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 F, 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:

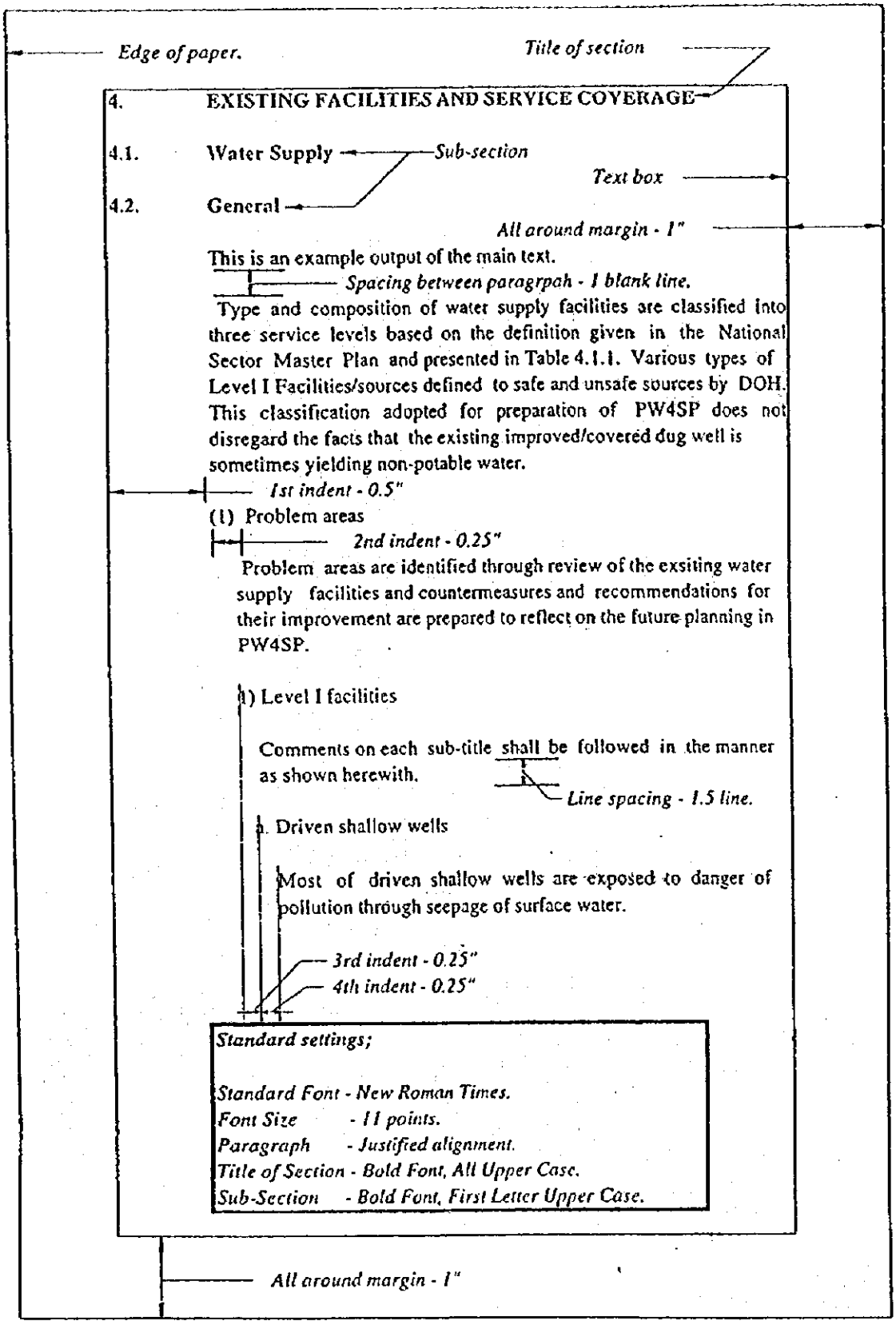
- *Minimun Percentage of **Rural Water Supply**:* move mouse pointer to column E, in reference to column A (score) at starting at row 15, select the data you would like to update and type the new value.

- *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.
- *Minimun 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 Socio-economic Conditions

3.3.2 Basic Infrastructure

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

Provincial Water Supply, Sewerage And Sanitation Sector Plan (PWASP) — Page
Content: Socio-economic - Services — Date: 01 Jul 1999
Data Collection Level: Provincial — Filename: Socio.xls
Region Number: VIII — Prov. Name: Leyte — Prov. Number: 0837 — Form No.: P 1.5

Services (As of 1998)

Geographic Code	Name of City or Municipality	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
083701	Abuyog	36		36	4	2	6			1	1
083702	Alangalang	42	1	43	2	1	3		1		1
083703	Albuera	20		20	3	1	4			1	1
083705	Babatngon	20		20	3	1	4				
083706	Barugo	31		31	3	1	4		1		
083707	Bato	22		22	3	1	4		2	1	4
083708	Baybay	69	3	72	6	1	7	1	1	1	1
083710	Burauen	56		56	3		3			1	1
083713	Calubian	27		27	1		1				
083714	Capoocan	19		19	4		4				
083715	Carigara	29		29	2	1	3	1	2	1	6
083717	Dagami	34		34	3	1	4				
083718	Dulag	37		37	3		3				1
083719	Hilongos	39	1	40	7		7			3	
083720	Hindang	18		18	2	1	3				1
083721	Inopacan	18		18	5	1	6				
083722	Isabel	21	2	23	4	1	5	1		2	
083723	Jaro	38		38	1	1	2				1
083724	Javier (Bugho)	23	1	24	1	1	2				1
083725	Julita	17		17	1		1				
083726	Kananga	23	1	24	1	1	2	1	1	2	1
083728	La Paz	28		28	1		1				
083729	Leyte	28		28	2		2			1	1
083730	Macarthur	15		15	1		1				
083731	Mahaplag	27		27	2		2				1
083733	Matag-ob	18		18	1		1				1
083734	Matalom	27		27	3	1	4			1	
083735	Mayorga	13		13	1		1				
083736	Merida	22		22	2		2				
083739	Palo	29		29	4	2	6		1	1	1
083740	Palompon	43	1	44	7	2	9		2	1	2
083741	Pastrana	20		20	1		1				
083742	San Isidro	19		19	2	1	3				
083743	San Miguel	20	1	21	2		2				
083744	Santa Fe	14		14	1		1				
083745	Tabango	24		24	3		3		1	1	
083746	Tabontabon	11		11	1		1				
083747	Tacloban City (Capital)	37	14	51			0	11	13	4	27
083748	Tanauan	27		27	3	1	4		1		
083749	Tolosa	12		12	2		2				
083750	Tunga	4		4	1		1				
083751	Villaba	29		29	1	2	3		1	1	1

Source: PSPT, Leyte, 1999

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 0837									Page
Content: Health - Morbidity and Mortality		Prov. Name: Leyte									Date: 30 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	1-4/ Typhoid/Parathyphoid	X			546			6			
	A 02	5-7/ Dysentery	X			989						
	A 03	8-10/ Intestinal Parasites	X			5,275			3			2
	A 04	11-13/ Diarrhea	X			9,332			24			52
	A 05	14-16/ Tuberculosis				895			288			6
	A 06	17-19/ Conjunctivities	X			2,308						
	A 07	20-22/ Whooping Cough				39						10
	A 08	23-25/ Throat/Ear/Nose				542						
	A 09	26-28/ Tetanus				33			3			2
	A 10	29-31/ Septicemia				81			36			1
	A 11	32-34/ Cholera	X			14			1			2
	A 12	35-37/ Varicella, Chickenpox				218						
	A 13	38-40/ Measles				209			2			2
	A 14	41-43/ Dengue Fever	X			2,051			14			1
	A 15	44-46/ Viral Hepatitis	X			126			23			1
	A 16	47-49/ Malaria	X									
	A 17	50-52/ Schistosomiasis	X			2,172			51			
	A 18	53-55/ Filariasis	X			25						
	A 19	56-58/ Venerial Diseases				2						
	A 20	59-61/ Other Bacter./ Viral Dis.				227			21			1
Neoplasms (140-239)	B 01	62-64/ Malignant Neoplasms				56			90			
	B 02	65-67/ Leukemia				4			18			
Endocrine, Nutritional & Metabolic (250-279)	C 01	68-70/ Diabetes Mellitus				36			44			
	C 02	71-73/ Nutritional Deficiencies				358			11			
	C 03	74-76/ Endocrine Disorder				29			2			
Blood & Blood Forming Organs (280-289)	D 01	77-79/ Anemias				1,031			36			
Mental Disorder (290-319)	E 01					2						
Nervous System & Sense Organs (320-389)	F 01	80-82/ Meningitis				5			9			2
	F 02	83-85/ Nervous System				52			28			1
Circulatory Systems (390-459)	G 01	86-88/ Heart Diseases				474			398			
	G 02	89-91/ Vascular Diseases				452			320			3
Respiratory Systems (460-519)	H 01	92-94/ Bronchitis				9,976			17			
	H 02	95-97/ Pneumonia				11,537			514			47
	H 03	98-100/ Influenza				2,317			16			
	H 04	101-103/ Obstructive Pulmonary				434			30			
	H 05	104-106/ ARI				24,085			3			
Digestive System (520-579)	I 01	107-109/ Appendicitis				13			1			
	I 02	110-112/ Gastroent. Colitis				1,139			33			
	I 03	113-115/ Chronic Liver Disease				44			88			
	I 04	116-118/ Other Diges. Diseases				679			32			
Genito-Urinary System (580-629)	J 01	119-121/ Kidney/ Nephritis				25			21			
	J 02	122-124/ Urinary Infections				709			21			
Complication of Pregnancy & the Puerperium (630-676)	K 01	125-127/ Prematurity				12			15			33
Skin & Subcutaneous Tissue (680-709)	L 01	128-130/ Skin Diseases	X			11,139			1			
	L 02	131-133/ Scabies	X			1,125						
Musculoskeletal & Connective Tissue (710-739)	M 01	134-136/ Arthrop., Rheumatism				486			2			
Congenital Anomalies (740-759)	N 01	137-139/ Congenital Anomalies				1			5			16
Certain Causes of Prenatal Morbidity & Mortality (760-779)	P 01	140-142/ Birth Trauma							1			1
	P 02	143-145/ Birth Injuries & Difficult Labor				8			3			5
	P 03	146-148/ Resp. Fetus/Newborn				1						25
	P 04	149-151/ Other Prenatal Causes				16			3			
Symptoms & Illdefined Condition (780-799)	Q 01	152-154/ Senility							63			
	Q 02	155-157/ Ill-Defined Condition							1			
Accidents, Poisoning & Violence (800-999)	R 01	158-160/ Burns				74			2			1
	R 02	161-163/ Suffoc. Foreign Body				15			4			
	R 03	164-166/ Other Accidents				650			329			10

3.6 Environmental Conditions

3.6.3 Solid Waste Disposal

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: 01 Jul. 1999
Data Collection Level: Provincial	Prov. Number: 0837		Filename: Sanitation.xls
Region Number: VIII	Prov. Name: 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) and Burning	Burying	Composting
Number	Character	Number	Number	Number	Number	Number	Number	Number	Number
083701	Abuyog	3	1	4	2,967		2,579	3,096	1,349
083702	Alangalang	1		1	562		2,701	3,062	1,926
083703	Albuera	3		3	688		2,543	2,194	1,714
083705	Babatngon	1		1	786		2,640	335	315
083706	Barugo	1		1	1,107	98	883	1,184	1,838
083707	Bato	1	1	2	895	1,292	1,065	1,063	1,789
083708	Baybay		2	2	3,329		6,062	7,328	1,366
083710	Burauen	3		3	2,277		1,199	5,913	1,129
083713	Calubian	1		1	106	687	605	3,060	2,680
083714	Capoocan	1		1	491		4,434	165	596
083715	Carigara	3		3	2,076		633	3,764	2,508
083717	Dagami	1		1	821		3,611	1,178	78
083718	Dulag	2		2		1,183	4,686		1,362
083719	Hilongos	1		1	1,667		4,110	2,970	1,575
083720	Hindang	1		1	2,263	160	423	419	279
083721	Inopacan	1		1	867		45		3,092
083722	Isabel	1		1	728		3,037	1,282	3,028
083723	Jaro	2		2	1,381		4,669	510	212
083724	Javier (Bugho)				632	86	1,297	1,183	1,394
083725	Julita						1,394	785	501
083726	Kananga	3		3	1,243		2,496	95	4,400
083728	La Paz	1		1	953		1,610	602	375
083729	Leyte	2		2	4,714		391	327	1,170
083730	Macarthur						2,257	166	1,193
083731	Mahaplag	2		2	653		2,332	894	898
083733	Matag-ob	1		1	418	414	1,403	50	1,476
083734	Matalom	1		1	400		2,182	1,191	1,882
083735	Mayorga						932	473	956
083736	Merida	1		1	803		1,581	1,580	1,607
083739	Palo	2		2	1,822	1,170	2,282	1,626	2,098
083740	Palompon		1	1	1,913		3,509	2,754	3,259
083741	Pastrana						534	1,810	531
083742	San Isidro	2		2	375		2,414	2,289	2,615
083743	San Miguel	1		1	689		2,136	30	58
083744	Santa Fe	1		1	1,010		1,147	74	637
083745	Tabango	1		1	450		2,501	1,815	1,893
083746	Tabontabon						829	201	563
083747	Tacloban City (Capital)	7	3	10	32,055		1,951	279	557
083748	Tanauan	3		3	2,615		2,714	2,297	1,044
083749	Tolosa						1,244	1,220	457
083750	Tunga	1		1	395		62	440	284
083751	Villaba	1		1	472		5,269	390	1,311

Source: PSPT, 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: 10 Jun. 1999
Data Collection Level: **Provincial**	Prov. Number: 0837		Filename: Sanitation.xls
Region Number: VIII	Prov. Name: 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
083701	Abuyog			2,264	4,508			2,264	4,508	311	981	1,292	94	1,833	1,927
083702	Alangalang	29	33	1,888	3,436	5	44	1,922	3,513				97	2,719	2,816
083703	Albuera			1,016	3,976			1,016	3,976	116	423	539	301	1,307	1,608
083705	Babatngon			851	1,653			851	1,653		7	7	496	1,069	1,565
083706	Barugo	243	165	697	1,701			940	1,866	35	111	146	198	1,960	2,158
083707	Bato	105	15	1,304	2,643			1,409	2,658		798	798	43	1,196	1,239
083708	Baybay	235		3,152	11,937			3,387	11,937				1,214	1,547	2,761
083710	Burauen			2,444	5,737			2,444	5,737	183	1,054	1,237	196	904	1,100
083713	Calubian	25	13	26	4,014	12	34	63	4,061	33	1,252	1,285	10	1,719	1,729
083714	Capoocan			1,074	2,122		1	1,074	2,123		223	223	16	2,250	2,266
083715	Carigara	519	24	1,415	3,237			1,934	3,261				546	3,240	3,786
083717	Dagami	219		418	2,530			637	2,530	75	608	683	122	1,716	1,838
083718	Dulag			4,655	2,164			4,655	2,164				12	400	412
083719	Hilongos	1,010	1,312	642	4,300		1,136	1,652	6,748				31	1,891	1,922
083720	Hindang	247	1,123	329	1,240			576	2,363				147	458	605
083721	Inopacan			360	2,416			360	2,416				78	1,150	1,228
083722	Isabel	1,359	3,389	912	410			2,271	3,799				556	1,449	2,005
083723	Jaro			794	2,933			794	2,933				634	2,411	3,045
083724	Javier (Bugho)			442	327		321	442	648	18	2,896	2,914	61	527	588
083725	Julita	120		742	1,216			862	1,216				59	543	602
083726	Kananga	214	234	867	4,103	90	10	1,171	4,347	108	880	988	102	1,626	1,728
083728	La Paz			711	2,373			711	2,373	24	132	156	74	226	300
083729	Leyte	72	435	54	318	518	3,818	644	4,571				53	1,334	1,387
083730	Macarthur	8	9	453	2,213	33	50	494	2,272	34	23	57	96	697	793
083731	Mahaplag	113	31	227	701	113	313	453	1,045	113	1,964	2,077	110	1,092	1,202
083733	Matag-ob	87	5	351	2,120	71	239	509	2,364	116	44	160	171	557	728
083734	Matalom	120	64	475	3,477			595	3,541	129	296	425	65	1,029	1,094
083735	Mayorga			158	1,299	157	157	315	1,456				171	419	590
083736	Merida			463	3,624			463	3,624	231	212	443	154	887	1,041
083739	Palo	3,064	4,337					3,064	4,337				1,384	213	1,597
083740	Palompon	262	1,628	2,081	4,659			2,343	6,287				120	2,685	2,805
083741	Pastrana	37		465	2,105			502	2,105				25	243	268
083742	San Isidro			706	4,185			706	4,185				467	2,335	2,802
083743	San Miguel			558	1,419			558	1,419	8	109	117	72	747	819
083744	Santa Fe			139	1,980			139	1,980	7	82	89	270	390	660
083745	Tabango			652	2,669			652	2,669				348	2,990	3,338
083746	Tabontabon	2		391	739			393	739	55	161	216	47	198	245
083747	Tacloban City (Capital)														
083748	Tanauan	63	11	2,450	3,878			2,513	3,889	5	600	605	342	1,321	1,663
083749	Tolosa	11	2	209	1,489	46	292	266	1,783	61	546	607	8	257	265
083750	Tunga	294	93	287	357			581	450	43	17	60	40	50	90
083751	Villaba			187	4,630	165	21	352	4,651	137	264	401	149	1,889	2,038

Source: PSPT, 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: 10 Jun. 1999
Data Collection Level: **Provincial**	Prov. Number: 0837	Filename: Sanitation xls
Region Number: VIII	Prov. Name: 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
083701	Abuyog	60	2	62	10,883	1,643	12,526
083702	Alangalang	44	2	46	6,360	360	6,720
083703	Albuera	23	1	24	8,307	280	8,587
083705	Babatngon	23	1	24	5,554	170	5,724
083706	Barugo	34	1	35	6,432	430	6,862
083707	Bato	25	1	26	7,767	544	8,311
083708	Baybay	75	4	79	18,568	852	19,420
083710	Burauen	59		59	8,905		8,905
083713	Calubian	28		28	6,064		6,064
083714	Capoocan	23		23	5,876		5,876
083715	Carigara	31	1	32	3,786	958	4,744
083717	Dagami	37	1	38	6,150	435	6,585
083718	Dulag	40		40	2,503		2,503
083719	Hilongos	46	1	47	7,925	253	8,178
083720	Hindang	20	1	21	3,439	607	4,046
083721	Inopacan	23	1	24	4,172	201	4,373
083722	Isabel	25	3	28	7,858	1,188	9,046
083723	Jaro	39	1	40	7,724	489	8,213
083724	Javier (Bugho)	24	2	26	4,182	374	4,556
083725	Julita	18		18	2,805		2,805
083726	Kananga	24	2	26	8,630	637	9,267
083728	La Paz	29		29	4,768		4,768
083729	Leyte	30		30	10,747		10,747
083730	Macarthur	16		16	3,523		3,523
083731	Mahaplag	29		29	5,809		5,809
083733	Matag-ob	19		19			
083734	Matalom	30	1	31	6,312	488	6,800
083735	Mayorga	14		14	2,613		2,613
083736	Merida	24		24	5,224		5,224
083739	Palo	33	2	35	4,996	234	5230
083740	Palompon	50	3	53	5,510	240	5750
083741	Pastrana	21		21	3,504		3504
083742	San Isidro	21	1	22	5,111	23	5134
083743	San Miguel	22	1	23	3,914	60	3974
083744	Santa Fe	15		15			
083745	Tabango	27		27	6,733		6733
083746	Tabontabon	12		12	1,974		1974
083747	Tacloban City (Capital)	37	14	51	6,150	2613	8763
083748	Tanauan	30	1	31	6,367	389	6756
083749	Tolosa	14		14	3,868		3868
083750	Tunga	5		5	2,406		2406
083751	Villaba	30	2	32	6,855	1359	8214

Source:

Table 4.2.2 Number of School Toilets by Public and Private Classification (contd)

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)		Page:
Content: **Environment Sanitation - School Toilets**		Date: 10 Jun. 1999
Data Collection Level: **Provincial**	Prov. Number: 0837	Filename: Sanitation.xls
Region Number: VIII	Prov. Name: 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
083701	Abuyog	80	156	236				236
083702	Alangalang	194	14	208				208
083703	Albuera	102	2	104				104
083705	Babatngon	53	2	55				55
083706	Barugo	14	8	22				22
083707	Bato	108	14	122				122
083708	Baybay							
083710	Burauen	287	2	289				289
083713	Calubian	139		139				139
083714	Capoocan	108	46	154	18		18	172
083715	Carigara	171	2	173				173
083717	Dagami	144	1	145				145
083718	Dulag	196		196				196
083719	Hilongos	168	8	176				176
083720	Hindang	44	2	46				46
083721	Inopacan	88	50	138				138
083722	Isabel	68	16	84				84
083723	Jaro	30	4	34				34
083724	Javier (Bugho)	104	4	108	7		7	115
083725	Julita	35		35	8		8	43
083726	Kananga	72	6	78	2		2	80
083728	La Paz	90		90				90
083729	Leyte	60		60	4		4	64
083730	Macarthur	43		43				43
083731	Mahaplag	28		28	16		16	44
083733	Matag-ob	32		32				32
083734	Matalom	108	2	110				110
083735	Mayorga	16		16	12		12	28
083736	Merida	154		154				154
083739	Palo	42		42				42
083740	Palompon	57	6	63				63
083741	Pastrana	25		25				25
083742	San Isidro	29	2	31				31
083743	San Miguel	53	2	55				55
083744	Santa Fe	48		48				48
083745	Tabango	271		271				271
083746	Tabontabon	38		38	4		4	42
083747	Tacloban City (Capital)	144	16	160				160
083748	Tanauan	180	6	186				186
083749	Tolosa	87		87				87
083750	Tunga	58		58				58
083751	Villaba	139	7	146				146

Source:

Table 4.2.3 Number of Public Toilets by Type of Facility

Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP)		Page:
Content: **Environment Sanitation - Public Toilets(Public Market)**		Date: 10 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0837	Filename: Sanitation.xls
Region Number: VIII	Prov. Name: 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
083701	Abuyog	1	2	2			2	2
083702	Alangalang	1	3	3			3	3
083703	Albuera	1	2	2			2	2
083705	Babatngon	1	1	1			1	1
083706	Barugo	1	2	2			2	2
083707	Bato	1	3	3			3	3
083708	Baybay	1	6	6			6	6
083710	Burauen	1	2	2			2	2
083713	Calubian	1	1	1			1	1
083714	Capoocan							
083715	Carigara	1	4	4			4	4
083717	Dagami	3	1	1			1	1
083718	Dulag	1	1	1			1	1
083719	Hilongos	1	3	3			3	3
083720	Hindang	1	3	3			3	3
083721	Inopacan	1	2	2			2	2
083722	Isabel	1	1	1	1	1	2	2
083723	Jaro	1	1	1			1	1
083724	Javier (Bugho)	1	2	2			2	2
083725	Julita							
083726	Kananga	1	3	3			3	3
083728	La Paz	1	1	1			1	1
083729	Leyte	1	1	1			1	1
083730	Macarthur	1	2	2			2	2
083731	Mahaplag	1	1	1			1	1
083733	Matag-ob	1	1	1			1	1
083734	Matalom	1	2	2			2	2
083735	Mayorga	1	1	1			1	1
083736	Merida	1	5	5			5	5
083739	Palo	1	1	1			1	1
083740	Palompon							
083741	Pastrana	1	2	2			2	2
083742	San Isidro	1	1	1			1	1
083743	San Miguel	1	1	1			1	1
083744	Santa Fe	1	1	1			1	1
083745	Tabango	1						
083746	Tabontabon	1	1	1			1	1
083747	Tacloban City (Capital)	3	4	4			4	4
083748	Tanauan	1	4	4			4	4
083749	Tolosa	1	1	1			1	1
083750	Tunga	1	1	1			1	1
083751	Villaba	1	5	5			5	5

Source: PSPT, Leyte, 1999

Table 4.2.3 Number of Public 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: 10 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0837	Filename: Sanitation xls
Region Number: VIII	Prov. Name: 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
083701	Abuyog	2	3	3			3	3
083702	Alangalang							
083703	Albuera							
083705	Babatngon	1	1	1			1	1
083706	Barugo	1	1	1			1	1
083707	Bato							
083708	Baybay	2	2	4			2	4
083710	Burauen							
083713	Calubian							
083714	Capoocan							
083715	Carigara							
083717	Dagami	10						
083718	Dulag	1	1	1			1	1
083719	Hilongos	1						
083720	Hindang							
083721	Inopacan							
083722	Isabel	1	1	1			1	1
083723	Jaro							
083724	Javier (Bugho)							
083725	Julita							
083726	Kananga	12	3	3			3	3
083728	La Paz	2	1	1			1	1
083729	Leyte	1	1	1			1	1
083730	Macarthur							
083731	Mahaplag	1	1	1			1	1
083733	Matag-ob	1	1	1			1	1
083734	Matalom							
083735	Mayorga							
083736	Merida	1						
083739	Palo							
083740	Palompon							
083741	Pastrana	1	2	2			2	2
083742	San Isidro	1						
083743	San Miguel							
083744	Santa Fe							
083745	Tabango	1	2	2			2	2
083746	Tabontabon							
083747	Tacloban City (Capital)	2	2	2			2	2
083748	Tanauan							
083749	Tolosa							
083750	Tunga							
083751	Villaba	1	1	1			1	1

Source: PSPT, Leyte, 1999

Table 4.2.3 Number of Public 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: 10 Aug. 1999
Data Collection Level: **Provincial**	Prov. Number: 0837	Filename: Sanitation xls
Region Number: VIII	Prov. Name: 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
083701	Abuyog	43	12	12			12	12
083702	Alangalang							
083703	Albuera							
083705	Babatngon	3	2	1			2	1
083706	Barugo							
083707	Bato							
083708	Baybay	7	5	5			5	5
083710	Burauen							
083713	Calubian	1	1	1			1	1
083714	Capoocan	19						
083715	Carigara							
083717	Dagami	28						
083718	Dulag							
083719	Hilongos	8	11	11			11	11
083720	Hindang	1	2	2			2	2
083721	Inopacan							
083722	Isabel	1	1	1			1	1
083723	Jaro							
083724	Javier (Bugho)							
083725	Julita							
083726	Kananga	37	17	17	2	2	19	19
083728	La Paz	5	6	6			6	6
083729	Leyte							
083730	Macarthur							
083731	Mahaplag							
083733	Matag-ob							
083734	Matalom	2						
083735	Mayorga							
083736	Merida	1						
083739	Palo							
083740	Palompon	53	53	53			53	53
083741	Pastrana	1						
083742	San Isidro	18	16	13			16	13
083743	San Miguel							
083744	Santa Fe							
083745	Tabango	13						
083746	Tabontabon							
083747	Tacloban City (Capital)	8	2	2			2	2
083748	Tanauan	1	1	1			1	1
083749	Tolosa							
083750	Tunga							
083751	Villaba	1	1	1			1	1

Source: PSPT, 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.

---

[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]

---

[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.