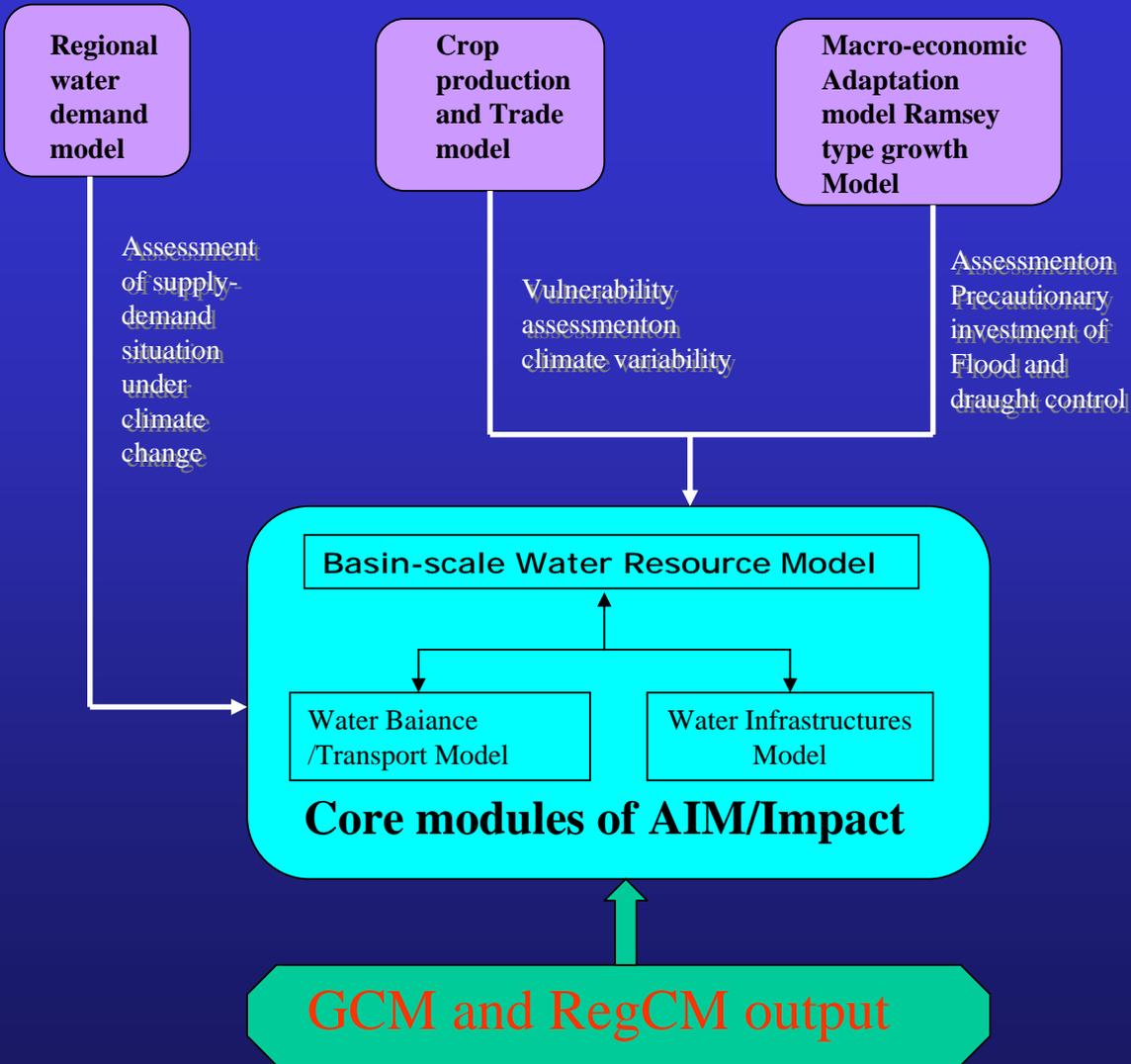


**Database for AIM(Impact model)/China  
Interim Report for fiscal year 2002**

**By**

***IGSNRR Team (March 12th, 2002)***

**Institute of Geographic Sciences and Natural Resources  
Research, Chinese Academy of Sciences (CAS)**



# Work Done

## *1. Data Collected for Water Impact Model Development*

- . In the 1980s, the first nationwide water resources survey and assessment was conducted
- . In the 1990s the second national water resource analysis was conducted ,medium- and long-term water demand and supply plan was drafted

- . Nationwide results were released in 1999 for first level water basins**
- . Data for water basins at second and third levels is not available**
- . Data for each second level water basin (81 in total) and most third level basins was collected**

# 1.1 Data representing present-day conditions

## 1.1.1 Socio-economic conditions in 1993

-Population;

-Land area, cultivated land area, irrigatable area, actual irrigated area, grain yield ;

-Gross industrial production, electronic industry production, other industry production ;

-Gross township enterprise production ;

-Gross agriculture production, gross agriculture and industry production, GNP ;

## 1.1.2 Quantity of water resources

- Precipitation;
- Mean value of surface water resources;
- 50 percent confidence surface water resources;
- 75 per cent confidence surface water resources;
- 95 per cent confidence surface water resources;
- Underground water resources in flat land areas;
- Water resources per capita;
- Water resources per hectare of land;

## **1.1.3 Current situation of water supply projects**

### Water storage projects

-Scale, number, total capacity, effective capacity, design capacity, current capacity ;

### Water diversion projects

-Scale, number, design capacity, current capacity ;

### Water pumping projects

- Scale, number, design capacity, current capacity ;

## Underground water projects

- Number, design capacity, current capacity ;

## Other water projects

- Scale, design capacity, current capacity ;

## **1.1.4 Actual water supply in 1993**

- Total actual water supply;
- Surface water supply;
- Underground water supply;
- Waste water reuse;
- Inter-basin water diversion

## **1.1.5 Actual water use in 1993**

- Urban domestic water use (by residential activities, community, commercial vegetable farming, sum);
- Industrial water use (by electricity industry, other industry, township enterprises, sum);
- Rural domestic water use ;

- Agricultural water use (by rice-land irrigation, dry-land irrigation, forestry-animal husbandry-fishery-other section, sum)
- Other water use
- Sum of water use
- Underground water use

## **1.1.6 Water consumption and water replenishment**

- Urban domestic (water consumption rate, water consumption, waste water discharge);
- Industry (electricity industry water consumption rate, water consumption rate by other industries, township enterprise water consumption rate, water consumption, waste water discharge);

- Agriculture (rice-land water consumption rate, dry-land water consumption rate, forestry-animal husbandry-fishery-other section water consumption rate, water consumption, water replenishment);
- Rural domestic (water consumption rate, water consumption, water replenishment);
- Total water consumption;
- Total water replenishment;

## 1.2 Forecast data

### 1.2.1 Rural water demand projections on 50 per cent confidence under different rainfall levels

- Rainfall level;
- Total rural water demand;
- Irrigation water demand (rice-land area, dry-land area, rice-land water ration, dry-land water ration, underground water demand);

- Rural domestic water demand (agriculture population, water ration for one person, number of domestic animal, water ration for one animal, underground water demand);
- Forestry-animal husbandry-fishery-other section water demand

## **1.2.2 Rural water demand projections on 75 per cent confidence under different rainfall levels**

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## **1.2.3 Industrial water demand projections**

- **Rainfall level;**
- **Gross industry projection;**
- **Total water withdrawal;**
- **Total underground water withdrawal;**

- Electronic industry water withdrawal (total production, water withdrawal per 10,000 yuan production, water reuse rate, total water withdrawal, underground water withdrawal);
- Other industry water withdrawal (...)
- Township enterprise water withdrawal (...)

## 1.2.4 Urban domestic water demand projections

- **Rainfall level;**
- Domestic water consumption (population, water consumption per capita, ...)
- Commercial vegetable farming water consumption (irrigation area, water consumption per hectare of irrigated area,...)
- Total urban domestic water demand;
- Total urban domestic underground water demand:

## **1.2.5 50 per cent confidence planned water supply under different rainfall levels**

- Rainfall level;
- Surface water supply (by water storage projects, water diversion projects, water pumping projects, other water projects);

- Underground water supply;
- Waste water reuse;
- Inter-basin water diversion;
- Other water resources;
- Total water supply;

## **1.2.6 75 per cent confidence planned water supply under different rainfall levels**

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## **1.3 Results of water supply and demand analyzing**

### **1.3.1 Balance of 50 per cent confidence water supply and demand under different rainfall levels**

- Rainfall level;

- Available water supply (surface water, underground water, waste water reuse, inter-basin water diversion, other water resources, sum);
- Water demand (industrial water demand, rural water demand, urban domestic water demand, other water demand);
- Water balance (surplus or deficit);

## **1.3.2 Balance of 75 per cent confidence water supply and demand under different rainfall levels**

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## ***2. Natural Disaster related database***

### **2.1 Natural disaster data set (at national or province level)**

#### **2.1.1 Spring disaster at national level (1949-1964)**

## **2.1.2 Spring disaster by province (1950-1964)**

- Spring disaster population;
- Spillover population;
- Sell/send children;
- Unusual death;

**2.1.3 Disaster affected crop area at national level (1949-1994)**

**2.14 Crop area with damages from disasters at national level (1949-1994)**

## **2.1.5 Crop area affected, and damaged by natural disasters, respectively, by province (1950-1994)**

- Areas covered by natural disasters (flood area, drought area, windstorm area, frost area);
- Area affected by natural disasters (flood area, drought area);

## **2.1.6 Loss caused by natural disasters at national level (1949-1994)**

## **2.1.7 Loss caused by natural disasters by province (1949-1994)**

- Affected population, collapse houses, died population, died domestic animals

## **2.2 (Natural) disaster database (1951-1994)**

**2.2.1 Major droughts (time of occurrence, duration, location, precipitation anomalies, type of drought, and description of damages caused) ;**

**2.2.2 Water loggings (region, time of occurrence, severity of water logging, and description of damages caused) ;**

### *3.Environmental data for 1999*

Table list(totally 14 tables, 360 variables)

## *At province level*

Waste water discharge and treatment ;

Waste gases emissions and treatment ;

Industrial solid waste production, treatment and reuse ;

Regulating efficiency of "three" wastes from key industrial enterprises ;

Environment pollution and damage incidents ;

*At national level*

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*At major city level*

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## *4. Socio-economic datasets*

### **4.1 GDP at national level (annual, from 1952 to 1998)**

GNP, GDP, GDP by primary sector, GDP by secondary sector, GDP by tertiary sector, GDP per capita ;

## **4.1 GDP at province level (annual, from 1949 to 1998)**

**GNP, GDP, GDP by primary sector, GDP by secondary sector, GDP by tertiary industry, GDP by construction, GDP by tertiary sector, per capita GDP ;**

## **4.2 Socio-economic indicators data set at County level (1992,1995, 1999)**

- Land area;**
- Total population;**

- Total agricultural machinery power;
- Fertilizer use;
- Total crop planting area;
- Total grain yield;
- Total production of pork, beef and mutton;
- Gross domestic production;

- Added-value of primary industry;
- Added-value of secondary industry;
- Local revenue;
- Local expenditure;
- Number of registered students;
- Grain production per capita;

- GDP per capita;
- Local revenue per capita;
- Number of registered students per 10,000 persons;
- Number of hospital beds per 10,000 persons;
- Number of students assigned for each teacher;

## *5. Database for Price of Grain and Oil products at Main Agricultural Product Wholesale Markets*

**5.1 Trade prices for wheat, corn and rice (weekly, January 1999~ December 2001)**

**5.2 Trade prices for beans and all types of vegetable oil (weekly, January 1995 ~ October 2001)**

## *6. Administrative Boundary Dataset*

### 6.1 County boundary map (1999 edition)

1995 edition was updated to reflect the changes in county boundaries as for 1999.

### 6.2 Changes of administrative units between 1991-1999

Changes of administrative units in each province were recorded annually from 1991 to 1999.

## ***7. Other Data Collection***

**7.1 Codes for the administrative divisions of the People's Republic of China, GB/T 2260-1995 ;**

**7.2 China environment annual report 2000**

**Hundreds of environmental indicators representing environment conditions at national, provincial capital, and industry sector levels;**

**7.3 China Environment Status Report 2000**

**7.4 China Water Resources Status Report 2000**

# Work Plan

1. Work dedicated by AIM team;

2. Further work on datasets

2.1 Natural resources

2.2 Population, socio-economic indicators

2.3 Respond of biomass and productivity of China's terrestrial ecosystem to acid deposit

2.4 Spatially distributed database for population and GDP per unit area etc.

*Thanks*