

RURAL DEVELOPMENT AND WATER RESOURCE MANAGEMENT IN VIETNAM AND THE GREATER MEKONG AREA

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Prologue

I first came to Hanoi in 1989. It was a quiet town, no motorcycles, not too much to buy in the stores. My first task was to organize a seminar much like the one we are having today with one big exception. The title of the seminar was “The impact of agricultural policies: experience from Asian and European countries and possible implications for Vietnam”. (Barker ed. 1992). There were eight of us and as the title would suggest, we knew a lot but not about Vietnam. We thought there would be 30 people attending the seminar, but it turned out to be 300, and it was held in the Ho Chi Minh auditorium.

So one of my first tasks was to find someone who could tell me about agricultural and rural development in Vietnam. I had the good fortune to meet Pr. Dao The Tuan. He spoke my language. I mean he not only spoke English, but like me, was something of a cross between an agricultural economist and agronomist. He was even very conversant on the recent literature in the field. Thereafter, when I met any colleagues headed for Hanoi, I told them to look up Dao The Tuan. I feel honored to be attending a seminar to commemorate his remarkable career.

Introduction

I have divided this paper into three parts: (i) Doi Moi, 1980s and 90s, (ii) Mekong Delta -1990s-2000, (iii) Challenges for the future: land tenure, hydropower, global climate change. We focus on integrated rural development at this conference. But the challenge is to manage the land and water resources for the development of both agriculture and industry.

Doi moi: 1980s and 1990s

Doi Moi (English “renovation”) the name given to the set of economic or policy reforms initiated in the mid-1980s to create what came to be known as a “socialist-oriented market economy”.¹ In Vietnam as in other Asian countries, land reform was the starting point (chart 1). This is because with more than half of the work force in agriculture it was necessary to generate an agricultural surplus to create the foundation for industrial development.

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It is worth noting also that reforms in Asia often have been associated with or following a political crisis or crop failure (Chart 2). In the case of Vietnam, there was a food or rice crisis in the mid to late 1980s beginning with the sharp decline in rice production in 1986. This was accompanied by political unrest in the south and near famine in the north (Elliott 2012). All of this seems to have spurred on the reforms.

Steps had been taken to improve land use and management even prior to the 1980s, However, following in the path of the Chinese land reform a decade earlier, the Land Law of 1987 began the process of decollectivization or turning over managing the land from the collectives to the small farmers.

The Land Law of 1993 allowed for the bartering or trading of land use rights among farmers but did not allow for the establishment of a market in land-use rights (Nguyen Quang Tuyen 2010). Subsequent land laws (1998, 2001, 2003) often following the practice, provided greater flexibility and transparency in title to land use rights while continuing to recognize that land was the property of the state.

The second most important policy change affecting agriculture and rural development was the liberalization of the markets in 1990 (Chart 1). For agriculture this meant turning over fertilizer import and distribution and rice production and marketing to the private sector. This opened the door for the rise in exports of rice discussed in the following section.

Managing water in the Mekong Delta: 1990s – 2000s

After years of importing rice Vietnam began exporting in the 1990s. The export levels were at first very modest (Chart 3). In 1990 there was only one Japanese type rubber roller mill that could export quality rice.

Rice for export was brought in sacks from the Mekong Delta to the port area south of Saigon. There (as I personally observed) it was dumped out on the floor and sorted or graded for export, even with cheap labor a rather expensive process.

But soon Vietnam was manufacturing its own mills and the quantity of rice for export grew rapidly. This was due in large measure to the management of water by the development of the *dyke system* in the deep water areas of the Delta (Map 1). By controlling the flood waters with dykes and pumps (see picture) it was possible for farmers to plant one crop of rice before and one after the annual floods. Yields increased from less than two tons per hectare to more than 8 tons (4 tons for the first and second crop). Most of the exports come from the four provinces below the Cambodian border. Now that Vietnam is the world's leading exporter of rice (Chart 3) farmers are being encouraged to diversify and grow higher valued crops in the dry season. In fact even in the saline areas shrimp exports have frequently exceeded rice exports in value (Chart 4). No one wants to be the world's leading exporter of rice for long.

Challenges for the future: land tenure, hydropower and global climate change.

As an economy develops farmers are continually faced with adjusting to the ever changing situation. Land reform was the corner stone of development in the 1980s and 90s. But now there is a need to consolidate land holdings and take advantage of mechanization as labor seeks employment in industry and services. Chart 5 shows the steady decline in the labor force and

GDP in agriculture. (Parenthetically, GDP in agriculture is approaching 15 percent roughly the point at which per capita consumption of rice in the Asian rice economies declines).

With the demand for land for non-agricultural purposes rising farmers are in danger of losing their land use rights. The State is able to acquire land with little compensation to the farmers (Le and McPherson 2010).

Thus to insure a positive path for *rural development*, there is a need to protect farmers from losing their land use rights and being exploited by the State. Here China's recent experience in moving rapidly to large mechanized farms may serve as a lesson in what to do and what not to do.

But the Mekong Delta faces an even greater challenge. Not so long ago 80 percent of the developed water supplies were ear-marked for agriculture. Now there are growing demands for water for non-agricultural purposes. Chart 6 depicts the competition among users and uses. For the greater Mekong region there has been a huge construction of dams for hydropower (Map 3) and concerns about the downstream impacts in the short or long run on fisheries, agriculture, the environment, flood control – in short *rural development*.

Finally, turning downstream there is the further uncertainty posed by global warming and the potential rise in the level of the ocean. The impact here will be felt in both the rural and urban areas.

In closing before moving to the *epilogue* I should point out that there is very little to be learned from the United State with respect the management of our water resources. But the problems the US faces in the management (mismanagement) of its water resources is another story.

Epilogue

We began this paper with reference to a 1990 conference held in Hanoi– what Vietnam could learn from the experience of others. Now a quarter century later it is fair to ask – what can others learn from the experience of Vietnam, and perhaps even what Vietnam can learn from its own history of agricultural and rural transformation?

Like many others, I have become interested in Myanmar, a neighboring country which seems to be experiencing its own *doi moi*. That is to say, many of the same problems facing Myanmar today are similar to those faced by Vietnam in the 1980s – for example, land tenure, managing the water in the Irrawaddy delta and so forth. Chart 7 suggests that by learning from the experience of Vietnam, Myanmar could once again become a world leading exporter of rice. This thought may cause concern to many in Vietnam, but don't worry, this will not happen overnight. As in your own case, it will take at least a decade or two for this to happen.

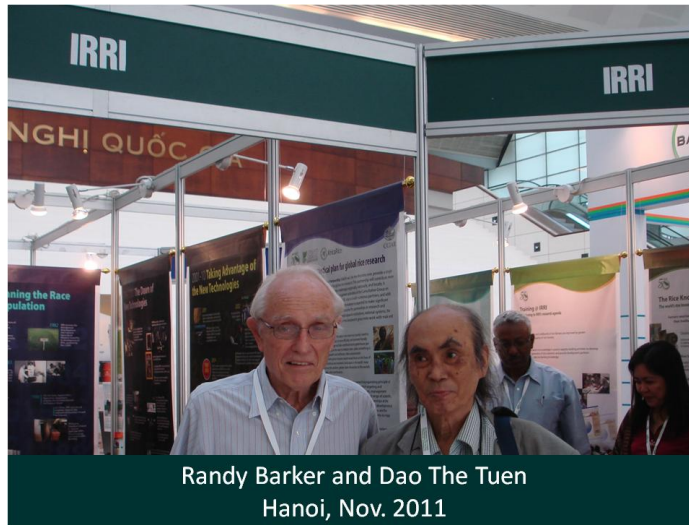


Chart 1: LAND REFORM IN ASIA

- ❖ JAPAN 1945 – following World War II
- ❖ TAIWAN 1953 – “land to the tiller”
- ❖ CHINA 1977 – decollectivization of agriculture
- ❖ VIETNAM 1985- 87 – doi moi and 1987 land law - decollectivization

Chart 2. Policy changes and paddy production, 1975-2002

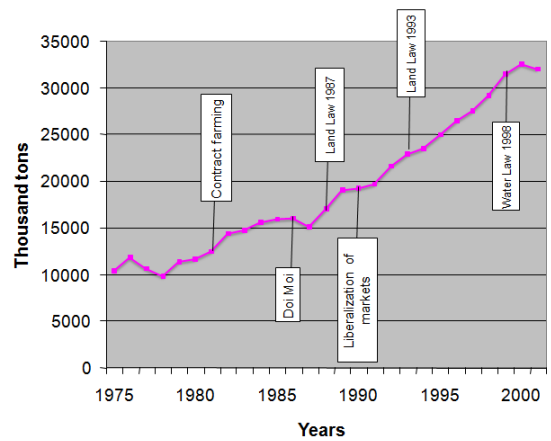
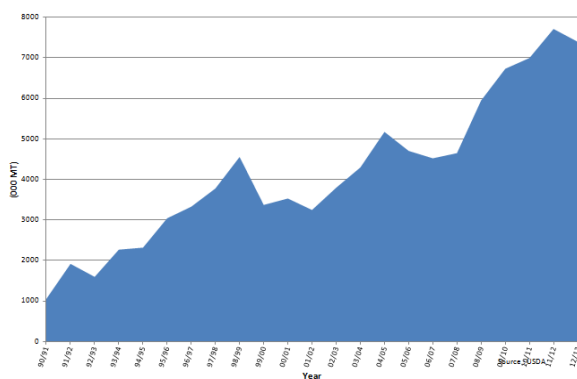
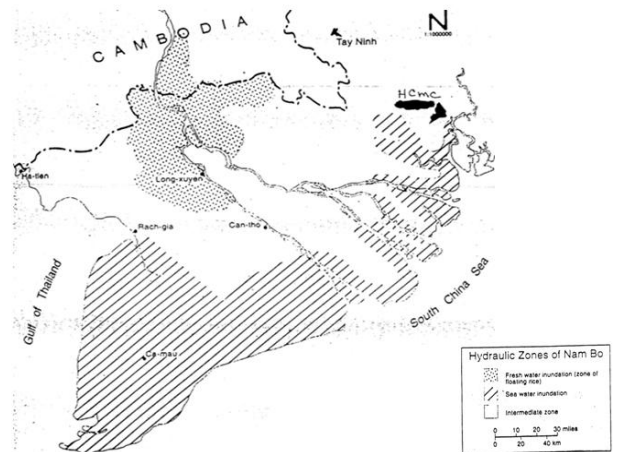
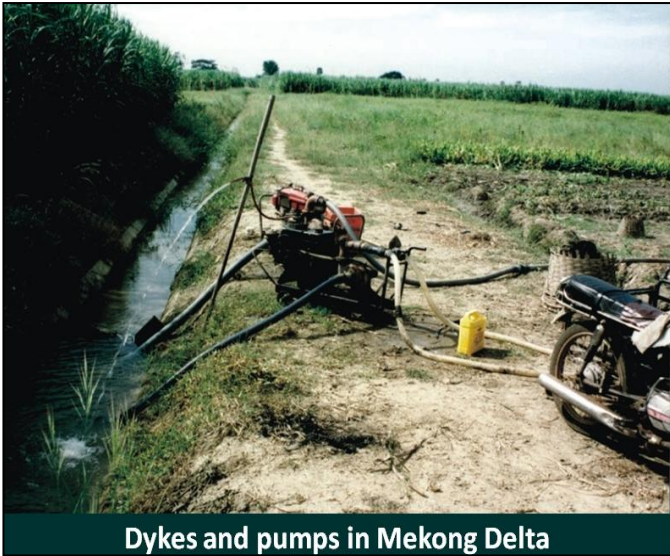


Chart 3. VIETNAM RICE EXPORTS 1990-2012



Map 1: Mekong Delta 1975





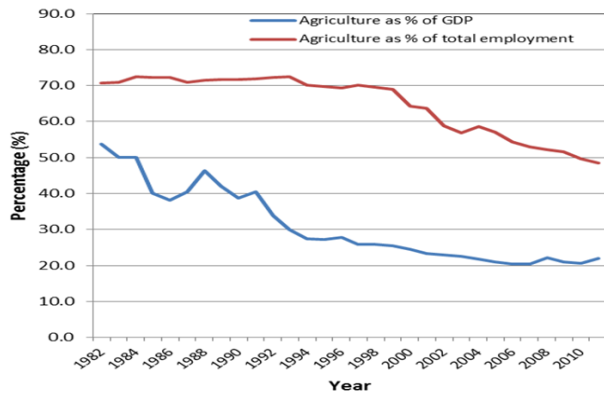
Dykes and pumps in Mekong Delta

Chart 4. Vietnam value of exports of rice and seafood, 1994-2001

	1994	1998	1999	2000	2001
Rice	429	1024	1025	638	588
Seafood	551	858	971	1475	1800

Value in US\$ million

Chart 5: Percent labor force in agriculture and the percent of agriculture in GDP, Vietnam, 1982 to 2011.



Map 2: Mekong river

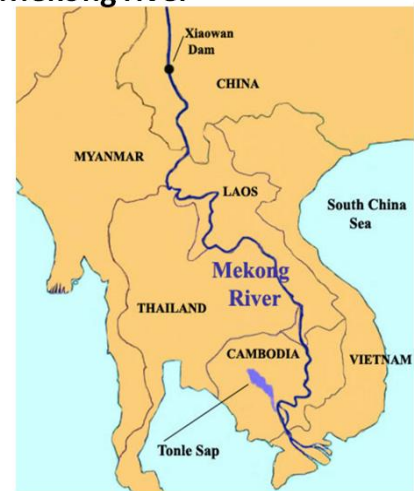
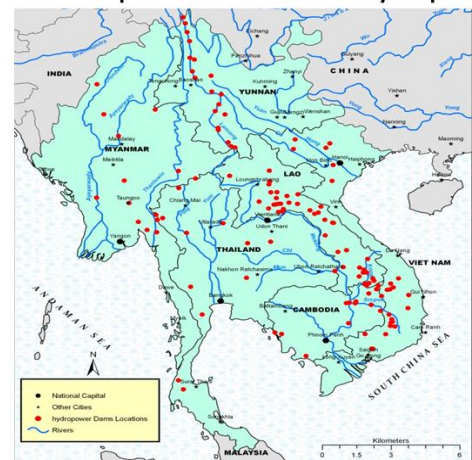


Chart 6. Competition among users and uses

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> China | <input type="checkbox"/> Hydro-power |
| <input type="checkbox"/> Myanmar | <input type="checkbox"/> Flood control |
| <input type="checkbox"/> Thailand | <input type="checkbox"/> Urban-industry |
| <input type="checkbox"/> Laos | <input type="checkbox"/> Agriculture |
| <input type="checkbox"/> Cambodia | <input type="checkbox"/> Fisheries |
| <input type="checkbox"/> Vietnam | <input type="checkbox"/> Environment |

Map 3: Each dot represents location of a hydropower dam



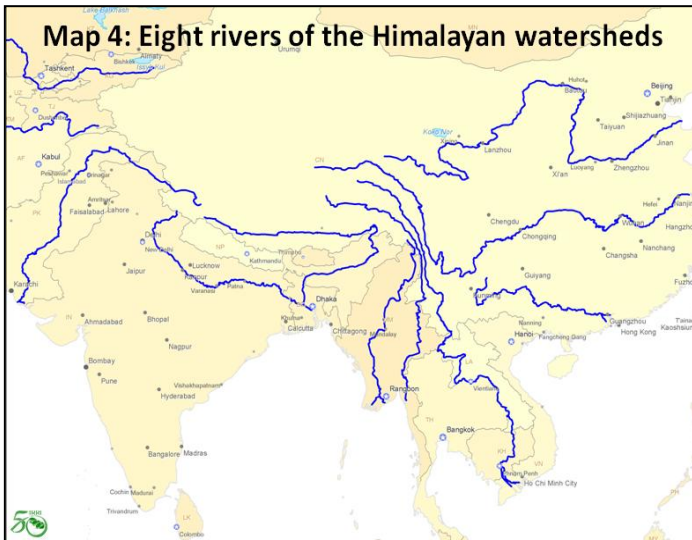


Chart 7. Profile of three Asia rice-growing deltas

Parameters	Ayeyarwady, Myanmar	Ganges-Brahmaputra, Bangladesh	Mekong, Vietnam
Yield (t/ha)	2.1	3.8	5.3
Cropping intensity (%)	120	150	200
Gross Value (\$/crop/ha)	590	710	1,500
Land (ha/capita)	0.23	0.06	0.07

Source: Social Sciences Division, IRRI, survey data, 2010

References

Barker, Randolph ed. 1994. Agricultural policy analysis for transition to a market-oriented economy in Viet Nam: selected issues. Economic and Social Development Paper 123. Rome: FAO.

Barker, Randolph ed. 1994, The impact of agricultural policies: experience from Asian countries and implications for Vietnam. Penang, Malaysia: Southbound.

Barker, Randolph, Claudia Ringler, Nguyen Minh Tien, and Mark Rosegrant 2004. Macro policies and investment priorities for irrigated agriculture in Vietnam. Comprehensive Assessment Research Report 6, Colombo, Sri Lanka: International Water Management Institute.

Dang Kim Son, Nguyen Ngoc Que, Phan Kuang Dieu, Truong Thi Thu Trang and Melanie Beresford. Policy reform and the transformation of Vietnamese agriculture. FAO Research (mimeo).

Elliott, David W. P. 2012. Changing worlds: Vietnam's transition from cold war to globalization. Oxford: Oxford University Press.

Hoanh, Chu Thai, Thierry Facon, Try Thuon, Ram C. Bastakoti, Francois Molle, and Fongamuth Phengphaengsy, 2009. Chapter 6 in Molle, Francois, Tira Foran, and Mira Kakonen (eds.) 2009. Contested waterscapes in the Mekong Region: hydropower, livelihoods, governance. London: Earthscan.

Le Thi Quynh Tram and Malcolm McPherson, 2010. Police brief: Land as an asset and land policy in Vietnam. Harvard University: John F. Kennedy School of Government (mimeo).

Ly Thim 2010, Planning the lower Mekong Basin: social intervention on the Se San River. ZEF Development Studies Vol 16: University of Bonn, Center for Development Research.

Molle, Francois, Tira Foran, and Mira Kakonen (eds.) 2009. Contested waterscapes in the Mekong Region: hydropower, livelihoods, governance. London: Earthscan.

Molle, Francois, Louis Lebel, and Tira Foran, 2009 Contested Mekong waterscapes: What next? Chapter 15 in Molle et. al. eds Contested water scapes on the Mekong: hydropower, livelihoods, governance. London, Earthscan.

Nguyen, Quang Tuyen, (2010). Land law reforms in Vietnam. Working paper series no. 015. Singapore: Asian Law Institute.

Pham Cong Huu, 2011. Floods and farmers: Politics, economics, and environmental impacts of dyke construction in the Mekong Delta, Vietnam. ZEF Development Studies Vol. 18: University of Bonn, Center for Development Research.

Pingali, Prabhu L. and Vo-Tong Xuan, 1992. Vietnam: Decollectivization and rice productivity growth. *Economic Development and Cultural Change*. 40:4 p. 69.

Pingali, Prabhu L., Nguyen Tri Kheim, Roberta V, Gerpacio, NS Vo-Tong Xua, 1997. Prospects for sustaining Vietnam's reacquired export status. *Food Policy* 22:4, pp. 345-358.

Pomeranz, Kenneth, 2009. The great Himalayan watershed: agrarian crisis, mega-dams and the environment. *New Left Review* 58, July-August 2009.

Thong, To Phuc and Chu Thai Hoang (mimeo) 2009, Managing water and land resources for sustainable livelihoods at the interface between fresh and saline water environments in Vietnam and Bangladesh. Project No. 10 for submission to the CGIAR Challenge Program for Water and Food.