JAPAN INTERNATIONAL COOPERATION AGENCY

DEPARTMENT OF THE INTERIOR AND LOCAL GOVERNMENT
THE REPUBLIC OF THE PHILIPPINES

THE STUDY ON THE PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN IN THE REPUBLIC OF THE PHILIPPINES

VOLUME I - [3]

MAIN REPORT

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN FOR THE PROVINCE OF

MISAMIS ORIENTAL

MARCH 1999

NIPPON JOGESUIDO SEKKEI CO., LTD.

EXCHANGE RATE (As of 28 February 1999)

U S $ 1.00 = Peso 40.42 = Yen 119.84

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Republic of the Philippines
PROVINCE OF MISAMIS ORIENTAL
City of Cagayan de Oro

M E S S A G E

It is my distinct and singular honor to bestow on the diligent and hardworking group of individuals producing the PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN my accolade and warmest felicitations for a job well done. The ready availability of potable water is one of the major concerns of our country and province today.

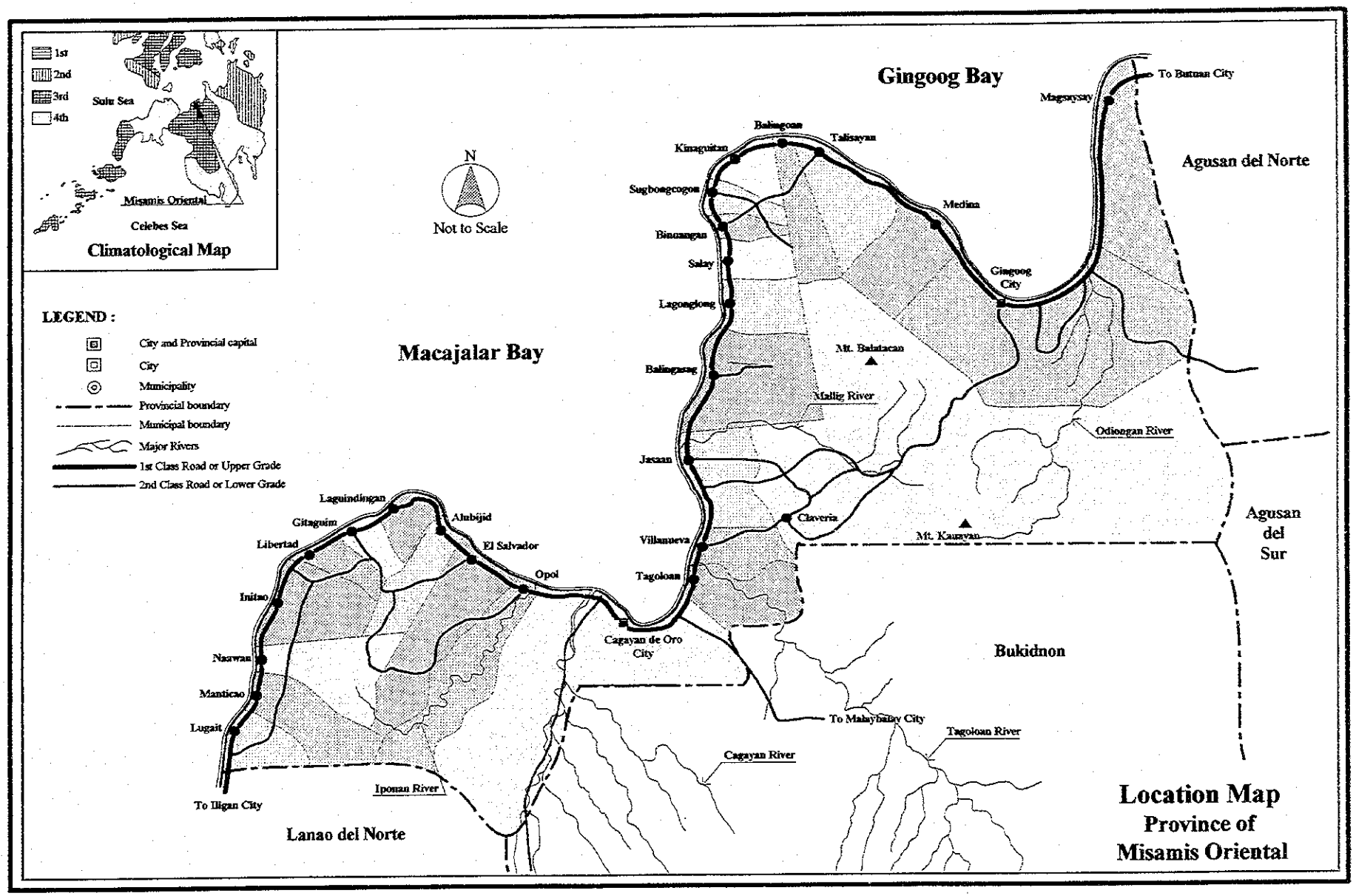
The envisioned plan, under the auspices of the Japan International Cooperation Agency (JICA) and the Department of the Interior and Local Government, promotes the viability of clean water, as a commitment to bring safe drinking water within the reach of every Filipino, consistent with the goals of empowering our people and improving the quality of their lives. As our province's quest for sustainable growth intensifies, the role of the JICA and the sector plan become even more crucial, in view of the shortage of potable water, and this assures us of water with quality fit for human consumption.

The PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN supports the stated goals of the provincial government in keeping our constituents well-aware of the benefit of clean, safe and healthy environment. For water is the golden key to all bodily functions. In our daily scheme of activities, water and sanitation figure most naturally, having a direct impact on our daily performance, productivity and competitiveness.

This program is clearly an excellent reflection of a dedicated effort to improve the health and standard of living of our constituents, for having a sufficient supply of water, proper sewerage and sanitation are the three urgent things that my administration is working on before the end of this year. It is my firm belief that a government must provide financial security to satisfy its people and provide them the fundamentals of a healthy community attuned with the needs of the changing times and circumstances.

I, therefore, appreciate the diligent efforts in promoting consciousness among our people that potable, safe drinking water is necessary for the prevention of water-borne diseases. Health is our bottomline. The provincial government is deeply honored to be an integral part of the continuing quest for the upliftment of the living condition of its constituency and raise the primacy of its social amelioration and economic upliftment plans projects in the scale of its priorities.

ANTONIO P. CALINGIN, Jr.
Provincial Governor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VOLUME I MAIN REPORT

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LIST OF ABBREVIATIONS

AC-PO	-	Area Coordinator-Project Officer
ADB	-	Asian Development Bank
AIDAB	-	Australian International Development Assistance Bureau
AIM	-	Asian Institute of Management
AIP	-	Annual Investment Plans
BC	-	Barangay Council
BDC	-	Barangay Development Council
BLGF	-	Bureau of Local Government Finance
BMGS	-	Bureau of Mines and Geo-Sciences (defunct), the now Mines and Geo-Sciences Bureau
BOD	-	Biochemical Oxygen Demand
BOD/Officers	-	Board of Director/Officers
BWP	-	Barangay Water Program
BWSA	-	Barangay Waterworks and Sanitation Association
CBO	-	Community-Based Organizations
CD	-	Community Development
CDA	-	Cooperative Development Authority
CDF	-	Countryside Development Fund
CDTS	-	Community Development and Training Specialist
CEP	-	Capacity Enhancement Program
CIDA	-	Canadian International Development Agency
CLGOO	-	City Local Government Operations Officer
CO-CD	-	Community Organization-Community Development
CPC	-	Country Program for Children
CPH	-	Census on Population and Housing
CPSO	-	Central Project Support Office
CSC	-	Civil Service Commission
D/D	-	Detailed Design
DA	-	Department of Agriculture
DAP	-	Development Academy of the Philippines
DBM	-	Department of Budget and Management
DECS	-	Department of Education, Culture and Sports
DENR	-	Department of Environment and Natural Resources
DEO	-	District Engineering Office
DF	-	Development Fund
DILG	-	Department of the Interior and Local Government
DOF	-	Department of Finance
DOH	-	Department of Health
DPWH	-	Department of Public Works and Highways
DSWD	-	Department of Social Welfare and Development
DTI	-	Department of Trade and Industry
EVS	-	Environmental Sanitation
F/S	-	Feasibility Study
FHSIS	-	Field Health Service Information System
FW4SP	-	First Water Supply, Sewerage and Sanitation Sector Project
GAD	-	Gender and Development
GFI	-	Government Financial Institution
GO	-	Government Office
GOP	-	Government of the Philippines

GOJ	-	Goverment of Japan
HH	-	Household
IBRD	-	International Bank for Reconstruction and Development
IEC	-	Information, Education and Communication
IRA	-	Internal Revenue Allotment
IRR	-	Implementing Rules and Regulations
ITN	-	International Training Network
JICA	-	Japan International Cooperation Agency
LBP	-	Land Bank of the Philippines
LGC	-	Local Government Code
LGU	-	Local Government Unit
LWUA	-	Local Water Utilities Administration
MDC	-	Municipal Development Council
MDF	-	Municipal Development Fund
MEO	-	Municipal Engineer's Office
MHO	-	Municipal Health Office
MLGOO	-	Municipal Local Government Operations Officer
MOA	-	Memorandum of Agreement
MOOE	-	Maintenance Operating and Overhead Expenses
M/P	-	Master Plan
MPDO	-	Municipal Planning and Development Office
MS	-	Monitoring Specialist
MSL	-	Municipal Sector Liaison
MSLT	-	Municipal Sector Liaison Team
MTPDP	-	Medium-Term Philippine Development Plan
MWSS	-	Metropolitan Waterworks and Sewerage System
MWSTF	-	Munici cipal Water and Sanitation Task Force
NAMRIA	-	National Mapping and Resource Information Authority
NCRFW	-	National Commission on the Role of Filipino Women
NDCC	-	National Disaster Coordinating Council
NEDA	-	National Economic and Development Authority
NGOs	-	Non-Governmental Organizations
NIA	-	National Irrigation Administration
NMP	-	National Master Plan
NMYC	-	National Manpower Youth Council
NSDW	-	National Standard for Drinking Water
NSO	-	National Statistics Office
NSMP	-	National Sector Master Plan
NWRB	-	National Water Resources Board
O&M	-	Operation and Maintenance
ODA	-	Overseas Development Assistance
OECF	-	Overseas Economic Cooperation Fund
PA	-	Provincial Administrator
PAIASO	-	Provincial Accounting and Internal Audit Service Office
PBO	-	Provincila Budget Office
PD	-	Presidential Decree
PDC	-	Provincial Development Council
PEO	-	Provincial Engineer's Office
PHO	-	Provincial Health Office
PIO	-	Public Information Office
PGSO	-	Provincial General Services Office
PLGOO	-	Provincial Local Government Operations Officer
PMC	-	Project Monitoring Committee
PMO	-	Project Management Office
PMU	-	Provincial Monitoring Unit

POPCOM	-	Population Commission
PoW	-	Program of Work
PPAC	-	Philippine Plan of Action for Children
PPDC	-	Provincial Planning and Development Coordinator
PPDO	-	Provincial Planning and Development Office
PSPT	-	Provincial Sector Planning Team
PST	-	Provincial Sector Team
PTA	-	Parent Teacher Association
PTO	-	Provincial Treasury Office
PW4SP	-	Provincial Water Supply, Sewerage and Sanitation Sector Plan
PWSC	-	Provincial Water Supply and Sanitation Coordinator
PWSO	-	Provincial Water and Sanitation Office
RA	-	Republic Act
RDC	-	Regional Development Council
RDCC	-	Regional Disaster Coordinating Council
RHO	-	Regional Health Of
RHUs	-	Rural Health Units
RPMC	-	Regional Project Monitoring Committee
RSI	-	Rural Sanitary Inspector
RWSA	-	Rural Waterworks and Sanitation Association
SB	-	Sanggunian Bayan
SP	-	Sanggunian Panlalawigan
SSI	-	Supervicing Sanitary Inspector
SWL	-	Static Water Level
TESDA	-	Technical Education and Skills Development Authority
TCP	-	Teacher-Child-Parent
UNDP	-	United Nations Development Programme
UNICEF	-	United Nations International Children's Emergency Fund
VIP	-	Ventilated Inproved Pit Latrine
WASAMS	-	Water and Sanitation Monitoring System
WATSAN	-	Water and Sanitation
WC	-	WATSAN Center
WD	-	Water District
WHO	-	World Health Organization
WID	-	Women in Development
WSSE	-	Water Supply and Sanitation Engineer
WSS-PMO	-	Water Supply and Sanitation-Project Management Office

EXECUTIVE SUMMARY ES

EXECUTIVE SUMMARY

1. Introduction

Background and Objectives

The Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP) for the province of Misamis Oriental was prepared by the Provincial Sector Planning Team with technical assistance from Japan International Cooperation Agency (JICA). The PW4SP will be the basis for execution of sector development from proceeds of sector loan by foreign donors, LGU's budget including internal revenue allotment from the National Government and private sector investments.

The PW4SP covers a Long-Term Development Plan (2004-2010) and a Medium-Term Investment Plan (1999-2003) to achieve the provincial targets of water supply, sewerage and sanitation sector. The plan includes arrangements and logistics for implementation and measures to strengthen operational frameworks and institutional capabilities that embody community development and gender responsiveness. As an initial step towards capability building, the Study was designed with the end view of strengthening the LGUs capability in sector plan preparation through conduct of series of workshop and hands-on training.

Planning Approach for Future Sector Development

The primary bases of the PW4SP are national sector policies and strategies, as well as major legislation and regulations relevant to the sector. The guidelines for setting the provincial sector targets are the three national level plans: the Philippine National Development Plan (1999-2024), the Water Supply, Sewerage and Sanitation Master Plan of the Philippines (1988-2000) and the Updated Medium Term Philippine Development Plan (1996-1998). The GOP recently approved the IRR providing detailed arrangements on the devolution of WATSAN responsibilities and resources. Parallel to this are the current sector policies and strategies, to wit: i) self-reliance and local community management of services; ii) an integrated approach to water, sanitation and hygiene education; iii) cost sharing arrangement; iv) cost recovery of capital and O&M; v) private sector participation; and vi) an integrated water resources strategy.

The PW4SP will help ensure that sector investments are optimized in consideration of fund and water source availability constraints as well as planning capacity. It is envisaged that the Plan will be progressively updated as its implementation proceeds. Furthermore, future detailed studies and plans for project implementation shall be conducted in the context of the PW4SP.

A data management system was established as a tool to come up with the outputs commensurate to the objectives of the provincial plan and at the same time reflect the planning approach. It will provide a map of relative needs in the province allowing for adjustment and updating when further information becomes available. Different scenarios maybe worked out by planners using the program by changing key parameters based on planning assumptions and conditions.

Report Composition

Three (3) study reports were prepared as follows: i) Main Report (Volume I) which presents the results of the whole study consisting of 12 chapters; ii) Supporting Report (Volume II); and iii) Data Report (Volume III). Supporting materials including alternative studies and detailed calculations, and data/information constitute the last 2 reports.

2. Provincial Profile

Misamis Oriental is located on the northern part of Mindanao and belongs to Region X, the northern Mindanao Region. Cagayan de Oro City, a highly urbanized, independent city is the provincial capital as well as the regional center. The province is composed of 24 municipalities and 2 cities. There are 502 barangays, of which 170 are urban and 332 rural. The province is classified as 1st class. At the municipal level, 15 municipalities/cities belong to 5th class, 1 municipality to 6th class, and the rest has higher classification. The population of the province was 1,015,865 in 1995 with an annual growth rate of 3.27% between 1990 to 1995. Cagayan de Oro City, as an independent city, is excluded from the PW4SP study area.

Physical Features

There are 2 types of climate in the province. Type II has a very pronounced maximum rainfall from November to January and is generally wet the whole year. This occurs in the eastern municipalities of Kinoguitan to Magsaysay. Type III is relatively dry from November to April and wet, the rest of the year. This covers the municipalities of Sugboncogon down to Lugait. The topography of the province is generally characterized by towering plateau areas of relatively high elevation averaging less than 1,000 masl that is typical of volcanic regions. Deep, narrow canyons usually dissect these volcanic peaks. Narrow coastal plain can be found adjacent to Macajalar Bay.

Several steep river valleys traverse the province. The general draining trend is northward with Odiongan, Mallig, Tagoloan, Cagayan and Iponan rivers as the natural drainage

systems. About 54% of the total land area of the province constitute forestland and another 7% as protected land. Production land is about 36%, while the built-up area is about 3%.

Socio-economic Aspects

Agriculture is the major economic activity in the province. The average annual family income in 1994 was ₱55,536 which was well below the national average of ₱83,161. Moreover, about 58% of the total number of families lived within and below the established poverty threshold income of ₱ 43,659 in Region X.

All municipalities have electric supply service with only 49% household coverage. Telecommunication service is available to 29% of the municipalities. Inter-municipal land transportation can be obtained by means of jeepneys, taxis, cars and buses. There are only 34 banking institutions, 157 industrial/commercial establishments, and 99 tourism-related facilities. With regard to social services, there are 473 schools, 24 hospitals, and 205 health units and barangay health stations.

Provincial population growth rates had been increasing for the last 6 censal years. The 1997 population was estimated to provide the planning base for this provincial plan. Considering the 1995 NSO classification of urban and rural barangays, rural population accounts for 64%, while the remaining 36% are urban.

An indicator of health problem related to water supply and sanitation is the high incidence of water-related diseases. The reported cases in the province were typhoid/paratyphoid, viral hepatitis, diarrhea, skin diseases, scabies, malaria and dengue fever.

Environmental problems related to wastewater discharge and unsanitary solid waste disposals are occurring in parts of the province. Major pollution sources in urban areas are domestic wastewater and dumped garbage. Only 19% of the total households in the province relied on the municipal refuse collection services.

3. Existing Facilities and Service Coverage

The service coverage of each sub-sector is estimated as percentages of served population/ households/utilities against the total number. In water supply, safe classification of Level I facilities is introduced and further categorized into public or private. Apart from household toilets, school toilets and public toilets are included in the sanitation components in view of

public hygiene improvement. Preliminary discussions on sewerage and solid waste management are also considered.

Water Supply

The province has 25 Level III systems in 20 municipalities/city. These systems utilize deep well and/ or spring sources. Eight (8) waterworks, out of 25 adopt the combined system with communal faucet (Level II service). Common issues encountered are insufficient water pressure resulting to limited connections and rationing, inadequate capacity of distribution pipes due to inappropriate planning and designing, and no regular disinfection. Collection efficiency of water charges is quite high at bigger waterworks, but at small waterworks, even the analysis on charge collection is not practiced due to weak management practice.

Seventy-seven (77) Level II systems, mostly using springs, are operating in all the municipalities covering 23 urban and 125 rural barangays. More than 50% of the waterworks using deep wells have limited water supply of less than 6 hours per day due to insufficient capacity of facility and inability of collect payments of electric charges. Likewise, a considerable number of the waterworks systems using spring source has limited water supply of less than 12 hours a day due to insufficient capacity of water source and facility. Among these, the systems in the municipalities of Kinoguitan, Lagonglong, Laguindingan, Libertad and Medina have encountered supply interruption caused by power failure, pump break down and bursting of pipes. Expansion of distribution line and installation of additional faucets have been usually undertaken without appropriate technical study on the capacities of water sources and distribution facilities, resulting to decrease of supply pressure and quantity. As for water charge, some of the waterworks have collected water fee mostly as flat rate and the others supply water free of charge. Regarding repair works, they request for assistance from the MEO/CEO as needed. Such practice has negative implications on the financial savings to cope with future repair and depreciation. Cost recovery is a prerequisite in sector management.

Level I facilities are common in rural barangays. Of the 3,097 operational Level I facilities in the province, 43% are shallow wells. Of these facilities, 1,717 are considered as safe sources. Most of the unsafe sources are located in nearby potential pollution sources, hence, for new construction of shallow wells, proper site selection and appropriate construction method shall be applied together with periodic water quality monitoring. Percentage shares between public and private Level I facilities for rural water supply is 57% and 43%, respectively. The share of developed springs in public facilities is 18%.

About 77% or 474,100 of the present population (614,400 comprising 36% in urban area and 64% in rural area) are adequately served. Under area classification, 87% of the urban population and 72% of the rural population have access to safe water sources/facilities. Of the served population, 26% or 160,400 persons are served by Level III systems. About 32% or 198,600 persons depend on Level I facilities, while the rest relies on Level II systems.

Sanitation

The service coverage of sanitary toilets in the province is 66% or 78,911 of the total households, which is higher than the national coverage of 60%. These toilets consist of 6% flush type, 83% pour-flush type and 11% VIP/sanitary pit latrine. In municipalities that have high water service coverage (Sugbongcogon, Laguindingan), high sanitation coverage occurs and adversely, in low water supply coverage (Magsaysay, Balingasag), low sanitation coverage also occurs. Service coverage in urban area is 77%, while in rural area, the coverage is 60%. Although high percentage of sanitary toilets is disclosed in urban areas, problems arise from the unsatisfactory disposal of the effluent from the septic tanks or the direct discharge of wastewater to the local drains. Sullage management is unheard of. In urban areas, there are no sewerage systems.

The province has a total of 2,965 toilets installed at 428 schools. Only 66% of the students is adequately served by sanitary toilets. The present average ratio of 58 students per sanitary toilet is a little over the service level standard of 40 students per sanitary facility. Some of these facilities are not being used due to lack of water supply, destroyed plumbing fixtures and water tank seepage. There are 52 public utilities; public markets, bus/jeepney terminals, and parks or plazas. All these public utilities are served with sanitary toilets indicating 100% coverage. However, the manner of usage and maintenance are improper rendering the facilities unsanitary. At present, no specific arrangements are made for the operation and maintenance, as well as the collection of fees to cover such cost.

4. Existing Sector Arrangements and Institutional Capacity

Institutional Framework

The Local Government Code has essentially re-defined the roles, relationships, and linkages of central, provincial, municipal and barangay institutions in the provision of social basic services, including water and sanitation. The new direction mandates the LGUs to play a larger role in planning and implementing water supply and sanitation projects. However, this has raised serious institutional capacity and resource reallocation issues.

Drastic changes took place among the DPWH, DILG, DOH and LGUs after the government's decentralization and issuance of NEDA Board Resolution No.4 (1994). To ensure common interpretation of the Resolution, the Implementing Rules and Regulations (IRR) for the relevant sector was prepared. The role of implementing water supply projects, which DPWH used to undertake, has been transferred to the LGUs. The functions of the then IPHO under the DOH have also been devolved to the LGUs. It is now the DILG, which provides overall coordination over the implementation of WATSAN projects of LGUs. The Water Supply and Sanitation-Project Management Office (WSS-PMO), a unit within DILG, is the main office responsible for water and sanitation activities.

At the provincial and municipal levels, there are central agency field offices (DPWH and DILG) and LGU offices working on the sector. Water districts, RWSAs, and BWSAs have been organized to deliver the services. Some LGUs implement and operate municipal or provincial water and sanitation systems. Project management offices (PMOs at the central level), ad hoc inter-agency committees, and task forces have been organized to address coordination issues.

The current major institutional issues are: (1) managing the transition process, and (2) re-establishing the leadership for the sector. Major resource realignments and capacity building initiatives are needed. At the local level, the LGUs' capability to handle sector projects is insufficient and will require substantial input and support.

There is wide dissatisfaction among implementors themselves over the existing monitoring system. This leads to the problem of reliability of information coming from the field. There is a need to establish a system similar to project-based monitoring which will have a direct link to performance.

Community Development

There has been limited experience in planning or implementing community development processes for the WATSAN sector projects in the Province of Misamis Oriental. The manner by which CD/CO work is done is how it was done in past sector projects, particularly the Barangay Water Program. While the PPDO and the PHO both have the structure to undertake or conduct CD work, this is done only as part of or as a component of other projects. As such, there is an apparent lack of the identified major responsible players on CD, particularly on the provincial level. These create a serious gap to the critical linkage and support of sector projects, from the provincial to the municipal and as far down as the barangay levels. The

training programs that should update the knowledge and skills of LGUs on community development have also been very few and far between.

Gender Consideration

For some time now, the Province has been implementing gender-sensitive projects. Those that relate to the WATSAN sector, however, have been limited to health and sanitation, as well as hygiene projects. Gender and development, as a whole, has still to be fully integrated in the mainstream of projects planned and implemented for the province and its LGUs, including the WATSAN sector.

Key informant surveys and group interviews were conducted to determine the degree of community participation on the sector of barangay officials and their constituents, with emphasis on gender-related issues. The following were the findings, from the surveys and interviews:

- The barangay councils were male-dominated; two of the three barangay captains are males.
- Two of the three barangays surveyed had operational BWSAs. The males outnumbered females in BWSA membership. Residents of the barangay without BWSA expressed willingness to assist in the formation of their BWSA.
- There is no gender bias when it comes to awareness of sector related information. Women actively participated in the O&M of water facilities. The respondents agreed that women could be assigned in the recording and inspection of facilities and to collect water fees.
- Women constituted the majority of the population in the two barangays. The men however outnumbered women in the barangay councils. All barangay captains are males.
- There were BWSAs in the barangays although the people were not active members. Most of the female respondents expressed willingness to be just members of BWSA, while the males would contribute free labor during project implementation.
- All female respondents were not consulted on their roles and responsibilities on past WATSAN projects but indicated willingness to actively participate in future projects.
- The respondents attended various training programs in 1997, although not WATSAN-related. Both the male and female respondents wanted to attend WATSAN-related training courses, including health education that maybe offered for BWSA members. Many opted for a one-day training sessions.
- The young male and female children were the ones who frequently got sick in 1997. The leading cause of illness was gastroenteritis.

5. Past Financial Performance in Water Supply and Sanitation

Since the devolution of the water supply and sanitation project to the LGUs in 1992, the LGUs have been dependent on the Internal Revenue Allotment (IRA) for their financial requirements. For the period 1994-1998, IRA of the province represented about 48.93% of the total income. The province has other sources of income from the operation of its economic enterprises such as MISORTEL (Misamis Oriental Telephone System) and stalls for rent located in the area adjacent to the Provincial Hospital.

On the other hand, actual expenditures for the period 1994 to 1997 were 91.47% of the total revenue, which were mainly broken down into capital outlay (7.78%), personnel expenses (46.63%) and operation and maintenance expenses (37.06%).

The funds for the water supply sector are part of the capital outlay of the province. The amount of debt servicing capacity of the provincial government is computed to be ₱47.42 million for the year 1998, which represents the maximum loanable amount through the MDF.

Funds for the capital outlay is mainly derived from 20% DF of the IRA and part of which is the water supply and sanitation sector allotment. During the period 1994 to 1998, the 20% DF was sufficient to finance the capital outlay requirements. Due to the low availability of funds, the relevant sector accounts between 1.81% to 19.08% of DF or about 3.8% of IRA.

Planned sector investments during the period 1995-1998 amounted to about ₱ 70.4 million but the actual expenditures disbursed for the sector out of the 20% DF was 16.2% of the required investments or ₱ 11.47 million. Of the investments, Level II and III amounted to about ₱ 58.84 million, while Level I water supply was only ₱ 6.88 million.

The DPWH and the DILG implemented the sector projects in previous years. The DPWH, through its DEOs, still receive requests for assistance from barangay people. With regard to the capital cost recovery for Level I water supply, it was free to the community in the past. For Level II systems, the capital cost is shouldered by the RWSAs through a loan or grant, while for Level III, the WDs or RWSAs bear the entire cost. Level III systems are usually financed by the LWUA for a period of up to 30 years with interests ranging from 8.5-12.5 %. For less capable WDs, soft loans without interest for the first 5 years of operations are available. Regarding sanitation sector, construction of the superstructure and the depository of household toilet is through self-help.

In 1998, a cost-sharing scheme was authorized, which prescribed that for any central government grants that are provided for the development of Level I water supply and sanitation facilities to the limited municipalities, the LGUs and beneficiaries concerned shall share the capital cost required. No subsidies from the central government will be provided for the construction of Level II and Level III water supply systems.

The O&M cost for Level I and II water supply system is the responsibility of the users. It is mandatory that the community shall organize themselves into an association, which handles collection of water charges as well as O&M of the facility. However, most of the RWSAs and BWSAs reportedly had difficulty to manage the systems, since beneficiaries do not recognize the cost requirements. The monthly fees for Level I in the active association range from ₱4 to ₱21/household/month. For Level III system, the O&M cost is basically covered by the user's fees. LWUA's policy is to make WDs financially viable, self-sufficient and be able to repay their loans obtained to improve water supply services. There are 2 WDs and 20 waterworks, which are currently operational in the province.

The percentage of water fee to median monthly household income is about 1.01% for Level III, and less than 1% for Level II and Level I. Thus, the current water rates in all service levels are within an affordable range. On the other hand, construction cost of household toilet seems to be expensive comparing with the family income.

6. Water Source Development

The study on water source development covers the entire province. It gives an emphasis on groundwater availability rather than surface water considering its economic advantages and current practices in potable water use.

The geologic rock units observed in the province are classified into three (3) main groups based on the ages of the rock formations: the Miocene and Older Systems, the Plio-Pleistocene Series, and Recent Deposits. The Miocene and Older systems are distributed in limited mountainous areas of the southwestern and the central southern sides of the province. The Plio-Pleistocene series are widely distributed in most areas of the eastern part of the province and in the mountainous areas around the Miocene and Older systems of the western part of the province. The Recent Deposits are fairly widely distributed along the seashore in some areas of Cagayan de Oro City, Balingasag, and Gingoog City.

For planning purposes in the development of groundwater sources, the provincial area is divided into shallow well, deep well and difficult areas. No solo shallow well area is defined in the province. Deep well areas cover about 60% of Misamis Oriental. These are widely distributed in the mountainous areas formed by volcanic and metamorphic rock units. The difficult areas fall on the remaining area. Saline water intrusion is reported in the coastal areas from Cagayan de Oro to Alubijid and from Naawan to Lugait. Groundwater with high Fe and Mn contents occurs in deep wells and springs around the Bagacay Point in the municipalities of Balingoan, Kinoguitan, and Talisayan.

Based on the inventory of water sources prepared during the study, the province has 320 developed springs currently serving the province, which come out from volcanic mountain areas in the central and western peninsulas. It is reported that a total of 19 untapped springs for future development are mainly located in the municipalities of the central peninsula that belong to the Central Mindanao Cordillera. Other municipalities have few untapped springs.

According to the existing well inventory, the depth of potential aquifers occurs between 20 to 120m in the Recent alluvium and the Plio-Pleistocene rocks. The development of deep wells is more advantageous than shallow wells considering the safe quality and invariable yield of deeper aquifers.

For the preparation of the medium-term development plan in terms of water source development, utilization of spring sources was given first priority, with special attention to the development of Level III systems. Groundwater source availability as second priority was presented by municipality with standard specifications of wells, including parameters such as well depth, static water level and specific capacity.

For the furtherance to design the concrete specifications of the planned wells, recommendations are made to conduct detailed groundwater investigations entailing the construction of test wells, prior to the detailed design or in the pre-construction stage. The municipalities that fall on this group are Gingoog City, Balingasag, and Tagoloan.

Untapped springs shall also be surveyed to confirm the development possibility in the detailed groundwater investigation. This includes items on the following: i) locations and type of spring sources; ii) fluctuation of discharge rates through the year; iii) distance from spring sources and proposed served areas; and iv) elevation differences between the two points.

7. Future Requirements in Water Supply and Sanitation Improvement

Physical Targets and Service Coverage

Phased requirements for the sector development in the province are assessed to meet the provincial targets established as percentages of beneficiaries or utilities to be served by sub-sector. Targets of service coverage for water supply in Phase I development are established by maintaining the existing high service coverage in urban area and a slight increase of 3% from the base year coverage in rural area as shown in Table 7.1. Sanitation sector target is applied in order to attain sufficiency and balanced distribution of the facilities in urban and rural area as embodied in the PNDP. Sewerage target is set for only part of urban centers in the long-term development, while solid waste management considered the medium-term household requirements. Logistic support is considered as a minimum requirement of LGUs for the implementation of PW4SP. The types and number of well drilling/rehabilitation equipment and supporting vehicle for Level I facilities are identified as reference information. Also, minimum requirements for setting up a provincial laboratory to support drinking water quality surveillance and monitoring activities are described.

Table 7.1 Present Service Coverage and Sector Targets

Sub-Sector	*Area/Type*	*Base Year Service Coverage*	*Provincial Sector Targets*	
			Phase I	*Phase II*
Water Supply	*Urban Area*	*87*	*87*	*95*
	Rural Area	*72*	*75*	*93*
Sanitation	*Urban HH Toilet*	*77*	*85*	*93*
	Rural HH Toilet	*60*	*75*	*93*
	Public School Toilet	*66*	*80*	*90*
	Public Toilet	*100*	*100*	*100*
Sewerage	*Urban Area*	*0*	*Not applicable*	*50*
Solid Waste	*Urban Area*	*53*	*90*	*Not applicable*

Frame values are projected by municipality for respective sub-sectors; future population by urban and rural area, the number of students in public schools and the number of public utilities.

Required Facilities to Meet Target Services

Types of required facilities and their implementation criteria are determined according to service level standards as adopted by the NSMP and NEDA Board Resolutions. Urban population is planned to be served by Level III systems, however, existing Level I and II facilities are to be used during Phase I period. Level I facilities are adopted for rural water supply with limited application of Level II system where houses are clustered and suitable untapped springs are confirmed. However, it does not exclude from being implemented Level I and II facilities in urban area as individual cases in the future as well as Level III

systems in rural area. Rehabilitation work is planned only for new deep wells (Level I) to be constructed under PW4SP, considering the difficulty of rehabilitation for existing wells constructed by means of traditional methods. Facilities for the provincial laboratory are determined, taking into account the existing facilities and the exigency to examine the water samples at the right time.

In sanitation sector, pour flush and/or flush type household toilets are planned, while VIP type household toilet and sanitary pit latrine are considered in rural area as an intermediate measure. Sewerage program is planned in Phase II for limited urban area. The study on solid waste considered only the number of required trucks for the year 2000. Additional service coverage of the sector by phase is shown in Table 7.2.

Table 7.2 Additional Service Coverage by Phase

Sub-Sector	*Area/Type*	*Unit*	*Additional Service Coverage*	
			Phase I	*Phase II*
Water Supply	*Urban Area*	*Persons*	*34,177*	*147,152*
	Rural Area	*Persons*	*57,481*	*135,139*
Sanitation	*Urban HH Toilet*	*No. of Households*	*12,661*	*29,943*
	Rural HH Toilet	*No. of Households*	*21,925*	*53,009*
	Public School Toilet	*No. of Public School Students*	*38,333*	*42,776*
	Public Toilet	*No. of Utilities*	*75*	*75*
Sewerage	*Urban Area*	*Persons*	*Not applicable*	*107,955*
Solid Waste	*Urban Area*	*No. of Households*	*24,706*	*Not applicable*

The necessary water supply facilities for Phase I include 18 deep wells/springs for 6,500 house connections in urban area, and 9 Level II systems with spring sources and 682 Level I wells/springs for rural area. For Phase II, 35 deep wells/springs for additional 36,800 connections and 2,263 Level I wells/springs are required for urban and rural water supplies, respectively. It is assumed that 90% of Level I facilities will be implemented by the LGUs and 10% of these public facilities will be achieved through spring development. Rehabilitation requirements are assumed to be 10% of the total number of deep wells to be constructed under PW4SP. A new laboratory building will be constructed to augment the existing provincial laboratory. This will be located in Talisayan to cover the eastern municipalities. Two (2) sets of water quality test instruments/equipment will be necessary to upgrade the existing provincial laboratory and to equip the new laboratory.

For urban water supply, 1 Level III system is, in principle, considered for urban area of every municipality. In the municipalities with existing Level III system/s, the expansion of the existing system/s was first considered. In case there are no Level III system/s, a new system

was recommended. Existing plan/s on the development of Level III/WD are also taken into account to determine respective systems of the municipalities.

Currently, 4 out of the 25 municipalities in the PW4SP study area have no Level III system in their urban areas, namely: Balingasag, Binuangan, Magsaysay and Talisayan. At present, there are no particular planned/on-going projects for the municipalities/city in the province.

Water source development study revealed that some municipalities in the planning area have high potential for spring development. Among the various untapped spring sources identified during the course of PW4SP preparation, the untapped sources located in the municipalities of Balingasag and Tagoloan are considered to have favorable conditions for use in Level III services. However, detailed survey to ensure appropriate development of spring sources shall be conducted in the implementation of the projects.

Merging of municipal systems (physical arrangement together with an integrated management system) in the long-term shall be considered. Conditions to be studied include: water source availability, willingness by concerned municipalities and technical study on cost recovery/economical conditions. The following municipalities may be studied for the integration both in physical and management systems.

- Kinoguitan, Sugbongcogon and Binuangan (using spring either in Kinoguitan or Sugbongcogon utilizing gravity system)

Integration of small Level III systems for the operation and management shall be sought, although these systems are currently managed individually.

Moreover, Phase I sanitation will require 12,661 household toilets, 78 public school toilets and 75 public toilets for urban area. In rural area, 21,925 household toilets and 110 public school toilets are necessary. Solid waste disposal will need 22 refuse collection trucks. For Phase II, urban area will require 29,943 household toilets, 77 public school toilets and 75 public toilets. In rural area a total of 53,009 household toilets and 573 public school toilets are necessary.

8. Sector Management for Medium-Term Development Plan

Institutional Framework

To effectively manage the water and sanitation sector, the provincial and municipal governments will have to make adjustments in their current policies and structures. One glaring basic institutional need at the local level is a common vision and mission statement for

the sector. A critical mass of people with resources who share in the vision must be identified and harnessed for sector management. Local planners need to focus on the long-term requirements.

The following policy and strategy statements will be adopted by the Provincial Government:

- Facility management with emphasis on sustainability
- Project selection and prioritization based on commitment of the beneficiaries, beneficiaries' willingness to pay, current water and sanitation and health conditions, and potential for growth
- Technologies appropriate to local conditions and resources. Economical facilities, without necessarily insisting on low-cost construction
- An integrated approach to the provision of potable water supply, sanitation, and hygiene education
- Equitable provision of water supply and sanitation between rural and urban areas; between wealthy and depressed areas
- Self cost recovery and rational cost sharing (subsidy)
- Private sector participation
- Seeking potential sources of local and external funds (loans and grants) to finance the capital requirements of the sector
- Broader concern for environmental protection and management in sector development
- Provision of water supply and sanitation services under emergency conditions

In coordination with appropriate national and local agencies, the LGU shall endeavor to set up a coordinated regulatory framework considering, among others, the following: water allocation and water rights policies (conflict resolution); water rate review; association registration; water quality, etc.

It is assumed that national and external funds although diminishing, will continue to be channeled through local offices of central agencies in the medium-term.

In the medium-term, a full-time Provincial Water Supply and Sanitation Unit (PWSU) shall be operational, which may be augmented at the PPDO. The LGU should ensure that adequate logistics and incentives are provided for the Unit. In the long term, the Unit may be promoted to the same level as the PPDO. The PWSU will continue to implement, assist and monitor all water supply and sanitation services in cooperation with the municipalities. The DILG-PMO shall continue to provide technical and managerial assistance in the formative years of the PWSU.

For institutional arrangements, the formation of BWSAs for Level I systems and RWSAs for Level II and III systems will be a prerequisite. The community, especially the women's sector, shall be involved in all phases of project management (planning, construction and O&M) and in undertaking health and hygiene education programs. To provide the members with the necessary skills, training programs will be implemented by concerned national agencies and by the provincial and municipal governments.

Community Development

To ensure that the full participation of the beneficiary community in sustaining sector projects is realized, it is recommended that the LGUs provide the needed human, financial and other material resources for community development work to take-off. To institute the linkage among all the actors in sector development, a CD Unit should be established within the proposed Provincial Water Supply and Sanitation Unit. A permanent CD Specialist shall be appointed to take charge of promoting, developing and coordinating CD and IEC programs of the province, even looking into how it can harness the participation of the private sector and train project beneficiaries. It is also recommended that a CD Specialist be assigned to the existing Municipal WATSAN Liaison Task Force to coordinate and implement all CD/CO and IEC work at the municipal level. At the barangay level, it is recommended that each Barangay Development Council (BDC) establish a WATSAN Committee that will coordinate all sector projects in the barangay as well as designate one person who can be trained on CD work.

The power of information, education and communication as a necessary foundation activity for CD has not been fully realized and maximized. It is, therefore, recommended that a comprehensive IEC program be conceptualized and implemented on the national, provincial and municipal levels. The program will promote a better awareness and understanding of the responsibilities of sector planners as well as the benefits due to the project beneficiaries so that the gains of the sector can be sustained on a long term basis.

It shall be the DILG who shall retain the central role as the national government agency that promotes and develops the capacities of the province and the municipalities in participatory CD approaches and IEC programs for the sector. It shall also encourage and institutionalize the participation of national NGOs, with local networks or offices that specialize in community management program and utilize these to enhance and assist the LGUs in organizing project beneficiaries. Another national agency, the LWUA, shall on the other hand, continue to promote community participation in the formation of LGU-WS into water districts and to

provide regular CD assistance particularly in consultation with the community on projects, loans, and water rates adjustments.

The LGUs and the intended beneficiaries can both participate in sector development: Level I – for the planning and implementation of sector projects and in the formation and management of a water supply and sanitation association/cooperative; Level II – for the formation of a water supply and sanitation association/cooperative or a waterworks; while Level III – for the formation of water districts or LGU-operated waterworks. Thus, it is important that the LGUs make the decision on the projects it can afford to implement.

To achieve this, the LGU must encourage active community participation and involvement through four approaches. These are: (1) sharing relevant information on the project with the beneficiaries, (2) consulting with users on all phases of project development; (3) giving ample room to the beneficiaries to make project-related decisions; and (4) providing opportunities to the community to initiate actions for their own benefit.

On the other hand, recommended are four ways that beneficiaries themselves can participate in sector projects, some of which have been tried in the province. These are: (1) the provision of free labor and/or materials by community members; (2) the sharing of costs between project proponent and the users; (3) expressed participation of all parties through MOAs and, (4) the participation through a firm involvement and commitment of the community in the management, operation, maintenance of the system itself.

For Levels I and II, the WATSAN Unit should utilize the recommended Community Development Framework (modified from the UNDP-WATSAN Project) consisting of three phases of activities: Phase 1 is Formation of Organization; Phase 2 is Development of Organization; and, Phase 3 is Consolidation of Organization.

Gender Consideration

Since sustainability of WATSAN services depends on responding to the demands of men and women in the community, the LGUs must recognize and give vital emphasis on the role of gender sensitive participation because the use, maintenance and financing of WATSAN systems require the participation of both the men and women. Thus, they should be given equal voice and opportunities in serving the community as well as in the planning, implementation and monitoring and evaluation of sector projects. To ensure the gender responsiveness of WATSAN projects, the LGUs should be trained through a Trainor's Training Program on

Gender Responsive Planning as envisioned by the Philippine Plan for Gender Responsive Development (1995-2025).

9. Cost Estimates for Future Sector Development

The investment cost includes direct cost for construction/rehabilitation of required facilities, procurement of vehicle/equipment, construction/upgrading of laboratory, sector management, physical and price contingencies, and value-added tax. The recurrent cost is incurred for operation and maintenance of facilities. Unit construction cost per person/household/ facility was first prepared under contract-out basis in 1997 price level. In this regard, the cost for procurement and distribution of toilet bowl for pour-flush toilets is only counted for household toilets. Investment cost required by phase for the province is summarized in Table 9.1.

The investment cost for Phase I is estimated at about ₱ 716 million. A total of ₱ 399 million (in 1997 price level) is required as the construction/rehabilitation cost (including cost well disinfection) in Phase I, of which urban water supply and rural water supply share 34% and 46%, respectively. While, the remaining 20% is required for urban and rural sanitation.

Required equipment and vehicle for construction/rehabilitation of Level I facilities and solid waste management are roughly estimated: 6 sets/units each of well drilling equipment and service truck with crane; 1 set/unit each of well rehabilitation equipment and support vehicle; and 22 units of refuse collection truck. The total procurement cost is estimated at approximately ₱207 million. Out of the requirements, however, only one set/unit each of well rehabilitation equipment, support vehicle and maintenance tools/water quality testing kits is incorporated in the medium-term investment plan due to budgetary constraints and technical capability of LGUs at present.

Likewise, annual recurrent cost in 1997 price level is estimated at ₱37.5 to ₱47.1 million/year during Phase I period.

Table 9.1 Investment Cost Required by Phase

Unit: 1,000 Pesos

Item	Component	Phase I	Phase II
Construction/ Rehabilitation	Water Supply		
	Urban Area	136,394	496,068
	Rural Area	182,209	461,688
	Sanitation		
	Household Toilet	2,840	7,276
	School Toilet	51,531	178,165
	Public Toilet	25,808	25,808
	Disinfection of Well	195	197
	Urban Sewerage	N/A	788,072
	Sub-Total	**398,977**	**1,957,273**
Procurement of Vehicle/ Equipment/Maintenance Tools	Well Drilling Rig & Service Truck	0	26,782
	Support Vehicle	590	0
	Well Rehabilitation Equipment	280	0
	Maintenance Tools	280	0
	Water Quality Testing Kits	15	0
	Sub-Total	**1,165**	**26,782**
Water quality Laboratory		2,032	0
Sector Management	Engineering Studies	51,491	151,167
	Community Development and Training	35,238	104,654
	Sub-Total	86,729	255,820
Total Direct Cost		488,903	2,239,875
Contingencies	Physical Contingency	48,888	223,988
	Price Contingency	132,953	N.A
	Value-Added Tax (VAT)	45,365	N.A
Total Investment Cost		**716,109**	**2,463,863**
Total Investment Cost (excluding Price Contingency)		**583,137**	**2,463,863**

10. Financial Arrangements for Medium-Term Development Plan

Financial arrangements to attain medium-term (Phase I) targets were sought focusing on available Internal Revenue allotment (IRA). The financial shortfall was first identified for this sector and recommendations were made to seek comprehensive logistics in terms of acquisition of various funds, augmentation of current practices in Government assistance to this sector and effective investments and cost recovery.

The projection of IRA to the relevant sector for Phase I period was made covering different administrative levels. Referring to the experience in other provinces, provincial allocation to the relevant sector was assumed to be 4% of total IRA (20% of 20% Development Fund) and the same percentage was applied for the allocation of municipal IRA to the sector. The fund available for this sector for 5-year implementation period from 1999 to 2003 was calculated as a sum of municipal and provincial allotments.

The combined provincial and municipal IRA to the sector was estimated at ₱ 195.5 million (provincial IRA is 30.6% of the total IRA). In the overall IRA allocation to the sub-sectors, urban water supply has the largest allotment of 37.21%, followed by rural water supply (33.77%). While, the share of urban sanitation is 17.1%, which is higher than that of rural sanitation of about ₱ 23.34 million.

The shortfall in funding on the current price level was figured out comparing with available fund for the relevant sector (IRA) in the province over the Phase I requirements. IRA can fund only 33.53% of the requirements as a provincial average. Hence, there is a big shortfall of ₱ 387.6 million in funding. It will become ₱ 483.7 million in consideration of price escalation with annual rate of 7%. In the municipal achievement percentage in finance, Gingoog City, Gitagum, Laguindingan and Sugbongcogon (100%) are the highest among municipalities, followed by Binuangan (87%). Others are in the range between 20% and 40% to the requirements, while the provincial average is 34%.

Under the above situation, different levels of funding availability are discussed with reference to service coverage. Alternative countermeasures are also discussed in view of; i) acquisition of external funds, ii) augmentation of sector finance under current arrangements (IRA and others), iii) introduction of private sector participation to mitigate public investment needs, and iv) effective and economical investments. It is common to all sub-sectors that the service coverage in the year 2003 would not sustain even the present levels in the provision of only projected IRA. Using computer-based programs, these scenarios may be modified by policy makers according to the updated information and policy on available fund and sector targets.

Investment need ranking of the municipalities is discussed to serve as a guide for implementation in order for the provincial government to effectively arrange its financial resources. The ranking for urban water supply is specifically studied and the result is employed for allocation of provincial IRA to the municipalities in the concerned sub-sector. For the provincial fund allocation, as a currently effective arrangement, it is assumed that 60% of the fund for urban water supply from the provincial government is equally distributed to the top fifth ranking municipalities, while the remaining 40% are equally distributed to the rest of the municipalities. In the synthetic investment need ranking of municipalities covering four sub-sectors, the top ranking municipality is Magsaysay, which indicates that it is given priority for investments in all sub-sectors, while Sugbongcogon is the least priority in terms of investment.

With regard to Level I water supply and sanitation improvement for which GOP may provide possible assistance, the DILG is assumed to be the Executing Agency and the province the Implementing Agency in the meantime. The project may be merged with those of 1st batch provinces for preparation of the PW4SP. The implementation of a packaged project may be realized in the near future.

Project components including Level I water supply, public/school toilet facilities and distribution of toilet bowls were identified to meet the conditions in provision of GOP-assisted project. There are 15 eligible municipalities in terms of 5th and 6th class municipality for Level I water supply in the province, while there are 23 municipalities to meet the condition in sanitation sub-sector. The required services will cover technical and institutional/community development aspects of the project. The overall project cost for the implementation period 1999-2003 was estimated at ₱ 289.6 million or ₱202.8 million in 1997 price level.

Two alternatives for the financial arrangements were studied, these are; i) Case 1-Utilization of IRA only, and ii) Case 2-Utilization of IRA and MDF.

For Case 1, GOP shall share 50% of the overall project cost in combination of the foreign assisted loan and government counter part fund. The remaining 50% shall be shared by the LGUs (47%) and beneficiaries (3%). Comparing the estimated project cost to be shared by the LGUs of ₱ 95.3 million (at 1997 price level) and the available IRA of LGUs (₱ 71.6 million), there is a shortfall in funding of ₱ 23.7 million. The available IRA of LGUs can meet the proposed 75% of the proposed requirements. As an option to solve this financial shortage, the provincial government may re-arrange IRA allocation; about 100% of replenishment from the remaining provincial IRA allotted to rural water supply sub-sector after reducing allotted amount to the eligible municipality. Another option suggested is to utilize all provincial sector IRA (₱ 59.8 million) without limiting to the available IRA for rural water supply sub-sector, as the possible financial source, to supplement municipal IRA allotted to the eligible municipality. In this case about 82% of the provincial sector IRA is required. The final decision on this financial arrangement will be subject to further discussions entailing other alternatives and agreement between the province and the municipalities.

For Case 2, the utilization of the MDF is considered in case the LGUs will fail to furnish IRA for the cost to be shared. The foreign loan may be availed of at the maximum financing limit of 75% of the overall project cost. GOP will possibly finance up to ₱ 152.2 million. Out of GOP finance through the loan, ₱ 96.8 million or 47.7% of the total project cost shall be

granted to the LGUs, aside from the 2.3% GOP counterpart fund. The remaining ₱ 55.4 million or 27.3% of the total project cost shall be utilized for financing the LGUs to secure their budgetary capacity through MDF. Under this case, the IRA to be used by the LGU is 56% of the available IRA estimated in the previous study.

Cost recovery and cost sharing shall be promoted to attain the planned target based on the principle that adequate water, sewerage and sanitation facilities should be paid for. For Level I water supply systems, LGUs and beneficiaries are required to share the capital cost. While users need to pay water charge up to 2% of their monthly income to sustain the system (₱87/HH/month in 2003). For Level II water supply systems, full cost recovery is required for all capital and recurrent cost (₱90 /HH/month in 2003, which is less than 2% of monthly income). For Level III water supply systems, a full recovery of capital and O&M cost is required (₱234/HH/month in 2003). Based on the experience that water fee must not exceed 5% of income (average monthly water consumption of 15 m^3), users will be able to pay the amount.

For sanitation, governmental support is limited to the provision of toilet bowl for pour-flush toilets as an incentive to increase the distribution of water-sealed toilets. To expedite the sanitation sector improvement, introduction of specific loans with low interest rate and longer repayment period may be effective. For urban sanitation, to cover the construction cost of sanitary toilets, a linkage with existing housing loan may be established.

11. Monitoring of the Medium-Term Development Plan

The sector monitoring system must support a well-defined and accepted sector development process-model. This will include information collection, tracing the flow of raw data from the field to the central level, information analysis, and data feedback. With the sector monitoring system in place, planners should be able to take a fresh objective view of the way current strategies are implemented.

The sector monitoring system should reinforce the linkage between water, sanitation and health. It should be reliable and involve the beneficiaries. It should be accepted by all sectors. It should be practical. It should be followed through with effective feedback. The best monitors are the community members themselves since accurate monitoring reports are in their best interest. A consensus on common and practical definition of terms for monitoring purposes is needed.

A three-phased monitoring system is proposed with each phase progressively increasing the number and complexity of indicators to be used. Detailed implementation of the first phase requirements is presented in this PW4SP, including institutional arrangements. It is envisaged that this will be linked with the national sector monitoring system being developed.

There are existing Project Monitoring Committees (PMCs) at the provincial and municipal levels tasked with the monitoring of local government projects funded by national and local governments. At the provincial level, projects to be monitored will be those implemented and managed at this level with funds directly released to the province as provided under MO 175. The PMC shall be established in the province and it shall consist of representatives from NGOs and the administration.

This PW4SP should be updated at least every five years. Based on the monitoring reports, an annual review of sector accomplishments compared with objectives and efficiency will be done. This will lead to the reformulation of objectives, strategies, new policies and policy revisions, and an updated sector investment program.