

A Perspective on China's Yunnan Province

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General Environmental Situation

China has experienced dramatic social, political, and economic changes during the past 50 years, particularly in the past 20 years. Extensive development has caused various kinds of resource depletion and environmental pollution. Yunnan is a mountainous, ethnic minority-inhabited, poverty-stricken, border province of China. China's border stretches 4,060 kilometers into Yunnan Province, where 8 prefectures border on Myanmar, Laos, and Vietnam, and where 13 ethnic groups reside, both in China and in neighboring countries. About 94 percent of the province is mountainous. The Jinsha (the Yangtze), Lancang (the Mekong), Yuan (the Red), and Nu (the Salween) rivers flow through the province. The whole province is environmentally sensitive.

As a poor province, Yunnan has pushed to catch up with China's developed coastal provinces. As a mountainous province, Yunnan should carefully select its development model. Beginning in 1992, Yunnan has had three stages where sustainable development has been gradually proposed. In the summer of 1992, the First Kunming International Trade Fair was held, which was a signal of Yunnan's further opening up, particularly toward neighboring Southeast Asian countries. In 1994, tourism became popular in Yunnan, with many tourists coming from Thailand and Singapore because of direct flight links. At the end of the 1990s, environmental issues became a focal point in Yunnan. Polluting enterprises were closed in 1996 and a national logging ban was promulgated after the Yangtze floods in 1997.

The key environmental concern in Yunnan (and to a large extent in China) is forest conservation. The fundamental role of forests in Yunnan has shifted from timber production before 1980, to both timber production and ecological conservation in the 1980s and most of the 1990s, to ecological conservation after 1997. The main conservation-centered policies are the ongoing Natural Forest Protection Program and Upland Conversion Program.

Yunnan's Provincial 10th Five-Year Plan for Environmental Protection concentrates on reforestation, watershed management, prevention and control of soil erosion, and the establishment of nature reserves in six key watershed systems and in karst areas. There are some significant parts of this plan that differ from previous plans. First, rural environmental protection is listed as one of eight main tasks, which also include: speeding up eco-agriculture development, readjusting the structure of rural energy, controlling agricultural pollution, promoting the structural adjustment of township village enterprises (TVEs), and strengthening environmental protection in small towns. This focus shows the expansion of Yunnan's environmental protection system to include its rural population. It is expected that, in the future, the environmental protection system will have more interaction with rural people. Additionally, public involvement and

participation have been proposed as policy measures for strengthening environmental protection. These measures have shown good promise for environment management.

Developments in the Policy and Institutional Setting

The Constitution of the People's Republic of China is the foundation and the Environmental Protection Law (EPL) of the People's Republic of China is the main body of the legal system for environmental management in China. The Constitution stipulates that, "The state protects and improves the living environment and the ecological environment, and prevents and remedies pollution and other public hazards," and "The state ensures the rational use of natural resources and protects rare animals and plants. The appropriation or damage of natural resources by any organization or individual by whatever means is prohibited." The Environmental Protection Law has established the basic principles for coordinated development among economic development, social progress, and environmental protection, and has defined the rights and duties of all levels of government, all organizations, and all individuals with regards to environmental protection. China also has enacted and promulgated many special laws on environmental protection, as well as laws on natural resources related to environmental protection. On October 29, 2002, the People's Congress promulgated the Environmental Impact Assessment Law of the People's Republic of China.

Management of environmental issues in China and Yunnan is relevant not only to the Environmental Protection Bureaus (EPBs) at various levels, which are designed as the legal enforcers of the EPL, but also to many natural resource management agencies, such as forestry, land, and water agencies. At the prefecture level, there are 14 EPBs in 16 prefectures. At the county level there are 49 independent EPBs in 127 counties. Prefecture and county EPBs are smaller, but their functions are quite similar. The Yunnan Environmental Protection Bureau includes nine functional divisions, whose functions are as follows:

- Administrative Office: Assist leaders by providing such services as coordination, supervision, and examination; also responsible for some logistics.
- Policy and Statute Division: Investigate, research, and formulate statutes, policies, and regulations for environmental protection; responsible for supervising the execution of environmental protection law in Yunnan Province.
- Integrated Planning and Financial Affairs Division: Compile the medium or long-term plan for environmental protection in Yunnan Province, supervise and examine financial implementation, and develop the budget for provincial environmental protection infrastructure, facilities, and equipment; produce environmental statistics, collect environmental information, and appropriate funds for the Bureau and attached units.
- Development and Pollution Control Division: Formulate the local statutes of pollution control policy.
- Nature Protection Division: Responsible for provincial nature reserve protection and the control of pollution caused by countryside and township enterprises.
- Science and Education Standard Division: Implement policies for environmental protection research and education.

- Personnel Division: Implement personnel policies and statutes.
- International Cooperation and Project Management Division: Responsible for international cooperation in environmental protection and the management of cooperative projects.
- Supervision and Management Division: supervise the implementation of environmental policies and regulations.

In addition to governmental bodies, there are also many other institutions and enterprises that sometimes have public management functions, such as the Yunnan Environmental Monitoring Central Station, Environment Supervision and Management Station, Yunnan Environmental Science Institute, Radioactivity Supervision and Management Institute, and Rare and Endangered Plant Introduction and Propagation Center.

The Departments of Forestry, Water Resources, Agriculture, and Land Resources in Yunnan also play critical roles in environmental management.

- The Department of Forestry has the relevant duties of: Forest conservation, afforestation, biodiversity and wildlife management, and forest-type natural resource management;
- The Department of Water Resources has the relevant duties of: Soil erosion control, groundwater quality monitoring, and watershed management;
- The Department of Agriculture has the relevant duties of: Management of agricultural chemicals, aquatic-type natural reserve management, agro-biodiversity conservation, and grassland management;
- The Department of Land Resources has the relevant duties of: Land use planning, mineral resource management, and land rehabilitation.

In general, environmental protection agencies in China are new and relatively small, compared with natural resource administration agencies. At the township level, there is no representative for environmental protection.

Because of economic reform and development, the policy and institutional landscape related to the environment and natural resources is also changing accordingly. Overall, the legal and policy framework is still top-down and centralized, which means the key policymaking and relevant implementation resources are still controlled by the central government. However, the general trends of reform related to environmental governance, including decentralization and transparency reforms, are also obvious.

The key institutional changes are:

- State and Government Reform: State and government reform includes developing the rule of law, separation of party and government and government and state-owned enterprises, establishment of specialized agencies, and downsizing of government at various levels.
- Ethnic Regional Autonomy and Self-Organization: The Autonomous Law of National Minority Areas was promulgated in 1984 and revised in 2000, and many of the autonomous governments (in prefectures and counties) were established in the 1980s. The autonomous governments have more rights in legislation and

administration. In the late 1990s, the direct election of village committees was organized to encourage village communities to be more responsible in their affairs.

- Finance and Taxation: The independent financial management and budget of each level of government was established. Under the Fiscal Responsibility System, introduced in 1980, each level of government became financially independent, responsible for creating its own budgets and managing its own revenues. However, the tax structure also ensured that the majority of revenues would accrue to upper levels of government, leaving insufficient monies at the township level to carry out their development mandates.
- Reform of Planning Approaches and Progresses: Bottom-up programming and planning processes have been adopted in many projects. Participatory methods are utilized, and integrated approaches have been adopted. Public hearings have been adopted in decision-making processes regarding issues of public service and property.
- Creation of Market and Civil Societies: Market and social actors have been created because of market-oriented economic reform and a pluralization of China's social structure. Principles of market economics have been popularly accepted. Public societies have been started, involved in social affairs (e.g., education, health care, insurance, service, and pricing of public service). Public media has played an increasing role in social affairs (e.g., for monitoring and transparency).
- Strengthening Independent Environmental Impact Assessment (EIAs): Although EIAs have been adopted in China for a quite a long time, they seemed to be "soft" in dealing with practical issues when "development is an overwhelming task."

Contribution to Regional Environmental Management

At the end of the 1970s, China adopted a reform and opening up policy. Yunnan neighbors with Vietnam, Laos, and Myanmar. Yunnan is considered as one of the bridges into Southeast Asia and South Asia. Recently, the Yunnan Provincial Government devised its three key strategic development objectives; the third is to become the Great Corridor of China to Southeast Asia and South Asia in 2000, as part of China's Western Development Strategy. The other two strategic objectives are: becoming a Strong Green Economic Province and a Great Cultural Province.

At the national level, most regional cooperation is arranged under a framework of "ASEAN plus China." This framework is oriented toward economic cooperation. In 2002, China and ASEAN decided to start negotiations on free trade.

The Kunming International Trade Fair has been held in Yunnan since 1992. The Kunming International Trade Fair is a formal trade institution co-organized by the six provinces in Southwest China to spur trade with Southeast Asia.

In 1992, a program called the "Great Mekong Sub-Regional Cooperation (Lancang-Mekong River Sub-Regional Economic Cooperation) (GMS)," sponsored and supported by the Asian Development Bank (ADB), was launched. Yunnan has become a part of this large-scale project, as several engineering works in the province have been included in

the list of GMS projects. At the ADB's 2002 Annual Meeting in Shanghai, Chinese Premier Zhu Rongji promised, on behalf of the central government, to further support Yunnan Province in expanding its cooperation with Southeast Asian countries.

Because of the importance of the Lancangjiang-Mekong watershed, Yunnan has placed a priority on the development and management of the watershed, and on international cooperation with other Mekong countries. Yunnan is actively participating in GMS cooperation on environmental management. In addition to Mekong watershed management, Yunnan is also interested in the cooperative use of other rivers, such as the Red and Salween Rivers.

Strengthening regional transportation is a focal area both under the GMS framework and in China/Yunnan. In addition to the GMS-sponsored road system construction, China, together with Laos, Myanmar, and Thailand, has forged an agreement on Mekong navigation. It was the first international agreement in which China has been involved regarding the Mekong River.

Some of the bilateral agreements have specific stipulations on transboundary environmental issues. The Border Contract of the People's Republic of China and Lao PDR (Beijing, Dec. 3, 1993) specified that governments of both sides will cooperate to protect forests in the border area.

The Yunnan Provincial Government also encourages local governments (at prefecture and county levels) to cooperate with the governments of neighboring countries, such as a joint assessment of acid precipitation in the Red Valley, a joint inventory of biodiversity in border areas of the Mekong watershed, cooperative forest management, and farmer-to-farmer exchanges. However, there are still many transboundary environmental issues, including transboundary forest product trade.

Generally speaking, in a poverty-stricken province, in many people's minds development seems to be more important than the environment. As an upstream and upland province, Yunnan's government and people are not really concerned with the environmental impacts on downstream and lowland areas, particularly when many internal problems exist. Nonetheless, the national "Forest Ecological Benefit Compensation Fund" and "Natural Forest Protection Program" have begun to solve environmental issues on a large watershed scale.

Future prospects and priority areas

Needs of Institutional Reform

Although many efforts have been made at institutional reform in Yunnan and China, there are still policy and institutional issues that need more consideration and solutions:

- **Local Adaptability and Flexibility:** China and Yunnan have large and diverse areas. How can uniform national policies be better adapted to different local situations? How will decentralization and community participation be combined in local political and social contexts (e.g., through village self-organization, minority

autonomy)? How can national policies be more flexible to local officials while maintaining the real objectives of policies?

- **Functional Division of Government at Different Levels and Multi-agency Cooperation:** China has many levels of vertical administration. Different levels of government should have different functions. The subsidiarity principle of governance is seldom recognized. What are the optimal functions for each level of government in dealing with transboundary environmental issues? Particularly, Yunnan does not have sufficient diplomatic power as a province of China to negotiate with its international neighbors.
- **Accountability, Representation, Participation, and Public Involvement:** How can local administrators (policy implementers) be more accountable to citizens while they are responsible for national laws, regulations, and policies? How can the voices of local people be institutionally included in sectoral policymaking? There is no institutionalized arrangement for public participation. The broader participation of civil society is still very limited, although there are more and more environmental NGOs emerging.
- **Organizational Issues:** EPBs are small compared to the environmental problems they face. Of the actors involved, environmental protection agencies have many advantages because of their position as implementing organizations. They also have constraints for legal implementation. As an implementing bureau, they are only a small organization, without grassroots offices at the township level.
- There is an institutional lack of capacity at the provincial level to deal with regional environmental management.

Priority Levels and Capacity Building

China is a centralized country. Diplomatic issues, including regional environmental issues, should be dealt with by the central government. In 2000, Yunnan had a new strategy, which is recognized by the central government, to build Yunnan as a national bridge linking China to Southeast Asia and South Asia. Yunnan Province will have more freedom and power in the GMS framework. Yunnan Province has more interest in regional cooperation than the central government and other provinces.

Many cases have also shown that local governments in the border area have numerous opportunities for cooperation in transboundary environmental management. In the border area, people (even people living in different countries) have common issues and interests. Local-level environmental management challenges cannot (and maybe should not) always wait for national institutions to take care of them. Local government and people should be encouraged to manage their environments. Greater China's interests are not necessarily Yunnan's interests. The reverse is also true — Yunnan's interests may not be a high priority for the central government. Yunnan's increasing economic integration and commercial ties with other countries of Southeast Asia seems to be key in defining how much freedom the provincial government is granted. It would seem that there is much potential for local-level collaboration on environmental governance challenges. At one level, the GMS Program (in which both China and Yunnan can play roles) provides the potential and approach for increased exchange and cooperation of researchers and decision-makers between Yunnan and the other countries of the GMS.

To meet the challenges of environmental management, the following capacities of the government and the environmental system need to be strengthened:

- Develop a strategic institutional framework for environmentally sustainable development at the provincial level, which includes regional environmental concerns.
- Enhance government capacity to analyze environment-related social issues at the provincial and prefecture levels during the preparation and implementation of provincial economic and social development plans.
- Strengthen biodiversity conservation at the provincial, prefecture, and county levels; promote the construction of key national and provincial nature reserves; enhance capacity among agencies for wildlife protection, including raising awareness about wildlife trade, improving techniques, CITES instruction, and monitoring and seizure.
- Develop a coordinated strategy at the regional level to address such issues as cross-border trade and the spread of transmitted diseases.

Needs and Priorities of Policy Studies of Environmental Management in the Future

There are a number of national environmental programs implemented in Yunnan, including the Upland Conversion Program and the Natural Forest Protection Program. The Forest Ecological Benefit Compensation Program has also been implemented in some provinces. As a mountainous and poverty-stricken province, a key challenge in Yunnan is how to combine environmental protection and economic development.

In terms of regional environment issues, Yunnan's provincial and local governments have many opportunities to cooperate with neighboring nations on the basis of shared culture, shared history, and shared economies, as well as shared ecosystems. The cases here have shown that there are many needs for neighboring countries in transboundary environmental management in this region. The main issues for transboundary environmental management are:

- Watershed management — watershed management does not simply mean water resource management, it also implies livelihood issues and broader natural resource management in the watershed;
- Illegal forest products trade;
- Forest fire, forest pest, and disease;
- Other illegal trade, such as smuggling, drug, and garbage;
- Information exchange, such as the inventory of transboundary elephants;
- Indigenous knowledge systems, in relation to environmental management;
- Trade in environmental benefits, such as carbon trade;
- Transregional payment schemes on environmental benefits and costs.