concerned sub-sector. The synthetic ranking may be availed for the huge investment in use of the funds to be provided by other donors in the future.

For the urban water supply component, the ranking criteria comprise three essential evaluation factors, namely: (a) percentage of underserved and unserved population in the base year; (b) percentage of underserved and unserved population in Phase I; and (c) percentage of population unserved by Level III Systems in the base year. First, these factors are scored by the range of underserved and unserved percentage and totaled by municipality in application of weighing method. Adopted weight to the factors (a), (b) and (c) are 50%, 35% and 15%, respectively. Table 11.4.1 shows ranking procedures, overall weighted score and investment need ranking of the municipalities. Santa Maria is identified as the first priority municipality, followed by Burgos.

With reference to provincial fund allocation, it is assumed that 60% of the fund for urban water supply from provincial government is distributed equally to the top five ranking municipalities, while the remaining 40% is equally distributed to the rest of the municipalities. The result of distribution is shown in Table 11.4.2.

To come up with the synthetic ranking of the municipalities, scoring method is also employed for other sub-sectors. The score is derived from the range of underserved and unserved percentage in the base year. Synthetic investment need ranking of municipalities covering four sub-sectors is shown in Table 11.4.3 (refer to ranking procedures in Table 11.4.1, Supporting Report).

#### **Provincial Trust Fund**

Provincial Trust Fund approach is implied as a mechanism to totally manage any funds/projects through different financial sources or implementing agencies. The fund raises the LGUs responsibility for effective and economical utilization of the financial resources (details are referred to in Chapter 9).

### 11.5 Cost Recovery

Cost recovery and cost sharing are essential to attain the planned targets. The PW4SP advocates the imposition of tariffs for the recovery of capital and operating cost based on the principle that adequate water, sewerage and sanitation facilities should be paid for.

Table 11.4.1 Municipal Investment Need Ranking for Urban Water Supply

|                  | Evaluation Factor  |  |  | Sco  | oring by the Facto                                   |   |                              |                               |  |
|------------------|--|--|--|--|--|---|------------------------------|-------------------------------|--|
| Niunicipality    | % of<br>Underserved/<br>Unserved<br>Population in<br>Base Year | % of<br>Underserved/<br>Unserved<br>Population in<br>Phase I | % cf Population Unserved by Level III Systems in the Base Year | Underserved/<br>Unserved<br>Population in<br>Base Year | Underserved/<br>Unserved<br>Population in<br>Phase I | Population<br>Unserved by<br>Level III<br>Systems in<br>Base Year | Overall<br>Weighted<br>Score | Investment<br>Need<br>Ranking |  |
| Alilem           | 36   | 39   | 100  | 0.80   | <b>0</b> .80   | 1.00  | 0.83                         | 3                             |  |
| Banayoyo         | 16   | . 21   | 100  | 0.40   | 0.60   | - 1.00  | 0.56                         | 20                            |  |
| Bantay           | 29   | 33   | 96   | 0.60   | 0.80   | 1.00  | 0.73                         | 8                             |  |
| Burgos           | 40   | 43   | 100  | 0.80   | 1.00   | 1.00  | 0.90                         | 2                             |  |
| Cabugao          | 9  | 14   | 97   | 0.20   | 0.40   | . 1.00  | 0.39                         | 28                            |  |
| Candon           | 37   | 40   | 100  | 0.80   | 0.80   | 1.00  | 0.83                         | 3                             |  |
| Caoayan          | 28   | 32   | 96   | 0.60   | 0.80   | 1.00  | 0.73                         | 8                             |  |
| Cervantes        | 29   | 32   | 100  | 0.60   | 0.80   | 1.00  | 0.73                         | 8                             |  |
| Galimuyed        | 13   | 18   | 100  | 0.40   | 0.40   | 1.00  | 0.49                         | 25                            |  |
| G. del Pilar     | 1  | . 7  | 83   | 0.20   | 0.20   | 1.00  | 0.32                         | 32                            |  |
| Lidiidda         | 9  | 14   | 100  | 0.20   | 0.40   | 1.00  | 0.39                         | 28                            |  |
| Magsingal        | 20   | 25   | 100  | 0.40   | 0.60   | 1.00  | 0.56                         | 20                            |  |
| Nagbukel         | 36   | 39   | 100  | 0.80   | 0.80   | 1.00  | 0.83                         | 3                             |  |
| Narvacan         | 32   | 36   | 98   | 0.80   | 0.80   | 1.00  | 0.83                         | 3                             |  |
| Quirino          | 26   | 30   | 100  | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| Sakeoo           | 23   | 27   | 100  | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| San Englio       | 7  | 12   | 100  | 0.20   | 0.40   | 1.00  | 0.39                         | 28                            |  |
| San Esteban      | 24   | 28   | 100  | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| San Ildelfonso   | 22   | 26   | 100  | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| San Juan         | 20   | 24   | 100  | 0.40   | 0.60   | 1.00  | 0.56                         | 20                            |  |
| San Vicente      | 11   | 16   | 100  | 0.40   | 0.40   | 1.00  | 0.49                         | 25                            |  |
| Santa            | 21   | 26   | 94   | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| Santa Catalina   | 24   | 28   | 100  | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| Santa Cruz       | 31   | 35   | 100  | 0.80   | 0.80   | 1.00  | 0.83                         | 7                             |  |
| Santa Lacia      | 20   | 24   | 96   | 0.40   | 0.60   | 1.00  | 0.56                         | 20                            |  |
| Santa Maria      | 47   | 49   | 100  | 1.00   | 3.00   | 1.00  | 1.00                         |                               |  |
| Santiago         | 26   | 30   | 98   | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| Santo Domingo    | 20   | 24   | 100  | 0.40   | 0.60   | 1.00  | 0.56                         | 20                            |  |
| Sigay            | N.A.   | N.A.   | N.A.   | N.A.   | N.A.   | N.A.  | N.A.                         | N.A.                          |  |
| Sinait           | 0  | 5  | 96   | 0.20   | 0.20   | 1.00  | 0.32                         | 32                            |  |
| Sugpon           | 6  | 11   | 100  | 0.20   | 0.40   | 1.00  | 0.39                         | 28                            |  |
| Suyo             | 29   | 33   | 100  | 0.60   | 0.80   | 1.00  | 0.73                         | 8                             |  |
| fagudin          | 11   | 16   | 92   | 0.40   | 0.40   | 1.00  | 0.49                         | 25                            |  |
| Vigan (Capital)  | 26   | 30   | 85   | 0.60   | 0.60   | 1.00  | 0.66                         | 12                            |  |
| Provincial Total | 24   | 28   | 88   |  |  | <del></del>   |                              | ·                             |  |

Note: 1. Scoring to Underserved and Unserved Percentage.

2. Weight Allocation to Score.

| Score | Range of Underserved/Unserved Percentage |             |           | 50 | 35 | 15 | Allocated<br>Weight |
|-------|--|-------------|-----------|----|----|----|---------------------|
| 1.0   | 41 <%                                    | 41 <%       | 81 <%     |    |    |    |                     |
| 0.8   | 31 <% < 40                               | 31 <%< 40   | 61 <%< 80 |    |    |    |                     |
| 0.6   | 21 < % < 30                              | 21 < % < 30 | 41 <%< 60 |    |    |    |                     |
| 0.4   | 11 <% < 20                               | 11 < % < 20 | 21 <%< 40 | •  |    |    |                     |
| 0.2   | % < 10                                   | % < 10      | % < 20    |    |    |    |                     |

Table 11.4.2 Distribution of Provincial IRA to Municipalities for Urban Water Supply

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|         | Unit: 1000 Pesos  |  |                            |   |  |                              |                                   |  |
|---------|-------------------|--|----------------------------|---|--|------------------------------|-----------------------------------|--|
|         | Fund Distribution |  |                            |   |  |                              |                                   |  |
| Ranking | Municipalities    | Fund Distribution from Provincial Government | Distribution<br>Percentage | IRA to<br>Municipalities<br>from National<br>Government | Available Fund Distributed to Muncipalities  (1)+(2) | Phase I<br>Require-<br>ments | Accomplish-<br>ment<br>Percentage |  |
| 3       | Aliko             | 1,137  | 8.93                       | 656   | 1,792  | 2,771                        | 64.7                              |  |
| 20      | Валауоуо          | . 0  | 0.00                       | 491   | 491  | 382                          | 128.6                             |  |
| 8       | Bantay            | 305  | 2.40                       | 1,778   | 2,083  | 13,485                       | 15.4                              |  |
| 2       | Burgos            | 1,137  | 8.93                       | 768   | 1,905  | 3,389                        | 56.2                              |  |
| 28      | Cabugao           | 0  | 0.00                       | 0   | 0  | 0                            | 0.0                               |  |
| 3       | Candon            | 1,137  | 8.93                       | 1,222   | 2,358  | 14,807                       | 15.9                              |  |
| 8       | Caoayan           | 305  | 2.40                       | 912   | 1,217  | 8,423                        | 14.5                              |  |
| 8       | Cervantes         | 305  | 2.40                       | 924   | 1,229  | 3,679                        | 33.4                              |  |
| 25      | Galimuyod         | o  | 0.00                       | 104   | 104  | 92                           | 112.8                             |  |
| 32      | G. del Pilar      | 0  | 0.00                       | 0   | 0  | 0                            | 0.0                               |  |
| 28      | Lidlidda          | 0  | 0.00                       | 0   | 0  |                              | 0.0                               |  |
| 20      | Magsingal         | 305  | . 2.40                     | 827   | 1,132  |                              | 27.6                              |  |
| 3       | Nagbukel          | 813  | 6.39                       | 630   | 1,443  | 1,443                        | 100.0                             |  |
| 3       | Narvacan          | 1,137  | 8.93                       | 403   | 1,540  | 4,364                        | 35.3                              |  |
| 12      | Quirino           | 305  | 2.40                       | 438   | 743  | 1,694                        | 43.9                              |  |
| 12      | Salcedo           | 305  | 2.40                       | 477   | 782  | 1,320                        | 59.2                              |  |
| 28      | San Emilio        | 0  | 0.00                       | 0   | 0  | 0                            | 0.0                               |  |
| 12      | San Esteban       | 305  | 2.40                       | 225   | 530  | 786                          | 67.5                              |  |
| 12      | San Hdelfonso     | 305  | 2.40                       | 425   | <b>7</b> 30  | 908                          | 80.4                              |  |
| 20      | San Juan          | 305  | 2.40                       | 619   | 924  | 2,481                        | 37.2                              |  |
| 25      | San Vicente       | 64   | 0.50                       | 12  | 76   | 76                           | 0.001                             |  |
| 12      | Santa             | 305  | 2.40                       | 256   | 561  | 1,378                        | 40.7                              |  |
| 12      | Santa Catalina    | 305  | 2.40                       | 272   | 577  | 1,343                        | 43.0                              |  |
| 3       | Santa Cruz        | 1,137  | 8.93                       | 963   | 2,099  | 7,144                        | 29.4                              |  |
| 20      | Santa Lucia       | 305  | 2.40                       | 205   | 510  | 1,496                        | 34.1                              |  |
| 1       | Santa Maria       | 1,137  | 8.93                       | 934   | 2,071  | 10,151                       | 20.4                              |  |
| 12      | Santiago          | 305  | 2.40                       | 528   | <b></b>  | <b>}</b>                     | 31.5                              |  |
| 20      | Santo Domingo     | 305  | 2.40                       | 837   | 1,142  | 2,019                        | <del> </del>                      |  |
| N.A.    | Sigay             | . (  | 0.00                       | 0   | (  | 0                            | 0.0                               |  |
| 32      | Sinait            | - 0  | 0.00                       | (   | (  | <u> </u>                     | <b> </b>                          |  |
| 28      | Sugpon            | (  | 0.00                       | C   | ) (  | <del></del>                  |                                   |  |
| 8       | Suyo              | 305  | 2.40                       | 657   | 963  | <del></del>                  |                                   |  |
| : 25    | Tagudin           | 145  | 1.14                       | 59  |  |                              | <del> </del>                      |  |
| 12      | Vigan (Capital)   | 305  | 2.40                       | 3,946   | 4,25   | 35,980                       | 11.8                              |  |
|         | Total             | 12,721                                       | 100                        | 19,567  | 32,28  | 129,119                      | 25.0                              |  |

Table 11.4.3 Municipal Investment Need Ranking

|                 |                       | Synthetic             |                     |                     |                            |  |  |
|-----------------|-----------------------|-----------------------|---------------------|---------------------|----------------------------|--|--|
| Municipality    | Urban Water<br>Supply | Rural Water<br>Supply | Urban<br>Sanitation | Rural<br>Sanitation | Total<br>Weighted<br>Score | Municipal<br>Investment Nec<br>Ranking |  |
| Alilem          | 0.21                  | 0.20                  | 0.25                | 0.15                | 0.81                       |  |  |
| Banayoyo        | 0.14                  | 0.05                  | 0.05                | 0.05                | 0.29                       | 31                                     |  |
| Bantay          | 0.18                  | 0.10                  | 0.05                | 0.10                | 0.43                       | 13                                     |  |
| Burgos          | 0.23                  | 0.10                  | 0.05                | 0.10                | 0.48                       | 11                                     |  |
| Cabugao         | 0.10                  | 0.05                  | 0.05                | 0.05                | 0.25                       | 33                                     |  |
| Candon          | 0.21                  | 0.10                  | 0.05                | 0.05                | 0.41                       | 21                                     |  |
| Caoayan         | 0.18                  | 0.10                  | 0.05                | 0.20                | 0.53                       | 5                                      |  |
| Cervantes       | 0.18                  | 0.10                  | 0.05                | 0.10                | 0.43                       | 13                                     |  |
| Galimuyod       | 0.12                  | 0.05                  | 0.05                | 0.05                | 0.27                       | 32                                     |  |
| G. del Pilar    | 0.08                  | 0.05                  | 0.05                | 0.25                | 0.43                       | 13                                     |  |
| Lidlidda        | 0.10                  | 0.05                  | 0.05                | 0.05                | 0.25                       | 33                                     |  |
| Magsingal       | 0.14                  | 0.10                  | 0.05                | 0.05                | 0.34                       | 29                                     |  |
| Nagbukel        | 0.21                  | 0.10                  | 0.05                | 0.25                | 0.61                       | 2                                      |  |
| Narvacan        | 0.21                  | 0.15                  | 0.05                | 0.10                | 0.51                       | 7                                      |  |
| Quirino         | 0.17                  | 0.25                  | 0.05                | 0.05                | 0.52                       | 6                                      |  |
| Salcedo         | 0.17                  | 0.10                  | 0.05                | 0.05                | 0.37                       | 24                                     |  |
| San Emilio      | 0.10                  | 0.05                  | 0.10                | 0.25                | 0.50                       | 8                                      |  |
| San Esteban     | 0.17                  | 0.10                  | 0.05                | 0.10                | 0.42                       | 17                                     |  |
| San Ildelfonso  | 0.17                  | 0.10                  | 0.05                | 0.05                | 0.37                       | 24                                     |  |
| San Juan        | 0.14                  | 0.25                  | 0.05                | 0.10                | 0.54                       | 4                                      |  |
| San Vicente     | 0.12                  | 0.10                  | 0,05                | 0.15                | 0.42                       | 17                                     |  |
| Santa           | 0.17                  | 0.10                  | 0.05                | 0.10                | 0.42                       | 17                                     |  |
| Santa Catalina  | 0.17                  | 0.10                  | 0.05                | 0.05                | 0.37                       | 24                                     |  |
| Santa Cruz      | 0.21                  | 0.10                  | 0.05                | 0.05                | 0.41                       | 21                                     |  |
| Santa Lucia     | 0.14                  | 0.10                  | 0.10                | 0.25                | 0.59                       | 3                                      |  |
| Santa Maria     | 0.25                  | 0.15                  | 0.05                | 0.05                | 0.50                       | · 8                                    |  |
| Santiago        | 0.17                  | 0.10                  | 0.05                | 0.10                | 0.42                       | 17                                     |  |
| Santo Domingo   | 0.14                  | 0.05                  | 0.05                | 0.25                | 0.49                       | 10                                     |  |
| Sìgay           | N.A.                  | 0.10                  | N.A.                | 0.30                | 0.40                       | 23                                     |  |
| Sinait          | 0.08                  | 0.10                  | 0.05                | 0.10                | 0.33                       | 30                                     |  |
| Sugpon          | 0.10                  | 0.10                  | 0.05                | 0.10                | 0.35                       | 28                                     |  |
| Suyo            | 0.18                  | 0.10                  | 0.05                | 0.15                | 0.48                       | 11                                     |  |
| Fagudin         | 0.12                  | 0.10                  | 0.05                | 0.10                | 0.37                       | 24                                     |  |
| Vigan (Capital) | 0.33                  | N.A.                  | 0.10                | N.A.                | 0.43                       | - 13                                   |  |

## (1) Level I water supply systems

For Level I systems, 100% of the capital costs is granted according to the current national policy, although beneficiaries are responsible for all recurrent costs. Monthly recurrent cost is estimated at about 5 Pesos per household in the base year price level (refer to recurrent cost in Chapter 10). The figure will be increased up to about 8 Pesos in 2000, assuming annual inflation of 10%. This monthly fee seems to be affordable to the users considering current income level (refer to affordability in Chapter 6), but willingness to pay shall be promoted.

# (2) Level II water supply systems

Water source development is granted for Level II systems as a practice nationwide, while full cost recovery is required for all other capital costs. The average capital cost, except for water source development is estimated at 4,550 Pesos per household (refer to Chapter 10). Applying the capital recovery factor to the capital costs with conditions of 10% interest rate and 25 years repayment period, monthly payment amounts to about 40 Pesos per household. In addition, monthly recurrent cost is estimated at about 8 Pesos per household in the base year price level. It will reach to about 15 Pesos in 2000 with an annual inflation rate of 10%. Thus, the total of repayment and recurrent cost is about 55 Pesos, which is less than 2% of the family income as shown below.

| (a) Estimated water rate (flat rate; Pesos)                         | <br>: | 55   |
|---|-------|------|
| (b) Percentage of (a) to monthly median household income in 2000 1) | :     | 0.7% |
| (c) Percentage of (a) to monthly low household income in 2000 2)    | :     | 1.5% |

#### Notes:

1) Provincial average monthly median income in 2000 (7,673 Pesos per household) is derived from 1991 Family Income and Expenditure Survey considering annual inflation rate of 10%

 Provincial average monthly low income in 2000 (3,719 Pesos per household) is estimated using LWUA data in Region 1.

# (3) Level III water supply systems

A full recovery of capital and operation & maintenance cost is required for Level III systems. To test the affordability, a comparative study was made between estimated water rate (based on standard monthly consumption; 15m³ per household) and projected income in 2000.

The monthly recurrent cost for the standard household is estimated at about 55 Pesos in 1994 price level (refer to recurrent cost in Chapter 10). In consideration of annual inflation rate of 10%, it will be about 100 Pesos in 2000, while the water rate including financial debt service for the standard household is estimated at about 162 Pesos using an average figure of water districts in Region I (annual inflation rate of 10% is assumed).

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Using the monthly water rate of 162 Pesos per household and monthly household income discussed in Level II Systems, percentages of the water rate to household income are calculated as shown below. The percentage of the water rate against income is less than 5%, which is commonly affordable.

| (a) Estimated water rate for 15 m³ (Pesos) 1)                       | : | 162  |
|---|---|------|
| (b) Estimated minimum water rate (1-10 m³) (Pesos) 2)               | : | 109  |
| (c) Percentage of (a) to monthly median household income in 2000 3) | ; | 2.1% |
| (d) Percentage of (a) to monthly low household income in 2000 3)    | : | 4.4% |
| (e) Percentage of (b) to monthly low household income in 2000 3)    | : | 2.9% |

Notes:

### (4) Sanitation

The provision of sanitary toilet facilities for public markets and schools is under LGUs. However, recurrent cost for the public markets shall be collected from the users including stallholders of the market.

Household toilets shall be, in principle, managed by individual households. However, the facility is costly with reference to the current income level especially in the rural area. Governmental support is also limited to the provision of toilet bowl for pour-flush toilets. In this connection, cost recovery in application of loan is studied.

Applying the capital recovery factor to the construction cost with assumptions of 10% interest rate and 5 years repayment period, monthly repayment amounts to about 790 Pesos for a flush type and 280 Pesos for a pour-flush type, respectively (details of unit

<sup>1)</sup> Estimated water rate (15m³) in 2000 referring to the average figure of existing water districts in 1994 in Region I and annual inflation rate of 10%.

<sup>2)</sup> Minimum water rate is usually studied by LWUA. Water rate is estimated for the household with consumption rate of 10m<sup>3</sup> under the same assumption of 1).

<sup>3)</sup> Refer to the study in Level II Water Supply Systems.

cost is referred to Chapter 10, Supporting Report). The percentages of repayment to household income in 2000 are calculated in the same manner as the study for Level III water systems and are shown below.

| (a) Repayment for Flush Type (Pesos)                                | : | 790   |
|---|---|-------|
| (b) Repayment for Pour Flush Type (Pesos)                           | : | 280   |
| (c) Percentage of (a) to monthly median household income in 2000 1) | : | 10.3% |
| (d) Percentage of (b) to monthly low household income in 2000 1)    | ; | 7.5%  |

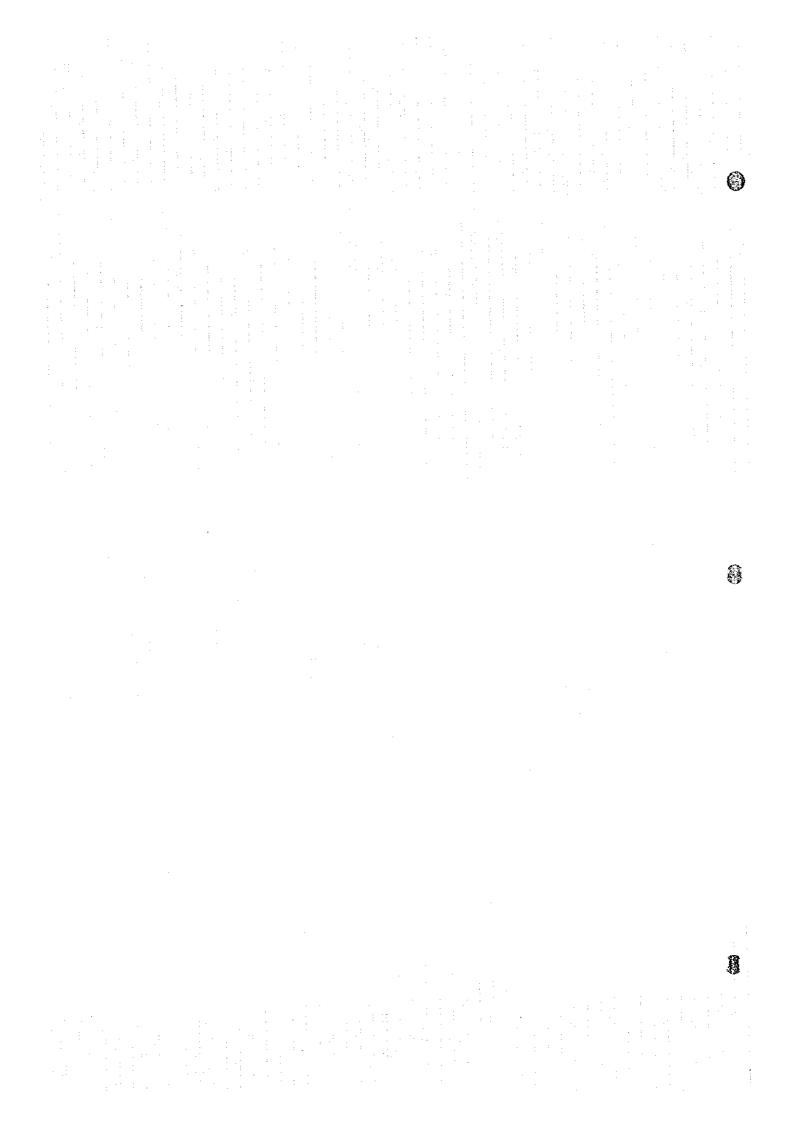
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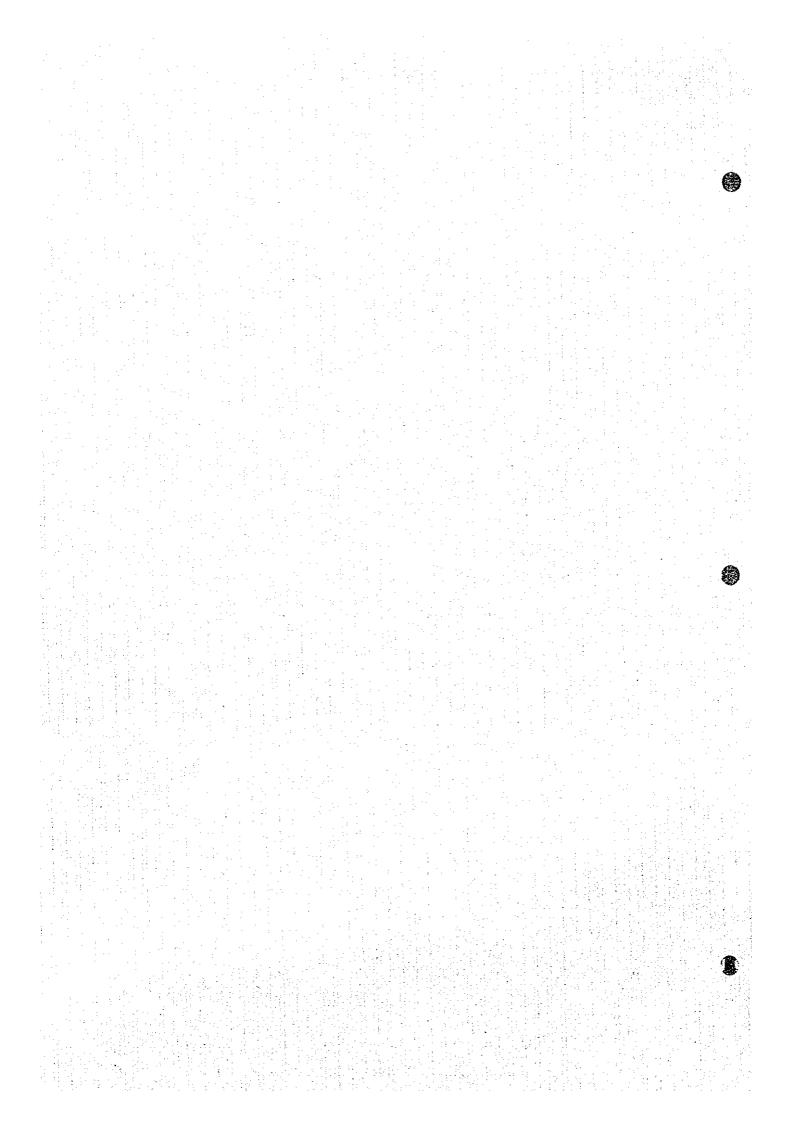
To expedite sanitation improvement, introduction of specific loans that has a revolving character with low interest rate and longer repayment period may be an effective solution. For urban sanitation, the linkage with existing housing loan shall be established to cover construction of sanitary toilets.

<sup>1)</sup> Refer to the study in Level II Water Supply Systems.



Chapter 12

**MONITORING** 



#### 12. MONITORING

#### 12.1 General

Many of the systems constructed earlier have operated in a limited way because of the insufficient monitoring and post-construction technical support, aside from the problems in promotion of self-reliance and local community management. This Chapter seeks to recommend a focused, practical, viable, creative approach to strengthening sector and project monitoring. The development of a coordinated monitoring system is one of the key components of an effective management system.

Sector monitoring refers to the overall water and sanitation situation in the province. One may readily use a demand-supply model for sector monitoring. Demand would be indicated by such indicators as coverage, health conditions, etc. Supply would be indicated by the water resources situation, by the available funding, or by water/sanitation associations organized to undertake sector activities. Project monitoring, on the other hand, looks at the progress of specific activities or projects. Indicators would thus include; disbursements, percent completion, cost overruns (underruns), etc.

#### 12.2 Sector Monitoring

- (1) The monitoring system must support a well-defined and accepted sector development process-model. There are four general aspects of sector monitoring which will be addressed:
  - 1) Information collection: Defining the information needs of the LGUs from various tevels; reviewing current, readily-available sector information, including its reliability and timeliness; identifying the information gaps and deficiencies of the information system; data consolidation and processing.
  - 2) Tracing the flow of raw data from the field (or other related monitoring systems) to the central level. Identifying possible causes of distortions, inconsistencies or blocks.
  - 3) Information analysis: Assessing the quality of information; reviewing the analyses done.
  - 4) Data feedback: Reviewing the impact of information on planning and decision making at the policy level, the resource allocation level and the operating level; tracing the flow of data back to the field.

- (2) Sector performance deficiencies demand that serious thought be given to innovations to reduce costs in achieving the provincial sector plan. With the monitoring system, the sector should be able to take a fresh and objective view of the way to meet current strategies. For example, does community management of systems really work? Do low-cost technologies make sense? Under what conditions and how? How can the target be achieved for low-income communities? A sector monitoring system should be flexible to support planning and research studies on such specific policy and operational issues.
- (3) In putting together a relevant sector monitoring system, the following should be seriously looked into:
  - 1) It should reinforce the linkage between water, sanitation and health. This implies that coverage should be measured for availability of both water and sanitation for a household. It should not be monitored separately, i.e., a household can thus be categorized as having both water and sanitation, water only, sanitation only or none of either. At later stages, health practices can be included in the monitoring.
  - 2) It should be reliable and involve the beneficiaries. This mechanism could provide the data quality control which is missing in existing systems. Distortion of information may occur when implementors are the monitors. The barangay will be the basic data capture level.
  - 3) Monitoring will succeed only with interagency support, particularly in the initial stages. It should be accepted by all sector agencies. A unified set of figures and indicators will greatly help in planning.
  - 4) It should be practical and implementable. It should start with the current monitoring capacity situation and move up with a clear vision of what the monitoring system should be. This implies phasing and gradual expansion and strengthening of the system and training of staff.
  - 5) The system should be followed through with effective feedback. It should develop creative ways of providing feedback to the field. The current way in which data is processed is towards consolidation. The field sources' only feedback is, for example, national coverage figures. In the course of consolidation, opportunities for specific feedback useful to project implementors on performance are lost.
- (4) Sector development indicators. Some important indicators will be more difficult to collect than others because the sector is not ready to gather them. The LGUs will group indicators into phases based on availability of data and/or ease with which such information can be collected with improved systems. A review of the objectives set for the sector

almost exclusively shows a focus on coverage. It is important to get sector objectives stated beyond coverage terms in order to encourage use of additional indicators. Based on past experience, requiring too much information leads to start-up difficulties. A three-phase build-up meeting sector requirements is outlined in the following sections:

#### 1) Phase 1 Indicators

- Access to both adequate water and sanitation
- Water and sanitation associations duly organized to undertake sector activities
- Water and sanitation facilities in schools
- Capital development costs
- Sources of capital development funds
- Incidence of diarrhea
- Water availability and water quality maps
- Unit cost (per capita or per facility)

#### 2) Phase 2 Indicators

- Household hygiene habits and practices
- Water stored in house covered? food covered? grounds free of faeces, garbage, wastewater cesspools? animals in the house? mother's and children's hands clean?
- Existence of barangay spot maps and facilities ledger cards
- Existence of O&M arrangements
- Current costs to households and willingness to pay for improved service

## 3) Phase 3 Indicators

- O&M Costs
- Financial efficiency and stability indicators
- Institutional development indicators
- Low-income groups benefiting from improvements
- (5) NBDA has issued a Board Resolution in 1995 providing a practical definition of terms for planning and monitoring. The definitions were arrived at after exhaustive discussions and consensus with the implementing agencies.
- (6) Recommended institutional responsibilities for sector monitoring: Monitoring is best left to parties not directly involved in delivery of the services. The best monitors are the

community members themselves since accurate monitoring reports is in their best interest. At the data capture level, the PHO structure, with its midwives and BHW volunteers, is in the best position to take the lead in data gathering.

- Provincial Level: The PPDOs, through its Research and Evaluation Division, will
  play the lead role in organizing the field data collection effort in coordination with
  the field offices of national agencies, NGOs and the water districts. The Monitoring
  Specialist, with the PST/PWSO, will assist the PPDO.
- 2) Municipal Level: The Municipal Development Coordinator has the mandate of monitoring all development activities in the municipality. The municipal sector liaison will therefore coordinate the preparation of the reports with the MPDO, supported by PHO and NGOs, as needed.
- 3) Barangay Level: There are several institutional options for leading the monitoring at the barangay level, such as the barangay health stations, the barangay council, etc. The municipal sector liaison will take the lead in establishing the barangay monitoring responsibilities.
- (7) Computerization of the system can come at later stages. This should be gradually phased in as the sector agencies strengthen their monitoring mode. This will also discourage a ground swell of requests for computer hardware. Computer facilities are available at the provincial level.
- (8) A new sector database program has been recently designed and currently under review.

  A Sector Database Center has been established within the DILG-PMO. The system has been successfully piloted in three provinces and replication in other priority provinces will begin shortly.

## 12.3 Project Monitoring

Project Monitoring Committees (PMCs) exist at the provincial and municipal levels tasked with the monitoring of local government projects funded from national and local government funds.

- (1) Scope and coverage: At the provincial level, monitoring includes projects classified under any of the following:
  - foreign and nationally-funded projects which are implemented or located in two or several municipalities in the province or implemented or located in the province;

- 2) other projects implemented and managed at the provincial level with funding generated from provincial sources.
- (2) Organization of Project Monitoring Committee (PMC): The PMC established in each province is composed of representatives from 3 NGOs, 2 from the administration, 1 from the ruling party and 1 from the opposition. From these representatives, the Provincial Governor selects the chairman and the four others as members. The Provincial Planning and Development Office can be delegated to serve as the Secretariat and the PMC manages with the assistance of the non-government organizations in the monitoring and validation of project implementation.
- (3) Responsibilities: The specific rules and responsibilities of the various units in the implementation of the monitoring system are as follows:

## The Project Monitoring Committee:

- 1) Provides the list and schedule of all projects to be monitored to the NGOs involved in monitoring;
- Collects and processes reports of implementors; NGOs monitor the status of project implementation for the information of the development council and next higher level project monitoring committee;
- 3) Pinpoint problems and verify information to be submitted for analysis and action of the development council;
- 4) Provide feedback on the remedial actions of the development council and follow-up their implementation;
- 5) Prepare and disseminate periodic project monitoring report on the status of project implementation; and
- 6) Elevate to higher level bodies problems/issues which are not resolved at their level.

# The PMC Secretariat:

- 1) Prepare the monitoring program to be undertaken by the PMC during any given fiscal year, which will include, among others, the tists of projects and schedule of implementation based on submission of implementing agencies;
- 2) Provide chief executives with information on the projects to be monitored by the local PMC's;

3) Facilitate inter-agency, inter-governmental and field headquarters coordination whenever necessary.

## The Project Implementors:

- 1) Submit periodic reports to the monitoring committee on the status of project implementation base on suggested reporting forms;
- 2) Provide authorized monitors assistance in getting access to more detailed information on project implementation (e.g. detailed work program);
- 3) Submit to next higher level office of line agency reports on status of implementation;
- 4) Implement/institute remedial measures on problems/issues identified as suggested by the development council.

## (4) Process Flow

- 1) The PMC secretariat provides the NGOs with the monitoring plan, containing information on projects to be implemented at the provincial level;
- 2) PMC prepares its monitoring program for the calendar year;
- 3) Project implementors undertake projects, prepare and submit status reports on project implementation to the PMC;
- 4) NGOs project exception reports are submitted to the PMC, with copy furnished the project implementors;
- PMC assesses reports of implementors and NGOs and conducts project visits of projects identified in the monitoring work program;
- 6) PMC processes reports of various implementors and provides the provincial development council with a consolidated report on status of project implementation in the province;
- 7) PMC evaluates problems, recommends solutions during its regular or special meetings, and refers same to the Provincial Development Council for appropriate action;
- 8) PDC assesses reports and takes proper action (problem solving, referral to appropriate agencies/council);
- 9) Implementors take remedial action on problems/issues encountered in project implementation. (If after a reasonable period of time, no remedial measures/ appropriate action have been taken on the problems referred to the concerned agency/local development council, the PMC forward the issue to that RDC.)
- 10) PMC provides feedback to concerned implementors, LGUs, NGOs, and other concerned agencies and follow-up implementation of remedial measures.

11) PMC forwards consolidated status report on project implementation in the province to the Regional Project Monitoring Committee (RPMC).

# (5) Frequency/Timing of Report Submission

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The PMC determine the schedules for the submission of reports. Reports are submitted to the PMC who will forward the consolidated reports to the Provincial Development Council (PDC). Submission of the consolidated report from the provincial PMC to the regional PMC is usually undertaken on a quarterly basis. The PMC furnishes the Provincial Governor with a copy of the reports for his reference and action.

## 12.4 Evaluation of Plan Implementation and Updating the PW4SP

- (1) This PW4SP should be updated at least every five years. This will be the responsibility of the PWSO in close coordination with the PPDO. Based on the sector monitoring reports, the PWSC will review the progress of the sector compared with objectives and the efficiency with which these objectives were achieved. This will be followed by a reformulation of objectives, strategies, new policies and policy revisions and an updated sector investment program.
- (2) To initiate the implementation of this sector monitoring system, the Phase I indicators (See 12.2) shall be used. Formats have been drafted for this purpose (See Table 12.4.1, Supporting Report). Specifically, the information to be collected are as follows:
  - 1) Access to both adequate water and sanitation as a measure of demand: This indicator can be taken from the Field Health Service Information System (FHSIS) Annual Environmental Sanitation Survey which are prepared by the PHO midwives. These annual surveys are summarized by municipality by the sanitary inspectors. NSO population projections will be utilized.
  - 2) Water and sanitation associations (RWSAs/BWSAs) organized: This indicator can be collected from the Cooperative Development Authority (Municipal or Provincial Chapters) in as much as all water cooperatives and/or associations are required to register with the CDA.
  - 3) Water and sanitation facilities in schools: This indicator can be collected from the various school district offices; consolidated at the division (provincial level). Although a system is in place for regular inventory of facilities by DECS, actual inventories are seldom implemented and the LGUs may have to institute a supporting data gathering activity.

- 4) Capital development costs: If the Trust Fund mechanism may be in place, this indicator should be easy to get. If this is not in place yet, the LGUs may have to gather information from the local DEO of DPWH, the PHO, the various municipalities and the water districts.
- 5) Sources of capital development funds: Data sources are the same as those of item 3).
- 6) Incidence of diarrhea: This information can be taken from Form M-2 of the FHSIS. (Collection and processing of the data form is similar to that of item 1).
- 7) Water availability and water quality maps: These maps should be continually updated based on field reports on water quality and quantity as they are received from operations reports studies. Areas where, for example, salinity is increasing should be indicated. Areas suitable for shallow wells, for deep wells and for possible spring sources can be indicated.
- 8) At the conclusion of every project, the monitoring specialist prepares a report on actual unit costs incurred. This would include, for example, the cost of drilling for shallow or deep wells per meter depth; the cost of pipeline per linear meter, etc.
- (3) Municipal level consolidation: For every reporting period, the municipal sector liaison gathers all the barangay level data including those reports of the municipal health officer (and sanitary inspectors), the DECS division offices. A municipal sector report will be thus prepared. Further refinements of this report may be needed in view of future development initiated at the national level.

The municipal sector report is reviewed by the Mayor and then submitted to the Governor for further consolidation. Salient sections of this report would be furnished to DILG which is tasked with coordinating a national sector performance report for NEDA and for the President.

(4) Feedback: Based on these reports, the PST/PWSO will draft a consolidated report on the performance of the sector during the period including the opportunities and constraints met and a set of recommendations for policy revision. Municipalities which have made outstanding progress and associations which have introduced creative innovations in its operations would be cited.

Annual reviews shall be organized to analyze not only the attainment on the physical project targets, but more significantly, whether the vision is being attained. These reviews could also provide the opportunity to sharpen or revise the vision and the mission statement and distill lessons learned from the implementation experiences.

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