

THE INSTITUTIONAL
ANALYSIS ON GOVERNANCE
OF ECO-ENVIRONMENT

生态环境治理的 制度分析

樊根耀 著

西北农林科技大学出版社

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序 言

恩格斯曾经指出,“我们不要过分陶醉于我们对自然界的胜利。对于每一次这样的胜利,自然界都报复了我们”。20世纪以来,由于科技和生产力的飞速发展,人类干预或征服自然的力量空前增长,人们在获得巨大的经济增长的同时,也为此付出了惨痛的代价:生态环境急剧恶化,使人类一次又一次遭到自然的无情惩罚。于是,人类重新反思人与自然的关系,并且开始了一系列旨在恢复和改善生态环境的治理活动。可以说,生态环境治理已成为二十世纪一项重要的经济、技术乃至政治活动。

本书是作者在对博士论文进行充实和扩展的基础上形成的。全书以生态环境治理活动为主题,运用制度理论和方法,对生态环境治理活动所涉及的环境物品、治理主体等因素进行了深入地研究。通过生态环境治理制度产生与演变历程的分析,揭示了其发展变化规律;通过对生态环境治理制度微观基础的理性分析,证明了合理的、恰当的制度安排是改善和提高生态环境治理绩效的一种主要手段;在对强制性治理制度、产权交易制度和治理主体内在治理制度等的比较分析的基础上,指出了各种制度安排的特点、优点和局限性,强调各种制度安排相互补充、协调发展是十分必要的;通过对治理制度创新的内涵、必要性、基本途径进行的探讨,为我国环境治理制度的创新提供了理论依据。值得注意的是,作者在研

究生态环境治理制度的演进,以及现行治理制度的完善与创新等方面体现出一定的特色。本书着重讨论了由治理主体自发形成的内在制度。而在过去的研究中,往往是较多地强调公共政策层面的调控,即使涉及到治理制度的安排,又多谈论强制性制度、产权交易制度,而较少涉及治理主体的内在制度。事实上,正如书中所分析的,类似非政府组织、非营利组织等内在治理制度安排也具有其他外在制度安排所不能及的功能。此外,本书以退耕还林为对象所进行的治理制度创新的案例研究,也必将对我国的生态环境治理实践发挥积极的作用。

综上所述,我认为,本书的出版发行,既体现了实事求是的科学精神,也符合生态环境可持续发展的总体目标和根本要求。其研究成果具有创新性和重要的理论意义,同时,对生态环境治理的实践也具有一定的参考价值。

生态环境治理是涉及自然、社会、经济和文化等诸多因素综合性活动,关于生态环境治理的制度研究也是一个非常复杂的课题。作为初步探索,本书难免存在不足或疏漏之处。作为作者的博士导师,既为他的博士论文出版而欣慰,同时也希望得到读者的关注和指正。让我们为推动生态环境治理制度的研究,为实现经济和社会的持续发展而共同努力。

张襄英

2003年9月20日

摘 要

生态环境治理是一种直接关乎经济与社会持续发展的重要的人类活动,治理制度则是决定生态环境治理活动绩效的重要因素之一。对生态环境治理中的制度因素进行研究,既是环境经济学和环境管理学中带有前沿性的重大课题,也是对我国目前环境治理实践提出的现实问题的最好回应。本文运用制度经济学、博弈论、产权理论以及信息经济学等理论和方法,对生态环境治理制度进行了全方位、多层次地分析探讨,试图建立生态环境治理制度的基本框架。

全文共分为五个部分共九章。第一部分包括第一章、第二章和第三章,是全文的立论基础和逻辑起点。第二部分包括第四章、第五章和第六章,对主要治理制度安排进行了微观分析,分别从理论上探讨了不同治理制度的特点、运行机制和局限性等是全文理论分析的核心部分。第三、四、五部分分别与第七章、第八章和第九章对应。其中第三部分是对我国生态环境治理制度变迁的理论分析,第四部分研究治理制度创新,第五部分是案例分析。

第一章:导论 阐述了本文的研究背景、研究目的和意义,分门别类地对国外以及国内关于生态环境治理的各类研究成果进行综述和评价,提出了论文的研究思路和研究方法,说明了本文可能的创新点。另外,还对一些关键概念及假定也作了说明。

第二章:生态环境治理制度的产生背景 本章分析了生态环

境问题的产生背景、实质,以及生态环境治理活动的起源、特征及内涵等。认为生态环境治理活动的出现是与生态环境问题日益突出的现实相联系的,它具有必要性、长期性、复杂性和集体性。由于规范、协调治理行为的需要,便有了不同类型的治理制度。本章对生态环境治理的各种制度安排进行了初步的分类讨论。

第三章:生态环境治理制度的微观基础 本章对构成治理制度微观基础的各个要素逐一进行了分析。首先讨论了生态环境资源开发利用中的外部性以及生态环境作为公共物品的意蕴,然后讨论了人的属性,分析了在财富最大化假设、有限理性假定以及机会主义倾向三大行为特征支配下,个体面向共同的生态环境资源进行生产或消费时所面临的“集体行动的困境”,为以后各章节对各种类型的制度安排进行分门别类地研究作了一定的理论铺垫。

第四章:生态环境治理的强制性制度 本章研究强制性制度的内涵、性质、作用机制以及边界等,重点讨论了作为强制性制度实施主体之一的政府的行为特征。论文指出,由于生态环境资源的特征,如外部性和公共物品属性等,市场机制在资源配置中可能失效,即“市场失灵”。这时可以由政府出面,以强制性手段制止生态环境资源的外部性并供给相关生态环境资源产品。但中央政府在供给和实施强制性制度时,受其他经济社会或政治目标的冲击,生态环境治理的目标往往被置于次要地位。而地方政府囿于自身的经济利益,在生态环境治理活动中存在“搭便车”的动机。地方政府不仅会对中央政府下达的生态治理任务采取策略行为,而且在流域间或区域间的自然资源或生态资源的配置中,也可能进行不合作博弈。这样,从强制性制度的实施主体方面已经存在着制度低效或失效的可能性。另一方面,从强制性制度的实施条件与成本来看,也存在着一定的信息与技术障碍,这不仅为个体的投机行为留下了极大的空间,也说明了它只具有有限的应用边界。

第五章:生态环境治理的产权交易与市场制度 本章在产权分析的基础上,提出造成生态环境破坏的根本原因,在于生态环境资源的“产权拥挤”和“产权缺失”。如果能够为自然环境资源建立排他性的产权安排,那么产权主体就可以通过市场交易自发地完成资源的最优配置,产生帕累托效率,并实现外部效应的内部化。在交易费用大于零的世界里,政府行为、法律以及组织等对于产权的界定有着至关重要的影响,它们对于产权的优化有重要影响。本章还以排污权为例,说明了通过界定环境产权以及建立相应的排污权交易市场,就可以低成本地实现环境资源的优化配置。另外,又以环境资本经营为例,专门论证了明确生态环境权利,并通过市场实现生态环境资源的优化配置的现实意义。最后指出了产权与市场治理制度局限性。

第六章:生态环境的内在治理制度 内在治理制度是由生态环境治理者自发形成的作用规则的体系,它在生态治理活动具有独特的价值和作用。国际环境质量标准,即ISO14000 认证制度,就是内在制度的典型。本章运用信息经济学的理论和方法分析了内在制度何以能够自发地运行,并且讨论了在局部和小规模的自然资源条件下,参与者如何通过实施合作博弈并形成具有自主治理色彩的内在制度的机理。内在治理制度具有运行成本低,能通过参与者的自发作用实现自我执行、自我约束等特点,是对强制性制度和市场制度的有效补充,是生态环境治理制度体系中一种特别值得关注的制度安排。

第七章:我国生态环境治理制度的变迁分析 我国生态环境治理制度形成于20世纪70年代,经过三十多年的演化变迁,现已形成一个相对完善的制度体系。其变迁过程大致可分为初创阶段、深化阶段和全面形成阶段。在各个演化阶段,治理制度变迁的内容和特点有一定差别。作者认为,我国现行的生态环境治理制度带有

典型的政府主导的特征；治理制度正在由以直接取向于生态环境效益为主向生态效益与经济效益并重方面转化；内在的治理制度发育相对欠缺，在一定程度上影响了我国生态环境治理制度的整体效果。

第八章：我国生态环境治理的制度创新 生态环境治理的制度创新，不仅是应对“政府失灵”和“市场失灵”，以及提高生态环境治理绩效的必需，同时也是对市场和公众对于生态环境产品的不断趋增的需求以及维护国家生态安全等需要的必然反应。本文提出，我国的生态环境治理制度创新应该遵循三大原则，即协调原则、互补原则以及兼顾原则。本章讨论了现阶段我国生态环境治理制度创新的两大取向，一是市场取向的治理制度创新，二是治理主体多元化的制度创新。最后，对影响生态环境治理制度创新的因素，如信息条件、动力机制和政府的特殊作用等进行了分析和评论。

第九章：生态环境治理制度创新的案例研究 本章以正在进行的退耕还林还草的实践为背景，分析了退耕还林还草实践中所涉及的治理制度的特征、运行机理以及绩效等，对其缺陷也进行了讨论。作者认为，退耕还林还草制度的内在机理在于，它符合农户行为的理性特征，而且通过一定的经济利益激励而获得生态环境效益的回报，从而有效地实现了以经济利益换取生态效益的激励相容。另外，由中央政府提供资金进行生态环境治理，也在一定程度上体现了流域间或地区间进行生态补偿的原则。与过去相比，目前退耕还林还草所建立的生态环境补偿机制是一个重大地突破，但在制度激励的强度和补偿的期限方面，现有生态环境补偿机制仍存在一定不足。这将挫伤农户参与生态建设的积极性，并且直接影响治理效果。建立更为完善有效的退耕还林还草实施的机制，既避免由地方政府主导治理所带来的委托代理问题，又能将环境治

理与地方经济增长结合起来,是目前生态环境治理实践中亟待解决的问题。

〔关键词〕:生态环境,治理制度,制度变迁,制度创新,激励相容

ABSTRACT

To govern the ecological environment is a very important human activity, which is directly related to the sustainable development of economy and society. The governance institution is one of the important elements to determine the performance of the governance activities. Based on the Neoclassic Economic Theory, Institutional Economics, The Economics of Information and Game Theory, the purpose of this study is to establish an analytical framework of the institutional research on ecological environment governance, on which an empirical study of the ecological environment governance in China is based.

This dissertation consists of nine chapters including the introductory chapter, which is organized into five parts.

The first part, including Chapter One, Chapter Two and Chapter Three, is the basis for the analysis and logical development of the whole thesis.

Chapter One: Introductory It introduces the background, purpose and the significance of this study, summarizes and evaluates various research achievements both at home and abroad, and puts forth the train of thought and methods of this study. It shows the dissertation's innovation point, too.

Chapter Two: The background of the governance institutions It analyses the background and the essence of the

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ecological environment problem. It discusses the origin, characteristics and the connotations of the ecological environment governance. This dissertation argues that, the appearance of ecological environment governance is connected closely with the ecological environment crisis in recent years. It has such characteristics as being necessary, long — termed complex and collective, etc. In order to coordinate the behavior of the ecological environment governance, various types of governance institutions are needed. Finally, it initially discusses the various ecological environment governance institutions.

Chapter Three: The microcosmic foundation of the ecological environment governance institutions In this chapter, the author analyzes the elements one by one that constitute the microcosmic foundation. First, the thesis discusses the externality in the exploitation of ecological environment resources and the implications when the ecological environment resources as public goods. Then, the thesis discusses in the individual rationality of ecological environment governance's entity, such as the incentive of maximizing profits, bounded rationality and the inclination of opportunism. The thesis argues that, because of these traits, when people consuming the ecological environment resources or producing the ecological environment goods in a collective action, 'the dilemma of collective action' may be emerge. So, it gives a good understanding to the ecological environment governance, and gives a good theoretical foundation to microcosmic research about different type of governance institutions, too.

The second part is from Chapter Four to Chapter Six. Focus on the characteristics, the operation mechanism and their limitations, this part analyses various types of governance institutions in depth.

Chapter Four: Government behavior and the compulsive institution in the ecological environment governance Because of the characteristics such as externality and public goods of the ecological environment resources, markets mechanism cannot work well, that is 'market failure'. In this case, central government must exercise the power to prevent the externality and to supply the ecological environment goods. But in this process central government's ecological environment governance target may conflict with other economical, social, or political targets. The target of ecological environment governance usually is placed to a secondary position. In the other hand, considering their economical benefit, the local governments may adopt the 'free rider' strategies, which means they can enjoys ecological environment result without pays a bill. They may adopt the strategic behaviors when they carry out the central government's plan for ecological environment governance. In the allocation of nature resource among different areas especially the areas that in the same river basin, local governments usually adopt a non-cooperative game, so they can only get a second-class outcome, and a phenomenon called 'government failure' may be emerge. On the other hand, the compulsive institutions have some information and technical obstacles when they being carried out. This gives great space to individual's opportunistic behaviors.

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Therefore, the compulsive institution has its limitations.

Chapter Five: Property right deal and market institutions in the ecological environment governance The dissertation considers that the ecological environment problem is the result of it's property right 'crowd' or 'missing'. According to Coase's Theorem, if the exclusive property right of ecological environment resources can be decided, then the entity of the property right may spontaneously allocate the ecological environment resources optimally through market mechanism, it may eliminate the externality effect and get the 'Pareto optimum'. In the world transaction cost is not equal to zero, establishing a proper property right system by government, law and other organization is very important. This chapter also analyses the market that about the right of emission pollutant. But to establish a proper system of property right is faced with many obstacles, too. So the way of property right or market institution is not a sole way to improve the quality of ecological environment.

Chapter Six: The internal governance institutions of ecological environment Distinguishing from the external institutions, such as compulsive institution and market institution, the internal institutions are a system of rules that formed spontaneously by governance entities themselves. It has a unique value and function. ISO14000, which makes many enterprises around the world pursuing its recognition consciously and voluntarily, is a model of internal institution. In fact, under the condition that nature resource is in small scale, the

participants can form institutions which automatically operate through carrying out a cooperative game. The advantages of the internal institutions are: (1) their operation cost is low, (2) the institutions can be carried out and restrained by the participants themselves, and (3) they can be thought as an effective supplement to the external institutions.

The third part is Chapter Seven: The institution Changes of the ecological environment governance in China. The thesis argues that, the institutions of ecological environment governance were formed at 1970s, through institution changes in nearly thirty years, now it has become a relatively perfect institutions system. The process of the institutions change can be roughly divided into three phases: newly establishing phase, deepened phase and completely formed phase. At each phase, the governance institution change has different content and characteristics. This chapter analyses the basic content, and the changing characteristics of governance institutions in China. The conclusion is: (1) the current governance institutions of ecological environment in China has a trait that predominated by government, (2) the governance institution is changing to the direction that equally emphasize to the ecological environment benefits and economical benefits which is different from the traditional direction that only emphasized to the ecological environment benefits, (3) internal governance institution of ecological environment is seriously deficient, this affects the objective result of the whole governance institutions somewhat.

The fourth part is Chapter Eight: Governance institutional

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innovation of the ecological environment in China. The governance institutional innovation is not only to satisfy the need to improve the performance of ecological environment governance, but also an appropriate response to the reality of 'market failure' and 'government failure', the increasing demand for green product that come from the consumer market and the national ecological security. At the present phase, the governance institutional innovation must adhere to these three principles: the coordinative principle, the mutual complement principle and the whole—considered principle. The governance institutional innovation has two channels. The first one is the market—oriented innovation, and the second one is the multi—entity innovation. Finally, the chapter analyses and comments the elements related to the governance institutional innovation, such as the information condition, the power mechanism and the special function of the government, etc.

The fifth part is Chapter Nine: Case study on the governance institutional innovation of ecological environment. Based on the background of the present ecological practices, that is, returning the cultivated land to planting forest or grass on it, this chapter analyses the trait, operating mechanism and the performance of the governance institution in practice. It also discusses the institution disadvantages, too. The author emphasizes that the internal mechanism of the special governance institution in returning the cultivated land to planting forest or grass are: (1) This specially designated governance institution conforms to the rationality of the peasant's behavior, and gets

the ecological environment benefits through exchanging with the economic benefits, so it realizes the incentive compatibility between ecological environment benefit and economic benefit.

(2) The ecological environment governance is invested by central government, so it reflects to some degree the ecological compensating principle among different areas. To establish a compensation mechanism for ecological environment, people must adopt the Kaldor — Hicks efficiency standard instead of Pareto efficiency standard. But the compensation mechanisms still have some disadvantages, especially in the intensity of the institution incentive and required — period of compensation. At present, the main task in the governance practices is to establish a perfect governance institution; it can avoid the client — agent problem and integrate the ecological environment governance with the growth of the local economy.

Key words: ecological environment, governance institution, institutional change, institutional innovation, incentive compatibility.