

Water Charges for Irrigation

Crop based charges

In most countries of world (Pakistan, Iran, India etc.), water charge is actually a crop tax and often for the purpose of raising revenue in general and not for the purpose of operating and maintaining the irrigation system.. Crop-wise fee structure usually varies with type of crops either in terms of value, water use, or the length of time that the crop occupies the land.

Water Charges for Irrigation

Volumetric Charge

In canal irrigated area, the farmer pays for the actual volume of water delivered in a unit time. Volumetric charge can further be rationalized based on water requirements computed accurately using GIS approach.

GIS ET MODEL

MODIFIED FAO-24 BLANEY CRIDDLE METHOD

$$ET_o = a + bf$$

$$f = p(0.46T + 8.13)$$

$$a = 0.0043RH_{min} - n/N - 1.41$$

$$b = a_0 + a_1RH_{min} + a_2n/N + a_3U_d + a_4RH_{min}/(n/N) + a_5RH_{min}U_d$$

Where,

ET_o = grass reference ET in mm/day

p = mean daily percent of annual day time hours (monthly p/mo)

T = mean air temperature (celcius)

n/N = ratio of possible to actual sunshine hours

U_d = daytime wind speed at 2 meter height (meters/second)

$$\text{Crop Et} = KcEt_o$$



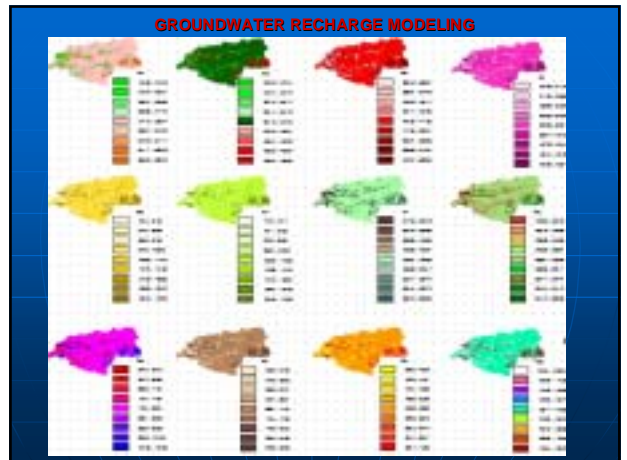
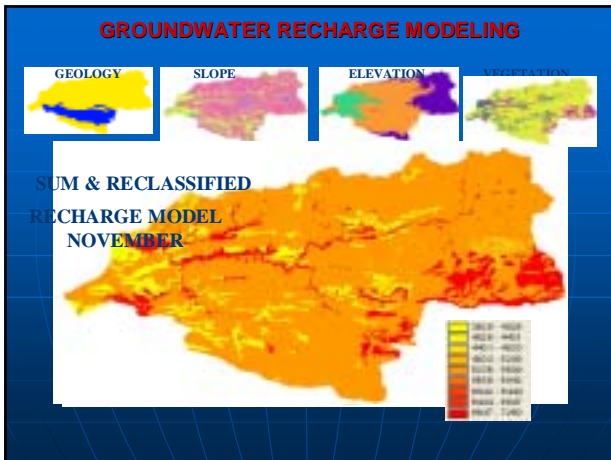
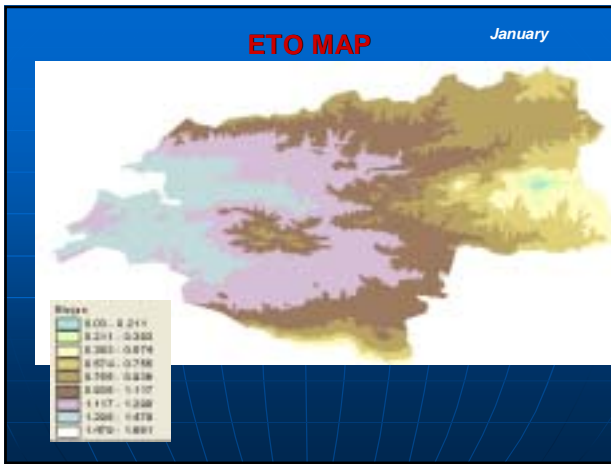
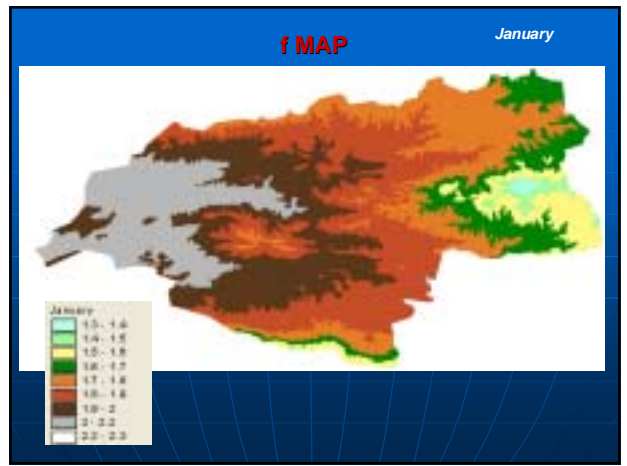
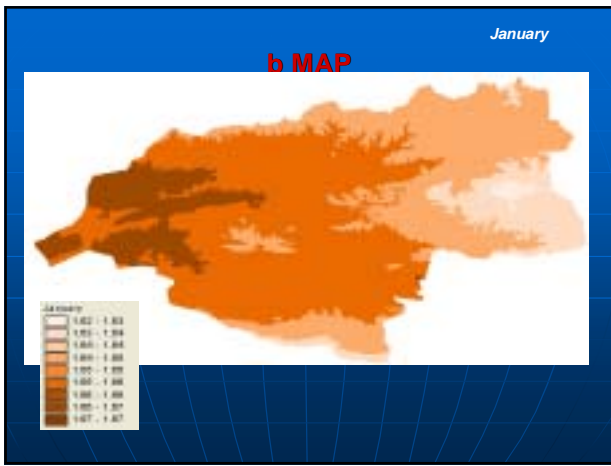
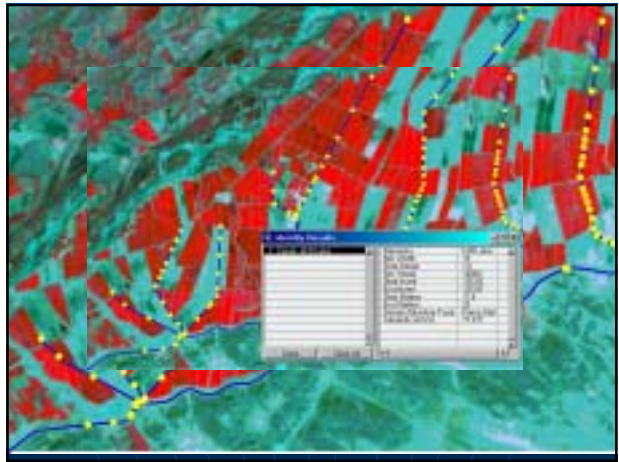


Table 4.1
WATER BALANCE MODEL (Average Year)

Average Year (for outside zone of 850 Acres + House and Livestock)

Months	INFLOW (1000m ³)					OUTFLOW I Surface water (1000m ³)							OUTFLOW II Groundwater (1000m ³)					
	From					To							To					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

IRRIGATION IMPROVEMENT PROJECT - IRAN



:: Thank You ::