



Dr. **Shouxin Xie** is the Division Director for the Department of Forest Resource Management of State Forestry Administration, China. He supervises and manages forest harvest issues across China, and is a key player in making forest policy for the country. He is also a consulting expert on forest management and harvesting utilization. He joined WFI in 2008-09 for a 12-month fellowship, to study the US Pacific Northwest's sustainable forest management.

Introduction

China's forest cutting quota system—which stipulates the maximum allowable cut in each province—has been instrumental in reforming China's forestry sector towards more sustainable management. The cutting system plays an important role in controlling over-consumption of forest resources and in properly dealing with the relations between short term and long term benefits, and economic and ecological benefits in forest resource utilization in each region. The cutting system is the foundation of China's forest resource management system, and its successful implementation has improved the quality and quantity of China's forest resources.

China's vast territory and diverse natural conditions and climates complicates its harvest management efforts as it faces many difficulties. Problems include a shortage of forest stock, uneven distribution, and low quality and irrational structures. Natural disasters such as flooding, wind or sand occur frequently. In some parts of China, the ecological environment is still deteriorating, which imposes different constraints for the development of the urban and rural economies. The task of forest resource protection and development is quite challenging.

On the one hand, the harvestable forest is in severe shortage; on the other hand, over-logging beyond quota limits remains a serious issue. During the recent 6th Forest Inventory, the annual average over-quota-logging in China amounted to several million m³. A huge population, forest resource shortages, weak timber supply capability, and the launching of the Natural Forest Protection Project in the late 20th century have increase the tension between supply and demand.

Timber consumption and demand is growing rapidly, fueled by an expanding economy, and this is exacerbating China's timber supply shortage. At the same time, people are increasingly aware of the need for access to natural recreation areas, and clean environments. The public is more aware of the need to protect the forest ecosystem and natural environment than at any time in the past. This naturally leads to new pressure on forest resource management. China's harvest management definitely meet with bigger challenges.

The Forest Resources Ownership

China has two different ownerships: "forest ownership" and "land ownership"

Forest ownership means who owns the forest or tree.

- ❖ State-owned (national)
- ❖ Collective-owned (collective)
- ❖ Individual-owned or joint-owned (private)

Management entities can be state or collective economic institutions, schools, organizations, foreign or domestic enterprises or individuals. These entities have what is called a "management right" to the trees on the land.

Land ownership means who owns the actual land that the forest rests on.

- ❖ State-owned (national)
- ❖ Collective-owned (collective): Local townships and villages own collective forest land on behalf of the members of the township or the village. 34% of collective forestland was allocated to individual households before the forestland tenure reform.

"User rights" of forest land can be state or collective institution, enterprise or individual.

China's Forest Cutting Management System

Shouxin Xie, World Forest Institute

The Classification System of Forest Resources

The current classification system of forest resources in China is a bipartite classification system, in which forest land and forest species systems co-exist. However, the forest resource categories i.e. ecological forest (land) and commercial forest (land) are divided fundamentally by the forest types classification system.

There are 5 types of forest cutting. The type of cutting used depends on the forest type, age, species, and other factors.

1. Harvest Cutting includes selective cutting, clear cutting or shelterwood cutting, and typically applies only to mature or over mature Timber Forests. Clear cutting is tightly controlled in China.
2. Thinning Cutting largely applies to young and middle-aged forest in both Timber Forests and Protection Forests.
3. Renovation Cutting occurs mainly in low-yield stands in Commercial Forests and in low-benefit/less-function stands in Ecological Forests.
4. Regeneration Cutting applies to mature and over-mature stands in Ecological Forests. The regeneration should be done in the same year class or the following year class with the timber forest with same tree species.
5. Other Cutting refers to the cutting of Fuel Forests and Economic Forests, as well as some necessary cuttings in other forest types due to special reasons or needs, such as change in land use, forest fire, diseases and insect pests.

Category	Forest types	Forest sub-types
Ecological Forest (land)	(1) Protection Forest	Watershed forest
		Soil and Water Conservation Forest
		Windbreak and sand-fixation forest
		Farmland and grassland protection forest
		River bank protection forest
		Road protection forest
		Other
	(2) Special Purpose Forest	National defense forest (on international borders)
		Experimental forest
		Parental forest (such as seed forest)
		Environmental protection forest
		Landscape forest
		Historical interests sites and memorial forest
		Natural reserve forest
Commercial Forest (land)	(3) Timber Forest	Industrial raw material forest with short term rotation
		Fast growth plantation
		Ordinary timber forest
	(4) Fuel Forest	Fuel forest
	(5) Economic Forest	Fruit forest
		Edible raw material forest
		Raw material forest for forestry chemical industry
		Forest for herbs
	Other	



World Forest Institute
4033 SW Canyon Road
Portland, OR 97221 USA
<http://wfi.worldforestry.org>



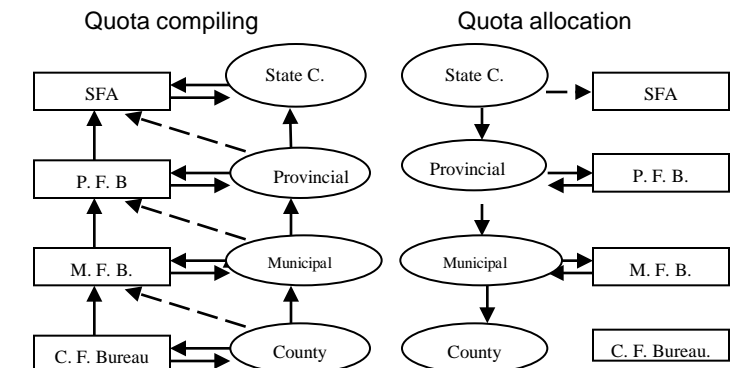
The Annual Allowable Cut

China established an annual national forest cutting quota also called the Annual Allowable Cut (AAC). The objective is ensuring sustainable forest management. The AAC is determined every 5 years, including all types of tree felling, for industrial and non-industrial purposes.

The AAC is determined by compiling wood needs from various units: for state-owned forests or trees, state-owned forestry enterprises, farms or factories apply for an allotment of timber; for collective owned forests and private owned trees, the county submits requests for their allotment of timber.

Each compiling unit must use the most updated secondary inventory data to calculate rational cutting amounts. The methods are decided by the central government's State Forestry Administration.

Compiling the cutting quote is a massive undertaking each year. The quota compiling and allocation all have strict procedures.



Conclusion and Future Outlook

1. China's Forest Resource Management system is implemented under China's *Forest Law*, which in turn is determined by her national situation and forest situation.
2. Harvest management forms the core of China's forest resource management system, by regulating: which forests or trees can be cut, how much can be cut and how to cut. The regulations about forest management have formed a complete system with the establishment of cutting quotas, forest inventory and planning, tenure, timber transportation and processing, and monitoring and enforcement.
3. China's quota system adopts different cutting quota patterns based on various forest resource and administrative capacities in every province. The Timber Production Plan is undergoing review and may be suspended through ongoing amendment of the Forest Law.
4. The cutting quota is determined according to each unit's Forest Management Scheme. The harvest ages of the newly-planted industrial raw material forests will be determined by the forest managers.
5. Industrial timber output will increase as (1) China's middle-aged stands mature, and (2) farmers opt to sell timber originally meant for self-consumption to the market as industrial timber, because it is more profitable.
6. Private forests will expand due to forest land tenure reforms and a growing forest industry.

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