8. UPDATING PW4SP DATA BASE

The following procedures are guide in updating the base data of the PW4SP data management system. The word *column* and *row* in this procedure mean the internal column and row notation in the worksheet environment.

8.1. Updating Socio-economic Data Base

1. Click the File menu, select Open.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**. Select the *socio.xls* filename.

3.1 To update the **Municipality/City Status and No. of Barangay** click the tab of ***MunCity Status (P.1.1)*** sheet.

- ***Geopgraphic code***: move mouse pointer to column A. Starting at the row below the column description, select the data you would like to update and type the new value.
- ***Name of City or Municipality***: move mouse pointer to column B. Starting at the row below the column description, in reference to column A (Geographic code) select the data you would like to update and type the new value.
- ***City/Municipality:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Class:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Barangay***: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Barangay:*** move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.2 To update the **Past Population Data,** click the tab of ***Past Population (P.1.2.1)*** sheet.

- ***1903***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***1918***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***1939***: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *1948:* move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *1960*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *1970:* move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *1975*: move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *1980:* move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *1990*: move mouse pointer to column K. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

click the tab of ***Past Population (P.1.2.2)*** sheet.

- ***Urban Population, Male (last POPCEN)***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Population, Female (last POPCEN)***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Male (last POPCEN)***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Female (last POPCEN)***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Population, Male (last POPCEN)***: move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Population, Female (last POPCEN)***: move mouse pointer to column K. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Male (last POPCEN)***: move mouse pointer to column M. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Female (last POPCEN)***: move mouse pointer to column N. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.3 To update the **Population Projection Data**,
click the tab of ***Project Population (P.1.3.1)*** sheet.

- ***Urban Population, Male (Medium-term)***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Population, Female (Medium-term)***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Male (Medium-term)***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Female (Medium-term)***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Population, Male (Long-term)***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Urban Population, Female (Long-term)***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Male (Long-term)***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Population, Female (Long-term)***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.4 To update the **Household Data**,
click the tab of ***Household (P.1.4)*** sheet.

- ***Urban Household (Last POPCEN)***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Rural Household (Last POPCEN)***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.5 To update the **Services Data**,
click the tab of ***Services (P.1.5)*** sheet.

- ***Number of Public Elementary School***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Private Elementary School:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Public High School***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Number of Private High School:* move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Vocational*: move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Colleges*: move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Hospitals:* move mouse pointer to column K. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Banks*: move mouse pointer to column L. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.6 To update the **Occupation Data,**
click the tab of ***Occupation (P.1.6)*** sheet.

- *Number of Professional,Technical and Related Workers*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Administrative, Executive and Managerial*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sales Workers*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Service Workers:* move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Agricultural, Animal Husbandry & Forestry Workers, Fisherman and Hunetrs*, move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Production & Related Workers, Transportation Equipment Operators and Laborers*: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Occupation Not Adequately Defined or Reported:* move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.7 To update the **Family Income, Education and Literacy Data,**
click the tab of *Family Income (P.1.7)* sheet.

- *Number of Family Receiving Under ₱ 5,000:* move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Family Receiving Between ₱ 5,000 to ₱ 14,999*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Family Receiving Between ₱ 15,000 to ₱ 24,999*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Family Receiving Between ₱ 25,000 to ₱ 34,999*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Family Receiving Between ₱ 35,000 to ₱ 44,999*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Family Receiving Between ₱ 45,000 to ₱ 59,999*: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Family Receiving over ₱ 60,000*: move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.8 To update the **Family Expenditure Pattern Data,** click the tab of *Expenditure (P.1.8)* sheet.

- *Average Monthly Food Expenses*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Average Monthly Water Expenses*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Average Monthly Electricity Expenses*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Average Monthly Clothing Expenses*:: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Average Monthly House Rental Expenses*:: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Average Monthly Recreation Expenses*: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Average Monthly Other Expenses*: move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.9 To update the **Education and Literacy Data,**
click the tab of ***Education (P.1.9)*** sheet.

- ***Highest Level of Education – Preschool (by population)***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Highest Level of Education – Elementary (by population)***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Highest Level of Education – Secondary/High School (by population)***: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Highest Level of Education – Tertiary (College & Post Graduate) (by population)***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Literate Population 10 years old and above***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Illiterate Population 10 years old and above***: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

8.2. Updating Land Use Data Base

1. Click the **File** menu, select **Open**.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**. Select the *landuse.xls* filename.

3.1 To update the **Existing Land Use Data,**
click the tab of ***Existing Land Use (P.2.1)*** sheet.

- ***Forest Land Area:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Grass Land Area:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Built-up Land Area:*** move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Agricultural Land Area***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- ***Fishponds, Mangrove, In-land Area***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Open Land Area***: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.2 To update the **Future Land Use Data,**
click the tab of ***Future Land Use (P.2.2)*** sheet.

- ***Forest Land Area***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Grass Land Area***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Built-up Land Area***: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Agricultural Land Area:*** move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Fishponds, Mangrove, In-land Area***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Open Land Area***: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

8.3. Updating Health Data Base

1. Click the **File** menu, select **Open**.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**. Select the *health.xls* filename.

3.1 To update the **Morbidity, Mortality and Infant Mortality Data,**
click the tab of ***Morbidity and Mortality (P.3.1)*** sheet.

- ***Number of Morbidity Case - Male***: move mouse pointer to column E. Starting at the row below the column description, in reference to column C (name of diseases) select the data you would like to update and type the new value.
- ***Number of Morbidity Case - Female***: move mouse pointer to column F. Starting at the row below the column description, in reference to column C (name of diseases) select the data you would like to update and type the new value.
- ***Number of Mortality Case - Male:*** move mouse pointer to column H. Starting at the row below the column description, in reference to column C (name of diseases) select the data you would like to update and type the new value.
- ***Number of Mortality Case - Female:*** move mouse pointer to column I. Starting at the row below the column description, in reference to column C (name of diseases) select the data you would like to update and type the new value.

- *Number of Infant Mortality Case - Male*: move mouse pointer to column K. Starting at the row below the column description, in reference to column C (name of diseases) select the data you would like to update and type the new value.
- *Number of Infant Mortality Case - Female*: move mouse pointer to column L. Starting at the row below the column description, in reference to column C (name of diseases) select the data you would like to update and type the new value.

3.2 To update the **Facility and Practitioner Data**
click the tab of *Facility (P.3.2)* sheet.

- *Number of Hospital Facility*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Rural Health Unit (RHU)*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Barangay Health Station (BHS)*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.3 To update the **Medical Practitioner Data**
click the tab of *Facility (P.3.2)* sheet.

- *Number of Practicing Doctors - Male*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Doctors - Female*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Nurses – Male*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Nurses - Female*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Midwives - Male:* move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Midwives - Female:* move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Dentists - Male*: move mouse pointer to column L. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Practicing Dentists – Female*: move mouse pointer to column M. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Number of Other Medical Practitioner -- Male*: move mouse pointer to column O. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Other Medical Practitioner – Female*: move mouse pointer to column P. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

8.4. Updating Water Supply Data Base

1. Click the **File** menu, select **Open**.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**, Select the Chapter 4.xls filename.

3.1 To update the Level III Water Supply Data
Click the tab STable 4.1.1 Sht 1

- Enter *Name of Municipality or City* under column A, starting from row 7.
- Enter *Name of Operating Body* under column B, starting from row 7.
- Enter *Number of Urban Barangay served by Level III services* under column D, starting from row 7.
- Enter *Number of Rural Barangay served by Level III services* under column E, starting from row 7.
- Enter *Number of Household in Urban area served by Level III services* under column G, starting from row 7.
- Enter *Number of Household in Rural area served by Level III services* under column H, starting from row 7.
- Enter *Number of Population in Urban area served by Level III services* under column J, starting from row 7.
- Enter *Number of Population in Rural area served by Level III services* under column K, starting from row 7.

Click the tab STable 4.1.1 Sht 2

- Copy the first two columns in STable 4.1.1 Sht. 1, starting from 7 up to the last entry.
- *Number of Public Faucet in Urban Area*, move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Public Faucet in Rural Area*, move mouse pointer to column F. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Household in Urban Area*, move mouse pointer to column H. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Household in Rural Area*, move mouse pointer to column I. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

- ***Number of Population in Urban Area***, move mouse pointer to column K. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Population in Rural Area***, move mouse pointer to column L. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

Click the tab ***STable 4.1.1 sheet 3***

- Copy the first two columns in STable 4.1.1 Sht. 2, starting from 7 up to the last entry.
- ***Type of Water Source***, move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Water Source***, move mouse pointer to column F. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Production Capacity (cu.m./day)***, move mouse pointer to column G. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Domestic Consumption***, move mouse pointer to column H. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Institutional Consumption***, move mouse pointer to column I. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Commercial Consumption***, move mouse pointer to column J. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Industrial Consumption***, move mouse pointer to column K. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

Click the tab ***STable 4.1.1 sheet 4***

- Copy the first two columns in STable 4.1.1 Sht. 3, starting from 7 up to the last entry.
- ***Number of Metered Connection (Domestic House Connections)***, move mouse pointer to column D. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Unmetered Connection (Domestic House Connections)***, move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Consumption, cu.m/day (Domestic House Connections)***, move mouse pointer to column F. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

- ***Number of Metered Connection (Domestic Public Faucet)***, move mouse pointer to column G. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Unmetered Connection (Domestic Public Faucet)***, move mouse pointer to column H. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Consumption, cu.m/day (Domestic Public Faucet)***, move mouse pointer to column I. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Metered Connection (Institutional Consumers)***, move mouse pointer to column J. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Unmetered Connection (Institutional Consumer)***, move mouse pointer to column K. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Consumption, cu.m/day (Institutional Consumer)***, move mouse pointer to column L. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Metered Connection (Commercial Consumers)***, move mouse pointer to column M. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Unmetered Connection (Commercial Consumers)***, move mouse pointer to column N. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Consumption, cu.m/day (Commercial Consumers)***, move mouse pointer to column O. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Metered Connection (Industrial Consumers)***, move mouse pointer to column P. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Unmetered Connection (Industrial Consumers)***, move mouse pointer to column Q. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Consumption, cu.m/day (Industrial Consumers)***, move mouse pointer to column R. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

3.2 To update the Level II Water Supply Data
Click the tab ***STable 4.1.2 Sht 1***

- Enter ***Name of Municipality or City*** under column A, starting from row 7.

- Enter *Name of Operating Body* under column B, starting from row 7.
- Enter *Type of Water Source* under column D, starting from row 7.
- Enter *Number of Water Source* under column E, starting from row 7.
- Enter *Discharge of Water Source, cu. m/day,* under column E, starting from row 7.
- Enter *Length of Transmission Line (meter)* under column G, starting from row 7.
- Enter *Number of Reservoir* under column H, starting from row 7.
- Enter *Length of Distribution Line (meter)* under column J, starting from row 7.
- Enter *Name of Public Faucets* under column B, starting from row 7.

Click the tab *STable 4.1.2 Sht 2*

- Copy the first two columns in STable 4.1.2 Sht. 1, starting from 7 up to the last entry.
- ***Number of Barangay in Urban Area,*** move mouse pointer to column D. Starting from row 6, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Barangay in Rural Area,*** move mouse pointer to column E. Starting from row 6, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Household in Urban Area,*** move mouse pointer to column G. Starting from row 6, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Household in Rural Area,*** move mouse pointer to column H. Starting from row 6, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Population in Urban Area,*** move mouse pointer to column J. Starting from row 6, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Number of Population in Rural Area,*** move mouse pointer to column K. Starting from row 6, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

Click the tab *STable 4.1.2 Sht 3*

- Copy the first two columns in STable 4.1.2 Sht. 2, starting from 7 up to the last entry.

  Delete the row with the municipal total.
- ***Number of Water Supply in Hours/Day,*** move mouse pointer to column C. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Frequency of Dirty Water,*** move mouse pointer to column D. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

- *Taste or Smell of Water* , move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Power Failure per Month*, move mouse pointer to column F. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Pump Breakdown per Month*, move mouse pointer to column G. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Pipe Burst per Month*, move mouse pointer to column H. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Others Water Supply Interruption per Month*, move mouse pointer to column I. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Supply Water Pressure (Adequate)*, move mouse pointer to column J. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Supply Water Pressure (Inadequate)*, move mouse pointer to column K. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

Click the tab *STable 4.1.2 Sht 4*

- Copy the first two columns in STable 4.1.2 Sht. 3, starting from 7 up to the last entry.
- *Number of Technical Staff*, move mouse pointer to column C. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Administrative Staff*, move mouse pointer to column D. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Collector Staff*, move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Repair Work*, LOcmove mouse pointer to column C. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- *Number of Technical Staff*, move mouse pointer to column C. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

Click the tab *STable 4.1.2 Sht 5*

- Copy the first two columns in STable 4.1.2 Sht. 4, starting from 7 up to the last entry.

- ***Amount of Annual Expenditures***, move mouse pointer to column C. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Expenditures for Annual Wages***, move mouse pointer to column D. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Expenditures for Fuel and Chemicals***, move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Expenditures for Transport***, move mouse pointer to column F. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Expenditures for Repair***, move mouse pointer to column G. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Expenditures for Loan Repayment***, move mouse pointer to column H. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Other Expenditures***, move mouse pointer to column I. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Annual Consumer Payment***, move mouse pointer to column J. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Cost per Pail***, move mouse pointer to column K. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Cost per Cubic Meter***, move mouse pointer to column L. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Cost per Household***, move mouse pointer to column M. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Other Tariff***, move mouse pointer to column N. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Average Collection Efficiency (%)***, move mouse pointer to column O. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

Click the tab ***STable 4.1.2 Sht 6***

- Copy the first two columns in STable 4.1.2 Sht. 5, starting from 7 up to the last entry.
- ***Number of Annual Billing***, move mouse pointer to column C. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

- ***Amount of Billing for Public Faucet Consumers***, move mouse pointer to column D. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Billing for House Connection Consumers***, move mouse pointer to column E. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount from Expected Subsidies***, move mouse pointer to column F. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount from Others***, move mouse pointer to column G. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Amount of Annual Income***, move mouse pointer to column H. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Payment by Public Faucet Consumers***, move mouse pointer to column I. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Payment by House Connection***, move mouse pointer to column J. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.
- ***Revenue from Subsidies***, move mouse pointer to column K. Starting from row 7, in reference to column B (Name of Operating Body), select the data you would like to update and type the new value.

3.1 To update the **Level I Facility Data,**
click the tab of ***Level I (P.5.1)*** sheet.

Public Facility:

- ***Deep Well:*** move mouse pointer to column F. Starting at the row below the column description, in reference to column B (Name of Municipality)/column C (Area)/ column E (Operating Condition), select the data you would like to update and type the new value.
- ***Shallow Well***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Covered/Improved Dug Well***: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Developed Spring***: move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Open Dug Well***: move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Undeveloped Spring*: move mouse pointer to column K. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Rain Water Collector*: move mouse pointer to column L. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

Private Facility:

- *Deep Well*: move mouse pointer to column N. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Shallow Well*: move mouse pointer to column O. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Covered/Improved Dug Well*: move mouse pointer to column P. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Open Dug Well*: move mouse pointer to column Q. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Rain Collector*: move mouse pointer to column R. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

8.5. Updating Environmental Sanitation Data base

1. Click the File menu, select Open.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**. Select the *Sanitation.xls* filename.

3.1 To update the **Household Toilet Data,**
click the tab of ***Household Toilet (P.6.1)*** sheet.

- ***Number of Urban Households Using Water Sealed Flush Toilet:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Rural Households Using Water Sealed Flush Toilet:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Urban Households Using Water Sealed Pour Flush Toilet***: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Rural Households Using Water Sealed Pour Flush Toilet***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Urban Households Using VIP Latrine Toilet***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- ***Number of Rural Households Using VIP Latrine Toilet***: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Urban Households Using Unsanitary Toilet***: move mouse pointer to column K. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Rural Households Using Unsanitary Toilet***: move mouse pointer to column L. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Urban Households Without Toilet***: move mouse pointer to column N. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Rural Households Without Toilet***: move mouse pointer to column O. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.2 To Update the School Toilet
click the tab of ***School & Student (P.6.2)*** sheet

- ***Number of Sanitary Toilets in Public School***: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Sanitary Toilets in Private School***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Unsanitary Toilets in Public School***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Unsanitary Toilets in Private School***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

click the tab of ***School Toilets (P.6.3)*** sheet.

- ***Number of Public School:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Private School***: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Student in Public School***: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- ***Number of Student in Private School***: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

3.2 To Update the Public Toilet
For Public Market
click the tab of ***Public Toilets (P.6.4.1)*** sheet

- *Number of Public Markets*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sanitary Toilets in Public Markets - Male*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sanitary Toilets in Public Markets - Female*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Unsanitary Toilets in Public Markets – Male*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Unsanitary Toilets in Public Markets - Female*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

For Jeepney/Bus Terminal Data
click the tab of ***Public Toilet (P.6.4.2)***

- *Number of Jeepney/Bus Terminals*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sanitary Toilets in Jeepney/Bus Terminal-Male*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sanitary Toilets in Jeepney/Bus Terminal-Female*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Unsanitary Toilets in Jeepney/Bus Terminal-Male*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Unsanitary Toilets in Jeepney/Bus Terminal-Female*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

For Parks/Playground Data
click the tab of ***Public Toilet (P.6.4.3)***

- *Number of Parks/Playground*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sanitary Toilets in Parks/Playground-Male*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Sanitary Toilets in Parks/Playground-Female*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Number of Unsanitary Toilets in Parks/Playground-Male*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Unsanitary Toilets in Parks/Playground-Female*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

click the tab of ***Drainage Facility*** **(P.6.5)** sheet.

- *Length of Drainage Main*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Length of Open Channel (with concrete and masonry)*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Length of Open Ditches And Unlined Laterals*: move mouse pointer to column E. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Length of Reinforced Concrete Circular Pipes*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Length of Street Gutters*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Length of Outfalls To Rivers From Drainage Mains*: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

click the tab of ***Solid Waste (P.6.6)*** sheet.

- *Number of Open Dump Trucks*: move mouse pointer to column C. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Closed Type Trucks*: move mouse pointer to column D. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Households Served By Open Dump Site*: move mouse pointer to column F. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Households Served By Sanitary Landfill*: move mouse pointer to column G. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Households by Manner of Disposal (Land or Water)*: move mouse pointer to column H. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.
- *Number of Households by Manner of Disposal (Burying)*: move mouse pointer to column I. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

- *Number of Households by Manner of Disposal (Composting)*: move mouse pointer to column J. Starting at the row below the column description, in reference to column B (name of municipality) select the data you would like to update and type the new value.

8.6. Updating Investment Data Base

1. Click the **File** menu, select **Open**.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**. Select the *invest.xls* filename.

3.1 To update the **Past Investment Data**,
click the tab of ***(P) Past Invest*** sheet.

- ***Shallow Well:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Deep Well:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Spring Development:*** move mouse pointer to column E. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Well Rehabilitation:*** move mouse pointer to column F. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Rain Collector:*** move mouse pointer to column G. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Level II System:*** move mouse pointer to column H. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Level III System:*** move mouse pointer to column I. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Sewer System:*** move mouse pointer to column J. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Private Latrines:*** move mouse pointer to column K. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***School Toilets:*** move mouse pointer to column L. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.
- ***Public Toilets:*** move mouse pointer to column M. Starting at the row below the column description, in reference to column A (name of funding agency) select the data you would like to update and type the new value.

3.2 To update the **Planned Future Investment Data**
click the tab of ***(P) Future Invest*** sheet.

- ***Project Name:*** move mouse pointer to column A. Starting at the row below the column description, type the project identification.
- ***Type of Project:*** move mouse pointer to column B. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Phase of Project:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Project Location:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Implementing Agency:*** move mouse pointer to column E. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Start Date of Project:*** move mouse pointer to column F. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Completion Date of the Project:*** move mouse pointer to column G. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Accomplishment Status (%):*** move mouse pointer to column H. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Number of Household Covered by the Project:*** move mouse pointer to column I. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Finance Agency:*** move mouse pointer to column J. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Cost of Level I Facility (Thousand of pesos):*** move mouse pointer to column K. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Cost of Level II System (Thousand of pesos):*** move mouse pointer to column L. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Cost of Level III System (Thousand of pesos):*** move mouse pointer to column M. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Cost of Sewer System (Thousand of pesos):*** move mouse pointer to column N. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Private Latrine (Thousand of pesos):*** move mouse pointer to column O. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Cost School Toilets (Thousand of pesos):*** move mouse pointer to column P. Starting at the row below the column description, in reference to column A (name of project) type the new value.
- ***Cost of Public Toilets (Thousand of pesos):*** move mouse pointer to column Q. Starting at the row below the column description, in reference to column A (name of project) type the new value.

8.7. Updating Key Parameter Data Base

1. Click the **File** menu, select **Open**.
   Short-cut: Click the **Open** button.
2. From the **Open Dialog Box**, Select the *Keyparameter.xls* filename.
3. To update the **Key Parameter Data**,
   click the tab of *STable 2.6.2* sheet.

Water Supply:

- ***Number of Household to be Served by Level I Facility:*** move mouse pointer to column H-Row 5. Type the new value.
- ***Water Consumption Rate for Level III System:*** move mouse pointer to column H-Row 6. Type the new value.

Sanitation:

- ***Standard Number of Student to be Served by a Unit of Sanitary Toilet:*** move mouse pointer to column H-Row 9. Type the new value.
- ***Standard Number of Toilets for Public Facility:*** move mouse pointer to column H-Row 10. Type the new value.

Medium-term Plan:

- ***Percentage of Population Covered by Urban Water Supply:*** move mouse pointer to column H-Row 12. Type the new value.
- ***Percentage of Population Covered by Rural Water Supply:*** move mouse pointer to column H-Row 13. Type the new value.
- ***Percentage of Population Covered by Sanitary Toilet in Urban Area:*** move mouse pointer to column H-Row 16. Type the new value.
- ***Percentage of Urban Household Covered by Flush Toilet:*** move mouse pointer to column H-Row 17. Type the new value.
- ***Percentage of Urban Household Covered by Pour Flush Toilet:*** move mouse pointer to column H-Row 18. Type the new value.
- ***Percentage of Urban Household Covered by VIP Latrine:*** move mouse pointer to column H-Row 19. Type the new value.
- ***Percentage of Population Covered by Sanitary Toilet in Rural Area:*** move mouse pointer to column H-Row 20. Type the new value.
- ***Percentage of Rural Household Covered by Flush Toilet:*** move mouse pointer to column H-Row 21. Type the new value.
- ***Percentage of Rural Household Covered by Pour Flush Toilet:*** move mouse pointer to column H-Row 22. Type the new value.
- ***Percentage of Rural Household Covered by VIP Latrine:*** move mouse pointer to column H-Row 23. Type the new value.
- ***Percentage of Public Student Covered by School Toilet:*** move mouse pointer to column H-Row 24. Type the new value.
- ***Percentage of Public Utility Covered by Public Toilet:*** move mouse pointer to column H-Row 25. Type the new value.
- ***Percentage of Population Covered by Solid Waste Collection:*** move mouse pointer to column H-Row 26. Type the new value.

Long-term Plan:

- ***Percentage of Population Covered by Urban Water Supply:*** move mouse pointer to column H-Row 28. Type the new value.
- ***Percentage of Population Covered by Rural Water Supply:*** move mouse pointer to column H-Row 29. Type the new value.
- ***Percentage of Population Covered by Sanitary Toilet in Urban Area:*** move mouse pointer to column H-Row 32. Type the new value.
- ***Percentage of Urban Household Covered by Flush Toilet:*** move mouse pointer to column H-Row 33. Type the new value.
- ***Percentage of Urban Household Covered by Pour Flush Toilet:*** move mouse pointer to column H-Row 34. Type the new value.
- ***Percentage of Urban Household Covered by VIP Latrine:*** move mouse pointer to column H-Row 35. Type the new value.
- ***Percentage of Population Covered by Sanitary Toilet in Urban Area:*** move mouse pointer to column H-Row 36. Type the new value.
- ***Percentage of Rural Household Covered by Flush Toilet:*** move mouse pointer to column H-Row 37. Type the new value.
- ***Percentage of Rural Household Covered by Pour Flush Toilet:*** move mouse pointer to column H-Row 38. Type the new value.
- ***Percentage of Rural Household Covered by VIP Latrine:*** move mouse pointer to column H-Row 39. Type the new value.
- ***Percentage of Public Student Covered by School Toilet:*** move mouse pointer to column H-Row 40. Type the new value.
- ***Percentage of Public Utility Covered by Public Toilet:*** move mouse pointer to column H-Row 41. Type the new value.
- ***Percentage of Population Covered by Urban Sewerage:*** move mouse pointer to column H-Row 42. Type the new value.

Rehabilitation:

- ***Percentage of Level I Wells for Rehabilitation:*** move mouse pointer to column H-Row 43. Type the new value.

Sector Management Cost:

- ***Percentage of Feasibility and Detail Design:*** move mouse pointer to column H-Row 45. Type the new value.
- ***Percentage of Construction Supervision:*** move mouse pointer to column H-Row 46. Type the new value.

Community Development and Training Cost:

- ***Percentage for Level III System:*** move mouse pointer to column H-Row 48. Type the new value.
- ***Percentage for Level I Facility and Level II System:*** move mouse pointer to column H-Row 49. Type the new value.

Recurrent Cost:

- ***Operating Cost for Level III System:*** move mouse pointer to column H-Row 50. Type the new value.
- ***Cost of Spare Parts/Equipment for Level III System:*** move mouse pointer to column H-Row 51. Type the new value.
- ***Cost of Spare Parts/Equipment for Level II System:*** move mouse pointer to column H-Row 52. Type the new value.
- ***Cost of Spare Parts/Equipment for Level I Facility:*** move mouse pointer to column H-Row 53. Type the new value.
- ***Public School Toilet Maintenance Cost:*** move mouse pointer to column H-Row 54. Type the new value.
- ***Public Utility Toilet Maintenance Cost:*** move mouse pointer to column H-Row 55. Type the new value.

Allocation Factors/Percentages of IRA:

- ***Percentage Share from Provincial IRA:*** move mouse pointer to column H-Row 57. Type the new value.
- ***Percentage Share from Municipal/Barangay IRA:*** move mouse pointer to column H-Row 58. Type the new value.

Funding Levels/Percentages for Different Financing Scenarios:

- ***1st Scenario:*** move mouse pointer to column H-Row 60. Type the new value.
- ***2nd Scenario***: move mouse pointer to column H-Row 61. Type the new value.
- ***3rd Scenario***: move mouse pointer to column H-Row 62. Type the new value.
- ***4th Scenario***: move mouse pointer to column H-Row 63. Type the new value.
- ***5th Scenario***: move mouse pointer to column H-Row 64. Type the new value.

click the tab of ***Well Source Composition*** sheet:

- ***Percentage Proportion of Water Source:*** move mouse pointer to column D. Starting at the row below the column description, in reference to column A (name of municipality), column B (type of area), column C (type of source) select the data you would like to update and type the new value.
- ***Range Depth of Well:*** move mouse pointer to column E. Starting at the row below the column description, in reference to column A (name of municipality), column B (type of area), column C (type of source) select the data you would like to update and type the new value.
- ***Average Specific Capacity:*** move mouse pointer to column F. Starting at the row below the column description, in reference to column A (name of municipality), column B (type of area), column C (type of source) select the data you would like to update and type the new value.

click the tab of ***Level I Safe and Unsafe*** sheet.

- ***Unsafe Percentage:*** move mouse pointer to column C. Starting at the row below the column description, in reference to column A (name of municipality) select the data you would like to update and type the new value.

click the tab of *Unit Cost* sheet.

- ***Unit Construction Cost for New Level III System for 5,000 population:*** move mouse pointer to column B-Row 7. Type the new value.
- ***Unit Construction Cost for New Level III System for 10,000 population:*** move mouse pointer to column B-Row 8. Type the new value.
- ***Unit Construction Cost for New Level III System for 15,000 population:*** move mouse pointer to column B-Row 9. Type the new value.
- ***Unit Construction Cost for Level III System Expansion for 5,000 population:*** move mouse pointer to column B-Row 11. Type the new value.
- ***Unit Construction Cost for Level III System Expansion for 10,000 population:*** move mouse pointer to column B-Row 12. Type the new value.
- ***Unit Construction Cost for Level III System Expansion for 15,000 population***: move mouse pointer to column B-Row 13. Type the new value.
- ***Unit Construction Cost for Level II System***: move mouse pointer to column B-Row 14. Type the new value.
- ***Unit Construction Cost for Level I Facility (Deep Eell - 40 meter depth):*** move mouse pointer to column B-Row 16. Type the new value.
- ***Unit Construction Cost for Level I Facility (Deep Well - 80 meter depth):*** move mouse pointer to column B-Row 17. Type the new value.
- ***Unit Construction Cost for Level I Facility (Deep Well - 120 meter depth):*** move mouse pointer to column B-Row 18. Type the new value.
- ***Unit Construction Cost for Level I Facility (Shallow Well):*** move mouse pointer to column B-Row 19. Type the new value.
- ***Unit Construction Cost for Level I Facility (Shallow Well):*** move mouse pointer to column B-Row 20. Type the new value.
- ***Unit Construction Cost for Rehabilitation of Level I Facility:*** move mouse pointer to column B-Row 21. Type the new value.
- ***Cost for Disinfection of Level I Wells:*** move mouse pointer to column B-Row 22. Type the new value.
- ***Unit Construction Cost for Flush Toilet:*** move mouse pointer to column B-Row 24. Type the new value.
- ***Unit Construction Cost for Pour Flush Toilet***: move mouse pointer to column B-Row 25. Type the new value.
- ***Unit Construction Cost for VIP Latrine Toilet:*** move mouse pointer to column B-Row 26. Type the new value.
- ***Unit Construction Cost for School Toilet:*** move mouse pointer to column B-Row 27. Type the new value.
- ***Unit Construction Cost for Public Toilet:*** move mouse pointer to column B-Row 28. Type the new value.
- ***Unit Construction Cost for Urban Sewerage:*** move mouse pointer to column B-Row 29. Type the new value.

click the tab of *Annual Investment* sheet.

Urban Water Supply (Level III System):

- ***Feasibility Study and Detail Design***: move mouse pointer to Row 5. Starting at Column E (start year of medium-term plan) up to Column I (end of year of medium-term plan) select the data you would like to update and type the new value.
- ***Construction and Supervision***: move mouse pointer to Row 6. Starting at Column E (start year of medium-term plan) up to Column I (end of year of medium-term plan) select the data you would like to update and type the new value.
- ***Community Development and Training***: move mouse pointer to Row 7. Starting at Column E (start year of medium-term plan) up to Column I (end of year of medium-term plan) select the data you would like to update and type the new value.

Rural Water Supply (Level I Facility):

- ***Detail Design***: move mouse pointer to Row 9. Starting at Column E (start year of medium-term plan)up to Column J (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Construction and Supervision***: move mouse pointer to Row 10. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Community Development and Training***: move mouse pointer to Row 11. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.

Rural Water Supply (Level II System):

- ***Detail Design***: move mouse pointer to Row 13. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Construction and Supervision***: move mouse pointer to Row 14. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Community Development and Training***: move mouse pointer to Row 15. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.

Sanitation:

- ***Urban Household Toilet:*** move mouse pointer to Row 16. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Rural Household Toilet:*** move mouse pointer to Row 17. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Public School Toilet:*** move mouse pointer to Row 18. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Public Toilet:*** move mouse pointer to Row 19. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.

- ***Disinfection of Level I Wells:*** move mouse pointer to Row 20. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Detail Design:*** move mouse pointer to Row 21. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Construction and Supervision:*** move mouse pointer to Row 22. Starting at Column E (start year of medium-term plan) up to Column I (end year of medium-term plan) select the data you would like to update and type the new value.
- ***Community Development and Training:*** move mouse pointer to Row 23. Starting at Column F (start year of medium-term plan) up to Column J (end year of medium-term plan) select the data you would like to update and type the new value.

click the tab of ***Scoring Factor*** sheet.

Scoring Factor for Municipal Investment Ranking for Urban Water Supply:

- *Minimun Percentage of **Underserved and Unserved Population in Base Year**:* move mouse pointer to column B, in reference to column A (score) select the data you would like to update and type the new value.
- *Maximum Percentage of **Underserved and Unserved Population in Base Year**:* move mouse pointer to column D, in reference to column A (score) select the data you would like to update and type the new value.
- ***Weight Allocation Score** for Underserved and Unserved Population in Base Year:* move mouse pointer to column B-Row 9. Type the new value.
- *Minimun Percentage of **Underserved and Unserved Population in Phase I**:* move mouse pointer to column E, in reference to column A (score) select the data you would like to update and type the new value.
- *Maximu Percentage of **Underserved and Unserved Population in Phase I**:* move mouse pointer to column G, in reference to column A (score) select the data you would like to update and type the new value.
- ***Weight allocation Score** for Underserved and Unserved Population in Phase I:* move mouse pointer to column E-Row 9. Type the new value.
- *Minimun Percentage of **Underserved and Unserved by Level III System in the Base Year**:* move mouse pointer to column H, in reference to column A (score) select the data you would like to update and type the new value.
- *Maximum Percentage of of **Underserved and Unserved by Level III System in the Base Year**:* move mouse pointer to column J, in reference to column A (score) select the data you would like to update and type the new value.
- ***Weight Allocation Score** for Underserved and Unserved by Level III System in the Base Year:* move mouse pointer to column H-Row 9. Type the new value.

Scoring Factor for Municipal Comprehensive Investment Ranking:

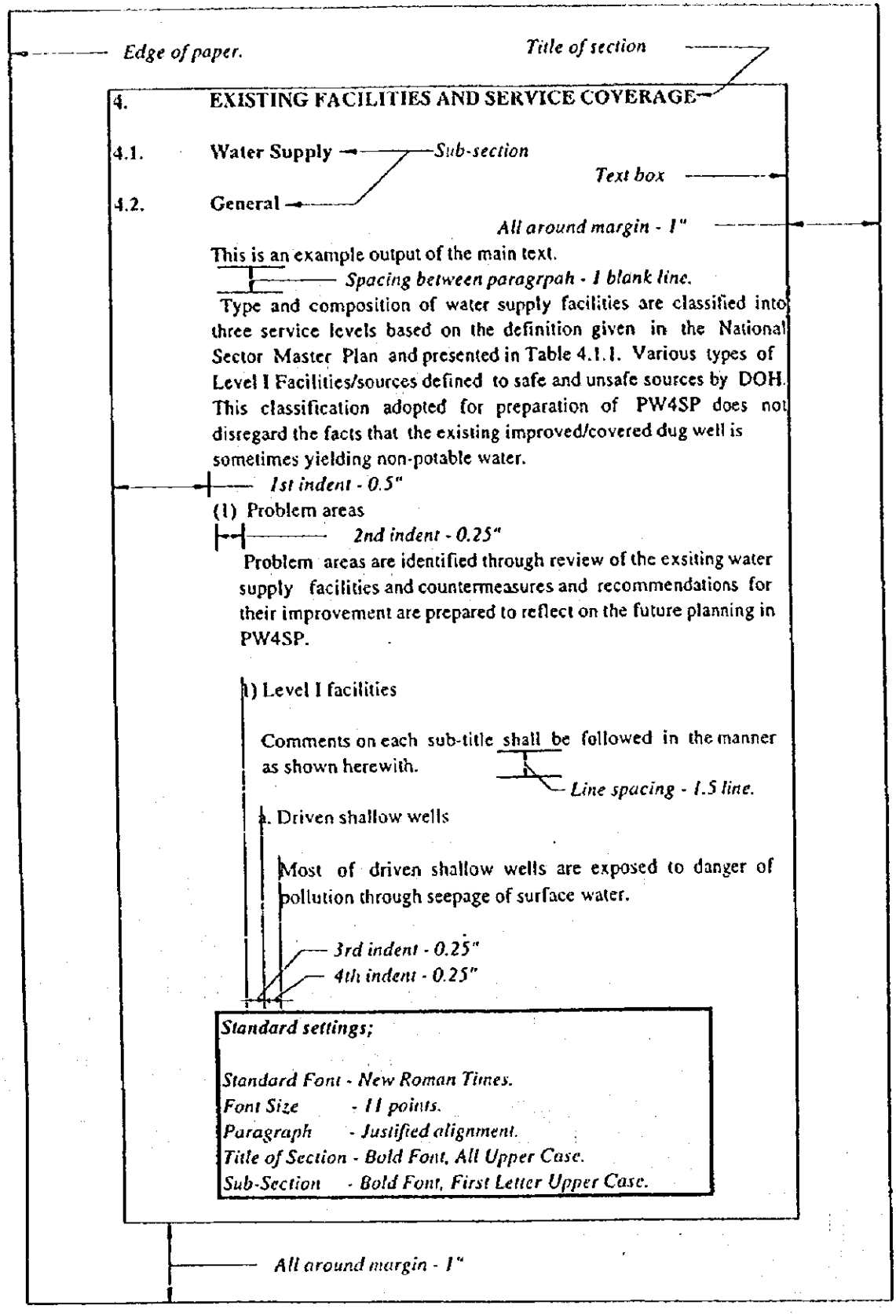
- *Minimun Percentage of **Rural Water Supply**:* move mouse pointer to column E, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.

- *Maximum Percentage of Rural Water Supply*: move mouse pointer to column G, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.
- *Weight Allocation Score for Rural Water Supply:* move mouse pointer to column E-Row 20. Type the new value.
- *Minimum Percentage of Urban Sanitation:* move mouse pointer to column H, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.
- *Maximum Percentage of Urban Sanitation:* move mouse pointer to column J, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.
- *Weight Allocation Score for Urban Sanitation:* move mouse pointer to column H-Row 20. Type the new value.
- *Minimun Percentage of Rural Sanitation:* move mouse pointer to column K, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.
- *Maximum Percentage of Rural Sanitation:* move mouse pointer to column M, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.
- *Weight Allocation Score for Rural Sanitation:* move mouse pointer to column K-Row 20. Type the new value.

9. Standard Report Format

The following page describes the standard report format. Please refer to MS-Word Basic Operation in Section 5 for procedure in setting the MS-Word environment.

Specification for Standard Report Format



3. PROVINCIAL PROFILE

3.3 Soci-economic Conditions

3.3.2 Basic Infrastructure

Table 3.3.1 Number of Elementary School, High School and Other Served Facilities

Provincial Water Supply, Sewerage And Sanitation Sector Plan (PW4SP)													Page:
Content: Socio-economic - Services													Date: 10 Jun. 1999
Data Collection Level: Provincial		Prov. Number: 0864											Filename: Socio.xls
Region Number: VIII		Prov. Name: Southern Leyte											Form No.: P.1.5
Geographic Code	Name of City or Municipality	Services (As of 1998)											
		Elementary School			High School			Vocational Schools	Colleges and Universities	Hospitals	Banks and Financing Institutions		
		Public	Private	Total	Public	Private	Total						
Number	Character	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number		
086401	Anahawan	4		4	1	1	2	1		1			
086402	Bontoc	14		14	3		3	1			1		
086403	Hinunangan	10		10	2	1	3	1	1	1	1		
086404	Hinundayan	4		4	1	1	2			2	2		
086405	Libagon	8		8	1	1	2						
086406	Liloan	13		13	2	1	3			1			
086419	Limasawa	4		4	1		1			1			
086407	Maasin (Capital)	29	3	32	8	2	10	1	2	1	10		
086408	Macrohon	9		9	2	1	3	1					
086409	Malitbog	6		6	2	1	3			1	1		
086410	Padre Burgos	4		4	1	1	2			1	1		
086411	Pintuyan	4		4	1		1						
086412	Saint Bernard	13		13	2	1	3			1	1		
086413	San Francisco	9		9	2		2						
086414	San Juan (Cabalian)	7		7	1		1		1	1	1		
086415	San Ricardo	6		6	4		4						
086416	Silago	3		3	3		3	1					
086417	Sogod	13		13	2	1	3	1		3	2		
086418	Tomas Oppus	9		9	2	1	3						

Source:

3.5 Health Status

3.5.1 Morbidity, Mortality and Infant Mortality

Table 3.5.1 Morbidity, Mortality and Infant Mortality by Municipality

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PWSSP)			Prov. Number: 0864							Page:		
Content: Health - Morbidity and Mortality			Prov. Name: Southern Leyte							Date: 10 Jun. 1999		
Data Collection Level: Provincial			Municipal Number:							Filename: Health.xls		
Region Number: VIII			Municipal Name:							Form Number: P.3.1		
Cause Group Diseases of:	Disease No.	Name of Diseases (Group)	Water Related Diseases	Annual Incidence per 100,000 People								
				Morbidity			Mortality			Infant Mortality		
				Male	Female	Total	Male	Female	Total	Male	Female	Total
Infective and Parasitic (001-136)	A.01	2-4/ Typhoid Parathyphoid	X	18	7	25						
	A.02	5-7/ Dysentery	X									
	A.03	8-10/ Int. Parasites/Amoebiasis	X	10	13	23						
	A.04	11-13/ Diarrhea	X	3,840	3,063	6,903	18	15	33	6	4	10
	A.05	14-16/ Tuberculosis		168	93	261						
	A.06	17-19/ Conjunctivities	X	245	248	493						
	A.07	20-22/ Whooping Cough										
	A.08	23-25/ Throat/Ear/Nose										
	A.09	26-28/ Tetanus Rabies		6	4	10	1	1	2	1	1	2
	A.10	29-31/ Septicemia										
	A.11	32-34/ Cholera	X									
	A.12	35-37/ Varicella, Chickenpox		175	180	355						
	A.13	38-40/ Measles		201	98	299				2	2	4
	A.14	41-43/ Dengue Fever	X	280	220	500				1	1	2
	A.15	44-46/ Viral Hepatitis	X	9	13	22						
	A.16	47-49/ Malaria	X									
	A.17	50-52/ Schistosomiasis	X									
	A.18	53-55/ Filariasis	X									
	A.19	56-58/ Venerial Diseases		2	3	5						
	A.20	59-61/ Other Bacter./ Viral Dis.										
Neoplasms (140-239)	B.01	62-64/ Malignant Neoplasms		150	75	225	58	43	101			
	B.02	65-67/ Leukemia										
Endocrine, Nutritional & Metabolic (250-279)	C.01	68-70/ Diabetes Mellitus										
	C.02	71-73/ Nutritional Deficiencies		112	190	302	8	10	18			
	C.03	74-76/ Endocrine Disorder/Goiter		8	24	32						
Blood & Blood Forming Organs (280-289)	D.01	77-79/ Anemias										
Mental Disorder (290-319)	E.01											
Nervous System & Sense Organs (320-389)	F.01	80-82/ Meningitis					6	4	10	6	4	10
	F.02	83-85/ Nervous System										
Circulatory Systems (390-459)	G.01	86-88/ Heart Diseases										
	G.02	89-91/ Vascular Diseases		560	640	1,500	238	298	536	2	3	5
Respiratory Systems (460-519)	H.01	92-94/ Bronchitis		4,068	2,137	6,205				5	7	12
	H.02	95-97/ Pneumonia		1,598	921	2,519	186	191	377	11	12	23
	H.03	98-100/ Influenza		2,640	1,646	4,286						
	H.04	101-103/ Obstructive Pulmonary		228	298	526	86	20	106			
	H.05	104-106/ ARI										
Digestive System (520-579)	I.01	107-109/ Appendicitis										
	I.02	110-112/ Gastroent. Colitis					15	18	33			
	I.03	113-115/ Chronic Liver Disease										
	I.04	116-118/ Other Diges. Diseases										
Genito-Urinary System (580-629)	J.01	119-121/ Kidney/ Nephritis										
	J.02	122-124/ Urinary Infections		548	229	777	18	7	25			
Complication of Pregnancy & the Puerperium (630-676)	K.01	125-127/ Prematurity					3	4	7	3	4	7
Skin & Subcutaneous Tissue (680-709)	L.01	128-130/ Skin Diseases/Leprosy	X	18	20	38						
	L.02	131-133/ Scabies	X	257	100	357						
Musculaoskeletal & Connective Tissue (710-739)	M.01	134-136/ Arthrop , Rheumatism										
Congenital Anomalies (740-759)	N.01	137-139/ Congenital Anomalies					1	1	2			
Certain Causes of Prenatal Morbility & Mortality (760-779)	P.01	140-142/ Birth Trauma/Leprosy					1	1	2			
	P.02	143-145/ Birth Injuries & Difficult Labor										
	P.03	146-148/ Resp. Fetus/Newborn								2	1	3
	P.04	149-151/ Other Prenatal Causes								10	11	21
Symptoms & Illdefined Condition (780-799)	Q.01	152-154/ Senility										
	Q.02	155-157/ Ill-Defined Condition										
Accidents, Poisoning & Violence (800-999)	R.01	158-160/ Burns/Boils		10	3	13						
	R.02	161-163/ Suffoc. Foreign Body										
	R.03	164-166/ Other Accidents		7	3	10	18	11	29			

Table 3.6.1 Municipal Solid Waste Collection and Disposal by Municipality

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)				Page:
Content: **Environment Sanitation - Solid Waste Collection and Disposal**				Date: 10 Jun. 1999
Data Collection Level: **Provincial**		Prov. Number: 0864		Filename: Sanitation.xls
Region Number: VIII		Prov. Name: Southern Leyte		Form Number: P.6.6

Geographic Code	Name of City or Municipality	With Municipal Service					Without Service		
		Number of Collection Trucks			Disposal		Number of Household by Manner of Disposal		
		Open Dump Trucks	Closed Type Trucks	Total Units	Number of Households Served by Open Dump Site	Number of Household Served by Sanitary Landfill	Dumping (Land and Water)	Burying	Composting
Number	Character	Number	Number	Number	Number	Number	Number	Number	Number
086401	Anahawan						810		548
086402	Bontoc	1		1	440		540	1,924	1,784
086403	Hinunangan						610	3,847	377
086404	Hinundayan	1		1	170	556	20		1,530
086405	Libagon						342		1,836
086406	Liloan	1		1	598		1,598		1,309
086419	Limasawa						581		441
086407	Maasin (Capital)	1	1	2	5,298		1,624	4,912	1,447
086408	Macrohon						2,051	1,370	741
086409	Malitbog	2		2	639		1,239		1,650
086410	Padre Burgos						1,343	50	95
086411	Pintuyan						699		918
086412	Saint Bernard	1		1	337		2,831	337	870
086413	San Francisco	1		1	210		156	346	1,318
086414	San Juan (Cabalian)	2		2	639		150	1,505	175
086415	San Ricardo						757		705
086416	Silago						200	300	1,613
086417	Sogod	2		2	1,166			670	4,452
086418	Tomas Oppus						110	1,381	1,058

Source: PSPT, Southern Leyte, 1999

4. EXISTING FACILITIES AND SERVICE COVERAGE

4.1 Water Supply

4.1.2 Type of Facilities and Definition of Service Level Standard

NEDA Board Resolution
No. 12 (s. 1995)

APPROVING THE COMMON DEFINITION OF TERMS RELATIVE TO WATER SUPPLY, SEWERAGE AND SANITATION

DEFINITION OF TERMS

Water Supply

Levels of Service

Three levels of water service shall be provided to urban and rural communities depending upon technical and financial considerations, the needs of the WDs and RWSAs, and their willingness and ability to share in the costs and the responsibility of constructing and maintaining the water systems, These are:

1. Level I (point source) - a protected well or a developed spring with an outlet but without a distribution system, generally adaptable for rural areas where the houses are thinly scattered. A Level I facility normally serves an average of 15 households.

2. Level II (communal faucet system or standposts) – a system composed of a source, a reservoir, a piped distribution network, and communal faucets. Usually one faucet serves 4 to 6 households. Generally suitable for rural and urban fringe areas where houses are clustered densely to justify a simple piped system.

3. Level III (waterworks system or individual house connections) – a system with a source, a reservoir, a piped distribution network and household taps. It is generally suited for densely populated urban areas.

Urban -- the revised definition of urban population included the criteria on the economic and social functions of barrios, poblaciones and central districts resulting to the new definition which states:

1. In their entirely, all municipal jurisdictions which, whether designated as chartered cities, provincial capital or not, have a population density of at least 1,000 persons per square kilometers.

2. Poblaciones or central districts of municipalities and cities which have a population density of at least 500 persons per square kilometer.

3. Poblaciones or central districts (not included in nos. 1 and 2) regardless of population size which have the following:

   a. Street pattern, i.e., network of streets in either at parallel or right angle orientation;

   b. At least six establishments (commercial, manufacturing, recreational and/or personal services); and

   c. At least three of the following:

      i) a town hall, church or chapel with religious services at least once a month;

      ii) a public plaza, park or cemetery;

      iii) a market place or building on at least once a week and

      iv) a public building like school, hospital, puericulture and health center or library.

4. Barrios having at least 1,000 inhabitants which meet the conditions setforth in no. 3 above, and in which the occupation of the inhabitants is predominantly non-farming/fishing.

Rural – all areas not falling under the urban classification (National Statistics Office).

Rural Waterworks and Sanitation Association (RWSAs) – non-stock, non-profit organizations envisioned to operate and mange Level II water supply facilities.

Barangay Waterworks and Sanitation Association (BWSA) – non-stock, non-profit organizations envisioned to operate and manage Level I water supply facilities.

Water Supply -- for purpose of the plan, refers to the supply of the water for domestic, municipal, industrial/commercial uses.

Water Supply Coverage -- refers to the number of people in a given community of geographical area who have access to safe water. The extent to which the population of a geographical area is covered (expressed in terms of the number of people served compared to the total population of that community or area).

Adequate Served – refers to those with the following rate or consumption:

Level I	at least 20 liters/capita/day
Level II	at least 60 liters/capita/day
Level III	at least 100 liters/capita/day

Service Coverage -- the no. of people a facility can serve.

Level I Water Supply Systems

1. Deepwell – are characterized by aquifers or water bearing formations generally located at a depth of more than 20 (mbgs.). Construction of deepwells with depths greater than 20 meters are recommended in these areas.

2. Shallow Well -- are areas suitable for construction of well with depths not more than 20 meters and are recommended for rural water supply development, particularly levels I and II services. Static water level in these areas are generally within 6 meters below ground surface.

3. Developed Springs -- developed to capture the natural flow of an aquifer, pollution generally originates close to the point of capture. It is projected by: 1) excluding shallow seepage waters through encircling the spring with a watertight chamber penetrating a safe-distance into the aquifer and; 2) diverting surface run-off away from the immediate vicinity.

4. Protected Dug Wells – WASAMS defines protected dug wells as those which are adequately protected (guarded) against surface or outside contamination through the use of lining or covering, with a rim sufficiently raised above the ground level, and may be equipped with a pump (any type).

Salt Intrusion – encroachment of salt water upon fresh water.

Potable Water – water that is satisfactory for drinking, culinary and domestic purposes and meets the requirements of the health authority having jurisdiction. (Plumbing Code).

Population Underserved -- population inadequately served.

Population Unserved – population without access to water supply facility.

Population Served – no. of population adequately served of connections x no. of persons served per connection.

Rainwater Cisterns/Collectors/Catchers – reservoirs, tanks or vessels for the storage of rainwater.

Reliable Water Supply – efficiency in the delivery of water supply in terms of quantity and quality.

Safe Drinking Water -- water must be free of disease-producing bacteria (pathogens). In addition, the water should not possess undesirable tastes, odors, colors, turbidity or chemicals.

Service Area – geographic jurisdiction of water utilities.

Non-revenue Water – unbilled water.

Appropriate Technologies – suited to local conditions and resources.

Infiltration Galleries – horizontal wells which collect water over the entire length.

Accounted-for-water – billed water.

Access to Water Supply Facilities – access to water supply is categorized as follows:

Level I - the farthest user is not more than 250 meters from the point source.

Level II - the farthest house is not more than 25 meters from the communal faucet system.

Level III - the house have service connection from the system.

Private Water System -- privately-owned water supply system.

Public Water System -- system owned by the government.

DEFINITION OF TERMS

Sewerage and Sanitation

Sanitation – the development and practical application of sanitary measures for the sake of cleanliness and protecting health.

Sanitary Toilet – is an approved type of facility used for receiving and disposing human waste (feces and urine).

APPROVED TYPES

1. Flush – type of toilet facility with a mechanical device used to wash the waste into the receiving sewer or septic tank by the use of flushing water and with traps to provide a "water seal".
2. Poor Flush – type of toilet facility without a mechanical device and in hand-flush with "water seal" connected to receiving sewer, septic tank or leaching pit.
3. Ventilated Improved Pit refers to an on-site toilet facility without using any amount of water comprising a vent pipe with a fly screen used to trap flies in a pit and, also allows evacuation of foul air into the atmosphere. This minimizes foul odor with the latrine superstructure and traps flies that could not spread diseases through faecal contamination.
4. Sanitary Pit Privy – type of toilet facility without using any amount of water, with a pit of at least 1-2 meters depth, a hole of one square meter, provided with a floor covering a riser, seat with cover which are all fly-and rodent proof and a building for privacy including the Antipolo type.

Unsanitary Toilet – a type of facility used for receiving and disposing human waste which does not fall under the category of approved types of toilet facilities.

UNAPPROVED/UNSANITARY TYPES

1. Open Pit Privy- a pit of at least the same dimension as the sanitary pit privy, provided with pit flooring, with or without riser and seat and without cover to protect from flies and rodents.

2. Overhang – a structure provided with flooring and with an opening built above the body of water or above the ground without pit under it, used for defecation of the disposal of human waste. It can be a part of the house or a separate structure outside the house.

LEVELS OF TOILET USE

1. Communal – a toilet facility shared by two or more households.
2. Public – toilet facility located at public places like markets, bus stations, etc. intended for public use.
3. School – a toilet facility located in a school.
4. Household – a toilet facility being used by an individual household.

Sewerage - facilities that collect human waste and sullage from residences and establishments usually piped and conveyed in structures (sewers, pump stations) for eventual central treatment and safe disposal. Piped sewerage includes a collection system (street laterals), a conveyance system (trunk sewers and pump stations), and a treatment plant/disposal system.

Human Waste – solid (feces) and liquid (urine) wastes from human.

Sullage – liquid wastes resulting from washing, bathing and laundry.

Drainage System – facilities that deal with rainwater.

Unsanitary Drainage System – facilities without treatment that deal with rainwater and also receive septic tank overflow and sullage. Includes open canals.

Without Toilet – households without any toilet but using body of water like rivers, lakes, etc. open field including coastal areas, and other mean to dispose human waste.

Access – availability of toilet facility within the household premises that can be used anytime.

On Site – the human waste is deposited and treated where the toilet facility is located.

Off Site – the human waste is transported for treatment.

Table 4.2.1 Number of Household Toilets, by Type

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)												Page:			
Content: **Environment Sanitation - Household Toilet**												Date: 30 Jun. 1999			
Data Collection Level: **Provincial**				Prov. Number: 0864								Filename: Sanitation.xls			
Region Number: VIII				Prov. Name: Southern Leyte								Form Number: P.6.1			
Geographic Code	Name of City or Municipality	Number of Households Using Sanitary Toilets								Number of Households Using Unsanitary Toilets			Number of Households Without Toilets		
		Flush		Pour Flush		Sanitary Pit Latrine (VIP)		Total							
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Total	Urban	Rural	Total
Number	Character	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
086401	Anahawan	10	5	567	650			577	655				21	105	126
086402	Bontoc	100	50	585	2,906			685	2,956		10	10	73	964	1,037
086403	Hinunangan	30	20	289	4,156			319	4,176				20	319	339
086404	Hinundayan	45	17	826	1,303			871	1,320	20		20	20	45	65
086405	Libagon	4	2	254	1,695			258	1,697				32	191	223
086406	Liloan	23	8	798	2,328			821	2,336	13		13	104	235	339
086419	Limasawa			234	714			234	714	9	9	18	10	46	56
086407	Maasin (Capital)	140	45	4,051	5,361			4,191	5,406				2,073	1,610	3,683
086408	Macrohon			1,290	2,317			1,290	2,317	7		7	113	101	214
086409	Malitbog	40		453	2,815			493	2,815		25	25	68	127	195
086410	Padre Burgos	18	4	406	982			424	986				62	16	78
086411	Pintuyan			149	1,347			149	1,347				57	64	121
086412	Saint Bernard	69	298	611	2,794			680	3,092	16		16	25	562	587
086413	San Francisco	26	9	360	1,349			386	1,358				102	187	289
086414	San Juan (Cabalian)	50		469	1,026			519	1,026				316	609	925
086415	San Ricardo			118	1,286			118	1,286	16		16	19	23	42
086416	Silago			436	1,595			436	1,595	5		5	20	57	77
086417	Sogod	45	19	1,505	2,748			1,550	2,767	20		20	231	1,722	1,953
086418	Tomas Oppus	11	36	368	1,996			379	2,032				9	130	139

Source: PSPT, Southern Leyte, 1999

Table 4.2.2 Number of School Toilets by Public and Private Classification

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)							Page:
Content: **Environment Sanitation - School and Student**							Date: 30 Jun. 1999
Data Collection Level: **Provincial**		Prov. Number: 0864					Filename: Sanitation.xls
Region Number: VIII		Prov. Name: Southern Leyte					Form Number: P.6.2
Geographic Code	Name of City or Municipality	Number of School			Number of Student		
		Public	Private	Total	Public	Private	Total
Number	Character	Number	Number	Number	Number	Number	Number
086401	Anahawan	4	1	5	1,189	501	1,690
086402	Bontoc	31		31	6,403		6,403
086403	Hinunangan	30	1	31	4,720	515	5,235
086404	Hinundayan	12	1	13	2,310	409	2,719
086405	Libagon	9	1	10	2,625	434	3,059
086406	Liloan	22	1	23	4,333	448	4,781
086419	Limasawa	6		6	1,271		1,271
086407	Maasin (Capital)	65	2	67	13,071	2,286	15,357
086408	Macrohon	21	1	22	5,166	513	5,679
086409	Malitbog	20	1	21	3,389	450	3,839
086410	Padre Burgos	7	1	8	1,407	485	1,892
086411	Pintuyan	9		9	1,668		1,668
086412	Saint Bernard	24	1	25	4,641	467	5,108
086413	San Francisco	12	1	13	2,393	469	2,862
086414	San Juan (Cabalian)	12		12	2,611		2,611
086415	San Ricardo	10		10	2,260		2,260
086416	Silago	12		12	2,102		2,102
086417	Sogod	28	1	29	7,447	545	7,992
086418	Tomas Oppus	19	1	20	3,056	415	3,471

Source: PSPT, Southern Leyte, 1999

Table 4.2.2 Number of School Toilets by Public and Private Classification (Cont'd.)

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)			Page:
Content: **Environment Sanitation - School Toilets**			Date: 25 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0864		Filename: Sanitation.xls
Region Number: VIII	Prov. Name: Southern Leyte		Form Number: P.6.3

Geographic Code	Name of City or Municipality	Number of School Toilets						Total Unit
		Sanitary			Unsanitary			
		Public	Private	Total	Public	Private	Total	
Number	Character	Number	Number	Number	Number	Number	Number	Number
086401	Anahawan	41	5	46				46
086402	Bontoc	90		90				90
086403	Hinunangan	115	5	120				120
086404	Hinundayan	45	3	48				48
086405	Libagon	58	4	62				62
086406	Liloan	126	4	130	8	1	9	139
086419	Limasawa	30		30				30
086407	Maasin (Capital)	234	32	266				266
086408	Macrohon	100	6	106	2		2	108
086409	Malitbog	82	6	88				88
086410	Padre Burgos	28	14	42				42
086411	Pintuyan	81		81				81
086412	Saint Bernard	176	12	188				188
086413	San Francisco	54	8	62				62
086414	San Juan (Cabalian)	48		48				48
086415	San Ricardo	69		69				69
086416	Silago	127		127				127
086417	Sogod	144	12	156				156
086418	Tomas Oppus	100	5	105				105

Source: PSPT, Southern Leyte, 1999

Table 4.2.3 Number of Toilets by Type of Facility

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)			Page:
Content: **Environment Sanitation - Public Toilets(Public Market)**			Date: 25 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0864		Filename: Sanitation.xls
Region Number: VIII	Prov. Name: Southern Leyte		Form Number: P.6.4.1

Geographic Code	Name of City or Municipality	Public Markets						
		Number	Number of Toilets					
			Sanitary		Unsanitary		Total	
			Male	Female	Male	Female	Male	Female
Number	Character	Number	Number	Number	Number	Number	Number	Number
086401	Anahawan	1	1	1			1	1
086402	Bontoc	1	1	1			1	1
086403	Hinunangan	1	1	1			1	1
086404	Hinundayan	1	1	1			1	1
086405	Libagon	1	1	1			1	1
086406	Liloan	1	1	1			1	1
086419	Limasawa							
086407	Maasin (Capital)	3	3	3			3	3
086408	Macrohon							
086409	Malitbog	1	1	1			1	1
086410	Padre Burgos	1	1	1			1	1
086411	Pintuyan							
086412	Saint Bernard	1	1	1			1	1
086413	San Francisco	1	1	1			1	1
086414	San Juan (Cabalian)	1	1	1			1	1
086415	San Ricardo							
086416	Silago							
086417	Sogod	2	2	2			2	2
086418	Tomas Oppus	1	1	1			1	1

Source: PSPT, Southern Leyte, 1999

Table 4.2.3 Number of Toilets by Type of Facility (Cont'd.)

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)		Page:
Content: **Environment Sanitation - Public Toilets(Jeepney/Bus Terminal)**		Date: 25 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0864	Filename: Sanitation.xls
Region Number: VIII	Prov. Name: Southern Leyte	Form Number: P.6.4.2

Geographic Code	Name of City or Municipality	Jeepney/Bus Terminal						
		Number	Number of Toilets					
			Sanitary		Unsanitary		Total	
			Male	Female	Male	Female	Male	Female
Number	Character	Number	Number	Number	Number	Number	Number	Number
086401	Anahawan							
086402	Bontoc							
086403	Hinunangan	1	1	1			1	1
086404	Hinundayan							
086405	Libagon							
086406	Liloan	1	1	1			1	1
086419	Limasawa							
086407	Maasin (Capital)	1	1	1			1	1
086408	Macrohon							
086409	Malitbog							
086410	Padre Burgos	1	1	1			1	1
086411	Pintuyan							
086412	Saint Bernard	1	1	1			1	1
086413	San Francisco	1	1	1			1	1
086414	San Juan (Cabalian)	1	1	1			1	1
086415	San Ricardo							
086416	Silago	1	1	1			1	1
086417	Sogod	1	1	1			1	1
086418	Tomas Oppus							

Source: PSPT, Southern Leyte, 1999

Table 4.2.3 Number of Toilets by Type of Facility (Cont'd.)

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)			Page:
Content: **Environment Sanitation - Public Toilets(Parks/Playground)**			Date: 25 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0864		Filename: Sanitation.xls
Region Number: VIII	Prov. Name: Southern Leyte		Form Number: P.6.4.3

Geographic Code	Name of City or Municipality	Parks/Playground						
		Number	Number of Toilets					
			Sanitary		Unsanitary		Total	
			Male	Female	Male	Female	Male	Female
Number	Character	Number	Number	Number	Number	Number	Number	Number
086401	Anahawan							
086402	Bontoc							
086403	Hinunangan							
086404	Hinundayan	1	1	1			1	1
086405	Libagon	1	1	1			1	1
086406	Liloan	1	1	1			1	1
086419	Limasawa	1	2	2			2	2
086407	Maasin (Capital)	1	1	1			1	1
086408	Macrohon	1	1	1			1	1
086409	Malitbog	1	1	1			1	1
086410	Padre Burgos	1	1	1			1	1
086411	Pintuyan							
086412	Saint Bernard	1	1	1			1	1
086413	San Francisco	1	1	1			1	1
086414	San Juan (Cabalian)	1	1	1			1	1
086415	San Ricardo							
086416	Silago	1	1	1			1	1
086417	Sogod							
086418	Tomas Oppus							

Source: PSPT, Southern Leyte, 1999

5. EXISTING SECTOR ARRANGEMENT AND INSTITUTIONAL CAPACITY

5.2 Sector Reforms

A. IMPLEMENTING RULES AND REGULATION

IMPLEMENTING RULES AND REGULATIONS OF NEDA BOARD RESOLUTION NO. (SERIES OF 1994), CLAUSE (G)

PREFACE

The following Implementing Rules and Regulations (IRR) of Clause (g) of NEDA Board Resolution No. 4 (series of 1994) was prepared with assistance from the World Bank, upon request of the Philippine Government, through the Department of the Interior and Local Government (DILG). It is an update of the earlier draft prepared in August 1995 and incorporates the developments that have occurred in the sector since that time. The intention is to provide a comprehensive and consistent set of IRR that reflects evolving policies in the sector to address basic service deficits. In particular, it attempts to translate the global sectoral principles of managing water as an economic good and managing services at the most appropriate level, into rules and regulations that can be understood and implemented by the local government units. This IRR reflects the following policies currently being developed by the Government:

a. Encouraging LWUA lending rates to local water districts to be aligned to market rates;

b. Providing national government grants for source development of Level I systems in support of a national objective of poverty alleviation;

c. Developing a national sector plan that will provide the basis for provinces and cities/municipalities to plan and implement water and sanitation investments based on what communities want and are willing to pay for;

d. Instituting a framework for economic regulation of the water supply and sanitation sector and defining the role of the LGU in this framework; and

e. Instituting a system of public performance audit of public and private water utilities, so that consumers feedback on service coverage and reliability is available at the national and local levels of Government.

A major development was the creation of the Presidential Task Force on Water Resources Development and Management in October 1996, which has the objective of streamlining the regulatory environment of the sector, that is, linking resource regulation with the economic regulation aspects. A proposed bill prepared by the Task Force has been filed with Congress in July 1997 for the creation of a Water Resources Authority of the Philippines (WRAP) to undertake these regulatory functions, among others. Once this is approved by Congress and passed into law, the IRR may have to be revised to reflect the major institutional changes, particularly with regard to the roles of national government agencies in the sector.

RULE 1
PURPOSE AND OBJECTIVES

Article 1. Title. These rules shall be known as the Implementing Rules and Regulations of clause (g) of NEDA Board Resolution No. 4, (series of 1994).

Article 2. Purpose. The purpose of these rules and regulations is to implement clause (g) of NEDA Board Resolution No. 4, (series of 1994), and is in support of NEDA Board Resolution No. 6, (series of 1996) which defines the executing agency arrangement for devolved infrastructure activities/facilities, including water supply, where national government assistance is provided. Clause (g) of NEDA Board Resolution No. 4 (series of 1994) states that:

"Level I (point source system), Level II (command faucet) and Level III (house connections water supply projects may be implemented by the concerned LGUs within their jurisdiction. LWUA shall implement only financially viable Level III water supply projects in areas outside the MWSS jurisdiction. DILG's participation will consist of general administration and institution building, such as assistance to LGUs in the formation of Rural and/or Barangay Waterworks and Sanitation Associations (RWSAs/BWSAs) as well as in the identification of water supply systems. MWSS will be responsible for Level III water systems in Metro Manila and adjacent areas. DPWH, together with DILG and DOH, will provide technical assistance (within a period of about two years) to LGUs in the planning, implementation, and operation and maintenance of water supply facilities."

Annex C presents NEDA Board Resolution No. 6, (series of 1996).

Article 3. Objectives. The objectives of the Implementing Rules and Regulations are as follows:

a. To definite the role of local government units (LGUs) in the provision of water supply services and the assistance to be made available to them by national government agencies concerned;

b. To provide guidance to the LGUs in the development and implementation of viable and sustainable water supply projects, to the extent feasible, supporting the principles espoused by the sector of managing water as an economic good, promoting a demand-oriented approach in the provision of services and management to be made at the most appropriate level, and greater private sector participation in service delivery; and

c. To identify institutional strengthening needs of LGUs to further develop their capacity to adequate perform their agreed functions in the sector.

RULE 2
SCOPE

Article 4. Scope. These Implementing Rules and Regulations shall apply to water supply projects to be implemented and managed by LGUs where national government assistance is provided.

RULE 3
DEFINITION OF TERMS

Article 5. Definition of Terms. For purpose of these Implementing Rules and Regulations, the following terms shall be construed to mean as follows:

a. **Levels of Service.** Based on NEDA Board Resolution No. 12 (series of 1995), approving the common definition of terms relative to water supply, sewerage and on-site sanitation, levels of service are defined as follows:

Level I (Point Source) – a protected well or a developed spring with an outlet but without a distribution system; generally adaptable for rural areas where the houses are thinly scattered. A Level I facility normally serves an average of 15 households.

Level II (Communal Faucet System or Standposts) – a system composed of a source, a reservoir, a piped distribution network, and communal faucets. Usually, one faucet serves four to six households. It is generally suited for rural and urban fringe areas where houses are clustered densely to justify a simple piped system.

Level III (Waterworks System or Individual House Connections) -- a system with a source, a reservoir, a piped distribution network and household taps. It is generally suited for densely populated urban areas.

b. A **financially viable water supply system** refers to a system wherein its revenues can cover for all costs related to capital and operation and maintenance, including providing for reasonable reserves for future expansion. For those systems managed by water districts, a financially viable system in one that is able to generate revenues directly from user payments sufficient to cover all costs[1]. For LGU-managed directly systems, capital and operations and maintenance costs shall be recovered through a combination of user fees, general municipal taxes and other incomes available to the LGUs.

RULE 4
ROLE OF LOCAL GOVERNMENT UNITS

Article 6. General. The Local Government Code of 1991 mandates the decentralization and devolution of authority to LGUs in providing for certain basic services, which include safe potable water. At the local level, the LGUs are responsible for providing reliable water supply to their constituents, whether these are in the form of Levels I, II or III systems, depending on the expressed demand by the community for these services. LGUs may both directly provide and finance these services, or involve the private sector to participate in both provision and financing through concession, management or service contracts.

Article 7. Financing and Cost Recovery. In financing water supply investments, the LGUs may tap their Internal Revenue Allotment and/or locally generated revenues, or leverage these resources to borrow from government and private financial institutions. The amount that an LGU can borrow, including the required equity, is dependent on its current and expected revenue performance, as well as the amount of user charges and equity contributions from the community. The amount shall be a local decision of the LGUs concerned.

For any national government grant that may be provided for the development of Level I systems, the LGU and beneficiaries, concerned shall be required to provide any remaining amount as equity to the

[1] The Department of Finance is considering aligning the LWUA lending rates to local water districts toward market rates to allow for a more efficient use of scarce resources, as well as to provide for consistent policy on lending to LGUs by government financial institutions.

investment. No subsidies from the national government shall be provided for Levels II and III systems.[2]

In providing for Level III service, the LGUs may opt to form a water district or an LGU company, provide a franchise to a private party or participate in a joint venture with a private party. Except in areas with water districts, LGUs shall maintain overall responsibility for ensuring consumer satisfaction through the exercise of institutional and/or contractual regulatory powers over local water utilities[3], in collaboration with other national regulatory agencies, and by instituting a system of public performance audit.

Cost recovery through user payments shall be encouraged for both capital and operation and maintenance costs. However, at the minimum, user payments shall be required to cover the operation and maintenance costs in all services levels. For LGU- owned, operated and/or guaranteed systems, any shortfall in revenues required for loan repayment shall be financed by the LGU from its Internal Revenue Allotment and/or locally-generated revenues, following a process of negotiation between the LGU and the beneficiaries concerned on the level of user payments.

For systems managed by local water districts, full cost recovery, through user charges, is required by LWUA.

In areas where there are existing local water districts, LGUs may finance rehabilitation works and/or expansion of the existing waterworks system on the following conditions:

a. The local water district concerned is not in LWUA's current program of assistance, that is, it is not included in any loan of LWUA with a financing institution, and

b. Endorsement by the local water district concerned should have been secured.

In the event that the local water district is servicing a loan from LWUA, the local water district shall seek clearance from LWUA prior to entering into an agreement with the LGU concerned on any program of system expansion.

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[2] This policy has been approved by the Investment Coordination Committee of the NEDA Board.

[3] As per Presidential Decree No. 198 (Provincial Water Utilities Act), LWUA regulates the technical standards and the tariffs of local water districts, based on its requirement to issue a certificate of conformance on every loan disbursed to the latter. Source regulation is done by the National Water Resources Board. At the moment, there is no recourse by the LGU in case of non-performance by the local water district. This is an issue that needs to be addressed by Government.

Article 8. Management of Systems. LGUs shall adopt commercial principles in the operation and management of water utilities in order to provide cost-effective and reliable services to consumers, whether management of the system is a direct responsibility of the LGU or is contracted out by the KGU to the private sector. An LGU may also consider amalgamating or consolidating its system with that of its neighboring LGUs in order to benefit from economies of scale that could expand water supply services to consumers at the lowest possible cost.

For the operation and management of Level I and II systems, the LGUs shall initiate the formation of Barangay and Rural Waterworks and Sanitation Associations (BWSAs/RWSAs), respectively, through a participatory approach involving consultation with all stakeholders (Article 20) and assist in their registration with the appropriate authorities (Article 21). Upon request, LGUs may accredit duly registered RWSAs/BWSAs in order to enable them to avail of financial assistance form local governments. LGUs shall have a overall supervision of RWSAs and BWSAs.

Article 9. Project Planning and Development. Provinces and cities/municipalities shall be required to prepared, and update on an annual basis, provincial and city/municipal sector plans that are consistent with a national sector plan[4]. These sector plans shall be integrated into the local investment programs. Water supply projects shall be identified from the local investment program, a financing program of foreign and nationally/locally-generated resources, including private sector resources, shall support the local investment program.

Article 10. Approval and Award of Contracts. The LGUs shall be required to conduct public bidding, in accordance with the provisions of Law, including Presidential Decree No. 1594, as amended, Executive Order No.302 and other applicable laws, and shall have the final authority to approve and award contracts for water supply and sanitation projects within their jurisdictions.

Article 11. Application for Water Rights. LGUs or the concerned water utility shall apply for water rights from the National Water Resources Board prior to implementing a project that would require extraction of water.

Article 12. Public Performance Audit. The LGUs shall establish a system of public performance audit for public and private water utilities focusing on critical performance indicators. Upon request of the LGUs, DILG may provide technical assistance for this purpose, in coordination with appropriate national government agencies.[5]

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[4] ADB is assisting the preparation of a National Sector Plan for Water Supply, Sewerage and Sanitation for 1999-2004

[5] This system shall be pilot-tested in Metro Manila by the MWSS with World Bank financing.

RULE 5
ROLES OF NATIONAL GOVERNMENT AGENCIES

Article 13. Department of the Interior and Local Government (DILG). The DILG shall have the following responsibilities in the sector:

a. Raise awareness of LGUs on opportunities relating to the sector, within the framework of relevant government policies, such as financing schemes and available assistance from local and foreign financing institutions, technological breakthroughs, management and institutional arrangements, etc.;

b. Facilitate transactions between LGUs and communities and lending institutions by preparing water supply investment packages, assisting in the financial, economic and institutional and environmental data collection and analysis, etc., in coordination with appropriate national government agencies;

c. Build capacity of LGUs and BWSAs/RWSAs in the general areas of planning, implementation, management, monitoring and evaluation, and regulation, upon agreement with the LGUs, and as required by financing institutions, in coordination with national government agencies such as DPWH in the case of the engineering aspects;

d. Develop and maintain a national data management system of LGU-managed water systems to include data on extent of service coverage, cost recovery, collection efficiency, size of water systems, nature of water resources, among others, in coordination with appropriate national government agencies;

e. Establish a system for monitoring strategic performance of LGUs in relation to the sector, including compliance with technical standards established by LWUA and DPWH;

f. Upon agreement with the LGU, provide technical assistance in the establishment of a system of public performance audit, in collaboration with appropriate national government agencies;

g. Coordinate sector activities of LGUs vis-a-vis other national government documents and issue regular bulletins;

h. Monitor the implementation of this IRR, including the formulation of monitoring and evaluation parameters and reporting requirements; and

i. Act as the coordinator for projects funded by the National Government per NEDA Board Resolution No. 6 (series of 1996).

Article 14. Local Water Utilities Administration (LWUA). The LWUA shall have the following responsibilities in the sector:

a. Act as a specialized lending institution for local water districts;

b. Provide technical assistance to local water districts in the areas of operation, maintenance, personnel training and fiscal practices;

c. Upon agreement with the LGU, provide technical and financial assistance in the conduct of engineering studies;

d. Approve tariffs of local water districts;

e. Establish and update, as and when necessary, the technical standards for local water utilities, including LGU-managed systems;

f. Monitor and evaluate the performance of local water districts; and

g. Registered RWSAs and furnish all registration documents to DILG.

Article 15. Department of Public Works and Highways (DPWH). The DPWH shall have the following responsibilities in the sector:

a. Set and/or update, as and when necessary, technical standards for engineering surveys, design, construction and operation and maintenance of Level I systems;

b. Upon agreement with the LGUs, assist in the conduct of engineering surveys and in the preparation of plans, specifications and programs of work, through its District Offices;

c. Upon agreement with the LGUs, assist in construction management, through its District Offices; and

d. Conduct technical researches in coordination with the LGUs.

Article 16. Department of Health (DOH). The DOH shall have the following responsibilities in the sector:

a. Set and/or update, as and when necessary, standards on water quality testing, treatment and surveillance, and sanitary practices;

b. Provide technical assistance to the LGUs in the conduct of periodic water quality control and surveillance-related activities; and

c. Monitor and evaluate, on a regular basis, health and hygiene education programs implemented by local health offices, particularly in areas where waterworks systems are expected to be constructed.

Article 17. National Water Resources Board (NWRB). The NWRB shall have the following responsibilities in the sector:

a. Regulate the use of water resources through the issuance of water rights;

b. Regulate tariffs of privately-run water system; and

c. Establish and manage a user-friendly water resources data management system.

Article 18. Metropolitan Waterworks and Sewerage System (MWSS). The MWSS shall be responsible for water systems in Metro Manila and its adjacent areas.

RULE 6
RURAL/BARANGAY WATERWORKS AND SANITATION ASSOCIATIONS

Article 19. General Provision. A Rural/Barangay Waterworks and Sanitation Association shall be formed to manage public water systems and sanitation facilities: RWSAs for Level II systems and BWSAs for Level I systems. RWSAs/BWSAs shall initiate/assist in site identification, planning, implementation and evaluation of water supply projects as well as guide the construction and/or maintenance of household and community latrines (toilets).

Article 20. Organization of RWSAs/BWSAs. RWSAs and BWSAs shall be organized upon initiation of the LGU. A participatory approach shall be adopted in the formation of RWSAs/BWSAs with the LGU concerne3d taking the lead and non-government organizations (NGOs) providing technical assistance, as necessary. Prior to the formation of RWSAs/BWSAs, dialogues shall be conducted with and among all stakeholders such as women's groups, civic and religious organization, health practitioners, NGOs and other people's organizations.

Article 21. Registration Requirements. RWSAs/BWSAs shall register with DILG. BWSAs shall be encouraged to associate with other BWSAs or the RWSAs prior to registration. DILG shall keep a record of all registration documents.

Article 22. Powers. Every duly registered RWSAs/BWSA shall be autonomous and shall have the power and capacity to:

a. Award and enter into a contract(s) with private contractors for the delivery of necessary services or the supply of materials, in the course of managing a public water and sanitation facility, subject to existing laws, rules and regulations;

b. Oversee the implementation of project undertaken by private contractors;

c. Own and mange the operation of th4e water facility in a sustainable manner, including providing for adequate reserves for maintenance and repair, setting appropriate levels of user fees, and implementing billing and collection schemes;

d. Handle the activities required of any lawful business transaction entered into by the Association;

e. Enter into agreement with other RWSAs/BWSAs for any merger or consolidation as may be proven advantageous to their operations;

f. Convene meetings of water users for the purpose of information dissemination, consultation, public hearing on water rates and other activities deemed important;

g. Initiate improvements in operations found to be advantageous and favorable to the communities concerned;

h. Decide on matters found to be advantageous and favorable to the communities concerned; and

i. Prepare an annual report on its operations.

Article 23. Capability Building of RWSAs/BWSAs. RWSAs and BWSAs may request assistance for capability building form LGUs and/or DILG, DPWH and other concerned agencies, through the LGUs.

RULE 7
PROJECT DEVELOPMENT AND IMPLEMENTATION

Article 24. Sector Planning. Planning and development of water supply investment shall be made within the framework of national policies, and shall implement specific targets in the provincial and city/municipal sector plans. These plans shall define the strategies, policies and approaches in sector development at different levels of government. A National Sector Plan for Water Supply, Sewerage and Sanitation shall be prepared, and updated, on a regular basis, by the National Economic and Development Authority (NEDA), in coordination with the concerned oversight water agencies, and shall provide the national policy framework. At the provincial level, the LGUs, through their respective Provincial Planning and Development Offices, shall prepare, and update, on an annual basis, the Provincial Water Supply, Sewerage and Sanitation Sector Plans. At the city/municipal level, a similar sector plan shall be prepared and updated, on an annual basis, by the LGUs, through their City/Municipal Planning and Development Offices. The respective Local Councils shall approve the provincial and city/municipal sector plans.

Article 25. Project Identification. On the basis of the provincial and city/municipal sector plans, water supply investments shall be identified and developed into a local investment program that includes an appropriate financing plan. The Local Council concerned shall approve the local investment program. The proposed investments shall then be developed according to a demand-driven approach that would allow beneficiaries to select from among cost-effective technical options and from among financing options. The LGUs may avail of technical assistance from the DILG in the preparation of these project packages (Rule 5).

Water supply investment shall be developed tot he principles of managing water services at the most appropriate level and providing services based on what local consumers want and are willing to pay for. This means that LGU systems shall be constructed on the basis of choosing among technical options that are affordable through the financial resources made available by users, communities and LGUs. The process of determining demand for a particular service delivery shall be concluded through a negotiated agreement between the LGU, water utility and the users, on how the costs will be shared at the town, barangay and household levels.

Article 26. **Technical Aspects.** Technically feasible options shall be developed, particularly for a Level II service level. These options may include varying levels of operation (in terms of operating hours), which may have substantial implications on capital and operating and maintenance costs. In addition, the operation and management (O&M) cost of a technical option is strongly influenced by the management mode chosen by an LGU, economies of scale factors and the size of the service area. Thus, for any Level III service, at least two technical options shall be explored; those of an inter-LGU service delivery organization involving amalgamation of service areas and of singled LGU management systems. The former option shall be explored and developed further only upon agreement with the LGU concerned.

In the conduct of the engineering work (i.e., feasibility studies and detailed design), the LGUs may tap the services of the private sector, using their internal resources or may request the DILG, DPWH and/or LWUA for financial and/or technical assistance.

Article 27. **Financing and Management Options.** A range of options is available to the LGUs on financing and management of Level III systems. They include, but are not limited to, the following options:

Options 1: The LGU may finance the system from its internal resources or may borrow from a financial institution. It may then create a **profit center within the LGU** office with a separate cost accounting system. Under this arrangement, the LGU may directly manage the system or may enter into a **management contract** with a private party or a **service contract** with a private party to handle billing and collection and/or repair and maintenance. In these types of management arrangements, the LGU retains the responsibility for providing the service and assumes the commercial risks. Institutions such as neighboring water districts, cooperatives and other private institutions may be tapped by the LGU for these types of contracts.

Option 2: The LGU may enter into a **lease contract** with private party to operate and manage the system. Under this arrangement, the LGU finances the capital expenditures from its internal resources or from borrowings. The LGU then leases the facility to a private party, which assumes the commercial risks and the responsibility for operation and maintenance. The private party is allowed to recover the costs from user fees, and may also collect, on behalf of the LGU, any other charges contributing to the repayment of a loan which the LGU may have taken on behalf of the users.

Option 3: The LGU may enter into **concession contract** with a private party. Under this arrangement, the private party assumes the operations and management of the assets of the LGU, and

undertakes to expand and finance the services according to the terms and conditions of the contract. The private party is then allowed to operate the system, and recover its costs and earn a reasonable return on its investment from user fees. The private party also assumes the commercial risk. After the concession contract expires, the system reverts to the LGU, or may be contracted out again by the LGU.

Option 4: The LGU may create a **local water district**, in accordance with Presidential Decree No. 198, as amended.

Option 5: The **LGU may form a water company** to handle the provision of the service.

The LGU appoints the Board of Directors to be tapped from the private sector who would manage the company along commercial principles.

Options 6: The LGU may enter into contract with a private party under the **Build-Operate-Transfer scheme or any of its variants**, per Republic Act No. 6970, as amended, for the whole water system or a component of it (i.e., source development or distribution).

Option 7: The LGU may enter into a **joint venture agreement** with a private party in providing the service. Under this arrangement, both parties share in the risks of the project, as well as operate the water supply system through a shared management and organization structure.

In the contracts of LGUs with private parties, performance standards shall be stipulated including remedies for non-performance that are consistent with national regulatory laws.

The DILG, in its role of raising awareness of LGUs on opportunities in the sector, shall be responsible for informing the LGUs of these schemes, and in facilitating the implementation of the preferred option. **Annex D** provides a matrix of these various schemes.

RULE 8
COORDINATION AND COLLABORATION MECHANISMS

Article 28. Inter-LGU Collaboration. Provinces, cities, municipalities and barangays may assist, coordinate and collaborate with each other, as far as practicable, in the effort of improving the delivery of services to the Filipino people. The DILG shall take the lead in coordinating among the LGUs.

Article 29. Coordination Between Local and National Governments. LGUs may avail of the technical, financial and institutional expertise of national agencies like LWUA, DPWH, DILG, NWRB, DOH and DENR. DILG, as appropriate, shall coordinate with other national agencies on behalf of the LGUs.

RULE 9
TRANSITION ARRANGEMENTS

Article 30. Ongoing Projects. The DPWH, DOH and DILG shall continue to implement ongoing foreign-assisted Level I projects until the completion of such projects.

Article 31. Pipeline Projects. Projects in the pipeline shall conform to the provisions of this IRR to the extent possible.

RULE 10
MISCELLANEOUS PROVISIONS

Article 32. Applicability Clause. The application of this IRR shall be without prejudice to existing and future laws, rules, regulations, and/or international agreements entered into by the Philippine Government.

Article 33. Effectivity of the IRR. These Implementing Rules and Regulations shall take effect upon its approval by the NEDA Board, on recommendation by the Infrastructure Committee. It shall then be published in at least two national newspapers of general circulation.