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Review Article

Fluid dynamics: Water, knowledge, and power in the Mekong Delta

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Tracing and making the state: Policy practices and domestic water supply in the Mekong Delta, Vietnam
By NADINE REIS
Zurich: Lit Verlag, 2012. Pp. 253. Maps, Notes, Bibliography.

Floods and farmers: Politics, economics, and environmental impacts of dyke construction in the Mekong Delta, Vietnam
By PHAM CONG HUU
Zurich: Lit Verlag, 2012. Pp. 183. Maps, Notes, Bibliography.

Beautiful floods: Environmental knowledge and agrarian change in the Mekong Delta, Vietnam
By JUDITH EHLERT
Zurich: Lit Verlag, 2012. Pp. 239. Maps, Notes, Bibliography.

The challenge of knowledge sharing: Practices of the Vietnamese science community in Ho Chi Minh City and the Mekong Delta
By TATJANA BAUER
Zurich: Lit Verlag, 2011. Pp. 280. Maps, Notes, Bibliography.

Over the past several years, the enormity of the environmental challenges facing the Mekong River Delta region of southern Vietnam has become increasingly clear. Climate change and dam construction on the upper reaches of the Mekong threaten to disrupt the flow of the river, making both droughts and floods ever more common. Meanwhile, the rapid intensification of rice agriculture in the Mekong Delta and the export-oriented cultivation of farmed fish and shrimp have increasingly strained the region's most vital resource — water.

These four books — all volumes in a series published by Lit Verlag and edited by Solvay Gerke and Hans-Dieter Evers at the Center for

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Development Research at the University of Bonn in Germany — are especially timely because they each address, from different vantage points, crucial questions about environmental change, water management and development in the Mekong Delta. Nadine Reis's volume, *Tracing and making the state*, deals with the provision and supply of fresh water in rural areas of Can Tho province, looking both at how the performance of water supply buttresses the legitimacy of the Vietnamese state and at how the bureaucratic apparatus that has emerged around water supply actually functions. Pham Cong Huu's volume, *Floods and farmers*, examines the construction of flood dykes in the Mekong Delta, again drawing on research conducted in Can Tho to examine the participation (or non-participation) of local people in the design and construction of these new dykes, as well as their impact on local environments and livelihoods. In her volume, *Beautiful floods*, Judith Ehlert supplies an ethnographic account of the local politics of environmental knowledge in the Mekong Delta, focusing on the competing perspectives that exist around the floods that occur each rainy season; while local residents, she argues, tend to treat such flooding as a favourable event, government planners and experts have instead come to see the floods as a threat which must be controlled and contained. Finally, Tatjana Bauer's volume, *The challenge of knowledge sharing*, again explores the politics of knowledge, this time analysing the structural impediments facing the production and dissemination of technical and scientific knowledge on water management within Vietnamese universities and research institutes, based on research conducted in both Can Tho and Ho Chi Minh City.

What makes these four volumes particularly noteworthy is that they all draw on substantial field research by young scholars at the University of Bonn, conducted under the auspices of the German-funded WISDOM (Water-Related Information System for the Sustainable Development of the Mekong) project. Thus, these volumes represent a unique product, both of a sustained institutional focus on a particular region and set of issues and of a scholarly exchange among European and Vietnamese researchers and research institutions. Since each of these volumes touches upon such similar topics, and since they each speak to and inform one another (sometimes quite directly, by the authors citing one another's work), it is appropriate here to deal with them collectively. Rather than summarising their contents and assessing their merits individually, this essay thus focuses instead on the ways in which they use the issue of water management in the Mekong Delta as a window onto broader themes, such as the nature of the Vietnamese state, the politics of knowledge in contemporary Vietnam and the processes of agrarian change currently under

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way in the Vietnamese countryside. By doing so, I hope not just to connect the thematic dots that unify these four volumes, but to give a sense of how they collectively contribute to ongoing discussions in the field of Vietnam studies specifically, and Southeast Asian studies more broadly.

First, these volumes address key questions about the nature of the Vietnamese state, the reasons for its enduring legitimacy, and the role of 'everyday politics' in shaping development policy and its implementation. As for the state itself, the authors differ in their interpretations of its fundamental nature. Huu, for one, views the state as a cohesive set of institutions that work (however imperfectly) towards the achievement of collectively defined goals. He argues, for example, that while the implementation of flood-control policies in the Mekong Delta was flawed, due to the failure to adequately include the local population in the planning process, it was nevertheless 'basically correct' (p. v) and served, on balance, to advance the welfare of the region's residents as well as the broader goals of national development and food security.

Reis and Bauer, on the other hand, take a darker view of the state and of public institutions. Reis, for example, argues that development policies do not exist or function to achieve their stated aims (as specified in the 'formal' sphere of public policymaking and in the funding requests submitted to foreign donors), but instead serve as vehicles for the pursuit of material interests by individual state actors, in what she refers to as the 'informal' sphere of policy implementation. For this reason, for example, building new piped-water supply systems, which generate contracts for well-connected construction companies, takes precedence over more practical and feasible schemes — such as the design and dissemination of cheap filters that can purify river water for home consumption — which do not offer as many opportunities for private gain (p. 206). Bauer takes a similar view in her study of public universities and research institutions, arguing that their ostensible aim (the production and dissemination of useful knowledge) has been subordinated to and compromised by the pursuit of material benefit by individuals, especially those in leadership positions (pp. 116–17).

Such critical approaches to the Vietnamese state, however, raise important questions as to how and why the party–state establishment continues to enjoy a stable base of public support and broad social legitimacy. On these questions, Reis makes the most direct contribution, breaking with Carlyle Thayer's notion of 'performance legitimacy' and instead embracing a more performative understanding of legitimacy.[1] While the actual

1 Carlyle Thayer, 'Political legitimacy in Vietnam: Challenge and response', *Politics & Policy* 38, 3 (2010): 423–4.

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implementation of development policy takes place in the informal political sphere, where it is shaped by the individual interests of cadres and bureaucrats, she argues that the Vietnamese state continues to derive legitimacy from the formal political sphere, and from the public performance of political deliberation and popular consultation. This legitimacy, she claims, comes not so much from the concrete accomplishments of particular policies, but from the 'image of a bureaucratic apparatus, in which the demands and needs of the people are systematically recorded and constitute the basis for decision-making' and from the 'idea of a political elite acting in the interests of the collective' (p. 158). The performance of development policy thus serves as a means of 'making' the state and cementing its legitimacy both in the eyes of the Vietnamese population and of foreign donors.

These four volumes also offer insights into the realm of 'everyday politics' in contemporary Vietnam, as conceptualised by Benedict Kerkvliet.[2] The most explicit engagement with Kerkvliet's framing is found in Reis, who places the 'everyday politics of water resources management' in the rural Mekong Delta at the centre of her analysis (p. 5). What she often provides, however, is more a depiction of everyday water management practices and access strategies, especially among those who live outside the official water grid or who cannot afford to pay for piped water. What is missing, then, is a clearer portrait of how such populations engage in active contestation with state agents or shape the implementation of development policy, as emphasised in Kerkvliet's work on agrarian politics. Huu's volume, on the other hand, offers a clearer (if fleeting) glimpse of such everyday politics in action, describing how local populations in some areas of Can Tho successfully resisted a development plan unsuitable for local conditions, ultimately compelling local authorities to construct low dykes instead of the high dykes specified in the plans of the central government (pp. 168–9). These lower dykes allowed local residents to retain many of the benefits of the traditional flooding regime while mitigating some of its risks. What Huu's volume lacks, however, is a more detailed account of how this fascinating turn of events actually transpired.

Second, these volumes, especially those by Ehlert and Bauer, also raise important questions on the production, dissemination and politics of knowledge in Vietnam. While Bauer focuses on technical and scientific knowledge, produced and exchanged within an academic context, Ehlert examines local knowledge around environmental conditions and flooding in rural Can Tho. Both authors work from the dictum that 'knowledge is

2 Benedict J. Kerkvliet, *The power of everyday politics: How Vietnamese peasants transformed national policy* (Ithaca, NY: Cornell University Press, 2005).

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power', examining the ways in which power may be exercised through the control of information and the exclusion of others from that information. In Bauer's study of Vietnamese universities and research institutes, for example, technical knowledge, statistics and reports comprise a scarce and valuable resource, to be traded and withheld when it advances the interests of those who possess it (pp. 154–6). For Bauer, such constraints on knowledge dissemination are indicative of broader dysfunctions in the Vietnamese educational and research sector. Ehlert's focus, on the other hand, is on the knowledge that people have of their own local environment and its ecology, but she looks as well at the ways in which social power may be exercised through the exclusion of others from such knowledge. In her case study, this may actually serve to advantage otherwise marginal groups with a keen knowledge of local conditions, such as the landless fisherfolk who make their living by catching fish in submerged rice fields during the rainy season; these fisherfolk are able to protect their particular economic niche by excluding others (particularly the owners of the fields themselves) from their expert knowledge of fish habitats and fishing techniques (pp. 131–43).

While united by a common focus on the politics of knowledge, Bauer and Ehlert provide differing accounts as to what kinds of knowledge matter and why. Bauer, for one, focuses on technological and scientific knowledge, which she argues will play a major role in Vietnam's continued development. Rather than continue to rely on the transfer of such knowledge from other contexts, she argues that Vietnam will need to emerge as a hub of knowledge production in its own right in order to sustain its current trajectory of rapid economic growth (p. 52). Bauer's work, however, is weakened by a lack of specificity as to the exact type of knowledge that she deems important; indeed, while her contribution is ostensibly focused on the production of knowledge around water resource management, it is extremely vague on the precise forms of knowledge produced by Vietnamese universities and research institutes, and on the possible contributions of this knowledge to Vietnam's development. Ehlert, on the other hand, focuses on more concrete examples of non-scientific knowledge about the environment, including traditional means of flood and weather prediction, local architectural adaptations to the climatic vagaries of the Mekong Delta, and the intimate understanding that fisherfolk have of the delta's aquatic ecology. While Ehlert provides more concrete examples than does Bauer of the types of 'knowledge' in question, it is unclear as to why exactly this knowledge is valuable or why it should be of interest to planners and development practitioners, particularly as environmental conditions are changing so rapidly in the Mekong Delta. As one of her

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interlocutors notes, 'floods' in her study 'do not come naturally anymore', but are instead manipulated by man-made infrastructure, and hence traditional methods of predicting floods may no longer be of use (p. 118).

Finally, the four volumes in this series also speak to the literature on agrarian change, both in Vietnam and in Southeast Asia more broadly. Specifically, these volumes echo critical work in Southeast Asian agrarian studies in arguing that, despite the rapid growth of agriculture and aquaculture in the Mekong Delta, the landless and the rural poor have experienced intensified exclusion and vulnerability, rather than upward social mobility or greater livelihood security. The mechanisms of such exclusion and marginalisation are, however, diverse. In Huu's work on dyke construction, they are direct and political; the rural poor and landless were simply not consulted in the planning and implementation of the flood-control scheme (p. 116), even though the proposed high dykes threatened to eliminate one of their key livelihood sources, fishing in rainy-season floodwaters. In the other works, however, the levers of agrarian change are more indirect, and it is the process of environmental change itself which serves to drive marginalisation and exclusion.

In Reis's case study, for example, the degradation of water resources, especially the pollution of rivers and canals through agricultural intensification, industrialisation and fish-farming, serves to exacerbate the vulnerability of the poor and to undermine their position relative to other social groups. For those who live outside the water grid or lack the resources to pay for piped water or to construct their own wells, the only option is to rely on polluted surface water sources or what rainwater they can collect in large containers, thus undermining both their health and well-being (pp. 213–14). In Ehlert's case study, the construction of the flood-control dykes themselves served as mechanisms for exclusion and social marginalisation. With the construction of the dykes, the vast inland sea which used to characterise the flood season in the upper Mekong Delta has largely disappeared, and farmers now cultivate a third crop of rice on the formerly flooded fields. A key common-pool resource — the fish which thrived in flooded fields — has now largely been eliminated, and in its place a more exclusionary private-property regime has emerged, all due to the manipulation of the delta's natural environment and its hydrological rhythms (pp. 157–66).

Collectively, these four volumes offer a fascinating glimpse into the politics — and political economy — of environmental change, water management and knowledge production in Vietnam. They are not, however, without their flaws. For one, they are all doctoral dissertations submitted to the University of Bonn; they do not seem to have been significantly

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edited for publication and are much less polished than typical monographs. All lack indexes, and all contain minor typographical and grammatical errors. Only in Huu's work, however, is there an error that hinders comprehension, as one of his figures (p. 156) seems to transpose the names of his two case study communes, and contradicts the point being made in the accompanying text about the impact of dyke construction on local employment. Some of the volumes would also have benefited from more substantive revisions prior to publication; Ehlert's, for example, reads more as a series of loosely connected (albeit fascinating) chapters, rather than a cohesive monograph, and Huu's is sometimes redundant in its discussion of floods as natural hazards.

This reviewer would also have appreciated a more nuanced explanation from the authors as to why they chose to conduct their research in the Mekong Delta, and how the specificity of the delta — as a unique social, cultural, and ecological construct — shapes the particular phenomena with which they are concerned. There is a rich and vibrant literature in Vietnam Studies on the Mekong Delta as a singular sociocultural configuration and as a unique environmental area, both of which have shaped the region's economic and political development in ways that differ from the rest of the country.[3] Unfortunately, only Ehlert's contribution truly engages with this literature and seeks to highlight the specificities of the Mekong Delta, contrasting the cultural orientation of its inhabitants with that of the northern Vietnamese (pp. 83–98) and providing a rich, ethnographically informed picture of life in the region. The other authors in this series, however, seem instead to be using their case studies as a means by which to explain the planning and policymaking process, the politics of knowledge, or dynamics of agrarian change 'in Vietnam' more broadly, rather than discussing the region's particular (and sometimes aberrant) conditions. More problematically, Bauer (pp. 173, 213) and Reis (pp. 154–5) both invoke the legacy of Confucianism, and Reis that of 'Mandarinism' (pp. 222–3), in explaining current political practices and social configurations, neglecting the wide geographic and temporal distance between the contemporary

3 On the social and cultural history of the Mekong Delta, see Philip Taylor, *Fragments of the present: Searching for modernity in Vietnam's south* (Honolulu: University of Hawai'i Press, 2001); Hue-Tam Ho Tai, *Millenarianism and peasant politics in Vietnam* (Cambridge, MA: Harvard University Press, 1983); *Water frontier: Commerce and the Chinese in the lower Mekong region, 1750–1880*, ed. Nola Cooke and Tana Li (Singapore: Singapore University Press, 2004). On the environmental history of the region more specifically, see Pierre Brocheux, *The Mekong Delta: Ecology, economy, and revolution, 1860–1960* (Madison, WI: Center for Southeast Asian Studies, University of Wisconsin-Madison, 1995); David Biggs, *Quagmire: Nation-building and nature in the Mekong Delta* (Seattle: University of Washington Press, 2010).

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Mekong Delta and the idealised referent — that of pre-modern northern Vietnam — on which these conceptualisations are based.

Despite these shortcomings, however, each of the four works contains important insights and analytical contributions. Ehlert offers an ethnographically rich and contextualised account of water-based lifeworlds in the Mekong Delta; while her focus is broad enough to include many facets of local environmental knowledge and practices — ranging from fishing techniques to local architecture and traditional methods of meteorological prediction — her most valuable contribution is to highlight the differences in how the local population and government planners perceive the annual floods, arguing that 'flooding is not associated locally with a disaster, but rather is valued as a crucial development resource' (p. 37). Huu's work builds on this contribution, critiquing top-down policymaking that fails to take into account the interests and perceptions of local populations. The exclusion of affected populations from the planning and implementation of flood-control dykes, he argues, resulted in a host of negative impacts, both on the livelihoods of the poor and on the land and water environment, as flood-control measures produced intensified erosion, a loss of soil fertility and the decimation of fish stocks. Reis complements Huu's work on the shortcomings of policy implementation with a nuanced and theoretically informed account of a water supply project in rural Can Tho, using this case study to advance an approach to policy analysis which looks beyond official rhetoric to examine how the material interests of individual state actors shape the means and ultimate ends of development programmes, often in ways detrimental to their ostensible beneficiaries. Finally, Bauer examines the structural, ideological and economic constraints that impinge upon the production and dissemination of scientific and technical knowledge in Vietnam. Her work differs from the others in that it focuses on academic and research institutions, but in doing so offers a glimpse into how official knowledge about the environment and water management in Vietnam comes into being, and the myriad reasons for which this knowledge may be deficient or unsuitable for local conditions. Given the many ways in which they complement one another, and the fascinating issues that they raise, I would encourage anyone interested in environmental change and water management in the Mekong Delta to consult these four volumes, preferably as a set.

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