

THAILAND Wetland Survey

Introduction: Wetland resources of Thailand are limited to the fresh-water marshes associated with extensively cultivated lands in the north, northeast, and central regions of the country. Virtually no unaltered wetland remains in the central area, but some may still remain in the northeast, associated with the Mekong River on the Thai/Laos border. Swamp forests are found in peninsular Thailand to the south, and mangroves occur in several regions of both eastern and western coastlines. There is no national policy for wetland protection in the country.

Resources available:

1. Land Use maps. All provinces have been mapped quite recently at a scale 1:500,000, using LANDSAT images. 40/72 provinces have been completed at a scale 1:100,000, mostly northern and northeastern provs. Some have been completed 1:50,000, using aerial photography. Maps available through Land Development Department.
2. Mangrove maps. All mangroves of the country have been mapped at scale 1:250,000 and 1:1,000,000. Maps available from the Remote Sensing Subdivision of the Royal Forest Department.
3. Swamp Forest maps. The Remote Sensing Division of the National Research Council, in cooperation with the Remote Sensing Subdivision of the Forestry Department, is now preparing maps of the country's swamp forests. A preliminary report appeared in the 1983 Conference on Remote Sensing in Asia proceedings.
4. MAB Programme. Three Biosphere Reserves have been designated in Thailand, one a mangrove swamp forest. Certainly data on other wetland resources exist within the Programme committee.
5. Miscellaneous.
 - a. Royal Forest Department Technical Division, Wildlife Conservation Division, wildlife surveys of non-hunting areas and reserves.
 - b. Association for the Conservation of Wildlife. Extensive biogeographical data on bird distribution for the country have been assembled by Phil Round.
6. Published Reports/Literature.
 - a. "Ecological Studies for Conservation of Shore Birds in Songkhla Lake (2 vols, including conservation plan for this region, one of the most important wetlands of the south of Thailand.) Thailand Institute of Scientific and Technological Research (under Office of the National Environmental Board). 1981-82.
 - b. Mangroves of Thailand. Dr. Sanit, Faculty of Forestry, Kasetsart University, Bangkok.
 - c. A Profile on the Endangered Species of Thailand. US Fish and Wildlife Service, in cooperation with Florida State University, AID/MAB, and IUCN. 1980.
 - d. Fourth Asian Conference on Remote Sensing (Proceedings). includes swamp forests of Thailand. 1983-84.
 - e. SCOPE is preparing (has prepared?) a manual of key wetlands and their management, following a meeting held at Thalae Noi (Lake Songkhla) May, 1983.

Wetland Survey Assistance:

I. Wetland location and mapping

1. National Research Council, Remote Sensing Division. This is the regional LANDSAT receiving center. With their exceptional facilities and well-trained staff, this is the natural place to seek assistance. They have agreed to act as coordinator for this part of the survey, and they can likely use their staff and facilities for the project, as it would fit in nicely with the ongoing swamp forest mapping program. Nonetheless, only through proper channels are they able to play a role in the survey.
2. Land Development Department, Land Use Classification Section. Land use maps for the entire country reside with this office, and they are willing to provide whatever information they have available, and could probably assist with mapping of wetlands.
3. Royal Forest Department, Remote Sensing Subdivision. As mentioned, mangrove and swamp forest maps are available here.

II. Wildlife of Wetlands

1. Royal Forest Department, Wildlife Conservation Division. Various Sections of the Division can play a role in the wetland survey, including the Technical (scientific) and Extension Sections. A coordinator has been located to gather all available information from the various branches of the Division.
2. Association for the Conservation of Wildlife. Both Dr. Boonsong Lekagul and Phil Round are committed to the wetland survey, and will serve to coordinate the wetland wildlife censusing.
3. Thailand Institute of Scientific and Technological Research. With a directive from the National Environment Board, the Institute can assist with field investigations of selected wetland sites.
4. Inter-wader Thailand. Jonathan Starks is presently developing a program for the migratory waders as part of the Asia Inter-wader program. He will survey all coastal wetlands.
5. Bangkok Bird Club. This small but active group will provide assistance by surveying selected sites throughout the year.

Support and Endorsement

If approached with a formal proposal, and letter inviting their participation in the All-Asia wetland survey, the following agencies/organizations may be able to provide some assistance, support, coordination, and endorsements:

- * National Environment Board
- * UNEP
- * ESCAP
- * UNESCO.

Financial support may be available through the new Wildlife Fund Thailand.

BANGLADESH Wetland Survey

Introduction: During parts of the year, most of Bangladesh is a wetland. Much of the central part of the country is extensively cultivated, and thus is not of great natural value for wildlife. The most extensive mangrove swamp of the world is within the Sundarbans of Bangladesh, adjacent to the Indian Sundarbans. Additional mangroves are found on the Bangladesh/Burma border. In the far north of the country, many fresh-water wetlands still can be found, some in reasonably undisturbed condition. Little is known about their wildlife use.

Resources available:

1. Mangrove maps, from recent LANDSAT images and aerial photos; scale 1:30,000 completed, 1:10,000 nearing completion, by Bangladesh Space Research and Remote Sensing Organization (SPARRSO). Also available from Forestry Department.
2. Maps of Fresh-water bodies, ponds, "bheels" are currently being prepared by SPARRSO for the Fisheries Department.
3. Wetland maps, which include the most important "haors" (marshes) of the country have been prepared for forestry/agricultural purposes. May be requested from the Survey Department via Forestry Department.

Wetland Survey Assistance:

I. Wetland location and mapping

1. SPARRSO. The Director has voiced a strong interest in participating in the wetland survey. ICBP/IWRB needs to send proposal and request official participation by SPARRSO in the project, either directly to SPARRSO, or through Forestry.
2. Department of Forestry. Mr. Noor Mohammed Sarker, Conservator of Forests for Administration and Wildlife, and Mr. Abdul Wahab Akonda, Sr. Research Officer. Both have voiced a strong interest in the survey, and their willingness to help. They have direct contact with the Survey Department, Haor Development Board, and Fisheries Department.
3. Haor Development Board/Fisheries Department. Involvement may be direct participation, or indirectly through Forestry's requests for information.

II. Wildlife of Wetlands

1. Department of Zoology/University of Dhaka. Some faunistic reports exist for various wetland areas. Professor Kazi Zaker Husain and Dr. S.A. Sarker have committed their effort to the project, as has a student at the university, Mr. S.M. Abdur Rashid. He has expressed desire to spend as much as a year in the field, checking wetlands, if minimum expenses are covered.
2. Department of Forestry. see above.
3. Wildlife Society/Bird Preservation Society of Bangladesh. wildlife surveys of selected sites and pooling existing reports.

4. ICBP/ Wildlife Preservation Society. Mr. F. Karim has many contacts in the country and will help bring resource people together.
5. Bangladesh National Museum. Mr. Md. Nazrul Haque, Assistant Keeper, Natural History Department is a field ornithologist, and would like to be involved in the census. An official request for his participation should be sent to Dr. Enamul Haque, Director General of the Museum, Shahbag, Dhaka.

Recommendations: Since the government has virtually no staff available, I propose that the Department of Zoology at the University of Dhaka, with its competent faculty and interested students, play a major coordinating role in the wetland survey for the country, working very closely with the various government Departments and other organizations in the country.

Due to the presence of numerous vast wetlands in the north (and the mangroves in the south), and due to a large void of information about these wetland resources, particularly their importance to migratory wildfowl, I suggest that a major effort be made to locate appropriate funds to cover expenses of one full-time field investigator in Bangladesh, and to locate a vehicle which might be used for this project (as only public transportation is presently available for such endeavors).

INDIA Wetland Survey

Introduction: India is a vast and extremely varied country, and an extensive wetland survey program, complete with thorough field investigations, is not practical. At present, the Department of the Environment has undertaken the burden of updating past wetland surveys for the country, under the direction of Dr. Lamba. This revision is being done via a several page written survey, which is being distributed to all governmental agencies at state levels, non-governmental agencies/organizations involved with all aspects of wildlife research and conservation, and universities. Dr. Lamba estimates that 8000 questionnaires will be sent out.

Comments: After reviewing the survey questionnaire, I suggest that it does not focus the questions well enough to ascertain the important wildlife usage. Perhaps ICBP/IWRB can encourage the Indian government to alter its questionnaire to conform to the standards used in previous wetland surveys, e.g., Neotropics.

I don't feel that the survey will provide enough useful data on the country's wetlands and wildlife, without additional field investigations. No plan has been made to do any field studies. I visited several areas where limited information exists about the wildlife of wetlands, including Gujarat State and Assam. In fact, it seems that the great proportion of data are from several specific areas (e.g., Bharatpur, Sundarbans, et al). I have met young, and competent wildlife biologists who would be very willing to spend a great deal of time in the field to undertake such investigations in a systematic way, if minimal transportation and living expenses are provided.

2. Ministry of Urban and Rural Construction and Environmental Protection. This Ministry has an ornithologist in the Environmental Protection Bureau (Mr. Jah), and they sent an observer to the Groningen conference (Ramsar meeting). They are keen on active participation in the survey. Duncan spoke with several persons there.
3. Chinese Academy of Sciences (Academia Sinica). Among the six divisions are Biosciences, Earth Sciences, et al. Under the first division are the five Institutes of Zoology. These are research insititutions, with trained field ornithologists.
4. Chinese Association of Sciences and Technology. The Chinese Ornithological Society falls under the Association. The COS has a publication and national communication network.
5. Universities. Most major universities have Zoology Departments, which undertake some field investigations. Duncan and I have had contact/communication with several ornithologists in various universities. Associated with the University of Xiaman is a Mangrove Institute. There is also a Rice Grass (Spartina) Institute. Professor Wang Qishan of the Anhui University wants to write an illustrated book on the waterfowl (using IWRB definition) of China.
6. Miscellaneous.
 - a. Chinese Wildlife Conservation Association. a new and considerably influential body. Chairman is the Minister of the Ministry of Forestry, and Vice Chairman is Prof. Cheng Tso-hsin, the eminent ornithologist of China. The focus is endangered species.
 - b. National Crane Conservation Committee. Honorary Director is the Vice Minister (Forestry). Members include a wide range of ornithologists.
 - c. Committee on Environmental Protection. The Vice Premier (!) is Chairman, and this Committe falls under the State Council. Apparently quite influential committee.

Recommendations: It may take a while to sort out this fairly complicated network of agencies and organizations. Duncan is pursuing further.

At a ministerial level, the most likely choice for in-depth involvement would be the Min. of Urban and Rural Construction and Environmental Protection, as they already have the maps available, and they have expressed strong interest in participation. Certainly the most valuable field personnel are found in the Institute of Zoology and the universities. Perhaps a key contact can be located in each province, particulrally the "wettest" provinces. Preparation of the directory should fall within the Environmental Protection Bureau(Office) of the Min. U.R.C.E.P., as they would have responsibility for Ramsar matters.

CHINA Wetland Survey

Introduction: Naturally, a country the size of China shall pose obvious difficulties when trying to accurately locate and assess the most important wetland resources in the country. However, resource information is available, albeit scattered among the multitude of governmental institutes and agencies. Duncan Parish spent several weeks in China in several localities to try to locate the key resource persons to assist with the wetland project. I met Duncan in Beijing during my short visit there in May, and together we pooled our information and spoke with numerous individuals about the forthcoming wetland survey. Below is a preliminary summary of our efforts.

Resources available:

1. Topographic maps of the entire country, on a scale of 1:50,000 & 1:100,000 (1960's), 1:200,000 & 1:500,000 (1970's), and 1:1,000,000 (1980's). Available through National Bureau of Surveying and Mapping (NBSM)
2. County maps (topographic and geographic) are two-thirds completed for country (NBSM)
3. Land Resource Survey (nationwide), completed in the 1980's, using Landsat images (obtained from the U.S., Japan, and Thailand). Ten main land-use types were mapped, scale 1:500,000, and is complete at a provincial level. This was completed by the Institute of Remote Sensing Application, under the National Remote Sensing Center. Information rests with the Ministry of Urban and Rural Construction and Environmental Protection.

Wetland Survey Assistance:

I. Wetland location and mapping

1. Institute of Remote Sensing Application. (Prof. Yang Shiren, Director and contact). They are willing to do the entire wetland mapping, using satellite images, if funds are available through UN agencies (ESCAP) or private foundations.
2. Ministry of Urban and Rural Construction and Environmental Protection. This Ministry is most directly involved with natural areas conservation and management. Within the Ministry are the Environmental Protection Bureau, which covers nature conservation/nature preserves, and the Bureau of Mapping and Surveying. This Ministry has the Land Use data described above (3.). Duncan has key contact persons' names.
3. UNESCO. The China Representative for Science and Technology is Dr. H.L. (Leo) Teller. Although new to his office, he has worked for many years with the MAB program of UNESCO, and he is eager to assist with the project in whatever way he can.
4. MAB (UNESCO) representative in China is Professor Yang Hanxi (Duncan spoke to him).

II. Wildlife of wetlands

1. Ministry of Forestry. The Ministry is responsible for all matters pertaining to endangered species of wildlife. Contact person: Mr. Qing Jian-hua (Forest Policy/Protection).