SINDH BARRAGES IMPROVEMENT PROJECT
IRRIGATION DEPARTEMENT

ONE DAY WORKSHOP ON INTEGRATED RIVERINE HABITAT MANAGEMENT BETWEEN GUDDU AND SUKKUR BARRAGES

PMO, SBIP Office, Bungalow # F/77/1, Kehkashan Cilfton, Karachi
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A. Introduction

The component Integrated Riverine Management focuses on social development and environment management of the stretch of Indus River between Guddu and Sukkur Barrages. It would comprise activities supporting: (a) dolphin management and conservation, (b) community fisheries co-management, (c) sustainable agriculture, (d) technical studies (e.g., design for fish passage gates) and (e) water quality and pollutant studies. This component would be implemented in collaborations with the Sindh Environmental Protection Agency (SEPA), Wildlife Department, Forest Department and Agriculture Department, and Fishery Department. World Wildlife Fund (WWF) would also participate in implementation of this component.

In this regard, the Workshop on Integrated Riverine Habitat Management between Guddu and Sukkur barrages was held on 6\textsuperscript{th} March, 2017 in Sindh Barrages Improvement Project (SBIP) office, Karachi which was attended by the representatives of the World Bank mission, Project Coordination Monitoring Unit (PCMU), Planning and Development Department (PDD), Fisheries department Sindh, Environmental Protection Agency, Sindh and Plant Protection Agricultural (Extension) wing Agricultural department, Sindh Wildlife department and Sindh Barrages Improvement Project.

B. Project Director made Welcome Address during Workshop

The Project Director (SBIP) Irrigation department welcomed the World Bank mission and all participants of different organizations/departments for sparing their costly time to attend workshop. He informed to forum that the meetings have already been held with EPA, Sindh, Fisheries, Agriculture, Forest and Wildlife departments regarding development of Riverine Habitat Management between Guddu and Sukkur barrages. He further said that main purpose organizing of this workshop is to provide platform to the key stakeholders/representatives of all concerned departments for sharing plan activities and interact themselves for establishing Integrated Riverine Habitat Management for sustainable the ecosystem.

C. Task Team Leader spoke regarding Support of the World Bank for Social and Environment Safeguard

Mr. Toru Konishi (Task team Leader World Bank) said that I am happy for organizing the workshop by the SBIP office Irrigation department and participation of key stakeholders of EPA Sindh, Forest, Wildlife, Fisheries and Agriculture departments and PCMU which is part of Planning and Development department. There is good opportunity of these all departments have to work together for Integrated Riverine Habitat Management and establishment of ecosystem. He said that I
knew that there is a big issue of water quality and quantity in Sindh province and almost three barrages’ water is diverted for only agriculture purpose. He further said that all natural resources should be managed through integration. The SEPA is responsible for water quality, no fishing zone, community Fisheries co-management and establishment of Hatchery by Fisheries Department, Dolphin Conservation and management by SWD, Aforestation by Forest department and controlling over pesticide by Agriculture department, he added.

D. Senior Environmental Specialist (World Bank) presented on ‘River Basin Water Resources and Riverine Management’

Mr. Takeaki Sato, Senior Environmental Specialist (World Bank) presented on ‘River Basin Water Resources and Riverine Management’ and told forum that Environment and socio safeguard component SBIP is focusing on stretch of Guddu and Sukkur barrages for activities supporting Dolphin Game Reserve and Ramsar site, Riverine Forests, Water Pollution due to sewage, industrial wastewater and agricultural runoff, Fishing activities, lack of awareness on the importance of riverine ecosystems. He said that objective of this workshop is to conserve and improve the management of the riverine ecosystems and aquatic resources within the designated Ramsar site between the Guddu and Sukkur Barrage. This objective can be achieved through: Enhancing ecological values of the riverine ecosystems through conservation and improved management of Indus River Dolphin, riverine forest, sustainable fishing practices and technical studies; Pollution reduction in River Indus by establishing water quality monitoring, enforcing environmental regulations and promoting sustainable agriculture; and Education and awareness raising of general public regarding the importance of riverine ecosystems.

He highlighted that the Institutional arrangement will be made during implementation of Integrated Riverine habitat management as shown as under:
E. Additional Director General, SEPA delivered presentation on ‘Assessment and mitigation of pollution sources to improve the quality of riverine ecosystems’

Mr. Waqar Hussain Phulpoto (Additional Director General), SEPA delivered presentation on ‘Assessment and mitigation of pollution sources to improve the quality of riverine ecosystems’. He highlighted proposed activities with objectives during presentation in workshop ie. identifying pollution sources; assessing water quality/pollution load and the regular monitoring systems, building the mechanisms to improve of wastewater management practices besides implementation of minimizing use of pesticides/agro chemicals between Guddu and Sukkur barrages. He further told forum that Irrigation Department has already identified 723 major pollution sources in the entire Sindh province. Pollution sources such as thermal power plants and sugar mills, sewage discharge from major cities including Sukkur and Rohri, agricultural runoff and poison fishing practices. Regarding this, consultation with relevant governmental organizations including fishery department, agricultural department and municipal governments will be conducted. He brought up during presentation the proposed activities for preparation of draft project proposal ie. i) Identification of pollution sources; ii) Quantifying the level of pollution iii) Monitoring system development; iv) Web-based monitoring result publishing; v) Mitigation enforcement; vi) Capacity Building and also Project implementation plan for 3 years. After presentation, discussion and interaction session was opened for participants of workshop, it was suggested that project implementation plan should extend from 3 year to 4 years, and draft project proposal as per activities should be shared within three weeks of this month with SBIP forwarding to World Bank.

F. Divisional Forest Officer, Afforestation Division Sukkur delivered presentation on ‘River Habitat Management through Conservation of Reserve Forest Lands in Afforestation Division Sukkur’

Mr. Iftikhar Ahmed Arain (Divisional Forest Officer), Afforestation Division Sukkur delivered presentation on ‘River Habitat Management through Conservation of Reserve Forest Lands in Afforestation Division Sukkur’ and informed the forum that the Forests under the Administrative Control of Afforestation Division
Sukkur fall in the Geographical Boundaries of Sukkur, Ghotki, Shikarpur & Khairpur Districts and main species of forest between Guddu and Sukkur are such as i) Bahan (Populus euphratica); ii) Babul (Acacia nilotica); ii) Kandi (Prosopis cineraria) and iii) Lai (Tamarix orientalis) commonly found. He further told the forum that the main objectives of activities and functions for aforestation and reforestation of proposed project are ie. a) to increase forest cover over state forestlands through Afforestation & Reforestation activities; b) to ameliorate environment, conserve biodiversity and mitigate the effects of climate change; c) Regulate emergency felling of tree growth in state forestlands and d) to implement and execute the Government policies, and proposed Aforestation will be made in ranges Sukkur, Rohri, Pano Akil and Mirpur Mathelo and their covered land is 125072.0 acres as per proposed project proposal. The areas have been identified for the proposed activities; keeping in view to integrate & touch the ease in touring & monitoring of Wildlife species, Fishery resource, Agriculture, Environment and Plant Diversity of the Indus Dolphin reserve between Guddu and Sukkur Barrages. He brought up activities and project implementation plan such as i) Afforestation in inundated areas/through Tube wells, ii) Installation of Tubewells & Maintenance, iii) Clearance of Compartment Roads, iv) Survey and Demarcation of Forest Boundaries, v) Workcharge Establishment, vi) Contingencies & Store Tools Plants, vii) 3rd Party Monitoring, viii) Raising of container plants, ix) Renovation of Foresters Head Quarters, x) Renovation of Forest officers’ office Buildings, ix) Rehabilitation of Sundran Forest Area and xii) Rehabilitation of Rahuja Park. After presentation, forum was opened in order to discuss and interact for participation. Forum suggested that activity of installation of tubewells should be removed, and lift machines should be used for lifting water. And also suggested for improvement forest for tourism. Further Plan activities should be rationalized in draft project proposal which should be submitted within three weeks of this month.

G. Agricultural Officer, Agriculture Extension Wing, Agriculture department delivered presentation on ‘Promotion of Sustainable Agriculture and Reduction in Use of Pesticide between Guddu-Sukkur’

Mr. Toqeer Ahmed (Agricultural Officer), Agriculture Extension Wing, Agriculture department delivered presentation on ‘Promotion of Sustainable Agriculture and Reduction in Use of Pesticide between Guddu-Sukkur’ and brought up the objectives of Plan activities of the project such as i) to enhance the productivity of crops through dissemination to aware and promote sustainable agriculture, ii) Training of Farmers in IPM through FFS for crop raising and plant protection measures to control the pests and diseases of all crops as to minimize the insect pest hazardous in the crop and post harvest losses, iii) to promote judicious use of pesticides and fertilizers to reduce air and water pollution for construction of natural habitat of River Indus, iv) Capacity Building of Officers /
Officials and farming community to establish network of sustainable agricultural system and FFS, v) to increase the efficiency, outreach and traceability of extension staff in the field and vi) the overall objectives of agriculture sector are to improve farm productivity by ensuring food security and climate change adaptation and mitigation strategies. He highlighted that Farmers Field School (FFS) will be established in different districts and implementation plan for two years with proposed cost. The forum was opened after presentation for discussion interaction. Task team leader (WB) suggested that above 10% FFS for female teachers should be established for disseminating awareness and personal protected equipments for safeguarding from adverse impact of pesticide residue. Senior Environmental Specialist (WB) suggested that storage of fertilizer and pesticide chemicals should provide proper bunding and taping for safeguard. Project Director (SBIP) suggested that project activities should be confined within districts of project area (Guddu to Sukkur reach). The Plan activities should be rationalized in draft project proposal accordingly. The draft project proposal may be submitted within three weeks of this month.

H. Conservator Sindh Wildlife department delivered presentation on ‘Indus Dolphin Conservation and Management’

Mr. Taj Muhammad Shaikh (Conservator) Sindh Wildlife department delivered presentation on ‘Indus Dolphin Conservation and Management’ and further told that Indus Blind Dolphin (Platanista minor) is a fresh water mammal and inhabiting river Indus since centuries. It is considered second most threatened species among five of the river Dolphins in the world. River Dolphins are among the world most threatened mammal species and they inhabit some of the largest river systems of South-Asia. Their environmental requirements link them to food and water security issues in the world most densely populated human environments. He told the forum that during research and population surveys maximum numbers of Dolphins were sighted at different locations ie “17 Core and Buffer Zones/schools”. He told the audience regarding objectives of Project Activities Plan ie. i) the project aims to enhance the level of Conservation and Management of Indus Dolphin based on the scientific study, research, education and awareness. ii) Enhance the Stranded Dolphin Rescue Program to protect and save the stranded dolphin from canals and associated areas.iii) Raise the level of awareness of local fishermen community, industrial sector, local youth and general public on Indus Dolphin conservation and environmental issues. iv) Capacity building of local community and line departments. v) Create sense of ownership among the local community and promote dolphin as a cultural identity. He also said that there is need of population survey pre monsoon in this year. The forum was opened for discussion; the Project Director suggested
that Wildlife department should get issued notifications for establishing of Dolphin Rescue Units and Project monitoring, procurement and recruitment committees according the approved project proposal. The Conservator told forum that the Secretary Forest and Wildlife department has been transferred and a new is to joined. As the Secretary joins, the notifications will get be issued swiftly. The Advisor (Environment) SBIP suggested that new project proposal regarding Indus biodiversity management may be submitted by SWD.

Photo: shows Conservator SWD delivered presentation

I. Deputy Director Fisheries Department delivered presentation on ‘Community Fisheries co-management between Guddu-Sukkur under SBIP’

Dr. Aslam Jarwar, (Deputy Director Fisheries) Fisheries Department delivered presentation on ‘Community Fisheries co-management between Guddu-Sukkur under SBIP’ and brought up concept regarding Engaging communities in conservation of natural resources and providing them additional income sources as an incentive has proved as a successful tool in achieving conservation objectives more effectively and at an accelerated rate. He told that the objectives of activities of the project proposal is ie. Engage communities in conservation and protection of fisheries resources through co-management of fisheries, management of certain areas mutually agreed as protected, and provide them incentives through alternative income options. The objectives can be achieved: Engaging communities in conservation provides i) Better management & close supervision of resources ii) More fishermen access to resources (organized communities) and better post harvest quality maintenance iii) Better livelihood options and iv) Helps develop sanitation, better health, sense of a responsible citizen (serves as informal education). He also mentioned that activities Components such as Community Interventions a) Support to community managed aquaponic fish cages, fish pens and river aquaculture (ornamental fishes, aquaponics, carp and catfish (small earthen / artificial impoundments, IBCs) c) Support to community in establishing or strengthening fish seed production and nursing in the target area and d) Support in strengthening & improving community fish seed supply network in the project area Consultation and Awareness raising i) Survey and data collection, ii) Training of fishermen and farmers, iii) Develop awareness campaign, Upgradation of Sukkur Hatchery i) Upgradation of fish hatchery / nursery Sukkur for enhanced output for supporting community interventions and ii) Research on species and systems for suitability in the target area Management, Communication and Capacity Building (Staff). The discussion session was opened and forum raised question about cost estimate and project implementation Plan. He replied that the cost estimate and implementation plan will be prepared according to receiving suggestions from participants of this workshop. The Task team leader suggest ed regarding agro-fishing, Fisheries and Agricultural departments should coordinate and jointly work.
J. Guideline and Suggestion regarding preparing proposals

Environmental Advisor (Dr. Syed Najam Khurshid) discussed with all representatives of different departments regarding estimate costs preparing the proposals. Deputy Director Environment (Dr. Ali Asghar mahesar), SBIP coordinated with all departments and discussed with various activities of proposed project.

L. Task Team Leader (World Bank) concluding remarks

Task Team Leader (World Bank) during vote of thanks appreciated the representatives of Environmental Protection Agency, Sindh, Forest department, Fisheries department, Agriculture department and Wildlife department for delivering the good presentations regarding to conserve and improve the management of the riverine ecosystems and aquatic resources within Indus Riverine habitat between the Guddu and Sukkur Barrage, and also appreciated the Sindh Barrages Improvement Project team for organizing the workshop with nicety.

K. Vote of Thanks by Project Director (SBIP)

He said thanks all the participants of different organizations for succeeding this workshop. The workshop/meeting ended with a vote of thanks by the Project Director (SBIP), Irrigation Department, Government of Sindh.

M. The list of the participants attended the workshop/meeting is as under:

1. Mr. Toru konishi, Task Team Leader, World Bank
2. Mr. Shafqat Hussain Wadho, Project Director, PMO-SBIP, Irrigation department.
3. Mr. Takeaki Sato, Senior Environmental Specialist, World Bank
4. Mr. Waqar Hussain Phulphoto, Additional Director General (ADG), EPA, Sindh
5. Dr. Najam Khurshid, Advisor (Environment), PMO-SBIP, Irrigation department
6. Dr. Ali Asghar Mahesar, DD (Environment) PMO-SBIP, Irrigation department
7. Mr. A. Razzaque Memon DD (Procurement), PMO-SBIP, Irrigation department
8. Mr. Riaz Ahmed Wagan, Conservator, Sindh Forest department
9. Mr. Iftakhar Ahmed Arain, DFO Sukkur, Sindh Forest department
10. Dr. Aslam Jarwar, DD (Fisheries), Sindh Fisheries department.
11. Mr. Mohammad Aslam Ansari, DD (Fisheries), Sindh Fisheries department.
12. Dr. Nisar A Memon, Director (M&E), PCMU, Planning and Development Deptt.
13. Mr. Abdul Basit Khan DD (Environment), PCMU, Planning and Development Deptt.
15. Mr. Toqeer Ahmed, Agricultural Officer, Agri Extension wing, Agricultural deptt.
16. Mr. Sajid Hussain (Assistant), PMO-SBIP, Irrigation department.
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