

**Field trip report for the Danish team during 20-29 November, 2013**  
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The team started out by attending the joint project workshop in Hanoi on 19 November. Here all work packages were discussed and further progress and publication plans were outlined for each. On 20 November the team went through the original questionnaires from the recently conducted socio-economic survey, checking data consistency and discussing the overall methodology with Dr. Man. He pointed out that the survey had used the methodology as commonly applied by the Vietnamese Statistical Office. The Danish team were impressed with the professionalism with which the survey was conducted and the high quality of data. It was found that the survey had provided a crucial database with relevance for all the Danish researchers. The same day members of the team discussed concepts and research issues relating to 'vulnerability' with Vietnamese students.

On 21 November the field trip to the three project areas began. We had decided to choose one village in each area and to make a random selection of households in order to discuss questions in the survey as well as some broader issues. The objectives were to cross-check questionnaire data and arrive at a better understanding of the conditions surrounding daily life in a disaster prone environment. A separate aim was to meet local governments in the field areas and to discuss disaster management with specialized staff and representatives of local mass organizations. From all forms of interaction at local level we got first-hand impressions of the impact of typhoons and flooding in the communities and discussed both financial and human consequences of water disasters. A range of interviewing related to experiences of changing weather conditions and seasonality, as well as memories of historical flooding patterns in relation to recent events, such as the 2010 flooding. The team also discussed agricultural practices with farmers, not least the uncertainty brought about by the changing occurrence of the rainy season, which makes the planting of a second yearly crop extremely risky.

A general impression, however, consistent with survey data, was that most households are experiencing a substantial income increase from year to year, despite recurring losses from flooding. The most significant contribution to income increase appears to come from non-farm sources, primarily migrant labour. Survey data indicate that general living standards vary between project areas and interviewing also pointed to significant variations in ability to cope with disasters, both between project areas and between households. Initial impressions concerning which households were most vulnerable to disasters pointed to the groups of elderly as well as to households with insufficient labour or with social problems. Income variations between regions may also reveal a common trend in rural areas, namely that the better off villages also have better access to further improving their incomes and living standards, whereas the poorer regions in general experience lower rates of growth, thus effecting regional economic differentiation. This again results in the better off communities having better means to protect people and property during disasters, such as by means of new and stronger private housing with

elevated 'rescue rooms' or joint rescue buildings. However, both the survey data and the qualitative information from the field trip await further analysis with regard to exposure, economic conditions, losses, regional variation and vulnerability.

The effectiveness of disaster management as well as the scale and significance of emergence aid during critical events were also discussed with government staff, representatives of mass organizations and individual members of local communities. Obviously every locality has its own challenges in terms of environmental conditions, exposure to typhoons and floods, and internal community dynamics. Analysis of survey data will provide further background to these issues and point to local and regional variations as well as to critical problems of reaching out during and after disasters. It was found that a range of state, private and NGO funding was available for disaster relief in most communities.

A series of interviews were performed to get qualitative data on the contents and significance of indigenous knowledge (IK) in the villages. Survey data had pointed out that local people mostly saw the value of IK in agriculture, animal husbandry and various ways of coping with disaster such as storing foodstuffs, but with considerable variations in opinion between households. Interviewing brought out details about specific knowledge, techniques, and vernacular sayings that people would have at their disposal as complimentary to modern agricultural knowledge. Examples included watching unusual behavior of insects around the house as pre-warnings of floods, observing the growth patterns of bamboo and other trees and plants, taking note of specific weather conditions or unusual seasonal weather patterns, watching the moon and sky, making use of the traditional rural calendar, fortunetelling, or recollecting old sayings about various unusual events and cause-effect relationships. A wide range of knowledge and techniques related to coping with disaster, such as storing foodstuffs and equipment and ensuring the survival of domestic animals during flooding.

It should be emphasized that the overall impression of the actual relevance of IK in the strict sense, such as for coping with disasters and for various economic activities, is limited. Many aspects of IK such as mentioned by local people may simply refer to common sense and general experience. In the broader sense, however, various forms of local knowledge are constantly built as a link between age-old agricultural experience and the conditions in the modern society. New inventive means of dealing with floods are seen and new income opportunities based on changing social and environmental conditions are created. Thus, supporting a higher rate of information exchange at the local level as well as between regions could be an aim in itself. But based on the various opinions expressed by local people a broader range of contents may be considered, such as local knowledge, new income opportunities, alternative crops, appropriate technology for farming and livestock breeding, animal care during floods, new technology, market conditions, credit opportunities, weather and flooding forecasts, disaster warnings, health and sanitary issues during floods, new forms of organizing etc.

From interviews with government staff and a range of individual households we also gained insights into local water issues not immediately related to climate change.

Hydropower and irrigation reservoir construction along major rivers in Central Vietnam is increasingly impacting lowland farming. Once built, these entities may regulate lesser instances of flooding. But they also tend to optimize their capacity at the expense of the security of lowland communities, to the effect that they may be forced to release water at the height of extraordinary rains, such as during typhoons, thus exacerbating lowland flooding and increasing the risk of flash floods. For instance, in the Quang Binh field site households located outside the large dike were reportedly affected heavily by the construction of three large upstream irrigation reservoirs. Consistent reports indicated that decisions made by the water management authorities to release surplus water during flooding would raise the flooding level by 1 meter as well as cause the flood to rise faster. Another commonly mentioned problem related to water management was declining numbers of fish in rivers after large-scale dam construction. These observations point to the need of more comprehensive approaches to water disasters, incorporating man-made constructions and decision making as much as climate change.

After finishing the field trip the Danish team had a brief discussion with Dr. Ngoc and other members of the Vietnamese team concerning the overall impressions and findings. Some initial ideas for jointly authored articles were exchanged and it was decided to write the first article proposals in December.

On behalf of the Danish team,  
Ole Bruun