Certificate Course on Participatory Irrigation Management (PIM)

Module 14- Use of Information Technology by Water User Associations (WUAs)

Topic 14.1 – Use of information technology in daily uses for WUAs.

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Use of information technology in daily uses for WUAs

Topics of Module 14:

14.1 Use of information technology in daily uses for WUAs

14.2 Use of information technology in Irrigation Management

14.3 Use of remote sensing in Agriculture

14.4 Importance of weather forecasting for WUA members

1. Introduction:

Use of information technology is very helpful for daily working of Water Users Association. Information Technology (IT) mainly includes use of Computers, Mobiles, Drone, Satellite & Remote Sensing, Geographical Information System (GIS) including internet. These techniques can be used extensively but only

simple uses of IT will be discussed in this chapter which can be adopted by a Water Users Association (WUA) or an individual with basic knowledge or education. Social media applications like WhatsApp, Facebook, Twitter, SMS etc. can be used for circulating/transmitting the information to large number of people. Use of IT facilities not only reduces the expenditure as well as it reduces the time spent by any individual on any issue. There is no need to go anywhere for any issue whereas it can be resolved from his house on mobile.

2. Solving of issues with mutual discussions:

At present most of the persons are using mobiles which are very helpful in our daily uses. Members of WUA can be aware of the on going works, future planning, present condition of irrigation system through mobile by discussion with each other.

At the same time any farmer or member of the WUA can discuss or inform WUA President or member of the Managing Committee about his any problem/issue as well as can get any information like water availability, canal scheduling, irrigation charges etc. on mobile phone.

3. Information sharing:

Previously, all communication/information sharing was generally done through letters, posts etc. With the availability of mobiles, now a days information sharing like information for General Body Meeting, Agenda for the meeting, Irrigation Programme, Demand and dues of irrigation charges, any damage to the irrigation system, status of progress of works on irrigation system etc. can be shared with all members of WUAs with very low expenditure and without any delay. Each member will get information at his home and hence all expenses as well as time spent is saved as there is no need for the farmer to visit house/village of the WUA President or Member of Managing Committee.

Similarly, any farmer can discuss/share his problem/issue with Government official on his phone seating at his own house and hence there is no need for him to visit district/tehsil level office. This will save his time as well as money.

4. Managing committee and general body meetings:

Meeting notice (**Figure 1**), agenda, minutes of meeting, compliances of the decision taken etc. for the Managing Committee can easily be sent to the members of Managing Committee through mobile phone. Similarly, meeting notice for General Body Meeting, agenda, minutes of meeting, compliance report, Audit Report, Social Audit Report etc. can also be sent to the members through mobile. Similarly, emergency meeting/important information can also be sent to the members immediately through mobile.
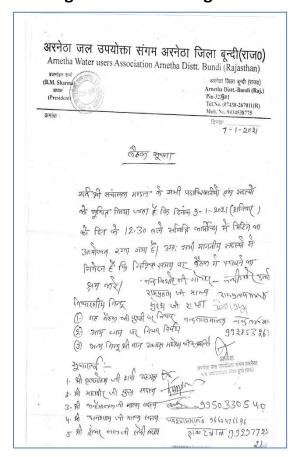
Figure 1:   Meeting Notice.

5. Financial transactions:

WUA can accomplish its financial transactions through computer/mobile with the use of Information Technology. Irrigation recovery as well as payments for the construction work etc. can be made through Net Banking. Balance of Bank Account can also be determined at any time through mobile.

Its very beneficial for the farmers who are residing outside the project area. Many farmers reside outside the State as well as outside the Country. Irrigation demand can be sent to them through computer/mobile and they can deposit the irrigation charges on line thereby reducing expenses and time for them. They can send the money transfer receipt as a proof of depositing the irrigation charges.

6. Disaster management:

WUA and members of WUA can find out information about probable attack

Figure 2: Spray of pesticide through Drone.

by cyclones, floods, droughts, Locust attack etc. through web portal of Government of India and State Government, other organizations, or Mobile App. This information can be further used by the farmer to minimize damage to the crops.

7. Weather forecasting:

WUA members/farmers can get information about weather of the region through mobile for the next week. Government of India, State Government, and many NGOs/organizations are also providing weather forecasting as well

as Advisory for the farmers. Generally, information on Rainfall, Temperature, Humidity, Wind Speed and direction etc. is available on website and can also get on his mobile through SMS. With the help of weather forecasting, farmer can plan his important activities for the crops in advance.

8. Advisory for agriculture:

Government of India/State Government, other organizations etc. are providing advisory and technical advice for the farmers related to agriculture like selection of crop selection, seed selection, seed treatment, diseases, infection by insects/pests, when and how much to irrigate, use of fertilizers etc. through web portal or mobile.
Incase of any disease or attack by any insect's farmer can take picture of his crop and can send to scientist/experts for proper technical advice/treatment through mobile.

Figure 3:   *Mobile App for Agriculture Advisory*

9. Crop insurance:

Farmer can have crop insurance for his crops through web portal or mobile apps and incase of any damage, farmer can send image of crop damage to the Insurance Company for the claim.

10. Information through satellites:

Government of India/State Government and other agencies are providing information on weather, crop status, disaster, diseases, irrigation requirement etc. through Remote Sensing using Satellite Imagery.

11. Training:

Farmer can get training and additional technical knowledge through web portal or mobile app. Now a days, on line education, training, latest information on various subjects is provided through web portal/mobile apps.

12.Market price of agriculture produce:

Information on market price of various agriculture produce in the country is available now a days on web portal **https://enam.gov.in/web,** https://agmarknet.gov.in and other web sites. Any farmer can refer these websites through a

Figure 4: Mobile App for Agriculture.

computer or mobile to know the market price of agriculture produce and can earn maximum income by selling his produce at appropriate place.

A screenshot of web portal for market price is given below (Figure-5):

Figure 5:   *Web portal for market price*