

## **8.7 Piratini River Basin Integrated Management Plan**

### **8.7.1 Objectives**

The Piratini river, having 140 km of length and 5,777 km<sup>2</sup> of drainage area, is the second largest river in the study area. Most of the basin is used for agriculture and pasture. Also, land degradation caused by erosion, floods and contamination of agricultural chemicals is of growing anxiety in the basin as same as the Camaqua river. Large sediment from the basin has observed at the estuary of the Piratini river and the Sao Goncalo canal. To prepare an effective river and basin management plan, the integrated master plan should be required.

### **8.7.2 Contents**

As shown in **Fig. 8.7-1**, the study area for this master plan is the entire of drainage area of the Piratini river. The study contents are as follows.

- 1) Review of national and/or federal plan related to river and basin management;
- 2) Collection and analysis of meteorological and hydrological data;
- 3) Water quality survey;
- 4) Topographic survey (cross and longitudinal) of the Camaqua river from estuary to the junction of Arr. Hilario and Arr. Camaqua Chico;
- 5) Preparation of land use map by remote sensing;
- 6) Study of natural and socio-economical conditions (geology, soil, land use, agriculture, livestock, forest, environment and socio-economy etc.);
- 7) Flood analysis, sand/earth production and transportation survey, flow capacity survey, and flood damage survey;
- 8) Water resources development survey (irrigation, domestic and industrial water supply etc.);
- 9) Preparation of the data base and GIS for above-mentioned data;
- 10) Sabo dam River and erosion control survey;

- 11) Preparation of hazardous map for flood and land degradation;
- 12) Preparation of the master plan for medium and long terms, alternative plan for river and basin management;
- 13) Preparation of emergency works for short term river and basin management;
- 14) Environmental evaluation for emergency works;
- 15) Preparation of execution plan and project evaluation for emergency works;
- 16) Recommendation for institutional strengthening program, and advice on river management and basin conservation for the environmental conservation.