

Preface

After Jiangsu Jiangyan Qin Lake “Wetland Forum” conference was convened in April 2008, Dr. Wang Limin, the deputy director of World Wild Fund For Nature (WWF) China Programme Implementation and the director of World Wild Fund For Nature (WWF) Shanghai Programme Office came to my laboratory in Nanjing University for visiting and communication. Dr. Wang was impressed on the achievements of the wetland restoration engineering completed by the ecology department of Nanjing University; after that, Dr. Wang invited me and my wetland restoration engineering team to go to Shanghai Dianshan Lake for conducting the similar scientific research works so as to finally make a contribution to the protection of the water source area of Huangpu River in Shanghai City.

With the support of HSBC Climate Partnership China Programme, the wetland restoration engineering team of Nanjing University conducted a systematic and detailed survey in sense of the ecological environment, social economy and natural geography in Shanghai Dalian Lake, the area where the programme will be launched and its surrounding area in July 2008, and prepared the *Feasibility Study Report on Science & Technology Demonstration Programme for Shanghai Dalian Lake Wetland Restoration*. On such basis, with the vigorous supports of Shanghai Lake Construction and Development Co., Ltd. (formerly Shanghai Dianshan Lake Development Co., Ltd.) and Shanghai Administration for Afforestation and City Appearance, the wetland restoration engineering team of Nanjing University completed the *Protection Planning for Wetland Restoration and Water Source Area in Shanghai Dalian Lake* (2000 mu^①), *Construction Scheme design for Shanghai Dalian Lake Wetland Restoration* (625mu), and *Shanghai Dalian Lake Wetland Restoration Engineering Based on Community Participation* (150 mu). Among which, the first two were sponsored by Shanghai Municipal Development & Reform Commission and were almost completed; the last one was sponsored by WWF; which is the first “tough” subject in the field of engineering in the sponsorship history of WWF.

With the active collaboration and assistance of the relevant departments of Shanghai Municipality, Qingpu District Government and its related organizations, the 150 mu wetland restoration engineering has achieved satisfactory results. The acceptance & summary conference was convened in September 2010. At that time, the “Water Source Area Forum” was held in WWF exhibition hall of Shanghai Expo., which was highly acclaimed by the leaders and experts of State Forestry Administration, State Water Resources Administration, Ministry of Environmental Protection and relevant departments of Shanghai Municipal

Government. The senior experts of WWF International, WWF Britain, WWF China, HSBC and the external senior assessment experts were respectively invited to visit the construction field and make the field monitoring during the construction period; after hearing reports, a experts recognized and commented the project highly, and thought that the project was a example for the ecological rehabilitation of water resource area in megalopolis, and it was leading in the world and had the far-reaching significance.

This book is compiled on the basis of the above projects. This book provides a detailed description for every stage of the wetland restoration project, including the wetland background investigation, overall planning of wetland rehabilitation, detailed design, project construction, tracking, monitoring and assessment of engineering results. Upon the living example of Shanghai Dalian Lake Wetland restoration project, the book furnishes the first-hand data for the wetland restoration project construction and provides a complete and integral narration for the overall implementation process of the wetland restoration project. This book can be used as the reference for the similar wetland restoration project in future.

Shuqing An

December 2013