Watershed Conflict: Competition over Natural Resources in Northern Thailand

Nathan Badenoch, Post-Doctoral Researcher
Apai Wanitpradit, M-POWER Research Fellow
Songphonsak Ratanawilailak, Research Assistant
Unit for Social and Environmental Research, Faculty of Social Sciences,
Chiang Mai University

Mae Chaem district of Chiang Mai province provides a window on the social complexity of resource competition. This area has been an area of concern for government policy since the 1960s, when official efforts to eradicate opium were supported by domestic and internationally funded watershed development projects. Crop substitution was successful in many areas of the district, and upland agriculture has continued its integration into regional and national markets.

Environmental concerns have followed closely on the heels of crop replacement. Cabbage, carrots, maize and shallots became common components of many upland livelihoods as the area under cash-crop cultivation increased sharply through the 1980s and 1990s. The common belief is that headwater forests were lost to permanent upland crops, disrupting hydrology at the local and regional levels while increasing rates of erosion and sedimentation. The result is a situation of wide-spread competition between upstream and downstream communities.

In recent years upland irrigation systems have been developed, enabling the cultivation of cash crops during the dry season. This has meant increased water demand in the uplands during the driest times. However, lowland agriculture is heavily dependent upon irrigation through the dry season as well, and data on actual environmental change is secondary to public perceptions. The situation is complicated by the ethnic composition of the region. Upstream areas are inhabited by Karen, Hmong and Lawa communities, with a diverse range of livelihood strategies supported by differing regimes of natural resource management. Northern Thai communities inhabit the downstream areas. Historically, relations between ethnic groups have experienced periods of both tension and cooperation, but watershed management and other conservation policies have tended to fuel the areas of conflict between upstream and downstream communities.

This paper draws on two main sources of information:

- Primary data from research in three sub-watersheds of Mae Chaem district – Mae Suk, Mae Khong Kha and Mae Hae watersheds;
- Secondary data from research and development projects in northern Thailand

The analysis considers issues of scale and institutional response within the context of social diversity in an effort to understand the challenges of institutional adaptation and innovation.

What is watershed conflict? Tension between upstream and downstream communities is complex, and is often described in terms of ethnicity. However, there is a range of natural resource management issues at stake, involving forest, land, and water. Conflicts manifest themselves at different ecological scales and are driven by a number of social, economic and political factors.

Government policy has been largely ineffective in addressing environmental changes and social tensions at the watershed level. Community-based watershed management networks have proliferated throughout northern Thailand in response to these challenges. These multi-village networks are being formed at the sub-watershed level and have attempted to facilitate the negotiation of upstream-downstream competition. At the same time, a major effort is underway to establish a viable system of river basin organizations at larger scales.

The experience with watershed management networks has been mixed. Successful examples have been able to create platforms for negotiation and collaborative problem solving. Unsuccessful cases have been bogged down by lack of confidence and mutual trust, and difficulties in creating a legitimate institutional structure for negotiation. The challenge of matching multi-scale and cross-scale conflict with institutions at the appropriate scale has generally not been given adequate planning effort.

Findings from data collection and analysis in the three study sub-watersheds suggest that:

- There is an acute shortage of data on environmental change in upper tributary watersheds, which means that perceptions, prejudices and individual interests dominate the local discourse of conflict: *community-based data collection and external research can build a shared platform of traditional and scientific knowledge to support dialog.*
- Conceptualizing watershed conflict in ethnic terms can be problematic for understanding the socio-economic and political drivers of resource competition: *research on conflict in upper tributary watersheds should recognize the dynamic and complex reality of local livelihoods.*
- Watershed networks often do not recognize the complexity of conflict at multiple levels within the watershed: *there is a need for continuing research on how watershed conflict is embedded in multiple ecological and social systems.*
- Watershed networks often take the village as the basic unit of collaboration, but diversity within villages often creates difficulties for watershed-level activities: *in order to realize the potential of local institutions, research and policy should recognize and address the reality of diversity and tension within villages, e.g. by diversifying the range of local actors involved in governance processes.*