



Zentrum für Entwicklungsforschung
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– Executive Summary –

Living with Flood Local Knowledge in the Mekong Delta, Vietnam

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The following thesis was supervised at the Center for Development Research (ZEF) at the University of Bonn (Germany). The PhD research was conducted within the first phase of the WISDOM project (2007-2010) and funded by the German Federal Ministry of Education and Research (BMBF). The doctoral thesis was submitted to the Faculty of Philosophy in January 2011 and successfully defended in May 2011. The whole thesis will be published as follows:

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Living with Flood Local Knowledge in the Mekong Delta, Vietnam

Research Rationale – Conceptual Framework – Methodology

The thesis focussed on water-related local knowledge since water and seasonal flooding in the Mekong Delta have constituted the most important resource for the diverse agriculture and aquaculture based livelihoods in the region. Since economic liberalization of the mid-1980s, the Mekong Delta experienced an enormous economic boost thanks to agricultural intensification and the abundance of seasonal freshwater and high investments in flood and irrigation control. The Mekong Delta – as the ‘rice bowl’ of Vietnam – is the outcome of human actively interfering into the wetland ecology by water and flood control devices. This process of human shaping their natural environment is understood as one in which people gain new knowledge and practical experience. The thesis deals with the dialectic relationship of nature and society and investigates the epistemic nature of such encounters and its embedded historicity (*chapter three*). The close interaction of the delta society with its natural environment has created an enormous body of local socio-environmental knowledge. As the Mekong Delta is a highly dynamic region though, locally-grown knowledge on water changes accordingly. The thesis captures exactly this process of mutual transformation within the society-nature relationship.

As water has been *the* structuring element for everyday living in the Mekong Delta the dissertation speaks of ‘water-lifeworlds’ – following the lifeworld concept and the sociology

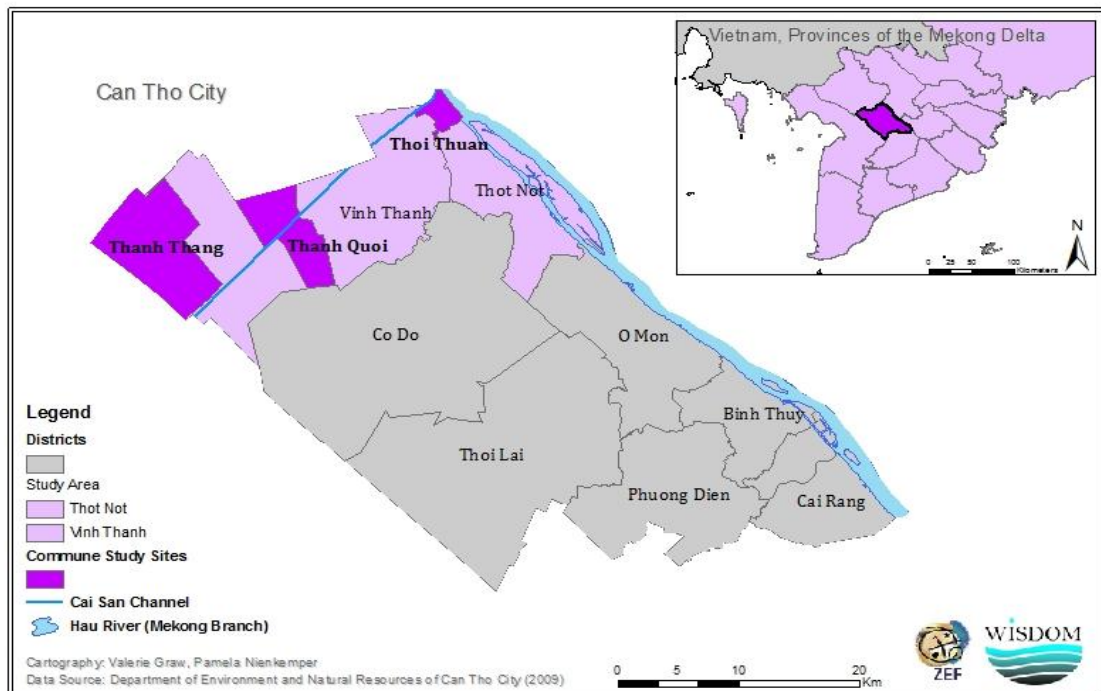
of knowledge according to Schütz and Berger and Luckmann¹ and their social constructivist approach towards understanding people's everyday knowledge. The lifeworld constitutes the unquestioned and taken for granted reality of people's everyday life. It contains the diverse knowledges that structure the course of mundane life – ranging from unconscious routines and pragmatic problem-orientation to the more general socio-cultural frameworks for interpretation that orient the thinking and social action of actors. Local knowledge could therefore be defined as the (unconscious) knowledge and practices of everyday life that endow the actor to meaningfully cope with the world he or she lives in (*chapter two*).

In the Vietnamese epistemic community that strongly holds on to positivist science and the superior knowledge of technocratic experts, investigations of the knowledge of everyday life have not played any role yet. The following work closes this gap by denoting what local knowledge on living with flood in the Mekong Delta actually empirically means and conceptually indicates and by concluding on the role of local knowledge and the empowerment of knowledgeable actors in negotiating flood management policy in the delta.

The data for the dissertation was collected during one year of ethnographic field research in two districts (three communes) of Can Tho City – one of the 13 administrative provinces in the Mekong Delta. Can Tho City is characterized by an average flood level and is one of the delta' provinces with the highest industrial growth rate. Actually, this province crystallised as economic and industrial hub with interesting implications for the research on local society-water relations. Living in farming households for several months enabled an in-depth understanding of people living with flood on a day to day basis. Besides 160 narrative, semi-structured and oral history interviews and focus group discussions, working with local photo material and the method of observation proved indispensable for the reconstruction of the emic view and the internalized everyday practices and routines of people engaging with their water environment for livelihood purposes (*annex on methodology*).

¹ Schütz, Alfred and Thomas Luckmann (1973) *The Structures of the Life-World*. Translated by Richard M. Zander and H. Tristram Engelhardt. Evanston: Northwestern University Press. / Berger, Peter L. and Thomas Luckmann (1966) *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*. 1st edn. New York: Penguin Books.

District & Commune Study Sites in Can Tho City



Lines of Argumentation and Selected Results

Flood in Vietnam is strongly regarded in terms of top-down technocratic management, that is backed by a strong ‘protectionist approach’ of the government. The dissertation deconstructs this essentialized image of society and flood by contrasting it with the diverse emic perspectives of people actually living with the flood. It turned out that local perceptions and experience of flood are very much structured according to age, different cultural-ecological backgrounds of the people living in the delta and the different livelihood patterns they pursue. It was also found that in contrast to the strong disaster narrative of the government, the local population in general perceives the flood as a crucial development resource. For them it constitutes an ordinary phenomenon they are well adapted to. The flood itself as a natural phenomenon is no longer perceived as risk. Rather, the flood management regime produces new challenges that the rural population is facing. Growing flood and water control schemes for agricultural production and urban and industrial expansion cause environmental change such as water pollution, erratic flood patterns and the extinction of wild fish resources. Further, rural transformation and the modernization of agriculture are characterized by

increasing social disparities, such as growing landlessness and unemployment and increasing conflicts regarding the exploitation of water resources (*chapter four*).

The research concentrated on the diverse knowledge repertoires that people apply, revise and lack in order to cope with such environmental and socio-economic challenges.

Local Knowledge and Environmental Change

Concerning environmental change in the delta the different housing styles of two cultural groups living in neighbouring communes were analyzed in terms of weather and flood adaptation. It was found that the Northerner's community, which settled in the Mekong Delta in 1954, construct very sturdy and long-lasting houses – based on their weather and flood experiences coming from the far North of the country. In contrast, the 'long-established' people living in the neighbouring commune for decades build houses with extremely light material due to the mild climate in the delta. Both housing styles are well adapted to the current flood regime. Nevertheless, in the face of the growing severity and frequency of storms and whirlwinds hitting the delta, the Northerners' houses are better prepared to cope with those changing weather events. In this context of changing weather and flood patterns, the thesis further looks at the integration of modern weather forecast with the traditional forecast practices of farmers as an effective strategy for agricultural decision-making. Traditional weather lore gets obsolete when the forecast does no longer correspond to the actual weather phenomenon. The rural population considers their traditional flood prediction methods as obsolete and trusts in modern meteorological science for long-term predictions. Daily weather forecast rooted in farmer's skills to 'read' the weather by looking at the sky and clouds is still applied widely. In addition to people coping with weather and flood changes, traditional floodplain fishery knowledge is discussed as a strategic resource of landless people to cope with the growing scarcity of wild fish resources (*chapter 5*). Further, the empirical data intriguingly proved the strong empirical and methodological base of local knowledge. For instance, based on close observation and natural experimentation farmer can infer the exact amount of fertilizer input for the next crop from the layer of sediment in their field brought by the flood. The dikes constrain the deposit of natural sediment and the flushing of toxics. The higher the amount of sediment on the fields, the less fertilizer and pesticides farmers have to spray. Another example is the dense description of atmospheric indicators

used for weather forecast by reference to local everyday surroundings that typically characterize rural livelihoods: the commonly known but very nuanced distinction between colours of chicken and dog-fat to describe the appearance of clouds mirrors the very context-bound nature of such knowledge as well as the fine-tuning of the method of ‘local observation’ in traditional weather forecast. The local world is the reference point to describe the natural world which people live in; people’s lifeworld is the common ‘standard’ along which communication, interaction and shared interpretation can meaningfully take place within farming communities (*chapter 4*).



Photograph: Weather Indicator – Clouds and Sky, J.E. 2008

Local Knowledge in the Context of Agrarian Change

In the thesis it is argued that the conversion of the wetland into urbanized and semi-industrialized areas is accompanied by tremendous cultural change of the human-water relationship. The thesis discusses the decolonization of the water ways in favour of an enormously expanding road infrastructure.



Photograph: Boats as Typical Means of Transportation, J.E. 2008

This process gradually dismantles the waterways of its economic, social and cultural values. The found pragmatic rather than cosmological approach of the rural population towards water reinforces such developments. In addition, the thesis analyzes land projecting for modernized agriculture, aquaculture and industrial development as limiting the free access to water for certain groups of people. Especially landless people and artisanal fishermen get physically cut-off from the floodplains and rivers and thereby lose their major source of subsistence. Farmer and fishermen who used to live-off the land and waters being dependent on their contextualized environmental knowledge become e.g. city dwellers or have to get used to the highly formalized social organization of work labour in the fish processing companies. Such changes – the argumentation goes – demand a high adaptive capacity from a population who used to live on small scale agriculture and fishery and whose knowledge is deeply bounded in such rural livelihoods.



Photograph: Seasonal Livelihoods – Floodplain Fishery, J.E. 2008

There is a strong tendency towards the formalization of knowledge in the form of school education, scientific and technical principles, vocational training and technology that are required for industrial employment and agricultural and aquacultural intensification. At the same time, one can observe the economic depreciation of the locally-grown informal channels of professionalization and occupational pathways that used to be rooted in ‘informal’ learning by doing. The modern sector in Vietnam, such as manufacturing, sees difficulties in absorbing labour from the traditional agricultural sector. This can be illustrated by the following example of the fish processing industry located along the main river Hau in the research site: On the one hand, employers complain that the work force lags behind the requirement of the enterprise. They blame vocational training institutions to neglect the actual needs of the industry. On the other hand, enterprises do not accredit the informal alternatives of learning and professionalization in the Mekong Delta. Professional fishermen along the river Hau possess high skills in catching, marketing and processing of fish, but they do not formally qualify for the work in the fish processing companies. ‘Uneducated’ fishermen, who lack formal education certificates, are denied the capacity to disembowel industrial fish, an activity which they used to do as daily routine (*chapter 6*).

Conclusions

One can assert a societal shift from the valorization of non-market subsistence knowledge of small-scale farming and fishery towards such market-valued knowledge that becomes increasingly relevant for livelihood security. This argument is backed by Taylor, who asserts that:

‘As the agricultural economy of the delta shifts to increasingly emphasize extra-local capital, social relations and knowledge, locals’ participation in it delivers returns that are strongly marked by class.’ (Taylor 2004: 250)²

The conversion of the physical water- and landscapes into modern, semi-industrialized areas involves the renouncing of the typical water-centered way of live. Water and nature as the structuring elements of the lifeworld become less relevant because water that used to be an everyday feature characterizing the physical as well as socio-cultural spaces gets repressed by the current developments. Nevertheless, in contrast to scholars who argue in favour of protectionist indigenous knowledge nostalgia and against the detrimental effects of modernization and its science and technology paradigm in the delta, I plead for a less normatively loaded but more pragmatic approach towards local knowledge – also paying respect to the fact that the strife for such ‘modern’ kinds of knowledge comes to a great extent from the agency of the local population itself. Different knowledges should thus not be regarded as in exclusive tension but rather as creative potential to bring about the results people aim for in the conduct of everyday life and for the solution of local problems. In order to enlarge the actor’s room for manoeuvre the access to such economically-valued knowledge should be sustainably opened up e.g. through better supply of vocational training and market information, the comprehensive availability of extension services and school and university curricular that better fit the needs of the employment sector. Otherwise, already marginalized people further lose out in the dynamic process of agrarian transformation in the delta.

However, the relevance of local knowledge for the solution of local problems is not always a matter of lacking information and access to knowledge. The challenge for the rural population

² Taylor, Philip (2004) ‘Redressing Disadvantage or Re-arranging Inequality? Development Interventions and Local Responses in the Mekong Delta.’ In Philip Taylor, ed., *Social Inequality in Vietnam and the Challenges to Reform*. Singapore: Institute of Southeast Asian Studies, pp. 236–269.

to deal with the described ecological and socio-economic challenges stemming from the flood regime in the delta is as much a question of bringing in and communicating one's own interests and perceptions of 'living with flood'. Since knowledge is always related to power, local knowledge is not per se relevant but a matter of how local actors get publically accredited as knowledgeable actors. In the case of Vietnam's political culture however, the influence of multiple and alternative development visions remains constraint. Top-down water resources planning is blind towards the diverse local actors and their 'non-expert' knowledge. People who are most affected by water resources planning in the delta are not involved in respective decision-making. So far the Grassroots Democracy Decree (1998) and the harmonization of modern science and technology with the so called 'traditional experience of people' in water resources management – as codified in the Water Law (1998) – remain rather empowerment rhetoric than actual programme (*chapter 7*).