversification, and planting techniques that align with Hmong and Yao livelihood needs, cultural priorities and agro-ecological circumstances. We suggest upland Hmong and Yao farmers are resisting a total reliance on state programmes in favour of retaining a diversity of old and new options for meeting their rice-production needs. Here, resistance can be viewed as upland farmers' struggles to maintain autonomy over the economic, social and cultural reproduction of their household units (c.f. Schneider and Niederle, 2010). Yet, in considering these responses as expressions of autonomy and resistance it is not our intent to idealise the competencies of upland farmers, but rather to highlight the actuality of their spaces to manoeuvre and their openness to adapt and improvise in the face of external constraints, and by doing so, to rework the state's project to meet their own needs. In striving to keep a number of different mechanisms of access open, upland households work to achieve stability and reduce risk by continuing to assert a measure of control over their resource base. This flexible and multi-faceted approach has, in and of itself, proven to be a key livelihood decision, enabling households to grapple with shifting circumstances and externally imposed interventions, the benefits of which have waxed and waned. A composite approach to livelihoods that includes the adoption of new practices, but a firm resolution to maintain others rooted in local cultural knowledge and practical experience, has been decided to be the most judicious tactic of the day.

One might ask at this stage why more progressive, local level state officials have not acknowledged some of the short-comings of recent state interventions and flexed their own agency to make improvements? It appears that a number of factors currently prevent this from occurring. First, agricultural training sessions are conducted by provincial Centres for Agricultural Extension (World Bank, 2009). While these could be a platform for the state to receive feedback from farmers regarding the seed programme and other issues of importance to them; as it stands, extension programmes are designed at the provincial level and local extension officers select farmers to participate. The sessions are conducted predominantly in Vietnamese and require that participants be literate, excluding many ethnic minorities. Moreover, extension policies are entirely production-focussed, rather than being oriented around current livelihood realities *per se*. As such they 'aim to alter existing farming systems rather than complement them; these "models" make no attempt to build on existing traditional farming systems, and no efforts are made to blend new farming methods with traditional ones in a way that does not compromise subsistence needs while attempting to boost production for the market' (World Bank, 2009, p. 184). Farmers have no satisfactory mechanism to report their experiences regarding local agricultural conditions or their problem-solving techniques to officials in order to inform and improve services.¹³

¹³ While there is evidence that the central Vietnamese state has recently begun to formally acknowledge the importance of traditional farming and household seed distribution systems for agricultural biodiversity conservation (e.g. Decision No. 35/2008/QĐ-BNN) it remains to be seen how this national policy will be implemented at the local level in the uplands.

6. Concluding thoughts: reworking the state's project

While it is fairly obvious to suggest that the Vietnamese state has tended to have fixed ideas regarding increasing productivity of wet rice in both the lowlands and the uplands, and in expanding capital-intensive wet rice production at the expense of shifting cultivation; is it realistic to extend the argument and propose that the state is promoting hybrid rice in the uplands in order to accelerate market and other forms of integration of ethnic minorities? James C. Scott (2009) maintains that the task to integrate and monetise all peripheral nonstate spaces and people into modern states, has been one of the core projects consistently pursued by Southeast Asian states over the past century; regardless of these states' ideological differences otherwise. As noted in our introduction, this approach has been pursued to make these people assessable, taxable, and their outputs confiscatable (Scott, 2009, p. 5). We propose that similar examples are evident today in northern upland Vietnam. The Vietnamese state has banned swidden agriculture and introduced numerous policies to permanently settle upland farmers; open common-property rights more attuned with upland farming practices have – since the end of the co-operatives and the passing of the 1993 Land Law – been rejected in place of household use-rights (Corlin, 2004). Forests are now under strict control in the name of biodiversity conservation and access to former common-property resources is firmly curtailed; while mono-cropping and cash crops are being increasingly encouraged (Rambo, 2004; Fox et al., 2009). Alongside such a plethora of state-making and territorialisation processes, we argue that it is reasonable to suggest that state programmes that reorganise upland agricultural production while promoting hybrid rice, are accelerating market and agricultural integration of upland minorities. We see here a state apparatus intent on moving uplanders beyond 'backwards' upland agricultural practices and into more 'modern' forms (see also Pandey et al., 2006, pp. 92–93). Concurrently, Hmong and Yao upland farmers, who have faced constantly changing political circumstances and development initiatives throughout history, continue to build upon culturally-rooted knowledge systems and subtle everyday politics to cope best with new macro-structural interventions that are part and parcel of the government's national food security agenda.

In sum, the conceptual framework developed here, by incorporating the notions of everyday politics and resistance into an actor-oriented livelihoods approach, took us beyond an investigation into financial benefits and yields, to focus upon the social, cultural and political aspects inherent in upland farmer decision-making regarding state interventions. Yet, with the conclusions we reached via this approach, is there a chance that the state could positively work to reduce livelihood vulnerability and food insecurity among Hmong and Yao households? For this to occur, the state would need to pay greater attention to how ethnic minorities have carefully learned to adapt to and modify this centrally-planned food security initiative and the top-down public sector extension services. For instance, the government could respond to upland actors' concerns by providing a broader range of rice seed varieties, while acknowledging local traditional knowledge of the seed types most suited to the local environment. Enlightened agronomists might work to produce hybrid rice varieties that taste better in the minds of uplanders (instead of just focusing on lowland Kinh farmers). Distribution officials could potentially organise seed delivery in such a way that those with prior requests and payments are not left without seed stocks; and direct, non-monetary forms of payment could be organised such as non-timber forest product goods (for example cardamom) in exchange for rice seeds. Central, provincial and district governments could also acknowledge hybrid seed failures when they occur in upland regions and help provide emergency food supplies. For any of these to transpire however,

government authorities would need to be far more receptive to the needs of ethnic minorities and willing to recognise different cultural and livelihood necessities and priorities. Such improvements would require a government whose officials take on board an actor-oriented approach to upland livelihoods and food security issues so that decision-making processes of ethnic minorities such as Hmong and Yao are better understood and incorporated into development plans. In this case, development would need to be locally-driven, rather than continuing to follow a top-down, central government-driven, model.

Nowadays in Vietnam, participatory, community-based rural development projects are strongly emphasised by donor development agencies, while a diversity of grassroots, lowland farmers' groups organise outside the state (Fforde, 2008). However, development agencies and non-government organisations must work within the structures of the socialist state via collaboration with local authorities and state-controlled mass organisations for their projects (Vasavakul, 2003; Thayer, 2008). Likewise, while the variety of autonomous informal farmers' groups continues to grow, these are not officially supported (and are sometimes opposed) by the state, nor are they integrated by development agencies into their projects (Vasavakul, 2003; Thayer, 2008).¹⁴ While only touching on debates regarding broader state-society relations here (see Kerkvliet et al., 2003), within present day socialist Vietnam the practicalities involved for such bottom-up approaches – especially those involving ethnic minorities – to truly make a difference appear to remain an uphill battle. All told, for national food security equations to be fully inclusive, a heightened level of sensitivity and respect will be essential which, in light of past political antagonisms and historical misunderstandings between these groups, will be a significant challenge.

Acknowledgements

The authors thank Chi, Lang, Lan, Yau and Chau for their outstanding research assistance in the field. A special thanks too, to all the upland farmers and officials with whom we talked. The perceptive comments from the referees and editor Katie Willis were also very much appreciated. We acknowledge financial support from the Social Science and Humanities Research Council of Canada.

References

- Alther, C., Castella, J.C., Novosad, P., Rousseau, E., Hieu, Tran Trong, 2002. Impact of accessibility on the range of livelihood options available to farm households in mountainous areas of northern Viet Nam. In: Castella, J.C., Quang, Dang Dinh (Eds.), *Doi Moi in the Mountains. Land Use Changes and Farmers' Livelihood Strategies in Bac Kan Province, Vietnam*. The Agricultural Publishing House, Hanoi, Vietnam, pp. 121–146.
- Amoore, L., 2005. Introduction: global resistance – global politics. In: Amoore, L. (Ed.), *The Global Resistance Reader*. Routledge, Oxon and New York, pp. 1–12.
- Ashley, C., Carney, D., 1999. *Sustainable Livelihoods: Lessons from Early Experience*. Department for International Development, Nottingham.
- Arce, A., Long, N., 2000. Reconfiguring modernity and development from an anthropological perspective. In: Arce, A., Long, N. (Eds.), *Anthropology, Development and Modernities: Exploring Discourses. Counter Tendencies and Violence*. Routledge, London, pp. 1–31.
- Bebbington, A., 1999. Capitals and capabilities: a framework for analysing peasant viability, rural livelihoods and poverty. *World Development* 27 (12), 2012–2044.
- Bebbington, A., 2000. Reencountering development: livelihood transitions and place transformations in the Andes. *Annals of the Association of American Geographers* 90 (3), 495–520.

¹⁴ Informal farmer' organisations refer to groups "initiated and established by farmers themselves, without direction and incentive from outside" (Fforde, 2008, p. 19). Fforde (2008) found that although informal farmers' groups received scant attention from the state at higher levels, or from development agencies, these groups were increasingly being supported by local state officials. Albeit, this was predominantly in relation to lowland Kinh farmers.

- Bernstein, H., Byres, T.J., 2001. From peasant studies to agrarian change. *Journal of Agrarian Change* 1 (1), 1–56.
- Castella, J.C., Erout, A., 2002. Montane paddy rice: the cornerstone of agricultural production systems in Bac Kan Province, Vietnam. In: Castella, J.C., Quang, Dang, Dinh. (Eds.), *Doi Moi in the Mountains. Land Use Changes and Farmers' Livelihood Strategies in Bac Kan Province*. The Agricultural Publishing House, Hanoi, Vietnam, pp. 175–195.
- Chambers, R., Conway, G.R., 1991. *Sustainable Rural Livelihoods: Practical Concepts for the 21st Century*. Institute of Development Studies (IDS) Discussion Paper 296. IDS, Brighton.
- Chengappa, P., Janaiah, A., Srinivasa Gowda, M., 2003. Profitability of hybrid rice cultivation: evidence from Karnataka. *Economic and Political Weekly*, June 21.
- Corlin, C., 2004. Hmong and the land question in Vietnam: national policy and local concepts of the environment. In: Tapp, N., Michaud, J., Culas, C., Lee, G.Y. (Eds.), *Hmong-Miao in Asia*. Silkworm Books, Chiang Mai, Thailand, pp. 295–320.
- Culas, C., Michaud, J., 2004. A contribution to the study of the Hmong (Miao) migrations and history. In: Tapp, N., Michaud, J., Culas, C., Lee, G.Y. (Eds.), *Hmong-Miao in Asia*. Silkworm Books, Chiang Mai, Thailand, pp. 71–96.
- Dalrymple, D.G., 1986. *Development and Spread of High-yielding Rice Varieties in Developing Countries*. Agency for International Development, Washington, DC.
- Dang Quy Nhan, Trung, Duong Ngo Thanh, Dieu, Hoang Kim, 2008. Hybrid Rice Cultivation Situation in the Northern Midland Region of Vietnam. *Proceedings of the JSPS International Seminar 2008. "Hybrid Rice and Transformation of Farming Systems"* 22–24 November 2008. Kyushu University, Fukuoka, Japan.
- de Haan, L., Zoomers, A., 2005. Exploring the frontier of livelihoods research. *Development and Change* 36 (1), 27–47.
- Department for International Development (DFID) and Lào Cai People's Committee (LCPC), 2003. 'Report. Participatory Poverty Assessment in Lào Cai Province'. DFID.
- Drinkwater, M., 1992. Visible actors and visible researchers: critical hermeneutics in an actor-oriented perspective. *Sociologia Ruralis* XXXII (4), 367–388.
- Edelman, M., 2001. Social movements: changing paradigms and forms of politics. *Annual Review of Anthropology* 30, 285–317.
- Edelman, M., 2005. Bringing the moral economy back into the study of twenty-first century transnational peasant movements. *American Anthropologist* 107 (3), 331–345.
- Ellis, F., 2000. *Rural Livelihoods and Diversity in Developing Countries*. Oxford University Press, Oxford.
- FAO, 2004a. Hybrid Rice for Food Security. Factsheet. <<http://www.fao.org/rice2004/en/f-sheet/factsheet6.pdf>> (accessed 28.04.11).
- FAO, 2004b. Food Insecurity and Vulnerability in Viet Nam: Profiles of Four Vulnerable Groups. Agriculture Development Economics Division (ESA) Working Paper No. 04-11. ESA.
- Fforde, A.J., 2008. Vietnam's informal farmers' groups. Narratives and policy implications. *Südostasien aktuell – Journal of Southeast Asian Affairs* 37 (1), S3–S36.
- Fox, J.Y., Fujita, D., Ngidang, N., Peluso, L., Sakuntaladewi, Potterm.N., Sturgeon, J., Thomas, D., 2009. Policies, political economy and swidden in southeast Asia. *Human Ecology* 37, 305–322.
- Griffin, K., 1979. *The Political Economy of Agrarian Change: An Essay on the Green Revolution*. MacMillan Publishing Company, London.
- Harris-White, B., Janakarajan, S., 1997. From green revolution to industrial revolution in south India. *Economic and Political Weekly* 32 (25), 1469–1477.
- Hart, G., 1991. Engendering everyday resistance. *Journal of Peasant Studies* 19 (1), 93–121.
- Hoang Xuan Thanh, Neefjes, K., 2005. Economic Integration and Maize-based Livelihoods of Poor Vietnamese. Discussion Paper. Vietnam Institute of Economics, Hanoi.
- Hollander, J.A., Einwohner, R.L., 2004. Conceptualising resistance. *Sociological Forum* 19 (4), 533–554.
- Hossain, M., Janaiah, A., Husain, M., 2003. Hybrid rice in Bangladesh. *Farm-level performance. Economic and Political Weekly* 21 (June), 2517–2522.
- Husain, A.M M., Hossain, M., Janaiah, A., 2001. Hybrid Rice Adoption in Bangladesh: A Socioeconomic Assessment of Farmers' Experiences. Research Monograph Series No. 18. Research and Evaluation Division, BRAC.
- Integrated Regional Information Networks (IRIN), 2008. Vietnam: Rice Exports Cut in "Self-Defence". U.N. Office for the Coordination of Humanitarian Affairs. <<http://www.irinnews.org/Report.aspx?ReportId=77749>> (accessed 14.07.09).
- Kerkvliet, B.J.T., 1990. *Everyday Politics in the Philippines: Class and Status Relations in a Central Luzon Village*. University of California Press, Berkeley.
- Kerkvliet, B.J.T., 1995. Rural society and state relations. In: Kerkvliet, B., Porter, D. (Eds.), *Vietnam's Rural Transformation*. Westview Press, Colorado, pp. 65–96.
- Kerkvliet, B.J.T., 2003. Authorities and the people: an analysis of state-society relations in Vietnam. In: Hy, Luong Van (Ed.), *Postwar Vietnam: Dynamics of a Transforming Society*. Roman and Littlefield, Maryland, US, pp. 27–54.
- Kerkvliet, B.J.T., 2005. *The Power of Everyday Politics: How Vietnamese Peasants Transformed National Policy*. Cornell University Press, Ithaca.
- Kerkvliet, B.J.T., 2009. Everyday politics in peasant societies (and ours). *Journal of Peasant Studies* 36 (1), 227–243.
- Kerkvliet, B.J.T., Heng, R., Koh, D. (Eds.), 2003. *Getting Organized in Vietnam. Moving in and around the Socialist State*. Institute of Southeast Asian Studies, Singapore.
- Kloppenborg, J.R., 2004. *First the Seed: The Political Economy of Plant Biotechnology, 1492–2000*, second ed. University of Wisconsin Press, Madison.
- Korovkin, T., 2000. Weak weapons, strong weapons? hidden resistance and political protest in rural Ecuador. *Journal of Peasant Studies* 27 (3), 1–2.
- Leisz, S.J., Ha, Nguyen Thi Thu, Yen, Nguyen Thi Bich, Lam, Nguyen Thanh, Vien, Tran Duc, 2004. Developing a methodology for identifying, mapping and potentially monitoring the distribution of general farming system types in Vietnam's northern mountain region. *Agricultural Systems* 85, 340–363.
- Long, N., 2001. *Development Sociology: Actor Perspectives*. Routledge, London.
- Long, N., 2002. An actor-oriented approach to development intervention. In: Cruz, D.A. (Ed.), *Rural Life Improvement in Asia*. Asian Productivity Organisation, Tokyo, pp. 47–61.
- Long, N., 2004. Actors, interfaces and development intervention: meanings, purposes and powers. In: Kontinen, T. (Ed.), *Development Intervention: Actor and Activity Perspectives*. University of Helsinki Centre for Activity Theory and Development Work Research and Institute of Development Studies, Helsinki, pp. 14–36.
- McElwee, P., 2004. Becoming socialist or becoming Kinh? Government policies for ethnic minorities in the socialist republic of Vietnam. In: Duncan, C.R. (Ed.), *Civilizing the Margins. Southeast Asian Government Policies for the Development of Minorities*. Cornell University Press, Ithaca, pp. 182–213.
- Michaud, J., Turner, S., 2000. The Sa Pa marketplace, Lào Cai province Vietnam. *Asia Pacific Viewpoint* 41 (1), 85–100.
- Murray, C., 2002. Livelihoods research: transcending boundaries of time and space. *Journal of Southern African Studies* 28 (3), 489–509.
- Nguyen Thi Thu Phuong, Baulch, B., 2007. A Review of Ethnic Minority Policies and Programmes in Vietnam. Centre for Analysis and Forecasting, Vietnam Academy of Social Sciences, Hanoi and IDS, Brighton.
- Nguyen, Tat Canh, Hue, Nguyen Thi Ngoc, On, Tran Van, et al., 2005. Scientific basis of on-farm conservation of upland rice diversity: key issues for consideration of policy development in Vietnam. In: Hue, Nguyen Thi Ngoc, Tuyen, Truong Van, Canh, Nguyen Tat, et al. (Eds.), *In Situ Conservation of Agricultural Biodiversity On-farm: Lessons Learned and Policy Implications*. International Plant Genetic Resources Institute, Rome, pp. 11–25.
- Oxfam, 2001. *Rice for the Poor and Trade Liberalisation*. Oxfam GB and Oxfam UK.
- Pandey, S., Khiem, N.T., Waibel, H., Thien, T.C., 2006. Upland Rice, Household Food Security, and Commercialization of Upland Agriculture in Vietnam. International Rice Research Institute, Manila.
- Pelzer White, C., 1986. Everyday resistance, socialist revolution and rural development: the vietnamese case. In: Scott, J.C., Kerkvliet, B.J.T. (Eds.), *Everyday Forms of Peasant Resistance in South-East Asia*. Frank Cass and Company Ltd, London and New Jersey, pp. 49–63.
- Pham Anh Tuan, 2009. Vietnam Country Case Study: Background Paper for the Chronic Poverty Report 2008–2009. Chronic Poverty Research Centre, Manchester.
- Popkin, S.L., 1979. *The Rational Peasant. The Political Economy of Rural Society in Vietnam*. University of California Press, Berkeley.
- Pray, C.E., Naseem, A., 2007. Supplying crop biotechnology to the poor: opportunities and constraints. *Journal of Development Studies* 43 (1), 192–217.
- Rambo, T.A., 2004. Development policies and development trends in Vietnam's northern mountain region. In: Furukawa, H., Nishibuchi, M., Kono, Y., Kaida, Y. (Eds.), *Ecological Destruction, Health and Development: Advancing Asian Paradigms*. Kyoto University Press and Trans Pacific Press, Kaikan and Melbourne, pp. 415–438.
- Schneider, S., Niederle, P.A., 2010. Resistance strategies and diversification of rural livelihoods: the construction of autonomy among Brazilian family farmers. *The Journal of Peasant Studies* 37 (2), 379–405.
- Scoones, I., 2009. Livelihood perspectives and rural development. *Journal of Peasant Studies* 36 (1), 171–196.
- Scott, J.C., 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. Yale University Press, New Haven and London.
- Scott, J.C., 1990. *Dominance and the Arts of Resistance: Hidden Transcripts*. Yale University Press, New Haven and London.
- Scott, J.C., 2009. *The Art of Not Being Governed. An Anarchist History of Upland Southeast Asia*. Yale University Press, New Haven and London.
- Scott, J.C., Kerkvliet, B.J.T., 1986. Introduction. In: Scott, J.C., Kerkvliet, B.J.T. (Eds.), *Everyday Forms of Peasant Resistance in South-East Asia*. Frank Cass and Company Ltd, London and New Jersey, pp. 1–4.
- Sharp, J., Routledge, P., Philo, C., Paddison, R., 2000. Entanglements of power: Geographies of domination/resistance. In: Sharp, J., Routledge, P., Philo, C., Paddison, R. (Eds.), *Entanglements of Power: Geographies of Domination/Resistance*. Routledge, London and New York, pp. 1–42.
- Socialist Republic of Vietnam, 2010. *The 2009 Vietnam Population and Housing Census: Completed Results*. Central Population and Housing Census Steering Committee, Hanoi.
- Socialist Republic of Vietnam, 2008. Resolution No. 30a/2008/NQ-CP. Resolution of Speedy and Sustainable Poverty Reduction Programme for 61 Poor Districts.
- Sowerwine J.C., 2004. *The Political Ecology of Yao (Dzao) Landscape Transformations: Territory, Gender and Livelihood Politics in Highland Vietnam*. PhD Dissertation, University of California, Berkeley.
- Swinkels, R., Turk, C., 2006. Explaining Ethnic Minority Poverty in Vietnam: A Summary of Recent Trends and Current Challenges. Draft Background Paper for CEM/MPR meeting on Ethnic Minority Poverty.
- Thayer, C.A., 2008. One party rule and the challenge of civil society in Vietnam. In: Paper Presented to: *Remaking the Vietnamese State: Implications for Vietnam*

- and the Region, Vietnam Workshop. City University of Hong Kong, Hong Kong, August 21–22.
- Tran Duc Vien, Leisz, S.J., Lam, Nguyen Thanh, Rambo, A.T., 2006. Using traditional swidden agriculture to enhance rural livelihoods in Vietnam's uplands. *Mountain Research and Development* 26 (3), 192–196.
- Tran Duc Vien, Nguyen Thi Duong Nga, 2009. Economic impact of hybrid rice in Vietnam: an initial assessment. *J. Sci. Dev.* 7 (Eng. Iss. 2), 258–272.
- Tugault-Lafleur, C., Turner, S., 2009. The price of spice: ethnic minority livelihoods and cardamom commodity chains in upland northern Vietnam. *Singapore Journal of Tropical Geography* 30 (3), 388–403.
- Tugault-Lafleur, C., Turner, S., 2010. Of rice and spice: Hmong livelihood and diversification in the northern Vietnam uplands. In: Michaud, J., Forsyth, T. (Eds.), *Moving Mountains: Highland Livelihoods and ethnicity in China, Vietnam and Laos*. University of British Columbia Press, Vancouver, pp. 100–122.
- Turner, S., 2007. Trading old textiles: the selective diversification of highland livelihoods in northern Vietnam. *Human Organization* 66 (4), 389–404.
- Turner, S., 2011. Making a living the Hmong way: an actor-oriented livelihoods approach to everyday politics and resistance in upland Vietnam. *Annals of the Association of American Geographers*. doi:10.1080/00045608.2011.596392.
- Turner, S., Caouette, D., 2009. Shifting fields of rural resistance in southeast Asia. In: Caouette, D., Turner, S. (Eds.), *Agrarian Angst and Rural Resistance in Contemporary Southeast Asia*. Routledge, London, pp. 1–24.
- Turner, S., Michaud, J., 2008. Imaginative and adaptive economic strategies for Hmong livelihoods in Lào Cai Province, northern Vietnam. *Journal of Vietnamese Studies* 3 (3), 158–190.
- Turner, S., Michaud, J., 2009. 'Weapons of the weak': selective resistance and agency among the Hmong in northern Vietnam. In: Caouette, D., Turner, S. (Eds.), *Agrarian Angst and Rural Resistance in Contemporary Southeast Asia*. Routledge, London, pp. 45–60.
- United Nations Environment Programme (UNEP), 2005. *Integrated Assessment of the Impact of Trade Liberalisation: A Country Study on the Vietnam Rice Sector*. UNEP, Bangkok.
- United Nations Office on Drugs and Crime (UNODC), 2003. *Ethnic Minorities, Drug Use and Harm in the Highlands of Northern Vietnam: A Contextual Analysis of the Situation in Six Communes from Son La, Lai Chau, and Lao Cai*. UNODC, Hanoi.
- United Nations Vietnam, 2008. *Food Prices, Vulnerability and Food Security in Vietnam: a UN Perspective*. UN, Hanoi. http://www.un.org/vn/images/stories/news/unvn_food_security_paper_eng.doc (accessed 6 March 2009).
- Vasavakul, T., 2003. From fence-breaking to networking: interests, popular organizations and policy influences in post-socialist Vietnam. In: Kerkvliet, B.J.T., Heng, R., Koh, D. (Eds.), *Getting Organized in Vietnam. Moving in and around the Socialist State*. ISEAS, Singapore, pp. 25–61.
- Vietnam News, 5 March 2009. Prime Minister Asks Firms to Buy Rice From Farmers, p. 1.
- Vuong Duy Quang, 2004. The Hmong and forest management in northern Vietnam's mountainous areas. In: Tapp, N., Michaud, J., Culas, C., Lee, G.Y. (Eds.), *Hmong-Miao in Asia*. Silkworm Books, Chiang Mai, Thailand, pp. 321–331.
- Vuong Xuan Tinh, 2001. *Changing Land Policies and its Impacts on Land Tenure of Ethnic Minorities in Vietnam*. Paper presented at the Eighth Workshop on Community Management of Forestlands, Eastwest Centre, Hawaii. <<http://www2.eastwestcenter.org/environment/CBFM/Tinh2.pdf>> (accessed 11.07.09).
- Walker, A., 2009. Now the companies have come: Local values and contract farming in northern Thailand. In: Caouette, D., Turner, S. (Eds.), *Agrarian Angst and Rural Resistance in Contemporary Southeast Asia*. Routledge, London, pp. 61–81.
- World Bank, 2009. *Country Social Analysis: Ethnicity and Development in Vietnam*. The World Bank, Washington, DC.
- Yapa, L., 1979. Ecopolitical economy of the green revolution. *The Professional Geographer* 31 (4), 371–376.