

LAO PEOPLE'S DEMOCRATIC REPUBLIC
Peace Independence Democracy Unity Prosperity



A.1. Summary Report

Building Consensus

for Small Town Water Supply Management Models in Lao P.D.R.

June 2004

Study:

LAOS: Implementation of a National Water Tariff Policy and Development of Management Models for WSS Sector (#A062102/M/WTS/CS/LA).

Implementing Agency:

Water Supply Authority (WASA),
Department of Housing and Urban Planning (DHUP),
Ministry of Communications, Transport, Post and Construction (MCTPC)
Vientiane, Lao PDR.

Deliverables:

- (A) Building consensus among sector partners to develop a clear framework for Public-Private Partnerships for water supply service provisions;
- (B) Formulating a methodology for preparation of water tariff in small towns based on 'Informed Choice' and consultation with users in line with the 'National Water Tariff Policy'.

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Water and Sanitation Program - East Asia and the Pacific.

Technical support provided by:

Water and Sanitation Program - East Asia and the Pacific,
Lao PDR Country Office (WSP-EAP LCO).

Study Outputs:

	<u>Lao</u>	<u>English</u>
(A) Building consensus		
A.1. Summary Report	x	x
A.2. Report of the National Consultation Workshop	x	x
A.3. Private Sector Mapping		x
A.4. Video (Process of Consensus Building)	x	x
(B) Formulating a Methodology		
B.1. Development of Water Supply Tariff Determination Methodologies (TDM)		x
B.2. Communications for Regulators		x
B.3. Website	x	x
B.4. Laws and Regulations Related to Water Supply	x	x
(C) Study Inauguration Report		
		x

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1. Summary

The aim of the study is to progressively develop understanding and capacities of national government to establish the institutional mechanisms for public-private partnerships in the Lao People's Democratic Republic (Lao P.D.R.) through a process of building consensus. The Study was led by the Water Supply Authority and funded by the Public-Private Infrastructure Advisory Facility (PPIAF), with co-financing and back-up support from the Water and Sanitation Program - East Asia and the Pacific (WSP-EAP) of the World Bank.

The existing water supply situation in small towns in Lao P.D.R. has been described in a preceeding Case Study¹.

As a result of the recommendations from the previous Case Study, WASA prepared this consequent new field study to : -

- A. Build consensus amongst sector partners to develop a clear framework for Public-Private Partnerships (PPP) for water supply service provision; and,
- B. Formulate a methodology for preparation of water tariffs in small towns based on 'Informed Choice' and consultation with users in line with the National Water Tariff Policy.

The following activities were undertaken for the study:

- Establishment of an Advisory Committee with representatives from the principal government agencies in the sector, the Asian Development Bank (ADB) and WSP-EAP Lao PDR Country Office (WSP-EAP LCO).
- Establishment of a Technical Team led by the Water Supply Authority (WASA) with support from WSP-EAP LCO to coordinate study activities and consultants.
- Field studies to communicate objectives to provincial and district government staff and small town communities and to get feedback.
- Individual studies contributing to this Summary Report by national and international consultants for private sector mapping, tariff determination methodologies, communications strategies for regulators, and design of the WASA website.
- Regional and national workshops to share learning, build consensus and propose steps forward.
- Study tours to Vietnam and Cambodia to learn about private sector involvement for water supply provision in the region and to gain experience of new technologies for water supply provision.
- Consolidation of information to share learning from the study, promote common understanding and explain the consensus-building process, in-line with past and on-going activities (see Box 2).

Box 1: Lao P.D.R. at a glance³ (2002 data, unless otherwise stated)

Total Population:	5.5 million	Percent of Population with: -	
Urban/Rural:	22/78 %	Access to improved	58%
Population growth (annual):	2.8%	water supply nationally	
Life expectancy at birth:	54.5 years	Access to piped water	
Infant mortality rate:	87	with household connection:	
(per 1,000 live births)		Vientiane:	62 %
Main childhood diseases:	1 st . Malaria	4 Secondary Towns*	65 %
	2 nd . Diarrhoea	Other provincial /	18 %
UNDP HDI Rank (2003)	135/175	small towns	
GNI per capita	US\$330		
(Atlas method)			
Exchange Rate: BCEL, 9 June 2004.			
US\$1= LAK 10,600			
* The 4 Secondary Towns are Luang Phabang, Thakek, Savannakhet and Pakse.			

2. Country context for small town water supply

Lao P.D.R. is richly endowed with natural resources. The Mekong River flows through the length of the country, and there are 11 major tributaries flowing from the east to this major confluence (see Map 2, page 7).

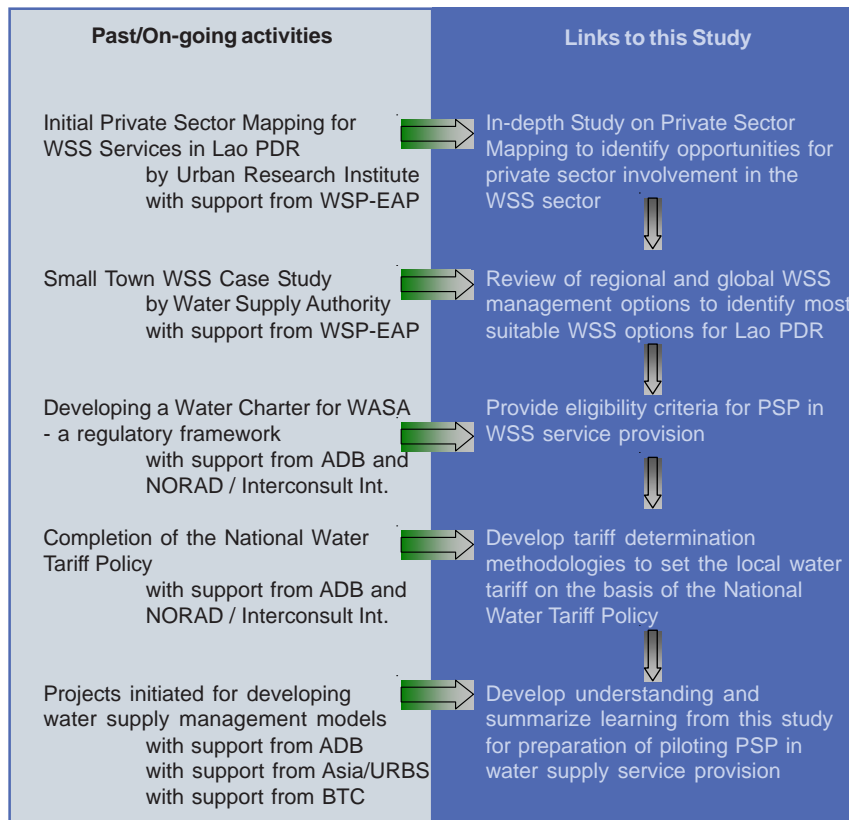
Water is plentiful in the rainy season (June-November), but there are periods of water shortage toward the end of the dry season (December-May). Average annual rainfall ranges from 1400 - 3000 mm. Although forming 25% of the catchment area for water resources in the Mekong River Basin², Lao P.D.R. accounts for 'only about 8% of the basin's total population'.

The Lao words for mother and water are '*mae*' and '*nam*' respectively. Thus, the Mekong River '*ແມ່ນ້ຳຂອງ* ***mae nam khong*** - Mother Water Khong - holds traditional significance for the Lao people. The new year in April is celebrated by a water festival that heralds the rains for the coming wet season. Small streams and large rivers burst their banks as torrential rains pour down on the country during the rainy season.

Access to improved water services (urban and rural) nationally in Lao P.D.R. is estimated to be about 58%. In the capital Vientiane and the four secondary towns about two-thirds of the population have access to piped water with household connections. But in the remaining provincial and small towns, about 82% of the population do not have access to piped water supply services with household connection. How then can an economically poor country with plentiful water resources provide equitable water supply services to the remaining more than eighty unserved urban centres? These small towns are characterised by limited infrastructure and lack attractive financing and professional support mechanisms for entrepreneurs. Can these towns provide opportunities for investment?

The results from this and parallel studies suggest that there is a growing and active private sector that is looking for guidance from the government on how to become more significantly involved with providing and financing formal water supply services.

Box 2: Summary of on-going initiatives in the small town WSS Sector in Lao P.D.R.



3. Existing situation for small town water supply

Lao P.D.R. is one of the poorest countries in East Asia. However, it is moving into a progressive phase of expansion, moving from a land-locked to a land-linked country, and looking to escape from the least-developed country status by 2020 through a National Growth and Poverty Eradication Strategy (NGPES). In this program, 72 poor districts are identified for development focus, of which 47 are accorded priority (see Annex 1). The status of the water supply services in these districts and towns is highlighted in Table 1 below and Map 1 opposite.









The urban and small town water supply sector comprises 145 officially designated urban centres in 142 districts. There are 30 existing formal piped water supply schemes in the larger urban centres and 28 more have agreed financing through grant aid and credit.

Urban water supply systems are owned by Provincial Government, and managed through a delegated model of State-owned Enterprises (SOE). A water supply enterprise is known as 'Nam Papa' in Lao language. The Nam Papa SOEs are responsible to their respective provincial authorities. However, there are no performance agreements with their respective delegating authority.

All the staff are employed by the SOE - they are not civil servants. Managers report to their respective Department of Communication, Transport, Post and Construction (DCTPC) at provincial level, and to a Water Administration Board that is directly accountable to the Provincial Governor. Ultimate responsibility for investment is at the central level through the Department of Housing and Urban Planning (DHUP) in the Ministry of Communication, Transport, Post and Construction (MCTPC), with management decisions controlled within the provincial administration.

Of the remaining 87 smaller, mostly poorer towns, there are no formal piped water schemes with household connection. Some towns have basic water services through communal standposts or services provided by small-scale independent providers (SSIPs). Water is supplied either by pipe to nearby households or customers go to collect water from the SSIP where the water is pumped untreated from a shallow well or river. The cost of water from the unregulated SSIPs in these **poorer small towns** is expensive at **10,000 - 15,000 Kip/m³ (equivalent to about US\$1.00 - 1.50/m³)**. This compares to about **1,700 Kip/m³ (equivalent to about US\$0.17/m³)** in the larger, **wealthier urban centres** with piped, household water supply that have tariffs set by the provincial authorities (see Table 3, Page 13 and Figure 6, Page 13).

Table 1: Status of formal water supply services in urban centres⁴

	Districts	Constructed	FINANCING AGREED			Remaining	Total
			ADB: Town WSS (17/0-LAO)	ADB: Northern and Central Towns WSS	Other		
<i>Water supply status symbols</i>							
NGPES Priority							
POOR DISTRICTS (PRIORITY 2003-2005)		1	1	5 +2 ^a	2	38	47 +2
POOR DISTRICTS		6	1	1	-	17	25
NOT IDENTIFIED AS POOR DISTRICTS		23	8 +1 ^b	5	2	32	70 +1
(SUB - TOTAL)			(11 ^c)	(13)	(3)		
TOTAL	142	30	28			87	145

^a Includes Na Teui and Ban Mom, which are not District Centres

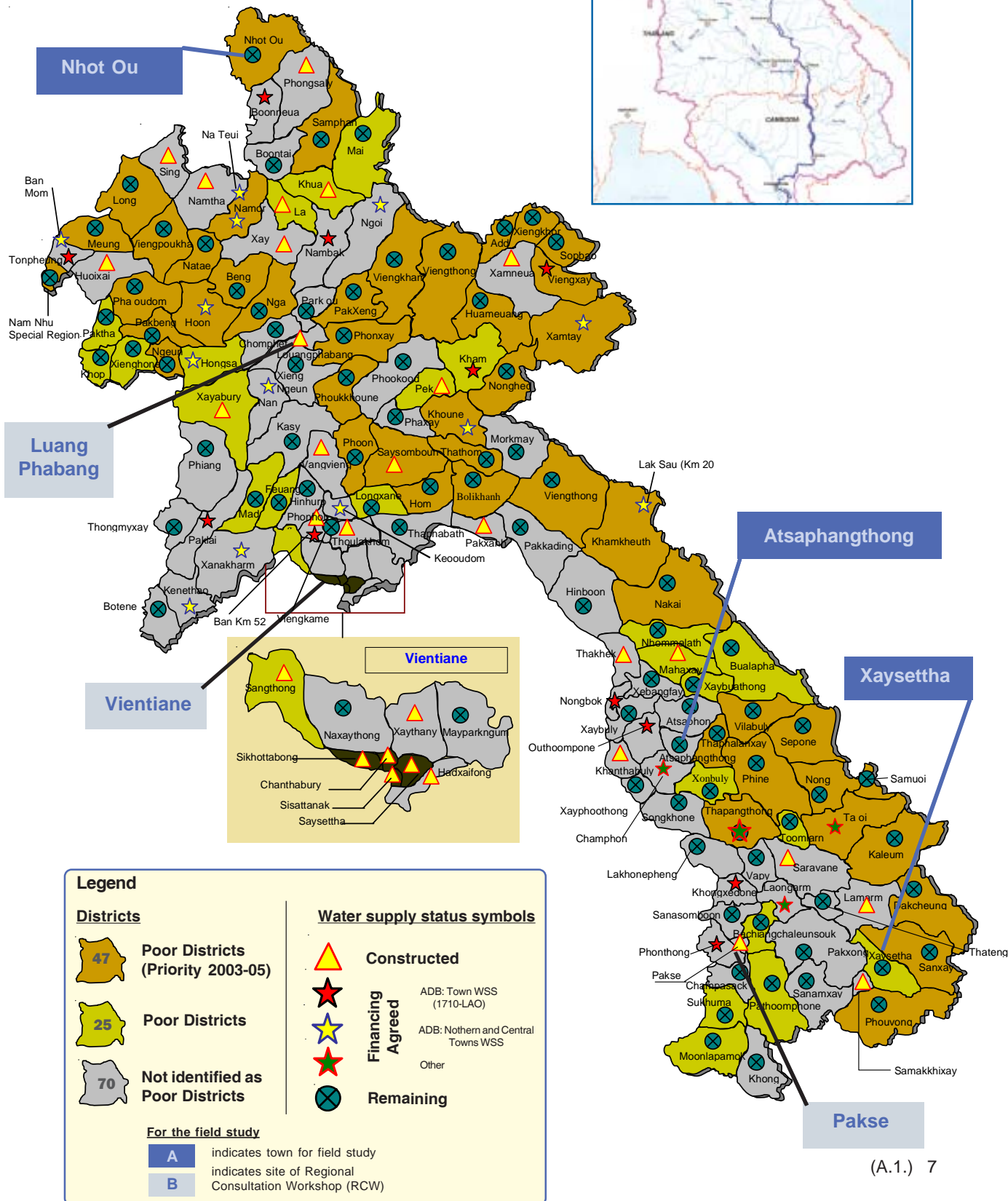
^b Includes Km52 Town, which is not a District Centre

^c Samakhixay (Attapeu Nam Papa) not included as this is a rehabilitation of an existing water system

Map 2: Rivers and water bodies in the Mekong Basin²



Map 1: 72 Districts identified as poor⁴
(Piped water supply status of urban centres, 2004)



At present water tariffs do not reflect investment. As mentioned in the Small Town Case Study, existing investments are in the order of US\$135 per capita for the larger towns and cities. Designs are generally based on 20-year projections and users are not involved in the technology choice.

There are a small number of existing private investments in water supply in Lao PDR, which tend to be build-own-operate (BOO) type contracts. These are simple contracts based on shared private and community financing, with a high level of trust between the partners. The model is not widespread due in part to limited financial resources and the high costs of commercial debt.

Prior to this study, and a consequent study undertaken in 2002 on private sector mapping, little was known about the involvement of the private sector in small towns. One of the key findings is that there are small-scale water supply entrepreneurs in many of the small towns and that they are using a step-by-step approach to system development. By starting small they do not run into immediate cash deficits, and they are able to gradually expand systems to meet growth in demand. If the investments are controlled, then tariffs can be kept lower and there is potential to achieve full cost recovery.

4. Background to the Study

Since 1997, the Government (through the Ministry of Health) is advancing a Rural Water Supply and Sanitation Sector Strategy involving the pioneering of new institutional solutions. Notable among these innovations is the promotion of a demand-responsive approach at the national level. Communities are involved in deciding on affordable service levels, choosing between technical options, and making substantial contributions. New horizontal and vertical linkages between line agencies, including private entrepreneurs, are being established. A revision of the RWSS Strategy has recently been completed and approved by the Ministry of Health in June 2004.

On the urban side, there is currently no defining strategy for water supply services. In particular, the poorer, smaller towns have been overlooked. However, strategy development was started at a 'National Consultation Workshop on Water Supply' in December 2001, the principle recommendations were: -

Different appropriate management models need to be tested in small towns to establish new linkages with the private sector and communities; these models should be demand responsive; and there is potential to pilot innovative solutions for the involvement of private enterprises in WS provision, for example but not limited to Design, Build, Lease (DBL) contracts.

The concerned actors in the sector are now looking to see how an overarching strategy can be developed that reflects on-going developments in both the rural and urban sectors, and clarify the situation for small town water supply. The current institutional arrangements are highlighted in Figure 1.

Figure 1: Current institutional arrangements for management models⁵

	<u>URBAN WATER SUPPLY</u>	<u>RURAL WATER SUPPLY</u>
Ownership	National Government	Community ^d
Oversight		
District		✓
Province	✓	
Ministry	MCTPC	MOH
Operations	Nam Papa State Enterprise	Community
Central level support	Dept. Housing and Urban Planning	Nam Saat Central
Legal basis	No. 42/PR	Undefined
Policy	No. 37/PM	No. 37/PM
Strategy	None	Yes
Regulatory body	Water Supply Authority	None
Financing	National Government (Loans / credit)	Donors / Community (Grant / in-kind)
Decision-making	Local Government	Community
Management	Institutional	Village Committee
Management Model	Delegated	Community

^d The water systems are handed over to communities to manage, but there is currently no legal basis for this arrangement.

5. Study Outline

This Study was led throughout by a national government team, supported by national and international consultants when appropriate.

Critical to the success of the Study was the need to involve a broad range of stakeholders from government, private sector and the communities in different geographic locations, representing the various social and economic groups in contrasting small towns.

There were six main components to the Study (see Figure 2), which looked at not only the development of the management models, but also how these fitted into the broader picture of: -

- ◆ ways for town communities to be involved in the informed choice process;
- ◆ cross-sharing of experiences between the urban and rural water supply sectors;
- ◆ the potential for the private sector to be involved in water supply;
- ◆ clarification of existing laws and regulations relating to sector activities;
- ◆ tariff determination methodologies to see how communities can be involved in choosing the water tariff in relation to the technology option; and
- ◆ ways for WASA to develop communication strategies to put information in the public domain.

Figure 2: Actual implementation of study activities⁶

Year	Month	Activity					
2002	September	Submit proposal to PPIAF					
	October	Approval from PPIAF					
	November	Inauguration Ceremony for the Study					
	December	TOR and methodology preparation					
	Component	Management Model Development	Private Sector Mapping	Water Tariff Determination Methodology	Communications Strategy for Regulators	WASA Website	Study Tours
2003	January	Preparation for town studies					
	February	Nyot Ou					
	March						
	April	Atsaphangthong, Xaysettha	Analysis		Analysis		
	May	North, South, Central	Report				
	June	Regional Workshop Reports		Methodology	Strategy Report		
	July						Vietnam
	August		Report	Field Testing		Analysis Proposal	Cambodia
	September	National Consultation Workshop, Vientiane					
	October	Workshop Report				Preparation Training	
	November		Video	Collection of Laws, Decrees, etc.	Report		
	December						
2004	January						
	February						
	March						
	April	Video completion					
	May	Product finalisation				Approval	
	June	Study Report				Launch	

Note: The National Water Tariff Policy was approved in April 2004.

6. Process of the field work

The participatory field work for building consensus on the potential for new water supply management models was carried out in 3 small towns - Nhot Ou Town, Phongsaly Province; Atsaphangthong Town, Savannakhet Province; and Xaysettha Town, Attapeu Province (see Map 1, page 7, and Figure 2, page 9). The towns were selected because they: -

- currently lack formal piped water supply services;
- represent different levels of poverty as identified in the NGPES⁴;
- are in different geographic regions of the country (North, Central and South respectively); and
- have sizes of population ranging from about 3,000 - 10,000 persons.

These criteria were used to see whether the potential for new management models was an expressed desire throughout the country (as represented by these towns), or whether there was no perceived need for change. In each small town, a number of steps were completed to ensure the consensus-building process followed government protocol and involved the communities (see examples in Figure 3).

The results of these small town workshops were then presented at 3 Regional Consultation Workshops in the North (Luang Pabang), South (Pakse) and Central (Vientiane). Senior representatives from each province attended their respective workshops, including: -

- Provincial Administrations,
- Departments of Communication, Transport, Post and Construction,
- Nam Papa,
- Nam Saat, and
- District Governor of the small town visited for the field work.

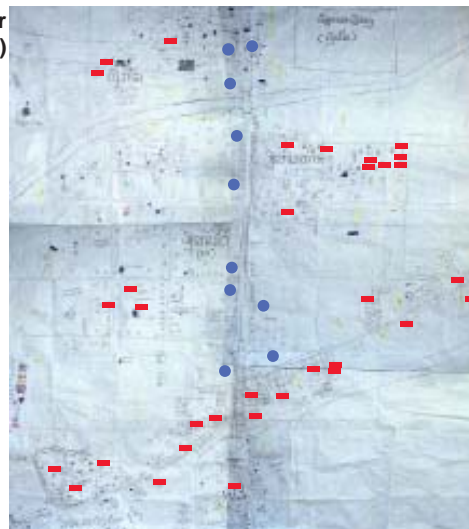
Ideas were shared on: -

- suitable management models to pilot;
- incentives and financing required for these management models;
- technical solutions to the water supply problems in their respective town;
- regulation, professional support mechanisms, incentives for expansion and guarantees for private investors; and
- methodologies for involving communities in the decision-making process.

At the National Consultation Workshop on 5 September 2003 in Vientiane, the results of the Study were presented and further discussed to propose the next steps forward for the development of new management models and tariff determination methods for small town water supply. For example, Water User Associations and town Water Boards will be explored, as well as other contract options, including unbundled approaches for design, build and operate stages (e.g. management contracts, leases/affermage, and concessions) (see page 21).

Figure 4: Community Map: Identification of water vendors (blue) and poor households (red)

Figure 3: Community mapping of the small town



Markings on this community map are for indicative purposes only. For positions, please refer to original map.

Table 2: Outline of the consensus building activities in the small towns

Objective	Method	Outcome
<ul style="list-style-type: none"> - Follow the steps of government protocol. 	<ul style="list-style-type: none"> - Arrange meetings with concerned provincial and district government departments before and after the field-work. 	<ul style="list-style-type: none"> - Increased understanding and approval of the activities being undertaken. Integral part of the consensus-building process.
<ul style="list-style-type: none"> - Increase understanding of the government staff at the town level of the different management model options for town water supply and build consensus for change. 	<ul style="list-style-type: none"> - Through a 1-day consultation workshop, presentations and discussions on: <ul style="list-style-type: none"> - background case studies - management model options - financing and investment options Also includes a priority ranking exercise. 	<ul style="list-style-type: none"> - Proposals for different management model and financing options from all the government departments in the town. Understanding increased of the priority needs of the town as perceived by the government staff.
<ul style="list-style-type: none"> - Consult town representatives from different social groups and the local private sector on their perspectives for improving the water services in their town. 	<ul style="list-style-type: none"> - Through a 1-day consultation workshop, involve men and women from each of the social groups (poor, middle-income and better-off) in a dialogue to understand their local situation. The activities included: - 	<ul style="list-style-type: none"> - Representatives from each social group are able to meet in an informal setting and raise issues for improving water supply in their town.
<ul style="list-style-type: none"> - Develop a methodology for engaging users in the initial steps of determining town water supply options. 	<ul style="list-style-type: none"> - Presentation on the 'Study Objectives and Activities'; - Drawing of the Community Map (all 'Ban' in the town) by all participants; - Social classification exercise and discussion; - Highlighting of all poor households on to the Community Map; - Discussion on water issues in the town, identifying water sources, vendors etc. and data included on to the Community Map; - Small group work priority ranking exercise; - Presentation of results of the small group work, discussion and agreement. 	<ul style="list-style-type: none"> - Increased understanding that the government is encouraging a range of options for town water supply; - A large scale map that enables members of the local community to visualize all the main features of the town; - Increased understanding of the access of different social groups to goods and services; - A pictorial record of each poor household that can be used at later stages for 'Willingness-to-connect' or 'Willingness-to-pay' surveys and for understanding how technical design choices will affect the poor; - Identification and classification of small-scale independent water providers and how much they are charging for water; - Understanding increased of the priority needs of the town as perceived by the potential customers. This result can be compared with the priority of the Government; - Agreed results to promote common understanding and identify ways to include the poor.

7. The market in small towns⁷

Of the remaining smaller towns without water supply, increasingly, local private contractors are moving into this market by providing affordable services tailored to local needs. The arrangement is marked by a close community-contractor relationship, flexibility in financing arrangements (community and contractor contributions), design that matches demand, and rapid expansion to serve new connections or neighboring communities.

For scaling up these small-scale private initiatives, such an approach would allow step-by-step growth of local initiatives, following a natural process of development within the country. It would help to increase the pace of coverage in small towns, and bring much needed private financing into the sector.

From the results of the 'Private Sector Mapping' study carried out by the Urban Research Institute in 2002/2003, the private sector is much more active than previously thought with regard to construction, bottled drinking water, ice factories and construction materials shops. However, there is a lack of businesses dedicated to the water supply sector, suggesting that this market is not yet developed and needs support to grow (see Figure 5). There is also a question of how to bring the informal sector of small scale independent water providers (SSIPs), which appear to be the main supplier of water services in the small towns without water utility services, into the formal sector.

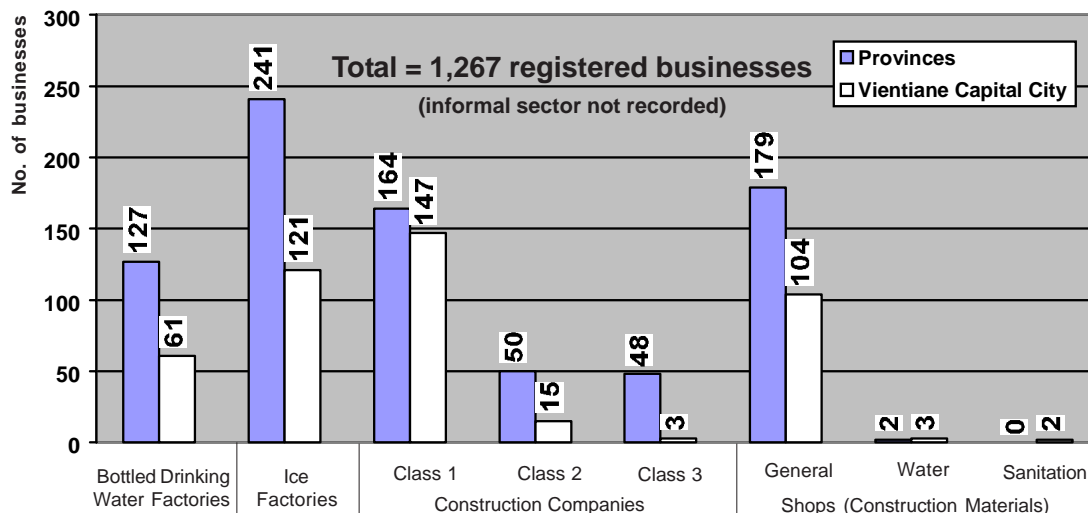
8. The legal framework

The 1994 Business Law sets out the process of registration for a business enterprise, and some limited information on the rights and obligations of partners and shareholders, the nature of bye-laws, the transfer of shares, and the audit procedures. Article 16 states: "An enterprise will be considered as lawfully created only when properly registered." The Business Law identifies four types of enterprises, all of which are relevant to the water sector:

- Private Enterprise (Sole-Trader or Company);
- State-owned Enterprise (all shares owned by the State);
- Collective Enterprise (a business cooperative – created by farmers, handcraft artisans and small traders to join funds and labor for the conduct of production, trade and services); and
- Joint Enterprise (Private or State-owned Enterprises in a joint venture with local or foreign parties).

In summary, the legal basis is in place for a range of types of enterprise to register as water service providers, including private contractors. However, the overall framework needs to be better understood and clarified with regard to other aspects of the law (ownership, property, contract arrangements, land law etc.). More than 80 related laws, decrees, regulation etc. have been identified for further analysis. (Refer Section B.4. of the Study Report).

Figure 5: Potential service providers in the water sector in Lao P.D.R.⁸ (2002 data)



9. Findings from the field visits

From discussions with the private suppliers in the Case Study and field visit examples (see Table 3), the main areas that they requested support to expand their services were:

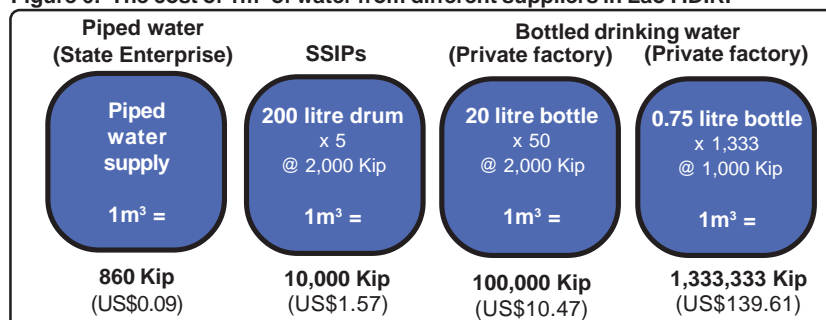
- Access to credit / financing at competitive rates (current commercial rates are about 25%);
- Professional training / support;
- Clear local regulations: What is the legal basis for service provision? And what are the steps for approval? Who should set the tariff and how? What quality standards must be followed?

In 2002 there were more than 1,200 formally registered companies working in related businesses (see Figure 5). It can also be seen from the comparison of the different cost of 1 m³ of water provided by different suppliers that there is considerable profit to be made in some areas of selling water (see Figure 6). With an increasing number of companies involved in the sector, but not involved in piped water supply, the questions arise of why are these businesses not getting involved in formal water supply provision and how can the sector be made attractive to these potential investors?

Table 3: Summary of case studies and field visits

		Place (District)	Description	Investment	Ownership	Oversight	Operations			
Case Studies		Ban Fang Deng (Xaysettha)	Water pumped from river to elevated tank. 50 households. No meters, 200 litre drums purchased by household. Payment for 200 liter tanks based on trust (water used recorded by the household).	Private (about \$1,200 or \$5 / capita)	Private	Unregulated	Private			
		Ban Done Kilo (Atsaphang - thong)	Water pumped from shallow well. Collected in 200 liter drums. Selling 50 drums per day.	Private (about \$1,200)	Private	Unregulated	Private			
		Morphu (Phathoum- phone)	Water pumped from borehole, Nam Saat specifications RC high-level tank. 88 metered households (This is one of seven villages that have WS systems with this private company)	70/30 Private/Community (about \$6,000 or \$14 / capita)	Private	Construction licence from DCTPC. Unregulated service.	Private			
		Ban Saphai Neua (Pakse)	Water pumped from borehole, Nam Saat specifications RC high-level tank. 90 metered households serving 200 families.	Private (about \$15,000 - or \$15 / capita - of which 40% loan at 25% p.a.)	Private	Contract with Village (approved by Town Committee). Unregulated service.	Private			
Field Visits	No.	Small Town / District Centre	Province	Region	District Poverty Priority (NPEP)	Number of Households	Population	Poor households in the town (%)	No. of SSIPs: Water Vendors	Cost of water / m ³ (Kip)
	1	Nhot Ou	Phongsaly	North	Priority	574	3,742	51%	none	No-one pays for water
	2	Atsaphangthong	Savannakhet	Central	Not Poor	892	5,042	11%	10	10,000 K
	3	Xaysettha	Attapeu	South	Poor	1,779	9,594	13%	3	10,000 K

Figure 6: The cost of 1m³ of water from different suppliers in Lao P.D.R.⁸



10. Water tariff, cost recovery and sustainability^o

The provision of water supply services in small towns falls into a grey area between rural community-owned systems and the larger municipal utilities. It is recognised that standard regulatory mechanisms for determining tariffs may not be appropriate in this context and alternative determination methods may be necessary.

Concepts and the need for tariff regulation

The natural local monopoly that is a network water supply demands regulatory intervention to ensure against monopoly abuse and inherent inefficiency. In the small towns context the regulatory oversight is generally vested in local institutions as opposed to a national or regional regulator. The partnership with the private sector envisaged as being essential in the small towns will automatically capture some regulatory aspects through the contracts entered into between the local authority and the appointed contractor. Whether it is regulation by contract or by other means the objective should always be the same: to ensure that the customers enjoy best value, i.e. to deliver the highest level of service possible that the customers are prepared to pay for yet still complying with the basic principles of full cost recovery, a realistic return on capital and the maintenance of positive cash flow.

Role of WASA

The Water Supply Authority (WASA) currently does not have the resources to take on a regulatory remit outside the Nam Papa State Enterprise structure. However, WASA does have a role to play in developing the skills within the small towns' local institutions to allow them to regulate their contractors, notably in the areas of: -

- identification of the most appropriate management model,
- preparation of bidding and contract documentation,
- the establishment of appropriate accounting structures, and
- assistance in the determination of tariffs and interim tariff reviews.

Tariff policy

The National Water Tariff Policy (No. 5336/MCTPC, 26 April 2004) has several objectives, including social fairness, the environment and cost recovery. The social fairness component of the policy favours the concept of cross-subsidisation in favour of the poor; higher tariffs for commercial customers, lower connection fees in exchange for higher consumption tariffs, and lower tariffs for lower levels of service.

Management models

Several management model options that may be appropriate for the small towns have been identified ranging from community only schemes through to totally privately owned and operated schemes (although these two extremes are the least likely to be adopted). Different models will have different tariff implications, especially with respect to financing of investment, the treatment of depreciation and an appropriate return on capital. Furthermore, the regulatory framework will also differ with different management models, from active determination of tariffs through to regulation by contract.

Financing and tariff calculation methods

Finance for investment in the small towns may be limited to commercial lending and private equity, both of which will demand returns greater than expected from donor investment. Depreciation is a return of capital and even if grant financed it is necessary to charge depreciation on the assets in order to finance replacement. Charging depreciation as a set amount per m³ of water sold eases the burden on the customers in the early years although the return on capital element offsets some of this benefit.

The **long run average cost (LRAC) method for determining tariffs is recommended for price stability**. A transition period from a low tariff to the LRAC tariff that factors in any grant components is acceptable provided the net shortfall does not exceed the value of the grant, positive cash flows are maintained and the resulting tariff is sufficient to finance future reinvestment.

^o This section is taken from 'B.1. Tariff Determination Methodologies' in this series of reports, prepared with support from Keith Burwell/Interconsult International. Refer to this report for more detailed information.

Constraints

The primary constraint to tariffs in the small towns sector is considered to be affordability, especially amongst the poor. The WaterTariff Policy recognises that the principal barrier to access to a water supply is not so much the unit tariff but the connection charge and suggests that a cross-subsidy from the unit tariff to the connection charge may be an appropriate mechanism to help the poorer sector. If structured properly it can be a driver for the supplier to improve service coverage through improved profits.

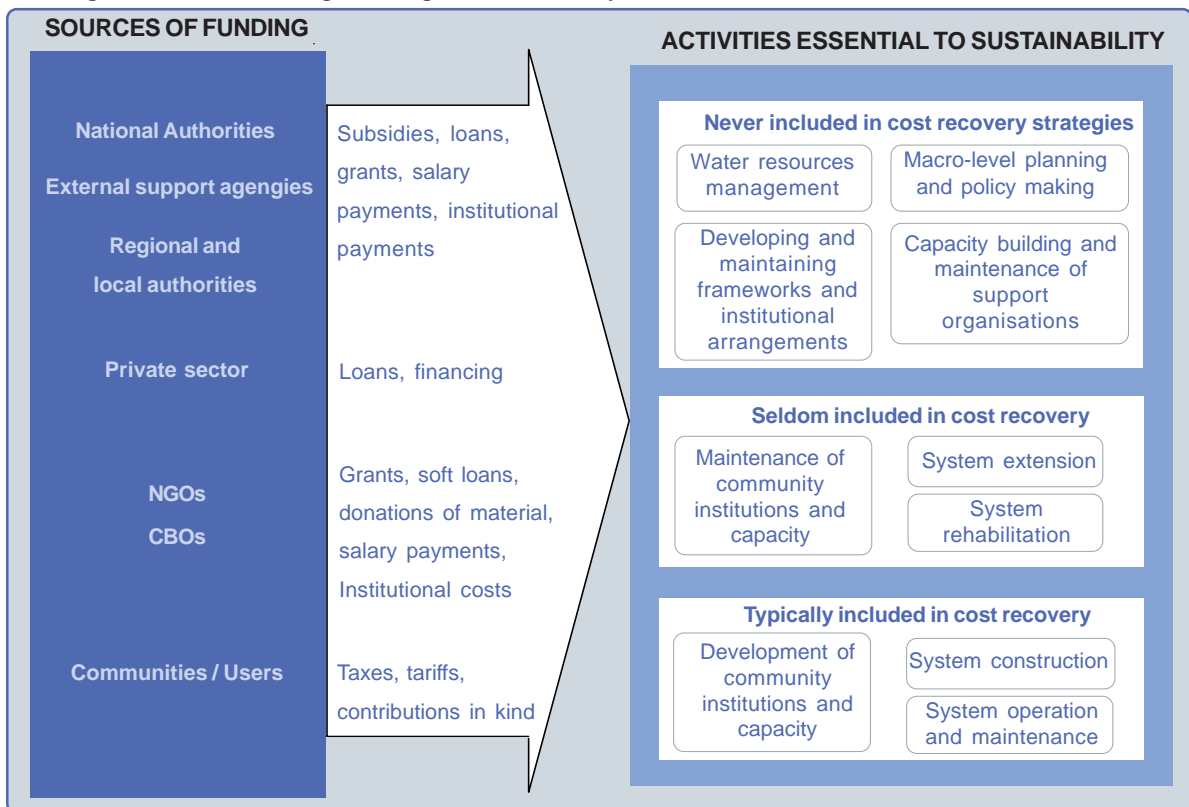
The factors affecting cash flow include: poor revenue collection practices, slow take-up of connections, varying capital structures, terms of loan repayments, and excessive recurrent costs including the cost of capital. The principal mechanisms to improve cash flow in the context of the small towns include reduced costs of borrowing and the provision of grace periods before repayment of principal debt is due. WASA may be in a position to lobby the banking sector to offer more favourable terms for lending for investment in the water supply sector. WASA may also be able to advise local authorities as to what is required of them in order to reduce lending risk and therefore reduce the cost of capital.

Similarly, restricted access to credit is also a barrier to investment, largely due to the perception of risk in the sector. As with the cost of capital and other terms WASA could exert its influence on the banking sector to improve access to credit.

Appropriate methods for small towns in the Lao P.D.R.

In Lao PDR, the Asian Development Bank and NORAD are supporting the government in water tariff reform. Restructuring of Nam Papa State Enterprises has also been on-going through a Financial and Management Adjustment Credit (FMAC) supported by the World Bank. These tariff changes need to reflect factors influencing cost recovery and sustainability (Refer Figure 7 below), especially with regard to how these affect small, poor towns and how communities can be involved in the tariff determination process (Refer Figure 10, page 19). Although many potential management model options for small towns exist, the constraints (mainly due to access and cost of capital) may tend to limit these to public private partnerships in the form of leases or concessions.

Figure 7: Factors affecting financing and cost recovery¹⁰



11. Communications Strategy for WASA^f

One of the objectives of this study is to begin to set out a long term communications strategy for WASA that will educate all stakeholders about its role, and in particular about its tariff setting responsibilities, and convince them of the benefits of independent regulation in the utility sector.

WASA has been set up as a government department within the Ministry of Communication, Transport, Post and Construction (MCTPC) since 1999. Its broad remit could be summarised as “making sure that the water supply companies under its regulatory remit provide their customers with a good quality, efficient service at a fair price”.

In terms of draft legislation for the Regulation of Water Supply Operations (commonly known as the WASA Charter), Article 2, the suppliers falling under the regulatory remit of WASA for the foreseeable future will be confined to the Provincial Nam Papas and “...*any other business, organisation or individual defined as a Supplier for the purpose of these regulations by the Minister*”.

This definition leaves the door open for the introduction of various management models, including the private sector, for the supply of water to small towns currently without a piped water supply. Various models are being considered. If regulation of these small towns were to fall under WASA's remit it would have an impact on how WASA communicates. This would have to be considered in any further development of the strategy to ensure that appropriate communication channels were in place.

Communications in Lao P.D.R.

There are adequate media channels available to allow WASA to communicate with many of its stakeholders. Newspapers may be important in Vientiane, but TV and radio would seem to offer more opportunities for communication outside the capital.

One of WASA's priorities will be to ensure that the water supply companies themselves understand WASA's role and what regulation is all about. The concept of involving customers in decision-making is not well developed in the water sector or in the country generally. Customers have little opportunity to express their views about the services that they receive.

It will be important for both WASA and water suppliers to develop a customer-focussed approach.

Customer representation

Two-way communication is particularly important in regulation. The regulator needs to explain his policies but his policies should reflect what customers want. The regulator must develop clear channels of communication that allow for consultation and feedback. This information is essential so that it can be reflected in policy development. This provides legitimacy and accountability. It puts the regulator in a strong position in dealing with the supply companies and in pressing for service improvements. He can demonstrate that this is what customers want – and are prepared to pay for if necessary.

Communications Strategy

If WASA is to achieve its mission then a communication strategy based on openness and transparency and which seeks consultation at all stages will show results. If stakeholders can see actions being taken and services beginning to improve then politicians, consumers and others will feel increasingly confident that the WASA regulatory model serves the country well and that government's aims for improved water supply are being met.

The main activities that WASA needs to fulfill to be able to implement the strategy successfully are:

- ◆ Identifying and prioritising key stakeholders,
- ◆ Defining key messages about WASA's role, and
- ◆ Delivering the messages through effective use of the media.

^f This section is taken from 'B.2. Communications for Regulators' in this series of reports prepared with support from DilysTaylor/Interconsult International. Refer to this report for more detailed information.

Objectives for a communications strategy

WASA's objectives in having a communications strategy should be to:

- Explain its role and the purpose of regulation to all stakeholders;
- Develop clear lines of communication with all stakeholders to help WASA achieve its objectives;
- Operate openly and transparently in its dealings with the Nam Papas and others so that stakeholders can see that regulation is fair and consistent and produces results;
- Develop a consultative style of working to achieve consensus and reflect customer views in development of its policies;
- Set out clearly its plans for the coming year and to report openly and honestly on its achievements and failures. To develop a WASA identity that is readily recognisable and respected;
- Encourage the development of new management models for small towns without piped water supply.

The national media (newspapers, radio and TV) should offer the most cost-effective ways of reaching all stakeholders. All announcements and policy decisions should be publicised through a press notice sent to all media outlets (TV, radio and newspapers). Given the organisation of water in Lao PDR it will be important for WASA to ensure that the regional media, where it exists, is also kept well informed.

An important way to disseminate information will also be through the WASA website (www.wasa.gov.la), which will offer an excellent opportunity to communicate with all stakeholders to promote its work.

Figure 8: WASA Website



www.wasa.gov.la

A new logo has been recently adopted, which will help the organisation to be recognized by the various stakeholders. Recently, a number of key legal and policy statements have been impacting on the water sector. WASA has published its first Annual Report (2002) and the tariff policy has been approved (April 2004), providing benchmarking and guidance for all the Nam Papas and other water service providers. In addition it is expected that the WASA Charter will be approved soon as a Prime Ministerial Decision.

Key elements in regulatory communications

- Transparent regime to demonstrate accountability
- Open and constructive relationship with the media
- Targeted and close working relationship with all stakeholders
- Clear timetable
- Consultative approach
- Publishing information on comparative performance of water suppliers
- Customer representation

Adopting a proactive communications approach will allow stakeholders to see what WASA is achieving and to see how it is taking action to improve services.

12. Findings from the Study Tours

12.1. Public-Private Initiatives in Vietnam¹¹

There are some examples of BOO and BOT water supply systems constructed by a state-owned company (WASECO). The company borrowed money with short-term commercial rate from a local bank to construct district town water supply systems, operate for 7-10 years and then transfer to the local authorities. Seven schemes were constructed in the Mekong Delta in the early 1990's. With regard to BOO and BOT contracts, it appears that although customers can access to water supply services quickly, the quality of the service has been modest. There have been limited funds for maintenance and the facilities have deteriorated. The company has borne high risks. Few local investors are interested to follow this model.

At present, water supply is not an attractive sector for private investments due to: -

- No, or very difficult, access for private investors to bank and funding agencies;
- Water tariff is set and approved by local authorities, usually lower than production costs

Consequently few private investors are interested in investing in small town water supply.

To reduce the risk to private investors and to encourage them to come in to the sector, a new approach is being piloted called Design-Build-Lease (DBL). The DBL contractual arrangement is intended for groups of district towns, developed through community consultation, and let by Provincial Water Supply Companies (PWC) through open and transparent competitive process. Access to project funds based on achievement of eligibility criteria:

- water users pay full cost of the service;
- land provided by local government;
- Willingness to Connect by at least 60% households;
- PWC to provide equity contribution

Through appropriate incentives (e.g. minimum capital costs and optimizing long term costs) and protections (e.g. performance bonding and minimum consumption charge), it is envisaged that serving district towns can be a sustainable business provided the services offered meet the needs and affordability of the customers. The DBL concept addresses the key issues through effectively customer consultation and appropriate contractual incentives. Initial results show that DBL approach may work in Vietnam.

12.2. Private sector experiences in Cambodia¹²

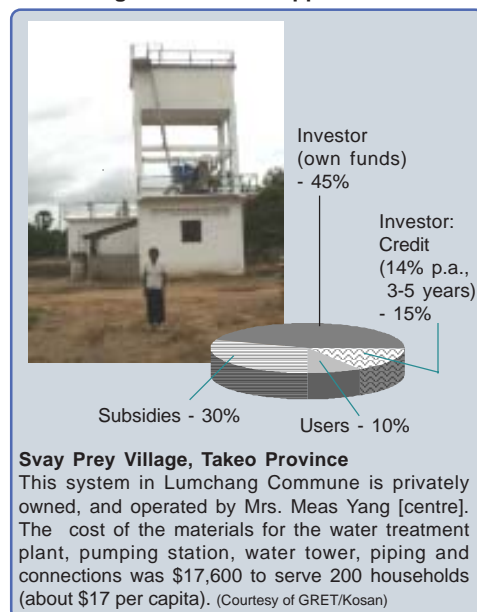
The general objective of the MIREP programme, supported through the Ministry of Rural Development (MRD), is to encourage private sector participation in the rural areas of the country. The programme works in villages and district capitals with 200 - 500 households (1,000 - 3,000 population) where there is a presence of a market and small industries. The average project investment is USD 40,000, with 30% of the material costs subsidised by the local government, 60% is from the private water supplier and 10% from the users in connection charges.

The activities within the programme include: -

- **Institutional support**
 - Capacity building to the commune council to prepare public-private agreements
 - Facilitation of contracts between the commune and the private sector
- **Financial support**
 - Subsidies (for treatment plants only, max. \$40 per family)
 - Long-term credit (14% p.a., 3-5 years)
- **Technical support**
 - Design of low-cost water treatment station
 - Support for building and operation

The systems have resulted in lower water tariffs and the connection is cheap at less than \$15 (which can be payed over several installments).

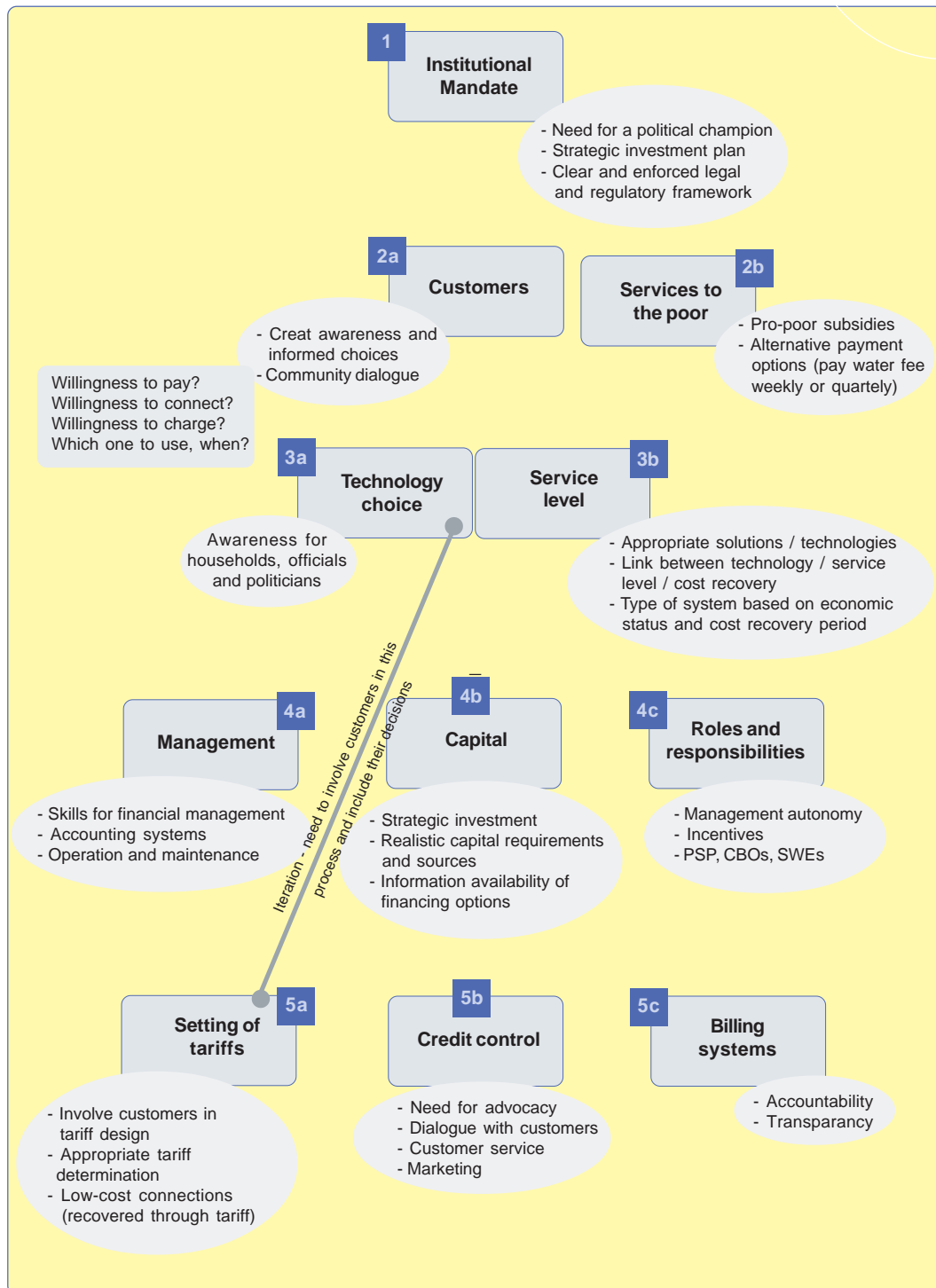
Figure 9: Private supplier in Cambodia



13. Outline framework for small town water supply¹³

The major outcome of this Study has been to identify a proposed framework that seeks to address the problems for small town water supply in Lao PDR. Priority issues have been identified (see Figure 10). The challenge is how to tackle each of the priority issues (1 - 5c) and promote the critical factors for success. These should be addressed in a strategic, step-by-step manner. Further clarification is required for each of these issues to develop small town water supply management models in Lao P.D.R.

Figure 10: Proposed framework for water supply services in small towns (in priority order)



14. Results of the National Consultation Workshop¹⁴

The National Consultation Workshop, held on 5 September 2003, brought together 70 of the senior provincial and central water supply sector professionals. Representatives from each of the small towns visited during the study were also present.

The results from the regional workshops in May were summarised together with the learning from the small town field studies for presentation at this national workshop. Also shown at the workshop was a draft video⁹ of all the people involved in the Study to demonstrate how all the concerned partners had participated in the consensus building process.

Presentations in the workshop highlighted not only the developments through the Study, but also showcased a new management model for Lao PDR introduced in Phialat for management of a private operator by a Water User Association and examples from Vietnam and Cambodia (see page 18).

Group discussions were held on: -

- I Steps for involving the private sector in water supply provision
- II Tariff cost recovery, affordability and sustainability
- III Management models for small town water supply

I Steps for involving the private sector in water supply provision

It was noted that the experience of the small-scale private water suppliers' sector in Lao PDR is characterized by close community-contractor relationships, flexibility in financing arrangements, design that matches demand and rapid expansion to serve new connections and neighbouring communities. Costs are typically \$15 per capita or less. Most small-scale suppliers are not formally registered.

For the steps to involve the private sector, it was recommended that for autonomous companies to develop properly there needs to be a recognised system for financial management, licensing, qualifications and credit worthiness. It was also noted that Lao companies should be given preference in any bidding procedures.

The workshop proposed that the cost of interest needs to be reduced; a water supply management and financial training centre be established; government staff be enabled to run private water supply businesses as they had the experience but lacked funding; different management options should be available throughout the country; and clear steps for government staff to know how to involve the private sector need to be developed so that the public sector can facilitate the private sector through guarantees, clear ownership guidelines and incentives such as tax breaks. These findings mirror and strengthen the suggestions at the 'Forum on Private Sector Mapping', held in August 2002¹⁵.

Private companies want to know more about:

- Government development plans for water supply and sanitation.
- International cooperation on water supply and sanitation development.

The consolidated information drawn from 129 surveyed companies shows that for the private sector to be able to invest in water supply and sanitation:

- Document procedures need to be simplified.
- Opportunities should be given to local companies.
- Taxes should be reasonable.

The consolidated replies from the survey of construction companies, drinking water and ice factories (total 209 companies) recommend that incentives should focus on:

- Payment to be on time as defined in the contract.
- Opportunities to be given to Lao companies before international companies.
- Decrease taxes, especially income tax.
- Give advice on new technologies.
- Advertise and encourage people to understand about water supply and sanitation.

⁹ Refer 'A.4. Video' of the Study Reports for the finalised version of the video, which was developed from suggestions of the participants at this workshop.

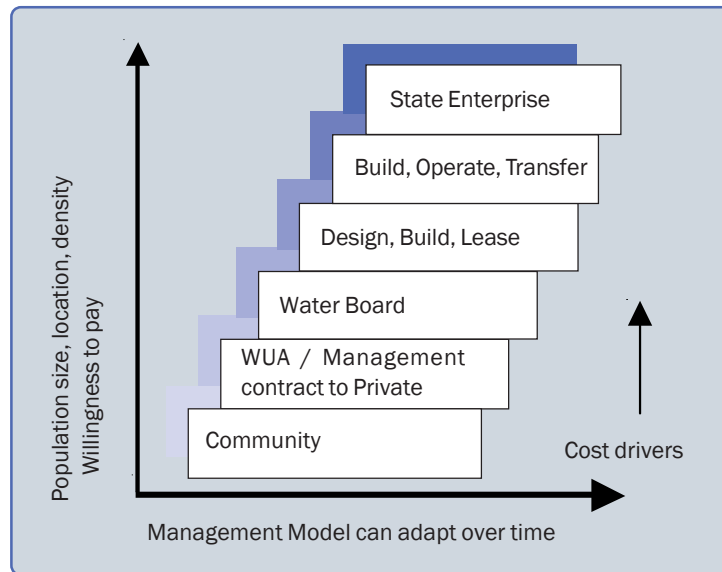
II Tariff cost recovery, affordability and sustainability

Due to the complexity of tariff determinations, readers of this Summary Report are referred to the accompanying report and presentation (see pages 14-15 and B.1. Tariff Determination Methodologies). The workshop proposed that communities should be involved in the tariff determinations and that this process will evolve in future pilot activities, based on current participatory methodologies.

III Management models for small town water supply

The workshop emphasised the need for incorporating success factors into management model development, including demand responsiveness, appropriate design, financial viability and professional support for management and operation. The proposed models for development in Lao P.D.R. are identified in Figure 11.

Figure 11: Proposed management model options for Lao P.D.R.



In order to fully understand the management model options for Lao PDR the following distinctions are important.¹⁶

- “Management models” common in Lao P.D.R. are the *Nam Papa* (SOE) model and informal *community management*. With the *Nam Papa* model, management oversight is largely with the provincial governor and Water Administration Board, where there is a political dimension. Community management means that the community controls decision making, but there are capacity constraints. The BOO model represents a third model in Lao PDR, with a private water company or entrepreneur taking the lead on investment and management decision making. Alternative models that can be introduced in Lao P.D.R. include Water User Associations (e.g. as found in small towns in Paraguay) and town Water Boards (e.g. found in small towns in Uganda). These approaches seek to balance community oversight with professional capacity secured through operator contracts and advisory services (see below). Aggregating towns together may also provide options to attract larger, more experienced operators.
- Contracts between the town management group, e.g. Water Board / Association, and a private operator allow the town to retain responsibility for management oversight, but transfer other responsibilities to their operator. The type of contract that is most appropriate for a town will depend on the contract objectives and the capacity of the operator. Basic contract options include (enhanced) management contracts, lease/affermage or concessions. These operating contracts can also be bundled with design and construct contracts, e.g. design-build-operate, or design-build-lease (Philippines, Vietnam) and constructor-operator concessions (e.g. Paraguay, Colombia).
- Regardless of the management model or operator contract, towns need help in project planning, business planning, and managing the contract with their operator. WASA has a key role here, but some services may themselves be contracted out. Appropriate specialist support options also need to be investigated in the context of small town water supply development. Alternative forms of financing also need to be explored, such as Output Based Aid (OBA).

15. Conclusions and Recommendations

Management Models⁷

Conclusions

Fundamental to success in small town water supply is that a participatory planning process is established. This process underpins a demand responsive approach. It also provides the vehicle for building local management capacity, so that the town's water management group can continue to make the right investment and management decisions in the interests of end-users. Towns need financial and technical support to help them achieve these objectives: decision makers need to understand the basic linkages between investment plans, water sales and tariffs – matching design with demand. Making choices about management model and professional support options is part of the planning process.

However, there are a number of challenges to be overcome. Foremost amongst these, is the need for all stakeholders, from higher levels of government to the end-users themselves, to understand the institutional options available to them, and the basic principles of affordable planning. This Summary Report sets a framework for addressing these issues.

There is an extensive legal framework already in place for a range of types of enterprise to register as water service providers, including private contractors. However, this framework is not well understood, except by a few key people at the central level. There is potential to mobilise significant local resources by creating a clearer understanding of the legal process for informal water service providers to register as formal businesses.

Recommendations

The best options seem to take a step-by-step approach to system design, which ensures that design matches demand and secures positive cash flows for the utility. The step-by-step concepts are familiar to contractors in Lao PDR - houses are typically designed in a similar step-by-step approach as financing becomes available, and with a flexible attitude to original designs. Close consultation between the community (client/owner) and the contractor is critical – and in order to succeed, the community management group will need help from a technical / financial advisor. These principles underpin the basic recommendations for a small town strategy that builds on the experiences in Lao PDR:

- Institute a process of participatory planning, and associated training for all stakeholders on the principles of affordable planning.
- Identify management model options that seek to balance private sector participation with community oversight, e.g. Water User Associations, Town Water Boards.
- Investigate the contract options for operating services, linking contract objectives to local needs.
- Explore alternative options to secure technical / financial specialist support for small towns, including the role of WASA.
- Develop steps for involving communities in the decision-making process including a range of options for the engineering designs (informed choice) and tariff setting.
- Clarify and disseminate the legal framework to potential suppliers and sector stakeholders and make this information easily accessible to government, private sector and civil society, perhaps being included on the WASA website.
- Document the processes (registration, fund flow, administrative approvals etc.) needed for different management model options to clarify and simplify administrative systems for encouraging investors into the sector.

Tariff Determination Methodology⁸

Conclusions

The principal conclusion is that there is no 'right' or 'wrong' approach to tariffs as there are so many different forces at play. The main conclusions from this study are:

1. Tariff regulation is essential and to be under the jurisdiction of the local authorities.
2. WASA's role is that of advisor and facilitator as opposed to regulator.

3. The tariff policy's provisions for social fairness and the long-term approach to cost recovery are most relevant in the small towns context.
4. Alternative depreciation mechanisms are required for tariff determinations.
5. Grant inputs need to be converted into longer-term tariff benefits.
6. Returns on capital (interest and profit) are essential.
7. The maintenance of accurate financial records is essential for tariff regulation.
8. Cross subsidies to help the poor are necessary to alleviate affordability constraints, grace periods for loans are encouraged to ease cash flow constraints, and reduced cost of capital is required to reduce costs generally.
9. The appropriate management contract would appear to be a combination of lease and concession; the exact split of responsibilities depending upon the specific needs.

Recommendations

There is no right or wrong tariff method. It must, as a minimum, adhere to the principal of cost recovery. Based upon the conclusions opposite the following are recommended:

1. WASA has to ensure that communities wishing to embark upon developing their own water services are equipped with the knowledge and understanding of basic regulatory principals.
2. Tariffs should be determined on the basis of long-term cost recovery.
3. Both operators and the community authorities need to be trained in basic accounting techniques.
4. WASA should use its influence in government to encourage the banking sector to reduce interest rates for investment in the water sector. WASA should also examine options for risk mitigation.
5. When complex tariff reviews are required the community should consider employing the services of a specialist in this field or to seek the assistance of WASA.
6. WASA needs to have a dedicated advisory unit to provide assistance to the small towns. WASA also needs to be kept informed of all developments in the small towns water supply sector in order to pass on lessons to other small towns.

16. Steps Forward

According to the private sector mapping data from 2002 (see page 12), there are more than 1,200 small and medium private enterprises already existing in the sector throughout the country that could potentially be involved in water supply service provision. How can these businesses receive incentives and guarantees that would encourage them to invest in and manage formal, regulated water supply services in small towns?

Further progress on private sector involvement in small towns requires pilot projects. Such pilots would facilitate a process of private sector involvement and community decision making that is already underway in Lao PDR. Pilot objectives could include: -

a) Establishing a framework that delivers "best value" to communities

Since any pilot would support a process whereby choices are made by beneficiaries themselves, there is a need for flexibility in design and service standards, following a process of informed choice. Under the pilot, detailed analysis should be carried out in selected small towns using an appropriate planning/financial toolkit.

b) Community dialogue and promotional activities

Pilot work should seek to encourage further private sector and community involvement through community dialogue and promotional activities.

c) Small and medium enterprise (SME) development

Recent case studies and workshops in Lao P.D.R. have documented some of the factors identified as constraints by small-scale private enterprises. These include:

- Access to credit / financing at competitive rates (current commercial rates are about 25%);
- Professional training / support;
- Clear local regulations:

d) Build consensus and clarify the institutional, legal and regulatory framework

The pilot should clarify the following issues, which remain uncertain under current legislation (including more than 80 legal instruments related to water supply). These issues include Administration, Legal framework (ownership, oversight and operation), Regulation and Financing.

The challenge for Lao P.D.R. is now to set the enabling environment that best involves all partners to achieve the National Growth and Poverty Eradication Strategy targets for 100% effective and sustainable urban water supply service coverage by 2020.

Annex 1: The 47 poorest districts in Lao P.D.R. (2001/2002g)

No.	District	Province
1.	Sanxay	Attapeu
2.	Kaleum	Xekong
3.	Phouvong	Attapeu
4.	Vienthong	Borikhamxay
5.	Nam Nhu (Special Region)	Bokeo
6.	Huameuang	Houa Phane
7.	Pakbeng	Oudomxay
8.	Nong	Savannakhet
9.	Ta Oi	Saravanh
10.	Long	Louang Namtha
11.	Samphanh	Phongsaly
12.	Phonxay	Luang Phrabang
13.	Viengkham	Luang Phrabang
14.	Viengthong	Houa Phane
15.	Sepone	Savannakhet
16.	Bolikhanh	Borikhamxay
17.	Dakcheung	Xekong
18.	Nalae	Louang Namtha
19.	Xamtay	Houaphane
20.	Meung	Bokeo
21.	Samuoi	Saravanh
22.	Phoukhoun	Luang Phrabang
23.	Khoune	Xieng Khoang
24.	Saysomboun	Xaysomboun
25.	Viengxay	Houa Phane
26.	Khamkeuth	Borikhamxay
27.	Pakxeng	Luang Phrabang
28.	Beng	Oudomxay
29.	Xiengkhor	Houa Phane
30.	Nga	Oudomxay
31.	Hoon	Oudomxay
32.	Hom	Vientiane
33.	Pha Oudom	Bokeo
34.	Viengphoukha	Louang Namtha
35.	Phine	Savannakhet
36.	Vilabuly	Savannakhet
37.	Thathom	Xaysomboun
38.	Namor	Oudomxay
39.	Nhot Ou	Phongsaly
40.	Nonghed	Xieng Khouang
41.	Phoon	Xaysomboun
42.	Thaphangthong	Savannakhet
43.	Add	Houa Phane
44.	Sopbao	Houa Phane
45.	Meungngeun	Xayaboury
46.	Nakai	Khammouane
47.	Thaphalanxay	Savannakhet

(Footnotes)

⁹ Refer Table 1.3., National Growth and Poverty Eradication Strategy (NGPES) document, Government of Lao P.D.R., January 2004. Also refer Map 1, page 7 of this Summary Report.

Water supply is one of the 5 criteria used for assessing poverty. The other criteria are: -

- number of poor households
- access to medical facilities
- access to schools
- access to roads

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