

# **Certificate Course on Participatory Irrigation Management (PIM)**

## **Module 8- Role of Water User Associations in Integrated Water Resources Management (IWRM)**

### **Topic 8.2 – Introduction to water budget and its advantages**

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#### **Topics of Module 8:**

- 8.1 Introduction to Integrated Water Resources Management (IWRM)
- 8.2 Introduction to water budget and its advantages
- 8.3 Process of preparation of water budget
- 8.4 Role of department & WUA in preparation of water budget

By Water Budget we mean that assessment of the right available quantity of water and its optimum use for the purposes. Every year the government at every level (Central, State, Local governments like Municipal corporations, Panchayats etc.) assess that this year from where the finance will come and this information is

collected at every level, similarly in the same way for the preparation of water budget, at each level i.e. state level, basin level (CE), the executive engineer and scheme level, it is necessary to know that from which sources the water will be collected and this information is also needed at river, tanks, wells, ground water level and also the quantity of water must be calculated.

Similarly, as for expenditure of money, in a budget complete preparation and assessment is made, in the same manner in case of water budget after knowing the quantity available, for its expenditure i.e. for uses of water preparation must be done.

For this the information regarding the quantity of water and uses at every level must be collected.

By water budget we mean the assessment of available water and its optimum use. Water is utilized for different purposes e.g.

- Drinking and domestic uses
- Agricultural purposes- for irrigation
- Horticulture, forestry, Animal Husbandry, Fisheries, Dairy
- Industrial use
- Hotels, Entertainment, tourism etc.
- Others

The main source of water is rain through which it collects in the rivers, ponds and tanks and available for uses.

The main purpose of an irrigation system is to provide water in the command area in equitable manner to all in right quantity and right time.

Many a time due to low rainfall the rivers and reservoirs do not fill completely in that situation the total water required for irrigation is not possible to be given. By water budget it can be assessed that as per the availability of water it can be distributed rightly amongst all the farmers.

The aim of the water budget is to provide total available water to the farmers as per the requirement for the irrigation to their crops.

After the rainy season, irrigation department after assessment of availability of water, calculate the water to be supplied to the farmers plan the allotment of water and provide accordingly to the farmers.

The Executive engineer prepare the plan and put up for approval to the district level water utilization committee. After getting approval from the committee the water distribution plan is announced in the Water users committee.

Also following process should also be followed:

- Tail end farmers must sow the crops as per the availability of water and in consultation with the sub engineer and the officer of agriculture department.
- The plan prepared by the EE must be followed.
- For water control after the approval from district level committee the date of opening of canal from the reservoir/ river must be intimated to all the members of WUA.
- After this the president of WUA, WUA, junior engineer/ sub engineer with the consultation of agriculture department provide the actual available water in the Kolabas/ canals in such a manner that the farmers at tail end should also get the water as per the requirement of crop sown.

The requirement of water for irrigation can be assessed in a manner

1. Crops and types are sown by the farmers must be known directly from the farmers and WUAs and the water requirement for their crops is needed and when?
2. When farmers sow the crops and how much water is needed for it and when?

By this process the requirement of water for all the farmers can be known and also the crop cycle of the command area can be known.

### **Advantages of Water Budget**

1. Water to all the farmers and all the water users in right quantity and right time.
2. The assessment of right quantity will facilitate the right type of crops as per the availability of water.
3. The right quantity in right time to the crops improve the productivity of the crops.
4. The decision of time and quantity of water to the farmers will lead to coordination resulting no disputes.
5. The turns of watering as decided by the farmers, facilitate the water distribution, avoid the wastage of time