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Changes in Public Water Management: Transition, Compromise, and Innovation

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For nearly two decades now, the "decentralization, privatization and liberalization" triangle touted in adjustment policies has become the new paradigm for development in all parts of the world. Yet, effective implementation of institutional decentralization coupled with an appeal to the private sector to promote open competition and growth is failing to impact all countries uniformly. A case in point is Vietnam with its socialist-oriented market economy. Is it going through a gradual transition towards a liberal economy? Compromising between internal constraints and external demands? Or, rather, going the way of innovation, seeking a specific model that has not yet fully taken shape?

In Vietnam, the "transition/ compromise/ innovation" pathways are fraught with complexity and uncertainty, something we can confirm by taking a look at urban water distribution.[1]

To begin with, in the early 1990s transition was the buzzword in neo-liberal strategies applied to contexts that were still recently collectivist. Transition was needed on two fronts — from collectivism to capitalism and from underdevelopment to development. But it is noteworthy that the transformations that took place in Vietnam (*Doi Moi*, 1986) predated generalization of the notion of transition. Chronologically, the notion of transition was not the force behind the remake that took place in the late 1980s. Rather, it sprung from new national public policy directions and gave them a meaning they did not previously have (the march to liberalism). The transition idea in a way came to the rescue in a story of radical upheavals, the like of which had not been planned or anticipated. But perhaps not wanting to lose out on any new history-making advancement and convinced that valuable lessons could be learned from the recent remake, it was thought that transition should be something predictable and applicable to social action in general.

From both the economic and political standpoint, the concept of transition came to mean both a liberal and democratic model that had become unavoidable and toward which economically collectivist countries were invited to turn. It was a convenient prenotion that was thought capable of announcing that the story was about to end (Fukuyama 1994), but it became obvious in practice that much more was involved in building an efficient market economy than the simple enjoinder of "less government!" That transition, affirming the end of collectivism and *ipso facto* the forward march towards a triumphant market economy, has dragged on and on. The anticipated model did not emerge from what took place in Russia or the more significant dynamics manifested by China.

Rather than a switchover, as might be inferred by the word transition, compromise appears to have the upper hand (with reference to a sluggish response in some areas or sectors, patching things over and attempting to run the old with the new). But looking at the future, there is no certainty that we have seen the last of the values of the past in Vietnam, where "public-private partnerships" (PPP) are, as we shall see, something of an innovation. The observable changes surely do not mean the end of the previous system. The clout wielded by external stakeholders and their catchphrases have indeed had no small impact in the transformations observed, but it must be kept in mind that these transformations had become necessary. The existing systems would perhaps not have been able to replicate them and ensure their political survival if meltdown initiatives had not been taken just in time. In other words, there was no doubt a timely coincidence between external warnings voiced from the outside and necessity felt on the inside, pushing

the government to change in the face of the urban challenge and the need to restructure a moribund system.

Unless of course the changes taking place will see as yet unthought-of mechanisms come into being, resulting from a combination of policy adjustments and stakeholder feedback, while still clinging to deeply-rooted political ideology in some cases or to social or cultural practices in others. Rather than being a transition of straightforward design, the pathway is seen to be winding and uncertain. Often, beyond initial intentions, the principle of reality appears to prevail. Although international urging has indeed promoted some endogenous changes, it would be wrong to interpret the institutional and social transformations as mechanical projections of external enjoinders and patent evidence of transition on the march.

Thus, it is not so much the transition from "collectivism" to "liberalism" as it is the compromise between the "demand for urban public utilities" and "national resilience" that will be the main theme in our approach to urban Clean Water Supply (CWS) in the metropolised Red River region in northern Vietnam.

Although since *Doi Moi* in 1986, there has been a great deal of institutional revamping, and although it is certain that collectivist economics had been strongly challenged from the inside, prompting a vast restructuring movement, it is clear that the swing foretold in the free enterprise system, with the generalization of the invisible hand and disappearance of the welfare state, did not occur. In its stead a socialist-oriented market economy developed, so fluid that it seems more like a process than a state. The observable transformations over the last ten years in the urban CWS sector shows that flexibility, inventiveness and innovation have been displayed in urban water management in Vietnam. They also testify to the difficulty in defining the precise nature of this Vietnamese model, intangible in certain political aspects (supremacy of the Communist Party) while being totally deregulated and liberalized in other aspects (informal sector, low social coverage, growing inequities). But is it the collective ownership of means of production that now defines a socialist regime or rather, more prosaically, its capability of reducing or eliminating poverty by driving socially inclusive economic policies?

Structural Data: Urban Extension, Demand and Water Resources

With a population of nearly 80 million inhabitants in 1999, the urbanization rate in Vietnam stood at 23.5 per cent. This as yet limited level of urbanization

was the result of a recent increase in internal migratory movement due to a loosening of control over migration. Positive urban growth, a still low but growing urbanization rate and an annual population growth rate of 2.1 per cent all combined to induce a substantial future demand for clean water.

Growing Urbanization Raises the Demand for Water

Water, an element of nature and of myth, plays a very concrete role in the urban structure of Vietnam. Cities are growing and the economy has been growing since *Doi Moi*. This is now having an impact on the water issue. The resource — groundwater — is being polluted directly by both domestic and industrial urban effluent, as well as by nitrates used in intensive peri-urban agriculture. City land is being covered over and sealed; the sewage system is antiquated; this multiplies the risk of surface water flooding and urban soil leaching. The crossover pollution between peri-urban rural zones and urbanized areas is aggravated as the urban stain spreads and engulfs villages in the suburbs. One of the theoretical consequences of these crossover nuisances is their inflationist effect on the cost of water treatment for the city.

Demographic and economic growth over the last ten years has caused the domestic and industrial demand in Hanoi to spiral. In 1997, according to the Japan International Cooperation Agency (JICA), the household demand for clean water was 180 litres per person per day (l/p/d), while the city's water companies could only supply about 100 l/p/d (JICA, 1997). The industrial demand (17 per cent) and that of miscellaneous users (15 per cent) must be added to this domestic demand that accounts for 68 per cent of the total.

Countrywide, it is anticipated that the need for water in urban areas will multiply five-fold between 1995 and 2025.

TABLE 5.1
Projection of the Water Demand in Vietnam between 1995 and 2025 (billions of m³/year)

Type of need	1995	2000	2010	2020	2025
Urban	1.2	1.8	3.3	4.8	6
Industrial	2.8	3.6	5.9	9.6	12.3
Rural	0.6	0.7	0.9	1.1	1.2
Total	4.6	6.1	10.1	15.5	19.5

Source: World Bank, 1996.

Population growth, diversification of urban activities, improvement of the standard of living and changing lifestyles are driving up the demand for water in the main urban centres. Thus, for the city of Hanoi, between 1995 and 2010, average needs are expected to jump from 344,800 cubic metres per day (m^3/d) to 528,600 m^3/d,[2] an increase of 53 per cent in fifteen years.

Legacy of a Command Economy

Vietnam remains marked by the collectivist period despite taking many steps on the roadway to change since *Doi Moi.* According to socialist economics, current consumption goods (such as oil, petrol, sugar, rice and meat) and the great majority of marketed products (housing, electricity, water, etc.) were subject to subsidization and rationing. Today, trade in goods dominates all economic sectors directly or indirectly, including the land market and real estate. The reform of state-owned enterprises and the policy of partial privatization of public utilities, including education and health, are evidence of the end of an era governed by a command, subsidized economy. Nevertheless, a number of strategic, symbolic assets — one of them clean water — do not appear to have been included this commercialization process. Water remains cheap because it continues to be subsidized.

Water is certainly one of the token areas in which the collectivist approach is being perennialized or holding its own. Unlike electricity, telephone, individual means of transportation and housing, the price of clean water has been kept relatively low, with virtually no change. In contrast, the price of electricity increased non-stop throughout the 1990s. In four years, the average price per Kw/h, tax free, was multiplied by 1.6, that is, a linear annual increase of nearly 13 per cent in a low inflation context.

TABLE 5.2
Changes in the Price of Water in Hanoi between 1994 and 2004 (dongs per m^3)

Users	Before 1994	1994	1997	2001	2004
Domestic users	600	1,000	1,500	2,000	2,000
Government offices	1,600	2,000	3,000	3,500	3,500
Businesses, services		5,000		6,500	6,500
Foreigners		5,000		6,500	3,500
Average price in dongs		3,250			3,875
Average price in US$		0.3			0.2

Source: Water Distribution Company

The price of water has been stable since the last raise in 2001, while it had gone up an average of 4.2 per cent a year between 1997 and 2001. In the ten years from 1994 to 2004, the nominal price of water increased at an annual rate of less than 3 per cent. Considering the low inflation rate (sometimes even negative as in 1999 and 2000) during the same period, it is possible to infer that the real price of water (deflated) was stable or increased only slightly during the decade from 1994-2004. Expressed in US dollars (US$), the price of water even decreased.[3]

Data from the Water Company show that while 23 per cent of the connected population had a meter, 49 per cent of the total amount of water was charged on a lump-sum basis and only 30 per cent corresponded to the volume actually delivered and billed based on the meter reading. A 70-per cent loss rate was tallied, caused by such things as the poor condition of the mains (2.3 per cent), dilapidation of the distribution network and hook-up points (31.8 per cent) or no billing (35 per cent). In 1994, the city had 900 public street fountains and taps that were slated for gradual elimination.

The foregoing provides insight into the way the water companies are operating. Until only recently they were run according to a quantitative production approach based on a delivery volume target. This is commensurate with the socialist concept of material production: the delivery quantity is based on targets set by the government with no concern for managing quality, productivity and profitability. So it was that in 1994, the official deficit of the Hanoi Water Company was estimated at 10.112 billion dongs.

We feel that this fact is crucial to understanding the institutional practices and ideological presuppositions intrinsically linked to the social distribution of water (diversity of uses, waste, etc.). Symmetrically, this institutional and ideological legacy — felt particularly in urban clean water distribution — has weighed in on the pattern and pace of the CWS sector reform. Water remains a specific social issue. It is the last heavily subsidized production and also the last economic symbol of the collectivist period for some political spheres of the Vietnamese Communist Party as well as the fringe of population that grew up and lived under this Mother State image.

The culture of structural subsidization is alive and well both in the government apparatus and the domestic economics of Hanoi households. Water companies are riveted on subsidization regardless of the economic outcome. For most water company directors, it would seem that the first concern is to meet water production volume targets, not show that they are good managers. In economic terms, this approach is structurally inefficient, because the greater the loss of water, the higher the subsidies are. The firm's viability is still totally detached from its accounting results, which

are not used as an incentive to improve economic performance. Moreover, this system of structural subsidization and its workings are often opaque. And people who see water as relatively cheap are using the resource as if it was inexhaustible. This in turn, is contributing to the growing problem of wasteful use. If nothing is done to change this way of thinking, it will become impossible to continue restructuring the water sector and public utilities in general.

The subsidies approach, added to the fact that water resources in Vietnam are particularly abundant, has a considerable influence on practices associated with water. Generally speaking, access to water can be broken down schematically into three main categories: clean water for large cities, where individual home hook-ups are becoming routine, well or drilled water and "natural" water sourced from bodies of water and rainwater (impluvium). Depending on how the water is accessed and its quality, it will be used in various ways (cooking, drinking, lavatory, washing, etc.). Two main billing systems for clean water exist side by side: the water meter and lump-sum charge. Continued use of the fixed billing system independent from actual consumption obviously does nothing to promote a realistic perception of the cost of clean water delivery.

Water sector reform started in the late 1980s and is one facet of the turnaround from a planned economy to a socialist-oriented market economy. During the 1980s, given the disastrous situation Vietnam was in, supplying a certain volume had to be a top priority. Starting in 1991, supplying water in both urban and rural areas became a government priority. Bilateral and multilateral international assistance was then used to renovate, strengthen and extend water conveyance and delivery systems. After that, gradual institutional reform of the water sector became a necessary condition for its development, but without necessarily forcing it to fall in line with the international enjoinders for privatisation or concession. Similarly, Vietnam's position in the area of cost recovery and water marketing remains specific in comparison with the global liberalization wave. Its CWS strategy is gradually evolving according to a scheme not necessarily immediately predictable because the meaning and scope of discernable facets of its evolution often remain difficult to grasp because of being composite, temperamental and innovative in character.

In our approach to policy reform in the area of the urban access to water, we considered the overall offer at the national level, using as a basis on legislation and national programmes for urban areas. Three case studies were developed in the PRUD study — Hanoi, Hai Phong and Ha Dong — that we will summarize briefly below.

In Hanoi, network deterioration, lump-sum billing (66 per cent), the high loss rate (57 per cent) and the current institutional setup make water sector reform particularly challenging. Hai Phong is a notable example of financial management that finds favour with funding agencies (World Bank) and of a unique situation from the point of view of both the physical conditions — brackish water — and the types of users, wherein the industrial demand accounts for a large share. We rounded out the picture by studying Ha Dong, a smaller city adjacent to Hanoi, as it allowed inclusion of the problem of network ramification on different administrative territories.

Evolution of the Urban Water Supply Strategy

Based on legislation and interviews with officials in charge of urban CWS, we will provide a synthesis of the national urban water supply strategy and its evolution in three stages since the 1990s.

From the Late 1980s to 1994: Abandonment of Planned Economy and Effort to Reduce Water Loss[4]

For water companies in Vietnam, the 1990s were marked by an effort to reduce their water loss rate and increase their revenues. These two objectives resulted from a government decision made in the late 1980s to eliminate the public sector subsidy system or at least do something about the recurrent and exclusive nature thereof. Given this new direction, water companies ceased to be considered as production units under a central, planned system. They were even called upon to improve their internal financing capacity. Public companies had to start changing their operational mode by optimizing water production. The installation of individual meters became generalized, along with the closure of public street fountains. Methods were devised for individualized billing and receipt collection; new accounting practices were applied; and network maintenance and repair programmes were introduced. Water companies also looked into establishing customer service departments as a means of boosting their image and improving their operations.

Although water supply had become a government priority back in 1991, one of the first water sector reform measures was taken in 1994 and focused on reducing water loss from both the physical and financial standpoints (see decision No. 06/BXD/DT of 18/04/1994). Nationally, the water loss rate stood at an average of 40 to 50 per cent, reaching 70 per cent in cities such as Hai Phong. These losses resulted from the decrepitude and poor maintenance of the networks (physical losses), as well as from unpaid bills (financial losses). This forced the issue of network quality and upkeep and

challenged the commercial management of water companies. Thus, an initial programme of water loss reduction was put in place in 1994. It aimed firstly at diagnosing local situations in an effort to assess losses and what was causing them. The programme centred essentially on generalizing metre installation, eliminating the lump-sum arrangement and cutting down on unpaid bills. The programme also promoted service improvement — leak detection, reduction of main failures, etc. — and prevention of waste. That was an initial but crucial step in reforming the national water supply sector.

This initial phase was also marked by the multiplication of projects funded through bilateral aid, with the Finnish project for Hanoi no doubt being the most typical example thereof. In the late 1980s, foreign companies under bilateral aid initiatives started positioning themselves in this sector, in anticipation of making a profit. The French policy in this regard is representative. Through it, private companies were able to get established in Vietnam through the so-called "credit protocol" programme. In the mid-1990s, multilateral funding took over from this earlier form of financing. Thus, the Asian Development Bank, the World Bank and the *Agence française de développement* [French Development Agency (AFD)] gradually took over in order to concentrate increasingly larger funding packages and distribute projects more effectively countrywide.

1998–99: A Parent Law and Circular Setting the Tariff Scale, a Definite Boost to the Reform

The urban water supply strategy actually dates from 1998.[5] The main targets are quantitative in nature, essentially aimed at improving water production and delivery capacities throughout the country while aiming to ensure access to clean water for 80 per cent of the urban population by 2000 (that is, 80 to 100 l/p/d). The main cities of the country — Hanoi, Ho Chi Minh City and Hai Phong — were privileged, the objective for them being to hook up 100 per cent of the population and meet the norm of 120 to 150 l/p/d.[6]

The situation in urban areas in 1998 can be described as follows:

- 190 water pumping stations with a total production capacity of 2.6 million cubic metres per day.
- Network affected by severe deterioration. Out of 5,400 kilometres of network, 60 per cent was at least thirty-five years old. The network as is could only meet 40 per cent of the demand. Very high loss rate (>30 per cent).
- Low hook-up rate: 60 per cent of the people had network hook-up in large cities, 50 per cent in average sized cities and less than

30 per cent in other urban centres (towns and villages). Overall, less than half of the urban population had access to clean water.
- Supply standards were in the order of 50 to 60 l/p/d. Pumps had to be used to get water into houses and water supply tanks on floors higher up. Frequent periods of cut off or supply shortage.
- Quality of the water did not meet hygiene standards.
- Insufficient coordination of the various government levels intervening in water production and delivery. Various ministries were involved, firstly the Ministry of Construction, then the Ministry of Agriculture and Rural Development, Ministry of Planning and Investment, etc.
- System fraught with deficiencies in terms of management and marketing training, hence major losses of funds experienced (total physical and financial losses were estimated to be between 50 and 60 per cent of production).

Geographically, priorities centred on the three economic zones of Hanoi-Hai Phong-Quang Ninh, Hô Chi Minh City-Bien Hoa-Vung Tau and Da Nang-Hue-Dung Quat. The standards set for tier-1 cities was having 80 per cent of the population hooked up by 2000 (150 l/p/d), 100 per cent by 2010 (160 l/p/d) and 100 per cent by 2020 (180 l/p/d) in order to be in line with the major Asian metropolises of Bangkok, Kuala Lumpur, Jakarta, etc.

To meet these needs, a directive from the prime minister was issued in late 1998 with the following targets:

- Territory management based on priority projects;
- Reform of water companies aimed at building financial self-sufficiency and reducing the need for government subsidization (which implied internal financing, revamping the tariff structure and accounting system, computerizing the billing process, etc.);
- Preventing financial losses;
- Streamlining technology and producing the necessary equipment and machinery;
- Protection and efficient use of water resources;
- Capacity building in national engineering offices.

In 1999, the Ministry of Construction (Decision No. 2834/BXD/KTQH) rounded out Decision 63 by outlining a core programme of "development guidelines for urban water delivery in Vietnam to 2020". Emphasis was placed on protecting water resources, territory management, acceleration of ongoing projects funded through Official Development Assistance (ODA) and preventing water loss. Also in 1999, the Ministry of Construction and the

TABLE 5.3
Estimated Water Needs in 1998

Period	Urban pop. (millions)	Hook-up rate (per cent)	Standard (litres/ per/day)	Domestic water (millions m^3/ day)	Industrial water (millions m^3/day)	Total (millions m^3/day)	Investment required (millions of US$)
1998	14.7	47	—	—	—	2.5	—
By 2000	23.4	75	120	2.1	2.2	4.3	900
By 2010	30.4	95	150	4.5	4.5	8.8	2,165
By 2020	46.0	100	160	7.6	8.3	15.9	3,570

Source: Ministry of Construction, 1998, p. 14.

Government Price Commission jointly put out a circular on the water tariff structure (No. 03/1999 TTLT/BXD-BVGCP of 16/06/1999). This instruction set out the principles for setting the selling price of clean water, including operating costs resulting from the production, delivery and marketing phases. It made provision for customer feedback, customer affordability and reimbursement of loans, as well as the proper level of accounting balance (operation) and financial balance (investment) for water companies. This latter decision showed the nature of water company reform, although the price remained government administered,[7] wavering between the commercial balance of the firms and user/customer affordability.

The 2000s: Assessment, Blockages and Trends

In 2000, the urban water supply situation countrywide could be described as follows:

- 50 to 60 per cent of the urban population hooked up to the network;
- Growing demand: While consumption was then estimated to be 70 l/p/d, it was anticipated to reach 120 to 150 l/p/d in the next few years;
- Water loss (physical and financial) was estimated at an average of 30 to 40 per cent;
- Deterioration of water quality due to groundwater pollution was becoming flagrant;
- Price of water remaining low (an average of 3,000 dongs per m^3, or about 0.20 euro), while operating and investment costs required sizeable hikes — for balance sheet purposes only.

The many projects funded through multilateral and bilateral assistance helped measurably to improve the water supply situation in the majority of Vietnam's urban centres. The 61 cities with provincial status were equipped with water supply systems. Statistics showed 241 pumping stations with a total planned capacity of 2.96 million m^3/d. Among the 547 towns and smaller urban centres of the country, 140 had water supply systems of a capacity from 163,680 m^3/d, with 66 per cent of the stations using surface water and 34 per cent using groundwater. The main cities had large-scale increasingly modern water supply systems: Ho Chi Minh City (850,000 m^3/d), Hanoi (400,000 m^3/d) and Hai Phong (136,000 m^3/d).

The total amount of investment dedicated to CWS projects in Vietnamese cities during the 1996–2000 period reached over US$ one billion (US$200 million in the form of non-repayable loans, about US$400 million

in official development assistance and US$350 million in loans from international organizations); to that is to be added nearly 2,000 billion dongs invested by the government of Vietnam both centrally and locally. These investments enabled an increase in water production capacity to a total of 600,000 m^3/d.

In 2001, the Fourth National Conference on Urban Water Supply provided an opportunity for an initial results assessment. Territorial coverage had been extended and routine service was being provided in the provinces. However, many and varied difficulties continued to be observed, including poor water quality, high water loss rates, retention of old ways of managing water companies, an inappropriate tariff structure, etc. Many factors explain this: the high pace of urbanization; unwieldy administrative and financing procedures; lack of coordination between treatment plants and the delivery network; and the financial management of the water companies. As a result, water loss rates in urban centres remained high, between 30 and 40 per cent. The lowest rates were in Da Lat (19.2 per cent) and Vung Tau (21.5 per cent), while the highest loss rates were in places like Hanoi with 57 per cent. In some cities, although the stations had recently been put in, loss rates continued to be high (>50 per cent) due to worn out water mains in provinces such as Tra Vinh, Nam Dinh, Can Tho and Ha Tinh.

In late 2001, the most recent report highlighted 170 projects implemented in Vietnam's urban water supply sector (11,500 billion dongs including 8,562 billion from foreign funding agencies). The water production capacity had reached 3.27 million cubic metres or 1.75 times what it was in 1991. Since 2001, the term of loans has been 10 years with an annual interest rate kept down to 5.4 per cent, while projects implemented earlier continued to bear interest at 7.2 per cent per annum.

The years 1998–2000 saw the introduction of two new dictates: "sustainable development" and "socialization" of the rural water supply. Infrastructure proved to be costly and required investments too heavy for Vietnam to assume alone. The country went looking for new forms of funding in addition to ODA that had begun to have more conditions attached. Although all the economic and social stakeholders were mobilized, their participation differed depending on whether the rural or urban sector was involved. In rural areas, the "socialization" policy took shape and was officially promoted in 2000. This policy "aims to mobilise all of the people to share in activities, diversify investment models, create favourable conditions for groups such as households, commercial groups, cooperatives, businesses, to share in the capital; and to share in the implementation, maintenance, management and marketing of clean water supply projects

and services". In urban areas, the price of water was passed on to the more affluent social or economic classes in order to enable the poor in general to have access to water.

This report then had to come to grips with the paradoxes in tariff structure. Indeed, the current price of water was not consistent with the spirit of Instruction 40/1998/CT-TTg that encouraged better management balanced with development of the urban water supply. To achieve this, "the price of water must be set according to accounting principles commensurate with the payment capability of customers and reimbursement of the debt".

Two hindrances were thus identified in the report: on the one hand, the unprofitability of water companies and continued widespread subsidisation of the sector and, on the other, new conditional modes of funding in the face of a growing demand. The government started looking for new forms of investment and new ways of management that were not restricted to just one model. It appeared that forms of private-public partnership were thus going to be called upon to develop in the overall area of infrastructure and public utilities.

Partnership Strategies and Forms of Private-Public Partnership

Generally, in both the urban and rural contexts, the 1990s saw a national water supply strategy emerge that enabled long-term targets to be set and improvements to be made in the area of operational efficiency. Although good progress had been made, the situation remained unsatisfactory for more than one reason and the early 2000s saw many urban and peri-urban zones still deprived of clean water supply systems worthy of the name. Indeed, the national programme had not given much attention to urban growth, either demographically or spatially, and the substantial increase in the demand for water, limited local water resources and the growing volume of wastewater. This forced the issue of sustainable development. Moreover, the CWS institutional reform project had gained ground, but remained largely exploratory, leaving many questions unanswered, in particular that of the funding mechanisms and management forms to be adopted. This set of problems that came to the fore in the late 1990s in Vietnam is strategic for development of the CWS sector and is feeding current ideological, social and economic debates as it shapes Vietnam's relationship with international institutions and development agencies.

Institutional Assessment: Different Forms of Public-Private Partnership

Reform of the urban clean water supply sector took shape in the early 1990s with the gradual linking of institutional changes and investment packages in the corresponding infrastructure.

The first phase in water supply development resulted in an increase of water production capacity (treatment plants and network overhaul).

The second phase, in the late 1990s, enabled the extension of delivery networks and development of CWS projects countrywide while laying the basis for institutional reform. Since the early 2000s, this reform has become the central focus of the CWS portfolio and is also crucial to the sustainable development of the sector, therefore challenging the economic and financial "sustainability" of the reform underway. Indeed, the time had come for the first loans granted from 1985 to 1990 (for example, Hanoi) to be reimbursed. Given the insolvency of the water companies, funding agencies set new loan conditions by putting the public water companies in competition with each other and proposing new forms of public-private partnership.

Starting in 2001, international funding agencies (World Bank, ADB, AFD), provincial water companies — through the Vietnam Water and Sanitation Association (VWSA) and the concerned levels of government (Ministry of Construction and Ministry of Finance) — came to an agreement on the limits allowed as they revised their common strategy. The volume of investment necessary for CWS and sanitation implied that the government would have to gradually step back from being the sole player. However, for the Vietnamese authorities, privatization of urban CWS did not appear to be an acceptable alternative in the give-and-take formula.

The World Bank's Strategy

The World Bank is one of the main donors in the urban water supply sector in Vietnam's urban centres and therefore represents one of the major and most influential stakeholders in Vietnam's CWS sector reform. Between 1998 and 2003, the World Bank invested US$98.6 million in the water supply sector, to which is to be added over US$80 million for the sanitation programme in the country's three main cities. The World Bank's strategy in the CWS sector can be described as gradual. Early in the 1990s, its policy was based on the slogans of "privatization" and "profitability". Gradually, though, faced with reality,[8] the international institution found that it had to adopt a more flexible, open-ended approach.

Currently, the World Bank is seeking to develop a flexible partnership between "private" and "public", focusing on the performance of the mechanisms being promoted, regardless of the types of players, investors or businesses involved. Water companies had a hard time repaying the loans they received in the late 1980s because of the constantly recurring matter of public subsidizing. On the other hand, since 2000, loans given out have been conditional and encourage competition among the water companies to improve their performance. Through its new project *"Urban Supply Performance Benchmarking"* (2002), the World Bank puts public water companies in competition with one another when it agrees to make additional loans. The Bank makes more discreet reference to the private sector that, on this count, stays within the directions set by the government through the Ministry of Construction.

In this CWS reform process, the social dimension — a constant concern of the national authorities — is being given greater consideration in international financing policies. The public powers in Vietnam do not want to privatise CWS across the board, especially in the large cities, with its risk of marginalizing the poorest and possibly triggering a social and political crisis.

As far as the World Bank is concerned, private operators are already present in the water sector. It is encouraging the establishment of joint ventures between public works and construction entrepreneurs and provincial water companies. It wants such ventures to be independent from the People's Committees and to operate on the basis of a contract entered into between two business entities. The World Bank feels that the government is open to such new approaches but the workings will have to be tested first through a pilot project. The role of the Association of Water Companies needs to be strengthened and formalised. It would be advisable to establish a forum with a number of such companies on it. Hai Phong has been put forward as an example of this approach.

In the World Bank's view, if water companies are to become profitable, the tariff structure must be under the purview of these companies; otherwise, if the objective is political, it boils down to a social assistance system.

The Asian Development Bank's Strategy

The ADB has been involved in development activities in the water supply sector and sanitation infrastructure since 1993. The aid programme included technical assistance granted to the municipality of Ho Chi Minh City to prepare the water supply master plan, as well as three projects covering

eighteen provinces for a total of US$195 million in loans. Recognizing the importance of the private sector's role in water supply infrastructure development, the ADB made a concessional loan in 2000 of US$35 million for a BOT (build-operate-transfer) project for the Thu Duc water treatment plant in Ho Chi Minh City. This was the largest privately contributed BOT project (totalling US$140 million) and it illustrates ADB's wish to promote new forms of public-private partnership. The ADB's presence in this type of project enables private companies to get long-term loans, propose efficient management forms and construction technologies and at the same time speed up project execution.[9]

Although the ADB's wish is clear and comes across strongly in favour of private sector development, the recent BOT projects did not prove to be successful. They reveal a pattern of firm resistance on the part of the Vietnamese authorities to these new methods of funding and managing CWS infrastructure.

The French Strategy — The French Development Agency's Economic Mission

Starting in 1989, France spent a decade assisting French corporations to get established in Vietnam through "protocols of agreement". The idea was to help them get into this emerging market and to expand in the long term. Today, however, the assessment report is mixed because some of these corporations are pulling out due to setbacks they suffered. In the final analysis, the CWS sector is viewed as unprofitable. Indeed, although BOT projects had been promoted from 1997 onward and seemed to be developing in several types of infrastructure such as roads, railway, etc., their transposition into the water sector was unsuccessful in a number of cases, which has led to putting this approach on the back burner. And although some donors still feel that this is a potential avenue for funding, the Vietnamese government seems very reticent to support its generalization.

At the conclusion of the first ten years of project funding in the water sector and assisting French businesses to get set up in Vietnam, the picture is rather dismal. Of almost a dozen firms established here at the end of the 1990s, only a minority are continuing to operate for various reasons.[10] So the water sector that looked like a promising inroad for French firms of international reputation has proven to be very narrow, if not a dead end.

Since the late 1990s, the AFD took over the Economic Expansion Post (EEP) in the CWS sector. This post has now begun targeting sanitation and waste treatment projects deemed to be more profitable. This change reveals

France's new position in the CWS sector. From now on, the AFD, as the other key donors, is advocating public-private partnership development in Vietnam.

Summary of Institutional Strategies

At the conclusion of this first decade of CWS reform, it is possible to see the sectors that stand out because of the successful transformations made in them and those for which greater change must yet be made.

Schematically, ten years of reform have seen a fundamental increase in the volume of water produced and technical improvements due to the overhauling of old systems or implementing new investment projects to cope with a growing demand. The main objectives were the reduction of physical and financial losses, increase in production capacity, network extension and widespread installation of meters in the homes of customers. Efforts ended up being focused on increasing production capacity to such an extent that some projects were overdone (Viêt Tri, Hai Duong, Yen Bai, Lao Cai and Gia Lam), with distribution networks often suffering neglect in terms of necessary overhauling and extension.

Currently, from the standpoint of demand, the growth of the main urban centres suggests that there will be a major demand increase and that water use will diversify (domestic, industrial, agricultural, tourism, etc.). Given the worrisome environmental situation in some cities with regard to sanitation, new costly technical water treatment procedures will become necessary. Meeting the needs everywhere and maintaining water quality therefore will require heavy investment in the future. The matter of funding these projects has not been resolved. Although in the recent past multilateral and bilateral assistance enabled needs to be met by helping production catch up, foreign loans will not suffice to finance future needs. Moreover, new multilateral funding will only be available if conditions are met that involve reform of the water companies and injection of a significant dose of private initiative. Regardless of the funding solution advocated, the issue of tariff structure has to be dealt with and is the keystone of the reform and its viability.

But beyond these financial and economic aspects, it appears that access to water and its tariff structure are strategic political issues. Will the People's Committees be willing to accept an increase in the price of water and yield to the financial and accounting arguments of the water companies? In order for international donors to support CWS reform, will they have to impose their model on Vietnam — by attaching more demanding conditions to their funding — as they appeal increasingly for private sector involvement?

Will demand take over for needs and become the new cornerstone for CWS "sustainability"? Will the commercialization of water governed by international dictates prevail over a regulated, social approach to water? This would be the likely scenario if the Vietnamese authorities do not extend the commercial approach to the CWS sector as it did for health and education that were "socialized", that is, in part privatized.

Vietnam is clearly at the crossroads with regard to the future of its water policy. But it must also be understood that what is involved is not simply a matter of two technical models of clean water management that previously existed and that have been competing with one another for a decade now, with neither of them gaining the upper hand. Such a comparison cannot be applied here. For the international levels, the panorama is clear, the slogans are well established and the tools running smoothly, but for the Vietnamese side, there is a very different problem. The authorities appear to know exactly what they don't want, in fact, what makes them shudder. On the other hand, the CWS reform pathway has not been out. Although the ideological foundations of the socialist-oriented market economy are immutable, the forms of management to be promoted, the pace of these reforms, the relinquishments to be accepted and innovations to be allowed are a matter under debate. A vast — and dual — field is open with regard to CWS as well as to institutional and political reform — in the literal sense — that is to direct and stimulate the former.

Since 1997, experiments have been conducted on these management models in both urban and rural contexts. In this area, the South seems to be a laboratory of choice because nearly all of the conceivable new options have been tried there, such as BOT projects in Hô Chi Minh City or sector privatization initiatives (construction). Although these experiments have been limited and not particularly diversified, they nevertheless represent a body of pilot projects that the authorities (MoC and government) are giving particular attention to their "cost recovery" and their "affordability" or "agree to pay" component on the part of users-consumers.

Key Facets of the Vietnamese Clean Water Management Model

Although the international debate can be broken down into two main lines of thought (firstly the liberal line as represented by the World Bank and large private consortiums and secondly the alter-globalists line),[11] in Vietnam the debate is hinging on several issues without taking a firm stand for one

line of thinking or the other. Is there a specifically Vietnamese model? Even though Vietnam is obliged to reform its water companies and different forms of public-private partnership are being explored, it is not certain that Vietnam will eventually accept the principle. The privatization tests and the expectations that the BOT's might have aroused seem to be implicitly disavowed at the present time.

Forward and backward movements have punctuated the reform period. Regardless of the option chosen by the government, many questions remain, showing that beyond the economic issues, the matter of water remains politically and socially sensitive. The current blockages centre on several interdependent considerations: the status and degree of decentralization of the water companies, the tariff structure and the management models of the water companies.

Status of the Water Companies

Since 1995, the Law on Businesses has also purported to promote the reform of public sector enterprises. In 1998, water companies were classified as public utility economic units with the duty to relinquish subsidization while remaining under People's Committee control. The long-term objective was to "supply the people with water for production and routine requirements while remaining financially self-sufficient and fulfilling their public utility objective". The resolution of the Plenum of the Ninth Communist Party Congress (2001) on the subject of "pursuing the policy followed for overhauling, developing and improving the performance of State-owned enterprises", stipulated that water companies are no longer public utility but commercial companies.

The change in status from public utility enterprises to commercial enterprises is tending to become generalized and is being referred to with increasing clarity in legislation (see the Law on State-owned Enterprises). The water company monopoly was perceived as an obstacle to reform of the sector. Now, opening it up to other enterprises is still a sensitive matter, especially in the large cities. Water companies are in a monopoly situation and they are not to take unfair advantage of it. So the government needs to put in the necessary legislative framework to protect user interests. However, water companies can only be effectively reformed if they are granted a greater degree of independence in relation to People's Committees.

In 1990, Resolution 217 stated that the tariff structure of water is to be decentralized from the Governmental Price Commission to the Provincial People's Committees. At the same time, government subsidies have been

cut back. Since then, each People's Committee approves, after deliberation by the People's Council, the tariffs set by the provincial water company. The relationship between the local authorities and water companies is tense, sometimes even antagonistic. The degree of dependency of the water companies towards the local authorities, however, is such that there can be no actual enforcement of the real prices. A clear split between the two entities is necessary. At the present time, price decision-making power resides with the People's Council, which is the legislative agency at the provincial level. Circular 03 of the MoC is currently the recommended tariff schedule. But for it to be enforced by the water companies, they have to submit their tariff schedule to the People's Committee who in turn has to have it approved by the People's Council.

This level of decentralization is a serious obstacle to development of the sector. While prices of electricity, petrol and labour are on the rise, the price of water remains unchanged. This decentralization process has meant a disparity in the prices charged in provinces that border on one another but in which natural conditions are the same, thus creating social imbalances. Studies conducted in several cities indeed reveal strong differences between the price of water and the average income of the population, with large cities such as Hanoi and Hô Chi Minh City benefiting from generously subsidized water while provinces in the north are paying the full price. These disparities are increasingly criticized in the disadvantaged provinces and creating new sources of conflict.

Water Tariff Structure

In most developed countries, water is considered to be an economic asset that has costs of production, delivery, collection and treatment. As for water distribution and access to it, one of the current benchmark principles affirms that "water pays for itself",[12] in other words the users cover the basic expenses entailed by the investment in and operation of water equipment through their water bill. In Vietnam, tariff setting is therefore a core issue and is the subject of strategic debates.

A seminar on the issue of pricing water was held in 2002 by the Vietnam Water and Sanitation Association (VWSA). The problems debated included the issue of water company self-financing and the price-setting process. Case studies showed that the Hanoi Water Company was now faced with repaying loans taken out from Finland although it did not have sufficient own-source income to cover all of its own expenses (electricity, wages, etc.). The water company therefore continues to be subsidized by the

Hanoi People's Committee. The proposal made by the Water and Sanitation Association was to advocate the self-financing of water companies, which meant doubling the price of water, in order to ensure the profitability of the firms. But the Hanoi People's Committee and more importantly the People's Council were opposed to the idea of increasing the price of water. Hanoi's situation is not unique and it characterises in fact a widespread and now recurrent problem in Vietnam.

The water problem is different from that of electricity for an institutional reason. In the latter sector, the Ministry of Industry decides the price in accord with the government, while the city People's Committee, under the authority of the People's Council, is the decision-maker for water supply and sanitation. The problem is therefore of a political nature, relating to the social policy concerning water. There is already a policy for war invalids and national heroes. For electoral reasons, the members of the People's Council do not want to give the green light to an increase in water prices. Water sector reform seems to be in a stalemate in Hanoi due to being tied in with ideological conflicts of interest on the backdrop of the collectivist legacy of the subsidization mechanism,[13] as much at the level of the poorest of the poor as with the subsidized water companies.

When the idea of a rate acceptable to the people is mentioned, it is not clear what this notion covers. And very often in debates on the issue of price setting, the people are not consulted. But surveys conducted in the cities of Hanoi and Hai Phong show that people are generally prepared to pay more in return for a regular, good quality water supply service. The price of water does not appear as a major expense for urban households, although it would be a different matter for rural communities. Overall, people are aware that water is subsidized and know that in the long run, the price of water is bound to increase as it has for other utilities. However, on the side of the demand, the requirements of the people will condition any announced price hike, that is, for a higher fee, the water company — or any other operator — will be obliged to offer quality service.

The Asian Development Bank is advocating a rate of less than 3 per cent of the household's monthly income. According to statistics from 2002, the average urban monthly income is 1.3 million dongs while the price of water is 2,100 dongs per cubic metre (m^3), or 0.65 per cent of the average monthly income, which would indicate in theory that households can afford to pay the price of water. Moreover, the share that the water bill takes from the average monthly income per capita is very disparate geographically: 0.8 per cent in Hanoi, 0.6 per cent in Hô Chi Minh City, 0.8 per cent in

Da Nang, 0.5 per cent in Vung Tau compared to 3.5 per cent in Ha Giang, 3.2 per cent in Cao Bang, 1.5 per cent in Hung Yen and 2.1 per cent in Tiên Giang. Decentralization of the water policy and in particular the price-setting system is leading to major socio-spatial inequities favouring big cities where the standard of living is the highest.

A further criticism is voiced by the water companies regarding the subsidization of water: the social policy regarding water is to help disadvantaged groups, considering a minimum volume consumed of 16 cubic metres per month (135 litres per day). However, based on World Bank reports, minimum consumption can be set at 8 cubic metres (50 to 60 litres per day), which means that a very large part of the population is being classified as poor, while the people actually can afford to pay for water. The standard of 16 m^3 is therefore misleading and is contributing to the water price subsidy.

In order to make up for losses due to the low price of domestic water, some provinces have increased the price of water for other tariff categories (such as industries and services) to an excessive degree (5,000 to 7,000 dongs per cubic metre), with the immediate consequence being the multiplication of private drillings. The high cost for industries means that firms are inclined to do their own drilling in order to access cheap water, which compounds management of the resource and the problem of verifying groundwater quality.

In addition to the issue of tariff fixing there is the problem that part of the income from water cannot be collected due to leaks and the poor performance of the management system. Indeed, the payment of a lump sum continues — sometimes even after a meter has been put in — and the lack of consistency between users and rates leads to major financial losses despite the notable improvements made over the last ten years. In Hanoi, for example, very few services and businesses actually pay the rate in effect. Conversely, despite a new law enacted in 2001 reducing the price to be paid by foreigners, some of them are still paying the old rate (6,500 dongs per cubic metre).

The issue of tariff structure is doubly crucial in Ho Chi Minh City, on the one hand because the demand is tremendous and on the other hand because the failure of different BOT projects is directly linked to the issue of the price of water.[14] The economic capital seems to be a reflection of crossover tension between a government that is holding on to its choice of water sector monopoly and the private sector that is hoping to get into the market. Management choices aside, the issue of the water tariff remains.

Water Company Management Models

The tariff structure for water depends in part on the status of the water companies. If they are made into commercial entities, but the People's Committees do not accept the tariff increases, the situation appears to be an impasse. If the rate is increased and if the water companies continue to work in the framework of subsidies without striving to make a profit and improve service, the system will not be sustainable in the long run. So the choice of what management model to adopt remains paramount. That is the basic issue raised by different water stakeholders, and no single, simple answer has been forthcoming. And obviously the question is as technical as it is political.

The first model, one of reforming the water company internally with foreign investments, such as in Hai Phong, enjoys strong backing. Decentralized management is possible because of the existence of several networks on the urban service area. The approach has shown good service performance and encourages the improvement of the public utility and consequently the revamping of public companies. But this model cannot be replicated uniformly throughout the country, especially not in the large cities.

Currently, urban growth in the two Vietnamese metropolises requires heavy investment that the government is unable to cover. However, the need is to meet an often-localized growing demand. Thus, mini-networks are being developed based on a variety of management formulae (BOT, private investor, Vietnamese urban projects, etc.) and are avenues that can be explored.

Despite attempts at privatizing water supply at the level of the big cities in the form of BOT projects, this new trend is not the preferred way to go, or seems to be still at the discussion stage. Forms of "public-public partnerships" (VINACONEX) appear to enjoy greater acceptance on the part of the government. What has to be determined is whether the public sector is in a position to meet the foreseeable needs financially and, more importantly, technically. Paradoxically, it is observed that the private sector, through the "socialization" of water, is strongly encouraged in rural communities, but there again under total management control (foreign NGOs or private Vietnamese firms). Eventually, these mini-networks, after entering into contracts with the provincial water companies, will come under them, in a one-off attempt to quickly cover domestic or other demands.

The "socialization" of water in urban contexts is now a hot issue and the government is learning from past experience; it is developing new approaches. It is leaving the door open to original mechanisms, attempting

to adapt them to the plural realities of the country and to its strategic and ideological choices.

Concluding Thoughts

For Vietnam's large metropolises, the announced targets for network hook-up and consumption are as follows: 80 per cent in 2000 (150 l/p/d), 100 per cent in 2010 (160 l/p/d) and 100 per cent in 2020 (180 l/p/d). The number of urban CWS projects on the drawing board would cost 11,500 billion dongs, three quarters of which would be sourced abroad.

In its efforts to meet these targets, the CWS problem in Vietnam is driven by the supply. With the support of the World Bank and government of Finland, a two-phase strategy has been promoted. A first step (1990–2000) involved building the institutional and management capacity of water companies and servicing or overhauling urban delivery networks (in particular in the large cities of Hanoi, Ho Chi Minh City and Hai Phong).[15] The second step aims to control and increase the water available in order to meet the spiralling demand.

Furthermore, the problem of access to water for communities of poor working class people is acute in Hanoi as it is in most cities in less developed countries (LDC). But it is important to consider the macroeconomic dynamics that show a decline in poverty in Vietnam:[16] target of 10 per cent of the population below the poverty line in 2005 with a strong drop over the last twenty years (40 per cent were poor in 1985). In an initial phase (1993–98), "the main factor contributing to poverty reduction was economic growth relating to the assignment of land to small farmers, as well as agricultural liberalisation and diversification" (National Centre of Social Science and the Humanities 2002).

Meanwhile, an emerging industrial fabric resulting from polarized growth in Southeast Asia and led by China is contributing to renewed high growth (approaching two figures). A vast dynamics of urban inclusion is what is being looked for; this requires a proletarisation and structured segmentation of urban society. But at the same time, the phenomenon of socioeconomic marginality and urban exclusion does not have the lingering character observed in developing countries. Clearly, the degree of inclusion in the international division of labour will leave a deep mark on the physiognomy of urban sector policies and the like. It is clearly seen that the urgency of the CWS offer in Vietnam is due to the swing that it experienced in just a few years in terms of economic and urban growth (institutionally since 1986 with *Doi Moi*, then in practice since the early 1990s, then with a shakedown

in 1997, followed by a sustained pace since 2000). In Vietnam, the offer has seemingly delayed in becoming aligned with the dynamics of the urban water demand for reasons of investment and funding.

The national budget deficit in Vietnam (negative balance of 3 per cent) and controlled inflation strongly limit the government's capacity to subsidise. And national savings, although on the rise, remain insufficient to cover public utility infrastructure needs. With the shortfall in national public financing, other resources will have to be mobilized. Vietnam is therefore not far from the debates that raged on everywhere during the 1990's on themes of subsidiarity, privatization and governance less directly dependent on political power. The public-private partnership formula used in many urban contexts (Casablanca, Rabat, Buenos Aires, etc.) seems also to be the way in which Vietnam will embark on, but with the immediate proviso that, in the strategic area of CWS, Vietnam will forge its own doctrine. Although since the inception of *Doi Moi,* Vietnam has not escaped the liberal wave and assault of international slogans, it has done so in a very specific mode: the central government is effectively turning to the market and opening up internationally, but keeping a firm grip on the reins. It is coming up with its own solutions on a "trial and error" basis. The "build operate-transfer" formula had its successful spell in the wake of the myth of transition that suggested in the 1990s that private operators would resolve the issue of financing the development of developing countries. Official development assistance was supposed to be superseded by flows of foreign direct investment.

But the 1997 Asian crisis made shareholders very jittery at the notation of "risk country", which was the agonizing re-evaluation that multinational firms made on the developing country portfolio,[17] and the swing from "BOT's commercially guaranteed by the State" to "BOT's not commercially guaranteed" (Jacquet and Charnoz 2003, p. 12)[18] was a strong impediment to the success of these mechanisms as the financial panacea of urban infrastructure. This situation has now caused the public-private partnership formula to resurface, but based on an innovative mode, because international operators cannot be depended upon.

In this regard, a detour to the great neighbour, China, may prove enlightening; it is interesting to read the following press clipping that comments bluntly on the direction taken by China in the field of mobile telephony:

> There is no way that the government, in its constant concern for national preference, will allow the great global players grab the cake. This nationalist option is clearly in favour of the operators;

> foreigners are undesirable except for holding shares (very minority) in the framework of World Trade Organisation agreements. Beijing is encouraging competition but exclusively among public entities. Two operators hold licences for mobile telephony, China Mobil and China Unicom. . . . As for components manufactures, the landscape is less rigid but the State remains a voluntaristic stakeholder in industrial policy, whether the corporations are public or private. The government has encouraged local electronics conglomerates to sign cooperation agreements with foreigners everywhere in order to quickly acquire technical savvy.[19]

The die is cast: there will be PPP in Southeast Asia, but based on a conspicuously different model from that which operators have been accustomed to up to the present, even at the international level.

In their realm of operation, water companies will seemingly be in charge of overhauling old networks, reducing leaks, getting rid of public water fountains (early 1990s) and getting away from lump-sum to individual meter-based billing.

Network extensions can take on different forms: ownership by the developer with the cost being passed on to new individual owners by charging for hook-up, with the intervention of private Vietnamese entities and intervention by large Vietnamese corporations.

Consequently, the following possible scenarios can be formulated regarding institutional changes in Vietnam's CWS sector:

- Public water companies and their staff will be maintained for historical reasons, but will not be developers in the field of urban extensions. This symbol of collectivist economy is spared. Also in view of the local electoral issues (provincial People's Committees) that are tied in with water, it would be difficult to speed up the pace of this reform.
- New investments in water delivery and treatment will be directly or indirectly paid for by the customer, more particularly, by those in the middle class.
- The choice of operator may give preference to Vietnamese investors, at least based on what seems to have been learned from experiments with private sector involvement. However, the most probable scenario is a run off among large Vietnamese technical and financial corporations established in the public interest coming under state capitalism and already active in such areas as construction (VINACONEX), along the lines of the Korean model (*chaebol*).

But the issue is less one of their financial foundation and managerial expertise than one of their ability to get a handle on the technology specific to the water sector. If this strategy of exclusivity, first Vietnamese and then very probably through state capitalism, was to be borne out in the area of new water production and delivery capacities, it would suggest a genuine appropriation of the technical expertise. However, foreign private operators in the sector (Ondéo, Veolia, SAUR) are perhaps no longer willing to wait any longer for an improbable deregulation of the sector. They may prefer to turn to countries that are safer — those of Central and Eastern Europe — or where the rules of the game are more predictable. They will perhaps tire of this game of being taken for a ride that resulted from the myth of transition, in which Vietnam was able to mobilize resources and expertise on an experimental basis for ten years.

Moreover, in the near future, water and sanitation companies will no longer be in a position to meet the substantial demand brought on by urban growth and the obvious environmental constraints in terms of wastewater treatment. But although this desire to build up the CWS sector into a genuinely Vietnamese-style public sector (although competitive) is being applied prematurely, it could be that the expertise and experience level of these state firms will still be inadequate. The services that would be provided by these new institutional and technical mechanisms would then be cryingly inadequate in relation to the escalating growth of the urban water and sanitation demand.

A strong sense of both independence and national pride is perceived to be behind this strategy. However, a real race against time is also seen, on the one hand between the urban water and sanitation demand, now gauged according to international standards — in volume if not in quality — and on the other, the corresponding acquisition of national institutional, financial and technological capacity in the field of CWS.

The haunting question to be answered is the specificity of the water sector, if any. Is this approach of national independence and development seen in all urban public utilities? Is it not an ideological legacy that is still hanging on, but only for a generation that will be retiring from business in another ten years? And if the odds in this race between the growth of the demand and construction of strictly national mechanisms turned out to be uneven, what alternative would become advisable or mandatory?

In the final analysis, it appears that the debate framed in terms of private or public is becoming stale in developing countries. After the widespread slide[20] of municipal water authorities, after the foretold triumph of the market, in recent years we have moved into a new step, because the direction

is no longer just that of choosing between private or public but has now broadened to involve the private and public binomial. However, it would be hasty to consider these mechanisms as the panacea. Indeed, regardless of the partnership combination, the situation of operator exclusivity puts him in a monopoly situation on urban territory. The issue is not so much that of the mechanism and its private or public status, but rather that of regulating it in order to check or prevent monopoly situations.

Vietnam intends to take advantage of the competition between stakeholders with a regulation process that remains solidly in the hands of the State, but which does not rule out a compromise among the many variables found in the CWS sector. Vietnam provides an exciting example of creativity around the prospects opened up by public-private partnerships.

Notes

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1 Is this water "clean" in the sense of being drinkable? In Vietnam, water is more often called "clean" if it is clear, with no reference to potability.

2 From 403,000 to 674,000 m^3/d for high consumption days.

3 For purposes of comparison, the price of 1 cubic metre of water in 2001 in U.S. dollar was 1.60 in Chennai, 1.38 in Bangalore, 1.17 in Hyderabad and 0.61 in Colombo (India), and 0.53 in Kathmandu (Nepal) (Source: World Bank, *Water and Sanitation Program*).
In 1999, the price of water in Shanghai was US$1.15 (Source: *Le Quotidien du Peuple,* 4 December 2002).

4 Reducing losses to less than 10 per cent of production — even for a new network — is a challenging technical and economic objective and can be achieved with an incremental cost increase. It is felt that a 15-per cent loss rate is acceptable in a network in good condition. A water loss rate in excess of 20 per cent requires measures to reduce leaks or overhaul the network.

[5] Decision No. 63/TTg and Directive No. 40/TTg from the prime minister.

[6] In the context of European countries, annual average domestic consumption is generally estimated at 140 l/p/d.

[7] But it would be wrong to see therein an expression straight out of the collectivist legacy. Indeed, in market economy contexts, the government is just as concerned with changes in prices of essential goods (such as the price of water per m^3). See the example of price management in the case of Casablanca, Morocco, with its public utility delegation to Ondéo (Suez-Lyonnaise des Eaux).

[8] Faced with the national requirement — real or stated — to build a socialist-oriented market economy.

[9] "We hope that models of partnership such as the Thu Duc project and those that have been successful elsewhere in the region can be examined closely in Vietnam and that such partnerships can be pursued more proactively to help relieve the burden on the Government in financing such infrastructure. The ADB stands ready to assist the Vietnamese Government in building the enabling institutional framework, regulatory capability and in providing access to the necessary technical expertise to support such partnerships." — Financing and Developing Environmental Infrastructure in Vietnam: The Case of Water Supply and Wastewater Treatment Practitioners' Workshop, by Mr John Samy, Resident Representative, Vietnam Resident Mission, Asian Development Bank. Hanoi, 22 March 2001.

[10] SAUR pulled out in September 2003 when the Ha Long project went under. OTV-Vivendi is continuing to operate (projects funded by the ADB in smaller cities). SAFEGE is wondering if its presence in Vietnam is worth it, despite the good reputation it enjoys in the field. SADE in Da Nang is also getting out because the World Bank is no longer going to finance the project's continuation (the primary network has been installed, but the secondary network and construction of a new station remain unfinished). Lyonnaise des Eaux is also withdrawing due to the poor performance of the BOT project.

[11] While being opposed to privatization, they say nothing about the necessary regulation of a public sector that they so desire.

[12] At this point we will not delve into the extreme over-simplification conveyed by this slogan that totally dodges the equalization payments that prevail in the tariff-setting process or the strategies that govern inter-sectoral investments made in the areas of electricity, water, sanitation and mobile telephony.

[13] Despite the effort put forth to improve network quality, there has not been a drop in losses; rather, they are tending to increase. It therefore seems that the problem of leaks is really linked to the problem of management on the part of the Hanoi Water Company. Two hypotheses are advanced: 1) either the level of financial loss is getting higher due to increasing embezzlement on the part of employees of the firm, 2) or arrangements among households and employees are increasing (lump sum) while consumption grows. Thus, the rate of loss is not

a consideration that the Water Company will give much attention to, knowing that the People's Committee will "make up the difference" in the form of subsidies.

[14] Based on the proposal of the Ho Chi Minh City People's Committee, the average price of water for the 2004–13 period will be 4,200 dongs/m^3 instead of the current price of 2,500 dongs/m^3. The domestic price will increase from 1,700 dongs/m^3 to 2,800 dongs/m^3 <www.vnexpress.net>.

[15] Fifty-three provincial capitals are affected by this target of a 70 per cent to 80 per cent urban hook-up rate. The estimated cost is US$750 million.

[16] "Analysis of regional data for 1993–98 reveals for instance that the increase in income for the poorest fifth of the population was much greater than that for the richest two fifths (Basilacan, Pernia and Estrada 2003)", quoted by Jacquet and Charnoz (2003).

[17] Showing preference for truly emerging countries or, better yet, eastern European countries.

[18] The idea is a new sharing of risk to be established between the government and operators, such as on the price of inputs.

[19] The government of China wants to promote the emergence of national champions, Frédéric Bobin, *Le Monde,* Tuesday 30 December 2003, p. 14.

[20] Low productivity, opaque subsidization, overstaffing, high structural losses of water and revenue, mediocre service out of step with urban expansion.

References

ADETEF. "La réforme des entreprises publiques au Vietnam". 2003, 10 pp. (note).

Association de l'Eau et de l'Assainissement du Vietnam. "Water Supply and Sanitation in Provincial Towns in Vietnam". Hanoi, 30 November to 3 December 2000, 591 pp. (Technical Papers).

Basilacan, Arsenio M., Ernesto M. Pernia, and Gemma Esther B. Estrada. "Economic Growth and Poverty Reduction in Vietnam". ERD Working Paper no. 42. Bangkok: Asian Development Bank, 2003.

Centre National des Sciences Sociales et Humaines. *Rapport sur le développement humain du Vietnam 2001, Le Doi Moi et le développement humain au Vietnam.* Hanoi: Éditions Politiques Nationales, 2002, 149 pp.

Fukuyama, Francis. *La fin de l'histoire et le dernier homme.* Paris: Flammarion (Champs) 1994.

Jacquet, Pierre and Olivier Charnoz. "Infrastructures, croissance et réduction de la pauvreté". AFD, Article pour le Forum franco-vietnamien (6–13 Septembre 2003), 20 pp.

JICA. "The Study on Hanoi Water Supply Systems in 1997". Final Report, 1997, 29 pp.

Maison du Droit Vietnamo-Française. "Colloque franco-vietnamien sur les grands projects d'infrastructures". Actes juridiques et économiques et financiers, Hanoi 19–21 May 1997. Paris: Hachette, Lagardère SCA, 1997, 262 pp.

Ministère de la Construction. "Orientations de développement du système de l'approvisionnement en eau en milieu urbain jusqu'en 2020". Hanoi, 1998, 81 pp.

———. "Orientations d'aménagement global du développement urbain au Vietnam jusqu'en 2020" (selon la decision governmentale no. 10/1998/QD-TTg du 23/01/1998). Hanoi, 1999, 84 pp.

———. "Orientations d'aménagement global du développement urbain au Vietnam jusqu'en 2020". Hanoi, 1999, 110 pp.

———. "Hoi nghi cap nuoc do thi toan quoc lan thu IV" [IV^{e} Séminaire sur l'approvisionnement en eau en ville]. Hanoi, 2001, 136 pp.

———. "Project d'approvisionnement en eau en milieu urbain au Viêt Nam (P073763). Étude de préfaisabilité". Hanoi: Black & Veatch International et VIWASE, 2003, 122 pp. + annexes.

Ministry of Agriculture and Rural Development. "National Workshop on Capacity Building for Water Resources Management in Vietnam, Water Resources Consulting Services". Asian Development Bank, 1999.

Ministry of Construction, Ministry of Agriculture and rural Development. "National Rural Clean Water Supply and Sanitation Strategy up to Year 2020". Hanoi, 2000, 83 pp.

Nguyên An Lich and Duong Duc Tin. "Public Health and Gender Impacts of Hanoi Water Supply System". Hanoi: Hanoi University Environmental and Sociological Study, 1994, 106 pp.

Pollard, Richard and Hoang Thi Hoa. "Global Small Towns Water and Sanitation Initiative. Comparative Study of Water Supply and Sanitation Services Management Models in Small Towns of Developing Countries, Vietnam Case Study". Preliminary findings. ADCOM Consulting Company with Hydroconseil, 2001, 18 pp.

SAGEP-SOGREA, WMI. "Project d'amélioration de la gestion technique et commerciale du service des eaux de la ville de Hadông, province de Ha Tay". Analyse technique, économique et financière du project. Étude de faisabilité. Protocole franco-vietnamien, 2000, 88 pp.

Van den Berg, Caroline. "Viet Nam Evolving Management Models for Small Towns Water Supply in a Transitional Economy". Water and Sanitation Program. ADCOM, 2002, 28 pp.

Viện, Quy hoạch Đô thị-Nông thôn (Chủ biên), Đặng Xuân Đường, dưới sự hướng dẫn của Tô Thị Minh Thông, hợp tác với Gubry Patrick, Huguet Jerrold W. *Dân số và môi trường đô thị thành phố Hà Nội. Hà Nội: Nhà xuất bản Chính trị quốc gia*, 1996, 110 tr. (Dự án VIE/92/P02).

New ref.: National Institute for Urban and Rural Planning (NIURP) (ed.), Dang Xuan Duong, under the dir. of To Thi Minh Thong, in coll. with Gubry Patrick, Huguet Jerrold W. "Population and urban living environment in Hanoi City".

Hanoi: The National Political Publishing House, 1996, 77 pp. (VIE/93/P02 project).

The World Bank, ADB, FAO, UNDP. *Viet Nam Water Resources Sector Review.* May 1996, 150 pp.

———. *Benchmarking, Urban Water Supply, Socialist Republic of Vietnam.* East Asia Urban Development Sector Unit, Vietnam, April 2002, 19 pp.

World Bank and Institute for Urban Studies. *Role of Community in Management and Operation for Water Supply and Sanitation Projects of Districts, Small Towns and Rural Residential Areas in Vietnam.* Hanoi 2002.

UNDP. Human Development Report 1999. New York: UNDP and Oxford University Press, 1999, 172 pp.

———. Human Development Report 2003. New York: UNDP and Oxford University Press, 2003, 292 pp.

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Cover photo:
Eastern area of Hoan Kiem District in Hanoi, on the right bank of the Red River. This area was built beyond the dyke (seen here surmounted by the wide Tran Quang Khai Street) and is easily inundated during the flood season. "Compartment" houses mix with collective housing buildings. Both of Hanoi's central bridges are visible: Chuong Duong Bridge, which is used by motorized vehicles and Long Bien Bridge in the background (formerly Doumer Bridge). The latter was built between 1898 and 1902 by the company Dayde & Pille from Creil, and by Vietnamese workers, according to plans by Gustave Eiffel; it is 1,682 m long and its metallic armature contains nineteen spans. The bridge was considered a technical and architectural feat at the time. It suffered severe damage from American bombing between 1967 and 1971. Today, a railway track still crosses the bridge, which is also used by cyclists and pedestrians. Restoration work is planned. On the other side of the river, on the left bank, is Long Bien District (formerly Gia Lam) (*Photo: Patrick Gubry, November 2005*).

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