

Notes by-

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ASSESSMENT OF CANAL REVENUE - DIFFERENT METHODS.

Assessment of irrigation water:- Irrigation projects are undertaken by the government with the primary object to supplying water to the cultivators for raising crops to give maximum yield. Numerative charges are, therefore, levied on the cultivators for making use of the irrigation water. Assessment of irrigation water or irrigation revenue is the fixation of such charges. The charges are not only to defray maintenance and operation cost but also include some return on the capital investment on the project.

METHODS OF ASSESSMENT :-

The various methods of assessment of irrigation water

- (i) Assessment on area Basis or Crop rate basis.
- (ii) Volumetric Assessment.
- (iii) Assessment on seasonal basis.
- (iv) Composite rate assessment.
- (v) Permanent assessment or Leetment Levy.

Area/crop rate

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(1) ASSESSMENT ON AREA BASIS
OR CROP RATE BASIS :-

In almost all the canal irrigated lands, in the country, assessment is done for irrigation charges on area basis or crop rate basis. The charges are levied on the actually irrigated area. The charges are fixed crop wise.

Exptl -

Crop.	Yield in (kg/ha)	Water rates (Rs/ha) (OLD RATES)	
		Punjab	U.P.
wheat	560	16.	15
Maize	560	16	11.
Cotton	260	16.75	15.

etc.

The rates are fixed on the basis of following factors.

- (i) cash value of the crop and its paying capacity.
- (ii) water requirement of the crop.
- (iii) Time of demand of water and the availability of canal supply.

DRAWBACKS (DISADVANTAGES) :-

- (i) Lack of incentive to the irrigator for economical use of water.
- (ii) wasteful use of water, as charges are made not on the basis of actual quantity of water

used less on the area, cropped.

(iii) Encourages intensive irrigation rather than ~~extensive~~ irrigation which may ultimately cause salinity in soil.

(iv) Impairs equitable distribution of water as irrigators in head reaches of the canal, draw more water than their due to share, and tail irrigations suffer.

(2) VOLUMETRIC ASSESSMENT :- In this case the charges are levied on the basis of actual volume of water supplied at outlet head.

The method can be enforced with advantage in case water is sold out to cooperative societies. In some states venturi meter or module outlets are installed to measure the discharge.

Advantages :-

1. Most economical use of water in the field.
2. Incentive for least water wastage in the water course as irrigator is conscious of the fact that the charges are leviable on the supply made at outlet head.

- 3) Leads to extensive irrigation i.e. spread of thin water sheet over larger area.
- 4) Shortfall in the supply can be located.

Disadvantages :-

- 1) Irrigator at the tail ends of water course has to pay for the water supplied at outlet head but receives least supply owing to wastage enroute the water course length.
- 2) Internal volumetric distribution and apportionment of the dues between various share holders of outlet is difficult.
- 3) Tendency on the part of cultivators to draw supply in unauthorised manner.
- 4) High initial cost on installation of meters, their subsequent maintenance and employment of whole time man to maintain record of the meter.
- 5) Silt and debris may retard flow through the metered outlet.

(3) ASSESSMENT ON SEASONAL BASIS :-

It is not used in India. It depends on the kind of crops grown in the particular area in the crop season.

(4) COMPOSITE RATE BASIS :-

It is not commonly used. The composite rate combines the land revenue and water charges.

(5) PERMANENT BASIS OR BETTERMENT LEVY BASIS :-

In the areas where the canals are provided as insurance against drought, the farmers are levied at a fixed rate every year irrespective of the fact whether or not they use canal water. In drought year, the farmers are allowed to draw canal supplies without paying charges extra to normal betterment levy.
