

Transfer of Technology; Successful Pilot Scale Trial of IPRS Technology in Pakistan

History making innovation in Aquaculture Industry is progressing by collaboration of HEC, Department of Zoology, LCWU, SoyPak and Punjab Fish Farm

In-Pond Raceway System (IPRS) is an innovative aquaculture technology which is combination of open pond, raceways, white water units, baffle wall and waste collection unit. This technology was developed by Auburn University, USA to increase the production efficiency, yield per acre and conserve environmental resources. Pakistan is the fifth country which has adopted IPRS technology in Aquaculture in collaboration of Technology Development Fund program of Higher Education Commission of Pakistan (TDF03-132), Department of Zoology, Lahore College For Women University (LCWU), SoyPak Pvt. Ltd. and Punjab Fish Farm.

Pilot scale trial project of IPRS successfully completed its first production year in 2019. Industry, academia and other stakeholders were desperately waiting for outcomes of the trial and its feasibility in Pakistan. As part of transfer of technology phase of the project, ORIC, LCWU organized a series of interactive seminars with support of the project team in three provinces of Pakistan; Punjab, Sindh and Baluchistan to maximize the dissemination of knowledge about this innovation in Aquaculture.

First Seminar in Multan, Punjab, FEB 15, 2020

First seminar was organized in Multan (340 Km from Lahore) on FEB 15, 2020 to cover the largest Aquaculture cluster in Punjab. Dr. Shafaq Fatima, principal investigator of this HEC partially funded project, introduced the agenda of LCWU, Department of Zoology and ORIC in progress of women education and entrepreneurship. She further explained the objectives of Technology Development Fund program of HEC, research and development activities under this project with investment of industrial partners. R.S.N. Janjua (SoyPak, Pvt. Ltd.) who is industrial partner in the project, discussed about IPRS technology, its benefits and outcomes of its pilot project in Pakistan. He explained that by using IPRS technology, 50 kg per cubic meter fish production was easily achieved in the first pilot project while next year's target is 150 kg per cubic meter subject to stringent practice of IPRS and pond management. Kamran Maqsood (Punjab Fish Farm), who is progressive farmer and industrial partner in the project explained the design of IPRS technology

and its feasibility in Pakistan. A total of eighty guests participated in this seminar belonging to fish farming, potential investors, Department of Fisheries, Punjab, Fish Feed industry and universities.



Seminar at Hotel Ramada, Multan, 15 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Stakeholders from Aquaculture industry, fish feed mills, academia and Department of Fisheries, Punjab participated.



Seminar at Hotel Ramada, Multan, 15 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Dr. Shafaq Fatima, Kamran Maqsood and R.S.N. Janjua are answering the questions of participants.



Seminar at Hotel Ramada, Multan, 15 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”.
Group photo of all participants in seminar.

Second Seminar in Karachi, Sindh, FEB 24, 2020

ORIC, LCWU organized the second seminar in Karachi (1,211 Km from Lahore) , hub of marine fisheries and Aquaculture in Sindh province. R.S.N. Janjua (industrial partner) played very active role in organizing this seminar. A total of fifty important investors, fish farmers, academicians, representatives of Department of Fisheries, Sindh, Fish processing industry, fish feed industry, and Sindh Enterprise Development Fund participated in the seminar. Prof. Dr. Farkhanda Manzoor, Director ORIC and Co-PI (TDF03-132) in this project welcomed the guests and introduced the objectives of Lahore College For Women University and ORIC to the worthy guests. Dr. Shafaq Fatima (Principal investigator, TDF03-132) demonstrated the achievements of LCWU in women education and entrepreneurship. She also explained the aims of Technology Development Fund Program of HEC and importance of this project in development of female students in Aquaculture sector. She mentioned about the challenges faced by women in this fish farming sector and cooperation of LCWU, ORIC, HEC and industrial partners in facilitating these young Aquaculture entrepreneurs. She also mentioned that one major objective of this seminar is to disseminate the IPRS technology in other provinces of Pakistan other than Punjab so maximum number of stakeholders can be introduced with this innovation in aquaculture of Pakistan.

R.S.N. Janjua (Industrial partner, TDF03-132), talked about the design of IPRS technology and establishment of first IPRS demo site in Pakistan. He described all the important components of IPRS and its construction in South Punjab. Outcomes of first pilot scale trial of IPRS technology were shared with the participants. He discussed all details of cost, sales and profit of fish farming business using IPRS technology and concluded that IPRS is future of Aquaculture in Pakistan. Participants also endorsed him and couple of farmers showed the intention to adopt IPRS technology in 2020.

In concluding ceremony, Guest of honor, Director General, Department of Fisheries, Sindh, Mir Allah Dad Talpur thanked the team of TDF03-132 for providing the platform to introduce IPRS technology in Sindh province.



Seminar at Hotel Avari Towers, Karachi, 24 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Stakeholders from Aquaculture industry, fish feed mills, academia and Department of Fisheries, Sindh participated.



Seminar at Hotel Avari Towers, Karachi, 24 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Group photo of all participants in the seminar.

Third Seminar at Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS), Uthal. Baluchistan, FEB 26, 2020

Third seminar as part of transfer of IPRS technology phase, was organized at Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS), Uthal. Baluchistan is under developed province of Pakistan where Aquaculture is very much in infancy and industry mostly depends upon marine fishery catch. Therefore, it was kept on agenda to reach this far off university (1,325 km from Lahore) most relevant to Fisheries and Aquaculture. Seminar was conducted on FEB 26, 2020 at Department of Marine Sciences, LUAWMS. Faculty of department and sixty students of Marine Sciences participated in the seminar. They are very much motivated to see the TDF03-132 team at their campus to share their knowledge of IPRS technology in such difficult area. Dr. Shafaq Fatima talked about the Technology Development Fund Project of HEC and benefits of IPRS technology. R.S.N. Janjua described the design of IPRS technology and its implementation in different demographic conditions of Baluchistan. He also motivated the passing graduates to go for start up businesses or SME to generate their income and be financially independent, contributing in development of the province and Aquaculture sector. Later team met the Director

ORIC and discussed about the challenges faced by Aquaculture industry and universities in Baluchistan.



Seminar at Department of Marine Sciences, Lasbela University of Agriculture, Water and Marine Sciences, Uthal, Baluchistan, 27 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Dr. Shafaq Fatima, R.S.N. Janjua delivering the demonstration on IPRS technology to students and faculty.





Seminar at Department of Marine Sciences, Lasbela University of Agriculture, Water and Marine Sciences, Uthal, Baluchistan, 27 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Dr. Shafaq Fatima, R.S.N. Janjua delivering the demonstration on IPRS technology to students and faculty.



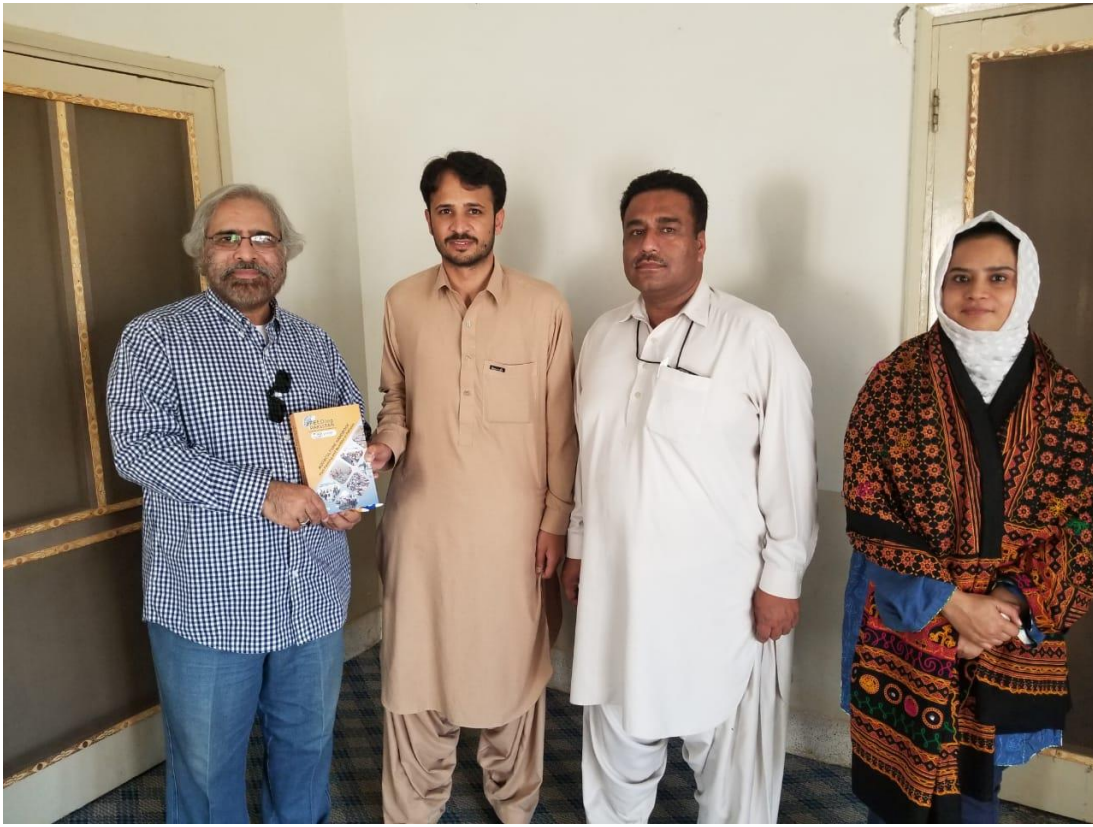
Seminar at Department of Marine Sciences, Lasbela University of Agriculture, Water and Marine Sciences, Uthal, Baluchistan, 27 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Dr. Shafaq Fatima, R.S.N. Janjua, Dr. Mohsin Ali, Assistant Professor, Department of Marine Sciences, Dr. Masroor Aabro, Assistant Professor, Department of Marine Sciences, Shakeel Ahmad, Assistant Director, Department of Fisheries, Baluchistan



Seminar at Department of Marine Sciences, Lasbela University of Agriculture, Water and Marine Sciences, Uthal, Baluchistan, 27 FEB, 2020 “In-Pond Raceways System (IPRS) Technology; Innovative Solution for Sustainable Commercial Aquaculture in Pakistan”. Prof. Dr. Abdul Hakim (Director, ORIC, LUAWMS), Dr. Shafaq Fatima, R.S.N. Janjua, Dr. Mohsin Ali, Assistant Professor, Department of Marine Sciences, Shakeel Ahmad, Assistant Director, Department of Fisheries, Baluchistan

Fourth Meeting, Gwadar, Baluchistan, FEB 27, 2020

Fourth meeting was organized with stakeholders in strategically important city Gwadar (1,861 km from Lahore). Team had meeting with officials of Department of Fisheries, Baluchistan in Gwadar on FEB 27, 2020 and demonstrated the design and benefits of IPRS technology. They discussed about the challenges of Aquaculture and Fisheries in Baluchistan and agreed upon the continuous efforts for sector development in the province. Team also met the CEO of modern fish processing unit (Mir Seafood) and discussed the benefits of IPRS technology for this water deficient province. He appreciated the advantages of the technology and efforts of the team to bring the message of modernization of Aquaculture sector to the hub of marine fisheries. Team visited the Gwadar harbor, Fish Auction market and Mir Seafood Processing Plant.



Meeting with Officials of Department of Fisheries, Baluchistan, R.S.N. Janjua, Iftikhar Ahmad, Assistant Director, Department of Fisheries, Baluchistan, Shakeel Ahmad, Assistant Director, Department of Fisheries, Baluchistan, Dr. Shafaq Fatima.