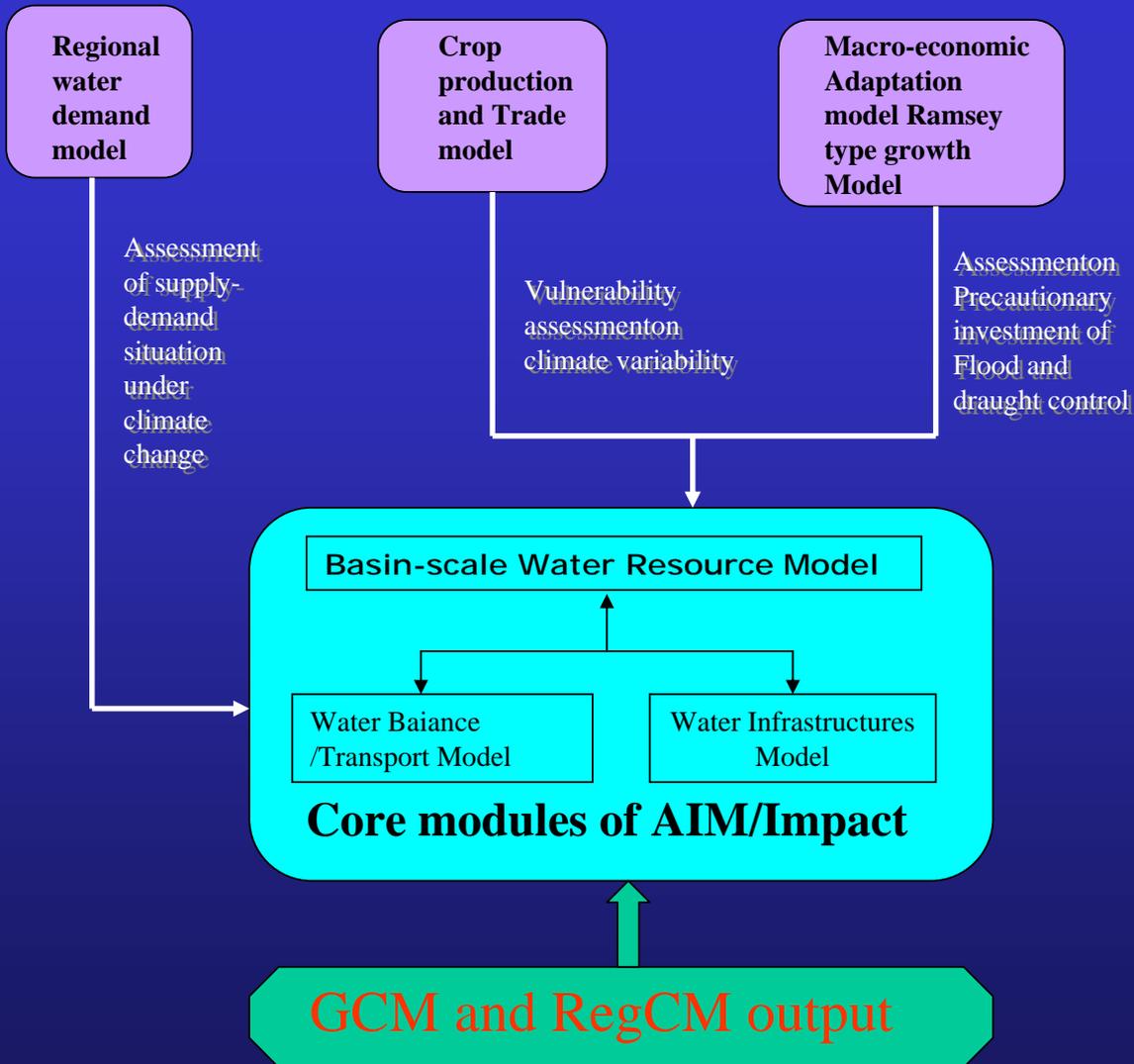


**Database for AIM(Impact model)/China
Interim Report for fiscal year 2002**

By

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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