

Water management decentralization in the Red River delta, Vietnam An uncompleted transition process toward local governance

Paper for the Eighth Biennial IASCP Conference, Bloomington, 31/05-4/06/200

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This paper aims at proposing an analysis of the Red River Delta (RRD) water control system institutional situation. In recent years several studies such as the Red River Master Plan (Binnie and al., 1995) and the Water Management Sector review (1995), have been demanded by Vietnamese government and financed by international donors on the subject of RRD water control systems assessment. Their common statement is to say that the irrigation and drainage infrastructure is seriously deteriorated due to underfunding. Most of drainage and irrigation pumping stations are old. The difference between the actual pumping capacity and the design capacity is reported to be generally about 30% to 40%. The principal findings of these studies are that significant capital expenditure is necessary to restore current design performance and upgrade existing systems capacity (Binnie and al., 1995).

As an introduction to this subject and in order to get a better understanding of RRD current situation, this paper starts with a presentation of RRD water control modernization along the years. This modernization led to the settlement of a very intensive agriculture in which water control high capacity is playing a major role. Yet, RRD agricultural results cannot be understood without a perspective on Vietnamese successive political reforms which took place in the last two decades. The presentation of RRD technical and institutional framework changes is the object of the first part of this paper.

Then, the second part is focussing on Bac Hung Hai polder. Investigations were conducted at local level in this polder and then compared to general findings presented in Red River Master Plan¹. They show that water control systems are sometimes old and not managed as they could be. But there is no such a difference between pumping and design capacity. Management state agencies have decreased their capacity but the gap has been closed by the development of local pumping stations, managed by localities. Pumping equipment is not as old and degraded as mentioned when this evolution took place mainly during the 1980s and concerns half of the studied area. The primary objective of this study is, therefore, to provide information on local dynamics and to detail the participation of each concerned actor, from central to local level.

Moreover, interviews at each involved institutional level, combined with the analysis of seasonal contracts established between companies and cooperatives, give another appreciation of the current situation. It seems that more than a question of age of the pumping stations and of lack of investment devoted to hydraulics, management difficulties are due to inappropriate recognition of the role and unequal capacity of negotiation of each involved institution. These views are developed in the third part of this paper.

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¹ This paper is based on results of "DELTA" INCO-DC research project, implemented by GRET, Paris, and VASI, Hanoi, and funded by the European Union.

Actually, recent legal documents do not show much recognition for local participation even though they are managing half of the irrigated area. On the other hand government agencies are not able to adapt themselves to present evolution of the water control systems due to legal constraints. They would not be able to moderate their expenditures and increase their source of income even if they were willing too. The presentation of the present legal framework followed by questions and interpretations about the State attitude toward water management decentralization and privatization, is the object of the last part of this paper.

1. RRD water control system evolution

Vietnam is a hilly and mountainous country of 331,700 square kilometers large with only one third of plains, mainly Mekong and Red rivers deltas. The RRD is the smallest of the two deltas, with a gross area of 1.5 million hectares, equal to only 4.5 % of Vietnam total area (Le Ba Thao, 1997). RRD total population is equal to 20 million inhabitants, 27 % of the 75 million total Vietnamese population (ibid.). These two figures lead to high population densities of more than 1000 inhabitants per square kilometer. RRD may present the highest rural densities in the world.

Water control modernization

High population densities do not constitute a new characteristic of the RRD, as they were already above 400 at the beginning of this century (Dumont, 1935 ; Gourou, 1936). Actually, the RRD is an old human settlement area, attested to be reclaimed by paddy growing farmers for more than 2000 years (Sakurai, n.d.). RRD is known for its high and strong summer river floods as well as monsoon typhoons and droughts. To minimize the impact of these calamities, water control works, such as dike and canals construction, were initiated more than 8 centuries ago (Chassigneux, 1912). Dikes protected Vietnamese population from Red river floods during monsoon. Canals provided water to paddy fields, from river gates through dikes, during dry season. In order to secure and intensify paddy agriculture, irrigation tools such as water lifting basket and tripod scoop, were introduced for more than 7 centuries.

Actually, RRD agriculture was facing many difficulties due to the constraint of water gravity flow. Occurrence of droughts and floods was high. This situation changed at the beginning of the 1960s when the North Vietnamese State initiated a policy of collectivization of agriculture. The State put direct emphasis on mechanized drainage and irrigation, in order to modernize agriculture. Large drainage and irrigation schemes were created, channels giving access to rivers were dug, large scale irrigation and drainage pumping stations were built. These works combined with the introduction of improved paddy varieties and chemical fertilizer use, led to the intensification and perpetuation of two crops a year on all RRD paddy land.

Nowadays the totality of the Red river as well as other rivers in the RRD, is embedded within a complete network of earth dikes, along which several gates allow water transit. This network of dikes individualizes 30 hydraulic polders, independent to each other in term of water control. They are equipped with a set of electric irrigation and drainage pumping stations which supply and evacuate water. High population densities do not seem to arm RRD food security anymore, as agriculture production provides more than 300 kg of paddy per head and per year (Dao The Tuan, 1998). Agriculture is very intensive and RRD paddy production represents 22 % of Vietnamese whole paddy production. The RRD seems to combine successfully high densities with intensive agriculture and strong water control measures.

Political reforms

RRD water control modernization began under the political framework of agriculture collectivization and cooperatives settlement. More than a technical improvement only, it was a complete change of mentality, from village backward feudalism to modernity and rationality, through the use of experience gathered in “advanced science and technology” (The constitutions of Vietnam, 1995). Agriculture collectivization and water control were considered as tightly linked, one cannot be implemented without the other (Duong Binh, 1973). Water control modernization was assigned the strategic mission to facilitate agriculture collectivization. The combined effects of population mobilization during hydraulics collective works such as canal digging and the improvement of agriculture conditions were supposed to upgrade population participation to new cooperatives (Vo Nhân Tri, 1967 quoted by Yvon-Tran, 1994).

From the beginning of the 1960s to the end of the 1970s a huge amount of work was achieved. In comparison with 1959 2.3 million man-days, 9.8 million man-days were recorded in 1962. In Hung Yen province only, 4000 kilometers of canals were dug at the end of 1963 (ibid.). In terms of direct investments from the State, more than 80% of funds were dedicated to water control improvement. Between 1961 and 1965, more than 2500 pumping stations were built in the RRD. But more than a simple modernization of infrastructures, changes occurred in the way Vietnamese government intended to manage water supply. Water distribution was organized through the rotation of a strict irrigation-turn amongst each cooperative belonging to an irrigation scheme (Fontenelle, 1999). From a local management at village level, water management was given to state, provincial and district water control services. Farmers were absent from the water distribution process (ibid.).

This situation last until the beginning of the 1980s when Vietnamese authorities recognized the failure of “great socialist agriculture” and proposed through the *Khoan 100* (directive 100) a new contract of production with farming households. This reform came in a context of economic crisis as well as farmers reluctance to collectivism (Beresford, 1988 ; Yvon-Tran, 1994). Concerning water control, the theoretical organization under the leadership of state services was already facing many difficulties during the 1970s due to cooperatives unwillingness to respect strict rotations (Fontenelle et Tessier, 1997). In order to avoid dependency from centralized system of water supply, several local pumping stations were implemented by cooperatives which were getting a kind of autonomy in terms of irrigation (ibid.).

The implementation of local pumping stations increased during the 1980s and took benefit from further political reforms initiated by Vietnamese government. In 1984, through the directive 112/HDBT, the central government slightly decreased its commitment to water management, by partly privatizing water control services. A new actor, the Irrigation and Drainage Management Company (IDMC), was created in each polder. Moreover these IDMCs were supposed to balance their accounts through the collection of a new tax at the cooperative level, the water fee.

Furthermore, the launching of the *Doi Moi* in 1986, which consisted of the abolition of subsidies and liberalization of production activities and cost, and of *Khoan 10* (directive 10) in 1988 which consisted of land redistribution to farming households, created new conditions for agriculture and water management. Electricity cost increased rapidly which was difficult to face by IDMCs. Farmers had to pay the water fee directly to their cooperative but could also decide of their agricultural products on an individual basis. Agriculture became more diversified and intensive as water demand did. This policy of liberalizing economy went a step further in 1993 with the implementation of the Land Law which guaranty farmers use of land for 20 years on paddy land and 50 years for perennial crops. At last, the State launched a

law on cooperatives in 1996 in order to improve their management in a way which is reminding 1984 reform on IDMCs. Cooperatives are no more considered responsible for production. They are now supposed to provide a service to farmers, on which they can take some benefit.

From a centralized water control system managed by state provincial and district services during the 1960s, water management in the 1990s presents the image of a complex dual system of local irrigation schemes, managed by cooperatives, included into former centralized schemes managed by IDMCs (see table 1). Such a situation does not seem to be clearly assessed by studies available at central level, as expressed in introduction. Moreover, the succession of important reforms such as the Land Law and the reform on cooperatives does not facilitate the comprehensive understanding of the institutional organization of water management. This vagueness led to the implementation of a research program on current RRD water control system. This program was initiated at local level. Results will be exposed in the next part of this paper.

2. Bac Hung Hai polder water control system

Bac Hung Hai polder (BHH) is the largest polder and the first in which hydraulics modernization was implemented at the end of the 1950s (See map 1). It encompasses 15 districts from 4 provinces. Large of 210,000 hectares, with 185,000 inside the dikes and 126,000 cultivated, BHH is equivalent to 13 % of the RRD total area. Like other RRD polders, BHH got an intake sluice and two exit gates, connecting the embedded land to the river. They are connected to each other's through a network of dual-purpose canals which are both acting as water transportation canals in dry season, and water storage canals in monsoon season. Drainage and irrigation pumping stations are built along this network. During the dry season, irrigation stations are providing paddy land with water by lifting it up into the fields. During monsoon season, river water levels are higher than field levels, and drainage stations are allowing water evacuation from the fields above the dikes and into the river.

During monsoon season, which is a flood and typhoon period, gates along rivers are closed. Excess water is pumped from inside the hydraulic polder over the dike into the river. During spring and winter seasons, which are main drought periods, water is coming from the river through the gate into a canal. Then, irrigation pumping stations, built along the canal, supply a second set a canals which are providing paddy fields with water by gravity.

	Hardware	Technical practices	Administrative set-up	National policies	Weight of local political networks	Main cropping pattern
Water control system before 1960	natural drainage canals, ponds, short irrigations canals	scooping, gravity when high tides	village (<i>lang xa</i>)	Protection against floods and droughts along the main rivers, private property	local laws fix all the rules	one crop of spring rice or summer rice
Water control system between 1960 and 1980	high density of drainage and irrigation canals, hydraulic unit of a large irrigation scheme, first local stations	gravity irrigation	district water control service, cooperative, brigade	Centralized management of water from the river to the field intake, high subsidies, collectivization of agriculture	rules are made at central level, local level is not officially involved in decision making	two crops of rice
Water control system after 1980	irrigation and drainage canals, increasing number of local irrigation schemes with their own pumping stations	water scooping and gravity irrigation	cooperative, IDMC	Protection against floods and droughts, land private re-distribution, laws on cooperatives, IDMCs and water fee	local level is taking over irrigation management, IDMC manages water catchment and drainage	two crops of rice and one winter dry crop (50%)

Table 1: Historical evolution of water control system in the Red River Delta, example of Nam Thanh district (Fontenelle, 1999)

Management

An Irrigation and Drainage Management Company (IDMC) manages the BHH unit water control system. The IDMC is supervised by a System Management Council, constituted of representatives from the 4 Province Water Resource Services, and chaired by the Water Resources Department Director, from the Ministry of Agriculture and Rural Development. The IDMC is responsible for water allocation from the river to the dual-purpose canals central network on the whole BHH perimeter, and for most of drainage facilities manipulation (pumping stations and gravity gates).

The IDMC has under it 15 subsidiary or district companies (IDMSC), established on the basis of district administrative boundaries. The IDMSCs obtain water from the IDMC, which they pay for with water fee revenues. They are responsible for irrigation, and for drainage to some extent. Each IDMSC has an associated set of about ten irrigation groups, each responsible for 1,000 hectares or so. Irrigation groups, in turn, work with agricultural cooperatives to manage water, maintain facilities and collect the water fee. Irrigation groups are responsible for irrigation management, for maintenance and repairs from the pumping station to the primary canal included.

Cooperatives are the last formal level involved in irrigation. They are responsible for irrigation management, maintenance and repairs from the primary canal downstream into quaternary canals included, just before the fields. Cooperatives collect the water fee from farmers and give it to IDMSCs.

In comparison with BHH IDMC, which can get subsidies from Government side, IDMSCs must above all rely on water fee collection in order to balance their accounts. They have to cover water allocation cost, pumping stations electricity cost, maintenance and repairs cost, salaries, management, etc. In particular occasions such as floods and droughts, some subsidies can be awarded from the provincial level to the IDMSCs, in order to decrease farmers water fee burden.

Equipment

According to the BHH IDMC Director, the whole BHH water control system includes approximately 600 stations managed directly by the IDMC or IDMSCs. Other stations exist. They belong to cooperatives and were not recorded at IDMC level. Actually, local surveys conducted in each IDMSC showed that a total number of 996 irrigation stations was recorded. Moreover, out of these 996 stations, 293 only were under the responsibility of IDMSCs, while 703 depended from the cooperatives.

Data collected on spring season 1996 show that within an irrigated area of 100,000 hectares, more than 53 % were supplied by cooperative stations and 43 % only by IDMSCs stations (see table 2). These figures are close to those presented in this paper introduction but they are also showing another reality. Actually if IDMSCs actual capacity is rather low, this situation is balanced by the high pumping capacity of local cooperatives. In some districts IDMSCs are only providing less than one third of what they were supposed to provide in the past. This evolution will be highlighted through the presentation of Van Giang scheme water supply evolution.

District	IDMSC (in ha)	Cooperative (in ha)	Total (in ha)	% IDMSC	% Cooperative
Gia Lam ²	1665	132	1892	88	7
Thuan Thanh	4312	1761	6073	71	29
Gia Loc	3796	3367	7163	53	47
Chau Giang	4934	2129	9675	51	22
An Thi	3238	3651	6889	47	53
My Van	5391	6094	11719	46	52
Tien Lu	2061	2733	4794	43	57
Thanh Mien	2642	4499	7141	37	63
Kim Dong	1547	2749	4296	36	64
Cam Giang	1877	3338	5215	36	64
Gia Luong	3282	6094	9376	35	65
Phu Cu	1671	3244	4915	34	66
Binh Giang	1492	4245	5737	26	74
Tu Ky	1949	5196	8119	24	64
Ninh Giang	1633	5255	7101	23	74
Total BHH	41490	54487	100105	43³	53⁴

Table 2: District area supplied by IDMSCs and cooperatives in spring 1996

Van Giang irrigation scheme

Data presented previously did not give any appreciation of cooperatives pumping stations implementation dynamics. A specific study was implemented in Van Giang irrigation scheme in order to get more detail about these dynamics chronology and growth rate. Van Giang scheme is the second largest scheme of BHH system, just behind the 18,000 hectares of Gia Thuan scheme. This scheme fits in Chau Giang district boundaries. It is 14,000 hectares large and supplied by the single station of Van Giang.

Results of the survey are presented in chart 1. What should be established at the very outset is that IDMSC data underestimate local pumping stations implementation. A total amount of only 28 local pumping stations is officially recorded at Chau Giang IDMSC level, when 62 were actually observed during the survey. Secondly, local pumping stations implementation process was already initiated at the beginning of the 1960s. About ten local pumping stations were implemented by district services and managed by cooperatives soon after Van Giang scheme creation in 1962. Finally, their number remained more or less stable until the end of the 1970s. But local pumping stations implementation rate increased dramatically at the beginning of the 1980s and did not dropped yet. Within 11 years only, their number tripled, from 18 stations in 1983 to 55 in 1993. Therefore, Chau Giang district irrigation stations do not appear in their large majority older than ten years or so.

² Cooperatives outside BHH polder are not taken into account.

³ 4 % difference is due to missing data.

⁴ Idem note 2.

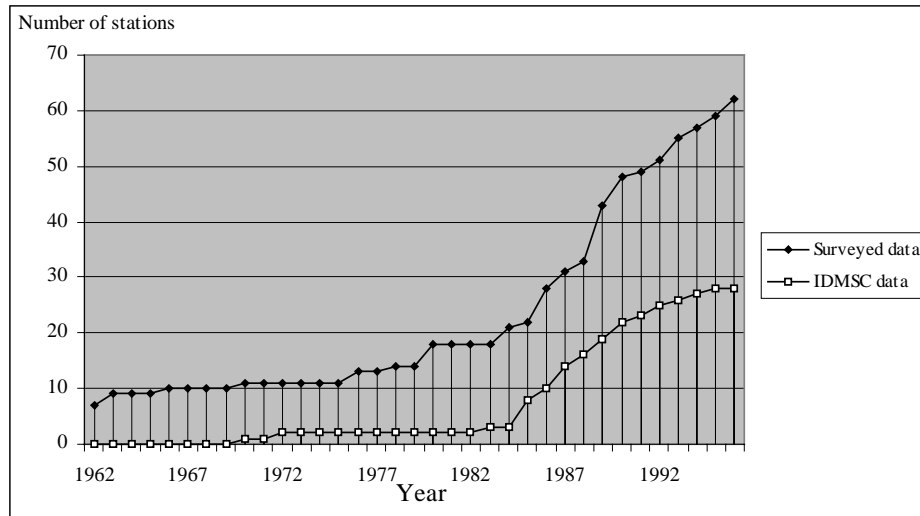


Chart 1: Local pumping stations implementation in Van Giang irrigation scheme

This example shows that Van Giang water supply system is not as weak and old as official reports could rightfully lead one to suppose. Actually, Chau Giang IDMSC hardly succeeded in supplying water on the basis of its pumping station design capacity. But this inability was balanced by local pumping stations development. Their role increased progressively and became even essential to Chau Giang district irrigation supply. Instead of 2129 hectares presented in table 1, surveyed data give an estimated area managed by cooperatives of 3196 hectares. In fact, Van Giang scheme evolution is common to other perimeters of BHH hydraulic unit. Table 1 highlights the supremacy of cooperatives in most of BHH districts in terms of water supply responsibility. In addition, other references gathered in Nam Thanh and Nam Ha polders, account for a similar evolution (Fontenelle, 1999; Yasuyuki and al., 1999).

A complex and dense irrigation system

One of the most important consequences of local pumping stations implementation in the RRD, is the individualization of local irrigation schemes. Local perimeters are now independent from the old large perimeters, because local stations are getting water from zones that are not linked to IDMSC stations activity. These zones are constituted from the dual-purpose canals connected to the river intakes, and the lowland areas flooded during monsoon season.

Such a presentation allows on the one hand a better perception of the historical depth and the extent of local irrigation implementation. On the other hand it accounts for the current hydraulic framework complexity which is now melting cooperatives and IDMSCs responsibilities.

To some extent, cooperatives are in several cases fulfilling the same duty than IDMSCs. Because they are independent in terms of water resource allocation, they are now in direct competition in terms of financial resources. Actually and due to local irrigation importance, cooperatives need to pay for their water supply expenditures. Therefore, the issue is to assess if cooperatives can afford to pass on the entire collected water fee to IDMSCs, as they are supposed to. Or else if IDMSCs can accept to decrease their revenues by sharing the fee with cooperatives. This issue will be discussed in the next chapter.

3. Decentralized water management through local negotiation

The payment of an individual water fee

Every six months farmers have to pay an individual water fee which is collected by the cooperative. Farmers fee is based on their irrigated paddy land area. Most of them do not know any detail about water fee calculation. They only know how many kilos of equivalent paddy they have to pay at the end of each rice season. Actually, the amount they pay is combining water fee, land tax and several local taxes. Yet, it is obviously very difficult for them to estimate the exact value of each levy. This information is held by the village chief who is in charge of tax collection on behalf of communal authorities.

Water fees and their calculation are based on a national decree that the government cabinet promulgated in August 1984 (112 HDBT, 1984). This decree specifies that all organizations and individuals benefiting from irrigation, drainage and other hydraulic public services, have to pay a water fee to hydraulic companies. Each company must sign a contract with water users in order to establish the amount to be paid. The Province Water Resource Services shoulder the responsibility for water fee calculation. The water fee rate cannot exceed 8% of each province average paddy yield of the last five consecutive seasons, for spring and summer seasons. This maximum rate is estimated for both electric irrigation and electric drainage services. Other kinds of irrigation and/or drainage and winter season hydraulic cost if any, have lower water fee rates. Due to the fact that the fee is expressed in kilos of paddy, even if farmers now pay in cash, the Province decides every year an official rate for one kilo of paddy. This is done in order to avoid speculation.

Actually, water fee level depends on three subsidiary costs linked to water allocation, irrigation and drainage activities. Water allocation from the river to each pumping station, via the dual-purpose canals network, generates allocation cost. Water allocation cost is linked to irrigation activity and is not specified but aggregated to irrigation cost. The irrigation activity generates irrigation cost for both seasons. The cost is depending on irrigation local specific conditions. Water can be directly supplied by gravity. Irrigation can need one or two successive pumpings. Water can enter from the quaternary canal into farmers fields directly by gravity or it may need a lift with a scoop handled by farmers. The drainage activity generates gravity drainage cost and/or electric drainage costs, during the summer rainy season only.

During spring season the water fee amount is mainly dependent on irrigation activity due to crops water needs and electric irrigation pumping stations high operation cost. Allocation cost does not represent a high percentage of the irrigation cost, as it is a gravity process only. During summer season, the water fee amount is mainly dependent on drainage activity due to excess rainfall and the electric drainage pumping station high operation cost. There can be some irrigation cost too, due to the occurrence of drought periods during summer season. The water fee paid by each farmer is theoretically based on such calculations.

The existence of negotiated service contracts

Interviews conducted with each IDMSC revealed that all cooperatives sign service contracts with their concerned district IDMSC. These contracts are established on seasonal or annual basis by mutual agreement. They are signed between each cooperative Director and the concerned IDMSC Director. Contract objective is to quantify the cooperative seasonal or annual water fee amount. For spring season, the cooperative cultivated area is specified with details on supplier identity. Water can be either provided by the IDMSC or by the cooperative itself. For the area supplied by the IDMSC, more details are given. The first one is the kind of crop which is irrigated : rice, rice nursery, food crops or industrial crops. The second one is the kind of irrigation which is provided : direct gravity irrigation, single or double pumping,

“hand lifted” irrigation. For each type of crop and irrigation, there is a fee rate in kilo of paddy per hectare, which is based on Province regulation. This rate is multiplied by the area of each type of crop and irrigation, and then summed. This sum gives the irrigation fee amount, including the allocation cost, to be paid by the cooperative to the IDMSC. For summer season, an estimate of drained area is given. The area is equal to cooperative summer season cultivated area. The date, the place and the nature of payment are specified too.

Contracts do not give an estimate of the water fee paid by farmers. They only correspond to the drainage fee, increased by the irrigation cost of IDMSC services. But the irrigation cost of cooperative services is not mentioned. Actually, drainage cost is still calculated on the basis of cooperatives summer cultivated area, as it was officially stipulated in 1984 national decree. This is no more the case for the irrigation cost due to the fact that irrigation activity is more and more directly assumed by cooperatives. Consequently, cooperatives stopped to pay their water fee as a whole like they did before. They managed to pay for the exact service provided by the IDMSC only, and keep some of the irrigation fee proportionally to the irrigation cost they bear. This is the result of a local agreement and not the consequence of 1984 decree which was more comprehensive. It did not integrate cooperative increasing implication in irrigation activity. This technical evolution got repercussions in contracts content through a negotiation process which did not directly involve central authorities.

An economic crisis leading to local negotiation

Actually, contract evolution took place at the beginning of the 1990s. It is the consequence of several factors. First of all, after 1986 and the *Doi Moi* reform, Government liberalized electricity kWh cost, which multiplied by more than hundred in few years⁵. Before that, energy and raw material costs were subsidized under socialist controlled economy conditions. Secondly, farmers started in 1989 to pay their taxes individually, just after the *khoan 10* land allocation reform. Before that, production was collectively managed by cooperatives, which were paying taxes to upper institutional levels. Finally, the IDMSCs became semi-private enterprises. From public companies subsidized by Government funds, they became private companies that had to pay their expenditures on time, and rely on water fee collection only for their revenues. Financial management became a new constraint to deal with. On the one hand inflationary electricity cost had to be paid bimonthly in order to avoid electricity cut. On the other hand IDMSCs economy was directly dependent on farmers attitude toward their six-monthly water fee payment.

The end of the 1980s occurred as a severe hydraulic economic crisis for IDMSCs. After 30 years of collectivism of means of production, farmers were reluctant to pay their fee to cooperatives on individual basis and in a satisfactory way, while they were first of all thinking of earning their leaving and getting rid of centralized management of production. As for IDMSCs, they were unable to provide electricity payments on time. They consequently suffered electricity cuts leading to water shortage and local dissatisfaction. Such a crisis was a good occasion to set up a room for negotiation. On the one hand, IDMSCs wanted to secure their economy and needed cooperatives active cooperation to mobilize farmers payments. On the other hand, cooperatives wanted to manage alone their irrigation activity, which meant to keep some of the fee to pay operation and maintenance costs of their newly built local irrigation stations.

⁵ In Hai Duong province, electricity cost charged to the IDMSCs raised from 1.2 đồng/kWh in 1987 to 41 in 1988, 230 in 1990 and 500 in 1992 (Bousquet, 1994).

A decentralized management without a responsibility transfer

Until the end of the 1980s, State 1984 decree application was more formal than effective. Cooperatives were managing agricultural production on their own and implementing lots of local pumping stations with the benefit of it (see Chart 1), where IDMSCs could count on State subsidies to secure their revenues. There was indeed no reason to establish a negotiation before the economic crisis which occurred at the end of the 1980s.

With 1988 land reform, farmers became de facto involved in the hydraulic process as new water users. Yet, the formal affirmation of farmers participation to the agricultural production process did not lead to their participation to the water management process. On the contrary, from the formal point of view, cooperatives secured their position as collective water users, when they signed hydraulic contracts with IDMSCs. At the same time, on financial and technical issues, they were also acting in an informal way, as intermediate organizations between individual water consumers, farmers, and IDMSCs. Moreover, they were also involved as water supply services institutions in competition with IDMSCs. The vagueness of cooperatives position did not secure consumers interests, especially when they were not formally considered as water users.

For all these reasons, water management decentralization which led to IDMSCs pragmatic recognition of cooperatives partnership in irrigation, is not achieved. First of all cooperatives involvement in irrigation is not formally established at provincial and central levels. Contracts content changed without any formal statement on this evolution as. Secondly, these contracts which should be users service contract in the aim of Vietnamese State, are only the sign of an understanding on the financial resources sharing between two water supply services competing institutions. They do not give the total amount of the water fee which is known by cooperatives only. Finally, farmers are considered as consumers who buy water. But they are not yet involved in the negotiation process, even if they are the first concerned by water agricultural valorization. The next chapter will detail new coming water law and water management regulations in order to discuss Vietnam water management orientation.

4. Which type of governance for Red River delta water management

The definition of water users

The decree on protection and conservation of hydraulic works enacted by National Assembly on August 1994, stipulates that “water users” are individuals and organizations who are legally exploiting and using water resources. They can either provide water supply services from hydraulic works or enjoy services provided by IDMCs. Concerned services are irrigation, drainage, works improvement, electricity supply, fisheries, navigation, tourism, scientific studies, domestic and industrial use (Bui Kim Dong and Nguyen Thi Hong Loan, 1999).

This decree was complemented by several versions in 1995 and 1996 in which complementary definitions and details are given, in order to achieve a Water Law. An “organization” means all government agencies and entities at all levels and private, social, economic and foreign enterprises and associations. Water users using and exploiting water potentials should be granted licenses of water exploitation and utilization by competent authorities. In return, water users have the responsibility to timely pay water taxes, fees and charges as stipulated. They must contribute with labor and/or payment for the costs for prevention and protection as stipulated by decree. People’s committees of provinces, cities under central administration issue and revoke licenses of exploitation, using water resources, permits of discharging waste water, wastes into water resources as prescribed by the government and designated by the Ministry of Agriculture and Rural Development.

Moreover, the Government has policy to encourage and protect the legal interest of domestic and foreign organizations and individuals to invest capital, to science research, to apply science and technology advances in the exploitation, use and protection of water resources and prevention of and protection against harmful effects caused by water. At last the States encourages, facilitates for participation of water users in establishment of the association with the aim of promoting responsibilities in exploitation, utilization and conservation of water resources, simultaneously protecting legal interest of the water users. The Government shall prescribe operation charter, form of organization, fees and charges of the association.

A license instead of a right

The first comment about water users definition is that the word user encompasses a double meaning. In Vietnamese authorities mind, a user is someone using water to his own benefit but is also using water to the benefit of someone else. A user can benefit from and can provide a service. This terminological confusion is the exact formalization of the existing confusion studied in Bac Hung Hai unit and presented in the previous part of this paper. It is also the formal acceptance and ratification of this confusion. Therefore, a cooperative is a water user just as a farmer is. A cooperative “can either provide water supply services from hydraulic works or enjoy services provided by IDMCs”.

The second comment is that the way water users can benefit from water rights, through the establishment of licenses, seems to be more relevant to organizations, such as cooperatives, than individual farmers. Province and city authorities can hardly succeed in providing licenses to all farmers of their jurisdiction. Therefore, when the idea of creating users associations under the State leadership is proposed, this statement seems mainly addressed to farmers as cooperatives are already associations organized under the strict guidance of Vietnamese authorities.

The third and last comment relates to the economic nature of water resource management. It seems that more than a question of legal right, water management is more a question of commercial license. Actually, these decrees specify that water users can be granted a license of using water by concerned authorities in return for water taxes, fees and charges payment. Therefore, the existence of service contracts signed between IDMCs and cooperatives can be analyzed as the granting of cooperatives by IDMCs on behalf of province authorities, of a commercial license to use water resource in an agricultural purpose. Moreover, the law on cooperatives enacted in 1996, promotes cooperative evolution towards the establishment of cooperatives of service which sell water to farmers and make profit out of it. Furthermore, these new cooperatives must be capitalized by shareholders who manage these so-called “cooperatives” a private service companies.

Farmers water right is not assessed easily through the reading of these decrees and the law on cooperatives. It seems that no water right can be defined out of a collective organization. And that the issue is more to provide licenses, to quantify their cost and to sell water, than to organize a set of rules for individuals on getting access to and using a natural common resource such as water.

Privatizing water use in Vietnam ?

An analysis of Vietnam last draft law on water was published in 1996 (UNDP, 1996). It highlights that the issue on resource management became more and more important as Vietnam went through a process of decollectivization of agriculture, moving toward a market economic system from 1986. New policies and laws affecting resource development were enacted, such as laws on the environment, land, forests, minerals, and also promotion of foreign investments, Civil Code and evolving policies of decentralized government administration.

But unlike land or forests fast responsibility transfer to farming households, water resource management was maintained under public authorities direct leadership. From 1986 to 1995, the draft water law went through 14 revisions and the government instead opted for necessary regulation in the forms of decrees.

The system of law on natural resources in Vietnam is based upon the principle provided for in Article 17 of the 1992 Constitution which states that “land, forest, rivers and lakes, [and] water resources are under the ownership by the entire people” (The constitutions of Vietnam, 1995). But for the authors of the UNDP report, prior to the economic reform, the entire people’s ownership was more of a formality than reality. It lacked economic and practical elements. Only after the 1992 Constitution was passed, especially after the Land Law was approved in 1993, did land and other natural resources acquire economic value. From then the land use right can be transferred. As a result, new notions, such as capital contribution in natural resources, in land use and water rights came into being. The determination of the land use right is the foundation to determine “the value of the right to use water” under the entire people’s ownership. Unlike the Land Law the draft water law does not provide the forms of exercising the right to use water through civil contracts. Moreover, the Civil Code which was adopted in 1995, does not contain a part on the right to use water as it does with land. Nor does it have provisions on the transfer of water rights (UNDP, 1996).

The analysis provided in this report highlights the lack of definition on the issue of individuals right to use water. But, this deficiency is seen damageable as far as private use of water is concerned. The issue of natural resource management decentralization is clearly assessed by the authors as a question of privatizing natural resources and individual use rights allocation only. If this assessment seems quite relevant for agricultural land management in areas such as the Red River deltas in which individual land tenure has been individually defined for centuries (Sakurai, n.d.), this statement appears more subject to discussion when it comes to water management.

The last draft water law and decrees stipulate that water is a multiple purpose resource serving economic and social needs (Bui Kim Dong and Nguyen Thi Hong Loan, 1999). But due to this specificity, Vietnamese authorities specified that water needs a “sustainable and multi-agency/office setting management”. Therefore it seems that Vietnamese authorities do not accept the idea that water must be managed at individual level even if they do accept the idea of privatizing water management. Actually, this paradox leads to the implementation of new cooperatives of service, managed in a capitalistic way by Party members who were formerly in charge of production cooperatives. Moreover, all RRD cooperatives are in a situation of monopoly as farmers cannot get water from other service supplies. Then, when UNDP authors are promoting a water management turnover from State to farmers, keeping in mind that a better natural resource management is achieved by individuals having the right to use, sell and buy water under market economy, Vietnamese government is trying to establish a collective management of water under socialist state market economy, which is far following the same rules.

On the one hand, individual rights are guaranteed under free market regulation, forgetting multipurpose use and promoting individuals economic differentiation. On the other hand, individual rights are useless as the State is still providing the whole framework of resource management, controlling access, use and transactions through the guidance of collective management organizations. In both case diversity of use and of involved actors seems to be denied and little place is given to a real local management of the resource.

5. Conclusion

From both technical and institutional points of view, RRD water control system is mixing old remains of collectivist period and new creations stemming from last two decades political reforms. These creations are not homogeneous as well. They combine effects of state new laws on production and water management, with local innovations which could emerged in a political context of economy liberalization and decentralization.

Local investigations show a great interest in such a complex situation. They provide a better understanding of the intricate reality of current RRD water control system, which comprehensive surveys cannot. Moreover, the confrontation of local investigations results to the institutional and legal formal framework is of great interest to the settlement of a better management of water resource. It provides keys of understanding about responsibility share among actors involved in water management.

The current situation of RRD water control system shows a real move toward decentralization but this movement does not mean a redefinition of actors responsibility. It seems that more than a real questioning about the way water management could be improved through a full implication of water users, the State is trying to transfer cost responsibility to local levels without giving them the possibility to manage properly their system. Indeed, privatizing water management institutions does not inevitably mean a better management of water. The question is not only to make profit, especially when rules and regulations are not set up to organize the proper management of water control managing institutions.

There is a need for dialogue between involved actors (farmer, cooperative, IDMSC and IDMC, province, State) in order to allocate responsibilities on the basis of real duties and activities. Actually, water resource management does not seem equally shared among actors for the time being. Farmers must pay their fee without being formerly involved in decision making. This could be of great arm in a coming future when they consider that water management benefit and decision should be shared among a wider group than it is up to now. The failure of former centralized management should be kept in mind before to finalize a new water control system in which profit is encouraged but at the only benefit of a minority.

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