SOCIAL REPUBLIC OF VIETNAM
Independence – Freedom - Happiness

Second Draft

NATIONAL TARGET PROGAM FOR RURAL WATER SUPPLY AND SANITATION *(2006 - 2010)*

Hanoi, November, 2005

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INTRODUCTION

Clean water and environment sanitation is an important issue that receive special attention from the Government and the Party. The role, importance and targets concerning clean water and environment sanitation have been mentioned in various legal documents issued by the Party and the Government, including Resolutions adopted by the VIII and IX Party Congress, the Comprehensive Poverty Reduction and Growth Strategy and the National Strategy for Rural Clean Water Supply and Sanitation for 2000-2020.

In order to increase the coverage of clean water supply and hygienic latrines in rural areas, achieve the targets for improving living conditions and health of the rural population and to pursue poverty reduction and gradual modernization of rural areas, Vietnam has, since 1999, implemented the National Target Program for Rural Water Supply and Sanitation for 1999-2005 (NTP I for RWSS) in compliance with the Decision No. 237/1998/QĐ-TTG by the Prime Minister dated December 3rd, 1998. After seven years of implementation, basically all major targets of NTP I have been achieved with involvement of various Ministries, government agencies and efforts of 64 provinces. The achievements as well as problems were evaluated at the Workshop on Evaluation of the NTP I for RWSS (1999-2005) organized on June 16th, 2005 in Hanoi. They were also discussed in the Review Report of the 5 years of implementation of the NTPI prepared by MARD and in the Donor/Government Joint Sector Review report.

In order to take advantage of NTPI achievements and overcome the problems to accomplish the socio-economic development targets for 2006 – 2010, and based on the conclusions of the Evaluation workshop conducted on June 16th, 2005, MARD submitted a request to the Prime Minister to assign MARD to develop the NTPII for RWSS for 2006 – 2010 (Request No. 1892 dated July 29th, 2005).

This "NTPII for RWSS document" includes the following key content areas:

I. Background and justification of NTPII for RWSS for 2006 – 2010

II. NTP objectives, guidelines and principles

III. NTP II duration, scope of implementation and beneficiaries

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I. BACKGROUND & JUSTIFICATION OF NTPII FOR RWSS (2006 – 2010)

I.1.Background & Results of the NTPI implementation period 1999 - 2005

By the end of 2005, the national coverage of clean water and hygienic latrine is estimated at approximately 62% and 50% respectively; many hygienic livestock pens have been upgraded and built; about 70% of all schools, kindergartens and nurseries, 58% of commune clinics and 17% of markets in rural areas have access to clean water and hygienic latrines; 28 border stations and more than 80,000 residents in their adjacent areas have access to clean water. These results have contributed significantly to the development of rural infrastructure and improvement of the rural environment and people's living conditions and health.

At the same time, overall regional/provincial clean water and sanitation planning has also been developed throughout the country. In addition, various water supply and sanitation technologies have been developed and applied taking into account socio-economic conditions, population features, customs and traditions in water usage in each locality.

By now, the rural water supply and sanitation management system from the central to local level has been established. Various legal documents, management and technology guidelines have been developed and issued. Awareness of people and authorities at all levels concerning water supply and sanitation has been strengthened. In addition, the, NTPI has been successful in effectively mobilizing investments from various sources, including the state government budget, credits, funds from different economic sectors, international support and people's contributions.

I.2. Problems and challenges

Despite the aforementioned achievements, there remains a number of problems and challenges in RWSS as described in the following:

1. Generally, the quality of water supply and constructed facilities remains low and do not meet the requirements. 38% of the rural population has not yet access to safe water. Among the 62% of the rural population having access to safe water, less than 30% have access to clean water as defined in accordance with Ministry of Health standards. Water pollution from salinity intrusion, livestock waste, trade village waste and chemicals used in agriculture is occuring and worsening in many areas causing risks to people's health and daily practices.

2. Rural water supply coverage**:** good progress noted with annual increase in rural water supply coverage, and most likely on target for achieving MDG and VDG and targets provided that investment levels are maintained; however, regional, provincial and local differences exists, calling for a strong need for focus on poor areas and poorest households. Clean water supply coverage varies from area to area. Rural water supply coverage in 3 of the 7 ecological regions is above 60%, while in the remaining 4 regions it is less than 50%. People in many areas such as mountainous, coastal and dry areas have access to only 20 liters/person/day. In many areas, water scarcity occurs from May to June, including in the Central Highland Region and the Southern part of the of the Central region.

3. Sustainability of the achieved results is not high. The amount and quality of water supply in many places is degrading, and water quality monitoring and inspection has not been done in accordance to procedures, especially for individual water supply facilities. Many piped water sypply systems have not been sustainably managed mainly due to the lack of budget for

management and maintenance, which results in system degradation and even total break-down. Some systems built through private investment or investments by clean water supply cooperatives are better managed but even then this is limited to simple reproduction and operation.

4. Introduction of waste treatment technologies and methods in rural areas and especially in trade villages has become an urgent issue, however effective solutions are yet to be defined. NTPI focused on water supply rather than environment sanitation, waste water, animal excreta and trade village waste treatment, which hinder development of trade villages and livestock raising in rural areas.

5. 50% of households nationwide have not got hygienic latrines and are using unhygienic latrines such as fish pond latrines, bucket latrines and dug latrines, thereby causing surface water polution. As the awareness of authorities at different levels and people is poor, they tend to emphasize water supply rather than sanitation, and construction of new systems rather than taking advantage of existing facilities.

6. Total investments mobilized through the program falls behind demand, and the program budget allocation mechanism is not appropriate. Though annual budgets have continuously been increased, the total government budget still fall short of demand (accounting for only 22% of the total mobilized budget). The Government budget is mostly allocated to difficult areas, poor households, households targeted by social policy, remote areas and ethnic groups, and mostly used to construct new systems. Less is spent on IEC and building capacity of management, operation and maintenance of constructed works.

7. Creation of a clean water and environmental sanitation market is at an early stage, and policies to encourage investments and existing credit mechanisms fail to attract the participation of different economic sectors in the society, especially the private sector.

8. According to statistics of the Bureau of Preventive Health Care and HIV-AID Prevention of Ministry of Health on the incidence of infectious deceases in 2003, the infectious diseases with the highest incidence per 100,000 people are (in ascending order): influenza, diarrhoea, malaria, dengue fever, cholera, amoebic dysentery, amib, parotitis, HIV/AIDS, hepatitis and chicken pox. About half of these are water and environment sanitation related. This proves that further focus should be put on improvement of water supply and sanitation conditions, such as a unified solution to prevent and control the incidence of the diseases.

9. Despite the fact that attention has been put on water supply and sanitation facilities in schools, clinics and other public institutions in rural areas, achievements remain modest compared to practical demand. Some schools do not have latrines and some others have latrines however these latrines do not meet the demand; besides, many public institutions are being built but water supply and sanitation facilities are not included in the list of construction items.

I.3. Justification for developing NTPII for RWSS period 2006 – 2010

- Continuation of the NTP for the period 2006 - 2010 is essential to achieve the targets defined in the National Strategy for Rural CLean Water Supply and Sanitation to 2020, approved by the Prime Minister by Decision No. 104/QD-TTg dated August 25th, 2000, and make contribution to reaching the MDG and VDG goals by 2010 as well as successfully implementing the CPRGS strategy in Vietnam.

- Furthermore, while the NTP I for RWSS during the 1999 – 2005 period has made encouraging achievements, many activities are still on their way to becoming successful. In order to take advantage of the results of the NTP I and to implement the strategic targets up to 2010 in accordance with commitments to the Government, people and international donors community, implementation of the NTP II is needed and relevant, as agreed by various ministries, government agencies and localities**.**

- As mentioned above, despite positive results, there still remain numerous problems, difficulties and challenges in RWSS that can not be overcome by a single Ministry or Government agency. Besides, several international organizations are committed to supporting the NTP. Approval of the program by the Government will enable mobilization of additional international funding via bilateral and multilateral cooperation.

II. OBJECTIVES, GUIDELINES AND PRINCIPLES

II.1. Objectives

II. 1.1. Development objectives

1. Living conditions of rural people improved by improving rural water supply and sanitation services and raising community awareness of environment protection.
2. Negative impacts on rural people's health due to poor water supply and sanitation conditions reduced and environment pollution in the community minimized.

II.1.2. Immediate objectives

The following objectives are to be obtained by 2010:

a. Water supply:

- 85% of the rural population use clean water with 60 liters/capita/day

b. Environment sanitation:

- 70% of rural households have hygienic latrines,
- 70% of rural households have hygienic livestock pens,

c. Effort has to be exerted to ensure that by 2010, all rural primary schools, kindergartens, nurseries, clinics and commune people's committees have access to clean water and hygienic

latrines; gradually minimize environment polution in trade villages, especially in food processing villages.

II.2. Guidelines

Strategies of NTP will include a mix of service delivery, community capacity building and advocacy and policy development, focussed on strengthening inter-sectoral links, integrated programme delivery and partnership. The involvement of women in decision making in all stages will be encouraged, especially the participation of women in local management committees. Special efforts will be focused on poor and under-served communities that are unable to benefit from the National Programme because of their remote location, low capacity or inability to share or contribute 50 per cent of the investment costs as anticipated in the National RWSS Strategy. This will require a flexible approach to cost sharing, as the poor are clearly the least able to pay.

The NTP will enhance the internal strength of the rural population by applying a demand-driven approach. Users will decide on types of RWSS facilities suitable to their financial capability, and operate and manage them. The Government will take the role of providing guidance and support.

In addition, mechanisms and policies for establishing market mechanisms for RWSS services under Government's orientation will be improved.

Promote socialization of rural water supply and sanitation: mobilize and create legal basis to encourage active participation and contribution in various forms of all economic sectors and comminities in construction works, production of equipment and spare-parts, and provision of operation and maintenance services; encourage private sector to invest in construction of RWSS systems, especially in piped water supply schemes.

The NTP will promote socialization of rural water supply and sanitation. This will include mobilization and creation of an appropriate legal basis for encouraging active participation and contribution in various forms from all economic sectors and comminities in construction, production of equipment and spare-parts, and provision of operation and maintenance services. Private sector investment in construction of RWSS systems, especially in piped water supply schemes, will also be encouraged in this context.

Effective IEC and hygiene promotion activities will be carried out before implementation begins, and active community participation focussed on women, children and ethnic minority groups will be stressed through intensive communication activities designed to raise awareness and to encourage behavioural change. IEC will focus on motivating people to practice good hygiene, keep their environment clean and construct or improve their latrines using their own resources and technical support offered by the project.

II.3. Principle

The NTP's basic principle is to foster sustainable development in line with the Comprehensive Poverty Reduction and Growth Strategy of Vietnam in order to achieve sustainable

development and justice, and to improve the environment and living conditions of rural people, especially the poor and poor areas.

III. PROGRAM DURATION, SCOPE OF IMPLEMENTATION AND BENEFICIARIES

III.1. Program duration

NTP II will be implemented from 2006 to the end of 2010 and divided into 2 phases:

- Phase 1: from 2006 to the end of 2007
- Phase 2 : from 2008 to the end of 2010

At the end of phase 1, an evaluation workshop will be organized to review the implementation of the first phase, to synthesise lessons-learnt and to recommend adjustments for the second phase.

At the end of phase 2, a final evaluation workshop will be organized to review the entire program and draw out experience that can contribute to the achievements of the targets for 2020.

III.2. Scope of program implementation

The Program will be implemented in all rural areas in Vietnam with priority given to drought-stricken areas, remote areas, poor areas, areas where the coverage of water supply and sanitation is less than 60% by 2005, coastal areas, high mountainous areas and rapidly developing trade villages.

III.3. Program beneficiaries

Program beneficiaries are people in all rural areas throughout the country.

IV. MAJOR PROGRAM ACTIVITIES

IV.1. Construction of clean water supply facilities in combination with IEC activities on clean water

- It is expected to construct sufficient water supply facilities for provision of clean water to 85% of the rural population by the end of 2010, thereby increasing the number of people covered by 23% compared to 2005 (corresponding to approximately 15 million people).
- Improve awareness and change behavior of people toward construction and utilization of clean water supply facilities.
- The number of water supply facilities to be constructed, upgraded and renovated is estimated at: 159,200

  Of which:

- Piped water supply schemes to be upgraded: 4,300
- Piped water supply schemes to be constructed: 4,900
- Small and medium-size reservoirs and deep drilled wells: 2,700
- Small water supply facilities: (compartments, tanks, dug wells, narrow-diameter drilled wells): 147.300

IV.2. Construction of latrines in households, schools and clinics in combination with IEC activities on sanitation and personal hygiene

The quantity of household level latrines to be built during the 2006 - 2010 period is calculated based on the data from the NTP I for RWSS evaluation report stating that 50% of rural households have hygienic latrines. However, during the implementation of NTP II, a survey of households having hygienic latrines adhering to MOH's standard in accordance to Decision No. 08/2005/QĐ-BYT will be conducted to acquire a uniform set of data. The targets may thereafter be adjusted accordingly.

The number of hygienic latrines to be constructed in 2006 – 2010 is estimated as follows:

- Total number of household hygienic latrines to be built and renovated is: 2,601,000
- Clinic latrines: 4,167
- School latrines: 20,643
- Commune People's Committee latrines: 2794
- Rural markets: 2473

Together with construction of sanitation facilities, IEC activities to improve awareness and change people's behaviors toward construction and utilization of sanitation facilities and good personal hygiene practices will be enhanced.

IV.3. Trade village waste and livestock excrete treatment

IV.3.1. Livestock excreta treatment

About 8.5 million households in rural areas of Vietnam raise livestock: including 5 million cows, 2.8 million buffaloes, 26 million pigs, and 220 million poultry. Approximately 50%, 20% and 30% of livestock households raises 1-5 pigs, 6-10 pigs and more than 11 pigs respectively. There are 1,600 cow farms.

Number of pigs raised by region:

+ Red river delta : 6.9 million
+ North-eastern in the North : 4.3 million
+ North-western in the North : 1.3 million
+ Central region : 3.8 million
+ Central coastal area: 2.2 million
+ Central Highland: 1.4 million
+ South-eastern in the South: 2.4 million
+ Mekong river delta: 3.7 million

Although the animal husbandry sector is being developed, many of the techniques and methods adopted are old. Also little attention has been paid on waste treatment by small and medium farms. This has worsened the situation of pollution in rural areas.

In order to solve this problem, during the period 2006-2010, synchronized solutions should be found, including increasing investment from various sources to construct the following:

Total livestock pens to be built and renovated:	About 5 million
Of which:	
- Biogas:	1,000,000
- New pens:	600,000
- Upgraded pens:	2,400,000
- Compost tanks:	1,000,000

IV.3.2. Treatment of trade village waste

Master planning of craft village development shows that there are about 2017 trade villages. Untreated waste from trade villages contains pathogens and provides a good environment for bacteria harmful to animal and human health. In addition, natural decomposition of waste creates toxics and bad odor.

The variety of trade villages requires introduction of various types of waste treatment technologies. In the context of the NTP, focus is put on construction of demonstration models of waste treatment for pilot food, craft and paper processing villages. The models will then be evaluated and expanded to other areas.

V. KEY SOLUTIONS TO IMPLEMENT THE PROGRAM

V.1. IEC and community participation

IEC is of special importance for achieving the NTP targets. In NTP I, while attention was paid to IEC, the effort in this regard was fragmented. More IEC activities were implemented in project sites funded by donors, while in other sites few or no IEC activities were implemented. Therefore more focus should be put on IEC to improve its impacts.

a. Objectives of IEC:

- Demand for clean water and hygienic latrines of rural people increased.
- Users provided with necessary and sufficient information to make informed choices between different WSS technologies.
- Awareness of sanitation and the link between clean water, sanitation and health improved.
- Voluntary financial contribution to construct clean water supply and hygienic latrines encouraged.

b. Contents of IEC activities:

- Information and BBC activities on health, sanitation and hygiene;
- Information and BBC activities on various types of WSS facilities, monitoring of construction, and operation and maintenance of facilities;
- Information on financial support mechanisms, procedures to apply for loans and grants;
- Management of central piped water supply schemes;
- WSS related policies.
- Conditions and procedures to get loans and grants for the improvement of water supply and sanitation facilities.
- Establishment of water user groups in operation and maintenance of piped water supply schemes.

c. Main principles and activities

- *Integration of various approaches*

Appropriate application of IEC is of key importance as a means to raise the concerns of authorities regarding rural water supply and sanitation issues and encourage them to give priority to RWSS. Experience shows that IEC activities should be implemented regularly and continually using different approaches, for instance face-to-face approach through commune and village IEC workers, village health workers, unions, associations; delivery of materials; conduct of special events for instance propagation days, shows and performances, drama, and; use of mass media including TV, radio, loudspeaker systems, newspapers and magazines.

Face-to-face activities at village and hamlet levels are important IEC activities. Therefore, it is necessary to establish local RWSS IEC staff network and to build the communication capacity of this staff to help them in their work in communities. Face-to-face IEC can be supplemented by other types of IEC approaches including special events such as shows, performance, and plays. Focus should be put in not only raising awareness of the people but also improving hygienic behaviors. Participatory approaches are also very important in improving water supply and hygienic practices.

Publications: IEC materials for different groups of people suitable to their values, attitutes, beliefs, life-styles, levels of literacy and ages should be developed. Priority should be given to provision of information and suitable materials of good quality to IEC workers. Audiovisual aids should be developed for children or people of low literacy level.

Mass media: Newspapers, radio, TV should be used at national level. In the meantime, training plans to strengthen capacity of reporters in the field of RWSS should also be developed.

Social marketing: Efforts should be made to promote demand for construction and utilization of hygienic latrines and introduction of hygienic pracities, especially hand washing with soap and clean water.

- *Integration of different activities with a focus on IEC to change hygienic behaviors*

This principle gives people a chance to access the different kinds of information they need, based on which they can make sound decisions. IEC activities should be integrated with other activities related to finance/credit, technology and institutional systems. Besides, focus should be put on implimentation of activities to change people's hygienic practices concerning clean water usage, protection of the environment and water sources, promotion of public sanitation and persional hygiene.

- *Health education in the form of entertainment events for children.*

Health education should include entertainment and social events for children and extracurricular activities such as writing, painting, storing-telling, performance contests and games Such activities could take place as part of annual IEC campaigns or regular extracurricular activities. Teachers should be provided with training and encouraged to used new training approaches (student-focus) and different audiovisual teaching aids.

- *Consideration of diversity and focus on difficult area.*

Differences in customs, traditions, culture, socio-economic conditions, levels of literacy, religion and gender should be taken into account in the planning and implementation of IEC activities. Special focus should be put on the poor, ethnic people, women and children who normally have little access to information and low level of literacy.

- *Participation of different sectors in IEC activities*

Experience shows that IEC activities would be more effective if different sectors and levels are involved. Therefore, key ministries and entities should be involved in IEC activities including MARD, MOH, MOET, Women's Unions, Youth Unions, Farmer Associations, Committee for Ethnic Minorities and Mountainous Areas and mass media at the central and local levels. IEC working groups should be established at different levels to ensure active participation of different sectors and strengthen coordination in planning and implementation to avoid overlap and waste of resources. NTP standing offices at different levels will coordinate the IEC working groups at the same level.

International agencies, NGOs and economic sectors are encouraged to participate in and implement IEC activities in rural water supply and sanitation.

- *IEC activities should be implemented at all levels*

To mobilize and encourage the participation of different groups such as managers, planners, technicians and water users.

- *Sufficient resources for implementation should be allocated.*

Under NTP I, investment in IEC activities was limited, with the Government budget allocated towards IEC accounting for less than 3%. However, evaluation reports from provinces show that thanks to good implementation of IEC activities, people's contribution to WSS facilities increased considerably. Furthermore, promotion of IEC activities should not be regulated by

market demand but should be planned, focused and coordinated by the Government. Therefore, sufficient human resources should be allocated towards these activities.

d. Community participation

Community participation is a prerequisite for the success and sustainability of the NTP. Therefore, communities should be involved properly in the entire process of construction projects, i.e. from investment identification, selection of technologies, financial contribution and other type of contribution, construction monitoring to maintenance of constructed systems.

Communities should have ownership to and be fully aware of their responsibility for improving WSS conditions as well as for maintenance of WSS facilities.

During NTP implementation., the grassroot democracy regulations should be observed, and village/hamlet meetings should be encouraged to give people opportunity to define local priorities and make decisions concerning clean water and environmental sanitation.

Gender balance should be assured by supporting involvement of women in decision-making related to water supply and sanitation. The Government encourage women to join water users groups and water supply management groups. About half of the members of each group should be women.

NTP managing agencies should establish an award program to encourage localities and communities to implement water supply and sanitation successfully and encourage them to invest in the area.

V.2. Financial solutions

While important achievements have been made in mobilizing investments, mobilization of financial resources for the implementation of NTP I was rather low. Total mobilized funding during the 1999-2005 period only met 40% of demand and thus posed a risk to the achievement of targets. Besides, fund mobilization mechanisms were not appropriate or responsive to practical operational requirements in different areas; mechanisms of fund allocation to each target and activity area of the Program were not clear; many expenditure tariffs were too low; decentralization in financial management was not clear, and; approaches applied under the NTP focused on construction but failed to identify and finance other activities set forth in the National Strategy. Therefore, for NTPII (2006-2010) it is necessary to reform financial mechanisms such as mechanisms for fund mobilization, management and investment on the basis of lessons-learnt from NTP I (1999 – 2005) to overcome the above problems.

V.2. 1.Budget

Total budget: 22,600,000 million VND, of which:

- Funding for construction, renovation and upgrading of piped water supply schemes: 9,000,000 million VND, about 40%;
- Funding for construction, renovation and upgrading of rural sanitation facilities: 4,800,000 million VND, about 21%;

- Funding for construction, renovation of livestock waste treatment systems: 6,800,000 million VND, about 30%;
- Other funding for surveys, planning, IEC, human resource development, technology transfer, management and monitoring: 2,000,000 million VND, about 8,9%.

Composition of NTP budget:

- State Government budget: 4,500,000 million VND, about 20%
- Local Government budget: 2,300,000 million VND, about 10%
- International support: 3,400,000 million VND, about 15%
- People's contribution: 6,800,000 million VND, about 30%
- Preferential loans: 5,600,000 million VND, about 25%

V.2.2. Fund mobilization methods

The methods of mobilizing financial sources from communities with a focus on enhancing the socialization of financial sources should be renovated. This will include mobilization, organization and provision of information on the legal basis to encourage the participation of people, various economic sectors and the whole society in development of RWSS; exploitation of internal resources; user payment of part of expenditures for construction and all expenditures for operation, management and maintenance of facilities, and; mobilization of donors to attract more investment in the NTP.

The NTP will furthermore expand the market for RWSS services through provision of Government and international preferential loans for investment in economic-developed areas in the river deltas. The Government budget for these areas will be reduced and focus moved towards mountainous, difficult and vulnerable areas.

- ***State Government budget:***

In spite of budget increases during NTP I, the State Government budget for the NTP falls short of demand. Given the importance of rural areas in the socio-economic development strategy of the nation, additional and sufficient funding should therefore be allocated to NTP II for RWSS.

Integration and coordination should be required among sub-projects under the NTP and between the sub-projects and other projects during project prepration and submission for appraisal and approval.

- ***People's contribution, investment from businesses and other economic sectors***

IEC activities will be strenngthened to mobilize contribution from households to invest in WSS facilities at the household and group-of-households levels and for piped water supply systems at the commune and village levels. Users will be required to spend part of their income or savings to pay for part of construction, at least 25-30%, and will be given access to loans to cover the remaining of 70-75% with a 3-5 year repayment period.

Investment from businesses, other economic sectors and the private sector will be mobilized intensely to implement the NTP. In order to do that, policies to encourage contribution from investors, businesses, social organizations; exploitation of internal resources, and to attract participation of the private sector and other economic sectors in construction of piped water

supply schemes will be developed through introduction of preferential policies in the field of land allocation, tax exemption, tax reduction, and provision of preferential loans.

The strengthening of internal resources and the exploration of the potential for encouraging and attracting participation of the private sector, businesses, social organizations and people in WSS development should be closely linked with strengthening of State management in RWSS.

- ***Preferential loans***

It is estimated that credit funding under the Program will amount to 5,649 billion VND. To achieve this, credit funding should be increased and the preferential loan fund to implement the NTP II for RWSS and the NRWSSS should be expended to all the provinces in accordance to Decision No. 62QĐ-TTg 2004.

- ***International assistance***

International assistance to be mobilized amounts to 4,300 billion VND which is sought through bilateral and multilateral cooperation and direct support and credit, including support and credit from private businesses and joint-stock company investment in water supply facilities. International financial support towards WSS can be in the form of contributions to grant and credit funds or through support to individual projects or areas.

International assistance to the NTP should be planned from the initial stages of assessment and approval and should be reflected in annual work plans.

The following donor contributions are expected: 730 billion VND (WB); 300 billion VND (ADB); 491 billion VND (UNICEF); 1,500 billion VND (DANIDA and AusAID) and; 330 billion VND (JICA).

International cooperation should be sought in the form of technical cooperation, loans, direct support, capacity building, institutional reform, project-based support, support to poor households and poor areas.

V.2.3. Budgeting

The NTP Steering Committee will be informed of all budget plans from the beginning of the year indicating budgets for administration and infrastructure construction.

The NTP Steering Committee will decide the allocation of budgets to ministries and agencies from central to local level on the basis of targets and work requirements.

- For ministries and central government agencies: Based on the program budget assigned by the Prime Minister, ministries and central Government agencies shall allocate budgets to institutions under the ministries in compliance with objectives and content of the program submitted to the Ministry of Finance. This will form the basis for budget disbursement.
- For local level: Based on the total budgets of National Target Programs assigned to each province, Provincial People's Committees shall be responsible to integrate all National Target Programs and allocate the budget for NTP for RWSS in their province.

MARD (NTP managing agency) is responsible for planning, including definition of activities, objectives and budget needs and for proposing options for implementation of the Program for

submission to the Ministry of Planning and Investment (MPI) and Ministry of Finance (MOF) for review and onward submission to the Government. Based on the total program budget which will be informed by a competent level, the Program managing agency, in collaboration with MPI and MOF will submit budget allocation proposals to different ministries, central Government agencies, provincial and city authorities for review and submission to the Prime Minister.

V.2.4. Disbursement and finalization of donor support, government budget and credits

The budget for the NTP for RWSS will be disbursed through 3 channels:

- Disbursement of loans and donor support will be made through a provincial appointed bank and comply with Assistance Agreements between Government of Vietnam and individual donors.
- Disbursement of State Government budget (for administration and infrastructure construction) will be made through State Treasury under its monitoring and management pursuant to the guidelines of the Government Budget Law.
- National preferential loans will be offered to households through the Social Policy Bank.

V.2.4.1. State Government budget

Based on Program budget announcements, the MOF will disburse the government budget and keep the State Treasury and MOF informed of the allocated budget. Based on MOF's budget allocation, the State Treasury will disburse money to the Provincial Treasury. Based on DOF's budget allocation, the Provincial Treasury will disburse money to the District Treasury. The District Treasury will then disburse money to Program beneficiaries on the basis of District Financial Department's budget allocation and lists of Program beneficiaries approved by District People's Committees.

Financial institutions at the local level will review financial statements prepared by institutions at the same level and finalize budgets for lower levels, synthesize and finalize local government budgets for submission to People's Committee at the same level, and report to Government administrative institutions and financial institutions at the immediate higher level.

Monitoring and disbursement of the State Government budget through the Treasury system are stated clearly in Circular No 79/2003/TT-BTC dated 13/8/2003 by MOF providing guidance on management, disbursement and payment finalization of State Government budget through State Treasury

V.2.4.2. National credits

National credits are disbursed in accordance to guidelines of Social Policy Bank.

V.2.4.3. Official Development Assistance (ODA)

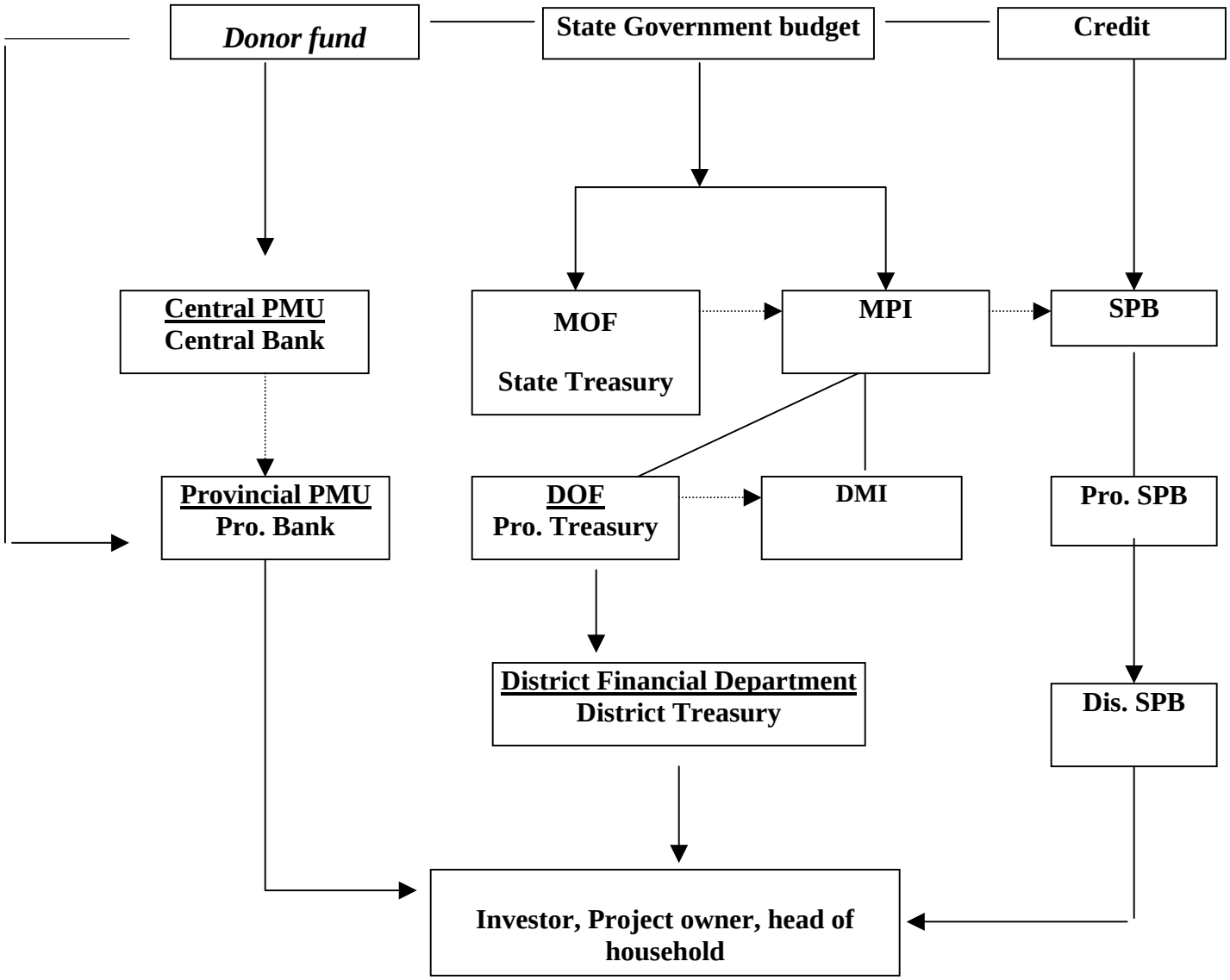
Dispursement and finalization of international funding to NTP will be done in different ways based on the agreement between individual donor and the Government in accordance with existing regulations.

The three following options are proposed for the disbursement of international assistance and loans for the NTP II.

a. Option 1:

Annually, based on the budgeting guidelines of MOF, various commitment documents, agreements, grant and loan agreements signed by the Prime Minister and other donors, project work plans and progress reports, investors will prepare financial statements on the spending of donor support and Government budgets and submit these to the managing agency.

Ilustrative Diagram of Disbursement model: OPTION NO. 1



Legends: ——— : *Disbursement of program budget*

..... : *Announcement on budget plan*

- **Disbursement principles:**

Donors and the GOV announce their projects in the forms of:

- ✓ Grant agreements, funding commitment documents or the project work plans, announcement of project assignment approved by a competent authorities. In principle, the budget structure for a RWSS program should be determined clearly, including investment capital and non-productive capital, so as project management and budget disbursement mechanism.
- ✓ All kinds of expenditures should be budgeted and based on approved budget lines of donors. Payments should be made for their intended purpose and not exceed the budget lines agreed to with the donor.

- **Disbursement methods**

After a grant project is signed and approved, the executive agency of the project/ program is responsible for completing all conditions and necessary procedures for disbursement. In case disbursement should be done through an appointed bank, an authorized bank will be chosen by Ministry of Finance. The Bank is authorized by MOF to disburse grants and charges service fees according to present regulations. The fees is paid from national government budget or in compliance with the agreement with the donor.

Leaders of grant-taking agencies are responsible for completing procedures of grant certification according to current regulations.

Based on the total donor grant allocated to each area, a part of the donor's budget will be disbursed via an appointed bank to the Central Project Management Unit to carry out activities such as IEC, seminars, workshops and office management. The remaining budget will be disbursed directly to the provincial PMU through an appointed bank in the province. The provincial appointed bank will transfer the budget to investors, project holders and heads of households according to the work plans of management units at all levels.

During the first year of the project, the PPMU will develop an annual work plan and submit this to the donor with written endorsement from the Central PMU. After consideration, the donor will accept and respond in writing to the PPMU. From the second year, work plans of the PPMU will be assessed by a technical evaluation group. The PPMU will then revise and adjust the work plans and submit it to the donor and CPMU.

Disbursement of donor assistance, special accounts and project will be done in accordance to present regulations of the Government and the donor's disbursement principles.

All expenditures covered by donors are not disbursed/supervised by the State Treasury.

Depending on the requirements and nature of each payment, the CPMU can choose the following disbursement options: disbursing through a special account, paying directly through a grant account, refunding procedures, commitment letter. For Provincial PMUs, payment will only be made through a special account or according to cost recovery procedures (if needed).

- **Budget disbursement to provincial PMU**

Donors shall follow the regulations set out in the Grant Agreement and other existing regulations of the GOV concerning transfer of funding to the PPMU.

- **Supervision of project expenditures:**

All expenditures (by Project Management Units at all levels) with contribution from GOV should be supervised.
The supervision process should be carried out in accordance with MOF's guidelines.

Central Project Management Unit

The CPMU implements all budget disbursement options applicable under the program, including direct payments from grant accounts, additional funding disbursement to special account and others options (if available) approved by donors (special commitments, letters of credit, etc.). At the same time, the CPMU is responsible for guiding and monitoring all financial management activities of the PPMUs.

Provincial Project Management Unit:

The PPMU implements all activities in the work plan approved by donors and the Central and Provincial Steering Committees. The PPMU is in charge of requesting additional budget disbursement and other expenditures for the PPMU, maintaining the filling system according to regulations in the Accounting Law and regulations by the donor. The PPMU is responsible for providing all documents requested by the donor and other authorities.

The PPMU is responsible for supervising and monitoring the implementation of all activities of the program in order to ensure that the agreed purposes are observed and the activities are implemented effectively.

- **Opening accounts for grants and Government contribution:**

The CPMU can open the following accounts:

- ***Special account:*** The CPMU is allowed to open 1 special foreign currency account (USD) titled Service Bank Project to get grants from donors.
- ***Deposit account:*** The CPMU is allowed to open 2 deposit accounts at commercial banks, including one account for USD and one for VND to deposit earnings from sale of bidding documents, bidding guarantees, contract implementation guarantees and other current earnings.
- ***Projection account:*** The CPMU is allowed to open 1 budgeted account in the State Treasury for State Government budget transfers from the State Bank for the implementation of project activities.

The PPMU can open the following accounts:

- ***Provincial Special account:*** At a provincially appointed bank, the PPMU can open 1 special account (VND) to get grants from donors according to the approved budget plan.
- ***Deposit account:*** At a commercial bank, the PPMU can open one deposit account (VND) to deposit all project earnings from sale of bidding documents, bidding guarantees, contract implementation guarantees, contribution from beneficiaries (if available), etc.

- ***Projection account:*** At the provincial Treasury, the PPMU can open 1 account through which disbursement from the State Government budget will be made.

- **Reporting, checking, liquidation of grants**

Reporting: Heads of Units shall prepare quarterly and annual reports on the status of the receipt and use of the grant, and submit these reports to the executive agency.

Cheking: Financial agencies at all levels shall check and provide guidance on grant management mechanisms.

Liquidation: Every year, at the end of the project, the project holder prepares a financial report and submit this to the executive agency according to MOF regulations. MOF will chair the evaluation of the annual financial report reflecting earnings and utilization of grants from various Ministries and central Government agencies and will review the administrative costs of RWSS programs managed by Ministries and Government agencies. Based on the minutes of the evaluation of grant liquidation, MOF will announce its approval for administrative spending, including grants. The Government budget for projects will be finalized as part of the state government budget in accordance to the State Government Budget Law. Provincial and District Financial Departments will evaluate annual grant spending.

Liquidation of grant projects:
In case the project does not spend the planned budget at the end of project, the project holder shall report to managing and financial agencies at the same level.

In addition to the financial report, the project holder shall prepare asset and liability reports to submit to the managing and financial agencies at the same level.

b. Option 2: Target-based support

Target-based support is a new approach for the provision and use of ODA, and is of more advantageous than the project approach. A target-based support program is a model for support and use of ODA as a direct contribution to the total budget and where project mechanisms and separate management units are not necessary. The target-based support program will finance all activities defined in the National Target Program by the Government of Vietnam, and will be disbursed and monitored in accordance with the State Budget Law and NTP regulations. Its objectives are the same as those of the NTP approved by the GOV.

It is expected that the disbursement will be done as agreed principles. ODA fund will be combined with the Government budget and transferred directly to the NTP for RWSS. A target-based program will facilitate the integration of ODA fund and Government efforts to obtain the defined objectives. This is a new step in the harmonisation of procedures adopted by GOV and donors.

Target-based programs therefore will be implemented based on the revised mechanism of NTP with regards to budget allocation, monitoring and evaluation based on decentralization. Reporting will be based on regular Government procedures/processes, which will be improved only since there is no need to develop new procedures to implement the target-based program.

- ***Disbursement mechanism for international grants and loans:***

The financial agreement will be discussed between the donor and State Bank of Vietnam in compliance with the procedures adopted by each party. Each donor will sign one financial agreement with MOF in compliance with the procedures adopted by each party. The main content of the credit agreements and financial agreements will be identical for the proposed program.

The grants will be transferred directly to the State Government budget as ODA funding towards implementation of the NTP for RWSS.

The disbursement will be made year by year and based on the disbursement result of the previous year.
Once the funded project has been signed and approved and all procedures and necessary conditions for disbursement have been completed, the grant will be transferred to the State Treasury according to the annual workplan approved by the Government and the donor, the request of the National Steering Committee and feedback from local authorities (on contents, purposes of spending). The Ministry of Finance (Department of State Government Budget) will arrange the procedures for payment as planned and the State Treasury will transfer funds to Provincial Treasuries who are responsible for carrying out disbursements to direct beneficiaries.

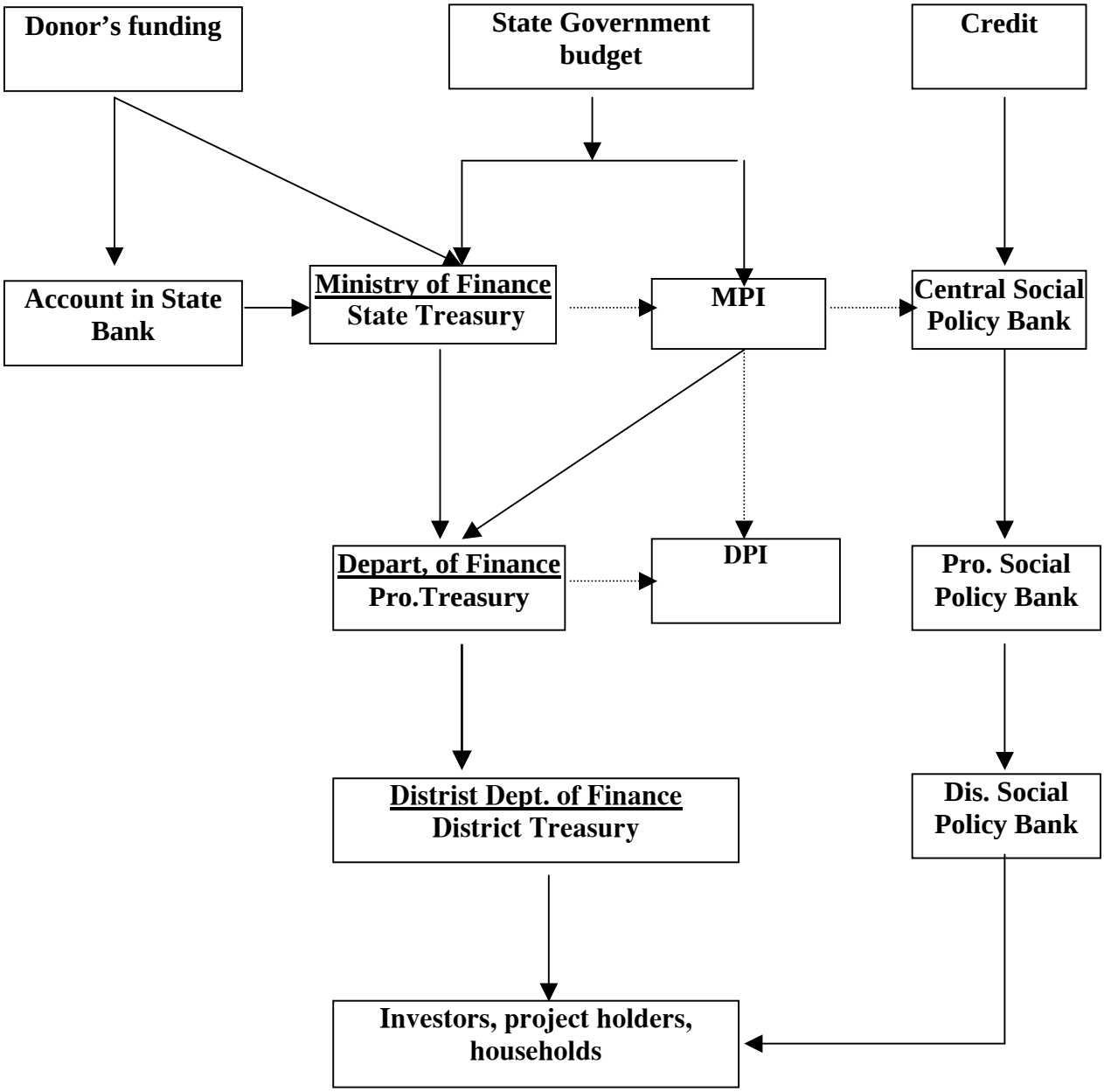
- ***Financial report***

The grants for a target-based program will be managed and finalized according to the financial regulations in the State Government Budget Law and other existing regulations. This enables the staff and managing agencies to manage the project effectively. This approach will mark the transmission from the project approach to the direct support to the state government budget in pursuit of specific objectives.

The State Treasury shall prepare annual financial reports on the NTP for RWSS. Provincial and district levels will play an important role in ensuring transparent allocation of additional budgets and management of spendings.

Provinces shall submit annual progress reports to the National Steering Committee using defined formats. These reports will form basis for budget allocation to the provinces for the following year.

Ilustrative Diagram of Disbursement model: OPTION 2



Legends:-

- *Disbursement of program budget*
- *Announcement on budget plan*

c. Option 3 :

ODA and the state Government budget will be transferred to Social Policy Banks to be dispursed in the form of loans in support of NTP targets.

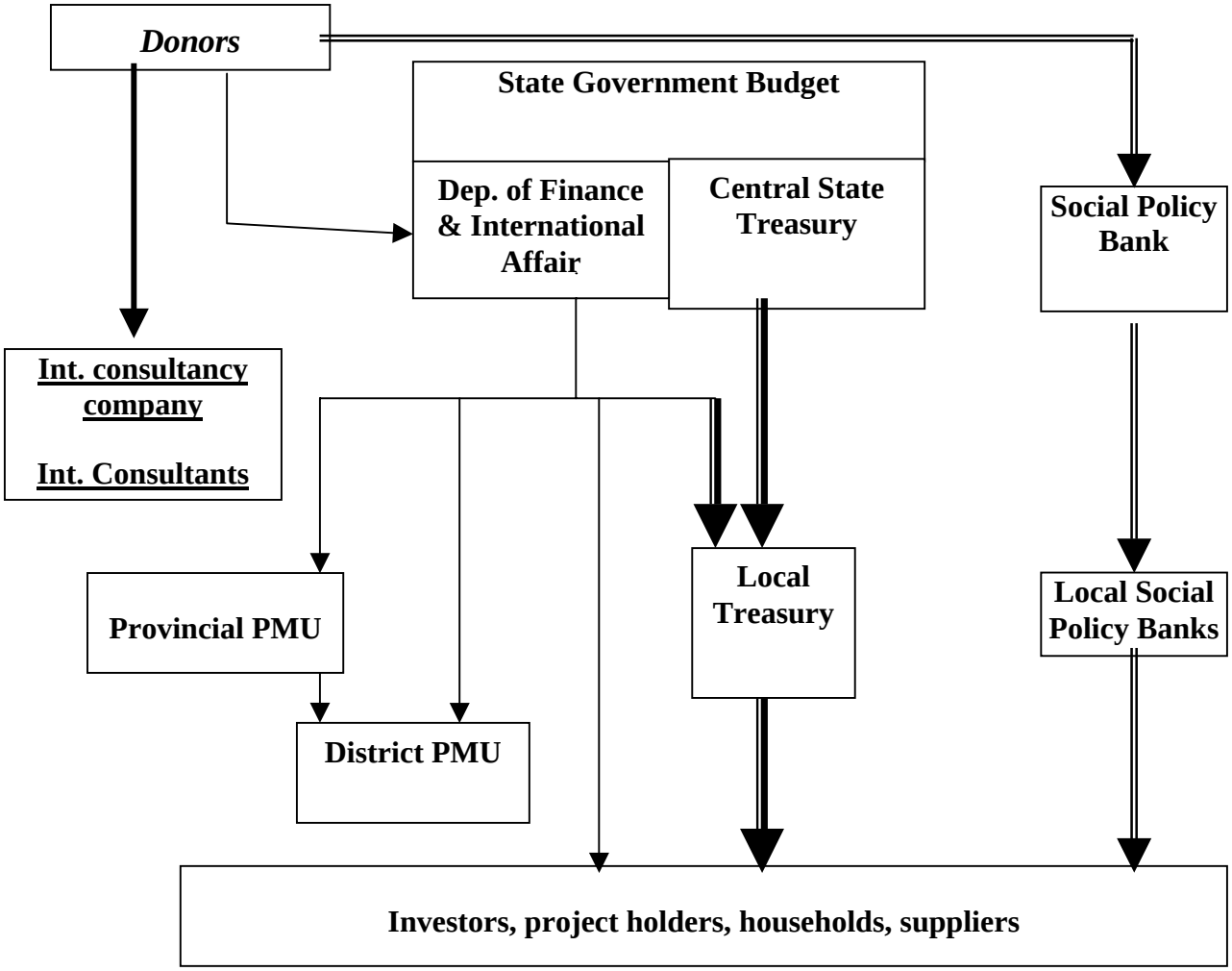
Non-refundable ODA used in infrastructure construction (construction of water supply systems, latrines, etc.) will be transferred to the State Treasury to be dispursed and managed as government contributions from the State Government budget for the NTP.

Direct payments to international consultancy companies, international consultants and specialists and international procurement to be made directly by donors will be managed by the donors.

Non-refundable ODA that is not used for infrastructure construction such as budget for project management, IEC, training and workshops, etc. will be transferred by donors to an account of the Ministry of Finance opened in the Commercial Bank. Based on the financing agreements and project/program documents, the NTP Steering Committee will approve workplans and budgets, while request for quarterly disbursement will be made by the Central Project Management Unit (CPMU). The Ministry of Finance will dispurse funds to the CPMU, Provincial PMUs and District PMUs according to quarterly plans or make direct payments to suppliers at the request of the PMUs.

For non-refundable ODA that is not used for infrastructure construction, regulations and cost norms will be agreed between donors and the Government. Monitoring of expenditures will be done by the PMUs and should be done in compliance with the agreements between donors and the Government and existing regulations on financial management. Donors will conduct annual independent audits of ODA dispursement. Ministry of Finance will then use the auditing results to monitor expenditures made by PMUs and make necessary adjustments to subsequent dispursements.

Ilustrative Diagram of ODA disbursement: OPTION 3



Legends:

Flow of credit

Dispursement of Government contributions and ODA for infrastructure construction

Direct payments by donors

Dispursement of non-infrastructure construction ODA

V.2.5. Liquidation and supervision of payments

For grants, payment monitoring is aimed to ensure that all spendings of the program are appropriated to the Aid Agreement signed between GOV and the donor.

For the state Government budget, liquidation of payment and monitoring of expenditures should be carried out in accordance with existing GOV regulations.

V.1.6. Tax

All economic sectors investing in RWSS will enjoy business tax exemption, temporary tax reduction and land tax reduction.

V.3. RWSS technology and water quality solutions

Identification of appropriate technological solutions for RWSS is key to sucessful exploitation and use of RWSS systems. Technology choices also determine investment requirements and the amount of resources required to operate and maintain systems. Approproate technology choices are required to harmonize the relationship between the system value, water quality and affordability.I It is therefore necessary to promote study and application of advanced technologies in RWSS appropriate to the cause of rural industrialization and modernization.

Government managing agencies will no longer be involved in the construction and management of water supply and sanitation facilities. Instead constractors such as state enterprises and private companies will be involved. The market for RWSS services will be established in line with the directions of the Government.

V.3.1. Solutions for water supply technologies, management of water supply systems and water quality

Technological solutions for clean water supply should be diversified so as to ensure that technologies appropriate to the natural and socio-economic conditions in each area are available and to assure sustainability. Priority should be given to piped water supply schemes in more populated areas (including upgrading of existing systems to expand their coverage); identification of stable sources of water for particularly difficult areas (such as drought-stricken, inundated and mountainous areas and islands); appropriate exploitation of water sources using appropriate technologies, and; improvement of water quality through application and transfer of new technologies. More specifically, this would include the following:

- *Renovation, upgrading and expansion of existing water supply systems:*

Initially the effectiveness of constructed water supply systems will be checked and assessed, then specific plans for renovation, upgrading and expansion will be prepared. Simultaneously efforts will be made to improve technologies (or change to new technology) to expand systems and to support that systems operate at full designed capacity to provide water to communities.

Plans for inventory, evaluation and catagorization of small drilled wells designed by UNICEF for the Red and Cuu Long river delta areas will be prepared in order to identify appropriate solutions. Such solutions will include identification and use of high quality wells (including

good quality wells and water sources), connecting transmission pumps to treatment stations and distribution of water to populated areas of 10-50 households or more depending on the capacity of individual types of wells.

- *Continue studying and investing in pilot water supply models to expand with a view to these models to the rest of the region or other parts of the country with similar conditions*

This will initially include review of models and projects piloted during the 1999 – 2005 period and preparing plans for review and expansion.

During the 2006 – 2010 period, focus should be put on pilot application of rural clean water supply technologies in the following specific areas:

- Water supply technologies for difficult areas (such as mountainous areas, CASTO areas): Building medium and small reserviors to supply water for inhabited areas.
- Studying application of water supply technologies for flooded, alum contaminated areas in delta areas, especially the Cuu Long river delta.
- Studying and applying water supply and water treatment technologies in costal areas, islands and salinity-intruded areas.
- Test water treatment technology using floating water supply stations and flowat technologies for regions such as the Cuu Long river delta and areas with many arroyos.
- Test saline water treatment technology by covering shallow salt water basins with glass in greenhouse-like structures to harvest freshwater for drinking in coastal provinces in the central regions and on islands.
- Pilot use of polymer and contak to produce water storage bags used in dry season replacing water compartments and jars for the mountainous, inundated, and coastal areas in the central region and islands.

Studies on the application of advanced technologies and techniques for piped water supply systems in the delta areas and on application of local materials and equipment to reduce the price and create jobs will be conducted.

Technical and technological guidelines will be reviewed, finalized, and distributed to the grassroot level.

- *Multiple using of water resouces*

Efforts will be made to maximize the use of water sources for other purposes. This will include making full use of water from more than 750 big and 10.000 small reservoirs as well as other irrigation systems to produce water for drinking and daily usage.

- *Applying appropriate technologies with high priority given to application of local technologies and maintaining traditional ones*

Advanced water supply technologies will be developed and water supply expanded to as many households as possible through the use of watermeters, especially in the Red and Cuu Long river delta areas. The use of individual water supply facilities in plain areas will be minimized. In mountainous areas, rainwater catchments will be constructed.

High attention to different water treatment technologies to improve water quality will be paid, especially in difficult areas such as mountainous areas, alum contaminated areas, salinity-intrusion areas, flooded and drought-stricken areas.

Water supply technologies:

- *Individual water supply facilities*

Types of individual water supply facilities include:

Dug wells: Applied to supply water to individual household or groups of households. Currently, dug wells are not used for drinking water purposes in areas where surface water and the shallow aquifer of the groundwater is heavily contaminated.

Water tanks and jars: Used in sparsely inhabited areas where piped water supply systems are not feasible and areas suffering from surface or ground water scarcity (for instance mountainous areas, islands, salinity intruded, inundated and costal areas).

Drilled well: The development of household drilled wells should be minimised, especially in the Red and Cuu Long river deltas. All poor quality drilled wells should be filled quickly to avoid pollution of the ground water.

- *Piped water supply schemes*

Piped water supply is a perfect option that assures water quality and sufficient amounts of water. Therefore, in advantaged areas with good water sources, plain topography, high population, more developed economy, and high level of literacy of the people, this technology should be developed in order to raise the percentage of rural people having access to this technology by up to 35% by the year 2010.

Piped water supply systems include :

Gravity water supply: This is suitable for high and mountainous areas and used to exploit underground spring water or spring water which is higher than water use points.

Water supply with pumps: Used to exploit ground water or surface water and used in delta areas.

Small piped water supply systems: Full use of small size drilled and dug wells should be made. In addition hand pumps should be replaced with electric pumps to pump water to small size elevated towers, 5 to 7m above the ground. Water pipes to individual households and watermeters for groups of about 50 – 100 households should be installed.

Construction, management and exploitation of water supply systems:

The preparation and construction of a water supply system should be open to communities. It means that people can participate from the stage of planning, selection of technologies and monitoring of construction.

Management and ownership of **piped water supply systems** should be defined from the beginning of project design. This should be a prerequisite for project approval. As there are several models of piped water supply schemes, a comprehensive evaluation of existing management models should therefore be conducted in 2006 to identify the most appropriate ones. Particularly, it is necessary to introduce ways to change management and ownership approaches of ineffective systems. The development of appropriate management models as management by cooperatives, private, joint-stock companies and rural water supply companies should be promoted. While the provincial CERWASS management model is working effectively, this needs to be re-evaluate to ensure gradually transfer to other models that are in line with the principle that the Government will not execute direct management and do business in the area of rural water supply.

Water prices should be calculated on the basis of correct calculation of production costs. Investors and enterprises shall be responsible for their investments.

For **small and individual water supply systems owned by individuals** (households), the households should construct and manage the schemes themselves. However, the government should provide detailed advice on technologies and techniques and guidelines on management and operation of system to ensure proper exploitation of water sources and environment protection.

Water quality

Management, assessment and monitoring of rural water supply quality should be given special attention during the 2006 – 2010 period to ensure sustainability. In the immediate future, procedures and indicators of rural water supply quality monitoring will be determined by the Decision 09/ 2005/QĐ/BYT applied for systems with capacity to supply water to less than 500 people. For the systems with higher capacity, drinking water quality indicators will be temporarily governed by the decision No. 1329/2002/QĐ BYT by the Ministry of Health.

However, in order to meet the demand of socio-economic development and technical and management requirements during the 2006 – 2007 period uniform National Guidelines for clean water quality to be applied for all types of rural clean water supply facilities should be developed.

V.3.2. Household latrines, school and public sanitation

During NTPI, lots of achievements were made in the area of water supply but the results on sanitation and environment have been limited. The quality of latrine construction and maintenance in many areas is very poor, and in some cases the selected types of latrines are not suitable to meet practical needs. Therefore, development of appropriate and effective solutions is needed to meet defined objectives.

In the coming years, selection of technology options for latrines for households, schools, public areas should be based on the demand of the community with technical consultancy from the Government. The community should be involved from the initial planning and

selection of appropriate types of latrines to construction, operation and maintenance of constructed systems.

In addition, focus should be put on the following:

- Ensure agreement that design and production/use of building components should meet technical standards.
- In order to avoid technical mistakes in construction of sanitation facilities, it is necessary to study options for and support mass production of building components of different materials according to required design standards and to make such components available to localities. Various economic sectors should be mobilised to produce and supply sanitation building components, supply monopolies should be limited and materials made available at competitive prices.
- There are many Vietnamese companies and joint stock companies who produce and supply building components of different types of septic tanks, including platforms, flask L, PVC pipes of various sizes and other components. Promotion and application of products from such companies should be enhanced.
- Studies should be conducted to develop platforms for double vault and improved pit latrines made of edurable materials as needed to ensure high levels if hygiene and nice appearance (composite, enamel platted porcelain) in accordance with technical standards. This will help avoiding technical errors, facilitating construction, reducing prices and mobilizing different sectors.

- *Pilot study on appropriate sanitation models for floodded areas, households, schools, clinics, markets, communal people's committees*

Study and ppiloting activities will include the following:

- Study on standardization of household latrine designs.
- Study and production of composite, enamel, precast concrete materials and other materials meeting design standards for various areas.
- Study low-cost excreta treatment models (composting technique, solar compost, biogas system, bio-technology, earthworms, etc.)
- Study various organisational models for operation, maintenance and evaluation of systems.
- Pilot models for construction, operation and maintenance of hygienic latrines in schools (at all levels) appropriate to the number of students and their ages.
- Pilot models on construction, operation and maintenance of hygienic latrines in commune clinics, commune people's committee and markets (daily and seasonal markets).

- *Establish technical groups to construct sanitation facilities in districts, communes and villages.*

The technical groups will provide guidelines on building latrines to the community according to techncial procedures to ensure construction quality as well as provide support to the monitoring of the use of constructed facilities in the community.

Types of hygienic latrines

Several types of household latrines are used in rural areas in Vietnam. However, some of them are no longer suitable because they are not environment friendly. Therefore, in the future, it is recommended to promote the following types of latrines: septic tank, double vault/ecological, and improved pit latrines with ventilation. In areas where sufficient water sources are available, septic tank latines are recommended, while in areas with shortage of water and poor geographical conditions, double vault and improved pit latrines with ventilation are recommended. In addition, it is necessary to continue evaluating other types of existing latrine design to identify which ones are suitable to the specific economic and cultural conditions and traditions of different areas, and then to support promotion of these models.

It is encouraged to use septic tank or double vault latrines in schools, public areas, markets, commune people's committees..

Requirements of hygienic latrines:

Hygenic latrines should enable seperation of excreta to avoid contact with people, animals or insects, contribute to destroying pathogens and prevent environment polution.

V.3.3. Treatment technologies for waste from trade villages and animal farms

Technology plays an important role in treatment of waste from trade villages and animal farms. Therefore, in the next few years, it is necessary to create various technological options and to reduce the cost of treatment.

- **Treatment of waste from household animal farms**

The application of **biogas** technology for treatment of stable waste should be promoted. Experience from NTP I shows that biogas is an effective technology for stable waste treatment and environment protection as it helps limit the spread of pathogens and at the same time provides a source for production of gas for cooking. Various types of biogas technologies exist, including nylon bags, cylinder tanks made of bricks with concrete or composite cover, semi-sphere made of bricks, etc. In general, while all biogas technologies have both advantages and disadvantages, biogas is the most suitable technology for stable waste treatment. To ensure effective operation of a biogas plant, it should be constructed in accordance with should follow the technical procedures strictly to avoid leakage and it should be filled with at least 20kg of fresh excreta/24 hours.

As there are various types of biogas plants, each household should be encouraged to chose the types that are suitable to their financial conditions and geographical area. Biogas plants are catagorized into 2 groups based on the use of construction materials:

- Biogas made of nylon bags: These systems are low cost but there is risk of breakage/leakage, they are space-consuming and not durable. As the gas pressure is low, so is productivity.
- Biogas made of bricks: These systems are of different dimensions and include types with for instance cylinder tanks with fixed concrete or composite cover and semi-sphere tanks. Thse systems are technologically complex and more costly but are also more durable and does not occupy large amount of space.

The NTP will also promote **household livestock pen waste treatment** in accordance with the design of the Institute of Husbandry, MARD. A common principle is that a livestock pen made of bricks should have a roof and sloping floor to discharge waste. Attached with the pen is a composted tank and a 3-vault septic tank to treat waste water. It is however difficult to operate the Institute's biogas plant design because it is needed to scoop excreta into the compost tank every day. The Biogas plant design is now piloted in Ha Tay, Nam Dinh and Yen Bai province. If it is operated properly, it can help treat the waste from livestock pens effectively, prevent environment pollution and create good and safe organic fertilizer for crops. This design is suitable to high and mountainous areas.

The model of producing **micro-organic fertilizers** from excreta and household waste introduced by the Vietnam Garden Association was granted with an environmental initiative award by the Institute of Rural Community Research and Development. The procedures for production of micro-organic fertilizer at the household level are simple and cheap. Besides, farmers have long tradition of making composted fertilizer. With this model, excreta and rubbish will become good micro-organic fertilizer. The model is appropriate to high, mountainous areas and areas where fertilizers are used for crop production.

- **Waste treatment for trade villages**

It is estimated that treatment of waste from trade villages would be very costly and that it would be difficult to fully cover treatment needs within the scope of this NTP. Therefore, it is proposed to initially focus on establishment of demonstration models for food processing, handicraft and paper processing villages which will then be evaluated and disseminated for expansion. Pilot villages will be provided with loans at low interest rates and reasonable loan period.

V.3.5. Pilot schemes

During the 1999 – 2005 period, various water supply and sanitation models and management models were piloted. It is now needed to re-evaluate all piloted models in order to expand them to appropriate areas.

Experience shows that it is effective to develop demonstration models in specific areas and then disseminate learning and expand the models to other areas using mass media (for example: biogas plant project in Dan Phuong district, Ha Tay province).

Experience has also shown that different piloted activities will require different organizational and management approaches depending on their requirements and purposes to assure:

- Good participation and close cooperation between managing and implementing agencies, research insitutions, scientists and localities (project beneficiaries)
- Sustainable operation of constructed systems.
- Monitoring of piloted results and appropriate plans for dissemination and expansion.

V.4. Solutions for planning and planning management mechanism

V.4.1 Planning

Based on existing RWSS planning procedures, in 2006-2007 it will be necessary to evaluate, update and adjust overall and detailed plans for provision of rural clean water supply and sanitation to communities. The adjustment and revision of plans is a regular task in state management. In this regard, attention should be given to land planning to reserve land for RWSS development.

V.4.2. Planning management mechanism

During the past few years, very significant improvement in the planning framework for NTP for RWSS has been achieved. However, weaknesses are still observed in relation to planning and allocation of human resources at the communal to provincial levels. In addition, the cooperation between stakeholders during the planning process is poor; and plans often do not reflect practical needs or community expectations.

In order to overcome these problems, it is needed to improve the planning of NTP and to accelerate the decentralization process to assure that the provinces are more active in planning, implementation and management of water supply and sanitation facilities in the rural areas.

Five-year and annual workplans for RWSS will be developed based on practical needs with detailed procedures to be applied as follows:

- The commune level shall collect all requests for construction of water supply and sanitation facilities from villages with participation of the community and beneficiaries and on this basis develop commune RWSS workplans. The workplans should be approved by the Commune's People Committee and submitted to the District People's Committee.

- The district level shall collect and summarize all reports from the communes according to objectives, the number of people having access to clean water, the number of households having hygienic latrines, the number of trade villages having waste treatment systems, the number of water supply schemes to be constructed, the number of hygienic latrines to be constructed (or improved); investment demand and demand for credit and non-productive capital. District plans should then be prepared to mobilize resources for the NTP for RWSS. The district plan should be approved by the District People's Committe and submitted to the PPC and DARD.

- The provincial level shall collect and summarise all workplans from the district level according to objectives, the number of people having access to clean water, the number of households having hygienic latrines, the number of trade village having waste treatment systems, the number of water supply schemes to be constructed, the number of hygienic latrines to be constructed (or upgraded); investment demand and demand for credit and non-productive capital. Provincial plans should then be prepared plan to mobilize resources for the NTP for RWSS. The provincial workplan should be approved by the Provincial People's Committee and submitted to MARD, MPI and MOF.

- MARD shall summarize the workplans from all 64 provinces and RWSS workplans received from various Ministries and submit this overall workplan to the Prime Minister, MPI and MOF (See the attached diagram No.1).

- **Assigning targets of the program:**

The assignment of targets for the 2006 workplan and for the following years will be done in 2005, i.e. the Prime Minister will assign the total budget for the projects implemented by localities and the budget for the NTP for RWSS to be implemented by managing and implementing agencies (Diagram No.2).

V.5. Human Resource Development

Human Resource Development should support the application of demand responsive approaches and decentralization in implementation of RWSS. In addition to training, HRD activities will include staff recruitment and capacity building.

HRD activities will be carried out at all levels and for all RWSS staff, including managers, directors, and planning, program, technical, financial and credit staff, especially providing training to managing staff, system operators and maintainance staff. Focus should be put on practice rather than theory; high priority should be given to training of local workers, operators and maintainance staff as a means to offer career opportunities to local people.

The institutional system for RWSS has been established at the provincial and central levels. However, there is no full time staff assigned to RWSS at the district or communal levels. It is therefore needed to give high priority to developing human resource capacities at these levels.

In order to provide good quality training, the government should invest more in equipment, machinery, and capacity building of existing trainers in RWSS training centers at all levels, including the tertiary level and in high schools and vocational centres under MOC, MOET and MOLISA .

Training should be practical and focus on the following content areas:

- Capacity building in planning, management, monitoring and evaluation
- Capacity building in technical construction of RWSS facilities
- IEC skills
- Project M&E

VI. IMPACTS OF THE NATIONAL TARGET PROGRAM

VI.1. Social-Economic and Environmental impacts

- **Economic impacts**

The following economic impacts are expected:

- Establishment of vocational communities in fields such as animal breeding, agricultural production and traditional trade will be facilitated.

- Once provided with enough clean water, people will spend less time fetching water and more time on production. In addition, the environment will be improved and become cleaner. As a result, people's living conditions will be improved.

- Outbreak of diseases will be controlled, especially diseases related to water and sanitation such as: typhoid, diarrhea, dysentery, malaria, and trachoma. Consequently the cost for treatment and medicines will be reduced.

- At the moment, in many rural areas in Vietnam, people have to buy drinking water at very high prices, and they have to spend up to 30% of their total income on drinking water every year. Therefore, with the NTP, the people in difficult areas would save money for investment and economic development.

- **Social impacts**

The following social impacts are expected:
- The NTP will contribute to improved living standards of rural people.

- Creation of more civilized life-styles and a hygienic environment; minimize differences in living standards between rural and urban areas and between different rural areas; help to minimize the mass immigration to urban areas and unplanned migration from water scarcity areas; prevent serious pollution currently happening in many regions, including coastal areas.

- **Environmental impacts**

The following economic impacts are expected:
- The program will contribute to solving the problem of environment pollution and protect the quality of water sources, and especially prevent major unplanned extraction of groundwater causing exhaustion and contamination.

- Prevent pollution from human and animal excreta, and contribute to making the environment, and villages clean and beautiful.

VI.2. Positive impacts on other programs

Achieving the targets of the NTP for RWSS will provide favorable conditions for achieving the objectives of other programs in the fields of health, population, family planning and in training and education. If provided with sufficient water and hygienic latrines, commune clinics, kindergartens, schools, institutions and associations will contribute more effectively to social welfare.

VII. NTP MANAGEMENT AND IMPLEMENT

VII.1. Management

A general principle is to strengthen and re-organize all existing management systems of the NTP for RWSS at all levels, especially at the grassroot and village levels. MARD should be the main managing agency coordinating RWSS activities. Clear division of responsibilities and good cooperation between Ministries, Departments and social organisations is needed.

The Minister of MARD will request the Prime Minister for approval of the composition and statutes of the National Steering Committee of the NTP.

- **Members of the National Steering Committee include:**
  - Minister of MARD, Chairman
  - Vice-Minister of MARD, Vice-Chairman
  - Vice-Minister of MOH, Vice-Chairman in charge of Household Sanitation Component
  - Vice-Minister of MONRE, Vice-Chairman in charge of Water Resources and trade village environment,
  - Other representatives from the Ministry of Training and Education, Ministry of Defence, Ministry of Finance, MPI, the Vietnam Farmer Association, Central Youth Union and Vietnam Women Union.

- **Functions and responsibilities of the National Steering Committee:**
  - Recommend changes in policies and legal instruments of relevance to the development of RWSS to the Government.
  - Prepare plans and direct the implementation of the NTP.
  - Manage and disburse the NTP budget .
  - Cooperate with related ministries, departments, local authorities in monitoring and evaluation of NTP outputs.
  - Summarise quarterly and annual reports on the implementation of the NTP.

The Office of the NTP Steering Committee will be located in MARD.

- **Standing Office of NTP**

A Standing Office shall provide assistance to the Steering Committee. Working statutes of the Standing Office shall be decided by the Minister of MARD. Personnel of the Office will include full time staff from MARD, part-time staff as per agreements and contracted project staff.

VII.2. Mandate and responsibilities of institutions in program management and implementation

VII.2.1. Central level

- Ministry of Agriculture and Rural Development: MARD will exercise assigned state management mandate and responsibilities as follows:
  i. Preside and cooperate with different institutions and levels to prepare proposals for and develop management and implementation mechanisms and policies for submission to the Government for issuance in accordance with defined mandates and functions.
  ii. Prepare plans to obtain targets and tasks, prepare budgets and propose implementation solutions for submission to the Ministry of Planning and Investment for synthesis and onward submission to the Prime Minister
  iii. Based on the total budget for the NTP, preside and cooperate with the Ministry of Planning and Investment and Ministry of Finance to propose budget allocations and

detailed budgets for specific ministries and agencies at the central and provincial level in accordance with approved targets and assignments.

iv. Provide guidance for development and dissemination of clean water supply models and methods of using chemicals in agricultural production.

v. Coordinate with relevant ministries and agencies in planning and development of waste collection and treatment interventions. Check, monitor and propose solutions to minimize environment pollution.

vi. General co-ordination of Information - Education - Communication (IEC) activities

- Ministry of Health. MoH will exercise state management functions related to the following health issues:

  i. Provide guidance for preparation and dissemination of guidelines for provision of clean rural water.

  ii. Provide guidance for preparation and dissemination of directions concerning hygienic issues and construction of household level sanitation facilities in rural areas.

  iii. Be in charge of water quality monitoring and personal hygiene and community sanitation interventions in rural areas.

- Ministry of Planning and Investment and Ministry of Finance

  Be responsible for allocating capital sources, co-ordinating common budgets and funding sources. This includes co-ordination of the annual state Government budget for water supply and sanitation and related projects.

- Ministry of Natural resources and Environment

  Exercise state management responsibilities in the area of water sources, environment in trade villages and rural environment in general.

- Ministry of Education and Training

  Exercise state management functions with a focus on:

  - Provide guidance and training on clean water, sanitation and hygiene in schools for students and teachers.
  - Conduct regular checking and monitoring of construction of clean water supply and sanitation facilities in schools.

- Other ministries and agencies: Exercise functions and responsibilities assigned by the Government and provide coordination when required.

- Mass Organizations : The involvement of mass organization will depend on their functions. They will be involved in IEC activities, mobilize the community to actively participate in construction, operatiion and maintenance of RWSS facilities, participate in credit activities in RWSS, and help to set up user groups or other types of structures for management of water supply schemes.

VII.2.2. Provinces and cities

Directors of Province's People Committees are responsible for organizing and implementing the NTP at the province level; actively mobilize resources; integrate all relevant activities of other programs into the NTP in provinces as required to obtain NTP targets; prepare regular progress reports on the implementation of NTP in provinces; be responsible to the Goverment for proper and efficient use of NTP funding sources; and practice anti-corruption and prevent loss of NTP budgets.

DARD is a standing unit providing assistance to the Province's People Committee in NTP implementation and management.

VII.2.3. District level

Directors of District's People Committees are responsible for organizing and carrying out NTP at the district level; implement NTP targets and tasks in accordance with the plans approved by the Provinces's People Committee; strictly follow existing regulations of the Government on investment and construction management and state budget and financial management; carry out Grassroot democratic regulations, publicize financial issues, sub-project workplans and assigned budget; mobilise and use local resources for implementation of sub-projects rationally.

The District Department of Planning and Investment is assigned to assist the District's People Committee in the district level implementation and management of the program.

VII.2.4. Commune level

The Commune People Committee is responsible for organizing and implementing water supply and sanitation activities in the communes. The Commune People Committee assigns staff to follow and co-operate in program implementation.

VIII. NTP MONITORING AND EVALUATION

- **Purpose of monitoring and evaluation**

Mornitoring and evaluation aims at producing unbiased information and reflection of the implementation of NTP

- **Time for mornitoring and evaluation**

Mornitoring and evaluation of NTP implementation will be done annually at all levels.

- **Evaluation and monitoring indicators** to be applied at all levels (central, provincial, district, and commune levels)

Clean water supply (including defined water sources providing clean water for cooking and drinking) :

- Number of rural people having access to clean water

- Percentage of rural people having access to clean water/rural population;
- Percentage of people using dug wells
- Percentage of people using drilled wells
- Percentage of people using tap water
- Percentage of people using other clean water sources

Sanitation:

- Percentage of households using hygienic latrines/total rural households
- Percentage of kindergartens, nurseries having access to clean water, and hygienic latrines/Total kindergartens and nurseries (in commune, district, province and whole country)
- Percentage of primary schools having access to clean water and hygienic latrines/total schools (in commune, district, province, and whole country)
- Percentage of secondary schools having access to clean water and hygienic latrines/total secondary schools (in district, province and whole country)
- Number of commune clinics having access to clean water and hygienic latrines
- Percentage of commune clinics having access to clean water and hygienic latrines (in commune, district, provine, and whole country)
- Percentage of Commune's People Committee having access to clean water and hygienic latrines/total communes (in district, provine, whole country)
- Number of markets having access to clean water and hygienic latrines
- Percentage of markets having access to clean water and hygienic latrines/total markets (in district, province and whole country)

Environment:

- Number of livestock pens having waste treatment systems
- Pecentage of livestock pens having waste treatment systems/total livestock pens that need to have waste treatment systems.
- Number of trade village having waste treatment systems
- Percentage of trade village having waste treatment systems/total trade villages that need to have waste treatment systems

Budget:

Total budget for construction, and renovation of water supply and sanitation facilities in the year divided in to:

- Total budget from state Government budget
- Total budget from international assistance
- Total investment from private sector
- Total contribution of people
- Other sources

- **Mechanism for NTP monitoring and evaluation**

Commune level

The Commune People Committee is responsible for collecting, managing and maintaining information on NTP implementation in the commune; synthesizing information at commune level and sending reports to the District's People Committee.

District level

The NTP Standing Office under the District's People Committee is responsible for managing and maintaining information reported by the communes; checking, guiding and helping communes to send and prepare regular reports. The District's People Committee is responsible for synthesizing regular reports by communes and sending these to the Standing Unit of the National Target Program in the Province.

Provincial level

- DARD (Provincial CERWSS) is responsible for managing and maintaining information on communes reported by districts
- Check and provide guidance to the districts on submission of reports.
- Synthesize information and send regular reports to the National Steering Committee

Central level

- MARD (CERWASS) shall be responsible for managing and maintaining information reported by the provinces
- Check and provide guidance to the provinces on submission of reports
- Check data sources and the reliability of data
- Assist the Steering Committee in preparing regular reports

IX. RECOMMENDATIONS

IX.1. Policies and legal documents required to facilitate NTP implementation

The existence of a sufficient and comprehensive set of legal documents will create a favorable environment for the execution of the National Target Program. However, the existing legal framework for on rural water supply and sanitation, rather than being synchronized, is inconsistant and overlapping. Legal instruments are still needed to accellerate the socialization process and establishment of a water market in accordance with the State priorities. In addition, clear and specific mechanisms for participation of users, people and the communities in project activities under the Program have not been established. Therefore, in the coming years, it is nessessary to develop a comprehensive and synchronized set of legal documents to guide the adjustment of RWSS activities. First of all, it is needed to revise and develop legal documents to accelerate the implementation of NTP for 2006-2010 in accordance with the guidelines, principles and approaches of the National Strategy for Rural Water Supply and Sanitation to 2020 and to create a legal basis for good management of RWSS interventions.

Review and revision of the following legal documents is required:

- Decision No.42/TTg:
  - Establish suitable mechanism for defining rights and responsibilities related to people's participation in the development and submission of piped water supply scheme plans and projects for approval.
  - Regulations to support implementation of the "Enhancing people's participation" guideline with regard to nomination of contractors for low investment construction works using simple techniques and large portion local labour, and; provision of high priority coefficient for the bidders who commit to use over 60% of labor budgets to hire local labor.
- Supplementing bidding regulations in Decision No. 42/2002/QD-TTg.
- Review, amend and supplement the Inter-Circular N^0 66/2003/TTLT/BTCNN&PTNT providing guidance on management, allocation and finalization of the budget for NTP to 2006-2010.
- Review, amend and adjust the Inter-Circular N^0 03/1999/TTLB/BKH-NN providing guidance on the implementation of the NTP for RWSS for 2006-2010 .

Documents to be developed:

- Decree (or Circular) on acceleration of socialization of RWSS; establishment of a market for rural clean water and sanitation
- Grassroot democracy regulations pertaining to RWSS
- National guidelines on clean water supply
- Decree (or Circular) on decentralization in construction, operation and maintenance of constructed systems and statutes of managing agencies.
- Inter-Circular between MARD and MOH that provides guidance on monitoring the quality of water and household latrines.

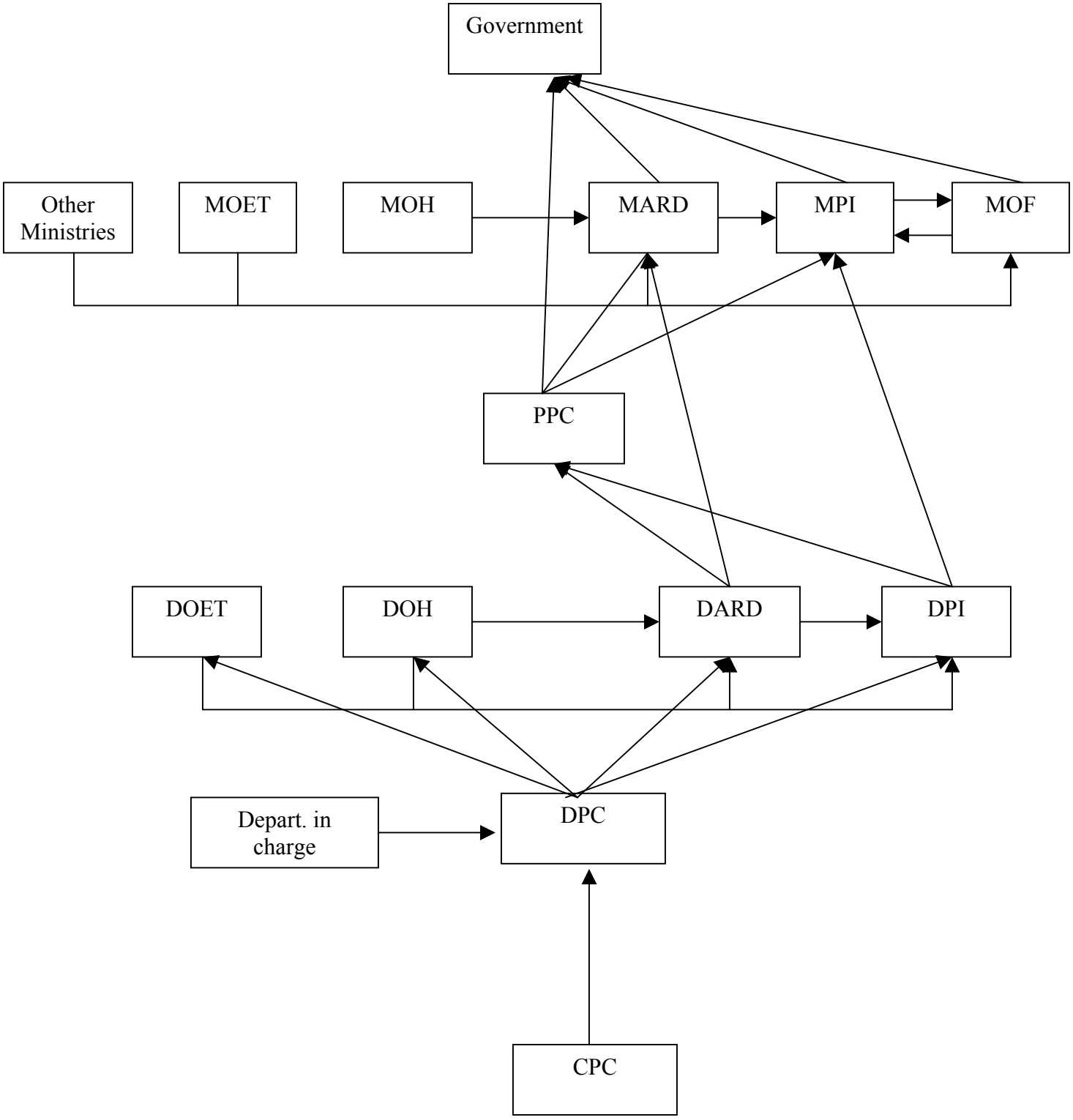
IX.2. Other recommendations

- Evaluate the organization of the implementation of the National Strategy for RWSS and make recommendations on updating the Strategy.
- Survey to re-calculate the percentage of households having hygienic latrines by MOH standards.
- Survey to re-calculate the percentage of households having access to clean water by MOH standards

ANNEXES

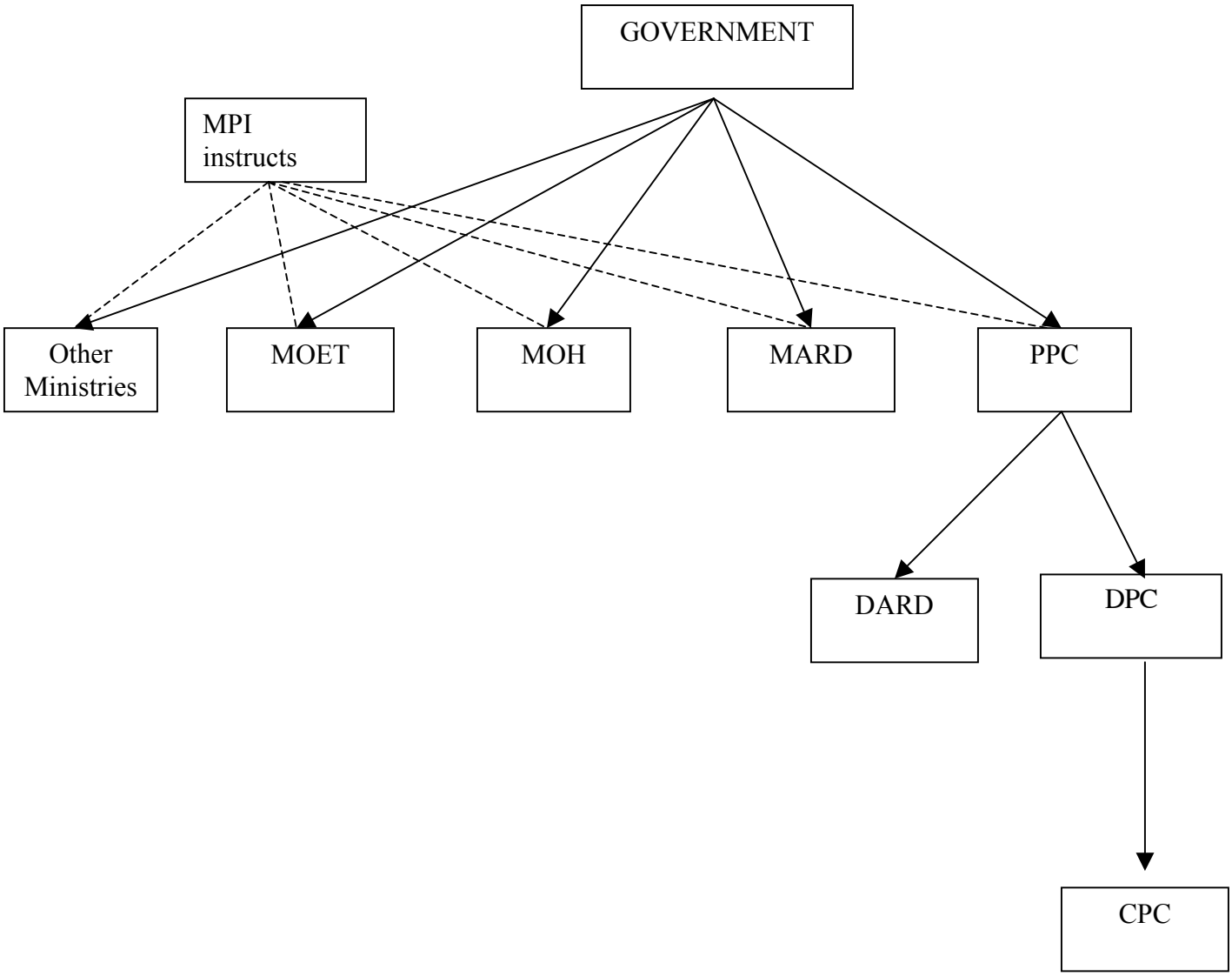
Digram 1:

ILLUSTRATIVE DIAGRAM FOR PROGRAM PLANNING DEVELOPMENT



Plans are developed by the local level with involvement of relevant agencies in the definition and implementation of Program targets and objectives

Diagram 2 **:** **ILLUSTRATIVE DIAGRAM**
TARGET ASSIGNMENT



ANNEXE A

Drafted NTP II Logical framework

Objectives	Indicators	Means of Verification
Development objectives		
• Living conditions of rural people improved by improving rural water supply and sanitation services, raising people's awareness and changing people's behaviors with respect to environment protection, hygiene and sanitation. • Negative impacts on rural people's health due to poor water supply and sanitation conditions reduced and environment pollution in communities minimized	o Number of water supply and sanitation facilities constructed o Number of people provided with IEC on RWSS o Percentage of water related diseases reduced o Number of trade villages and livestock pens/farms having waste treatment systems	Quarterly and annual reports Survey data Survey report Quarterly and annual reports M&E reports
Immediate objectives to 2010		
1. ***85*** % of rural population use clean water with 60 liters/capital/day ***2.*** ***70*** % of rural households have hygienic latrines ***3.*** ***70%*** of rural household have hygienic livestock pens ***4.*** All primary schools, kindergartens, nurseries, clinics and CPC have enough clean water and hygienic latrines. ***5.*** Demonstration models of waste treatment for trade villages (food processing, textile, paper processing...) developed for	Percentage of rural population using clean water Percentage of rural population having hygienic latrines Number of schools, clinics and CPC offices having clean water and hygienic latrines Number of piloted waste treatment systems constructed in trade villages	Quarterly and annual reports Survey data Annual reports Survey data Summary reports Evaluation reports Annual reports

evaluation, dissemination and expansion ***6.*** Legal documents of relevance for NTP implementation reviewed and supplemented ***7.*** New legal documents developed and issued	 Number of documents reviewed and supplemented Number of documents developed and issued	Evaluation report
Outputs/activities		
1. Build and upgrade 159,200 water supply schemes as follows: • Upgrade and renovate 4,300 piped water supply schemes • Build 4,900 new piped water supply schemes • Build 2,700 deep drilled wells and small and medium reservoirs • Build 147,300 small water supply facilities (water tanks, jars and dug wells, ...) 2. Build 2,601,000 household hygienic latrines 3. Build and renovate 5,000,000 livestock pens and biogas systems, as follows: 3.1 Biogas systems: 1,000,000 3.2 New livestock pens: 600,000 3.3 Upgraded livestock pens: 2,600,000 3.4 Animal excreta compost pits: 1,000,000 4. Build hygienic latrines for public	Number of rural people having access to clean water from piped water supply schemes. Number of rural people having access to clean water from reservoirs, deep drilled wells. Number of rural people having access to clean water from small water supply systems. Number of households having hygienic latrines. Number of livestock pens built Number of households having livestock pens, biogas systems and animal excreta compost pits Number of clinics having water supply facilities and hygienic latrines Number of nurseries, kindergartens and primary schools having water supply facilities and	Quarterly and annual reports. Survey data Quarterly and annual reports. Survey data. Quarterly and annual report. Survey data. Quarterly and annual reports. Survey data. Quarterly and annual reports. Survey data. Quarterly and annual reports. Survey data.

institutions, as follows: 4.1 Build 4,167 hygienic latrines for clinics 4.2 Build 20,643 hygienic latrines for nurseries, kindergartens, and primary schools 4.3 Build 2,473 hygienic latrines for CPC offices 5. Build 20 demonstration models of waste treatment for trade villages as follows: 5.1 Build 10 demonstration models of waste treatment for food processing villages 5.2 Build 5 demonstration models of waste treatment for paper producing villages 5.3. Build 10 demonstration models of waste treatment for textile villages	hygienic latrines. Number of CPC offices having water supply facilities and hygienic latrines Number of pilot water supply systems and latrines built Number of pilot waste treatment systems for food processing villages Number of pilot waste treatment systems for paper producing villages Number of pilot waste treatment systems for textile villages Decision No. 42-Q§-TTg reviewed and adjusted	New Decision by the Prime Minister promulgated.
6. Review and supplement legal documents of relevance for NTP implementation 6.1 Review and supplement Decision 42/QD-TTg to make it appropriate to the implementation of the NTP 6.2 Review and adjust Inter-Circular No. 66/2003/TTLT/BTC- NN&PTNT providing guidance on management, allocation and finalization of the NTP budget 6.3 Review, supplement and adjust Inter-Circular No. 03/1999/TTLT/BKH-BNN providing guidance on NTP implementation.	Inter-Circular No. 66/2003 reviewed and adjusted. Inter-Circular No. 03/1999/TTLT reviewed and adjusted. 01 Decree (Circular) on accelerating the socialization of the RWSS developed	New Inter-Circular promulgated and applied New decision on adjustment of Circular No. 03/99 issued and applied. Prime Minister's decision to issue the Decree (Circular)
7. Revise and develop policies and legal documents, as follows: 7.1 Study, develop and issue a Decree (Circular) accelerating the socialization of RWSS.	01 Decree (Circular) on decentralization in construction and management of water supply and sanitation	Prime Minister's decision for approval.

7.2 Study, develop and issue a Decree (Circular) on decentralization in construction, operation, financial management and maintenance of constructed systems and on statutes for managing agencies. 7.3 Study, develop and issue national guidelines for clean water. 7.4 Study, develop and issue Inter-NN-BYT providing guidelines on hygienic latrine and water quality control	facilities developed National Guidelines for water quality developed. 01 Inter-Circular on hygienic latrine and water quality control developed.	Prime Minister's decision for approval. Ministries' decision for approval

Annex B: TABLES OF REFERENCE

TABLE 1: OVERVIEW OF FINANCIAL SOURCES OF NTP I FOR RWSS (1999 – 20005)

Unit: million VND

STT	Financial sources	**Total**	**Proportion (%)**
1	State Government budget	1,420,000	22
2	Local Government budget and people's contribution	2,518,702	38
3	Other Government budgets	1,221,585	19
4	Donors' assistance	1,008,600	16
5	Credit	323,863	5
	Total	**6,492,750**	**100**

TABLE 2: WATER SUPPLY COVERAGE TO 2005 BY REGION

No.	**Regions**	**Access to water supply (people)**	**Percentage (%)**
1	North of Northern region	5,559,506	56
2	Red river delta	9,742,835	66
3	North of Central region	5,707,670	61
4	Central coastal area	3,923,530	57
5	Central Highland	1,593,730	52
6	East of Southern region	3,259,129	68
7	Cuu Long river delta	10,126,332	66
8	**Whole country**	**39,912,732**	**62**

TABLE 3: ESTIMATED DEMAND FOR FINANCIAL SOURCES TO IMPLEMENT NTP II (2006-2010)

Unit: billion VND

STT	Financial sources for NTP II	Total financial sources 2006-2010	Proportion (%)
1	State Government budget	4500	20
2	People's contribution	6800	30
3	Credits	5600	25
4	International funding	3400	15
	Local Government budget	2300	10
	Total	**22600**	**100**

TABLE 4: WATER SUPPLY FACILITIES TO BE CONSTRUCTED DURING 2006-2010

Unit: facility

No	Region	Total	Types			
			Upgraded (piped)	New (piped)	Reservoirs drilled wells	Compartments, tanks, dug wells
	Whole country	**159,200**	**4,300**	**4,900**	**2,700**	**147,300**
1	North of Northern region	26,300	1,700	1,500	700	22,400
2	Red river delta	34,300	500	800	0	33,000
3	North of Central region	23,300	500	600	600	21,600
4	Central coastal area	16,600	400	500	600	15,100
5	Central Highland	11,500	500	400	400	10,200
6	East of Southern region	10,200	200	300	100	9,600
7	Cuu Long river delta	37,000	500	800	300	35,400

TABLE 5: CAPACITY OF FACILTITIES

Unit:: man-day/ piece

TT	Region	Total	Types			
			Upgraded (piped)	New (piped)	Reservoirs drilled wells	Compartments, tanks, dug wells
	Whole country					
1	North of Northern region		200	1,000	500	5
2	Red river delta		1,000	3,500	1,000	5
3	North of Central region		400	2,500	500	5
4	Central coastal area		400	2,000	400	5
5	Central Highland		300	1,500	400	5
6	East of Southern region		600	3,000	600	5
7	Cuu Long river delta		1,000	3,500	700	5

TABLE 6: ESTIMATED WATER SUPLY TARGETS FOR PERIOD 2006 - 2010

Unit: People

Region	**Rural population**	**To 2005**		**To 2010**		**No. of people have access to water 2006-2010**	
		(%)	**No. of people**	**(%)**	**No. of people**	**(%)**	**No. of people**
Whole country	**64,074,000**	**62**	**40,013,300**	**85**	**54,743,300**	**23**	**14,730,000**
North of Northern region	9,990,000	56	5,594,400	78	7,833,400	22	2,239,000
Red river delta	14,743,500	65	9,583,300	87	12,883,300	22	3,300,000
North of Central region	9,420,000	61	5,746,200	84	7,905,200	23	2,159,000
Central coastal area	6,852,100	59	4,042,700	81	5,550,700	22	1,508,000
Central Highland	3,048,000	52	1,585,000	85	2,605,000	25	1,020,000
East of Southern region	4,806,600	68	3,268,500	88	4,228,500	20	960,000
Cuu Long river delta	15,213,800	67	10,193,200	90	13,737,200	23	3,544,000

TABLE 7: PRICES OF WATER SUPPLY FACILITIES

Unit: million VND/facility

No	Region	Types			
		Upgraded (piped)	**New (piped)**	**Reservoirs, deep drilled wells**	**Compartments, tanks, dug wells**
1	North of Northern region	300	1,000	400	2.0
2	Red river delta	500	1,400		0.5
3	North of Central region	500	1,400	300	0.5
4	Central coastal area	500	1,400	300	0.5
5	Central Highland	400	1,500	600	1
6	East of Southern region	300	1,300	400	0.5
7	Cuu Long river delta	400	1,300	300	0.5

TABLE 8: TOTAL INVESTMENT IN CONSTRUCTION OF WATER SUPPLY FACILITY DURING 2006-2010

Unit: million VND

TT	Region	Total	Types			
			Upgraded (piped)	**New (piped)**	**Reservoirs drilled wells**	**Compartments, tanks, dug wells**
	Whole country	**8,982,350**	**1,670,000**	**6,190,000**	**1,010,000**	**112,350**
1	North of Northern region	2,334,800	510,000	1,500,000	280,000	44,800
2	Red river delta	1,386,500	250,000	1,120,000	0	16,500
3	North of Central region	1,280,800	250,000	840,000	180,000	10,800
4	Central coastal area	1,087,550	200,000	700,000	180,000	7,550
5	Central Highland	1,050,200	200,000	600,000	240,000	10,200
6	East of Southern region	494,800	60,000	390,000	40,000	4,800
7	Cuu Long river delta	1,347,700	200,000	1,040,000	90,000	17,700

TABLE 9: THE ESTIMATED NUMBER OF HOUSEHOLD HAVING NEW LATRINES (%)
PERIOD 2006 – 2010

No.	Region	Total rural population	Total households	Total latrines to be built	% of types of latrines			% of latrines to be built
					Septic tanks	Pit latrines	DVC	
1	North of Northern region	9,990,000	1,998,000	480,000	10	70	20	24
2	Red river delta	14,743,500	2,948,700	531,000	26	5	69	18
3	North of Central region	9,420,000	1,884,000	358,000	20	15	65	19
4	Central coastal area	6,852,100	1,370,420	274,000	80	5	15	20
5	Central Highland	3,048,000	609,600	146,000	10	80	10	24
6	East of Southern region	4,806,600	961,320	173,000	85	10	5	18
7	Cuu Long river delta	15,213,800	3,042,760	639,000	95	2	3	21
	North of Northern region	**64,074,000**	**12,814,800**	**2,601,000**	**48**	**22**	**30**	**20**

TABLE 10: ESTIMATED NUMBER OF LATRINES FOR SCHOOL
PERIOD 2006 - 2010

No.	Region	Total schools	Total facilities to be built	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	7,206	4,893	80	10	10	68	32
2	Red river delta	7,311	3,435	100	0	0	47	53
3	North of Central region	6,265	3,359	90	5	5	54	46
4	Central coastal area	4,029	2,587	90	5	5	64	36
5	Central Highland	2,129	1,262	80	15	5	59	41
6	East of Southern region	2,675	1,396	100	0	0	52	48
7	Cuu Long river delta	5,885	3,711	100	0	0	63	37
	Whole country	**35,500**	**20,643**	**91**	**5**	**4**	**58**	**42**

TABLE 11: ESTIMATED NUMBER OF LATRINES FOR COMMUNES CLINIC PERIOD 2006 - 2010

No	Region	Total clincs	Total facilities to be built	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	2,525	1,138	80	10	10	45	55
2	Red river delta	1,972	1,006	100	0	0	51	49
3	North of Central region	1,728	726	90	5	5	42	58
4	Central coastal area	738	266	90	5	5	36	64
5	Central Highland	584	298	80	15	5	51	49
6	East of Southern region	668	167	100	0	0	25	75
7	Cuu Long river delta	1,380	566	100	0	0	41	59
	Whole country	**9,595**	**4,167**	**91**	**5**	**4**	**43**	**57**

TABLE 12: ESTIMATED NUMBER OF LATRINES FOR COMMUNES PEOPLE COMMITTEE,
PERIOD 2006 - 2010

No	Region	Total clincs	Total facilities to be built	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	2,525	1,115	80	10	10	44	56
2	Red river delta	1,972	335	100	0	0	17	83
3	North of Central region	1,728	501	90	5	5	29	71
4	Central coastal area	738	177	90	5	5	24	76
5	Central Highland	584	204	80	15	5	35	65
6	East of Southern region	668	120	100	0	0	18	82
7	Cuu Long river delta	1,380	290	100	0	0	21	79
	Whole country	**9,595**	**2,742**	**91**	**5**	**4**	**29**	**71**

TABLE 13: ESTIMATED NUMBER OF LATRINES FOR RURAL MARKETS

No	Region	Total clincs	Total facilities to be built	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	841	730	80	10	10	87	13
2	Red river delta	657	427	100	0	0	65	35
3	North of Central region	576	472	90	5	5	82	18
4	Central coastal area	246	199	80	15	5	81	19
5	Central Highland	195	169	100	0	0	87	13
6	East of Southern region	223	140	100	0	0	63	37
7	Cuu Long river delta	460	336	100	0	0	73	27
	Whole country	**3,198**	**2,473**	**91**	**5**	**4**	**77**	**23**

TABLE 14: BUDGET FOR HOUSEHOLD LATRINES CONSTRUCTION, 2006 - 2010

No	Region	Total rural population	Total households	Budget for household level latrine construction (million VND)				% of latrines to be built
				Tæng	Tù ho¹i	Ch×m	Hai ng¨n	
1	North of Northern region	9,990,000	1,998,000	427,200	105,600	168,000	153,600	24
2	Red river delta	14,743,500	2,948,700	903,231	303,732	13,275	586,224	18
3	North of Central region	9,420,000	1,884,000	556,690	157,520	26,850	372,320	19
4	Central coastal area	6,852,100	1,370,420	554,850	482,240	6,850	65,760	20
5	Central Highland	3,048,000	609,600	113,880	32,120	58,400	23,360	24
6	East of Southern region	4,806,600	961,320	346,000	323,510	8,650	13,840	18
7	Cuu Long river delta	15,213,800	3,042,760	1,372,572	1,335,510	6,390	30,672	21
	Total	**64,074,000**	**12,814,800**	**4,274,423**	**2,740,232**	**288,415**	**1,245,776**	**20**

TABLE 15: BUDGET FOR SCHOOL LATRINES CONSTRUCTION, 2006 - 2010

No	Region	Total facilities to be built	Total budget	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	4,893	107,141	97,850	2,445	6,846	68	32
2	Red river delta	3,435	85,875	85,875	0	0	47	53
3	North of Central region	3,359	78,767	75,575	840	2,352	54	46
4	Central coastal area	2,587	60,651	58,200	645	1,806	64	36
5	Central Highland	1,262	27,077	25,250	945	882	59	41
6	East of Southern region	1,396	34,900	34,900	0	0	52	48
7	Cuu Long river delta	3,711	92,775	92,775	0	0	63	37
	Total	**20,643**	**487,186**	**470,425**	**4,875**	**11,886**	**58**	**42**

Table 16: Budget for commune clinic latrine construction

No	Region	Total facilities to be built	Total budget	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	1,136	3,066	2,724	114	228	45	-170
2	Red river delta	1,006	3,018	3,018	0	0	51	49
3	North of Central region	726	2,070	1,962	36	72	42	58
4	Central coastal area	266	759	720	13	26	36	64
5	Central Highland	298	789	714	45	30	51	49
6	East of Southern region	167	501	501	0	0	25	75
7	Cuu Long river delta	566	1,698	1,698	0	0	41	59
	Whole country	**4,165**	**11,901**	**11,337**	**208**	**356**	**43**	**57**

TABLE 17: ESTIMATED BUDGET FOR CPC LATRINES CONSTRUCTION

No	Region	Total facilities to be built	Total budget	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	1,115	3,012	2,679	111	222	44	-170
2	Red river delta	335	1,005	1,005	0	0	17	83
3	North of Central region	501	1,428	1,353	25	50	29	71
4	Central coastal area	177	504	477	9	18	24	76
5	Central Highland	204	543	492	31	20	35	65
6	East of Southern region	120	360	360	0	0	18	82
7	Cuu Long river delta	290	870	870	0	0	21	79
	Whole country	**2,742**	**7,722**	**7,236**	**176**	**310**	**29**	**71**

Table 18: ESTIMATED BUDGET FOR MARKET LATRINES CONSTRUCTION

No	Region	Total facilities to be built	Total budget	Septic tanks	Pit latrines	DVC	% of latrines to be built	% of existing latrines
1	North of Northern region	731	16,007	14,625	360	1,022	87	-2,090
2	Red river delta	427	10,675	10,675	0	0	65	35
3	North of Central region	472	11,081	10,625	120	336	82	18
4	Central coastal area	199	4,265	3,975	150	140	81	19
5	Central Highland	169	4,225	4,225	0	0	87	13
6	East of Southern region	140	3,500	3,500	0	0	63	37
7	Cuu Long river delta	336	8,400	8,400	0	0	73	27
	Whole country	**2,474**	**58,153**	**56,025**	**630**	**1,498**	**77**	**23**

TABLE 19: INVESTMENT IN UPGRADING AND CONSTRUCTION OF HYGIENIC LIVESTOCK PENS FOR 2006 - 2010

Unit: million VND

Technologies	**Total (piece)**	**Unit price (million VND)**	**Period**	**Investment**	**Total budget (million VND)**
Total			2006-2007	2008-2010	**7,775,000**
Biogas	**1,000,000**		**300,000**	**700,000**	**2,195,000**
- Nilon	*50,000*	1,5	*20,000*	*30,000*	*75,000*
- Bricks 4m3	*500,000*	1,9	*150,000*	*350,000*	*950,000*
- Bricks 6 m3	*450,000*	2,6	*130,000*	*320,000*	*1.170,000*
New pens	**600,000**		**200,000**	**400,000**	**2,760,000**
- less than 5 animals	*350,000*	3,5			*1,225,000*
- 5-10 animals	*200,000*	5,8			*1,160,000*
- Over 20 animals	*50,000*	7,5			*375,000*
Upgraded pens	2,400,000	0,8	800.000	1,600,000	**1,920,000**
Compost tanks	1,000,000	0,9	300.000	700,000	**900,000**

TABLE 20: ESTIMATE THE BUDGET FROM INTERNATIONAL SUPPORT

Unit: billion VND

No	**Organizations/ projects**	**Estimate**
	WORLDBANK	730
	ADB	300
	UNICEF	491
	DANIDA&AUSAID	1500
	JICA	330
	OTHES	49
	TOTAL	3400

ANNEX C: SEVERAL RELATED LEGAL DOCUMENTS

1. DECISION OF MINISTER OF HEALTH NO. 08/2005/QĐ-BYT DATED 11/3/2005 REGARDING ISSUING THE SECTOR STANDARDS: HYGIENE STANDARDS FOR VARIOUS TYPES OF LATRINES

2. DECISION OF MINISTER OF HEALTH NO. 09/2005/QĐ-BYT DATED 11/3/2005 REGARDING ISSUING THE SECTOR STANDARDS: HYGIENE STANDARDS FOR CLEAN WATER

3. DECISION OF THE PRIME MINISTER ON THE APPROVAL OF THE NATIONAL STRATEGY ON RURAL WATER SUPPLY AND SANITATION
TO THE YEAR 2020

4. GOVERNMENT DECREE ON THE ISSUANCE OF THE REGULATION ON THE MANAGEMENT AND UTILIZATION OF OFFICIAL DEVELOPMENT ASSISTANCE, NO. 17/2001/NĐ-CP

5. DEGREE NO 42 OF PM

6. CIRCULAR NO 01 OF MPI & MOF