

流域管理公众参与的決定因素：制度分析与发展框架的应用

曾黛乐¹, 陈博雅², Jingxin Wang³, John L. Innes¹, Juliet Lu¹, 严演存¹, 王光玉^{1*}

(¹ 英属哥伦比亚大学林业学院, 加拿大温哥华 V6T 1Z4; ² 英属哥伦比亚大学统计学院, 加拿大温哥华 V6T 1Z4; ³ 耶鲁大学管理学院, 美国纽黑文 CT 06511)

摘要:【目的与方法】适应性过程和分权化日益成为流域治理的重要方面。然而, 我们对于促进中国公众参与流域治理的因素的理解存在显著的空白。在本研究中, 我们将制度分析和发展 (IAD) 框架与多个模型和有序 Probit 回归结合起来, 以实证方式探讨了公众在流域综合治理 (IWM) 规划和实施活动中参与意愿 (WTP) 和实际参与的决定因素。问卷数据用于定义利益相关者对 IWM 的认知。地区保护计划的可持续性主要基于公民对管理成效的认同度和满意度。鉴于陆地-水域界面对于流域完整性的重要性, 闽江河岸森林管理的效果和适当性也被纳入调查范围内。**【结果】**个体的环境意图和行为受到自然物理条件、应用规制、社会经济特征和互动能力的影响, 其程度各不相同。本研究还显示, 政府与公众间的信息共享显著提高了 IWM 中公众的参与意愿和实际参与度。互动能力中的人际间信息交流和跨游支持也与 WTP 显著相关, 而治理的整体表现和不适当的森林管理做法则影响意图和行为。如果参与者之前观察到了较差的森林管理行为 (例如, 炼山、大面积砍伐、砍伐护岸林、使用除草剂和农药), 他们会更倾向于参与流域活动。流域的自然物理条件和社会经济特征并未明显影响 WTP, 但会影响实际的参与行为。**【结论】**个体参与意愿与行为与多项因素的联系强调了整体的综合方法对流域资源管理的必要性。这些发现为理解影响个体参与流域治理的社会和制度因素提供了实用的洞察, 为流域治理向分权化和可持续的未来转变提供了方向。

关键词: 公众参与; 调查问卷分析; 流域综合治理; 流域森林管理; 交互能力; 制度分析与发展 (IAD) 框架

Determinants of Public Participation in Watershed Management: An Application of the Institutional Analysis and Development Framework

Daile Zeng¹, Boya Chen², Jingxin Wang³, John L. Innes¹, Juliet Lu¹, Yancun Yan¹, Guangyu Wang^{1*}

(¹Faculty of Forestry, University of British Columbia, Vancouver, BC V6T 1Z4, Canada; ²Department of Statistics, University of British Columbia, Vancouver, BC V6T 1Z4, Canada; ³School of Management, Yale University, New Haven, CT 06511, USA)

Abstract: 【Objective and Method】 Increasingly, adaptive processes and decentralization are vital aspects of watershed governance. A significant gap exists in our understanding of the factors that facilitate public participation in China. In this study, we combine the Institutional Analysis and Development framework with multiple models and ordered probit regression to investigate empirically the determinants of willingness to participate (WTP) and

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*王光玉为通讯作者。

actual participation of the public in integrated watershed management (IWM) planning and implementation activities. Data derived from questionnaires are used to define stakeholders' perceptions of IWM. The sustainability of the regional conservation plan is primarily based on the satisfaction of citizens with management performance. Considering the importance of the terrestrial-aquatic interface for watershed integrity, we also investigated the effectiveness and appropriateness of watershed forest management in the Min River Basin, Fujian, China. **【Result】** We find that individual environmental intention and behavior are influenced by biophysical conditions, rules-in-use, socioeconomic characteristics, and interactional capacity, to varying extents. The results also show that information-sharing significantly improves the WTP and actual public participation in IWM. Interpersonal communication and cross-reach support in an interactional capacity are also significantly correlated with WTP, while the overall performance of governance and inappropriate forest practices influence intention and behavior. Participants were more inclined to engage in river basin activities if they had previously observed poor forest management behavior (e.g., burning slash and shrub, clear-cutting, logging within a riparian zone, herbicide and pesticide use). The biophysical conditions and socioeconomic characteristics of the watershed do not markedly affect WTP but shape actual participation behavior. **【Conclusion】** The results of this work reinforce the necessity for an integrated and holistic approach to regional watershed resource management. These findings provide workable insights into the social and institutional factors that shape the participation by individuals in watershed governance as it moves towards a decentralized and sustainable future.

Key words: Public participation; Questionnaire analysis; Integrated watershed management; Forest management; Interactional capacity; Institutional analysis and development framework