Crop water requirement & distribution loss

Water demand estimation & storage availability

Water availability = Total area X rainfall amount

(assumed that rainfall is widespread across the villages and entire rainfall could be harvested)

Tank storage capacity (Tsa) = tank periphery X depth

Water availability in a village = Tsa X no. of tank

Water demand = Human demand + Livestock + (crop type X area)+ environment + industrial

Human demand = population (census data) X requirement (55 lts/day/person)

Livestock demand = No of cattle * 85 + No of Buffaloes * 85 + No of Sheep * 10 + No of Goats * 10 + No of Swine * 15 + No of birds * (40/100)

Crop water demand = paddy + groundnut + ragi + vegetable
(use crop water requirement for agro-climate standards)

Water balance = (Water availability – demand / water demand) X 100

Depending on the rainfall amount, it may be surplus or deficit. The percentage of balance with reference demand is calculated and shown for 200, 300, 400, 500, 600, 700 mm of rainfall

Thank you