

**SINDH IRRIGATION & DRAINAGE AUTHORITY (SIDA)**  
**Sindh Water Sector Improvement Project (AF)**

**TRAINING REPORT**

**46<sup>th</sup> One Day Training of FOs NCAWB  
Nabisar Minor, Sanwari Minor & Rahmor  
Minor**

**HELD ON OCTOBER 31, 2018**



*Organized By:*  
*Social Development Cell, Transition Wing SIDA*  
*Sindh Water Sector Improvement Project (AF)*

**Introduction:**

The province of Sindh has embarked on a major reforms and established Sindh Irrigation and Drainage Authority (SIDA) in 1997 for improvement of water management in Sindh through Participatory Irrigation Management (PIM) since the establishment of SIDA, it established three Area Water Boards (AWB), Nara Canal Area Water Board (NCAWB), Ghotki Feeder Canal Area Water Board (GFCAWB) and Left Bank Canal Area Water Board (LBCAWB) which are functional and working independently.

In this connection the World Bank started Sindh Water Sector Improvement Project (WSIP) to address the issues of irrigation and agricultural in Sindh province. This project also covers the component of Community Development and Capacity Building, so the trainings are essential activity to develop the capacity of FOs so that they can perform effectively.

The overarching project objective is to improve the efficiency and effectiveness of irrigation water distribution in three AWBs (Ghotki, Nara and Left Bank), particularly with respect to measures of reliability, equity and user satisfaction. This would be achieved by: (a) deepening and broadening the institutional reforms that are already underway in Sindh; (b) improving the irrigation system in a systematic way covering key hydraulic infrastructure, main and branch canals, and distributaries and minors; and (c) enhancing long-term sustainability of irrigation system through participatory irrigation management and developing institutions for improving operation and maintenance of the system and cost recovery. The improved water management would lead to increased agricultural production, employment and incomes over about 1.8 million ha (about 30% of the irrigated area in Sindh), which is one of the poorest regions of the country.

Social Development Cell Transition Wing SIDA organized a one-day Training for Board of Management members of FO Nabisar Minor, FO Sanwari Minor and FO Rahmor Minor at Kunri October 31<sup>st</sup>, 2018. Board of management members and some active WCA chairmen participated in training.

**Venue:**                      **Town Committee Kunri.**

**Resource Person / Facilitator:**

- Mr. Farzana Abbasi Social Development Specialist, SIDA
- Mr. Mansoor Umer Khanzada, AXEN, SIDA
- Mr. Arif Laghari, Institutional Specialist , SIDA
- Mr. Akber Ali Bugti AXEN, SIDA
- Mr. Muhammed Ghous Laghari, Institutional Specialist , SIDA
- Mr. Abdul Aziz Khuhro Assistant Manager, SM NCAWB
- Mr. Zaid Sipio Institutional Specialist, SIDA

**Total Number of Participants: 47**

FO Representatives	<b>37</b>
SIDA Representatives	<b>05</b>
AWB Representatives	<b>02</b>
Other	<b>03</b>

**Topics Covered:**

- Session-1:** Expectation of participants/ Training objectives / out put  
**Session-2:** Introduction to Institutional reforms  
**Session-3:** SWMO 2002 & IDMTA  
**Session-4:** Strengthening of FO's on Organizational Management  
**Session-5:** Financial Organizational, Abiana Assessment & Collection  
**Session-6:** Channel Operation & Maintenance

**Proceeding**

**Recitation of Holy Quran & Introduction of participants**

The training started with the Recitation of verses from Holy Quran

After that all participants introduced themselves with designation and name of FO.

**Expectations of participants from training**

***By: Mr.Mansoor Umer Khanzada AXEN SIDA***

Mr. Mansoor umer khanzada conducted this session and facilitated the participants to express their expectation from this training. Participants said that they are newly elected representatives of FOs so they want to know that how they properly perform their responsibilities. Some participants said that we want to learn best methods of channel operation and maintenance. Some participants said that how we can make our farmer organizations more strengthen. How equitable water distribution can be ensured from head to tail.

**Objectives of Training:**

***By: Ms. Farzana Syed Deputy General Manager & Social Development Specialist SIDA***

After knowing the expectations of participants from training, Ms Farzana Syed Deputy General Manager & Social Development Specialist explained in detail about the aim and objectives of training. She said that the capacity building component of the project is very essential component; the main role of our field teams is to assist and support the FOs for their capacity building, and provide technical assistance to FOs, as the FOs may perform their role like as strengthen institutes, and manage their routine business in organized way. She further said that there are main four responsibilities of farmer organizations as per Sindh Water Management Ordinance 2002, which is equitable water distribution from head to tail, proper channel operation and maintenance, Abiana assessment and collection

and conflict resolution. She said we want that Farmer Organizations should be well trained to perform these responsibilities properly. She further said that Social Development Cell of SIDA has planned various activities for capacity building of representatives of FOs like as basic and specialized trainings at FOs level; exposure visits of FOS to FOS within Area water Boards and other Area Water Boards and nominations of FO representatives for national and international trainings.

### **Introduction of Institutional Reforms and SWMO-2002**

***By: Mr.Abdul Aziz Khuhro Assistant Manager AWB***

Mr.Abdul Aziz Khuhro Assistant Manager informed the participants about irrigation system and institutional reforms in irrigation system. He said that the irrigation system of Pakistan is the largest integrated irrigation network in the world. The system gets irrigation water mainly from Indus River and its tributaries. The salient features of the system are three major storage reservoirs (Dams) namely Tarbella & Chashma on river Indus and Mangla on river Jhelum, with the present total live storage of about 12.5 MAF, 19 Barrages, 12 inter river link canals and 43 independent irrigation canal commands.

Diversion of River waters into off taking canals is made through barrages, which are gated diversion weirs and a system of link canals. The main canals, in turn deliver water to branch canals, distributaries and minors. Their watercourses get their due share of water through outlets in the irrigation channels.

Sindh province has a vast irrigation & drainage network and it is one of the primary beneficiaries of Indus basin irrigation system with three gigantic Barrages that divert about 48 MAF of water annually to the 14 main canal commands in the province. These canal system have an aggregate length of 13325 miles and serve a gross command area of about 14.4 million acres. There are also about 42000 watercourses.

The Sindh Irrigation and Drainage Authority (SIDA) is an autonomous organization, taken over the system of Nara Canal, LeftBank Canal (Fulleli & Akram Wah) and Ghotki from irrigation department and now being operated through Area Water Boards under SIDA. The Sindh Irrigation and Drainage Authority (SIDA) have been established in 1997 through SIDA Act 1997.

As per institutional reforms in irrigation system the channels upto distributary / minor level have been transferred to the farmer organizations (FOs) through irrigation & drainage management transfer agreement (IDMT) under Sindh Water Management Ordinance 2002. The irrigation management of canal at province level is to be organized on participatory basis by establishment of Area Water Boards (AWBs) on Canals.

After institutional reforms in irrigation systems three institutions SIDA, AWBs and FOs have been formed through Sindh Water Management Ordinance 2002 which manage irrigation system from canals to WCA level. The responsibilities and functions of these institutions are as under:-

### **Task and responsibilities of SIDA**

- Supply water from the Barrage to the Canals. These canals will be operated by Area Water Boards.
- Levy water charges from the Area Water Boards and other water users.
- Construct, operate and maintain irrigation, drainage and flood protection infrastructures.

- Manage the transition process, to promote the formation, growth and development of the AWBs and FOs into self-supporting and financially self-sustaining entities.

### **Functions of Area Water Board**

- To operate and maintain the parts of the irrigation system conferred on it including but not limited to main canals and branch canals.
- To carry out flood protection and maintain infrastructure within its command area.
- To promote the formation, development and growth of the FOs in its command area into self-supporting and financially self-sustainable entities.
- To monitor equity in water distribution and measures for preventing water theft.
- To monitor and review O&M plan of FO Channels.
- To review, supervise and assist the assessment and collection of Abiana by FOs.
- To prepare and implement of rotational program of channels with consultation of FOs.
- To assess and support FOs in technical matters related to O&M of the channels.
- To ensure better response to emergencies.

### **Functions of Farmers Organizations**

- To operate & maintain the parts of distributary / minor
- To ensure equitable and judicious distribution of water including small and tail end farmers
- To assess and collect the Abiana.
- To maintain the books of accounts
- To ensure dispute resolution

### **Organizational Management**

*By: Arif Leghari Institutional Specialist SIDA*

Mr. Arif Laghari Social Mobilization Officer SMG-SIDA has delivered the lecture on Organizational Management. He explained the aim and objectives of an organization, the growth of an organization in different levels. Mr. Arif explained in detail that the organizations are formed to achieve a major goal and for achieving that goal the strategy is planned.

He explained that how the organizations plan their strategies and started activities to achieve their goal. He said that monitoring and evaluation is must to access and analyze the progress of organization. He briefly introduced the process of monitoring and evaluation. He said that the main responsibilities of an FO are equitable distribution of water from head to tail, Abiana assessment and collection and channel operation & maintenance. It is prime responsibility of FO to get their channel's due share of water from canal and assure the availability of due share of water to each outlet from head to tail. He highlighted the Role and Responsibilities of an FO and emphasized to the members to perform their role with responsibility.

### **Responsibilities of Farmers Organization:**

1. Operation & Maintenance of the Channel
2. Water acquirement, equitable distribution & ensured supply from head to tail

3. Better management to control the salinity & water logging
4. Collection of Abiana & other payable charges and payments to the concern Area Water Board (AWB) as per agreement.
5. Resolution of conflicts of concern farmers
6. Procurement of necessary staff
7. Record keeping of all activities
8. Better planning for development of the organization
9. Monitoring & evaluation of all activities
10. Coordination & collaboration with stakeholders

He urged the members to develop the linkages with line departments, and different organizations because the strong communication and linkages with other organizations is essential for a reputable organization. Mr. Arif said that the basic things, like FO office, updated organizational, financial and technical record and required staff are very necessary for FO. He explained in detail that what kind record of organizational, financial and technical must be available and updated at the office of FO.

#### **Basic Record for Farmer Organizations**

<b>Organizational Record</b>	<b>Financial Record</b>	<b>Technical Record</b>
Register of all Khatedars	Receipts Book	Field Book
Membership Register	Voucher File	Field Khasro
Membership Forms	Cash Book	Jamabandi Book
Minutes Book	Ledger	Billing Book
Outward Register	Cheque Book	Karia Register (Record of Right)
Inward Register	Abiana Register	Deh Map
Stock Register	Bank Statements	Command Plan (Map) of all Watercourses
Visitor Book	Audit File	Command Plan (Map) of Channel
Staff Register	Business plan file	D-Statement
Regulations of FO & Copy of SWMO-2002		C-Statement
Assets Register		L-Statement
Share Lists		Cross Section
List of Commercial Water Users		Inventory List
Letter head of FO		List of Trees and plants
Notification / Registration Certificate of FO		
Copies of WCA registration certificates		
File of general correspondence		

## **Channel Operation & Maintenance**

***By: Mansoor Umer Khanzada AXEN & Mr Akber Bughti AXEN SIDA***

Mr. Mansoor Umer Khanzada & Mr Akber Bughti Assistant Engineers of SIDA delivered lectures to the participants on channel operation & maintenance. They explained in detail through diagrams interactive discussion. They said that as per institutional reform in irrigation system the Channels up to Distributary / Minor level are transferred to the Farmers Organizations (FOs) through Irrigation & Drainage Management Transfer Agreement (IDMTA) under Sindh Water Management Ordinance (SWMO) – 2002, therefore it is necessary for representatives of FOs and farmers to know about the main structures, characteristics of good irrigation and activities required for channel operation & maintenance.

First of all they explained the main structures of irrigation system as under.

### **Main Structures**

#### **1. Dam**

Water storage through construction of Embankments (bunds) on rivers to store the flood water to regulate the water to river(s)

#### **2. Barrage**

Construction of weir structure to store and regulate the flow of water in rivers & main canals

#### **3. Cross Regulator**

Construction of weir structure to store and regulate the flow of water in main canals, Branch Canals, Distributaries, Minors, Watercourses

**4. Head Regulator** Construction in the head of a channel, through which the water flows in to the channel.

#### **5. Module / Outlet**

The structure constructed to divert irrigation flow to the fields from main canal, branch canal, distributaries & minors.

#### **6. Fall Structure**

Structure constructed in channels having steep gradient to control the water levels to dissipate the energy of falling water.

#### **7. Aqueduct**

A structure constructed to provide passage to flowing water a drain channel or water course.

#### **8. Bridge**

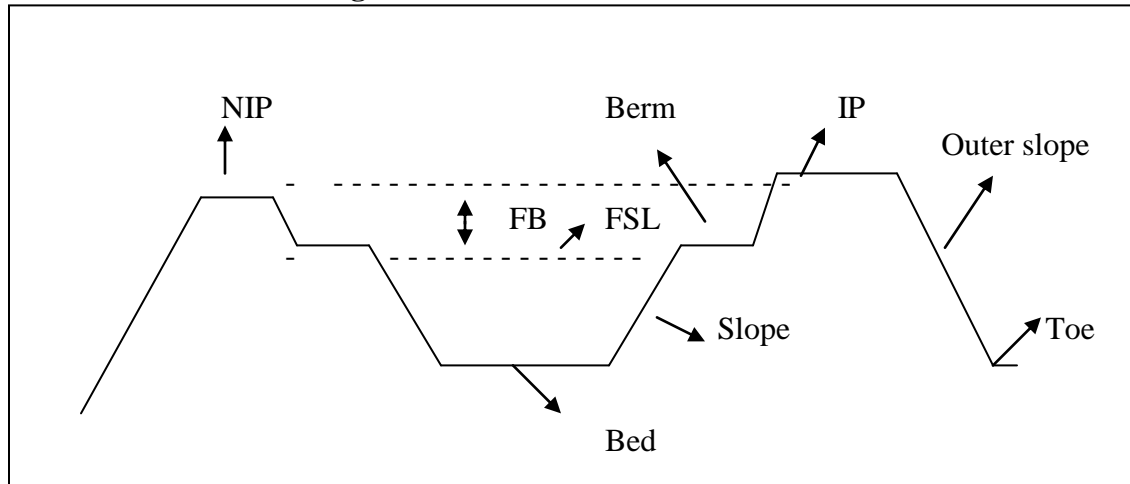
Different type of overheads (bridges) constructed for different uses.

#### **9. Escapes**

Regulator type structure on main canals & branch canals constructed for discharging excessive water

After that engineers make clear to the cross section of a channel through following diagram

### Channel Cross Section Diagram



This diagram shows different locations of cross section of a channel, which are defined as under:

- NIP: - Non Inspection Path means embankment (Bund) of a channel which is not used for regular monitoring / visit along channel.
- IP: - Inspection Path means embankment (Bund) used for regular monitoring / visits along channel.
- Berm: - the inner area between water way and embankments to cater the excess water in channel.
- FB : - It is the distance between FSL and top level of the embankments and is generally provided to control the excessive water flow in channel.
- FSL: - The flow surface level of water as per design discharge.
- Slope:- A slope of a side of the area of channel reserved for water flow
- Bed: - Base of the area of waterway of channel.
- Toe: - It is the corner between embankment and the natural ground level.

In the last the participants were informed about the channel Repairing and Maintenance.

### Channel Repairing & Maintenance

The earlier flow, erosion, weather conditions, movements of peoples, animals, these all effects the design of the channel. The repairing of channels is necessary to maintain / restore the original designs of the all parts of the channels

#### Kinds of channel repairing

##### 1. Common repairing:

Daily or weekly basis works. Clearance of paths, vegetation etc, closing of rains breaches, repairing of berms, gray onus work, oiling or greasing to the gates.



**Note:** Above works are the basic responsibilities of lower operational staff working on the channels.

**2. Preplanned Repairing:**

During specific timings the detailed checking of structures and equipment's, banks, berms, gates, bed, slopes etc and their repairing as per requirement.

**3. Seasonal Repairing:**

During the fixed specific timings around a year repairing of paths, animal ghats, flood breaches, juck works etc

**4. Yearly Repairing:**

The works, which could not be done in all above repairing timings will be covered in seasonal repairing i.e. Repairing of Outlets, head to tail desilting of the channel, repairing of the regulator etc.

**5. Un planned repairing:**

Due to climatic impacts some repairing works are taken up on emergency basis for example breaches of channel damage of any culvert etc.

**Field staff & equipment's for maintenance & repairing**

There are Field men (Beldars) to maintain / repair the minor damages. Equipment's necessary for a Beldar for repairing maintenance works are as follow:

- Axe (Kuhari)
- Speeder (Kodar)
- Bucket (Tokree)
- Rope (100 feet)
- Daito
- Rambo
- Bottle
- Lantern (Bati)
- Bamboo (6 to 12 feet)

**Question and answer Session**

At the end of sessions the participants asked different questions and the resource persons answered them in detail.

**Training Evaluation:**

***By: Mr. Ghous Leghari ( IS ) & Mansoor Umer Khanzada ( AEN for FO's )***

After all sessions Mr. Ghous Leghari & Mansoor Umer Khanzada facilitated the participants to give feedback about the training. The participants said that it was a very good and informative training for newly elected representatives of FO. They said that they become clear about their role and responsibilities. They have learned that how they can make more strengthen to their FOs. Some participants said that they become more aware about the need and importance of institutional reforms in irrigation system. Some

participants expressed that they got knowledge from the training that how they can properly maintain their channel using proper way of channel operation and maintenance.

### **Conclusion Remarks and Vote of Thanks**

***By: Ms. Farzana Syed Deputy General Manager & Social Development Specialist SIDA***

In the end of training Ms. Farzana Syed Deputy General Manager & Social Development Specialist SIDA performed thanks to all the members who participated in the training. she said that I am very happy to see this active group of FOs. Your concentration and interaction in training show that you got interest in the training and learn more. I am very happy to see that day by day more farmers are interestingly participating in participatory irrigation system.

Ms. Farzana Syed said that Transition Wing SIDA has planned to conduct such trainings for FOs to build the capacity of members of FOs. She said that few exposure trips and abroad trainings will also be planned for the members of FOs as they learn more from the experiences of other organizations who are also working on Participatory irrigation Management.

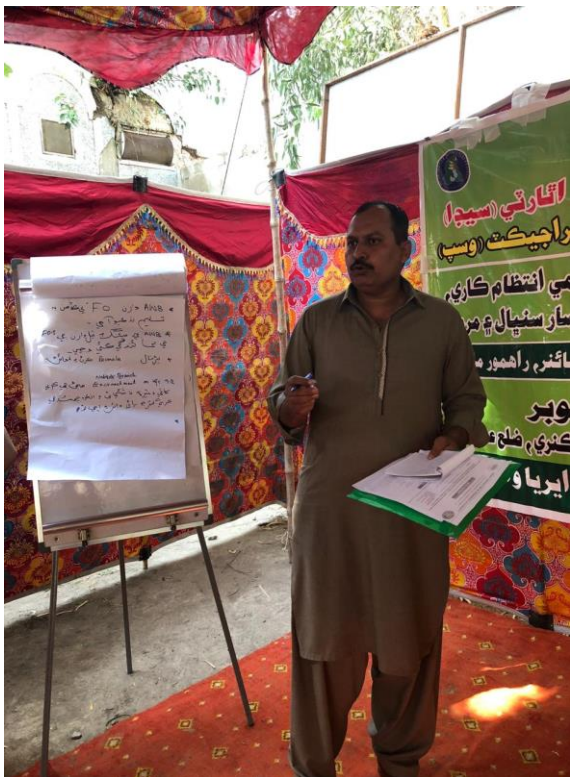
### **Certificates Distribution:**

In the last training certificates were awarded to the participants through Ms. Farzana Syed Deputy General Manager & Social Development Specialist SIDA

### **Training Evaluation**

Training evaluation was held. All participants were enquired about the training. The participants appreciated the resource persons and requested to conduct more training at WCA level.

## *Pictorial View*













# Attendance Sheet

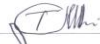




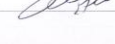





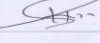


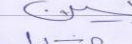
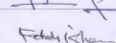
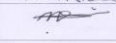
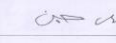
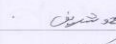
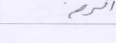

ATTENDANCE SHEET

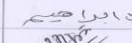
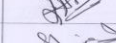
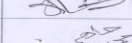
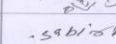
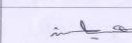
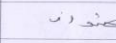
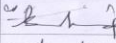
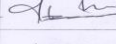
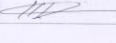

Training of FARMERS' ORGANIZATIONS (FOs)

Located in Nara Canal Area Water Board

Date: 3/10/2018

S#	Name	Designation	Farmers Organization	Contact Number	Signature
1	Talib Hussain	Chairman	Rahmose Distry	03458816315	
2	Mohd Anwar	Secretary	Sanwari	03453699097	
3	ALTAF HUSSAIN	Vice Chairman	Rahmose Distry	03338143962	
4	Nafes Hussain	Member	Nabisar Minor	03413015966	
5	Altabas Ali	Vice Chairman	Nabisar Minor	0345887886	
6	M. Rafique	Secretary	Nabisar Minor	03003321847	

S#	Name	Designation	Farmers Organization	Contact Number	Signature
7	G. Hader Hussain	Chairman	Nabisar Minor	03608176715	
8	Abdul Jabbar	W.C. 13	Sanwari	03333181736	
9	Nek Muhammad	W.C. 14, 14L	Rahmose	03363927694	
10	Mohd Yassir	W.C. 3, 14, 14L	Sanwari	02423474114	
11	Ashique Ali	Member	Sanwari	034751004	
12	Fateh Khan	W.C. Chairman	Sanwari	03000372220	
13	Mumtaz	Member	Sanwari	02256168	
15	Muhammad Hassan	W.C. Member	Sanwari	03449106242	
16	Muhammad Suresh	Member	Rahmose	03213266059	
17	Muhammad Akram	W.C. Member	Rahmose	0313593297	

S#	Name	Designation	Farmers Organization	Contact Number	Signature
18	Muhammad Ibrahim	W.C. Member	Rahmose	03360275258	
19	Lingrat Ali	W.C. Member	Rahmose	03423778817	
20	Shahmawaz	W.C. 24, Chairman	Rahmose	03322904098	
21	Khadim Hussain	V.C. Chairman	Rahmose	0326326816	
22	Saba Chaudhry	W.C. Chairman	Sanwari	03322662812	
23	M. Aslam Rind	W.C. 17BL Chairman	Nabisar Minor	03443431660	
24	M. Nawaz Rind	W.C. 17L Chairman	Nabisar Minor	03463843212	
25	M. Nawaz Rind	W.C. 13L, Nabisar Minor	Nabisar Minor	03343432831	
26	M. Zameer Chaudhry	W.C. Nabisar	Nabisar Minor	03333182462	
27	Zamir Ali	W.C. Nabisar	Nabisar	03443923292	

S#	Name	Designation	Farmers Organization	Contact Number	Signature
28	Agha Kapsi	Nabizay Rana	Nabizay M.	0300 2615435	
29	M. Arshad Cox	Rehmare	Nabizay M.	-	
30	Rasool Bux	Rehmare	Nabizay M.	-	
31	Shafiqul Shafiq	Rehmare	Nabizay M.	0300 3372181	
32	Abdul Qader	Sanwasi	Nabizay M.	-	
33	M. Aijaz Anar	Rehmare	Nabizay M.	03332076786	
34	Imtiaz Man	Sanwasi	Nabizay M.	03458687361	
35	M. Amir	Nabizay	Nabizay M.	03022015327	
36	Sardar Abdul Wahid	land lord	Nabizay M.	03013615063	
37	Kasim Rana	W/c 8A Chairman	Sanwasi	03332260514	

S#	Name	Designation	Farmers Organization	Contact Number	Signature
38	M. Aif Bala	IS	SIDA	0333-2681950	
39	ARIF Akbar	AEN (FOS)	SIDA	0333 2920305	
40	Mohd Saeed	F.O chairman	Sanwasi	0333 2880723	
41	Fazal Abbasi	SDS	SIDA	SDC phone: 022-9210084	
42	Munsoor Umar	AXEN	SIDA	0333-2705071	
43	Ghous Laghori	I.S-FRO	SIDA	03133091152	
44	Aziz Ahmad	A-Mugur	NCAWB	0333-9200223	
47					
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