# 中国木材采伐管理政策 Managing Timber Harvest in China: Harvest Policy

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- 1. 中国森林状况简介 Introduction to China's Forests
- 2.关于森林采伐管理的历史回顾
- History review on China's harvest management policy
- 3.采伐限额的制定与采伐管理政策的具体内容
- Determination of HQ and main contents of management policies on forest harvest
- 4.采伐限额的执行情况及存在的问题
- Implementation of HQ and issues
- 5.政策建议及走向
  - Policy recommendations and trends

### 目的 Purpose

Review policy logic and goals 回顾政策的逻辑性和目标

Describe the administration and calculation of the harvest quota 描述采伐限额的管理和计算

Explain the relationships between Harvest quota and forest resource, available cutting resource, real harvest and so on 解释采伐限额与森林资源,可采资源 和实际采伐量的关系

Review lessons from experiences and give recommendations 总结经验和教训,提出政策建议

## 1. 中国森林状况简介 Introduction to China's Forests

#### 中国森林发展趋势图(面积、蓄积) Chinese Forest Area and Volume-Trends



#### 森林每公顷蓄积量 Forest Quality



### 森林覆盖率状况 Forest Coverage in China



### 成过熟用材林的分布 Distribution of Mature and Overmature Timber Forests in China

Fig. 3 Area Distribution of Mature and Overmature Timber Forest



State-owned forest region(9 Provinces)
 Collective forest region(10 Southern prov
 Tibet

C her 10 provinces

Fig. 4 Volume Distribution of Mature and Overmature Timber Forest



State-owned forest region(9 Provinces)
 Collective forest region(10 Southern provinces)
 Tibet
 Other 10 provinces

#### 2. 中国50多年前就开始实施 采伐管理措施

Harvest management began more than 50 years ago in China

- 2.1 50—60年代开始强化采伐管制 Strict harvest management started in the 1950's 1960's
- 采伐需申请批准 Mandatory application for permission to harvest
- 国有林过量采伐仍很严重 Over-logging in state-owned forests
- 建立监查机构 Establishment of monitoring organizations

2.2 "文革"期间采伐管理失控 Harvest management decreased during the Cultural Revolution from 1966-1976

制度废弛,机构撤并 Institutions and organizations were dissolved and re-organized

■ 破坏严重 Forest resources suffered severe damage

后期加强管理 Control of management was regained



2.3 改革开放以后立法实施采伐限额管理 Cutting Quota Management (CQM) was implemented after the Reform and Opening

1979年《森林法》(试行)规定:国家实施采伐限额管理制度 Pilot test of the Forest Law in 1979, the CQM system was implemented nationwide

 1984年《森林法》正式颁布实施;仍实施采伐限额管理制度
 度 The Forest Law was formally promulgated in 1984, CQM system was still in use

1998年修改《森林法》对采伐管理作了一些调整 Amendment of the Forest Law in 1998 - adjustment of the CQM system  3. 采伐管理政策 Management Policies on Forest Harvest
 3.1 森林年采伐限额的确定分配 How the Harvest Quota be determined and allocated

采伐限额制定和分配的流程图 Flow Chart of HQ's Making and Allocation

■ 森林年采伐限额的确定 Determination of Harvest Quota

■ 森林年采伐限额的分配 Allocation of Harvest Quota

#### 采伐限额制定和分配的流程图 Flow Chart of HQ's Making and Allocation

#### **State Council**

State Forestry of Administration

Forestry Bureaus of Province, Regions

#### **Forestry Bureau of Counties**

State-owned forestry Bureaus, Forest Fa Agriculture Farms, Plants and Mills

**Collective Forests and Trees** 

Trees on the Farmers' own hills

Trees and Forests Planted

on the contracted barren Hills and Lands

### 森林年采伐限额的确定 Determination of Harvest Quota

基本计算单位: 国有林--国有林业局、林场、农场、厂矿 集体和个体林--县 ■ 根据两类森林采伐方式: 用材林的主伐:采用最优控制模型来计算其合理年采伐量 政策性的采伐: 主要采用年采伐蓄积来代替合理采伐量 年伐蓄积=可供采伐利用面积/采伐期限X单位面积蓄积X采伐比例

用材林主伐的合理年伐量 ■ 最优控制模型原理: 寻求一个允许的控制作用U(t),使得状态方程: X(k)=f[X(k),U(k),k] k—轮伐期 初始状态:  $X(t_0)=X_0$ 在U(t)的作用下,转移到希望的某个终端目标集合  $MAX(\sum X(k), U^{t}(k))$ X(k)—各林种面积, U<sup>t</sup>(k)—各林种采伐面积 ■ 运用模拟计算法来确定各申请单位的合理年采伐 量。Reasonable Annual Harvest is determined by the Numeration of Simulation

#### 森林年采伐限额的分配 Allocation of Harvest Quota

国务院批准后的年采伐限额将根据各省合 理年采伐限额的数量,分配到各省,每年 的变化不大,总体上保持五年的限额总量。

#### 森林资源年总生长量、净生长量、实际采伐量和年森林采伐限额 Annual Forest Total and Net Growth, Actual Harvest, Harvest Quota



#### 中国年均可采森林资源与年采伐限额 Chinese Annual Available Cutting and the Annual Harvest Quota



#### 3.2 采伐管理政策的具体内容 Contents of Management Policies on Forest Harvesting

采伐管理的范围 Scope of management
 采伐管理的程序 Procedures for harvest management
 采伐许可证的核发单位 Administration Organization for issuing a Cutting License (CL)
 不能申领采伐许可证的情况 Cases unfit for CL's
 采伐管理的处罚 Penalties in the CQM system
 木材运输管理 Management of timber transportation
 木材加工经营 Management of timber processing



### 森林资源林政管理流程图 Flow Chart of Administration on Forest Harvesting



#### 4. 目前采伐管理的执行情况及存 在的问题 Results from the current HQM

- 4.1 历年全国森林采伐限额执行情况
   Implementation history of China's Harvest Quota (HQ)
- 第四次森林资源清查间隔期内全国年均森林采伐消耗量超限额达4200多万立方米 Average over logging was 42 million m<sup>3</sup> more than the HQ during the "Fourth Forest Inventory from 1989-1993"
- 第五次森林资源清查全国年均林木采伐量超限额8600万立 方米 Average over logging was 86 million m<sup>3</sup> more than the HQ during the "Fifth Forest Inventory from 1994-1998"

# Percentage of over-logging above HQ of the selective examination

抽查单位超限额采伐的比例图



The average of 1994-1998

Data of Natural Forest Protection Project Area in mid and upper branch of Yangtz River and Huang River and Souther Collective forest area 4.2 历年采伐限额、木材生产计划采伐量和实际木材 生产资源消耗量的发展趋势及关系 Trends – HQ, Planned Timber Harvest and Real Timber Harvest



4.3 国有林和集体林商品材采伐限额的趋势图 Trends of Timber Harvest Quota Between State-owned Forest and Collective Forest



#### 4.4 目前存在的问题 Current Issues of the CQM system

- 4.4.1 森林年采伐指标的分配不合理,具体执行困难 Unreasonable allocation of HQ creates implementation difficulties
- 4.4.2 经营者无法自主按生产周期经营 Managers cannot independently manage the forests according to the production cycle
- 4.4.3 科学合理经营无法实现,影响林业发展 Inflexibility in science-based policies do not lead to optimal management practices
- 4.4.4 政府的管理成本高、效率低 High governmental management costs and low efficiency
   4.4.5 人为造成森林案件 Market changes occur faster than the time it takes to process a quota application

5. 改革的趋势和走向
Recommended Trends of Reform
5.1 分类经营,分类采伐管理,商品林采伐 放开 Now forests are managed as either commercial or non-commercial forests. More flexibility should be introduced to commercial forests.

5.1.1外商和私人部门的造林采伐放开 Restrictions on foreign and private investors should be relaxed 5.1.2 取消一些林种的采伐限额
Annul Harvest Quota of several kinds of forest

5.2 管理环节从每一株树的采伐管理转向监督森林经营方案的执行 Sustainable forestlevel management rather than production and tree-based management

# 谢谢! THANK YOU!

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