14th International Living Lakes Conference

Lakes in Densely Populated Regions

Balance between People and Nature

CONTENTS

Information

Information about the Conference

Distinguished leaders and delegates:

Welcome to attend the 14th World Living Lakes Conference. In order to have a safe, happy and convenient stay during the conference, please pay attention to the following information:

1 Timetable

Breakfast: 7:00-8:00

Meeting in the morning: 9:00-12:00

Lunch: 12:00-14:00

Meeting in the afternoon: 14:00-19:00

Dinner: 19:00-20:00

Remark: because of the different arrangement of meeting and activities, whichever is <Programme of the 14th World Living Lakes Conference >.

2 Dining place

18th	Lunch	Xinnanxuan, 4th Floor, Ruiyi Hotel
	Dinner	
19th	Breakfast	Jiang Pan Cafe, 2nd Floor, Ruiyi Hotel
	Lunch	Xinnanxuan, 4th Floor, Ruiyi Hotel
	Dinner	No 1 Dinning Room, 4th Floor, Ruiyi Hotel
20th	Breakfast	2nd Floor, Jiang Pan Cafe, Ruiyi Hotel
	Lunch	BinJiang Hotel
	Dinner	Xinnanxuan, 4th Floor, Ruiyi Hotel
21th	Breakfast	Jiang Pan Cafe, 2nd Floor, Ruiyi Hotel
	Lunch	Xinnanxuan, 4th Floor, Ruiyi Hotel
	Dinner	Xinnanxuan, 4th Floor, Ruiyi Hotel
22th	Breakfast	Jiang Pan Cafe, 2nd Floor, Ruiyi Hotel

	Lunch	Hongyun Hall, 3rd Floor, Raozhou Hotel
	Dinner party	Raozhou Hall, 4th Floor, New Building
23th	Breakfast	Vienna Restaurant, 2nd floor, Raozhou Hotel
	Lunch	Hongyun Hall, 3rd Floor, Raozhou Hotel
	Dinner	Hongyun Hall, 3rd Floor, Raozhou Hotel
24th	Breakfast	Xinnanxuan, 4th Floor, Ruiyi Hotel

3 Meeting services, phone numbers and other contact ways you may need

3.1 Meeting services

Enquiry desk and information bulletin are set in the Lobby of the Hotel to provide you with meeting services. Please pay attention to relevant announcement of meeting information on the bulletin.

3.2 Telephone numbers and other contact ways you may need

(1) when in Nanchang:

Secretariat:	room No.: 3215	phone number: 0791-87777777-3215
	roomNo.: 3216	phone number: 0791-87777777-3216
Medical service:	roomNo.: 3207	phone number: 0791-87777777-3207

(2) when in Poyang:

Secretariat:	room No.: 601	phone number: 0793-6219999-8601
Medical service:	room No.: 602	phone number: 0793-6219999-8602

3.3 Contact and telephone numbers in emergency

Chen Kui	Telephone number: 13970861668
Liao Guochao	Telephone number: 18970068745
Mao Yuting	Telephone number: 13517089527

3.4 The hotel address and phone numbers you may need

(1) Ruiyi Hotel: 69 Yanjiang Bei Road, Donghu, Nanchang City, Jiangxi Province

A. Telephone exchange: 0791-87777777

Fax number: 0791-87777778

Reception: 0791-87777777-8116

B. Phone number of room service: dial "0"

C. How to use the telephone:

a. Between rooms, dial"7+room number";

b. When calling the room from outside lines, dial "0086-791-87777777" , the operator will exchange the line to your room;

(2) Raozhou Hotel: Jingyunan Rd., Poyang county, Jiangxi Province

A. Telephone exchange: 0793-6219999

Fax number: 0793-6205353

Reception: 0793-6219999

B. Phone number of room service: dial "0";

C. How to use the telephone:

a. Between rooms where under floor 9, dial"8", where over floor 9, dial the room number directly;

b. When calling the room from outside lines, call the switchboard and ask for the room.

4 Attention

1) Please wear the Meeting Card during the conference for your convenience to attend the conference, have meals and other relevant activities; Please keep your Meeting Card safely.

2) Rooms of all the delegates are arranged uniformly. In order to keep contact smoothly, please do not change rooms by yourselves.

3) Please set your mobile phone at quiet, vibration or off state when the meeting is ongoing.

4) After the meeting, the delegates are required to return the room cards to the Reception before departure from the hotel.

5) Please contact the secretariat if you need Muslim's meals.

6) The delegates themselves shall pay such expenses as telephone call and laundry services occurred in the hotel; please contact the room service center of the hotel if you need the local and long-distance call services.

7) Please go to the secretariat of the conference for ticket-booking after your returning time and train or flight number are fixed The deadline for booking service is 18:00 on November 21, 2014; You can also book ticket in the Business Center on the first floor of the Hotel. Telephone number: 0791-87777777-8288.

8) Seeing-off services to the airports/train stations will be provided to the delegates invited by the Conference. For those delegates who need seeing-off services, please register with

the secretariat of the conference; or you can also register taxi booking with the Service Center of the Hotel, with the taxi expenses paid by yourself.

9) Other matters for attention:

1) The delegates are required to attend the Conference on time;

2) Please keep your documents and personal things safely;

3) Any comments and suggestions for the Conference are welcome.

5 Weather

南昌天气预报

周二 18日	多云转阴	16℃/10℃	无持续风向	微风
周三 19日	多云	16℃/ 9℃	无持续风向	微风
周四 20日	多云	19℃/10℃	无持续风向	微风
周五 21日	多云	20℃/10℃	无持续风向	微风
周六 22日	多云转小雨	19℃/13℃	无持续风向	微风
周日 23日	阴转小雨	20℃/13℃	无持续风向	微风
周一 24日	中雨转小雨	17℃/14℃	无持续风向	微风

鄱阳天气预报

周六 22日	阴转中雨	21℃/13℃	无持续风向	微风
周日 23日	阴转小雨	20℃/13℃	无持续风向	微风

Hope you have a good stay!

Secretariat of Conference

会 议 须 知

各位领导、各位代表：

欢迎您来参加第十四届世界生命湖泊大会，为了您在会议期间的安全、愉快和方便，请您了解下述事项：

一、作 息 时 间

早　餐：　7：00-8：00

上午活动：9：00-12：00

午　餐：　12：00-14：00

下午活动：14：00-19：00

晚　餐：　19：00-20：00

备注：由于各次会议和活动的安排不一，具体请按照《第十四届世界生命湖泊大会日程安排》为准。

二、用餐地点

19 日	早餐	瑞颐大酒店二楼江畔咖啡厅
	中餐	瑞颐大酒店四楼新南轩中餐厅
	晚餐	（工作叙餐会）四楼豪华宴会厅Ⅰ厅
20 日	早餐	瑞颐大酒店二楼江畔咖啡厅
	中餐	瑞颐大酒店四楼新南轩中餐厅
	晚餐	
21 日	早餐	瑞颐大酒店二楼江畔咖啡厅
	中餐	瑞颐大酒店四楼新南轩中餐厅
	晚餐	
22 日	早餐	瑞颐大酒店二楼江畔咖啡厅
	中餐	瑞颐大酒店四楼新南轩中餐厅

备注：请用餐时携带好会议餐券，及时到就餐地点用餐。

三、会务、常用电话及其它有关信息

1、大会组委会在酒店大厅设置问讯处和信息发布公告栏，为您提供会务信息问讯，并敬请关注公告栏相关会议信息发布；19 日上午、20 日全天、21 日上午、22 日乘车（车号）的安排，请于当天出发前在酒店一楼大厅信息公告栏查询。

2、常用电话及其他联络方式：

（1）在南昌期间：

秘书组	房间号：3215	电话：0791-87777777-3215
	房间号：3216	电话：0791-87777777-3216
医疗组	房间号：3207	电话：0791-87777777-3207

（2）在饶州饭店期间：

会务组	房间号：601	电话：0793-6219999-8601
医疗组	房间号：602	电话：0793-6219999-8602

3、紧急联系人、联系电话：

陈 葵	电话：13970861668
廖国朝	电话：18970068745
毛玉婷	电话：13517089527

4、酒店地址及常用电话：

(1)您在南昌下榻的瑞颐大酒店，位于江西省南昌市东湖区沿江北路 69 号。

A. 总机电话：0791-87777777

传真电话：0791-87777778

前台电话：0791-87777777-8116

B. 服务中心电话：客房拨“0 ”或 87777777 转服务中心；

C. 电话使用办法：

a. 房间之间电话互拨时，拨“7+房间号码”；

b. 外线给房间打电话时，通过总机转房间号码；

（2）您在鄱阳下榻的饶洲饭店，位于江西省鄱阳县政府行政区锦宇大道南。

A. 电话总机：0793-6219999

电话传真：0793-6205353

服务总台：0793-6219999

B. 代表客服电话：拨“0”；

C. 电话使用办法：

a. 房间之间电话互拨时，九楼以下至九楼前面加拨“8”在直接拨打房间号码，十楼以上直接拨打房间号码。

b. 外线给房间打电话时，通过总机转房间号码。

四、注意事项

1、会议期间请您佩戴组委会制发的证件，以方便您参加会议、就餐和参加相关活动；证件请妥善保管。

2、会议代表住房由会务组统一安排，请勿自行调换。

3、会议进行中请将手机设置为振动或关闭状态，并请勿在会场外喧哗。

4、会议结束后，请代表离馆时将房卡交到宾馆总台。

5、如有需要清真餐饮者，请与会务组联系。

6、会议期间代表在宾馆内发生的电话费、洗衣费等自理；如需开通长途电话，请与会务组联系，费用自理。

7、与会人员确定返程时间及车次和航班后，请于 2014 年 11 月 21 日晚 18：00 前到会务组办理备案或办理代订手续；也可在宾馆一楼大厅办理代订手续，联系电话：0791-87777777-8288。

8、组委会将根据掌握的离会时间，统一安排送机（站）服务；代表也可以与宾馆客房服务中心办理出租车预定手续，出租车费用自理。

9、其它注意事项：

（1）请各位代表按时参加会议；

（2）请您妥善保管好您的文件和个人物品；

（3）欢迎您对大会提出宝贵意见和建议。

祝您在会议期间生活愉快！

会议秘书处

Programme of 14th Living Lakes Conference

Pre-Programme

TUESDAY，18th NOVEMBER 2014 – Arrival Day	
	Arrival at Nanchang
19.00	Dinner
WEDNESDAY，19th NOVEMBER 2014 – Field Trip Day	
07.00 – 09.00	Breakfast
08.30 – 09.00	Bus Transfer to the Jiangxi Academy of Science
09.00 – 11.30	**Visit to Jiangxi Academy of Sciences incl. Working Groups** *Introduction by the academy laed: Prof. Xiaohong Wang.* **Parallel Workshops in Jiangxi Academy of Sciences with participation of Chinese Scientists** o Constructed Wetlands, Green Filters and other low cost water treatment technologies, at the Poyang Lake Research Centre. (*U. Gattenloehner, A. Guillem, F. Valderrama*) o Renewable Energy Villages, at the Institute of Energy. (*M. Hammerl, T. Koerner*) o Living Lakes Applied Science Information Platform, at the Institute of Scientific Strategy. (*T. Schaefer, A. Maasri, A. Salki*) o Water and biodiversity performance in agricultural production, at the Institute of biological Resources and Microbiology.(*A. Venter, K. Trump*)

12.00 – 14.00	Lunch Break
14.00 – 16.30	**Programme for all Conference Delegates** o Guided walk to Nanchang & Free Time o Visit of Jiangxi Normal University o Visit of Nanchang University **GNF & Living Lakes Project Team Meetings** o Mangrove Project Team Meeting (*K. Trump*) o EU Horizon 2020 for Project Team Meeting (*U. Gattenloehner*) o Living Lakes Sub-Networks Meeting (*T. Schaefer*) o Business & Biodiversity meeting (*M. Hammerl*)
18.00	Welcome Dinner

Conference Programme

THURSDAY, 20th NOVEMBER 2014 – Conference Day 1 *Nanchang BinJiang Hotel*	
07.00 – 08.00	Breakfast
08.00 – 09.00	Chinese Participants Registration (will be continued during the day)
08.30 – 09.00	Provincial Governor Meeting (by invitation only)
09.00 - 09.30	Opening of the 14th World Living Lakes Conference **"Lakes in densely populated regions: Balance between people and nature"** Moderator: *Zheng Weiwen*, Deputy Director of the Jiangxi

	Provincial Government o ***Lu Xinshe***, President of the Jiangxi Provincial Government o ***Deputy Director,*** Ministry of Science & Technology, China o ***Marion Hammerl***, President of GNF o ***Chris Perceval***, Head of Strategy & Partnerships, Ramsar Convention
09.30 – 10.15	Group Photo and Break
10.15 - 12.00	**Keynote Presentations: Lake protection in densely populated areas** Moderator: Dr Andrew Venter, Wildlands Trust, South Africa o ***Prof Dr Meng Wei***, Chinese Academy of Engineering, China o ***Prof Dr Manfred Niekisch***, IUCN, GNF, Member of the Council of Environmental Experts of the German Government, Germany o ***Dr Thomas Chiramba***, Chief Freshwater & Ecosystems, UNEP, Kenya
12.00 - 13.30	Lunch
13.30 – 15.00	**Session 1: Sustainable management of riparian Lake Communities with a special focus on lake protection** Moderator: Udo Gattenlöhner, Global Nature Fund Speakers o *Dr Thomas Schaefer*, Network Living Lakes Germany o *Prof Hu Zhenpeng*, Former Vice-President of Jiangxi Provincial Government, China

	o *Zhu Laiyou*, Jiangxi Water Resource Department o *Alexander Salki*, Network Living Lakes Canada
15.00 – 16.30	**Session 2: Pollution in Lake Areas - Control, Precaution and Resilience** Moderator: Prof Xingzhao Dai, MRLSD, China Speakers o *Zhang Liming*, Water Pollution Prevention and Control Office, Taihu Lake, China o *Bobby Azores*, Friends of Seven Lakes Foundation, Lake Sampaloc, Philippines o *Prof Wei Yuansong*, Jiangxi Academy of Science, Poyang Lake, China o *Felipe Valderrama*, Fundación Humedales, Laguna Fúquene, Colombia
16.30 – 17.00	Coffee Break
17.00 - 18.30	**Session 3: Biodiversity and Wetland Protection - Conflict of land demand between people and nature** Moderator: Chris Perceval, Ramsar Convention Speakers o *Ma Guangren*, Wetland Conservation Management Center, State Forestry Administration of China o *Antonio Guillem*, Fundacion Global Nature Spain, Albufera Lagoon Valencia, Spain o *Ma Chao De*, United Nations Development Programme China Office o *Nancy Haddaden*, Friends of the Earth Middle East, Dead Sea, Israel, Jordan, Palestine

19.00	Dinner
FRIDAY，21st NOVEMBER 2014 – Conference Day 2 *Qian Hu Hotel Nanchang/ Ruiyi Swiss International Hotel Nanchang*	
07.00 – 09.00	Breakfast
08.00 – 08.30	Bus Transfer to Qian Hu Hotel (Venue of the Day)
09.00 – 12.00	**Opening and Summit Forum of the World Low Carbon and Eco-economy Conference**
12.00 – 13.30	Lunch
13.30 - 14.30	**Session 4: Lakes and sustainable tourism development** Moderator: Lennie Santos Borja, LLDA, Laguna de Bay, Philippines Speakers o *Kerstin Fröhle*, Lake Constance Foundation, Germany o *Ren Wenwei*, WWF China o *Zita Egerszegi*, Lake Balaton Development Coordination Agency, Hungary
14.30 – 16.30	**Parallel Workshops**
	Workshop 1: Lake communities and land use planning, Management of informal settlements at lake shores Moderator: Dr Alain Maasri, Global Nature Fund Prof. Wang Yeqiao, Poyang Lake Laboratory, Jiangxi Normal University *Input from:* o *Emmanuel Nshimirimana*, Biraturaba, Lake Tanganjika, Burundi

	o *Prof. Zhang Qiang*, Zhong Shan University, China o *Premanjali Rao*, Pulicat Lagoon, India o *Prof. Zhang Qi*, Institute of Geography & Limnology, Chinese Academy of Science, Taihu Lake
	Workshop 2: Lake communities and climate change: Mitigation and adaptation strategies and measures Moderator: Dr. Andrew Venter, South Africa Rong Jun, Poyang Lake Laboratory, Nanchang University, China *Input from:* o *Estuardo Girón*, Vivamos Mejor, Lago Atitlán, Guatemala o *Prof. Jin Binsong*, Nanchang University, China o *Prof. Yin Jianmin*, Jiangxi Meteorology Bureau o *Dr. Jiao Chunmeng*, Lake Biwa, Japan
	Workshop 3: Lakes and their recreational value Moderator: Marion Hammerl, Lake Constance Foundation, Germany Prof. Xu Ligang, Chinese Academy of Science, China *Input from:* o *Badral Yondon*, Lake Hovsgol, Mongolia o *Rob Rogers*, Head of Construction, Maintenance & Environment, Broads Authority, England (UK) o *Liao Guochao*, MRLSD, Lake Poyang, China o *Yao Zhong*, Jiangxi Academy of Sciences
	Workshop 4: How Business can support the protection of

	lakes and wetland and their valuable ecosystem-services Moderator: Dr Thomas Schaefer, Global Nature Fund Ren Wenwei, WWF China *Input from:* o *Huang Haoming*, China Association for Non-Governmental Cooperation (CANGO), China o *Amy Lecciones*, Society for the protection of Philippine Wetlands, Philippines o *Liao Zhiming*, Jiangxi Jindalai Environmental Protection Co. Ltd, China o *Zhu Donglin*, Engineering Consultantion Center of Jiangsu Province o *Zhang Yimo*, WWF China
16.30 - 17.00	Coffee Break
17.00 - 18.30	**Short Rapports from the four Workshops** Moderator: Udo Gattenlöhner, Global Nature Fund **Conference Closing Ceremony** incl. Gerhard Thielcke Best Conservation Practice Award Ceremony
19.30	Dinner **Participants are invited to attend in traditional clothes & costumes**

Field Trip and LL Assembly Programme

SATURDAY, 22nd NOVEMBER 2014 – Guided Tour to Poyang Ramsar Site	
07.00 – 08.00	Breakfast and preparation for departure
08.00	Departure from Nanchang City
08.00 – 10.30	Bus trip from Nanchang City to Poyang City
10.30 – 12.00	**Field Trip to Poyang Lake - Eco-environmental Protection Project Sites in rural areas of the Poyang County**
12.00 – 14.00	Hotel Check-in and Lunch
14.00 – 18.00	Field trip to the Poyang Lake and the National Wetland Park of Poyang Lake
20:00	Dinner and Living Lakes Festivity
SUNDAY, 23rd NOVEMBER 2014 - Living Lakes Members Assembly	
07.00 – 08.30	Breakfast
09.00 – 13.00	**Living Lakes Assembly Part 1 & Working Groups** (detailed programme will be provided to all delegates) *Conference Facilities in the National Wetland Park* Moderator: Dr Alain Maasri, Global Nature Fund
13.00 – 14.00	Lunch
14.00 – 17.00	**Living Lakes Assembly Part 2 & Working Groups** (detailed programme will be provided to all delegates)

17.00 – 18.00	Dinner
18.00	Return to Nanchang and Check in
MONDAY, 24th NOVEMBER 2014 – DEPARTURE	
7.00 – 9.00	Breakfast and Departure

第十四届生命湖泊大会会议议程

星期三，2014 年 11 月 19 日 – 代表抵达	
	省外代表报到注册
18:00	晚餐
星期四，2014 年 11 月 20 日 – 大会第一天（地点：滨江宾馆大会堂）	
07:00 – 08:00	早餐
08:00 – 09:00	省内代表报到注册
08:30 – 09:00	**鹿心社省长会见部分国外嘉宾**
09:00 – 09:30	**第十四届世界生命湖泊大会开幕式及高峰论坛** 主持人：郑为文, 江西省人民政府副省长 o 江西省人民政府鹿心社省长致辞 o 科技部副部长致辞 o 全球自然基金会主席 Marion Hammerl 女士致辞 o Ramsar 国际湿地公约组织战略部部长 Chris Perceval 致辞
09:30 - 10:15	合影、茶歇

10:15 - 12:00	**主旨报告：城镇化与湖泊保护** 主持人：Dr.Andrew Venter, 南非野生动物保护基金会主席 o 孟伟院士, 中国工程院 o Prof. Dr. Manfred Niekisch 教授, 国际自然保护联盟（IUCN）、德国环境专家委员会成员 o Dr Thomas Chiramba, UNEP 淡水及生态系统部主任
12:00 - 13:30	午餐
13:30 - 18:30	**专题研讨会**
13:30 - 15:00	**专题研讨会 1：湖区城乡统筹与可持续发展** 主持人： Udo Gattenlöhner , 全球自然基金会执行秘书长 发言人： o Dr. Thomas Schaefer, 德国生命湖泊网 o 胡振鹏教授,江西省人大常委会原副主任 o 朱来友, 江西省水利厅副厅长 o Alexander Salki, 加拿大生命湖泊网
15:00 - 16:30	**专题研讨会 2：湖区污染控制、预防和恢复** 主持人：戴星照研究员, 江西山江湖可持续发展促进会 发言人： o 张利民研究员, 江苏太湖水污染防治办公室副主任, 太湖 o Bobby Azores, Friends of Seven Lakes Foundation, 菲律宾 Sampaloc 湖 o 魏源送研究员, 中国科学院/江西省科学院 o Felipe Valderrama,哥伦比亚 Laguna Fúquene 湖
16:30 - 17:00	茶歇

17:00 - 18:30	**专题研讨会 3：生物多样性和湿地保护** 主持人：Chris Perceval, Ramsar 国际湿地公约组织战略合作部部长 发言人： o 马广仁, 国家林业局湿地中心主任 o Antonio Guillem, 西班牙自然基金会 o 马超德博士, 联合国开发计划署驻华代表处能源与环境处项目经理 o Nancy Haddaden, 中东地球之友, 死海, 以色列, 约旦, 巴基斯坦
19:00	晚餐
星期五，2014 年 11 月 21 日 – 大会第二天	
07:00 – 09:00	早餐
09:00 – 12:00	**参加第三届世界低碳生态博览会开幕式暨高峰论坛**（国外和部分省外代表，地点：前湖迎宾馆）
12:00 - 13:30	午餐
13:30 - 18:30	**专题研讨会、平行研讨会、闭幕式**（地点：瑞颐大酒店）
13:30 - 14:30	**专题研讨会 4：湖区可持续经济发展** 主持人：Lennie Santos Borja , 菲律宾 Laguna 流域管理局 发言人： o Kerstin Fröhle, 德国康茨坦斯湖基金会 o 任文伟, 世界自然基金会上海中心主任 o Zita Egerszegi, 匈牙利巴拉顿湖流域管理局
14:30 – 16:30	**湖泊大会平行研讨会**

	研讨会 1：湖区土地利用规划与湖泊保护 主持人：Dr.Alain Maasri, 全球自然基金会 王野乔教授, 江西师范大学鄱阳湖教育部重点实验室 发言人： o Emmanuel Nshimirimana, Biraturaba, 布隆迪 Tanganjika 湖 o 张强教授, 中山大学 o Premanjali Rao, 印度 Pulicat Lagoon 湖 o 张奇教授, 中国科学院地理湖泊研究所
	研讨会 2：湖区气候变化与湖泊保护 主持人：Dr.Andrew Venter, 南非野生动物保护基金会 戎俊教授, 南昌大学鄱阳湖重点实验室 发言人： o Estuardo Girón, Vivamos Mejor, 阿蒂特兰湖, 危地马拉 o 金斌松教授, 南昌大学 o 殷剑敏研究员, 江西省气象局 o 焦春萌教授, 日本琵琶湖
	研讨会 3：湖区生态旅游与湖泊保护 主持人：Marion Hammerl, 全球自然基金主席 徐力刚, 江西省科学院 发言人： o Badral Yondon, 蒙古库苏古尔湖 o Rob Roger, 英国环境重建与维护总部 o 廖国朝, 江西山江湖可持续发展促进会 o 姚忠, 江西省科学院

	研讨会 4：企业参与与湖泊保护 主持人：Dr. Thomas Schaefer, 全球自然基金会 任文伟, WWF 世界自然基金会上海中心主任 发言人： o 黄浩明, 中国国际民间组织促进会 o Amy Lecciones, 菲律宾湿地保护协会 o 廖志明, 江西金达莱环保有限公司董事长 o 祝栋林, 江苏省工程咨询中心总师助理 o 张亦默, 世界自然基金会北京代表处战略开发经理
16:30 - 17:00	茶歇
17:00 - 18:30	研讨会总结回顾 主持人：Udo Gattenlöhner, 全球自然基金 **大会闭幕式及最佳湖泊保护实践奖颁奖**
19:30	晚餐
星期六，2014 年 11 月 22 日 – 大会第三天 – 国外代表考察鄱阳湖	
07:00 - 08:00	早餐
08:00 - 12:30	**南昌乘车前往鄱阳县，实地考察鄱阳县农村生态环境保护项目示范点**
12:00 - 14:00	午餐, 宾馆入住
14:00 - 18:30	**乘船考察鄱阳湖和鄱阳县国家湿地公园**
20:00	晚餐、晚会
星期日，2014 年 11 月 23 日 – 大会第四天 –湖泊网内部会议	
07:00 - 08:30	早餐

09:00 - 13:00	**生命湖泊网内部会议**
13:00 - 14:00	午餐
14:00 - 17:00	**生命湖泊网内部会议**
17:00 - 18:00	晚餐
18:00	返回南昌
星期一，2014 年 11 月 24 日 – 大会第五天 – 代表离赣	

Available speaker's abstracts

会议主要发言摘要

Plans of lake protection action in China

Prof. Wei Meng

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Capsule

There has been lake protection plan for long time by Chinese government, which can be divided into three sections in general. The first stage is the investigation stage, since the founding of China to 1990s. The second stage is the key watershed protection and control, from the ninth five-year plan. The third stage is to comprehensively promote phase since 2008 to the present.

Summary of presentation

The lakes in China are numerous, diverse, widely distributed. At present, more than 1.0 km^2 of the country's natural lakes are a total of 2693, a total area of 81414.6 km^2, accounting for about 0.9% of the national territory; The number of lake is 2000 , area in 1.0 ~ 10.0 km^2、 10.0 ~ 50.0 km^2 of 456, 50.0 ~ 100.0 km^2 of 101, 100.0 ~ 500.0 km^2 of 109, 500.0 ~ 1000.0 km^2 of 17, more than 1000.0 km^2 of 10. The country's largest saltwater lake is Qinghai Lake, and the largest freshwater lake is Poyang Lake. The largest number of lakes and the largest lakes are the Qinghai Tibet Plateau Lake region, accounting for 39.2% of the total number of the country's lakes and 51.4% of the total area.

There has been lake protection plan for long time by Chinese government as the important land resources, which can be divided into three sections in general. The first stage for the investigation stage, since the founding of China to 1990s, the Chinese government focused on investigation, research and technology demonstration for lakes, diagnosis including lake resources survey and investigation of lake eutrophication, *etc*. Its objectives are clearing base information and finding problems. Lake protection technology demonstration has been implemented from the national level, and the local government also has carried out the protection action, such as the West Lake in Hangzhou, Xuanwu Lake in Nanjing and the lakes in Wuhan etc. The second stage is the key watershed protection and control, from the ninth five-year plan, the Taihu Lake, Dianchi Lake and Chaohu Lake as the key objects have been implemented by central government during the key lake watershed protection plan, and the local government also has implemented protection action plan for some other lakes. The third stage is comprehensively promoting phase since 2008 to the present. Series of lake protection plans have been implemented by China, including the ecological safety survey and evaluation for key lakes, national significant special water body contamination control and treatment, the special protection plan for lakes in good ecological state *etc*. The local governments also have implemented other lake protection action plans.

Resume

Wei Meng, academician of Chinese Academy of Engineering as the expert of water pollution control, is the president of Chinese Research Academy of Environmental Sciences. He made his PhD of environmental sciences in Ocean University of China. His research interest focuses on water pollution control, and water environment protection. He has completed many projects mading great contribution to the total quantity control of water pollutants and key watershed environment quality assessment, especially promoting the water protection model from the simply water quality protection to the protection of

both water quality and water ecology, and proposing the management technique system for water quality protection by objectives.

One of the biggest threats to lakes: reactive nitrogen

Prof. Dr. Manfred Niekisch

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Capsule

The enormous overload of soils and waters with nitrogen,as a third hottest issue, could lead to eutrophication and acidification in soils, but it still has long been ignored. The Living Lakes Network could develop locally, nationally and internationally the urgently needed strategies and measures against this enormous threat to the environment and to human health.

Summary of presentation

The loss of biodiversity and the effects of climate change are the two hottest issues when we talk about priorities for nature conservation today: But there is a third one which is at least as problematic as the other two and there is still neither nationally nor internationally any strategy or convention, not even an institution dealing effectively with it. It is the enormous overload of soils and waters with nitrogen. Of course nitrogen is an essential part of the globe's nutrient cycle; it is an indispensable part of our air and of proteins. A life on earth without nitrogen is impossible. But nitrogen appears in many forms and chemical combinations, and the reactive nitrogen which is for example used in fertilizers for agriculture is a very big problem, no matter if it comes under the

form of artificial mineral fertilizer or as dung stemming from the cattle and pig industry. It is leading to eutrophication and acidification in the soils where it is directly applied and transported via air and rivers to areas far from where it was intended to be beneficial to agricultural production. Indeed, there are studies suggesting that the negative impacts of climate change will be less heavy and easier to handle than those of the overload of nitrogen. The Baltic Sea in North Eastern Europe is a good example for this. Despite all efforts to make it a little bit cleaner, it still receives lots of nitrogen via the rivers from the areas of intensive agricultural production and from areas with high numbers of cattle. Large parts of the Baltic Sea have not enough oxygen to support life in the water, the water body of major portions of the Baltic Sea is dead.

Lakes are under threat by eutrophication and acidification from the overload of nitrogen and it is very difficult to combat this enormous threat to the water quality and biodiversity of lakes. Of course buffer zones could be established around lakes to limit the direct input of fertilizers, but in most cases the nitrogen stems from areas far away and is brought in by rivers and via air. In Germany and in the European region there are plans to establish strategies and regulations for the limitation of reactive nitrogen and for the application of fertilizer and/or to to improve existing ones, but we are far from seeing enough initiative in this field. Main reasons for this lack of initiative are that the nitrogen problem is very complex and that competencies are spilt among many different authorities. Given that reactive nitrogen also bears risks for human health it is a issue that has to be dealt with urgently. The Living Lakes Network is certainly an appropriate and competent global network which can, based on the examples and experiences of our lake members, develop locally, nationally and internationally the urgently needed strategies and measures against this enormous threat to the environment and to human health.

Resume

Manfred Niekisch is biologist and has been the Director of Frankfurt Zoo since 2008. He has been actively involved in international conservation work since 1980, initially with WWF and later with The Tropical Forest Foundation Oro Verde. In 2010 he became Professor of International Nature Conservation at the Goethe University of Frankfurt (Germany) after teaching and researching at the University of Greifswald (Germany) in the same position for 10 years. He also is lecturer at both the University of Hanoi (Vietnam) and the Universidad Internacional de Andalucía (Spain). At the World Conservation Congress in 2004 he was re-elected as Regional Councillor of the World Conservation Union, IUCN. For the same organisation he chaired the Programme and Policy Committee, serving for the maximum possible two terms. He has produced more than 100 publications. Some of these deal with topics related to the history of scientific writing and herpetology but most with his main area of expertise which is the conservation of biological diversity and corresponding aspects of development policy. He is also co- editor of the Journal for Nature Conservation. In 2012 was appointed for the second time to the German Advisory Council on the Environment (SRU), a consultative committee to the Federal Government of Germany. Geographically, the focus of both his scientific and practical conservation work lies in developing countries in tropical regions, especially Latin America and Vietnam.

Disseminating mission and vision of Living Lakes in Germany

Dr. Thomas Schaefer

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Capsule

Living Lakes Germany is an appropriate model for the dissemination of Living lakes goals on a national scale. Some 20 lake partners and organizations share

experience, exchange ideas, have common projects, and form an entity for lake management in Germany.

Summary of presentation

Founded in 2009 Living Lakes Germany developed quickly to an extend of so far 12 partner organizations at lakes, 4 candidates and several associations, such as Institute of Lake Science, German Association of Sports Divers, Green League, the City of Friedrichshafen and Association for the Protection of Waters Germany. Opening the network for these organizations provide substantial added value to the partners, as the scope of shared information stretches to all issues related with lake management.

Living Lakes Germany is currently coordinated by the Global Nature Fund Radolfzell office, granted by the Anton und Petra Ehrmann Stiftung. Biannual meetings at varying locations offer a platform to get to know each other, for regular exchange and strategic planning. Meetings include talks and controversial discussions, field trips and site visits, and also inaugurations e.g. of official projects. These gatherings foster a vivid intercommunication between partners with similar interests. One mayor instrument for public awareness is the Living Lake of the year, which is presented on UN waters day, March 22th,. Partners on one hand use this title for local purposes e.g. as a special occasion to include officials and opposing stakeholders. On the national level the title gives some publicity to the network itself and helps to focus on lake protection as an important issue.

Fostering common projects are a major interest of Global Nature Fund as this provide added value to partners apart of meeting and sharing experience. German grant schemes and foundations are approached for this purpose. Currently three common projects are carried out with varying partners. On the European level, we include the Living Lakes Germany into activities of the European Living lakes Partnership and pan-European exchange projects.

Regular feedback and involvement of partners in strategic issues of the network is one important approach to create ownership of the partners and to keep the network running.

Resume

Thomas Schaefer studied Biology in Göttingen. Germany and Barcelona, Spain and made his PhD at the Max-Planck-Institute of Ornithology. Having worked in conservation and ecological science for 10 years, he changed to Friends of the Earth Germany's office at Lake Constance as a manager and handyman for practical conservation, education and environmental policies issues. Starting in 2012 he is responsible for developing conservation and education projects in the GNF and with Living Lakes partners. He is member in several boards environmental organizations in Germany and delegate of Friends of the Earth Germany.

The construction of Lake Poyang ecological economic region

Prof. Zhenpeng Hu

Jiangxi College of Applied Sciences

Capsule

Some suggestions for the construction of Lake Poyang ecological economic region were proposed, including developing efficient ecological agriculture, carrying out cyclical economy and developing actively "venous industry".

Summary of presentation

Some suggestions for the construction of Lake Poyang ecological economic region were proposed as follows: (1) developing efficient ecological agriculture, such as the model of grass-livestock-biogas-fruit, the ecological aquaculture in pond; (2) developing circular economy, that is, to build a sound management system of resource saving, and to optimise the product chain of the circular

economy; (3) developing “venous industry”, by promoting scientific, civil and healthy consumptive patterns, constructing the system of waste centralized, sorted and circulation treatment, and encouraging the whole society to use the products of cyclic economy.

Resume

Zhenpeng Hu is the president of Jiangxi college of applied science and technology, and is also the adjunct professor of Zhejiang University, Tianjin University, Wuhan University and Nanchang University. His research interest is hydro-engineering, water resource management, system engineering, decision theory and technical economy. He has completed more than ten projects including Chinese Nature Science Foundation, Social Science Foundation and provincial scientific research projects. Additionally, he has published more than sixty academic papers.

Sustainable management of land-water interface zones by Living Lakes Canada members

Dr. Alex Salki

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Capsule

Efforts of Living Lakes Canada members to develop and implement tools to improve and sustainably manage riparian zone and wetland areas in southern regions of Canada will be presented. Strategies and projects under development to address national and regional scale water/habitat quality deterioration are also presented. Increasingly recognized is the need to have all social, economic and

environmental sectors collaboratively engaged in the stewardship of natural ecosystems if their sustainability is to be achieved.

Summary of presentatio

Surface water quality management has relied primarily on the control of phosphorus from point sources. When extensive algal blooms first appeared on the Great Lakes of North America threatening water uses for millions of people and the survival of native fish communities, researchers determined that the phosphorus in detergents and human wastes was responsible. Legislation regulating phosphorus in point sources led to water quality improvement in the Great Lakes basin. The recent resurgence of algal blooms in Lake Erie demonstrates the pressing need to control phosphorus loading from diffuse sources related to unsustainable land-use practices.

Many Canadian lakes now face a combination of stressors associated with diffuse phosphorus loading that may complicate and delay water quality improvement. Among these, wetland drainage, shoreline modification and climate warming pose major threats to many Canadian lakes. The extensive drainage and removal of prairie potholes and wetlands to facilitate grain production has contributed to the severity and frequency of overland flooding that exacerbates phosphorus loading to lakes. The urban development and modification of lake shorelines and riparian areas has contributed to habitat loss, increased sediment phosphorus loads and reduced biodiversity. Climate warming in central Canada is causing more precipitation and flooding of croplands, and in lakes more toxin producing algal blooms, less habitat for cold water fish and faster spreading of exotic species. The superimposition of these stressors will require critical monitoring of Canadian lakes at levels that may exceed the capacity of responsible agencies.

The founding of Living Lakes Canada in 2010 was a response from citizens concerned with worsening national water quality conditions. It became clear that broad stakeholder collaboration and cooperation was essential for the restoration

of sustainable aquatic communities. LLC has 9 member associations located throughout the 4 major watersheds of Canada (visit LLC at www.livinglakes.ca). Several LLC members have initiated projects aimed at sustainable management of the land-water interface zone. For example, Lake Windermere, BC, has benefited from a Sensitive Habitat Inventory and Mapping study and the Canadian Aquatic Biomonitoring Network program by citizen scientists trained by LLC member Wildsight. Keepers of the Athabasca are monitoring the effects of a coal mine waste spill into tributaries of the Athabasca in northern Alberta. GNF's most threatened lake of 2013, Lake Winnipeg, now has the Lake Winnipeg Foundation 8-point Health Plan to guide a government initiated Lake Friendly Alliance of stakeholders. Netley-Libau Marsh rehabilitation and a Blue Green Algae Monitoring Network are two LWF projects currently underway to address the health and sustainable management of Canadian lakes.

Resume

Alex Salki (BSc, MSc, Manitoba), research biologist, Freshwater Institute, DFO, 39 years, examining human impacts on zooplankton communities in Canadian lakes (Laurentian Great Lakes, Lake Winnipeg, Experimental Lakes Area, others). Lake Winnipeg Research Consortium Science Program Coordinator (2002-2009), Lake Winnipeg Stewardship Board Science Co-chair (2003-2007), Climate Change Connection Steering Committee member (2003-2009). LW Foundation Board 2009 - present as Science Advisory Council Chair. Salki Consultants Inc provides zooplankton taxonomy and ecology expertise to governments, universities and consultants across North America.

Review on water pollution treatment in Lake Taihu

Dr. Limin Zhang

Taihu Lake Water Pollution Prevention and Control, Jiangsu Province, China

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Capsule

Since 2007, Jiangsu Province has implemented the Country Overall Programme and Implement Scheme, which has made significant progress.

Summary of presentation

Lake Taihu is the third largest freshwater lake of China, and the water area is 2338 km^2, with a total basin area of 37,000 km^2, of which Jiangsu Province accounts for more than half. Since the reform and opening up, the Taihu Lake basin has become one of the most economically developed, the highest level of urbanization, the most affluent areas.

However, with the fast propulsion of industrialization and urbanization, ecological imbalance was brought out, and the lake eutrophication had increased seriously. Since 2007, Jiangsu Province has comprehensively implemented the Country Overall Programme and Implement Scheme of Jiangsu Province, and have made significant progress: (1) water quality of the watershed remained stable and up, (2) watershed environmental infrastructure made significant progress, and (3) projects of the plan was on an orderly way. The main approaches are planning in advance, innovative mechanisms and improving institutions. We suggest that strengthening the exchange among management agencies of river and lake at home and abroad, and promoting projects cooperation at different levels and forms.

Resume

Mr. Limin Zhang, born in Nankang city of Jiangxi Province in 1966, Ph. D., researcher, has been a Deputy Director of General Office of Taihu Lake Water Pollution Prevention and Control, Jiangsu Province. He is also a young and middle-aged expert with outstanding contribution of Jiangsu Province and an expert receiving a State allowance. He has finished over 10 key projects of national and provincial level, published several dozen academic papers in core journal and over 10 books in recent years.

Healthy Lakes Toward Sustainable Tourism Development in San Pablo City, Philippines

Dr. Bobby Azores

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Capsule

The Friends of Seven Lakes Foundation (FSLF), a Non-Governmental Organization, has been playing a significant role in supporting the local and national authorities toward the Conservation, Protection, and Rehabilitation (CPR) of the seven crater lakes in the City of San Pablo, Philippines.

Summary of presentation

As far back as early 90's, poor water quality had haunted Sampalok Lake, the city's largest and most popular of the seven lakes. This resulted in frequent fish kills and foul smelling discharge caused by decaying organic matter in the lake. Pinpointed main culprit was the over-crowding of fishcages whose feeding methods, as many studies have shown, served as the major contributor to the pollution of lake waters.

Compounding the problem was the creeping of urbanization in the city, which did not spare the shorelines of Sampalok Lake and the other lakes. Residences of informal settlers, restaurants, and bars along the shoreline mushroomed and aggravated the poor condition of the lake waters. There was no proper waste disposal system implemented and hence, Sampalok Lake was turned into literally one big sewer system. The lake was no longer fit for recreation and even its navigational use was limited.

Cognizant of the seriousness of the problems of the lakes, FSLF was formed in the year 2000. Among others, the FSLF helped the City government and the Laguna Lake Development Authority (LLDA) in creating awareness on the importance of conserving and protecting the lakes. Upon consultations and workshops with the people who are directly occupying the shoreline and dependent on the lakes resources, 50% of the total building structures on the lakeshore was removed and reduction of fishcages was carried out in 2002. Improvement on the water quality was apparent, but unfortunately the complete removal of structures and reduction of fishcages to an acceptable level set by our Law was not pursued. A few years later, the return of informal settlers along the shorelines and building of more fishcages started again.

Today, FSLF continues to take an active role in the City to improve and develop its Tourism potential, which is pearheaded by the Mayor Loreto Amante along with LLDA, the implementing agency in charge of all the lakes in the City. Together with other concerned stakeholders, a Tourism Master Plan is being developed with the vision of turning San Pablo City into "a premier eco-adventure cum histo-cultural tourist destination in the CALABARZON region." The goal is to make tourism a vital instrument of sustainable development in the City, particularly in the aspects of environment and natural resources conservation and rehabilitation, socio-economic development, and preservation of important historical landmarks and cultural heritage. Relative to this, the City is now pushing for the approval of a Zoning Management Plan by LLDA that will rearrange the fish cages and provide ample space for tourism development in the waters of the seven lakes.

Resume

Bobby Azores acquired the Bachelor of Business Administration University of North Texas, USA. He has a rich work experience, and has worked in Board of Trustees since 1997. He has been the president of Fortune Corporation since

1998. Since 1998 to present, he has also been the chairman and founding member of NGO Environmental Protection in Rizal and Laguna successively.

Evolution and Comparison of Indicators Microorganisms Standards for Surface Water

Prof. Yuansong Wei

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Capsule

Effective control of pathogenic microorganism in surface water is of great importance to ensure human health. As an indicator reflecting surface water pollution level, the importance of indicators microorganisms should be paid more attention, and further studies about indicators microorganisms in surface water are imperative.

Summary of presentation

The purpose of this study is to summarize the state of indicators microorganism standards for surface water through literature review. Firstly, this study briefly introduces the evolution of microbiological standards for surface water in different countries and organization, such as USA, EU, China and WHO. And then the characteristics and performance of indicator microorganisms commonly used were summarized in this study, as well as analysis methods of indicator microorganisms. Finally, the trends of indicator microorganisms in surface water were proposed to give some references. In general, bacterial, viruses and protozoa are all used as indicators microorganisms, but they are used for different purposes. Indicator microorganisms of recreational water in USA, EU and WHO had been turned to *E.coli* and *enterococcus*, while it only experienced

change from *total coliform* to *fecal coliform* in China. Culture and molecular biological methods are the main analysis methods of pathogen in surface water, and the molecular biological method is more convenient and quicker than the widely used culture method, but its difficulty in docking with the corresponding standards limits its application.

Resume

Yuansong Wei works in Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. He earned PhD of Environmental Engineering from Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences in 2000, and postdoctoral-studied in TNO Environment, Energy and Process Innovation, the Netherlands in 2001-2002, and worked as visiting scholar in EAWAG (Swiss Federal Institute of Aquatic Science and Technology) in 2008-2009. His major research interests include wastewater treatment and reclamation, membrane technology for wastewater treatment and reuse, sludge reduction, nutrients recovery from sludge, composting of sewage sludge and animal manure, and river restoration. He has finished a number of projects funded by National High Technology Research and Development Program, National Major Science & Technology Projects for Water Pollution Control and Management, National Natural Science Foundation and so on. So far he has published over 90 peer-reviewed papers and 13 authorized patents.

Green Filters: sustainable wastewater treatment in the basin of Lake Fúquene, Colombia

Dr. Felipe Valderrama Escallón

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Capsule

Green filters: a cost-effective, high performance, and (financially and ecologically) sustainable strategy for wastewater treatment and management of lake basins in developing countries.

Summary of presentation

Lake Fúquene (3,000ha, 2,550m.a.s.l.), a strategic wetland for the region of the northern Andes in Colombia, South America, is facing the negative effects of eutrophication. The wetland's ecological integrity and the ecosystem services it provides (drinking water supply, fisheries, transport, raw material for handcrafts, among others) to a population of over 200,000 inhabitants within the basin of the Ubaté-Suarez rivers, are compromised. To address this situation, Fundación Humedales (COLOMBIA), sponsored by the Global Nature Fund (GERMANY), with the technical support of Fundación Global Nature (SPAIN), and the funding from the companies KÄRCHER (GERMANY) and SIKA (SWITZERLAND), conducted a low cost, sustainable and efficient pilot experience (GREEN FILTERS) to help neutralizing the main threat to lake Fúquene: domestic wastewaters discharges. The chosen technology for wastewater treatment, GREEN FILTERS with floating macrophytes, consists in growing plant species, already established in the region, in long, narrow and shallow channels. After 12 months of operation, the pilot system located in San Miguel de Sema, Boyacá (450 inhabitants), constituted by a simplified primary treatment and a channel of 140m long, 3.5m wide and 1m deep, obtained an average BOD (biochemical oxygen demand) removal of 90%. The results of the pilot system incentivized other communities and the local environmental authority to use similar technologies of high economical, social and environmental viability, which will contribute towards the improvement of water quality in the basins and the protection of high-Andean wetlands in Colombia and Latin America.

Resume

Felipe Valderrama Escallón, environmental engineer: Universidad de los Andes (Bogotá, Colombia), specialized in the development of studies, mathematical models and "on site" applications of technologies based on biological principles, as Constructed Wetlands for waste water treatment, with experience in transformation, reutilization and disposal of agricultural solid wastes and vegetal biomass in participatory initiatives such as "productive projects" within conservation and sustainable development programmes in High-Andean wetlands, with additional knowledge of: participative monitoring, wetlands conservation, and plant physiology.

Integrated management of three constructed wetlands in compliance with the water framework, birds and habitats Directives: the LIFE+12 ALBUFERA project

Dr. Sr. Antonio Guillem Avivar

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Capsule

Since 2009 a total of 89 ha of rice fields located at the border of the lake l'Albufera have been re- stored to recreate the wetlands lost long time ago. The CW Tancat de la Pipa, (40 ha), the CW Tancat de Milia (33 ha) and the CW Tancat de l'Illa (16 ha) are a combination of free water surface constructed wetlands (FWSCWs) with horizontal sub-surface flow constructed wetlands (HSFs) and shallow lagoons. The main objectives of the project are establishing the most adequate management rules in constructed wetlands in order to jointly optimise water quality and habitat and biodiversity improvement; establishing a methodology to determine good status indicators for bird conservation to apply in other RN 2000 wetlands; and pro- viding recommendations addressed to the

administrations to set a basis in the development of management plans for RN 2000 areas and hydrological management plans.

Summary of presentation

Wetlands are important because of their contribution to biodiversity, as well as for addressing the effects of climate change, noting that the wise use of wetlands plays a major role in climate change mitigation and adaptation including the storage and sequestration of carbon and the regulation of the water cycle, and that planning at floodplain- and catchment-scale is crucial for effective water supply and flood risk management (COP11 DR21 Rev. 1). Therefore, as it is mentioned in the White Paper on Adaptation to Climate Change, wetland management is justified as a tool that is relevant to come up with strategies for reducing climate change impacts in all regions of the world. Furthermore, restoration of already degraded wetland systems can be demonstrated to be a cost effective tool in adaptation strategies.

The project proposed uses different options for adaptation approaches mentioned in the White Paper: - The project uses a "Green" structure approach through wetland management enabling plants and animals to survive and helping wetland-dependent communities to adapt to climate change, while providing a non-conventional technology to improve the water quality in a lake water body. This will also increase the biodiversity in the area leading to a healthier ecosystem, which is essential for any climate change adaptation and mitigation strategy. An important part of the project can also be considered as a "soft" non-structural approach, because it will gather and share information about the restoration and management developed in this wetland and the necessity of having healthy ecosystems, to face the climate change impacts in other Mediterranean areas exposed to their effects.

Therefore the results expected under the project are: (1) to prove that the implementation and management of artificial wetlands located in natural areas are able to satisfactorily fulfill a double purpose;. (2) to prove that the

performance of this double purpose might be optimised through a management that makes the most of a series of joint indicators "water-habitats", to be defined in the project development.; (3) to establish methods for the integration of this model in the Territorial River Basin Planning, Hydrological River Basin Management Plans and Management Plans for RN 2000 wetlands; (3) to disseminate the message that it is necessary for the water bodies to have a good ecological status, and that this might help recover disadvantaged habitats and species; and (4) to promote experience exchange and the participation of all society sectors in the wetlands ecological quality improvement.

Resume

Antonio Guillem Avivar studied aquatic eco-technology engineering in Hogeschool Zeeland. He has been the project coordinator of environmental NGO since 2011.

Challenges and countermeasures for wetland conservation

Dr. Chaode Ma

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Capsule

Challenges and countermeasures for wetland conservation.

Summary of presentation

The presentation covers four part: (1) Brief on UNDP China; (2) Main challenges for wetland conservation in China; (3) Countermeasures for wetland conservation; and (4) UNDP/GEF CBPF-MSL Wetland Programme.

Resume

Dr. Ma Chaode is Guest Professor of Nature Conservation Colleague of Beijing Forestry University and Minzu University of China. He has years experience in biodiversity conservation, river basin management and soil & water conservation. He worked in Ministry of Water Resources (MWR) for nearly ten years focus on Soil & Water Conservation, in which he was Deputy-Division Chief for ecological programme division. He was the first National UNEP/GEF Program Manager for Yangtze Flood Project in FECO (Foreign Economic Cooperation Office) of Ministry of Environmental Protection (MEP). He has worked in WWF Beijing Office for 5 years for supervise the freshwater programs in WWF China and manage freshwater programme team. Dr. Ma joined UNDP China since Feb. 2011, supervised UNDP-GEF Programmes in biodiversity and ecosystem services as a portfolio manager in UNDP China. He managed more than 40 million USD GEF Programmes in recent years.

Biodiversity and wetland protection-----conflict of land demand between people and nature

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Capsule

Friends of the Earth Middle East (FoEME) is a unique organization at the forefront of the environmental peacemaking movement. As a tri-lateral organization that brings together Jordanian, Palestinian, and Israeli environmentalists; our primary objective is the promotion of cooperative efforts to protect our shared environmental heritage. As part of FoEME's ongoing efforts to rehabilitate the LRJ, several studies have been conducted to bring attention for the need to rehabilitate, promote prosperity and help bring peace to

the LJR Valley. The latest study emphasized economic benefits associated with rehabilitating the LJR. In this regard, FoEME started a new partnership that links it with the Water and Environmental Development Organization (WEDO is FoEME's sister organization in Palestine), the Stockholm International Water Institute (SIWI), and the Global Nature Fund (GNF). In 2012, the consortium jointly launched the SWIM3-Jordan River Project which produced plans for "FoEME Master Plan: A Vision for the Lower Jordan River". This Master Plan is the first of its kind to reflect a trans-boundary integrated study for the Lower Jordan River. Conservation of biodiversity and sustainable management of ecosystem services is only one of FoEME's principles forming the basis of this Master Plan.

Summary of presentation

The political ramifications in the Middle East region has led to an increased tension between countries sharing water resources, intensified difficulties for governments to provide for their countries' needs thus resulting in internal instability, and exacerbated marginal living conditions due to climate change acting as a threat multiplier for human security. Given the reality of the geopolitical conditions; shared ecosystems become hostage to the conflict. A major shared water resource between Jordan, Israel and Palestine1 is the Lower Jordan River – a major tributary naturally aimed at flowing into the Dead Sea Lake.

As the Dead Sea's primary fresh water source; the diversion of the LJR is the main reason that the Dead Sea water level is dropping by 1.2meter every year with drastic consequences for its environment, its surrounding communities and their economies. Further, this disastrous diversion of the river resulted in the demise of the Dead Sea and the ensuing loss of 1/3 of its surface area since the 1930's in response to the man-made tragedy of the Jordan River's riparians.

In respect to the Dead Sea Lake; its degradation has been viewed as an inevitable sacrifice at the altar of economic productivity and mega-infrastructure

projects. In the absence of a comprehensive assessment of the economic benefits of conservation, the direct and indirect costs of continued destruction, and the potential indirect economic costs and adverse environmental consequences; various positions were adopted in large project schemes. An illustrative example is the Red Sea Dead Sea Canal Project which aims at transferring water from the Red Sea to the Dead Sea through a canal with a conveyance length of 180 km. In this regard, FoEME has a diverging view whereby it continuously promotes the alternative solutions which could be achieved through "Rehabilitation of the Lower Jordan River". Essentially, a solution which encourages "Building with Nature" options is deemed more favorable. The flow of the Jordan River into the Dead Sea Lake is the obvious natural scheme which could revive the lake's water levels.

The major competing water users in the Dead Sea basin can be categorized as follows: (1) Riparian Countries (i.e. Israel, Jordan and Palestine – even though Palestine is not receiving its fair share due to the occupation); (2) Agriculture/ industry sectors, and (3) Tourism and recreation.

The conflicting interests are obvious between the agriculture and industry sectors, the activities of which are a main cause of water level depletion of the lake either through the diversion of its main tributaries for agricultural use or through the evaporation ponds established for minerals extraction. On the other hand, there is the tourism and recreation sector that has a strong interest in improving the quality of the lake's water and; maintaining the Dead Sea's water level is in favor of their ongoing activities.

Moreover, it is worth noting that the distribution of the sectorial interests on both sides of the border is not symmetrical essentially due to differences in the level of development in these sectors. Water demands vary and the respective lake level varies accordingly. Nevertheless, determination of the economic value of competing uses of water by sector is potentially useful for facilitating a definition of an optimal Dead Sea water level on the basis of water demand management which implicates a costs/benefits analysis of competing water uses.

In conclusion, in order to maintain a relatively stable water level of the Dead Sea Lake; an adequate balance between competing water users and nature is paramount.

Resume

Nancy H. Haddaden is a member in Professional Societies, Jordan engineers association and a professional engineer in engineers Australia. She acquired the Master of Science in Coastal & Marine Engineering and Management in Norwegian university of science and technology, Delft University of technology, and university of Southampton in UK. She was awarded EU scholarship for attending the Erasmus Mundus Programme at a consortium of highly recognized European Universities in 2008, and awarded Nuqul Group Scholarship in 2002. At present, she was the project of manager who managing all activities and budgets related to 2 main projects within the organization (Friends of the Earth Middle Eeast), namely Good Water Neighbours Project (GWN) and Sustainable Water Integrated Management Project (SWIM). She was also contracted to support the German Development Cooperation (GIZ) programme" as the "Programme adviser" for the period (August- December 2013).

Revitalization of the Lakes in Central and Lower Yangtze ----Case study of Lake Hong

Dr. Wenwei Ren

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Capsule

As the largest freshwater lake in Hubei Province and the seventh largest in China, the lake Hong covers an area of 348 km^2. Lake Hong is also an important

wintering area for migratory birds including 6 globally threatened species and 21 national protected species.

Summary of presentation

The central and Lower Yangtze region has long been renowned as the "land of fish and rice" for its world-class food production with thanks to thousands of lakes along the Yangtze and hundreds of streams throughout this region. As the largest freshwater lake in Hubei Province and the seventh largest in China, the lake Hong covers an area of 348 km^2. It used to be connected with Yangtze River, but it has been disconnected due to embankment and sluices gates construction. Apart from being human paradise, the Lake Hong is also an important wintering area for migratory birds including 6 globally threatened species and 21 national protected species. However, intensive enclosed fishery and poor management spoiled the beauty of the lake Hong in recent decades. The lake now it under serious threats: resources of aquatic plants, indigenous fishes and water birds were severely diminished. Local people are suffering from the poor quality of the drinking water. To reverse this and build a wetland restoration and wise use demonstration case for sustainable development of the Lake Hong and, to gain knowledge and experience on wetland restoration and wise use which widely applicable for the wetlands of the whole central Yangtze, WWF work with State forest Administration to take a series of actions to revitalize the Lake Hong: (1) Restored the open water landscape by removing all the bamboo ples and fishing nets within the Yangcai Lake, a tiny part of the Lake Hong; (2) Replanted nearly 100 ha of aquatic plants;(3) Optimized the fishery model by adopting sustainable fish farming practices; (4) Strengthened daily management and monitoring works, proving trainings and scientific research opportunities to build up the staff's capacity; and (5) Promoted eco-tourism and facilitated innovative and effective awareness and education programs.

Resume

Wenwei Ren is adjunct Professor of College of Environment Science and Engineering, Tongji University. He got PhD degree of ecology from Fudan University in 2000. Mr Ren is Director of Yangtze Footprint, Head of Shanghai Hub, WWF-China. He was also the director and founding member of the Sino-Canada Centre for Environment & Sustainable Development, Fudan-Queen's University. He has published more than 30 research articles and 6 books. Since 2008, he has been leading conservation teams to implement projects in Central and Lower Yangtze and its estuary, including Water stewardship, Yangtze wetland protected area network, Integrated River Basin Management (IRBM), Environmental Flow, Dolphin conservation, Fishery Market transformation, water source protection, wetland protected area network, estuary partnership, world estuary alliance and low carbon city initiative.

Sustainable tourism development at Lake Constance, Germany/Austria/ Switzerland

Dr. Kerstin Fröhle

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Capsule

Lake Constance is situated in Germany, Switzerland and Austria near the Alps and is Central Europe's third largest lake (571km² surface area). It provides drinking water for more than 4 million people and it's one of the most favorable tourist destinations in Central Europe.

Summary of presentation

More than 20 millions of tourists visit the German part of Lake Constance every year. The lake tourism plays an important role for the economic development of

the region at the one hand, but tourism also stresses the lake and the surrounding in various ways on the other hand.

The two gravest effects of the tourism at Lake Constance are land consumption and the high volume of traffic. Sensitive areas of Lake Constance were disturbed and destroyed through shoreline buildings and embankments, habitats for animals and plants got lost. Habitats were cut into little pieces through the fragmentation of the landscape and got inaccessible. Element inputs to the lake, directly and indirectly, followed the development.

To handle the big amounts of visitors and to implement a sustainable tourism in the region various measures are necessary: (1) the "Bodensee-Pass" gives half-price travel on public transport (boats, trains and buses all around the lake); (2) the lake can be surrounded by bike or by foot on the "Bodensee-Radweg"; (3) cruises on the lake can be made with solar-powered boats or by canoes, including a guided nature-oriented tour; (4) environmental information centers as well as visitor direction in sensitive areas are installed around the lake.

Ecocamping supports environmental friendly camping sites since 1996. The famous Mainau Island, magnet to tourist, follows a rigorously sustainable company policy with a focus on the environment and energy. The brand "Gutes vom See" exists since 2004 and is an association of farmers, processors, merchants and gastronomes around the lake.

Resume

Kerstin Fröhle got graduate biologist from University of Würzburg, Germany in 2010. From 2011, he works in the sector of Business and Biodiversity of Lake Constance Foundation as a project manager.

Lake Balaton and its recreational value

Dr. Egerszegi Zita

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Capsule

Lake Balaton is the largest freshwater lake in Central Europe and represents one of the most significant natural treasures of Hungary, a unique ecological asset of the region. The present form of the lake has been developed 7-5 thousand years ago. Its catchment area is 5775 km^2. The lake surface at medium water level is 594 km^2, its water volume is around 2 billion m^3, but the average depth is quite shallow, at 3.2 m. The length of the shore is 235 km, of which 107 km is artificially built, and with 12 km^2 reed-land in the bed of the lake.

Summary of presentation

Lake Balaton's local economy is based on tourism activities that are strongly dependent on the quality of the local environment. The area is a highly frequented international tourist destination with some 200,000 commercial accommodations and 5 to 6 million registered guest nights annually, making the summer population swell to 1 to 2 million in July and August. The most important source markets for Lake Balaton tourism are overwhelmingly Germany (34,3%) and Austria (18,5%), together accounting for more than half of foreign visitors in the area. Other significant source countries are Czech Republik (6,6%) and Russia (4,9%)

Partly compensating the drop in the number of foreign visitors, a significant increase were taking place in domestic tourism in the last couple of years.

Nowadays, there are 211 hotels (of which 52 are medical and 29 are wellness hotels) operating in the region, constituting significant ratio of the commercial bed capacity available in the area. There are 158 family-operated pensions, which are offering comfort services within a more familiar atmosphere.

Moreover, there are also 52 campsites, 128 holiday homes and 47 community accommodation facilities, with a capacity of 91,000 beds in total.

Due to the construction boom of family holiday houses in the last few decades, private room renting to tourists is an important segment of accommodation services. Private accommodations provide around 118,000 beds for guests.

Based on the territorial characteristics, different objectives are appointed for the Lake Balaton area by the Lake Balaton Tourism Development Programme:

Resume

Egerszegi Zita got Diploma in Business in 2004 from Budapest Business School. And from 2000, he works in regional development agency of Lake Balaton Development Coordination Agency as environmental director.

Situation of the Tanganyika Lake

Dr. Emmanuel Nshimirimana

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Capsule

Lake Tanganyika is a great reservoir of fresh water and biodiversity. More than 1 million people are economically dependent of the lake. But the lake is threatened by various factors like human activities and pollution. A special attention and support at international level is needed.

Summary of presentation

Lake Tanganyika is shared between 4 countries: Burundi, DRC, Tanzania and Zambia. It has great global interest. It is a great reservoir of fresh water (19,800 km3, about 1/6 of available world's fresh water) biodiversity (more than 1,500 plant and animal species among them 50% are endemic).

The lake is also very important for local population. Out of a population of 10 million people living in the Tanganyika basin, 1 million are directly dependent on fishery resources of the lake.

Currently, Tanganyika Lake is threatened by various factors: (1) Over-exploitation of biological resources: between 1995 and 2012, the total fish production has decreased by 25% while the number of fishermen has increased by 4 and that production per fisherman per year decreased by 81%. (2) Sedimentation that is reinforced by erosion due to land degradation in the Lake basin: the mountain area along the lake, in the Burundian part, sends an average of 100 tons of soil per hectare per year in the Lake. (3) Pollution from several sources: industrial, craft and domestic waste from the cities (Bujumbura, Kigoma, Uvira, Kalemie Mpulungu Rumonge) and villages along the lake. Pollution is also caused by the use of oil by fishermen and the lack of sanitation infrastructure in ambarquement sites of fishing boats: only 14% of sites have public restrooms. (4) Habitat destruction, by the spontaneous occupation of the land for agriculture or construction. (5) Invasive species, observed especially at the ports of Bujumbura and Kigoma.

Given its global and local importance, special attention from the international community is needed. At the local level, the 4 riparian states have already established a cooperation framework called the Lake Tanganyika Authority for which the secretariat is based in Bujumbura. Unfortunately the four countries are among the poorest countries of the world (in terms of financial and technological) and are not able to handle the situation alone. Coordinated support is essential to improve the situation of the Lake Tanganyika ecosystem and the living conditions of riparian communities.

Resume

Emmanuel Nshimirimana studied engineer in agronomy sciences, special Diploma in Economic, Social and Cultural Rights in Burundi University;

Collège Universitaire Henry Dunant de Genève. He has been the national coordinator of Biraturaba association since 2008 until now.

Spatiotemporal variations of precipitation and hydrological responses of the Poyang Lake, China

Prof. Qiang Zhang

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Capsule

Poyang Lake is the largest freshwater lake in China, taking the unshakable position in the flood mitigation, restoration and conservation of the ecological environment in the middle Yangtze River basin. Hydrological processes, sediment load and streamflow variations in this study, of the Poyang Lake basin mean too much for the scouring and deposition changes of this freshwater lake. Poyang Lake basin are heavily influenced by human activities such as building of water reservoirs and land use/land cover changes.

Summary of presentation

Based on thorough analysis of long sediment and streamflow series extracted from five major hydrological stations, we systematically investigated spatial and temporal patterns of hydrological processes and their hydrological responses to human activities by using Mann-Kendall trend test technique, double cumulative mass curve and linear regressive method. The results indicate that: 1) Increasing sediment load is observed during late 1960s and late 1970s. After early 1980s, however, the sediment load turns to be decreasing with different decreasing magnitudes amongst the five hydrological stations; 2) streamflow is in not significant changes and no fixed statistics are identified. Streamflow is in

increasing tendency after 1990s and turns to be decreasing about 2000; 3) during the Cultural Revolution in China, extensive deforestation triggered sharp increase of sediment load during late 1960s and 1970s. Construction of water reservoirs greatly reduced the sediment load of the Poyang Lake basin, and it is particularly the case for the sediment load changes in the Ganjiang River, which should be attributed to the trapping effects of the largest water reservoir within the Poyang Lake basin, the Wan'an water reservoir. In terms of streamflow variations, no confirmative evidences corroborate the influence of water reservoirs on the streamflow variations. It seems that the streamflow variations are subject mainly to the precipitation changes, which requires further analysis. The current study will be of great scientific and practical merits in conservation or restoration of the Poyang Lake, as a kind of wetland, and also in flood mitigation in the middle Yangtze River basin under the influences of human activities.

Resume

Qiang Zhang studied hydrology and water resources and made his post-doctor in Nanjing institute of geography and limnology, Chinese academy of sciences, and acquired PHD at Nanjing University through the master-doctor continuous study. Having worked in Nanjing institute of geography and limnology, Chinese academy of sciences for 7 years, he changed to the department of Environment and Water Resources, Sun Yat-sen University as a professor.

Pulicat Lake, India, the Challenges and Opportunities

Dr. Premanjali Rao

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Capsule

The Pulicat Lake is the second largest lake in India. It was a thriving Dutch settlement in 16th Century. The lake is well known for its crabs and shrimp which are largely exported. About 30,000 fishermen families depend on the lake for their livelihood although per capita fish catches are depleting.

Summary of presentation

Pulicat Lake gives livelihood to more than 30000 families living in about 30 villages. The Pulicat Lake has a water spread area of 460 Sq. km. and is the second largest brackish Lake in India. At its southern end, it opens into the Bay of Bengal, through a narrow bar mouth, about three kilometers from our Pulicat Centre. The Buckingham Canal runs through the lake. CReNIEO has been involved in development activities at Pulicat since 1984 soon after a cyclone.

Population increases, resettlement of people, coupled with pollution by locals as well as by other commercial activity, destructive fishing gears and the dwindling fish resources has put stress on the people and the Lake. Competition for catches often leads to strife. There was once a strict traditional fishing rights system called "Padu" which regulates fishing. Only few villages practice that now. Pulicat is a thriving fish trading centre but the per capita catch has gone down. In mid-80' the fisher folk realized that their children will not be able to make a living only by fishing and they approached CReNIEO to provide quality English medium school education for their children. School education will give the younger generation opportunities for higher education and for taking up new vocations thus easing the strain on the lake and making a balance between resource availability and extraction. CReNIEO opened this school in 1988 since then many other schools have started. The children who have completed schooling have gone to colleges and have a degree. They have taken up jobs, as technicians, engineers, teachers, nurses, entrepreneurs, accountants etc. One boy from Pulicat has enrolled for Ph. D. Studies in marine biology. CReNIEO trained young people in employable skills such as driving, outboard motor

engine repairs, tailoring, electrical repairs, computer operator and establishing women' self-help groups to access credit from the banks. Since 2009 in partnership with the Global Nature Fund, CReNIEO is working on bio diversity and mangrove restoration in fish breeding areas in the lake. We have sure signs of the area picking up vegetation with natural establishment of mangroves seedlings and migratory birds are visiting our reforestation areas.

Resume

Rao, Premanjali was the director managing finance and administration in Centre for Research on New International Economic Order in India. Since 1987, he has been worked for this organization. Since 1975, he has been studied and acquired the degrees of M.A. and B. Ed.

Extreme droughts in the largest freshwater lake (Poyang Lake) in China and effects of the Three Gorges Dam

Prof. Zhang Qi

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Capsule

During the last decade, extreme low water levels were recorded in dry seasons in Poyang Lake, the onset of which happened to be coincident with the initial operation of the Three Gorges Dam (TGD) in 2003. This talk presents recent research outcomes from Prof Qi Zhang's team to clarify some of these issues.

Summary of presentation

The unique and valuable functions of lakes and their flood mitigation roles are well recognized. Lake hydrological condition is fundamental to the maintenance of these functions. Climate variations and strong human activities may result in

the alteration of lake water balances, causing significant changes in lake water levels. A prominent example of hydrological modifications to lake functioning is the regime changes to Poyang Lake, the largest freshwater lake in China. The Lake is one of the few lakes that remain naturally connected to the Yangtze River. The lake surface expanses to 4000 km^2 for high water levels, and reduces to less than 1000 km^2 for low water levels, creating some 3000 km^2 vital wetland habitats for many birds. During the last decade, extreme low water levels were recorded in dry seasons, causing water supply crisis for 12.4 million inhabitants and irrigation problems for 3.9 million hectares of arable lands. Changes in lake hydrological regimes also affected wetland vegetations. The onset of the low water level happened to be coincident with the initial operation of the Three Gorges Dam (TGD) in 2003, located upstream of the Lake. Endless debates are being raised as how significant the TGD may have affected the Lake. This talk presents recent research outcomes from Prof Qi Zhang's team to clarify some of these issues. Projections on changes of the Lake water level using comprehensive hydrological and hydrodynamic models show that the Lake may become even drier under future climate conditions.

Resume

Professor Zhang works at Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences, and is the director of division of watershed hydrology. He had his PhD in hydrology at the University of Queensland in 2000, through Overseas Postgraduate Research Scholarship of Australia. He had a few years' working experience in Brisbane and Perth before returning to China. His research interests include hydrological processes, lake-river interactions, coupled simulation of surface-groundwater flow, and seawater intrusion. His current research projects include development and application of grid-based distributed surface runoff-groundwater flow model, and assessment of impacts of climate change and human activities on catchment hydrological processes, lake water balance and wetland ecology, in the Yangtze River basin.

Territorial strategic planning based on livelihoods and watershed management to climate change adaptation

Dr. Estuardo Girón – MDP

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Capsule

Territorial strategic planning and watershed management addresses threats and fosters opportunities for sustainable livelihoods and environment in populated regions. Integrating a climate-risk analysis and a participatory approach can support sound ecological and social adaptation strategies.

Summary of presentation

Guatemala is a megadiverse country, recognized by the CBD[1], enclosing about 10% of the planet biological diversity. It is located in the Mesoamerican Biodiversity Hotspot with an outstanding biodiversity and cultural diversity in Latin America. On the other hand, it is one of the 10 most affected countries in the last two decades to climate-related risks[2].

Lake Atitlan and surrounding watersheds, in the western highlands of Guatemala, is a priority conservation area due to the integrity of ecological mountain, lake and river systems, endemism, connectivity and ecosystem goods and provisioning services such as water sources. Climate change is expected to increase the pressure on pine-oak forests; and reduce or replace biodiversity in cloud forests, having a direct impact on food, water, fuelwood and soil availability for this densely populated area.

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[1] *In 2010 Convention on Biological Diversity, COP-10 in Nagoya, Japan; Guatemala was included in the Group of Like-Minded Megadiverse Countries (LMMC)*

[2] *From 1993 – 2012 according to 2014 Germanwatch Report on Global Climate Risk Index*

Vivamos Mejor Guatemala has developed an Integrated Climate-Risk Resilient Watershed Management approach as an adaptation strategy to climate variability with support from international cooperation, government agencies, municipal governments, NGOs and indigenous communities

The main components of this approach include: (1) Watershed characterization: Establishing social and environmental characteristics: demographic features, watershed limits, climate events history, hydrogeological and soil features, land use and zoning; (2) Livelihood strategies and resources participatory assessment: Identifying rural communities key strategies, common interests and baseline of current state of human, social, cultural, natural, political, financial and constructed resources available; (3) Strategic planning based on climate-risk watershed management: A territorial vision for change, key strategic goals, project initiatives, success criteria and stakeholders are identified and a Watershed Coordinating Board is established in a participatory manner that clusters 10 to 20 communities.

There are 2 key areas where this process has started: (1) Atitlan watershed: Quiscab river, northern Basin of Lake Atitlan; (2) Nahualate watershed: Tzojoma river and Masa river, western Basin of Lake Atitlan

Key strategic goals and projects identified in the planning processes includes health and environmental sanitation, food and nutrition security, soil and water management, education, economic development, community-based disaster and climate risk management and conservation and forest management

Main challenges are achievement of financial resources and community climate-risk awareness including implementation of adaptation measures that can contribute to ecological and social resilience to climate change.

Resume

Girón, Estuardo studied Biology in National University, Guatemala City, Guatemala, and then studied Climate change and Kyoto Protocol Postgraduate

in Universidad Nacional del Centro del Perú /Fondo Verde, Huancayo. He acquired the degree of Master in Development Practice in 2012 in Tropical Agricultural Research and Higher Education Center (CATIE), International University, Turrialba, Costa Rica. Having worked in Non-Governmental Organization (NGO) for nine years and in International University for one year, he changed to Non-Governmental Organization again at the position of Environmental Monitoring and Research Unit Coordinator and Consultant.

The Impact of Global Warming on Lake Biwa Environment

Dr. JIAO Chunmeng

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Capsule

The impact of global warming on Lake Biwa Environment was studied and found that the hypolimnetic DO depletion and lake water temperature variation in the lake is governed by Arctic Oscillation (AO), and illustrated the impact of wintertime initial conditions on water temperature and DO throughout the remainder of the stratification period in Lake Biwa.

Summary of presentation

Lake Biwa is the largest freshwater lake in Japan. With an age of 4 million years, it is an ancient lake marked by extensive species endemism. In Lake Biwa, near-equilibrium saturation of dissolved oxygen (DO) occurs during yearly turnover (late winter – early spring), but isolation of the hypolimnion to re-aeration occurs as thermal stratification becomes established. The reservoir of DO within the hypolimnion then begins to be consumed by the settling and decomposition of sedimentary organic matter and sediment itself. The DO in the deep part of

the North Basin have been getting lower and lower (with occasional hypoxia) since the 1970s when rapid urbanization and industrialization in the Lake Biwa watershed led to progressive eutrophication. Recently, the central basin of the lake is subject to late summer periods of low DO in the benthic boundary layer (sometime hypoxia, less than 2 mg/l),which is thought to be mainly caused by global warming. During the past few years, the occurrence frequency of hypolimnetic oxygen depletion has accelerated, leading to a record breaking DO concentration of 0.5 mg/l at 90m depth in the North Basin of the lake in November of 2008. Studies show that the impact of global warming on the lake environment would occur through higher air and water temperatures, increasing of thermal stability and duration of stratification period, changing of timing of lake turnovers. We conducted a statistical analysis of intra- and interannual water temperature and DO fluctuations for the long-term record at Lake Biwa, and understood that the hypolimnetic DO depletion and lake water temperature variation in Lake Biwa seem to be governed by Arctic Oscillation (AO), which might affect mixing processes through colder or warmer winters, and illustrated the impact of wintertime initial conditions on water temperature and DO throughout the remainder of the stratification period in Lake Biwa.

Resume

Dr. Jiao Chunmeng made his PhD in Faculty of Science, Graduate School of Kyoto University, Japan. His research interest focuses on Physical Limnology and lake environmental conservation. He is now a senior researcher and director of Lake Biwa Environmental Research Division, Lake Biwa Environmental Research Institute, Japan.

Lake Hovsgol: past, present and future

Dr. Badral Yondon

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Capsule

Presentation is on the value of Lake Hovsgol for Mongolia, Lake Baikal and the world in general. Faced threats and ways Mongol Ecology Center is seeing the solution, involving local community, government and the National park authorities.

Summary of presentation

Lake Hovsgol is an ancient lake, 4th deepest in all of Asia. “Mother Sea”, as Mongolia’s nomadic people call it, contains 70% of Mongolia’s water resources and 1% of the world’s freshwater. Over 4,000 years nomads were living on the “Blue Pearl of Mongolia” where many cultural and sacred objects can still be found today. Lake Hovsgol National Park was established in 1992. Park encompasses nearly 3 million acres - larger than the 2.2 million-acre Yellowstone National Park in the US.

Lake Hovsgol National Park needs better protection and science-based, professional management. The lake and watershed provide habitat for many endangered species of plants and animals, including: elk, reindeer, musk deer, brown bear and the endemic Hovsgol grayling. Lake Hovsgol itself is surrounded by ecologically significant permafrost, a major carbon sink in the Northern Hemisphere.

Mongol Ecology Center (MEC) visited Lake Hovsgol National Park in 2011 and observed unlawful commercial fishing and logging, overgrazing, unprotected shorelines littered with tire tracks and debris, tourist (ger) camp development that goes in direct breach with existing laws and regulations. Recent road improvements result in a dramatic increase in park visitors, stressing the

capacity of the camps and communities. Gateway communities of Hatgal and Hankh were not prepared for the increased volume of tourists. Already the number of park visitors has increased from 7,700 in 2004 to 49,000 in 2012.

In 2012 MEC established the Lake Hovsgol Conservancy to support the protection and management of Lake Hovsgol National Park. The Lake Hovsgol Conservancy focuses on Park Planning and Management, Science and Education, and Sustainable Locally Provided Tourism. In 2013, MEC-prepared, Lake Hovsgol National Park General Management Plan Foundation Document and three management action plans relating to Visitor Services, Interpretation and Education, and Transportation. In December 2013, the Lake Hovsgol Conservancy launched its international Blue Waves Campaign to celebrate Lake Hovsgol and initiated the Lake Hovsgol Nature and Cultural Education Program. As part of this effort we have raised money to buy 15 new Yamaha motocycles for permanent rangers on the lake and for 2015 we are expecting to raise money for 20 more bikes. There is ongoing work happening with park staff and local communities including “junior ranger” program.

Resume

Badral Yondon is the CEO of Mongolia Quest. Since 1990 Badral has emerged as a leader in the tourism industry of Mongolia and is committed to supporting the culture and heritage of his country while also protecting the bio-diversity of its fragile ecosystems. He graduated from the Foreign Language Institute in Ulaanbaatar and the Klessheim Tourism and Hotel Management School in Saltzburg, Austria. Badral has explored much of Mongolia's vast countryside over last 25 years. He serves on the board of the Mongolian Tourism Association and the Arts Council of Mongolia. Badral speaks fluent Russian and English.

NGO in action: the recreational value of Lake Poyang

Dr. Guochao Liao

Mountain-River-Lake regional sustainable development of Jiangxi Province, China.

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Capsule

Based on the experience of Mountain-River-Lake Programme, MRLSD has carried out some project to improve the public awareness on the recreational value of Lake Poyang.

Summary of presentation

Association for Mountain-River-Lake Sustainable Development of Jiangxi Province (MRLSD) is a non-profit and non-government organization founded in 1999. Its purpose is to promote the sustainable development of China's largest fresh lake, Poyang Lake and its watershed (for short MRL region, covering a land of 162,000 km^2) through mobilizing the participation of local communities and the establishment of partnerships among different stakeholders (including farmers, local communities, government agencies, and enterprises) to help solve issues of ecological degradation and poverty. MRLSD has carried out projects to improve the public awareness on the recreational value of Lake Poyang.

Resume

Mr. Guochao Liao is the deputy secretary-general of Promotion Association for Mountain-River-Lake regional sustainable development of Jiangxi Province. He graduated from the Centre University of Banking and Finance with BSc on Economic in 1995, and got his MSc on Management from Jiangxi Agriculture University in2003. He has served for some sustainable development programme, such as WWF-HSBC programme on "restore the life web of River Yangtze", UNDP Poverty-Alleviation Project of Jiangxi province (CPR/02/410,2002-

2005) , “Sino-German Cooperation Project: Sustainable Development of Mountain Areas of Jiangxi Province”(942135-002.00, 1996-2003), Mountain-River-Lake sustainable development Programme. He has abundant Work Experience on poverty alleviation, project management, participatory approach, community development, disaster risk management and Wetland wise-use.

The Discussion on Development Model of Wetland Ecotourism for Lake Poyang-Nanji in Jiangxi

Dr. Zhong Yao

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Capsule

The development model of wetland ecotourism in the national natural reserve of Lake Poyang-Nanji was discussed from functional division, ecotourism product development, community participation in tourism development, the protection of wetland resources and environment, and the construction of tourism service facilities.

Summary of presentation

Nowadays ecotourism has become the main tendency of tourism development, and it also becomes the effective way to protect wetland ecosystem and explore wetland resources. The paper took the national natural reserve of Lake Poyang-Nanji wetland as a case study. Based on the analyses of characteristics of tourism resources and environment for Lake Poyang-Nanji wetland and the tourism exploitation actuality, the development model of wetland ecotourism was discussed from functional division, ecotourism product development, community participation in tourism development, the protection of wetland

resources and environment, and the construction of tourism service facilities, so to provide the reference and instruction for the ecotourism development in wetland natural reserves.

Resume

Zhong Yao made his PhD in Agricultural Engineering at Tokyo University of Agriculture and Technology. His research interest focuses on wetland ecology, and wetland resource conservation and utilization. In 2006 he worked in XWHO Design Inc. Hangzhou, China for tourism planning and design. From October to December in 2008, he studied in the Center for Spatial Technologies and Remote Sensing (CSTARS), University of California, Davis, USA as a visiting scholar. Starting in 2010 he works in the Poyang Lake Research Center, Jiangxi Academy of Sciences, China as a research worker.

The Role of the Civil Society Organizations in the Living Lakes Protection

Prof. Haoming Huang

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Capsule

The presentation would cover seven parts to discuss the role of the civil society organizations in the Living Lakes protection: (1) The status of social organizations in social development in China; (2) Economic status of the social organizations; (3) Governance status of social organizations; (4) International status of social organizations; (5) Social status of social organizations;(6) Complementary position of social organizations; and (7) Development of Chinese environmental NGOs.

Summary of presentation

Role and status of environmental organizations: to raise public awareness of the living lake protection, promote improvement of public environmental behavior, perfect mechanism of public participation and policy advocacy for living lakes.

Problems of society organizations to participate in the living lakes protection: (1) Environmental NGOs' development environment needs to be improved; (2) Environmental NGOs' capacity needs to be improved; (3) Development of the environmental NGOs cannot meet the needs of the society; (4) CSOs lack of the right to know in environmental affairs, eg. The living lakes; (5) CSOs lack of participation right in the design of major projects and their feasibility study, i.e. the problem of eligibility; (6) CSOs lack of supervision right in the implementation of major projects; (7) CSOs lack of abilities to participate in major international environmental affairs; and (8) CSOs lack of legal relief and support policies.

China's environmental organizations actively participate in international exchanges and cooperation, including foreign cooperation projects for the living lakes, both NGOs and enterprise, participation in international conferences, foreign experiences for the living lakes, joining research for the living lakes and joining international organizations & network for the living lakes.

The Government's strategy to improve the living environment of social organizations: (1) to improve the policy environment for the survival of social organizations, implement separation of politics from associations proposed by the central government and promote the independence and autonomy of the social environmental organizations; (2) procurement the public services from CSOs and to support the capacity building of environmental organizations; (3) to provide support to the registration of CSOs, give them tax incentives and develop support policies to promote citizens‘ participation in environmental policy system; (4) how to listen to the suggestions and opinions of the CSOs in the making process of national key and major environmental policies; and (5) to authorizes environmental CSOs to participate in the establishment, implementation and supervision of the national key projects.

Social organizations' strategy to participate in the living lakes issues: (1) to improve their own professional capacity and attract a number of experts to participate in professional services and consultation; (2) to improve internal management structure, develop a standardized management system and guide different stakeholders to participate in the management affairs of CSOs; (3) to expand international exchanges, learn foreign advanced knowledge and experience, especially the mode and methods of interaction between the government, enterprises and CSOs; (4) to participate positively and actively in the government's environmental affairs and improve their influence on the government in the development of social and environmental policies; and (5) to promote interaction with the subject impacting the environment and strengthen the study of confrontation, advocacy and cooperation modes between CSOs and enterprises.

Key findings and conclusions (Policy Recommendations): (1) to improve the report, registration, implementation and supervision system of CSOs and promote the healthy development of environmental CSOs; (2) to provide space for environmental CSOs' participation in social and environmental affairs; (3) to establish an effective communication mechanism and cooperation system for environmental CSOs; (4) to change taxation policy for environmental CSOs; (5) to establish the network for the living lakes in China; (6) to promote the government to be transparent and open in the information of environmental management affairs; (7) to obtain the consultative status to participate in the design and feasibility study of major state projects; (8) to supervise the implementation of major projects; and (9) to strengthen international cooperation and promote the exchange of experience of environmental management and cooperative activities.

Resume

Haoming Huang, Vice-Chairman & Executive Director of China Association for NGO Cooperation (CANGO). Huang received his Master of Public Policy &

Management from Carnegie Mellon University, USA in 1995. He holds a Ph.D. in Management from Tianjin University in 2014. Huang is also an adjunct professor of NGO Research Center, Tsinghua University and adjunct professor of the school of public policy and management, Beijing University of Aeronautics & Astronautics, adjunct professor of College of Philosophy & Sociology, Beijing Normal University.

Engaging the Business Sector in Wetland Conservation

Dr. Amy M. Lecciones

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Capsule

Wetland conservation activities of the Society for the Conservation of Philippine Wetlands, Inc. is being supported by Unilever Philippines through the CLEAR Youth Network of the CLEAR Partnership (Conservation of Laguna de Bay's Environment and Resources) and the Tree-preneur Project.

Summary of presentation

CLEAR (Conservation of Laguna de Bay's Environment and Resources) is a tripartite partnership of Laguna Lake Development Authority, Unilever Philippines, and the Society for the Conservation of Philippine Wetlands, Inc. that supports a 13-year old program that has established a Youth Network in the Laguna de Bay area covering about 100 high schools with more than 1000 members including high school and college students and young professionals. They are implementing more than 84 school-and community-based lake conservation projects such as community lake monitoring, post-

consumer waste recovery, holding of seminars, symposia and other communication activities, wetland rehabilitation, and clean-ups, among other. The platform for this is the Youth Ecological Camp where the core members of the network learn about wetlands conservation. The main sustainability strategy is the Annual CLEAR Youth Congress where selected Eco-Campers gather to report on their accomplishments and plan for the ensuing year. This model has been replicated around the country and has attracted counterpart funding from the local governments, UN agencies (UN World Food Programme) and the private sector (The UPS Foundation, Shell Foundation, etc.). The long-term support of Unilever Philippines has made this possible and the experiential curriculum developed under this program has been shown to be effective in harnessing the potential of the youth and the commitment of the business sector in lake conservation.

Unilever Philippines is also supporting the "Tree-preneur Project" which was borrowed from the model of Wildlife Trust in Lake St. Lucia, South Africa. The SCPW replicated the model (where communities grow indigenous trees and paid in kind for their effort) with funding from the United Nations Development Programme-Small Grants for the first cycle and from the Philippine Tropical Forest Conservation Foundation for the second cycle. To date, our farmer beneficiaries have planted 100,000 indigenous tree seedlings on an 80-hectare area at the Mt. Arayat National Park, a protected area. Farmer beneficiaries total to about 360 farmer-families or roughly 1800 individuals. This project is significant because it is a best practice from within the Living Lakes Network that was replicated across the globe (from South Africa to the Philippines). The farmer-beneficiaries of this project are part of sustainable sourcing strategy of Unilever Philippines for tamarind that is used for the popular tamarind powder mix under their Sustainable Living Plan.

Resume

Amy M. Lecciones, Vice-President and Executive Officer, Society for the Conservation of Philippine Wetlands, Inc, (SCPW), Program Manager, Conservation of Laguna de Bay's Environment and Resources (CLEAR).

The new technology of Lakes pollution prevention

Prof. Liao Zhimin

Jiangxi Jindalai Environmental Protection Co. Ltd, China

Capsule

FMBR technology, independently developed by Jindal Jiangxi Environmental Protection Co., Ltd. is introduced as well as it application.

Summary of presentation

Jindal Jiangxi Environmental Protection Co., Ltd. independently developed FMBR technology, which implements the four technical innovations: (1) Firstly proposed and created the New FMBR Technology; (2) Firstly proposed and achieved 0 organic sludge produced within the sewage treatment process; (3) Firstly use of gasification principle of phosphorus to create a brand-new gasification method of phosphorus removal; and (4) Firstly use of microbial survival characteristics to achieve the synchronous processing of effluent C, N, P. Currently, FMBR technology licensed 33 patents, including 14 foreign patents; is listed as national key water special issue recommendation technology has been successfully applied in China Erhai Lake in Dali-point source pollution control, and won the International Water Association 2014 Asia-Pacific Research Award.

Resume

Liao Zhimin, Professor of senior engineer, as the chairman of Jiangxi Jindalai Environmental Protection Co., Ltd. He has begun to work in environmental protection job since 1987, and led the development of the organic wastewater

treatment "FMBR and oxygen membrane bioreactor technology" and a number of international leading technology for the "JDL heavy metals in wastewater treatment and resource recovery technology". He has authorized 44 patents at home and abroad, and prepared under the auspices of the national environmental technical standards 4. He was awarded the 2014 annual International Water Association Project Innovation Awards of Asia-Pacific region; 2014 National Outstanding Engineer Award, and he has presided over the 26 provincial and ministerial research including the sub-topics of national Water project "early eutrophication of lakes (Erhai Lake) water pollution control technology and engineering demonstration".

Discussion on how enterprises participate in lake ecological protection and management of water resources

Dr. Donglin Zhu

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Resume

Donglin Zhu, national registered consulting engineer, national registered environmental-impact-assessment engineer and Jiangsu registered consulting expert, works in Jiangsu Engineering Consulting Center. He got PhD of Environmental Sciences from Nanjing University. Mr. Zhu has been in charge of various Taihu Lake restoration and management projects authorized by Jiangsu Development and Reform Commission and other governmental departments. As a key technical expert from Jiangsu Province, he has participated in the formulation and revision of National Taihu Lake Restoration and Management Plan. He is also in charge of the formulation and revision of Jiangsu Provincial Taihu Lake Restoration Implementation Plan.

Common Interest: Wetland Conservation by Collaboration between NGO and Corporate

Dr. Yimo Zhang

Strategic Development of WWF.

Resume

Zhang Yimo is the Manager of Strategic Development. Internally, he facilitates the development of the organizational strategy; externally, he seeks opportunities of orgnizaitonal significance. Having been working with WWF for six years, his has been responsible for WWF Pavilion in Shanghai World Expo 2010, development and evalation of strategy of central and lower Yangtze, government relationship, organisational development, etc. Therefore, he has intensive contacts with corporate, government, and fellow NGOs. Zhang Yimo graduated in the School of Life Science of Fudan University as Master of Science, majoring in ecology. He received the bachelor degree of biology science in the same school. In both his study and work, he devotes himself in wetlands. He always regards the proactive reduction of damage as the best way of wetland conservation.

About conference

会议背景

Lakes in Densely Populated Regions

Balance between People and Nature

Lakes and wetlands are among the world's most easily accessible source for fresh water. They are dynamic aquatic ecosystems, simultaneously providing large quantities of fresh water, food and recreation for humans, in addition to sustaining habitats for thousands of species of animals, birds and plants. Water is a precious shared resource and its protection requires citizens, corporations and nations to act responsibly. The Living Lakes Network is about developing partnerships with all stakeholders to ensure a balance firmly established between protecting sensitive ecosystems and managing the growth of lake-sensitive economic development – whether it is recreational, agricultural or industrial.

Since its creation in 1998, Global Nature Fund and Living Lakes have been seeking for strong alliances with partners from the private sector. GNF and its partners pursue careful and considerate use of natural resources as well as the development of alternative income sources. In our global world, the strong interconnection between environmental and economic development becomes more and more evident. Strong and positive social and environmental performances of companies are becoming a necessity. Strengthening biodiversity and ecosystems can therefore be an opportunity for business knowing that almost every business sector depends to some extent on biodiversity and ecosystem services.

Conference Objectives

The main objective of the 14th Living Lakes Conference is to share experience on how to balance lake protection, economic development and agricultural use

of the watershed in sensitive lake and wetland regions (especially lakes in densely populated regions) in China and worldwide.

The conference will focus on the themes:

Lakes in densely populated regions: Balance between people and nature

- Safeguard ecosystem services of lakes in an urban environment
- Water for cities
- Healthy Lakes and wetlands as an incentive for tourism development
- Sustainable fisheries in lakes and wetlands
- Ecological functions of flood plains
- Lakes as hotspots of biodiversity

Target Group

Sound water management is crucial to find the right balance between optimising the use of water resources and protecting the ecological integrity of lake and wetland ecosystems. There is a wide consensus on how best management practices are reached, and that is by including all stakeholders acting in the lakes basin. Therefore this conference targets the wide range of stakeholder implicating in lakes and wetland management, including: administrations and political decision makers on local and regional level, farmers and fishermen, the tourism industry, and other economical sectors, scientific institutions, NGOs and other representatives of the local communities.

Related Organizations

The 14th Living Lakes Conference 2014 is hosted by Jiangxi Provincial Government, Global Nature Fund (GNF), Ramsar, Jiangxi Department of Science & Technology, MRLDO, Jiangxi Academy of Sciences and Mountain River Lake Sustainable Development (MRLSD).

Global Nature Fund

Headquartered in Germany at Lake Constance, Global Nature Fund (GNF) is a non-profit, private, independent international foundation for the protection of the

environment and nature. GNF launched the global Living Lakes network in 1998, the only lake network of NGOs worldwide.

MRLSD & MRLDO

Headquartered in Nanchang, China, MRLSD (Promotion Association for Mountain-River-Lake Regional Sustainable Development), a non-governmental non-profit organisation, is the official Living Lakes partner organisation at Lake Poyang. MRLSD´s mission is to promote activities to protect and develop China's freshwater lake and to solve the problems of ecological degradation and poverty in urban and rural areas. MRLSD, who started the Mountain-River-Lake Programme in 1985, is supported by MRLDO (Mountain-River-Lake Development Organisation).

Jiangxi Academy of Sciences

The Jiangxi Academy of Sciences (JXAS) is the only comprehensive institute of natural science research in Jiangxi Province and focuses on lake research, including wetland environment & plant ecology, water environment & pollution control, soil environment & ecological restoration, and Oncomelania ecology & Schistosome control. The Jiangxi Academy of Sciences is also member of the international network Living Lakes.

Ramsar

The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

Living Lakes

Living Lakes is an international network and partnership having the mission to enhance the protection, restoration and rehabilitation of lakes, wetlands and other freshwater bodies of the world.

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Additional info

背景材料

Brief Introduction of China

The People's Republic of China is a vast country with rich natural resource. The Pacific Ocean and the South China Sea lap its shores, and great mountains and rivers adorn its territory. Superior natural conditions provide not only a vast room of subsistence for the Chinese nation but also a strong material foundation for China's social progress.

China is one of the important birthplaces of ancient human beings. More than one million years ago ancestor of the Chinese nation began a primitive social life on this vast land. More than 10 sites of primitive men have been discovered in the reaches of the Yangtze and the Yellow River. They include Yunnan's Yuanmei Man who lived about 1.7 million years ago, Shaanxi's Lantian Man of 800,000 years ago, and the Peking Man of 600,000 years ago.

The Chinese civilization is one of the earliest in the world: it has a recorded history of more than 5,000 years. Chinese agriculture and handicraft industry were among the most developed in the world in history. Chinese culture not only is rich and splendid but also has strong vitality. Among the best-known cultural attainments and pursuits of the Chinese people are silk, pottery-and-porcelain making, architecture, gardening, stone carving, stone engraving, traditional Chinese medicine, wushu (martial arts) and ancient books and records. Many ancient construction projects, which are a crystallization of the wisdom and strength of the Chinese people, have become part of the cultural heritage of the nation. Such projects include the Great Wall, the Grand Canal, an ancient plank road built along the face of cliffs in Sichuan Province, the Dujiang Water Diversion Project in the same province, the Lingqu Canal in Guangxi and the karez – an irrigation system of wells connected by underground channels used in the central Asian region of Xinjiang.

Places of historical interest, scenic areas and nature reserves for the protection of rare animal and plant species – these are important heritages left behind by past generations and natures; they also important conditions for the development of a tourist industry and scientific research. In China at present, with fast economic development propelled by the policies of reform and opening to the outside world, tourist resources are being developed on a massive scale. A total of 119 areas have been designated as state-level places of scenic beauty and/or historical interest, including 19 that have been listed as World Cultural and Natural Heritage sites by the United Nations. Through a recent national poll, the following have been recognized as the Top Ten Places of Scenic Beauty and/or Historical City in China: the Great Wall, the Forbidden City in Beijing, Mount Huangshan in Anhui, the West Lake in Hangzhou, Guilin landscape, the Three Gorges of the Yangtze, gardens in Suzhou, the Terra-Cotta Solidiers and Hourses of Emperor Qin Shihuang in Xi'an, the Summer Resort of Chengde and the Sun and Moon Lake in Taiwan. Mao Zedeong said in one of his poems: "Our motherland is so rich in beauty." This is a most concise summation of China's geographical feature.

Brief Introduction of Jiangxi Province

Position

Jiangxi Province, called Gan for short, lies in the southern bank of the middle and lower reaches of the Yangtze River. It is located at latitude 24°29′-30°04 ′north, longitude 113°34′-118°28′east. It borders Zhejiang and Fujian provinces to the east, Guangdong to the south, Hunan to the west, and Hubei and Anhui to the north. Jiangxi dominates the Yangtze River on the north, and connects the Wuhan in the upper stream, Nanjing and Shanghai in downstream. And it is close to the coastal opening cities in the southeast. Both Beijing-Kowloon and Zhejiang-Jiangxi railways run through the whole province, which provided with the convenient transportation and superior location.

Topography and area

Mountains surround Jiangxi province on three sides. The southern half of the province is hilly with ranges and valleys interspersed; while the middle and northern half is flatter and lower in altitude. Stretching from south to north, the whole land is generally sloping towards Poyang Lake, which has formed a huge basin opening to the north. The total area of the province is 166,900 square kilometers. Within it are various land forms, with mountains and hills dominating. Mountains account for 36%of the province's total area, hills account for 42%,and mounds, plains, and water surface area for 22%.

Mountain ranges, rivers and lakes

The main mountain ranges are distributed by the border of the province, which generally have the altitude of about 1000m, and minority over 2000m. On the east and northeast of Jiangxi have Wuyi and iHuaiyu Mountains winding between Jiangxi and Fujian, Jiangxi and Zhejiang provinces. On the south have Dayu and Jiulian Mountains wriggling between Jiangxi and Guangdong province. In the west have Luoxiao Ranges standing between Jiangxi and Hunan provinces, where the magnificent Mt. Jinggang is situated at the middle. In the northwest have Mufu Mountains circling between Jiangxi and Hubei provinces. And its extending part on the east is namely the famous mountain-Mt. Lushan.

There are more than 2400 rivers of various sizes in Jiangxi province, which have a combined total length of about 18400 kilometers. Most of them enter Poyang Lake, which in turn empties into the Yangtze River. The five major rivers are Gan River, FuRiver, Xin River, Xiu River, and Rao River. The Gan River winds along 751 kilometers, which is the biggest river of the province, and the second tributary of the Yangtze River in water volume. Flowing through the entire lenghth of the province from south to north, it enters Ganzhou to Hukou, and then pours into the Yangtze River, with navigation mileage of over 5000 kilometers.

Poyang Lake is the larges fresh lake in China, and the biggest water assembling basin of Jiangxi province. It is the huge volume moderator of the

Yangtze River, and also the intersection of linking up with all shipping lines in-and-out of the province.

Climate

The climate of Jiangxi province is four seasons alternating distinctively: warm with abundant rainfall in spring, hot and humid in summer, cool with little rainfall in autumn, chilly and dry in winter. In 2009, The average temperature of the whole province is about 18.9℃,with the annual precipitation of 1438.1mm and sunshine hours of 1686.3h.The whole year of Jiangxi has mild climate, with sufficient sunshine, plentiful rainfall and long frost-free period, which belongs to humid subtropical climate.

Resources

At the end of the year 2009, the total area of the arable land of the province is 2,819,800 hectares, the area of afforested land in Jiangxi is 10,629,200 hectares. The total standing forest stock is 354 million cubic meters, and the forest coverage rate of 60.05%.

In 2009, the total cultivated freshwater area of the whole province is 417.060 hectares. The identified species of the fishes are 155 and more than 30types of them occupied the main production, such as carp, crucian carp, black carp, and silver carp etc. the valuable types are including lotus red carp, transparent carp, whitebait, reeves shad, and mandarin fish etc. there are also numerous birds and cherished ones in province, mot of which belonged to world-protected species.

Jiangxi province has a rich reserve of underground minerals which is one of the provinces with higher matching degree of mineral resources in China. The reserves of Copper, Tungsten, Silver, Tantalum, Scandium, Uranium, Rubidium, Caesium, Gold, and Associated Pyrite etc. rank the top three of the nation. Among all these minerals, Copper, tungsten, Uranium, Tantalum, Rare Earths, Gold and Silver are called “the seven gold flowers of Jiangxi”.

Brief Introduction of Nanchang City

Nanchang, the capital of Jiangxi Province, is the center of Jiangxi's politics, economy, and culture. It governs 4 counties (Nanchang County, Xinjian County, Jinxian County, and Anyi County), 5 districts (East Lake District, West Lake District, Qingyunpu District, Wanli District, and Qingshan Lake District), 2 national level development zones (Nanchang National High-tech Industrial Development Zone and Nanchang Economic and Technological Development Zone), 2 provincial level development zones (Jiangxi Sanghai Economic and Technological Development Zone and Nanchang Yingxiong Economic and Technological Development Zone) and the Honggutan New District. It covers an area of 7,402 square kilometers, 617 square kilometers of which is urban area and 220 square kilometers of which is built-area, with a total population of 4.85 million, about 1 million of which is transient population and 2.25 million of which is urban permanent population. It is one of the 35 biggest cities in China.

Nanchang, bordering the Poyang Lake in the southwest, lies in the middle and lower reaches of the Yangtze River. It has been enjoying obvious advantages geographically. Since the ancient times, it has been known as the favorable place bordering Guangdong and Fujian in the south and Jiangsu, Zhejiang and Hubei in the north. It is the only provincial capital city among the Yangtze River Delta, the Zhujiang River Delta, and the Southeast Fujian Delta, the most economically vigorous development areas in China. Besides, it is the intersection of the Zhejiang-Jiangxi Railway and it is the only provincial capital city on the Beijing-Kowloon Railway, connecting East China and West China, South China and North China.

Nanchang is a famous historical and cultural city with a history of over 2200 years. It has been enjoying the honor of "a given land abundant in natural resources and outstanding in producing talented figures". Moreover, Nanchang is a heroic city with glorious revolutionary tradition. The People's Liberation Army was born here and "the August 1st Spirit" appeared here. In addition, Nanchang is a scenic and environment-friendly city with beautiful mountains, rivers and lakes. The Gan River passes through the city from south to north and

the whole city is dotted with rivers and lakes. At the outskirts of the city you can see green mountains.

Moreover, Nanchang, an open and developing modern city, under the guidance of the city development spirit: "Opening Wider to the Outside World and Going All Out for Prosperity Honestly", is becoming famous in China and in the world as well with a rising momentum. Nanchang has been awarded the glorious titles: "One of the World Top 10 Dynamic Cities", "A National Hygienic City", "One of the Best Places for Living in China", "One of the China's Famous Cities Recommended to the World", and "One of the Charming Cities with Chinese Characteristics" since last year. Nanchang has become one of the best places in China for living and a new and modern city for pioneering. "The city is for its citizens and its citizens take their city as their home" has become the order of the day.

Since the reform and opening up, especially the entrance into the new century, Nanchang City, under the correct and wise leadership of the CPC Central Committee, the State Council, the CPC Jiangxi Provincial Committee and Jiangxi Provincial People's Government, has been working around the target of rising rapidly, making the city strong and the people rich, sticking to Deng Xiaoping's theory, "the Three Represents" and the scientific concept of development. The city has established the idea of "Well Planning, Carrying Out the Plan Carefully, and Working Efficiently", paying attention to the reality that Nanchang belongs to the under-developed provincial city in Mid-China, realizing the unity of rapid development, scientific development, and harmonious development, greatly implementing the main strategy of opening wider to the outside world and the core strategy of creating an important advanced manufacturing base, and building Nanchang into a modern regional economic center and a civilized, garden-like, and heroic city. The development of industrialization, urbanization, internationalization, market orientation and information has been accelerated and the scientific development route with Nanchang's characteristics of "starting late but with high starting point, good momentum and strong staying power" has been found. The satisfactory situation that economy is developing well and rapidly, the city is changing constantly, all

social undertakings are advancing, and the people are living a happier and healthier life has been created.

The 17th National Congress of the CPC started the new round development of our country, launching the campaign of building a better-off society. With the motive force of learning and carrying out the spirit of the 17th National Congress of the CPC, sticking to Deng Xiaoping's theory and the thought of "the Three Represents", implementing the scientific concept of development, Nanchang City will focus on the construction of a harmonious society. Taking the historical opportunity of the new round development, especially of organizing the 7th National City Sports Games in 2011, Nanchang City will greatly develop the city spirit: "Opening Wider to the Outside World and Going All Out for Prosperity Honestly", grasp firmly the main work principle: "Pioneering Enriches the People and Innovation Empowers the City", and further carry out the main strategy of opening wider to the outside world and the core strategy of creating an important advanced manufacturing base. Besides, Nanchang City will push forward the construction of the CPC, the new and great project, improve material civilization, political civilization, spiritual civilization, social civilization and ecological civilization, and better the cadres' understanding, implementation, operation and service. Nanchang City will keep the sound momentum of good and rapid economic and social development and build Nanchang into an important advanced manufacturing base of Mid-China and a regional center of business, logistics, and finance and into an open, vigorous, harmonious, civilized, pioneering, heroic, environment-friendly and garden-like city. The rise and new leap forward of Nanchang will be realized by unremitting efforts at the new starting point!

Brief Introduction of Poyang Lake National Wetland Park

Poyang lake national wetland park locates Poyang county in the northeast of Jiangxi province, beside the east coast of Poyang lake, which is in the centre zone of Poyang lake ecological economic zone.The whole park area is 36285

hektares, in which the wetland area is 35116.1 hektares, taking 96.8% of the whole zone.The park was designed in march of 2008 and was authorized as one of first national wetland parks by State Forestry Bureau in the December in the same year.

It is the sixth biggest wetland park in the world, which is also the biggest in the Asia.The resource ecology in the park is very abundant, including 141 kinds of wetland plants, 249 kinds of wild vertebrate in which 17 kinds are under first class national protection and 63 kinds are under province protection. After many years of hard work, Poyang national wetland park was awarded “The advanced wetland park in Jiangxi”, “The advanced tourism scenic area”, “The national science education demonstration base”, “The World Wide Fund for nature of Yangtze River wetland protection network nature school”, “The Provincial Ecological Tourism Demonstration Area”. Now it is establishing the national ecological tourism demonstration area.

To strengthening the administration of park, the wetland park administration committee was founded in February 2008, which is the full amount of money supply institution. Under the administration committee, there are office, the supervision department, the wetland protection department,the planning and construction department, the social affairs department, the culture and communication center, the festival office, the comprehensive law enforcement brigade, and four second level institutions including the maritime affairs, the police affairs, the finance affairs, the land affairs.

As an important platform for ecological protection in Poyang Lake, Poyang Lake National Wetland Park based on the "ecological protection" core, conscientiously perform their duties of protection of the Wetland Park, and strive to build Poyang Lake wetland protection model. Park has built in wetland protection, scientific research, popular science and thawing, travel in one of the Poyang Lake Wetland Park. Through the construction of aquatic plants garden, wetland science museum , Milu deer Park, Bird Rescue Station, Park carry out the protection of wetland science popularization. With the implementation of the restoration and reconstruction of Lake wetland vegetation system of wetland biodiversity and conservation, retreat cropland to recovery, Park effectively protect the wetland ecological system. To the prevention and control of water

pollution, Park implemented the "clean homes, clean garden, clean water, clean energy" four major projects of ecological village construction project, and established "sewage anaerobic pond, artificial wetland degradation and farmland irrigation" three levels of ecological degradation processing mode to take on rural sewage. Park is planning the implementation of the core area of City Park sewage pipe network and sewage pipe network connected to the grid. To strengthen the park management functions, Park set up a comprehensive law enforcement unit, in accordance with the "departments commissioned law enforcement, comprehensive law enforcement" professional team mode,crack down the destruction of wetland resources in accordance with the law. Park set up a rare animal and plant research and conservation center, and cooperated with the professional research institutes, universities and other institutions . Park established Poyang Lake rare research and rescue base, on the swan, crane, Oriental White Stork, black finless porpoise and other Poyang Lake state protected rare animals to rescue protection.

Brief Introduction of Promotion Association for Mountain-River-Lake Regional Sustainable Development (MRLSD)

Promotion Association for Mountain-River-Lake Regional Sustainable Development (MRLSD)， established in 1999, is a non-profit and non-government organization. The members of MRLSD are those famous persons or organizations that are enthusiastic in MRL Programme. So far, MRLSD is the memberships of Living Lakes, China SSC Network, CANGO, CCAN and China Association of Microfinance.

MRLSD seeks to set up cooperative relations with NGOs and government agencies and organizations in China and abroad, and to contribute to Poyang Lake watershed health, Jiangxi green development and Poyang Lake eco-economic zone development.

Our Mission

To promote all the societies in Jiangxi Province to actively participate in the eco-environment protection of Poyang Lake watershed, and to promote the sustainable development of MRL region through conducting the national and international cooperation and exchange in the forms of funds, technology, information and intellectuals.

Our works and achievements

MRLSD has carried out lots of works and obtained remarkable achievement in awareness rising, Environmental protection, sustainable alternative livelihood and poverty alleviation.

Awareness rising of Poyang Lake ecological protection

During 2007 and 2009, MRLSD developed an activity called “Go Green and Low-carbon Life” by the support of CANGO. At the World Water Day of 2010, MRLSD started a city mobilization from People’s Square and some communities to University Campus, and appealed for saving and protecting our precious fresh water resource. In the same year, MRLSD joined WWF’s Shanghai Expo to exhibit the weekly activity --“The Favorite lake in my heart”, which attracted lots of tourists’ attention and obtained their “loving symbol” and promises for lake protection. Plus, MRLSD has developed many activities to rising awareness, such as water resource protection with Friend of Earth (Hongkong).

Environmental protection in Poyang Lake watershed

MRLSD considers that the essence of lake protection is to improve the waste treatment and disposal control. Recently, MRLSD employed a series of projects and programmes focusing on the non-point pollution in the rural area of China. In 2008, MRLSD applied the constructed wetland to treat the domestic waste water in village level by the grant of German Embassy. Since 2012, MRLSD has developed several programmes on waste water treatment and resource utilization of rural area, especially for the livestock and poultry farm, where MRLSD

studied the most appropriate management and technologies and set up demonstrative sites.

Poverty alleviation

The long experience of MRLSD proves that environmental protection (esp.mountains, rivers and lakes) must joint with poverty alleviation. The Micro-finance Programme , supported by Bank of Asia , initiated in 2000 and using the financial tool to encourage the farmers and fishmen changing the way of livelihoods from environment destruction to samll family workshops or cash crops plantation. Now, with the support of South-South platform, PGTF fund, some national funds and Embassy grants, MRLSD introduced the locals to practice the sustainable alternative livelihood, and helped the farmers and fishmen liberate from the traditional livelihood which competed with the environmental resources and swift to production activity with more technological means and higher economic benefits. So far, the Micro-finance Programme helped more than 100 thousands people to get rid of poverty and achieve prosperity.

In the future, MRLSD will follow the trend of world and keep pace with the time to endeavor on the three aspects to realize our mission.

Brief Introduction of Jiangxi Academy of Sciences (JXAS)

Jiangxi academy of sciences, as the only comprehensive institute of natural science research in Jiangxi Province, since re-opened in 1979, are persisting in giving first place to the scientific research, enhancing the capacity for independent innovation and actively giving efficient service for the economic society development. Thus far, the academy has obtained more than 600 scientific research achievements. Notably in 1980 s, the academy organized the first comprehensive scientific expedition in Lake Poyang with more than 600 participating researchers, and published an academic monograph “Studies on Poyang Lake” with 880,000 words. This research achievement got the second

prize of national technological progress in 1990, and far more important provides a scientific basis for comprehensive research and development of Poyang Lake in Jiangxi province as well as the foundation for establishment of Mountain-River-Lake Project.

To actively respond to the development of Poyang Lake ecological economic region, Jiangxi Academy Sciences established the key laboratory of Poyang Lake by integrating resources. In recent years, under the support of more than 50 projects including the national key technology support program, the national science foundation and various local scientific and technological research funds, the academy tries to press forward with the research work on the key issues in protection of Poyang Lake and the sustainable development of its watershed, with the research area covering biodiversity of Poyang Lake, wetland degradation and ecological restoration, the prevention and control of schistosomiasis, and water pollution control and so on, notably the water quality control of poultry scale cultivation and rural sewage in the Poyang Lake basin. Meanwhile, so far the academy has established the long-term technical cooperative partnership with more than 20 organizations and research institutes related to lake research at home and abroad like Chinese Academy of Sciences. All the work provides a good technical support for maintaining forever the clear water of Lake Poyang.