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政策效应及选择

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EFFECTS AND CHOICE OF POLICIES
FOR FORESTRY ECOLOGY PROTECTION
AND DEVELOPMENT

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序

　　森林是陆地生态系统的主体，以保护、发展和利用森林资源为主要经营活动的林业，对于改善生态环境起着十分重要的作用，受到各国政府的普遍重视。为了促进林业生态保护与发展，我国政府采取了一系列的政策措施，特别是自上个世纪末、本世纪初确立以生态建设为主的林业发展战略以来，公共政策频频出台。从1998年开始，国债资金和中央财政专项补助资金大量注入林业投资领域，总投资达数千亿元，规划范围覆盖全国97%以上的县，六大林业重点工程的范围、规模和投资创造了多项世界生态工程之最。从2003年起，构建了"政府对生态型林业进行直接投资，对产业型林业进行引导"的投资政策框架，实行林业重点工程补助政策和中央森林生态效益补偿基金制度。此外，堪称中国农村第三次革命的集体林权制度改革由1998年试点到2008年全面推开。

　　公共政策的目标是增进社会福利。林业公共政策的实施效果如何？给林业生态和林区群众带来了什么样的影响？政策执行效果的影响因素有哪些？需要如何加以完善？这些都是公共政策研究需要关注的话题。

　　《林业生态保护与发展的政策效应及选择》一书基于林业的外部性和森林生态的公共产品属性，从公共经济学的视角，选择林业投资、产权和管制三个政策范畴，进行了大量的实证分析和规范分析。全书在系统梳理林业投资、产权和管制政策演进过程的基础上，分别对林业投资、产权改革和管制政策的效应进行多角度的实证分析，并根据政策执行影响因素的基础理论模型，构建林业公共政策有效性制约因素的研究框架，客观分析三大政策有效性的制约因素。作者根据福利经济学、公共经济学和公共政策学的基本理论，借鉴国外林业发达国家的政策经验，立足于实际调查，构建了促进林业生态保护与发展的公共政策

体系。

全书坚持理论与实践相结合。在大量一手资料的基础上开展研究，理论演绎、数据测算、案例分析、统计分析、调查分析和计量分析多种研究方法并用，对同一问题从多角度进行佐证再给出结论。特别是对于林业公共政策的实施情况及效果，作者不满足于已有文献资料，选择福建省、安徽省和黑龙江省分别作为集体林区和国有林区的代表，进行实地调查，对20个主要林业省份进行了问卷调查，得到了一些颇有新意和一定价值的结论，这种认真、求实的研究作风值得赞赏。

建立在一手资料基础上的研究，本书取得了一些重要的研究成果：一是各主要林区林业投资效率比较的统计分析以及投资效率影响因素的面板模型计量分析。二是指出林业外部性的多重性，分析在缺乏经济激励的情况下，森林资源管制中营林者与林业主管部门之间的博弈关系、不同情形下营林者的行为选择。三是在问卷调查的基础上，引入政策变量，运用logit模型对农户林业投资行为的影响因素进行计量分析，为政策设计提供了实证基础。在此基础上，作者提出了一些很有见地的观点，如：在林业投资政策方面，建议营林公共投资的重点从造林转向林区道路建设和林业技术投入等林业公共品投入以及森林经营补助，主张对森林经营要根据盈亏状况实行差别扶持政策，并根据森林资源状况建立多层次生态补偿机制；在林业公共管制方面，构建了加强对火灾、林木偷盗和乱砍滥伐天然林等林业负外部性行为的强制性管制、对私有营林者林业正外部性行为给予激励等管制政策体系。

本书是在作者博士论文基础上出版的。在历时三年多的论文写作期间，作者充分采纳了我的建议，克服重重困难，不仅获得了大量的一手统计资料，还跋山涉水、走家串户、排除干扰，从普通群众那里了解到很多政策落实中的实际情况，提高了论文的真实性和科学性。论文在匿名评审时获得"优秀"成绩，评审专家给予了很高的评价："论文观点明确，在研究方法上有许多可圈可点之处，引用文献资料、数据全面可靠，论证比较充分，逻辑性强，全文层次清楚，结构合理、写作规范，文字流畅，文风朴实，表明作者理论功底扎实，专业知识丰富，具有较强的独立科研能力"。在答辩会上，答辩委员会专家也对论文文风和作者的研究表示出高度肯定。

期望田淑英博士能在今后的教学和科研工作中继续保持认真严谨、高度负责的态度和不畏艰难、积极向上的精神风貌，推出更多高水平的学术成果，为我国林业公共政策理论与实践的发展做出更大贡献。

2011 年 5 月

前　　言

　　加强生态保护和建设，维护生态安全，是 21 世纪人类面临的共同主题，更是我国经济社会可持续发展的重要基础。森林生态系统是陆地生态系统的主体，因此，以经营、保护和利用森林资源为主要活动的林业，在改善生态环境、促进国民经济可持续发展中肩负着重要使命。

　　为了促进林业生态保护与发展，我国政府采取了一系列重大举措。其中，主要公共政策为投资政策、产权政策和管制政策。从公共经济学的视角看，由于森林的公共产品属性和林业的外部性，这三大政策分别对应于公共产品提供中的政府机制及市场激励机制、外部性的政府管制等问题。因此，本书选择林业投资政策、产权政策和森林资源管制政策作为研究对象进行政策研究，目的是运用经济学的分析方法对林业公共政策的效应及政策选择进行实证分析和规范研究，以说明林业生态保护与发展中政府作为的有效性如何，以及该作怎样的改进。

　　在我国政府近十多年来对林业生态建设投入巨额资金、林业产权制度改革如火如荼、森林资源管制面临两难选择的政策背景下，该选题具有较强的理论和实践价值。

　　本研究的出发点是政策实证分析，落脚点是政策选择。总体思路是：分析现象—揭示问题—剖析根源—政策建议。

　　本书的第一章和第二章都是为政策的实质性研究提供铺垫，阐述本书的研究基础。核心章节的结构安排是：从第三章到第七章都是进行政策的实证分析，第八章在前面几章实证分析的基础上进行规范研究。

　　各章主要内容与结论如下：

　　第三章对林业三大政策进行制度实证分析。以林业发展战略调整和林业政策本身的发展阶段为界线，梳理相关政策的演进过程。结果表明，林业投资政策与产权政策在方向上存在一定的协调性，森林资源管

制政策的演进随着林业生态保护与发展的需要而作出了相应的调整。这说明我国政府在促进林业发展方面，政府机制与市场机制是齐头并进的，基本政策的方向是正确的。

第四、五、六章为政策效应分析，即对具体政策措施的实施效果进行分析。研究从多个角度分析了三大政策的实施效果：

第四章在宏观层面上从经济效应和生态效应两方面反映林业投资在发挥其双重效应中的效率情况。根据统计年鉴提供的数据分析我国林业投资规模及主体构成与林业产值、森林资源的变化趋势，并将全国 20 个主要林业省区的情况进行比较。在此基础上，运用 20 个省区的基础数据，借助面板数据模型对林业投资经济效应差异的影响因素进行了计量分析；通过资料分析、6 个典型省份的通讯咨询和电话访谈等，了解并分析了林业投资生态效应的影响因素。分析结果表明，十多年来，从经济效应和生态效应两方面看，我国林业投资的效率总体上都是下降的，而且地区间差异较大。林业投资的经济增长效应除了投资本身以外，还受劳动生产率水平的影响；从投资主体看，公共投资比私人投资对林业经济增长的推动作用更强。在生态效应方面，造林投资的效率受立地条件、造林面积的集中度、造林树种、政策和管理等多方面因素的影响。

第五章分析林业产权制度改革的激励效应。从官方统计数据分析、重点省份实地调查和 19 个省区的问卷调查等多个角度运用多种方法分析了政策的实施效果，并运用 logit 模型解释了其中的原因。本章分析的结论是，从全国情况看，20 世纪 80 年代至 90 年代中期的林业产权制度框架形成阶段，私人投资的积极性有所提高；但 1998 年以来，在林业产权制度改革与完善阶段，私人投资积极性却没有出现相应的提高。从主要林业省区的情况看，林业产权制度改革在不同省区对私人投资的激励作用存在差异，但对多数省区而言，激励效应并不明显。Logit 模型分析结果表明，农户是否从改革中得到实惠、补贴政策、管制政策以及技术服务是影响农户林业投资的重要因素。其中，管制导致的林业产权残缺是制约产权政策效果的主要因素。此外，林地分散化经营不符合林业生产的规模经济要求，也使得农户的林业生产经营缺乏经济驱动。

第六章分析森林资源管制的政策效应。本章通过统计分析、资料引

证、案例分析、调查分析和理论分析等方法对森林资源管制政策的成效和失效进行了客观阐述，并剖析了管制失效的原因。结论是：从总体上来看，森林资源管制政策的实施使得森林资源过量消耗的局面在一定程度上得到了控制，但是，森林资源超限额采伐的情况还比较严重；此外，管制政策导致了森林资源增长缓慢、质量下降、结构失衡。从局部看，天然林资源的现状令人堪忧。管制还产生了负效应：限制了林区和营林者的创收渠道，导致被管制地区的贫困。管制失效的原因在于政策设计失灵、管制负效应导致经济压力下的利益驱动、利益主体间的博弈以及管制中出现的寻租问题。

为了解释前三章政策效应分析的结果，第七章运用理论分析、数据分析、问卷调查、资料引证等方法从多个角度剖析并验证了我国林业公共政策有效性的制约因素。从政策学的基础理论出发，构建了影响林业公共政策有效执行相关因素的理论框架，并从政策资源、政策环境和政策本身三方面剖析林业公共政策有效性的制约因素。分析发现，目前我国林业发展的瓶颈问题在于林业技术、林区道路等公共品落后，森林资源质量差；林业公共政策执行中的深层次问题在于自然资源、经费资源和人力资源缺乏，经济环境和体制环境都不利于政策效应的发挥，政策与基础理论的偏差以及政策之间的协调性也存在较大的问题。

在前面各章实证分析的基础上，第八章运用公共经济学和福利经济学基本理论并结合我国林业发展实际提出了林业公共政策的目标；运用理论演绎、数据测算和问卷调查、国际经验借鉴相结合的方法探讨了促进我国林业可持续发展的政策选择。本章提出，应选择以公平促效率为林业公共政策的目标，力求实现林区生态与经济的协调发展。以此目标为导向，林业公共政策要做相应的调整：

在投资政策上，一要通过构建以政府为主体的林业分类投资体制，政府确保公益林的投资，并适度参与商品林的建设；二要调整林业公共投资的重点领域，由造林转向加大林业公共品投入，并建立森林经营补助制度；三要尽快建立多层次森林生态效益补偿机制，以保障森林资源管制的政策效果，同时体现公平。

在产权政策上，短期内由于受制于现行的制度安排，只能从路径依赖中谋求对现行政策的完善——在林权改革没有落实的地方，对操作程

序有所创新。为了保障普通农民的利益，可以允许将林权落实的形式改为"分股不分山"，按现有人口分股。长期选择是，应实现体制性突破，让公益林归政府所有，商品林归私人所有。其中，国家公益林归中央政府，地方公益林归地方政府。

在管制政策上，一是调整林业管制的方向，按照森林的区位和产权权属分别对待。加强生态敏感区的采伐管制，放松非敏感区的管制；放松对私有林的采伐限制，加强林地使用和更新管制。二是按照森林可持续经营的基准加强结构管制和规划引导。三是加强对林业负外部性行为（森林火灾、林木偷盗、乱砍滥伐天然林等）的强制性管制，保护森林资源的财产安全。四是对林业的正外部性行为实行激励性管制，主要是建立对私有林的补贴制度，实现森林资源管制的激励相容。

本书的研究多数是基于一手资料的分析，主要在以下几个方面取得了突破：

创新点 1：

在宏观层面上，从经济效应和生态效应两方面反映林业投资在发挥其双重效应中的效率情况。统计分析发现，尽管近十年来我国政府大幅增加了营林公共投资，但全国和多数省区的投资效率都呈明显的下降趋势，且地区间差异较大。省级面板数据模型分析发现，公共投资所占比重和劳动生产率对产值的影响较大，而火灾、病虫害等风险性因素的影响不明显；调查发现，多数省区已消灭荒山荒地，造林地点分散、偏远，导致造林成本加大。

鉴于造林投资效率下降，而很多地区可以通过封山育林来代替植树造林，因此提出投资政策调整的新观点：建议营林公共投资的重点从造林转向林区道路建设、林业技术投入等林业公共品投入和森林经营补助。对森林经营要实行差别扶持政策，对森林经营成本较大、收入却较少甚至没有收入的森林类型进行补贴，如中幼林抚育和封山育林抚育的补贴；对经营活动可取得净收益的森林类型，则可以只补助其基础设施建设、提供技术服务，并在采伐限额上予以政策支持。

创新点 2：

系统分析了森林的公共产品属性及其提供中的市场失灵，林业外部性的多重性，以及在缺乏经济激励的情况下，森林资源管制中营林者与

林业主管部门之间的博弈关系、不同情形下营林者的行为选择，并构建了加强对火灾、林木偷盗和乱砍滥伐天然林等林业负外部性行为的强制性管制、对私有营林者的正外部性行为强化激励性管制的政策框架。

创新点3：

对林权改革后农户对林业的投资意愿进行了实地调查和大范围问卷调查，在此基础上，引入产权、管制、造林补助、技术服务等政策变量，运用logit模型对农户林业投资行为的影响因素进行计量分析。模型的分析结果解释了产权制度改革激励不足的政策方面的原因——现行林业补贴政策对农户投资行为的影响不显著，管制不合理和技术服务不足也制约了林业产权政策的激励效应，这些结论为后文的政策建议提供了依据。

Preface

Strengthening ecological protection, construction and maintaining the safety of ecology are not only the common topics that we confront with in 21st century, but also an important foundation of economic and social sustainable development in China. Forest ecosystem is the main body of the terrestrial ecosystem. The forestry, taking the management and protection and utilization of forest resources as its main activities, has undertaken important missions for improving ecological environment and promoting sustainable development of national economy.

In order to promote forestry ecological protection and development, China Central Government has adopted a series of important measures, mainly including three public policies, namely forestry financing, property ownership and administrative regulations. From the perspective of public economics, these three policies are corresponding to such three issues respectively as government mechanisms, market-stimulating mechanism and the government regulations against externalities during the process of public goods provision, due to characteristics of public goods of forests and forestry externalities. Therefore, this book chooses forestry financing policy, property ownership policy and forest resources regulatory policy as the research objects. The purpose is to make empirical analysis and normative study on the effects of forestry public policies and the policy options using economics analytical methods, to illustrate the effectiveness of government's behaviors in forestry ecology protection and development, and the approaches government chosen to improve their behaviors.

Since the beginning of the last decade, Chinese government has invested heavily in forestry ecological construction, and the reforming of forestry proper-

ty ownership has been deepened greatly, but the options of forest resource regulations meet with a dilemma. In such policy context, the choices of these topics are of great value both in theory and practice.

This book begins with the empirical analysis of policies, and ends with the policy choices. The general idea is: analyzing the phenomenon — revealing the problems — seeking the basic reasons — making policy recommendations.

The first two chapters of the book pave the way to the substantive policy study and explain the research foundation of this book. The structure of core chapters is as follows: the empirical analysis of policy is from the third chapter to the seventh chapter, and the eighth chapter does normative research on the basis of the preceding chapters.

The main contents and conclusions of each chapter are as follows:

The Chapter 3 does the institutional empirical research on the above-mentioned three policies. It addresses the evolution of relevant policies in accordance with strategic adjustment of forestry development and the development stages of forestry policies themselves. The results show that there is certain coordination between the forestry financing policy and property ownership policy, and the evolution of forest resource regulation policy makes the corresponding adjustment with the needs of the forestry ecological protection and development. This shows that the government mechanism goes on coinciding with the market mechanism when promoting the forestry development in China, and the basic policy direction is correct.

The Chapters 4, 5 and 6 are the analysis of policy effects, i. e. analyzing the implemental effects of specific policies from several perspectives:

The Chapter 4, at the macro level, reflects the dual effects of forestry financing efficiency from both the aspects of economic effects and ecological effects. According to the data of the statistical yearbooks, this book analyzes the scale and structure of forestry financing, gross production value and variation tendency of forest resources, and the situations of twenty major forestry provinces in China, based on which the factors affecting the economic effects of forestry financing have been analyzed metrically, using basic data of the

twenty provinces with the help of panel data model. Through the analysis of materials, email consultations with the six typical provinces and telephone interviews etc. , the influential factors of forestry financing's ecological effects are understood and analyzed. The result shows that, from the perspectives of economic effects and ecological effects, the efficiency of forestry financing has declined on the whole for the last ten years, and the gaps among different provinces have become larger. The economic growth effect of forestry financing is influenced not only by itself, but also by the level of labor productivity; from the perspective of financing subject, the effects of promoting economic growth caused by public financing are more remarkable than the ones caused by private financing. The ecological efficiency of forestry financing are influenced by many factors, such as the situation of woodland, the concentration of planted area, the species of planted trees, policies, management and so on.

The Chapter 5 analyzes the incentive effects resulted from the reform of forestry property ownership system. Through the analysis of official statistics, the field investigations of several key provinces and questionnaire surveys of 19 provinces, the implemental effects of policies have been analyzed from different perspectives using several approaches, and the Logit Model is used to explain the reasons. The conclusions of the analysis in this chapter are as follows: from the perspective of the whole country, the enthusiasm of private investment has increased from 1980s to the middle of 1990s when the frame of forestry property rights system has been formed. However, since 1998 the motivation of private investment has not risen with a corresponding increase, at the stage of forestry property rights' reforming and improvement. Considered from the situations of main forestry provinces, there exist certain differences of incentive effect among different provinces during the reform of forestry property institution. Furthermore, the incentive effect is not remarkable in many provinces. The analysis of Logit Model shows that benefits, subsidy policy, regulatory policy and technical service play very important roles in the households' decision about forestry investment, among which the key factor restricting the effects of forestry property rights policy is the incomplete property rights caused

by regulation. In addition, decentralized forest management doesn't conform to the scale economy of forestry production, which makes the households lack the motivations of forestry production and management.

The Chapter 6 analyzes the effects of forest resources regulatory policies. This chapter, through statistical analysis, data cited, case study, questionnaire survey and theoretical analysis, objectively elaborates the success and failure of the forest resources regulatory policies, and analyzes the causes of the failure of regulations and the negative effects of regulations. The conclusion is that, from the general perspective, the regulation policies of forest resources have controlled the excessive consumption of forest resources to some extent. However, the situation on overcutting than the quota is serious. In addition, the regulations lead to the consequences that the forest resources increased slowly, the quality became inferior, and the structure turned unbalanced. From the partial perspective, the current status of natural forest resources is worrying. The regulation has produced negative effects, for example, the more limitations put on the income channels of the households and farmers the more poverty people appear in the regulated areas. The reasons of regulation failure lie in the failure of policy design, the failure of policy implementation, the game among stakeholders, and the occurrence of the rent-seeking problem.

In order to explain the analysis results of the policy effects in a. m. three chapters, Chapter 7 presents an analysis of the factors on the effectiveness of public policies in China form different perspectives by using different methods, such as theoretical analysis, data analysis, questionnaire survey, data cited and so on. Starting from the basic theory of policy, the book builds a framework of the relevant factors on the effectiveness of the forestry public policy's implementation, and then analyzes the factors on the effectiveness of forestry public policy from three aspects, namely policy resources, policy environment and policy itself. The book finds that the bottlenecks of forestry development in China are the poor forest quality and the backward public goods of forestry technologies and infrastructure. During the process of the policy's implementa-

tion, the deep problem lies in the lack of natural resources, funds and human resources, the economic environment and mechanism environment to the prejudice of the policy, the deviation between policy and its fundamental theory, and the cooperativeness among various policies. .

Based on the positive analysis of the previous chapters, Chapter 8 raises the objectives of forestry public policy through the basic theory of public economics and welfare economics combined with the practice of Chinese forestry development. By using theoretical analysis, data calculation, questionnaire survey and international experiences, the Chapter discusses the option of forestry public policies for forestry sustainable development. The book points out that we should choose improving fairness powered by efficiency as the target of public forestry policy to realize the coordinated development of ecology and economics in the forest areas. Therefore, public forestry policies should be adjusted appropriately to comply with the target.

On the financing policy. Firstly, we should regard the government as the main actor in the forestry classification financing system, so that the government guarantees the financing for public forests, and participates in the construction of the commercial forests appropriately. Secondly, we should adjust the key fields of forestry public financing, mainly the transmission from afforestation to financing forestry public goods and the establishment of forest management subsidy system. Thirdly, we should establish a multi-level forest ecological benefits compensation mechanism as soon as possible in order to ensure the policy effects of the forest resources regulation, and to reflect justice at the same time.

On the property rights policy. Because it is restrained to the existing institutional arrangements in short-term, we can only improve the present policies from the path-dependent way — in the place where forest tenure reform has not been implemented, operational procedure could be innovated. In order to protect the interests of ordinary peasants, the policy may allow for the implementation of forest ownership in the form of "Shareholders But Not Managers of Forests" in accordance with the existing population. Long-term option is to a-

chieve institutional breakthrough and to make the public forests owned by government while the commercial forest owned by private investors. The state public forests should be owned by the central government, while local public forests owned by the local governments.

On the regulation policy. Firstly, we should adjust the direction of forestry regulation. The forest should be treated separately in accordance with location and ownership of forests, strengthening the cutting control in ecology sensitive areas while loosing the cutting control in non-sensitive areas, however, loosing the restrictions for private forests while strengthening the forestry land usage and reforestation. Secondly, we should enhance the structural regulation and planning guidance in accordance with the requirements of sustainable forest management. Thirdly, we should strengthen the mandatory regulation of the negative externalities of forestry practice (forest fires, timber theft, deforestation of natural forests) to protect the property forest resources. Fourthly, incentive regulation should be taken out on positive external behavior of forestry practice in order to achieve incentive compatibility of forest resources, which mainly means the establishment of a subsidy system for private forests.

This book is mostly based on the analysis of the first-hand materials. Its innovations mainly manifest in the following aspects:

Innovation 1

At the macroscopic level, the efficiency of the forestry investment is dual effects reflected both by the economic effects and ecological effects. It has been found from the statistical analysis that the financing efficiency tendencies are obviously decreasing in many provinces and nationwide, and the differences vary among the provinces, although China Central Government has greatly increased forestry public finance for the last 10 years. It has also been found through provincial level panel data model that the gross production value is more affected by the proportion of the public financing and the labor production efficiency, but less affected by risk factors, such as fires, pests and diseases. The investigation finds that most provinces have greenized mountains and