

胡昭广 金鉴明 主编

第七届中国生物多样性保护与利用 高新科学技术国际论坛

The 7th International Forum on Science and Technology for
Biodiversity Conservation and Utilization in China

论文集 Colloquium



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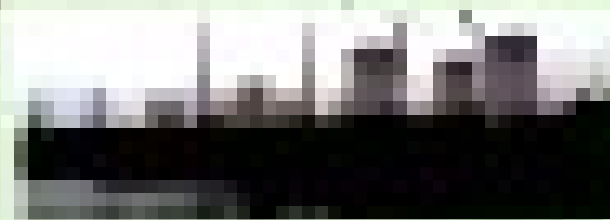
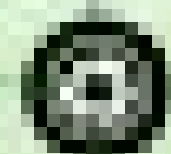
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THE 7TH INTERNATIONAL FORUM ON BIOLOGY AND TECHNOLOGY FOR
BIOLOGICAL CONSERVATION AND UTILIZATION OF CHINA

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中国生物多样性保护与利用高新技术国际论坛

第十三届北京国际科技产业博览会
第七届中国生物多样性保护与
利用高新科学技术国际论坛
论文集

中国·北京 2010.5.26-28

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中国生物多样性保护与绿色发展基金会
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序

2010 年对全球生物多样性保护事业来说是历史性的一年,联合国确立了“国际生物多样性年”,提出了“生物多样性是生命,生物多样性就是我们的生命”的鲜明主题,世界各国纷纷采取各种措施、举办各项活动予以积极跟进,生物多样性保护事业在全球范围内得到了前所未有的重视。

我国对生物多样性保护事业的推进力度也在逐年加强。胡锦涛总书记在党的十七大首次提出了构建社会主义“生态文明”的战略构想。温家宝总理在去年出席哥本哈根气候变化峰会时也多次强调要加强生态与物种的保护力度。今年 5 月,我国成立了“2010 国际生物多样性年中国国家委员会”,由李克强副总理担任主席,24 个部委参与其中,显示了我国对生物多样性保护事业的决心和力度。5 月 18 日,李克强副总理在主持召开的国际生物多样性年中国国家委员会全体会议上更是明确强调了生物多样性保护作为我国的一项国家事业的重要性和紧迫性。2010 年 9 月 15 日国务院常务会第 126 次会议又审议通过了《中国生物多样性保护战略与行动计划》,并在前言中指出:生物多样性是人类赖以生存的条件,是经济社会可持续发展的基础,是生态安全和粮食安全的保障。

目前,虽然生物多样性保护事业已深入人心,成为全民的共识,但现实形势却不容乐观。受全球气候变化与人类活动的影响,生物多样性正以前所未有的速度在丧失,自 19 世纪七十年代以来,全球已丧失了 40% 的动物种群、20% 的红树林以及 40% 的珊瑚礁;至今,全球也没有实现生物多样性保护公约缔约国在 2002 年的承诺,即:到 2010 年减缓全球生物多样性丧失速度。生物多样性丧失已成为影响人类福利和可持续发展的全球性重大问题之一。

尤其让我们触目惊心的是,我国的生态环境形势不容乐观。据有关数据显示,2008 年我国荒漠化土地面积达到 263.62 万平方公里,占国土总面积的 27.46%;沙化土地 173.97 万平方公里,占国土面积的 21.2%,两者

合计几乎占了我国的一半面积！目前，中国江河湖泊有 70% 被污染，90% 流经城市的河段受到严重污染，生态环境安全面临严重挑战。

生物多样性是地球上所有动植物、微生物物种、生态系统和遗传资源等多样性的总和。生物多样性不仅提供了人类所需的食物、医药、木材、自然纤维等物质产品，还提供了水源涵养、调节气候、净化污染物、预防灾害等生态服务功能，生物多样性是人类赖以生存与发展的重要物质基础。保护生物多样性不仅与我们的衣、食、住、行及物质文化生活的许多方面密切相关，还是保护我们子孙后代持续发展的基础。

近年来，我会围绕着保护中国生物多样性做了大量工作：组织实施了北京怀柔喇叭沟门自然保护区研究、北京延庆生态示范区研究、贵州省平塘国家地质公园规划研究、北京密云生物多样性保护与利用研究、北京生物多样性现状和可持续发展规划方案研究等项科研活动；组织举办了 6 届中国北京“生物多样性保护与利用高新科学技术”国际研讨会，对 9 个植物园、2 个公园、1 个动物园和 7 个自然保护区共 19 个单位列入“共建中国生物多样性保护示范基地”，多次举办生物多样性和自然保护专业培训和科普教育活动等。

正是在“国际生物多样性年”和生物多样性保护成为我国国家战略的大背景下，我会于 2010 年 5 月 26 日—28 日举办了以“生物多样性和生态安全”为主题的“第七届中国生物多样性保护与利用高新科学技术国际论坛”。论坛下设 4 个专题：生物多样性保护与生态安全、生物多样性与环境安全、生物多样性与绿色产业和气候变化与生物多样性。就是希望通过这个论坛汇集各方面专家的意见和智慧，加强生物多样性领域各方面的沟通与交流，促使更多的政府官员、研究人员及社会各界人士加入到生态安全和生物多样性保护的事业中来。在这次论坛中，来自各方的专家进行了精彩的演讲和报告，提供丰富的论文资料，给我们带来了新的启示和思考，为此我们将其汇编成册，希望对全国从事生物多样性保护事业的科学家、专业工作者、各方面工作人员有所帮助。

胡德平

二〇一〇年十二月一日

Preface

The year of 2010 is of historical significance to the cause of global biodiversity conservation. The United Nations has defined the year as the “International Biodiversity Year” and has put forward the clear-cut theme of “Biodiversity Is Life and Biodiversity Is Our Life”. Countries in the world have adopted various measures and conducted various activities to actively abide by the theme. Unprecedented importance has been attached to the biodiversity conservation cause around the globe.

Efforts made by China to boost the biodiversity conservation have been intensified on a yearly basis. At the 17th National Congress of the Chinese Communist Party, General Secretary Hu Jintao put forward, for the very first time, the strategic concept of constructing a socialist “ecological civilization”. At the Copenhagen Summit on Climate Change held last year, Premier Wen Jiabao stressed over and again that efforts should be intensified in conserving ecosystems and species. In May, 2010, the “State Commission for the International Biodiversity Year of 2010” has been set up in China, with Vice Premier Li Keqiang acting as Chairman and 24 ministries and commissions being involved, showing the determination and efforts of China for protecting biodiversity. On May 18, at the plenary session of the State Commission for the International Biodiversity Year of 2010 presided over by Vice Premier Li Keqiang, he stressed more explicitly the importance and urgency of the biodiversity conservation as one of China’s undertakings on the national level. On September 15, 2010, the Biodiversity Conservation Strategy and Action Plan of China has been adopted at the 126th session of the State Council’s Standing Committee. It has been pointed out in the Preface that biodiversity is a condition on which humankind relies for existence, a foundation for sustainable economic and social development and a guarantee for ecological and food security.

At present, the real situation is by no means optimistic, though biodiversity conservation has stricken root in the hearts of the people and has been fully recognized by the whole people. Affected by global climate change and human activities, biodiversity has been deteriorating at an unprecedented pace. Since 1870s, 40% of the animal populations, 20% of the mangrove forests and 40% of the coral reefs have disappeared. To this day, the commitment made by signatory states in 2002 to the Convention on Biodiversity Conservation has not been brought to effect globally, that is, to alleviate the loss of global biodiversity by 2010. Biodiversity loss has become one of the severe global issues impairing human well-being and sustainable development.

What is startling is that China's ecological environment is not optimistic. Statistics have shown that in 2008 the area of China's desertification land reached 2.6362 million square kilometers, making up 27.46% of the country's total, and the area of sand land reached 1.7397 million square kilometers, accounting for 21.2% of the country's total. The total of the two percentages has added up to almost half of China's total land area! At present, 70% of rivers and lakes in China have been polluted and 90% of the stream segments passing by cities have been severely polluted. The ecological security has been confronted with severe challenges.

Biodiversity is aggregation of all animals and plants, microorganism species, ecosystems and genetic resources on earth. Not only does biodiversity provide such materials as food, medicine, timber and natural fiber that are needed by humankind, but it also offers ecological service functions, such as conservation of water resources, climate regulation, purification of pollutants and prevention of disasters. Biodiversity is an important material base for humans to rely on for existence and development. Conservation of biodiversity is not only closely related to the basic necessities of human life and to many aspects of human material and cultural lives, but it is also a basis for the sustainable development of future generations.

In recent years, the State Commission for the International Biodiversity Year of 2010 has done a prodigious amount of work to protect the biodiversity in China: organizing such research activities as the research

into the LaBaGouMen Nature Reserve of Huairou, Beijing, the research into the Yanqing Ecological Demonstration Area of Beijing, the planning of and research into the Pingtang National Geo-park of Guizhou Province, the research into the biodiversity conservation and utilization in Miyun, Beijing and the institution of the biodiversity conditions and sustainable development plans of Beijing; sponsoring 6 international seminars on “High Technologies for Biodiversity Conservation and Utilization” in Beijing, China; enrolling 9 botanical gardens, 2 parks, 1 zoo and 7 nature reserves totaling 19 units as “Demonstration Bases for the Construction of Biodiversity Conservation in China”; conducting training courses on biodiversity and nature conservation and popular science education activities.

In the context of “International Biodiversity Year” and biodiversity conservation becoming China’s national strategy, the State Commission for the International Biodiversity Year of 2010 sponsored, from May 26th — 28th, 2010, the “Seventh International Forum on New and High Technologies for Biodiversity Conservation and Utilization — China” with “Biodiversity and Ecological Security” as the theme. There have been 4 topics under the forum: Biodiversity Conservation and Ecological Security, Biodiversity and Environmental Security, Biodiversity and Green Industry, Climate Change and Biodiversity. The forum is aimed at seeking opinions and intelligence of the experts, strengthening biodiversity communication and exchange in various aspects and bringing more government officials, researchers and people from all walks of life into the cause of ecological security and biodiversity conservation. By making excellent speeches and reports at the forum, experts from various fields have offered rich material for theses and brought us new enlightenments and reflections. Therefore, we have compiled the speeches and reports into books in the hope that they could be a help to countrywide scientists, specialists and people who are involved in biodiversity conservation.

Hu Deping
December 1st, 2010

Conference Address

大会致辞