

西双版纳生物多样性保护和可持续发展研究: 本论文集的说明*

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西双版纳是保存有大面积热带森林的地区, 倍受海内外的关注. 从本世纪 30~40 年代到 90 年代的研究表明西双版纳处于热带亚热带过渡地带的特殊性, 其生态环境和生物成分不仅在生物演化中意义显著而且也是发展地方经济的重要资源.

西双版纳为多民族聚居区, 居住着傣族、爱尼族约 20 个民族或未定族群. 各民族有其特殊的土地和自然资源利用传统. 随着人口增加和经济发展, 特别是橡胶种植的扩大, 严重地损坏了西双版纳的热带森林及其生态环境, 也使优秀传统文化在丧失.

保护生态环境和优秀传统文化成了西双版纳可持续发展的关键. 1958 年开始建立了西双版纳自然保护区以保护热带森林及其野生动植物. 1993 年, 该保护区加入联合国教科文组织 (UNESCO) 的生物圈保护区网络, 使管理工作从单纯保护自然走向协调保护与当地居民及地区社会发展.

对此, 国内外政府组织和基金会作了积极贡献. UNESCO (1994) 吸收西双版纳生物圈保护区参与南南合作项目. 更为深入具体的研究是加拿大国际发展研究中心 (IDRC) 资助的项目“西双版纳生物圈保护区生物多样性保护与可持续发展”. 主要目的是使用 GIS 等新技术以改善保护区的管理水平, 给当地政府提供有用的现代化

决策工具, 为具有同样问题的国内外地区提供模式和经验. 项目成果包括 3 方面: 1) 为有效管理和监测生物多样性及协调保护和发展, 设计和建立西双版纳生物圈保护区数据库和地理信息系统 (GIS), 2) 总结分析资源利用的地方性传统, 培训保护区的当地居民、管理人员和决策者, 以开发生物多样性保护和可持续发展的人才资源, 3) 出版研究成果, 以便广泛交流, 为自然保护区作贡献.

本论文集是 IDRC 项目成果的组成部分, 以应用 GIS 等技术着重研究自然景观与人文景观的相互关系为特点. 包括 4 个方面的内容: 1) 研究区的生境格局, 植被特征, 保护植物及其种群生态, 2) 生境格局与居住格局的生态关系以及当地居民的生态知识, 3) 土地利用和种植经济植物 (砂仁) 对自然景观和生物多样性的影响, 4) 一些研究方法论问题.

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An epilogue: Biodiversity conservation and sustainable development in Xishuangbanna

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Xishuangbanna, the region where remains the vast virgin tropical forests in China, receives great attentions from home and abroad. Studies from 1930's to 1990's indicated that Xishuangbanna is characterized by its transitional position from tropics to subtropics. Its special eco-environment and biocomponents are not only important in biological evolution, but also essential for local economic development.

There are near 20 minorities or unidentified ethnic groups such as Dai and Hani in Xishuangbanna. Different ethnic group has its special traditions for land and natural resources use, making Xishuangbanna be the ethnic culture mosaic. However, the tropical rain forests and ecological environment as well as the excellent tradition cultures in Xishuangbanna are damaged, because of the growth of population and the development of economy especially the enlargement of plantations.

Therefore, the conservation of ecological environment and excellent ethnic cultures becomes the key of the sustainable development in Xishuangbanna. To protect the rain forests and their wildlife, Yunnan Province Government authorized the establishment of Xishuangbanna Nature Reserve in 1958. The reserve was approved by UN-

ESCO into its MAB Program in 1993, making it possible to manage the reserve from the view of mere nature protection to the cooperation of nature conservation and local social economic development.

To do so, government organizations and foundations from home and abroad provided active contributions. UNESCO invited Xishuangbanna Nature Reserve to participate in its South-South Cooperation Program on environmentally sound social-economic development in humid tropics. More detailed researches were launched in the project "Biodiversity Conservation and Sustainable Development in Xishuangbanna Biosphere Reserves" funded by International Development Research Centre of Canada (IDRC). The project aimed at applying new technologies such as GIS to improve the management of the reserve, to develop a helpful modern tool for the local policy-making, and to provide models and experiences for home and abroad regions with the similar conflicts. The contents of the project included three aspects: 1) to design database and establish a GIS of Xishuangbanna Biosphere Reserve to manage and monitor the local biodiversity efficiently and to conserve and develop it cooperatively; 2) to summarize and analyze the indigenous

knowledge of natural resources use, and to develop human resources for biodiversity conservation and sustainable development through training villagers, managers and policy makers; and 3) to publish and exchange research results, making contributions to nature conservation.

As part of the project achievements, this collection is characterized by applying new technology, e.g., GIS, to discuss the relations between environmental and human cultural patterns in the study area. Papers are classified into four areas: 1) ecological environment patterns, vegetation ecology, protected plants and their population ecology; 2) relations between environmental and settlement patterns and indigenous ecologi-

cal knowledge; 3) impact of land-use and cash plant (*Amomum villosum*) plantation on natural landscape and biodiversity; and 4) some methodologies applied.

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