

## 11.2 Projection of IRA

The projection of IRA to the relevant sector for Phase I period is made covering different administrative levels. Current manner of allocation by the national government is directed to three different governmental levels; province, municipality and barangay. Municipal fund available for this sector is calculated as a sum of municipal and provincial allotments. Figure 11.2.1 shows the calculation procedure with assumptions and Tables 11.2.1 and 11.2.2 present calculation results. Calculation process is further described as follows:

(1) Projection of annual IRA to all LGUs in the Philippines from 1999 to 2003

The IRAs come from 40% of past and /or projected national internal revenue taxes from 1996 to 2000 (3rd fiscal year preceding the current year) projections for national internal revenue taxes. This ratio is based on the Local Government Code in 1991.

(2) Distribution of national total IRA to each administrative unit

Based on the Local Government Code, IRA is distributed by administrative level as follows:

|                |     |
|----------------|-----|
| Provinces      | 23% |
| Cities         | 23% |
| Municipalities | 34% |
| Barangays      | 20% |

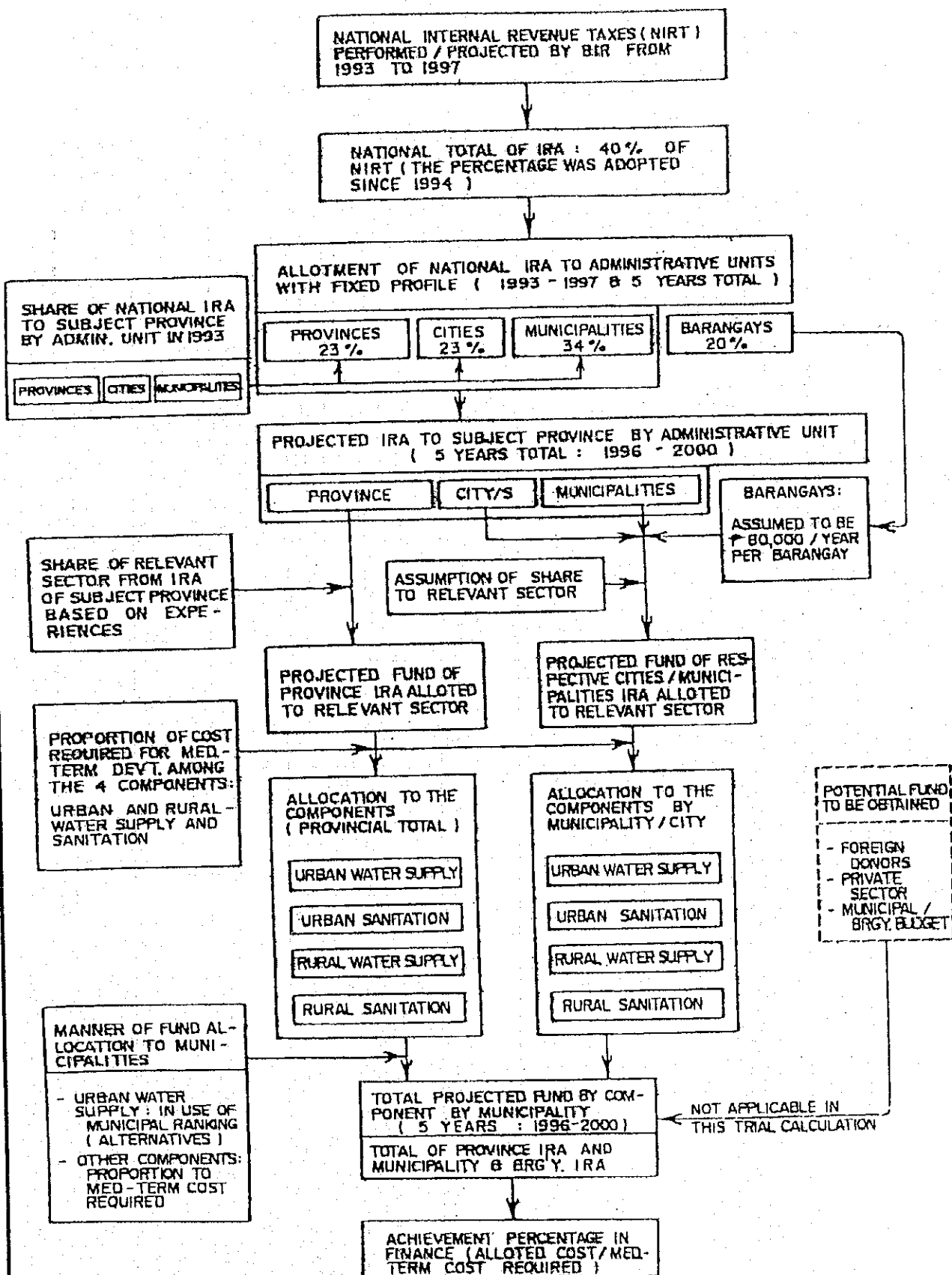
(3) Distribution of national total IRA to the subject province by provincial, municipal and barangay level

With reference to allocation of national IRA by administrative level, provinces and municipalities are based on weighted 3 factors: population, land area and number of administrative units. In this analysis, however, the distribution percentage experienced in 1998 is simply employed in projecting IRA for the period 1999-2003 (refer to Table 6.2.2, Main Report and Supporting Report). Allotments to barangays are added to the IRAs for municipalities (₱80,000 times the number of barangays).

(4) Projection of available IRA to the relevant sector by administrative unit of the province

According to the Provincial Annual Report in 1997, about 3.63% of provincial IRA on the average was availed for the water supply and sanitation sector. Referring to the experience in other provinces, provincial allocation to the relevant sector is assumed to be 4%. This means that 20% of "20% Development Fund" from national IRA are counted on sector projects. The same percentage is applied for the allocation of municipal IRA to the sector.

Figure 11.2.1 TRIAL ALLOCATION OF INTERNAL REVENUE ALLOTMENT (IRA) TO MUNICIPALITIES FOR RELEVANT SECTOR DEVELOPMENT



NOTE: BIR - BUREAU OF INTERNAL REVENUE ( DOF )  
 NIRT ( 1993 - 1997 ) IS THE BASIS OF NATIONAL TOTAL OF IRA ( 1996 - 2000 )  
 POTENTIAL FUND: NEEDS OF ADDITIONAL FUND ARE CONSIDERABLE, THIS REFERENCE INFORMATION IS SHOWN.

Table 11.2.1 Projected Internal Revenue Allotment for Medium-Term Sector Development

Unit: P 1,000

|   | 1999       | 2000        | 2001        | 2002        | 2003        | Total       |
|---|------------|-------------|-------------|-------------|-------------|-------------|
| 1 40% of Actual/Projected National Internal Revenue Taxes of the 3rd Fiscal Year preceding the current year | 94,880,480 | 104,049,760 | 115,801,280 | 127,449,920 | 142,317,600 | 584,499,040 |
| 2 Internal Revenue Allotment to all LGUs  |            |             |             |             |             |             |
| (a) province (23%)  | 21,822,510 | 23,931,445  | 26,634,294  | 29,313,482  | 32,733,048  | 134,434,779 |
| (b) cities (23%)  | 21,822,510 | 23,931,445  | 26,634,294  | 29,313,482  | 32,733,048  | 134,434,779 |
| (c) municipalities (34%)  | 32,259,363 | 35,376,918  | 39,372,435  | 43,332,973  | 48,387,984  | 198,729,674 |
| (d) barangays (20%)   | 18,976,096 | 20,809,952  | 23,160,256  | 25,489,984  | 28,463,520  | 116,899,808 |
| (e) total IRA to all LGUs   | 94,880,480 | 104,049,760 | 115,801,280 | 127,449,920 | 142,317,600 | 584,499,040 |
| 3 Projected IRA to Subject Province by Administrative Unit  |            |             |             |             |             |             |
| (a) province  | 242,686    | 266,139     | 296,197     | 325,992     | 364,021     | 1,495,035   |
| (b) municipalities/city including barangays   | 607,705    | 663,164     | 734,241     | 804,695     | 894,619     | 3,704,425   |
| Alubijid  | 17,106     | 18,636      | 20,596      | 22,539      | 25,019      | 103,897     |
| Balingasag  | 27,238     | 29,639      | 32,715      | 35,765      | 39,657      | 165,014     |
| Balingoan   | 10,242     | 11,162      | 12,341      | 13,510      | 15,002      | 62,257      |
| Binuangan   | 8,814      | 9,604       | 10,616      | 11,620      | 12,901      | 53,555      |
| Claveria  | 41,313     | 45,120      | 49,999      | 54,835      | 61,008      | 252,275     |
| El Salvador   | 19,367     | 21,123      | 23,373      | 25,604      | 28,451      | 117,918     |
| Gingoog City  | 211,918    | 231,787     | 257,251     | 282,493     | 314,710     | 1,298,159   |
| Gitagum   | 11,345     | 12,357      | 13,653      | 14,938      | 16,578      | 68,871      |
| Initao  | 16,995     | 18,514      | 20,461      | 22,390      | 24,853      | 103,213     |
| Jasaan  | 20,093     | 21,919      | 24,259      | 26,578      | 29,539      | 122,387     |
| Kinoguitan  | 11,232     | 12,202      | 13,444      | 14,676      | 16,248      | 67,801      |
| Lagonglong  | 13,613     | 14,851      | 16,438      | 18,011      | 20,018      | 82,930      |
| Laguindingan  | 12,496     | 13,619      | 15,057      | 16,484      | 18,304      | 75,960      |
| Libertad  | 10,098     | 10,996      | 12,148      | 13,289      | 14,746      | 61,276      |
| Lugait  | 11,115     | 12,128      | 13,425      | 14,711      | 16,353      | 67,732      |
| Magsaysay   | 19,475     | 21,164      | 23,328      | 25,474      | 28,212      | 117,654     |
| Manticao  | 16,843     | 18,370      | 20,327      | 22,267      | 24,743      | 102,549     |
| Medina  | 18,633     | 20,286      | 22,406      | 24,507      | 27,188      | 113,020     |
| Naawan  | 13,303     | 14,511      | 16,060      | 17,595      | 19,554      | 81,022      |
| Opol  | 16,942     | 18,471      | 20,430      | 22,373      | 24,852      | 103,068     |
| Salay   | 15,512     | 16,872      | 18,615      | 20,342      | 22,548      | 93,889      |
| Sugbongcogon  | 9,425      | 10,259      | 11,327      | 12,386      | 13,738      | 57,136      |
| Tagoloan  | 22,897     | 25,032      | 27,769      | 30,482      | 33,945      | 140,126     |
| Talisayan   | 16,921     | 18,418      | 20,335      | 22,236      | 24,662      | 102,572     |
| Villanueva  | 14,768     | 16,126      | 17,866      | 19,591      | 21,792      | 90,144      |
| (c) Provincial Total  | 850,391    | 929,303     | 1,030,438   | 1,130,687   | 1,258,640   | 5,199,460   |
| 4 Project fund of IRA to Relevant Sector by Administrative Unit   |            |             |             |             |             |             |
| (a) province  | 9,707      | 10,646      | 11,848      | 13,040      | 14,561      | 59,801      |
| (b) municipalities/city including barangays   | 22,269     | 24,298      | 26,898      | 29,476      | 32,766      | 135,708     |
| Alubijid  | 684        | 745         | 824         | 902         | 1,001       | 4,156       |
| Balingasag  | 1,090      | 1,186       | 1,309       | 1,431       | 1,586       | 6,601       |
| Balingoan   | 410        | 446         | 494         | 540         | 600         | 2,490       |
| Binuangan   | 353        | 384         | 425         | 465         | 516         | 2,142       |
| Claveria  | 1,653      | 1,805       | 2,000       | 2,193       | 2,440       | 10,091      |
| El Salvador   | 775        | 845         | 935         | 1,024       | 1,138       | 4,717       |
| Gingoog City  | 6,817      | 7,456       | 8,276       | 9,088       | 10,124      | 41,761      |
| Gitagum   | 454        | 494         | 546         | 598         | 663         | 2,755       |
| Initao  | 680        | 741         | 818         | 896         | 994         | 4,129       |
| Jasaan  | 804        | 877         | 970         | 1,063       | 1,182       | 4,895       |
| Kinoguitan  | 449        | 488         | 538         | 587         | 650         | 2,712       |
| Lagonglong  | 545        | 594         | 658         | 720         | 801         | 3,317       |
| Laguindingan  | 248        | 271         | 299         | 328         | 364         | 1,510       |
| Libertad  | 404        | 440         | 486         | 532         | 590         | 2,451       |
| Lugait  | 445        | 485         | 537         | 588         | 654         | 2,709       |
| Magsaysay   | 779        | 847         | 933         | 1,019       | 1,128       | 4,706       |
| Manticao  | 674        | 735         | 813         | 891         | 990         | 4,102       |
| Medina  | 745        | 811         | 896         | 980         | 1,088       | 4,521       |
| Naawan  | 532        | 580         | 642         | 704         | 782         | 3,241       |
| Opol  | 678        | 739         | 817         | 895         | 994         | 4,123       |
| Salay   | 620        | 675         | 745         | 814         | 902         | 3,756       |
| Sugbongcogon  | 249        | 271         | 299         | 327         | 363         | 1,510       |
| Tagoloan  | 916        | 1,001       | 1,111       | 1,219       | 1,358       | 5,605       |
| Talisayan   | 677        | 737         | 813         | 889         | 986         | 4,103       |
| Villanueva  | 591        | 645         | 715         | 784         | 872         | 3,606       |
| (c) Provincial Total  | 31,977     | 34,944      | 38,746      | 42,516      | 47,326      | 195,509     |

**Table 11.2.2 Projected Allotment of IRA to the Relevant Sector by Component  
(1999-2003)**

Unit: 1,000 pesos

| LGUs                | Urban Water Supply | Rural Water Supply | Urban Sanitation | Rural Sanitation | Total   |
|---------------------|--------------------|--------------------|------------------|------------------|---------|
| 1. Province         | 20,454             | 27,324             | 7,119            | 4,905            | 59,801  |
| 2. Municipalities   |                    |                    |                  |                  |         |
| Alubijid            | 934                | 1,849              | 598              | 775              | 4,156   |
| Balingasag          | 2,386              | 3,286              | 354              | 574              | 6,601   |
| Balingoan           | 1,092              |                    | 917              | 482              | 2,490   |
| Binuangan           | 983                |                    | 916              | 243              | 2,142   |
| Claveria            | 7,812              | 1,706              | 415              | 157              | 10,091  |
| El Salvador         | 987                | 3,119              | 346              | 265              | 4,717   |
| Gingoog City        | 23,766             |                    | 7,574            | 10,421           | 41,761  |
| Gitagum             |                    | 1,267              | 1,461            | 26               | 2,755   |
| Initao              |                    | 2,834              | 776              | 519              | 4,129   |
| Jasaan              | 2,949              | 614                | 896              | 437              | 4,895   |
| Kinoguitan          | 316                | 1,663              | 669              | 63               | 2,712   |
| Lagonglong          | 1,152              | 1,380              | 350              | 436              | 3,317   |
| Laguindingan        |                    |                    | 1,510            |                  | 1,510   |
| Libertad            | 444                | 1,721              | 280              | 6                | 2,451   |
| Lugait              |                    |                    | 1,618            | 1,091            | 2,709   |
| Magsaysay           | 26                 | 4,318              | 99               | 263              | 4,706   |
| Manticao            | 1,122              | 2,440              | 493              | 47               | 4,102   |
| Medina              |                    | 1,797              | 1,422            | 1,301            | 4,521   |
| Naawan              | 748                | 2,093              | 381              | 19               | 3,241   |
| Opol                | 1,666              | 1,992              | 193              | 272              | 4,123   |
| Salay               |                    | 1,846              | 1,085            | 824              | 3,756   |
| Sugbongcogon        |                    |                    | 1,510            |                  | 1,510   |
| Tagoloan            | 3,671              |                    | 1,934            |                  | 5,605   |
| Talisayan           | 995                | 2,836              | 238              | 34               | 4,103   |
| Villanueva          | 1,238              | 1,940              | 248              | 180              | 3,606   |
| 3. Provincial Total | 72,741             | 66,025             | 33,402           | 23,340           | 195,509 |

(5) Available IRA of municipalities by sub-sector

Available municipal fund for the four components (urban and rural water supply, and urban and rural sanitation) is estimated as a sum of respective components in combination of those allocated from the province and distributed in each municipality. Distribution of

sector total fund to sub-components both in the provincial and municipal levels is arranged in proportion to the direct construction cost required for Phase I development.

With regards to the distribution of provincial IRA for urban water supply to respective municipalities, weighing method with ranking is employed, which will be discussed in detail in Section 11.4. For the other components, provincial IRA is distributed to municipalities in proportion to their required costs in Phase I (refer to Table 11.2.2).

The projected provincial IRA to the sector during the period of 1999-2003 is estimated at ₱195.5 million, which is equivalent to 3.8% of combination of provincial and municipal IRA. This percentage arrived as a result of adjustment in the use of IRA for those municipalities of which required cost is lower than allotted IRA. With regard to the allocation to sub-sectors, urban water supply has the largest allotment of 37.21% (₱72.74 million out of the total ₱195.5 million) followed by rural water supply (33.77%). Urban sanitation is allotted ₱33.4 million (about 17.1%) and is larger than that for rural sanitation (₱23.34 million). The proportion of IRA allotment for the sub-sectors differs by municipality and depends on their priority sub-sectors.

In the allocation of municipal IRA, Gingoog has the largest allotment with ₱41.76 million (30.77%) followed by the municipality of Claveria (7.43%).

### 11.3 Additional Funding Requirements

Annual cost required for the whole province during the medium-term development is summarized in Table 11.3.1 referring to the study results in Chapter 10. The total cost required covers physical contingency; 10% of the direct cost and price contingency; 7% per year covering the direct cost and physical contingency, and value added tax. Details of implementation arrangements for annual investment are shown in Table 11.3.1, Supporting Report. The required cost excluding price contingency was also shown in the Table to compare with available IRA on a current price level.

Table 11.3.2 presents additional funding requirements of the province on the current price level (or shortfall in funding), which are figured out comparing with available fund for the relevant sector (IRA) in the province over the Phase I requirements. Other funds such as those provided by foreign assistance and local tax portions are kept blank to supplement upon confirmation of additional funds available. Out of ₱583.1million required for Phase I (1999-2003), IRA can fund only ₱195.5 million or 33.53% of the requirements. Hence, there is a

**Table 11.3.1 Financing Requirement by Sector Component for the Province**

Unit: 1,000 pesos

| Sector Components  | 1999          | 2000           | 2001           | 2002           | 2003           | Total<br>1999-2003 | Total<br>2004-2010 |
|--|---------------|----------------|----------------|----------------|----------------|--------------------|--------------------|
| <b>Direct Cost</b>   |               |                |                |                |                |                    |                    |
| <i>1. Direct Construction Cost</i>                           |               |                |                |                |                |                    |                    |
| <i>Urban Water Supply</i>                                    |               |                |                |                |                |                    |                    |
| Level III System   | 0             | 27,279         | 40,918         | 40,918         | 27,279         | 136,394            | 496,068            |
| <i>Rural Water Supply</i>                                    |               |                |                |                |                |                    |                    |
| Level II System  | 4,367         | 4,367          | 0              | 0              | 0              | 8,734              | 0                  |
| Level I Facilities   | 0             | 34,695         | 52,043         | 52,043         | 34,695         | 173,475            | 461,688            |
| <i>Urban Sanitation</i>                                      |               |                |                |                |                |                    |                    |
| Household toilet   | 0             | 56             | 85             | 85             | 56             | 282                | 894                |
| Public school toilet   | 0             | 4,276          | 6,414          | 6,414          | 4,276          | 21,380             | 21,106             |
| Public toilet  | 0             | 5,162          | 7,742          | 7,742          | 5,162          | 25,808             | 25,808             |
| Disinfection of Level I Deep Well and Shallow                | 6             | 12             | 12             | 12             | 12             | 53                 | 0                  |
| <i>Rural Sanitation</i>                                      |               |                |                |                |                |                    |                    |
| Household toilet   | 0             | 512            | 767            | 767            | 512            | 2,558              | 6,381              |
| Public school toilet   | 0             | 6,030          | 9,045          | 9,045          | 6,030          | 30,151             | 157,059            |
| Disinfection of Level I Deep Well and Shallow                | 17            | 31             | 31             | 31             | 31             | 143                | 197                |
| <i>Urban Sewerage</i>  | N/A           | N/A            | N/A            | N/A            | N/A            | N/A                | 788,072            |
| Sub-total  | 4,390         | 82,419         | 117,057        | 117,057        | 78,053         | 398,977            | 1,957,273          |
| <i>2. Procurement of Vehicle/Equipment/Maintenance tools</i> |               |                |                |                |                |                    |                    |
| Well drilling rig and service truck with crane               | 0             | 0              | 0              | 0              | 0              | 0                  | 26,782             |
| Support vehicle  | 0             | 590            | 0              | 0              | 0              | 590                | 0                  |
| Well rehabilitation equipment                                | 0             | 280            | 0              | 0              | 0              | 280                | 0                  |
| Maintenance tools  | 0             | 56             | 84             | 84             | 56             | 280                | 0                  |
| Water quality testing kit                                    | 0             | 3              | 5              | 5              | 3              | 15                 | 0                  |
| Sub-total  | 0             | 929            | 89             | 89             | 59             | 1,165              | 26,782             |
| <i>3. Water Quality Laboratory</i>                           | 2,032         | 0              | 0              | 0              | 0              | 2,032              | 0                  |
| <i>4. Sector Management Cost</i>                             |               |                |                |                |                |                    |                    |
| <i>Engineering Studies</i>                                   |               |                |                |                |                |                    |                    |
| Feasibility study and detail design                          | 21,691        | 13,944         | 0              | 0              | 0              | 35,635             | 104,654            |
| Construction supervision                                     | 175           | 3,272          | 4,646          | 4,646          | 3,098          | 15,857             | 46,513             |
| <i>Institutional Development</i>                             | 10,781        | 10,372         | 6,838          | 3,828          | 3,419          | 35,238             | 104,654            |
| Sub-total  | 32,646        | 27,588         | 11,484         | 8,475          | 6,517          | 86,729             | 255,820            |
| <b>Total Direct Cost</b>                                     | <b>39,068</b> | <b>110,937</b> | <b>128,630</b> | <b>125,620</b> | <b>84,628</b>  | <b>488,903</b>     | <b>2,239,875</b>   |
| <b>Contingencies</b>   |               |                |                |                |                |                    |                    |
| <i>1. Physical Contingency</i>                               | 3,907         | 11,094         | 12,863         | 12,562         | 8,463          | 48,888             | 223,988            |
| <i>2. Price Contingency</i>                                  | 3,008         | 17,682         | 31,842         | 42,947         | 37,474         | 132,953            | N.A                |
| <i>3. Value-Added Tax (VAT)</i>                              | 2,829         | 10,056         | 12,179         | 12,179         | 8,121          | 45,365             | N.A                |
| <b>Total Investment Cost</b>                                 | <b>48,812</b> | <b>149,769</b> | <b>185,515</b> | <b>193,308</b> | <b>138,686</b> | <b>716,109</b>     | <b>2,463,863</b>   |
| <b>Total Investment Cost (excluding Price Contingency)</b>   | <b>45,804</b> | <b>132,087</b> | <b>153,673</b> | <b>150,362</b> | <b>101,212</b> | <b>583,137</b>     | <b>2,463,863</b>   |

**Table 11.3.2 Additional Fund Requirement for the Medium-Term Plan**

Unit: P 1,000 peso

| Item                           | 1999   | 2000    | 2001    | 2002    | 2003    | Total<br>1999-2003 |
|--------------------------------|--------|---------|---------|---------|---------|--------------------|
| Financing Requirement          | 45,804 | 132,087 | 153,673 | 150,362 | 101,212 | 583,137            |
| Expected available fund        |        |         |         |         |         |                    |
| National                       |        |         |         |         |         |                    |
| Local (IRA)                    | 31,977 | 34,944  | 38,746  | 42,516  | 47,326  | 195,509            |
| Others                         |        |         |         |         |         |                    |
| Total                          | 31,977 | 34,944  | 38,746  | 42,516  | 47,326  | 195,509            |
| Shortfall in funding           | 13,827 | 97,143  | 114,926 | 107,846 | 53,885  | 387,627            |
| (Additional Fund Requirements) | 14,795 | 111,219 | 140,789 | 141,364 | 75,577  | 483,744            |

Note: Shortfall in funding: figures on top represent current year level cost.  
figures below represent escalated cost at 7% per year.

big shortfall of ₱387.6 million in funding. It will become ₱483.7 million in consideration of price escalation with annual rate of 7%.

Municipal achievement percentages in finance are shown in Table 11.3.3 in provision of available fund originated by IRA against Phase I financial requirements. The percentage of Gingoog, Gitagum, Laguindingan and Sugbongcogon (100%) are the highest among municipalities, followed by Binuangan (87%). Majorities are in the range between 20% and 40% to the respective requirements, while the provincial average is 34%.

#### 11.4 Medium-Term Implementation Arrangements

The financial requirements to meet Phase I target coverage are substantial. However, projected funding available (IRA) in application of past trend revealed that considerable amount of additional fund must be arranged. Under this situation, reference scenarios are discussed with the assumption of different levels of funding availability with reference to service coverage. Alternative countermeasures are also discussed in view of (1) acquisition of external funds, (2) augmentation of sector finance under current arrangements (IRA and others), (3) introduction of private sector participation to mitigate public investment needs, and (4) effective and economical investments.

Table 11.3.3 Internal Revenue Allotment for Water Supply and Sanitation Sector by Municipality  
(Medium-term Development, 1999-2003)

Unit: P. 1,000

| Name of Municipality | IRA Allocation to Municipalities    |                            |                    |                                     |                            |               | Phase I Investment Cost Requirement (b) | Achievement Percentage (%) in Finance (a)/(b) |                                     |                            |               |               |                |                |           |
|----------------------|-------------------------------------|----------------------------|--------------------|-------------------------------------|----------------------------|---------------|---|---|-------------------------------------|----------------------------|---------------|---------------|----------------|----------------|-----------|
|                      | Urban Water Supply                  |                            | Rural Water Supply |                                     | Urban Sanitation           |               |   |   | Rural Sanitation                    |                            |               |               |                |                |           |
|                      | Allotted from Provincial Government | Allotted Municipality Fund | Total              | Allotted from Provincial Government | Allotted Municipality Fund | Total         |   |   | Allotted from Provincial Government | Allotted Municipality Fund | Total         |               |                |                |           |
| Alibuhid             | 708                                 | 934                        | 1,642              | 865                                 | 1,849                      | 2,714         | 335                                     | 598   | 933                                 | 416                        | 775           | 1,191         | 6,480          | 18,852         | 34        |
| Balingasag           | 3,754                               | 2,386                      | 6,140              | 3,801                               | 3,286                      | 7,087         | 466                                     | 354   | 821                                 | 719                        | 574           | 1,292         | 15,340         | 74,351         | 21        |
| Balingoan            | 708                                 | 1,092                      | 1,799              | 294                                 | 917                        | 1,211         | 294                                     | 917   | 1,211                               | 180                        | 482           | 662           | 3,672          | 6,278          | 58        |
| Binuangan            | 636                                 | 983                        | 1,619              | 690                                 | 1,706                      | 2,397         | 223                                     | 415   | 639                                 | 119                        | 157           | 276           | 3,087          | 3,529          | 87        |
| Claveria             | 708                                 | 7,812                      | 8,520              | 1,402                               | 3,119                      | 4,521         | 212                                     | 346   | 558                                 | 174                        | 265           | 440           | 7,213          | 39,475         | 30        |
| El Salvador          | 708                                 | 987                        | 1,695              | 1,402                               | 3,119                      | 4,521         | 0                                       | 7,574   | 7,574                               | 10,421                     | 10,421        | 41,761        | 20,602         | 20,602         | 35        |
| Gingoog City         |                                     | 23,766                     | 23,766             |                                     |                            |               |   |   |                                     |                            |               |               | 41,761         | 41,761         | 100       |
| Gitagum              |                                     |                            |                    | 42                                  | 1,267                      | 1,309         | 48                                      | 1,461   | 1,509                               | 1                          | 26            | 27            | 2,845          | 2,846          | 100       |
| Initao               |                                     |                            |                    | 571                                 | 2,834                      | 3,405         | 212                                     | 776   | 987                                 | 159                        | 519           | 678           | 5,070          | 8,034          | 63        |
| Jasaan               | 708                                 | 2,949                      | 3,656              | 309                                 | 614                        | 923           | 499                                     | 896   | 1,395                               | 272                        | 437           | 708           | 6,683          | 23,590         | 28        |
| Xinoguitan           | 397                                 | 316                        | 713                | 390                                 | 1,663                      | 2,054         | 212                                     | 669   | 881                                 | 70                         | 63            | 133           | 3,781          | 6,118          | 62        |
| Lagonglong           | 3,754                               | 1,152                      | 4,905              | 940                                 | 1,380                      | 2,320         | 294                                     | 350   | 644                                 | 351                        | 436           | 787           | 8,656          | 21,917         | 39        |
| Laguindingan         |                                     |                            |                    |                                     |                            |               |   | 1,510   | 1,510                               |                            |               |               | 1,510          | 1,510          | 100       |
| Libertad             | 708                                 | 444                        | 1,152              | 955                                 | 1,721                      | 2,676         | 212                                     | 280   | 492                                 | 25                         | 6             | 31            | 4,351          | 13,195         | 33        |
| Lugait               |                                     |                            |                    |                                     |                            |               | 376                                     | 1,618   | 1,994                               | 271                        | 1,091         | 1,362         | 3,356          | 5,212          | 64        |
| Magsaysay            | 375                                 | 26                         | 401                | 6,826                               | 4,318                      | 11,144        | 213                                     | 99  | 311                                 | 472                        | 263           | 735           | 12,591         | 72,484         | 17        |
| Manticao             | 708                                 | 1,122                      | 1,830              | 779                                 | 2,440                      | 3,219         | 213                                     | 493   | 706                                 | 71                         | 47            | 118           | 5,873          | 12,690         | 46        |
| Medina               |                                     |                            |                    | 305                                 | 1,797                      | 2,102         | 294                                     | 1,422   | 1,716                               | 272                        | 1,301         | 1,573         | 5,392          | 7,345          | 73        |
| Naawan               | 708                                 | 748                        | 1,456              | 835                                 | 2,093                      | 2,948         | 212                                     | 381   | 593                                 | 55                         | 19            | 74            | 5,071          | 12,831         | 40        |
| Opol                 | 3,754                               | 1,666                      | 5,420              | 3,392                               | 1,992                      | 5,384         | 385                                     | 193   | 579                                 | 518                        | 272           | 789           | 12,172         | 68,355         | 18        |
| Salay                |                                     |                            |                    | 481                                 | 1,846                      | 2,327         | 336                                     | 1,085   | 1,421                               | 268                        | 824           | 1,092         | 4,840          | 9,425          | 51        |
| Sugbongcogon         |                                     |                            |                    |                                     |                            |               |   | 1,510   | 1,510                               |                            |               |               | 1,510          | 1,510          | 100       |
| Tagoloan             | 708                                 | 3,671                      | 4,379              |                                     |                            |               | 1,239                                   | 1,934   | 3,173                               |                            |               |               | 7,552          | 33,413         | 23        |
| Talissayan           | 708                                 | 995                        | 1,703              | 1,877                               | 2,836                      | 4,713         | 214                                     | 238   | 452                                 | 78                         | 34            | 112           | 6,979          | 26,397         | 26        |
| Villanueva           | 708                                 | 1,238                      | 1,946              | 2,842                               | 1,940                      | 4,782         | 419                                     | 248   | 667                                 | 319                        | 180           | 499           | 7,894          | 51,418         | 15        |
| <b>Total</b>         | <b>20,454</b>                       | <b>52,287</b>              | <b>72,741</b>      | <b>27,324</b>                       | <b>38,701</b>              | <b>66,025</b> | <b>7,119</b>                            | <b>26,284</b>                                 | <b>33,402</b>                       | <b>4,905</b>               | <b>18,435</b> | <b>23,340</b> | <b>195,509</b> | <b>583,158</b> | <b>34</b> |



#### 11.4.1 Reference Scenarios in Different Funding Levels

Achievement levels of service coverage in the target year are examined in assumption of five funding levels. It is regarded that the service coverage is increased in proportion to the investment during Phase I period. The relationships between funding levels and corresponding percentages of service coverage are illustrated in Figure 11.4.1 and Figure 11.4.2 for water supply and sanitation sectors, respectively.

Three reference scenarios are discussed on different levels of funding. These scenarios will be referred to in combination of alternative countermeasures discussed in Section 11.4.2. Using computer-based programs, these scenarios may be modified by policy makers according to the updated information and policy on the available fund and sector targets.

##### (1) The First Reference Scenario

No funding constraints are considered in this scenario to realize Phase I development as planned. This scenario is too optimistic based on the past experiences.

##### (2) The Second Reference Scenario

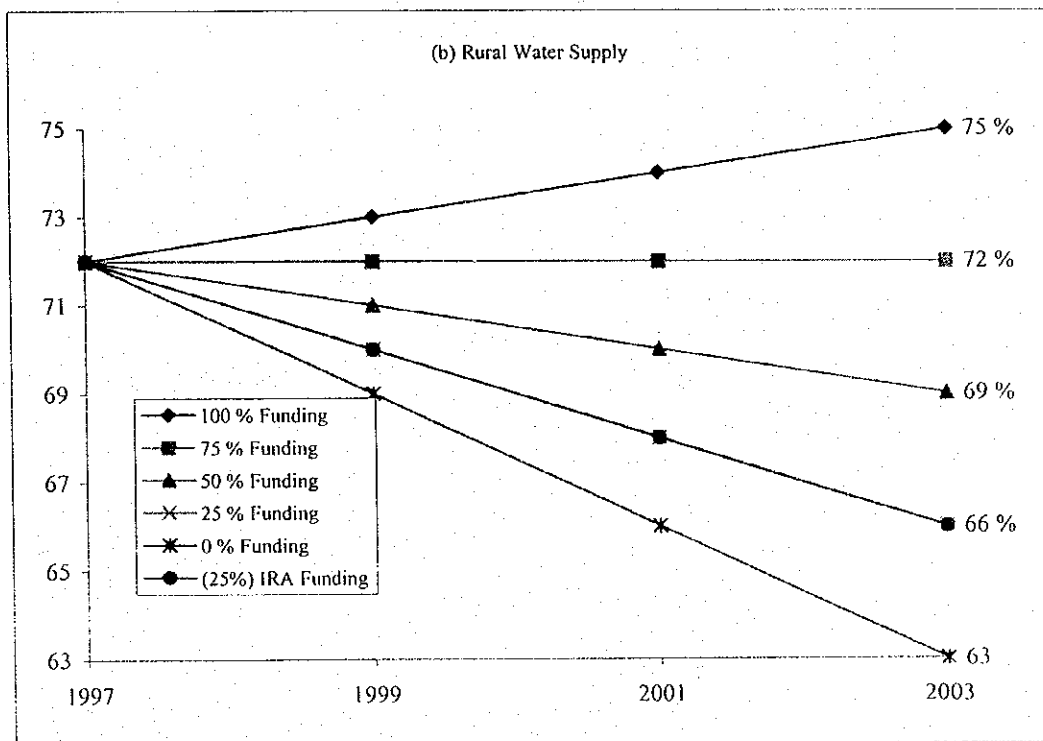
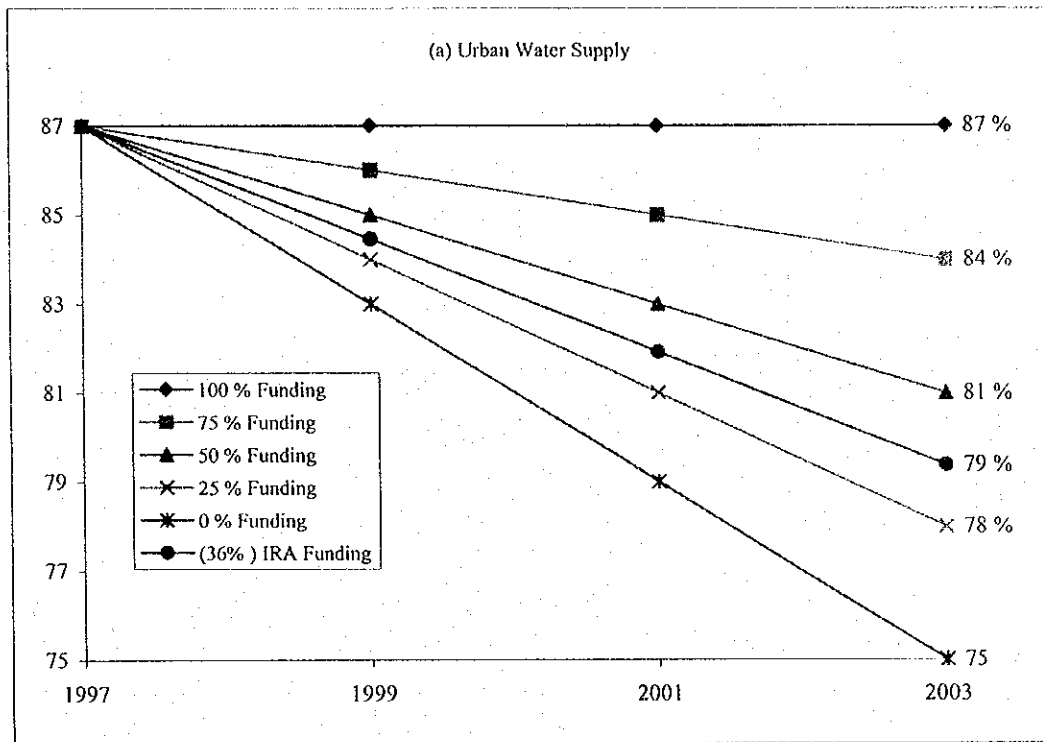
An intermediate scenario with 50 - 75 %-funding ranges are considered. Urban and rural water supply coverage in the year 2003 is attained between 81-84% and between 69-72 %, respectively. For urban and rural sanitation (household toilets), coverage will reach 76-80% and 64-70%, respectively based on the assumption that required private investments are followed.

##### (3) The Third Reference Scenario

In the scenario of 25% funding against the total requirements of Phase I, urban and rural water supply coverage in the year 2003 will be attained at 78% and 66%, respectively, while urban and rural sanitation coverage will be at 71% and 59%. All sub-sectors will not be able to keep current service level.

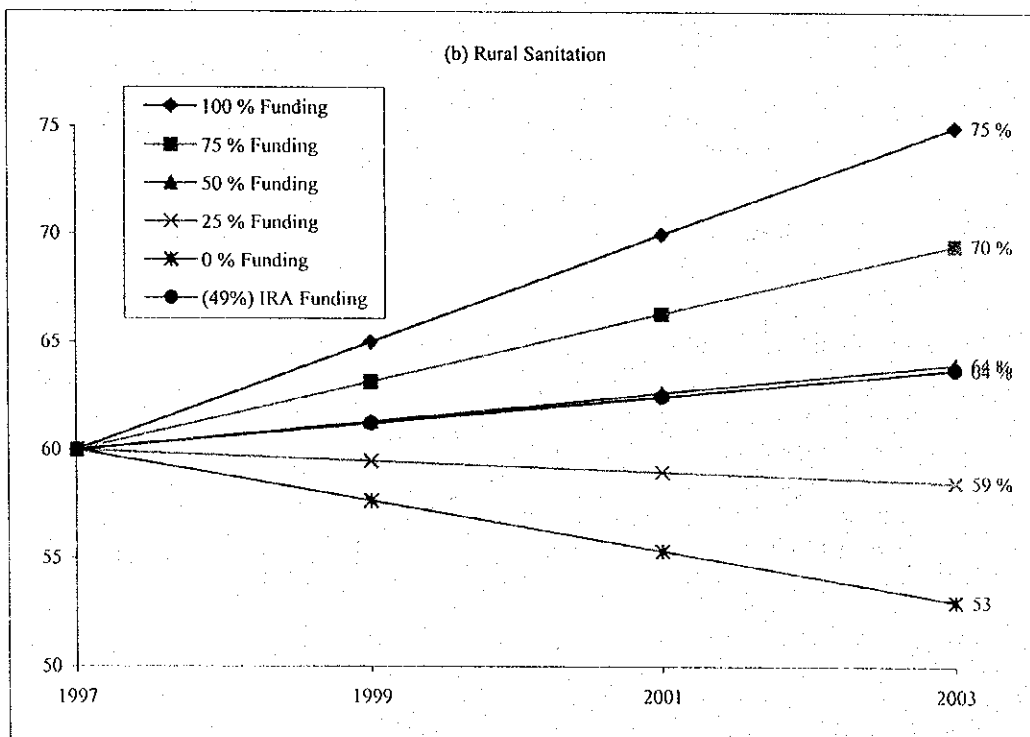
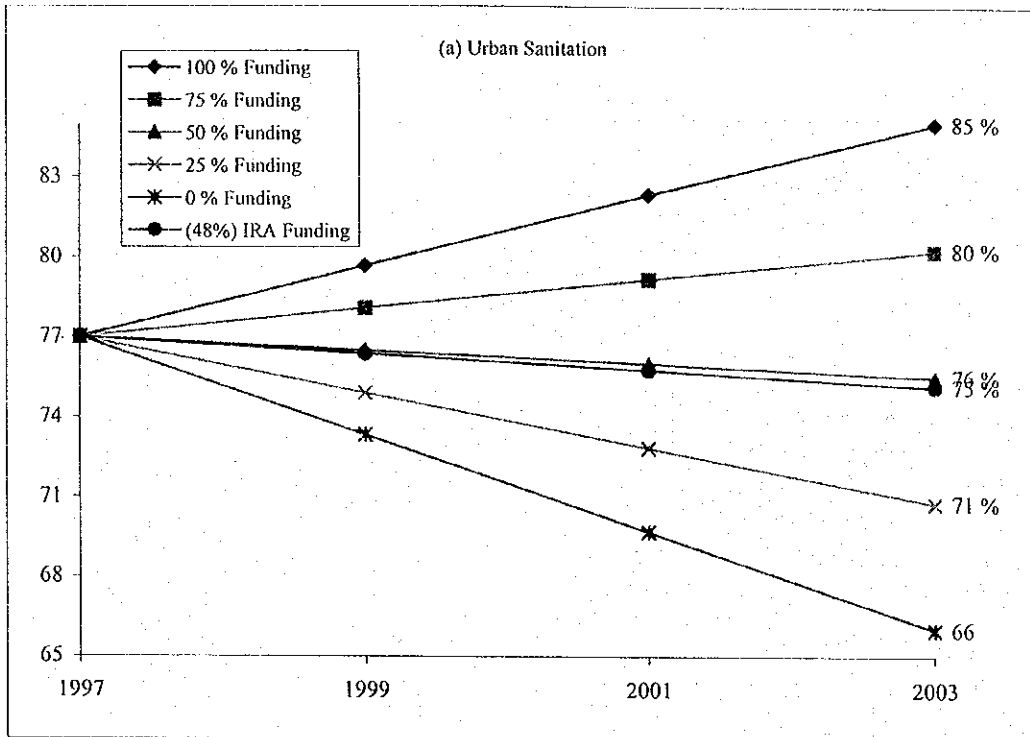
The allocated IRA funding of urban and rural water supply in the year 2003 will be 36% and 25% which will cover 79% and 66% of the population. In order to attain the Phase I development target of 87% and 75% service coverage, it needs an additional IRA funding of 64% and 75%, respectively. While for urban and rural sanitation, the allotted funding of 48% and 49%. To cover the Phase I development target of 85% and 75% of the population it requires an additional IRA funding of 52% and 51%, respectively.

**Figure 11.4.1 Relation Between Funding Levels and Percent of Coverage for Water Supply Sector**



Note: Percentages of the coverage between 1997 and 2003 are simply prorated as the reference

**Figure 11.4.2 Relation Between Funding Levels and Percent of Coverage for Sanitation Sector**



Note: Percentages of the coverage between 1997 and 2003 are simply prorated as the reference

## 11.4.2 Alternative Countermeasures

This sub-section presents the means of financing the shortfall for the investment program.

### (1) Acquisition of external funds

Foreign assistance has played a significant role in the development of the relevant sector in the past. Negotiations with the central government agencies (DILG, LWUA, etc.) are requisites to access the foreign funds. Development of new local financial mechanism is also needed for LGUs under current policy shifts to increase the opportunities of LGUs undertaking foreign-assisted projects.

As a matter of fact, Local Government Empowerment Fund (LGEF) was established in 1996 to provide a mechanism for channeling external grants and loans to 19 priority provinces under the Social Reform Agenda and/or those classified as 5th or 6th class LGUs (details are referred to Chapter 11.4.2, Supporting Report).

The foreign loan may be availed of at the maximum financing limit of 75% of the overall project cost. This can be secured by GOP and channeled through the MDF.

### (2) Augmentation of sector finance under current arrangements

#### Increase of the IRA to the Relevant Sector

The increase of IRA from the national government to LGUs is at first needed along with current procedure. LGUs shall also arrange the funds with a priority to the relevant sector.

#### Local Taxes

More allocation of local taxes to the relevant sector shall be arranged although the share of local taxes in the provincial total budget is small.

#### Utilization of Other Local Funds

Utilization of other funds, Countryside Development Fund (CDF) in particular, shall be sought for development of the relevant sector.

(3) Introduction of private sector

Privatization of Level III Waterworks System

Privatization of Level III systems helps expedite sector development and sustainability of the system as suggested by NEDA Board Resolution No. 4 (series 1994).

LGU Guaranty Organization

LGU Guaranty Organization as a public-private corporation managed by private sector in the national level shall be studied to encourage private financing for the development of environmental infrastructure, which is introduced in other developing countries. The organization will guarantee local private loans to LGUs in provision of a longer term financing.

(4) Effective and economical investment

Investment Need Ranking of Municipalities

Investment need ranking of the municipalities is discussed as a guide for implementation of PW4SP and a measure for effective and economical public investment. Referring to this ranking, the provincial government will arrange its financial resources more effectively.

The ranking for urban water supply is specifically studied considering three factors, while a sole factor of additional requirements is assumed to coincide with the priority of other sub-sectors. Synthetic evaluation of concerned sub-sectors is finally presented in the context of comprehensive improvement of this sector. The result for urban water supply is employed for allocation of provincial IRA to the municipalities in the concerned sub-sector. The synthetic ranking may be availed for the huge investment that will use 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 with the 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. There are five

Table 11.4.1 Municipal Investment Need Ranking for Urban Water Supply

| Name of Municipality | Evaluation Factor                                     |   |  | Scoring by the Factor                            |  |   |      | Overall Weighted Score | Investment Need Ranking |
|----------------------|---|---|--|--|--|---|------|------------------------|-------------------------|
|                      | % of Underserved and Unserved Population in Base Year | % of Underserved and Unserved Population in Phase I | % of Population Unserved by Level III Systems in Base Year | Underserved and Unserved Population in Base Year | Underserved and Unserved Population in Phase I | Population Unserved by Level III Systems in Base Year |      |                        |                         |
| Alubjid              | 14  | 24  | 47   | 0.40   | 0.40   | 0.60  | 0.43 | 10                     |                         |
| Balingasag           | 34  | 41  | 100  | 0.80   | 0.60   | 1.00  | 0.76 | 3                      |                         |
| Balingoan            | 13  | 24  | 53   | 0.40   | 0.40   | 0.60  | 0.43 | 10                     |                         |
| Bimuan               | 24  | 28  | 100  | 0.60   | 0.40   | 1.00  | 0.59 | 5                      |                         |
| Claveria             | 20  | 38  | 64   | 0.40   | 0.60   | 0.80  | 0.53 | 7                      |                         |
| El Salvador          | 6   | 23  | 6  | 0.20   | 0.40   | 0.20  | 0.27 | 19                     |                         |
| Gingoog City         | 20  | 25  | 64   | 0.40   | 0.40   | 0.80  | 0.46 | 9                      |                         |
| Gitagum              | 8   | 11  | 8  | 0.20   | 0.20   | 0.20  | 0.20 | 21                     |                         |
| Initao               |   | 1   | 0  | 0.20   | 0.20   | 0.20  | 0.20 | 21                     |                         |
| Jasaan               | 9   | 23  | 77   | 0.20   | 0.40   | 0.80  | 0.36 | 15                     |                         |
| Kinogaitan           | 18  | 18  | 35   | 0.20   | 0.40   | 0.40  | 0.30 | 17                     |                         |
| Laguindingan         | 29  | 43  | 56   | 0.60   | 0.60   | 0.60  | 0.60 | 4                      |                         |
| Liberad              | 15  | 23  | 50   | 0.40   | 0.40   | 0.20  | 0.20 | 21                     |                         |
| Lugait               | 1   | 10  | 3  | 0.20   | 0.20   | 0.20  | 0.43 | 10                     |                         |
| Magsaysay            | 10  | 17  | 100  | 1.00   | 0.40   | 1.00  | 0.79 | 2                      |                         |
| Manitaco             | 17  | 21  | 45   | 0.40   | 0.40   | 0.60  | 0.43 | 10                     |                         |
| Medina               | 3   | 10  | 3  | 0.20   | 0.20   | 0.20  | 0.20 | 21                     |                         |
| Naawan               | 20  | 27  | 44   | 0.40   | 0.40   | 0.60  | 0.43 | 10                     |                         |
| Opol                 | 60  | 66  | 93   | 1.00   | 1.00   | 1.00  | 1.00 | 1                      |                         |
| Salay                |   | 5   | 100  | 0.20   | 0.20   | 1.00  | 0.32 | 16                     |                         |
| Sugbongcoan          |   | 13  | 74   | 0.20   | 0.20   | 0.80  | 0.29 | 18                     |                         |
| Tagoloan             |   | 20  | 11   | 0.20   | 0.40   | 0.20  | 0.27 | 19                     |                         |
| Talisayan            | 18  | 31  | 100  | 0.40   | 0.60   | 1.00  | 0.56 | 6                      |                         |
| Villanueva           | 16  | 35  | 30   | 0.40   | 0.60   | 0.40  | 0.47 | 8                      |                         |
| Provincial Total     | 13  | 25  | 49   |  |  |   |      |                        |                         |

Note: 1. Scoring to Underserved and Unserved Percentage.

2. Weight Allocation to Score.

| Score | Range of Underserved and Unserved Percentage |          |          |          | Allocated Weight |
|-------|--|----------|----------|----------|------------------|
| 1.0   | 41 < % < 61                                  | < % < 81 | < % < 81 | < % < 81 | 15               |
| 0.8   | 31 < % < 40                                  | < % < 60 | < % < 61 | < % < 80 |                  |
| 0.6   | 21 < % < 30                                  | < % < 45 | < % < 41 | < % < 60 |                  |
| 0.4   | 11 < % < 20                                  | < % < 30 | < % < 21 | < % < 40 |                  |
| 0.2   | % < 10                                       | % < 15   | % < 15   | % < 20   |                  |

(5) municipalities identified as top five priority municipalities namely Opol, Magsaysay, Balingasag, Lagonglong and Binuangan.

With reference to the provincial fund allocation, it is assumed that 60% of the fund for urban water supply from provincial government is distributed equally to the top fifth ranking municipalities, while the remaining 40% are equally distributed to the rest of the municipalities. The result of distribution is shown in Table 11.4.2. It is noted that the available funds for majority of the municipalities are inadequate to cover Phase I investment requirements.

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). The top ranking municipality is Magsaysay, which indicate that they are given priority for investments in all sub-sectors, Sugbongcogon is the least priority in terms of investment.

#### **11.5 National Government Assisted Level I Water Supply and Sanitation Project**

Of the overall project requirements for the medium-term development, those for Level I water supply and sanitation improvement with possible assistance from the GOP were studied in application of new cost-sharing arrangement. In 1997, the six provinces in the Luzon area (after completion of PW4SP) jointly submitted the project proposal, as a package of OECF assisted loan, to the NEDA through the DILG for the limited sub-sectors under the above conditions.

In the same context as proposed by the six provinces, project components with scope of work and financial viability were studied. The project is a part of medium-term development plan for Level I water supply and sanitation for limited classes of the municipality. The DILG is assumed to be Executing Agency and the province Implementing Agency in the meantime. The project may be merged together with those of the 1<sup>st</sup> batch provinces for preparation of the PW4SP. The implementation of a packaged project may be realized in the near future.

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

Unit: 1,000 pesos

| Ranking      | Name of Municipality | Fund Distribution                                |                             | IRA to Municipalities from National Government (2) | Available Fund Distributed to Municipalities (1) + (2) | Phase I Requirements | Accomplishment Percentage (%) |
|--------------|----------------------|--|-----------------------------|--|--|----------------------|-------------------------------|
|              |                      | Fund Distribution from Provincial Government (1) | Distribution Percentage (%) |  |  |                      |                               |
| 10           | Alubijid             | 708  | 3.46                        | 934  | 1,642  | 4,239                | 38.74                         |
| 3            | Balingasag           | 3,754  | 18.35                       | 2,386  | 6,140  | 26,881               | 22.84                         |
| 10           | Balingoan            | 708  | 3.46                        | 1,092  | 1,799  | 2,752                | 65.38                         |
| 5            | Binuangan            | 636  | 3.11                        | 983  | 1,619  | 1,619                | 100.00                        |
| 7            | Claveria             | 708  | 3.46                        | 7,812  | 8,520  | 30,561               | 27.88                         |
| 19           | El Salvador          | 708  | 3.46                        | 987  | 1,695  | 4,311                | 39.31                         |
| 9            | Gingoog City         |  |                             | 23,766   | 23,766   | 23,766               | 100.00                        |
| 21           | Gitagum              |  |                             |  |  |                      |                               |
| 21           | Initao               |  |                             |  |  |                      |                               |
| 15           | Jasaan               | 708  | 3.46                        | 2,949  | 3,656  | 14,209               | 25.73                         |
| 17           | Kinoguitan           | 397  | 1.94                        | 316  | 713  | 713                  | 100.00                        |
| 4            | Lagonglong           | 3,754  | 18.35                       | 1,152  | 4,905  | 7,608                | 64.47                         |
| 21           | Laguindingan         |  |                             |  |  |                      |                               |
| 10           | Libertad             | 708  | 3.46                        | 444  | 1,152  | 2,392                | 48.16                         |
| 21           | Lugait               |  |                             |  |  |                      |                               |
| 2            | Magsaysay            | 375  | 1.83                        | 26   | 401  | 401                  | 100.00                        |
| 10           | Manticao             | 708  | 3.46                        | 1,122  | 1,830  | 3,471                | 52.72                         |
| 21           | Medina               |  |                             |  |  |                      |                               |
| 10           | Naawan               | 708  | 3.46                        | 748  | 1,456  | 2,962                | 49.15                         |
| 1            | Opol                 | 3,754  | 18.35                       | 1,666  | 5,420  | 27,621               | 19.62                         |
| 16           | Salay                |  |                             |  |  |                      |                               |
| 18           | Sugbongcogon         |  |                             |  |  |                      |                               |
| 19           | Tagoloan             | 708  | 3.46                        | 3,671  | 4,379  | 21,883               | 20.01                         |
| 6            | Talisayan            | 708  | 3.46                        | 995  | 1,703  | 6,403                | 26.59                         |
| 8            | Villanueva           | 708  | 3.46                        | 1,238  | 1,946  | 17,657               | 11.02                         |
| <b>Total</b> |                      | 20,454   | 100                         | 52,287   | 72,741   | 199,449              | 36.47                         |



Table 11.4.3 Municipal Investment Need Ranking

| Name of Municipality | Weighted Score by Sub-sector |                    |                  |                  |                      | Synthetic Municipal Investment Need Ranking |
|----------------------|------------------------------|--------------------|------------------|------------------|----------------------|---|
|                      | Urban Water Supply           | Rural Water Supply | Urban Sanitation | Rural Sanitation | Total Weighted Score |   |
| Alubijid             | 0.11                         | 0.05               | 0.15             | 0.25             | 0.56                 | 7   |
| Balingasag           | 0.19                         | 0.15               | 0.25             | 0.15             | 0.74                 | 3   |
| Balingoan            | 0.11                         | 0.05               | 0.15             | 0.05             | 0.36                 | 20  |
| Binuangan            | 0.15                         | 0.05               | 0.10             | 0.05             | 0.35                 | 21  |
| Claveria             | 0.13                         | 0.05               | 0.15             | 0.20             | 0.53                 | 9   |
| El Salvador          | 0.07                         | 0.05               | 0.20             | 0.20             | 0.52                 | 11  |
| Gingoog City         | 0.12                         | 0.05               | 0.05             | 0.05             | 0.27                 | 24  |
| Gitagum              | 0.05                         | 0.05               | 0.15             | 0.10             | 0.35                 | 22  |
| Initao               | 0.05                         | 0.10               | 0.10             | 0.20             | 0.45                 | 14  |
| Jasaan               | 0.09                         | 0.05               | 0.15             | 0.10             | 0.39                 | 19  |
| Kinoguitan           | 0.08                         | 0.05               | 0.20             | 0.20             | 0.53                 | 9   |
| Lagonglong           | 0.15                         | 0.05               | 0.15             | 0.10             | 0.45                 | 15  |
| Laguindingan         | 0.05                         | 0.05               | 0.25             | 0.05             | 0.40                 | 18  |
| Libertad             | 0.11                         | 0.20               | 0.15             | 0.10             | 0.56                 | 8   |
| Lugait               | 0.05                         | 0.05               | 0.20             | 0.20             | 0.50                 | 12  |
| Magsaysay            | 0.2                          | 0.2                | 0.25             | 0.2              | 0.85                 | 1   |
| Manticao             | 0.11                         | 0.10               | 0.15             | 0.05             | 0.41                 | 17  |
| Medina               | 0.05                         | 0.05               | 0.2              | 0.15             | 0.45                 | 13  |
| Naawan               | 0.11                         | 0.10               | 0.05             | 0.05             | 0.31                 | 23  |
| Opol                 | 0.25                         | 0.2                | 0.25             | 0.05             | 0.75                 | 2   |
| Salay                | 0.08                         | 0.05               | 0.15             | 0.15             | 0.43                 | 16  |
| Sugbongcogon         | 0.07                         | 0.05               | 0.05             | 0.05             | 0.22                 | 25  |
| Tagoloan             | 0.07                         | 0.25               | 0.15             | 0.25             | 0.72                 | 4   |
| Talisayan            | 0.14                         | 0.1                | 0.25             | 0.15             | 0.64                 | 5   |
| Villanueva           | 0.12                         | 0.15               | 0.15             | 0.15             | 0.57                 | 6   |

### 11.5.1 Project Components

#### (1) Water Supply and Sanitation Component

There are fifteen (15) municipalities which are classified as 5<sup>th</sup> and 6<sup>th</sup> class municipalities for GOP-assisted Level I rural water supply in the province. The Level I facilities for the municipality consist of 190 deep wells, 58 shallow wells and 28 spring development.

While, there are twenty-three (23) municipalities to meet the condition for GOP-assisted projects (limited to 3<sup>rd</sup> to 6<sup>th</sup> municipalities) in sanitation sub-sector. The sanitation component comprises 16,267 units of toilet bowl (pour flush type only) for the households by distributing toilet molds, 46 public toilets and 147 school toilets to the rural communities. With the integration of sanitation in the water supply projects, equal emphasis shall be given to the sanitation component to ensure a greater health impact in the rural communities. School toilets will be constructed for public schools in the rural areas, while public toilets will be constructed at public markets and bus terminals in urban areas. Health consciousness among the rural people will also be bolstered with the provision of health education training and IEC materials.

#### (2) Equipment/Commodity Assistance

Due to budgetary constraint and cost-sharing arrangement required (heavy burden to the LGUs), the provision of drilling machine and its service truck is excluded in the medium-term plan (to be considered for long-term plan). While each one unit of service vehicle and well rehabilitation equipment is considered. In addition, maintenance tool and water quality testing kits are to be procured and one unit will be provided to each municipality to maintain the facilities.

#### (3) Consultancy Services

Considering the magnitude and complexity of the project, consulting services and technical assistance may be availed to strengthen the executing and implementing agencies' capabilities in undertaking the project. The services will cover technical and institutional/community development aspects of the project.

During the detailed design stage, the services will cover hydrogeological survey, finalization of well/spring construction sites based on site selection criteria to be developed, and preparation of bidding documents. Guidelines and training program for strengthening the capability of implementing agencies and NGOs will be prepared and carried out. The

construction stage will include assistance to LGUs in the supervision of construction works, community organizing and training works.

#### (4) Institutional Development

The project entails community development with people's active participation to assure the responsibility for O&M of the facilities and strengthening of existing institution/organization and/or formation of new ones. Thus, various activities will be undertaken from national to beneficiary levels. A sufficient cost for the purpose will be taken into account.

### 11.5.2 Project Requirements

The province will manifest its willingness to participate in the project entailing timely arrangements to meet NEDA requirements. These requirements are (1) RDC Endorsement, (2) ECC clearance and (3) Letter of Commitment. Water right permit from the National Water Resources Board will be fulfilled after site selection and preparatory works have been undertaken. In addition, Memorandum of Agreement (MOA) on the cost-sharing and other arrangements required for the project will be exchanged between the province and concerned municipalities.

### 11.5.3 Funding Requirements

#### (1) New Cost Sharing Policy

The project finance was studied in accordance with the 50%-50% cost sharing arrangement (50% is an average municipality's share among concerned municipalities) between the GOP and the LGUs. Financial sharing among the province, municipality and barangay shall then be clarified based on the estimated cost requirements through MOA.

The new policy of the national government grants for devolved activities stated that "this scheme shall be applied to all new ODA-assisted projects that are currently being packaged in support of LGUs". With regard to this, 50% national government share will be applied for Level I water supply and even 70% of NG share for 5<sup>th</sup> and 6<sup>th</sup> classes of municipalities for sanitation component (refer to Table 11.5.1).

**Table 11.5.1 New Cost-Sharing Arrangement between NG and LGUs**

| Sector/Activity   | LGU Income                          | Devised NG | Remarks                              |
|---|-------------------------------------|------------|--------------------------------------|
| Water Supply: Level I only                                    | 1 <sup>st</sup> to 4 <sup>th</sup>  | 0          | No GOP grants for Level II & III wa- |
|   | 5 <sup>th</sup> to 6 <sup>th</sup>  | 50         |                                      |
| Sanitary Support Faci. for Public Markets and Slaughterhouses | 1 <sup>st</sup> to 2 <sup>nd</sup>  | 0          |                                      |
|   | 3 <sup>rd</sup> and 4 <sup>th</sup> | 50         |                                      |
|   | 5 <sup>th</sup> and 6 <sup>th</sup> | 70         |                                      |

(2) Financial Viability

1) Conditions and Assumptions for Financial Study

- The cost-sharing between the GOP and LGUs is 50% : 50% of the overall project cost. While, it is assumed that the 50% share of LGU is further allocated to the LGUs and beneficiaries with 47% and 3% to the overall cost, respectively.
- The financial sources of the national government are the loan from foreign donor and GOP counterpart budget, and LGUs from the budget of the province and municipalities. The cost-sharing part by beneficiaries is equity contribution including land, material purchase cost, right of way, labor, etc.
- The O&M cost is managed by the beneficiaries.

2) Project Cost

The cost estimate was made based on 1997 price level in Chapter 10. Then, physical and price contingencies as well as value-added tax were added. The project cost for the concerned municipalities in line with above conditions/assumptions is shown in Table 11.5.2. Overall aggregate cost for the implementation period of 1999 - 2003 amounted to about ₱289.6 million (₱202.8 million in 1997 price level) referring to the implementation schedule of the project.

3) Financial Arrangement

The two alternatives for the financial arrangements are studied to prepare required cost to be shared among concerned parties: i) Utilization of IRA only and ii) Utilization of IRA and MDF.

Case 1: Utilization of IRA fund only

Currently, there is no projection on drastic increase of LGUs' budget through the future. Under such a condition, the following are considered.

- Potential fund is the IRA annually allotted from the GOP to municipalities and from province to municipalities. Municipal tax is negligible to be considered in the allocation to the sector. The total municipal budget available was projected by sub-sector in Section 11.3.
- Arrangements by the municipalities with MDF and banks are disregarded considering the current financial capability of the municipalities.
- 5-year development program (from 1999 to 2003) is applied to increase project funds using the available IRA.

Applying the cost-sharing arrangement, the IRA available was estimated for the eligible municipalities in provision of national government grant fund based on the following conditions.

- a) The available fund of sub-sectors is a sum of municipal and provincial allotments of IRA.
- b) For water supply sub-sector, IRA to municipalities with income classification of 5<sup>th</sup> and 6<sup>th</sup> classes is counted. The IRA allotted to the province is divided into two groups; classes 1<sup>st</sup> to 4<sup>th</sup> and 5<sup>th</sup> & 6<sup>th</sup> in proportion to the construction cost required. The provincial IRA for the eligible municipalities is considered for this project.
- c) For sanitation sub-sector, IRA to the eligible municipalities is regarded as available fund. The manner of allocation of provincial IRA to the eligible municipalities is same as that in water supply sub-sector.

The total IRA of the province available for the eligible municipalities in the subject sector was estimated at ₱71.639 million as a total of 5-year development program, consisting of water supply; ₱34.301million and sanitation, ₱37.338 million (details are included in Table 11.5.1, 11.5.2 and 11.5.3, Supporting Report). The estimated IRA available is shown below:

| <u>Sub-sector</u>   | <u>Provincial IRA</u> | <u>Municipal IRA</u> | <u>Total</u> |
|---------------------|-----------------------|----------------------|--------------|
| Rural Water Supply: | 13,761,000            | 20,540,000           | 34,301,000   |
| Rural Sanitation:   | 4,486,000             | 7,662,000            | 12,148,000   |
| Urban Sanitation:   | 6,895,000             | 18,295,000           | 25,190,000   |
| Total:              | 25,142,000            | 46,497,000           | 71,639,000   |

The cost comparison was made between the estimated project cost to be shared by the LGUs and available IRA of LGUs. Both the required cost and IRA are based on 1997

year price level without considering price escalation, but including physical contingency.

The comparison shows that the projected available IRA, as the provincial total aggregated with the assumption of respective 5-year development programs, does not meet the cost to be shared by the respective LGUs. Table 11.5.3 shows the cost sharing for the project among the GOP, LGUs and beneficiaries (BWSAs).

The GOP shall shoulder 50% of the overall project cost, utilizing the foreign-assisted loan of 47.7% or ₱96.8 million and 2.3% or ₱4.6 million of the government counterpart fund. The remaining 50% of the overall cost shall be shared between the LGUs with the share of 47% or ₱95.3 million, and BWSAs (beneficiaries) to contribute 3% or ₱6.1 million.

**Table 11.5.3 Cost-Sharing for the Project (Case 1): 1997 price level**

| Financial Source | x 1,000 Peso   | Percentage |    | Remarks         |
|------------------|----------------|------------|----|-----------------|
| GOP              | 4,602          | 2.3        | 50 | GOP counterpart |
|                  | 96,816         | 47.7       |    | Foreign Loan    |
| LGUs             | 95,333         | 47         | 50 | IRA             |
|                  | 6,085          | 3          |    | BWSA equity     |
| <b>Total</b>     | <b>202,837</b> | <b>100</b> |    |                 |

It was identified that about ₱23.7 million are in short achieving 75% of the proposed requirements in comparison between available IRA and the cost to be shared by LGUs.

As an option to solve this financial shortage, the provincial government may rearrange IRA allocation; 100% of replenishment from the remaining provincial IRA allotted to rural water supply sub-sector after reducing allotted amount to the eligible municipality. However, ₱ 0.9 million are still in shortage.

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 municipalities.

Case 2: Utilization of IRA and MDF

The utilization of the MDF is considered in case that the LGUs will fail to furnish IRA for the cost to be shared (even if estimated IRA available meets the required cost to be shared by the LGUs). The foreign loan may be availed of at the maximum financing limit of 75% of the overall project cost.

Thus, the GOP shall possibly support the LGUs through the MDF in case that manageable IRA will not be able to fill up the cost requirement of the project. Table 11.5.4 shows the cost sharing scheme for the project between the GOP and the LGUs.

Under this case, the IRA to be used by the LGU is 56% of the available IRA estimated in the previous study (₱71.6 million).

**Table 11.5.4 Cost Sharing for the Project (Case 2)**

| Financial Source | x 1,000 Peso   | Percentage |     |    | Remarks                  |
|------------------|----------------|------------|-----|----|--------------------------|
|                  |                |            |     |    |                          |
| GOP              | 4,602          | 2.3        | 2.3 | 50 | GOP counterpart          |
|                  | 96,816         | 47.7       | 75  |    | Foreign Loan             |
|                  | 55,374         | (27.3)     |     |    | Foreign Loan for MDF     |
| LGUs             | 39,960         | 19.6       | 47  | 50 | IRA                      |
|                  | 55,374         | 27.3       |     |    | MDF through Foreign Loan |
|                  | 6,085          | 3          |     |    | BWSA Equity              |
| <b>Total</b>     | <b>202,837</b> | <b>100</b> |     |    |                          |

GOP can possibly finance up to ₱152.2 million or 75% of the total project cost in the portion of loan. Out of the 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.

4) Project Implementation Schedule

The proposed implementation of the project is scheduled for five years after hiring the consultants. Figure 11.5.1 presents the proposed schedule.

Figure 11.5.1 Proposed Project Implementation Schedule

| Activities  | 1999 |     |     |     | 2000 |     |     |     | 2001 |     |     |     | 2002 |     |     |     | 2003 |     |     |     |
|---|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|
|   | 1st  | 2nd | 3rd | 4th | 1st  | 2nd | 3rd | 4th | 1st  | 2nd | 3rd | 4th | 1st  | 2nd | 3rd | 4th | 1st  | 2nd | 3rd | 4th |
| <b>Project Implementation</b>   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |     |
| 1. Detailed Design  | █    | █   | █   | █   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |     |
| 2. Community Development/<br>BWSA Formation   |      | █   | █   | █   | █    | █   | █   | █   | █    | █   | █   | █   | █    | █   | █   | █   | █    | █   | █   | █   |
| 3. PQ, Bidding and<br>Contractor Selection  |      |     |     | █   | █    | █   | █   | █   |      |     |     |     |      |     |     |     |      |     |     |     |
| 4. Procurement and Delivery<br>of Materials and Equipment   |      |     |     |     |      |     | █   | █   | █    | █   | █   | █   |      |     |     |     |      |     |     |     |
| 5. Construction of Water Supply and<br>Sanitation Facilities<br>(Construction supervisory services) |      |     |     |     |      |     |     |     | █    | █   | █   | █   | █    | █   | █   | █   | █    | █   | █   | █   |
| Project Monitoring  |      |     |     |     |      |     |     |     |      |     |     |     | █    | █   | █   | █   | █    | █   | █   | █   |

11.6 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.

(1) Level I water supply systems

For Level I systems, cost sharing between the LGUs and beneficiaries is required for the capital costs, even the portion of the beneficiaries is limited according to the current national policy. Currently, the percentage shared by the beneficiaries seems to be 3 to 5% of total requirements based on the experience.

Beneficiaries are also responsible for all recurrent costs. Monthly recurrent cost is estimated at about 8 Pesos per household in the base year price level (refer to recurrent cost in Chapter 10). The figure will be increased up to about 12 Pesos per household in the year 2003, assuming an annual inflation rate of 7%. This monthly fee seems to be affordable to the users considering the current income level (refer to affordability in Chapter 6), but willingness to pay shall be promoted.

Depending on the users' income level, water charges shall be determined and agreed upon among the water users. The estimated water charge for O&M cost is ₱8 per household per month, which is less than 1% of the median monthly household income of ₱4,348 in 1997. However, the users will have to pay water charge of up to 2% of their



monthly income or ₱87 /household/month to manage not only for repair of hand-pump, but also rehabilitation and reconstruction of deep well, assuming that well life is 20 years.

(2) Level II water supply systems

Full cost recovery is required for all capital costs for Level II systems. The number of households to be covered is 928 to meet the target (refer to Table 8.5.1; population to be served of 4,721 people and household size of 5.10 persons). The average capital cost to be paid is estimated at ₱9,417 per household (refer to Chapter 10 Main Report and Supporting Report). Applying the capital recovery factor to the capital costs with conditions of 7% interest rate and 25 years repayment period, monthly payment amounts to about ₱67 per household.

The annual recurrent cost per household is estimated to be ₱180 (₱15/household/month) in the base year (refer to Chapter 10). It will reach to about ₱22.50 in the year 2003 at an annual inflation rate of 7%. Thus, the total amount of repayment and recurrent cost in the year 2003 is about ₱90.00, which is less than 2% of the family income as shown below.

|  |   |       |
|--|---|-------|
| (a) Estimated water rate (flat rate; Pesos)                                    | : | 90.00 |
| (b) Percentage of (a) to monthly median household income in 2003 <sup>1)</sup> | : | 1.4%  |

Notes:

- 1) Provincial average monthly median income in 2003 (₱6,526 per household) is derived from 1994 Family Income and Expenditure Survey considering annual inflation rate of 7%. The monthly median income in 1997 is ₱4,348

(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; 15m<sup>3</sup> per household) and projected income in year 2003. Total capital cost of Level III water supply system is ₱136.394 million for 6,598 households to be served. In application of annual inflation rate of 7% and 25 years repayment period, annual capital cost to be paid is about ₱1,774 per household. The monthly capital cost to be paid by each household is about ₱148.

The monthly recurrent cost per household is estimated to be ₱57 (₱ 682/year; refer to recurrent cost in Chapter 10 where operating cost and spare parts, etc. is ₱ 21.386 million. Using an annual inflation rate of 7%, this recurrent cost is projected to be ₱86 per household in the year 2003.

The combined amount of capital repayment and recurrent cost in the year 2003 is ₱234/household/month. The cost shall be recovered as a monthly water charge to be paid by users. The percentage of the water rate against income with more or less 5% is commonly affordable.

|   |   |        |
|---|---|--------|
| (a) Estimated water rate for 15 m <sup>3</sup> (Pesos) <sup>1)</sup>          | : | 234.00 |
| (b) Estimated minimum water rate (1-10 m <sup>3</sup> ) (Pesos) <sup>2)</sup> | : | 201.00 |
| (c) Percentage of (a) to monthly median household income in 2003              | : | 3.0%   |
| (d) Percentage of (a) to monthly low household income in 2003 <sup>3)</sup>   | : | 4.4%   |
| (e) Percentage of (b) to monthly low household income in 2003                 | : | 3.8%   |

Notes:

- 1) Water rate for the HH with monthly consumption rate of 10m<sup>3</sup> is estimated under the same assumption of a).
- 2) Monthly median household income is ₱6,526 in the year 2003.
- 3) Monthly low household income is assumed at 80% of median household income or ₱5,317 due to non-availability of data.

#### (4) Sanitation

The provision of sanitary toilet facilities for public markets and schools is under LGUs in coordination with parent-teacher association. However, recurrent cost for the public markets shall be collected from the users including stakeholders of the market.

Household toilet shall be managed by individual household. However, the facility is costly with reference to the current income level, especially in the rural area (flush-type toilet; ₱21,300 and pour-flush toilet; ₱13,000). Governmental support is also limited to the provision of toilet bowl for pour-flush toilets as an incentive to increase the distribution of water-sealed toilets. Cost recovery in application of loan shall be considered.

Applying the capital recovery factor to the construction cost with assumptions of 7% interest rate and 5 years repayment period, monthly repayment amounts to about ₱468 for a flush type and ₱286 for a pour-flush type, respectively (details of unit cost are referred to in Chapter 10, Supporting Report). The percentages of repayment to household income in the year 2003 are calculated in the same manner as the study for Level III water systems and are shown below.

|  |   |      |
|--|---|------|
| (a) Repayment for Flush Type (Pesos)                             | : | 468  |
| (b) Repayment for Pour Flush Type (Pesos)                        | : | 286  |
| (c) Percentage of (a) to monthly median household income in 2003 | : | 7.2% |
| (d) Percentage of (b) to monthly low household income in 2003    | : | 5.4% |

To expedite the sanitation sector improvement, introduction of specific loans that are revolving in character with low interest rates 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.

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**Chapter**  
**MONITORING FOR**  
**MEDIUM-TERM DEVELOPMENT PLAN**

**12**

## 12. MONITORING FOR MEDIUM-TERM DEVELOPMENT PLAN

### 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 (under-runs), 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 levels; 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 that 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) Regarding sector development indicators, some important indicators will be more difficult to collect 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) NEDA 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 are 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.

- 1) Provincial Level: The PPDO, 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 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 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:
  - 1) 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 different organizations, from NGOs, the administration, the ruling party and the opposition. From these representatives, the Provincial Governor selects the chairman and the 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;
- 2) 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 lists 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;
- 5) 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; and
- 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

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 that was prepared by the PHO midwives. The sanitary inspectors summarized annual surveys by municipality. 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: The LGUs may have to gather information from the local DEO of DPWH, the various municipalities and the water districts.
- 5) Sources of capital development funds: Data sources are the same as those of item 4).

- 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 that 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.



