CGIAR Challenge Program on WATER & FOOD

Water accounting in the IGB

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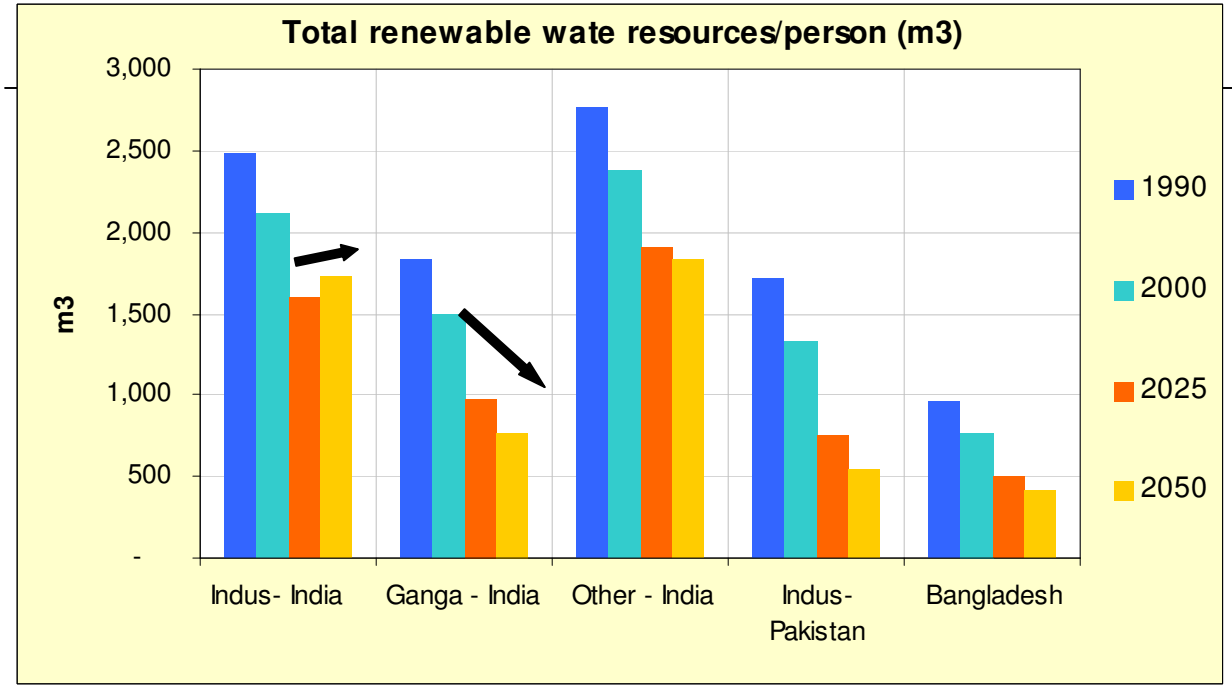
IGB water accounting

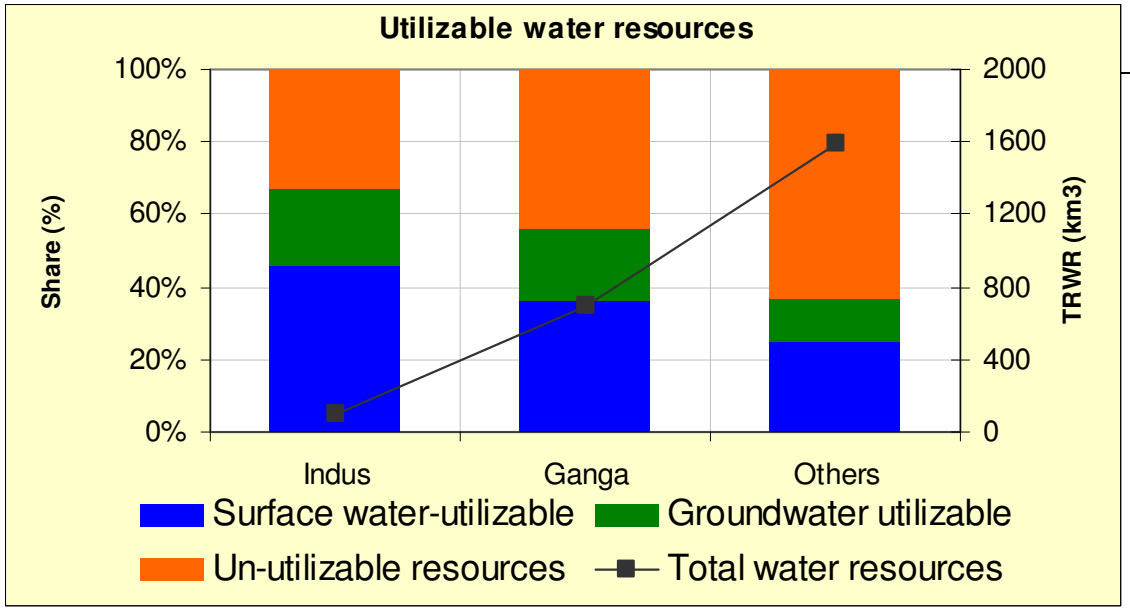
- Water availability in the IGB
- Irrigation demand
- Total water demand
- Water accounting
- Food accounting

Per capita water availability



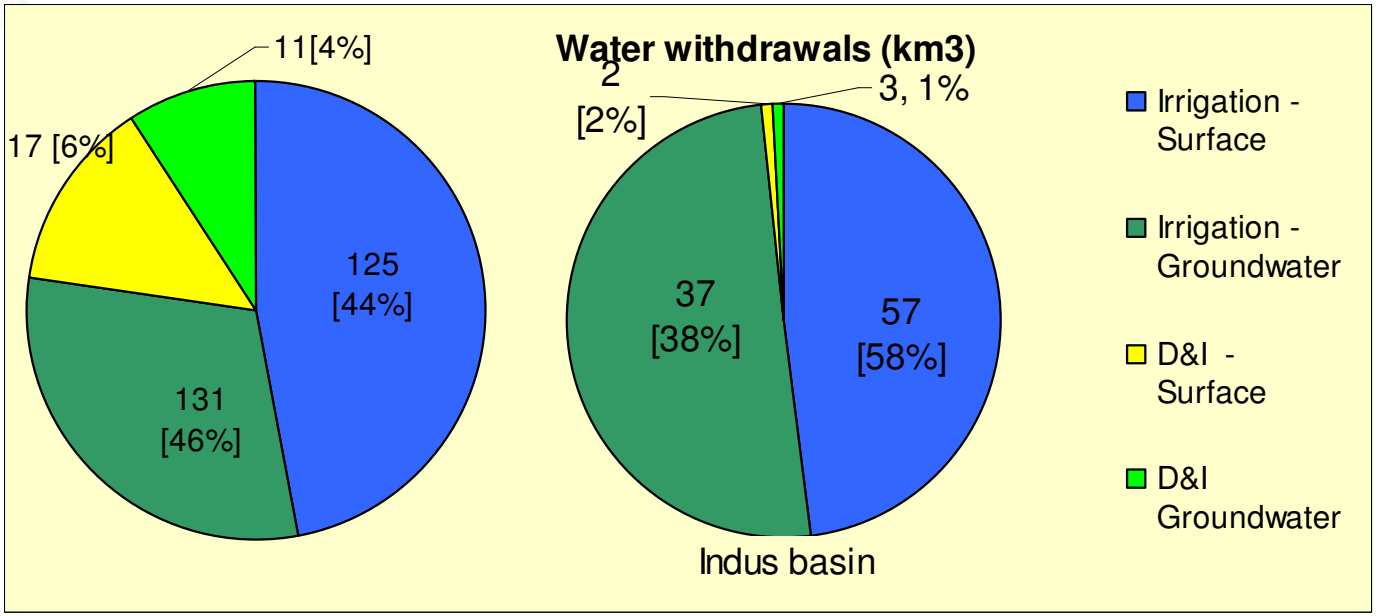
- IGB-India has 38% of the total renewable water resources, and
- 49% of the total population in 2000
- BIMARU states of India and Bangladesh, encompassing Ganga basin, have significantly high population growth rates,
- Indus has decreasing population by 2050
- Ganga basin has 42% of the population in 2000, and 55% in 2050

Utilizable water resources



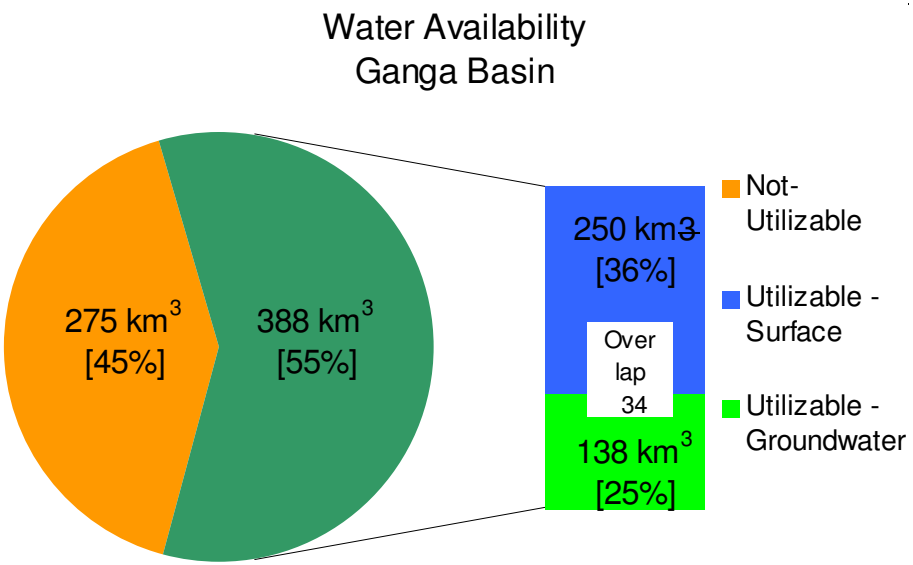
- IGB share only 33% TRWR
- Of this only 57% is utilizable
- Climate change can be a threat to utilizable water resources
- Augmenting PUWR through GW recharge

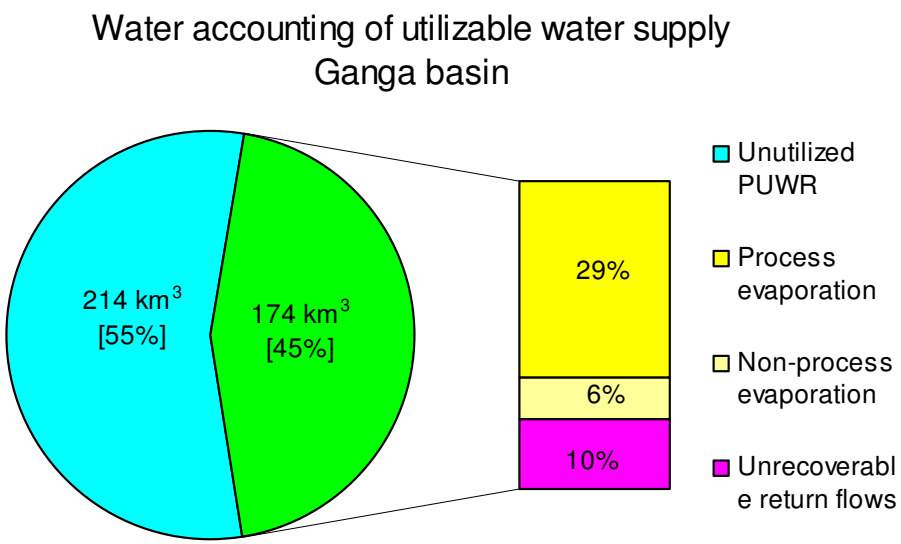
Water demand



- IGB account for 56% and 58% of the total and irrigation water withdrawals
- In Ganga, 90% of the withdrawals for irrigation
- In Indus 97% of the withdrawals for irrigation

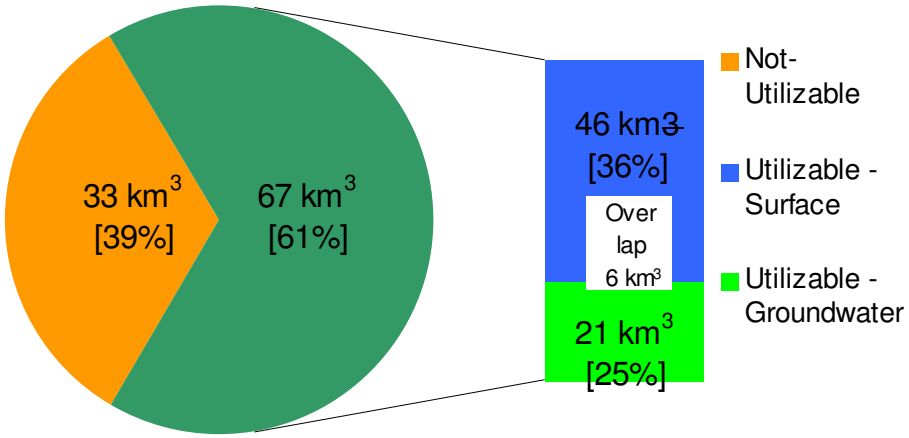
Water accounting in Ganga basin

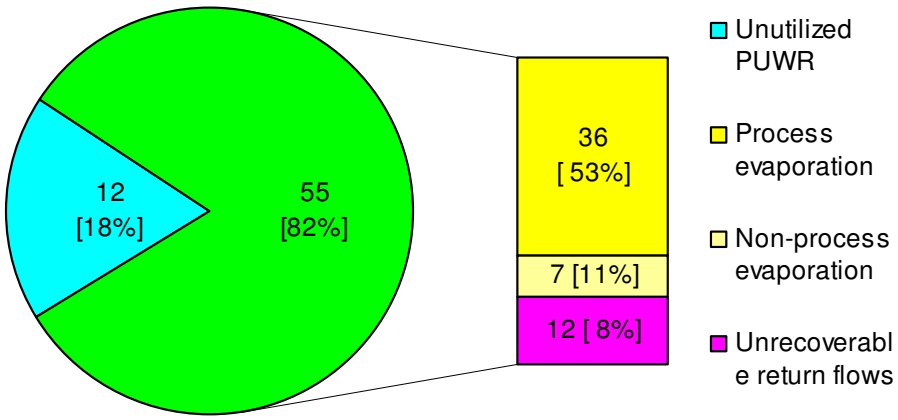




- 55% is of TRWR is potentially utilizable
- 45% of PUWR is depleted in 2000
  - Not physically water scarce now
- Groundwater abstraction ratio - 56%

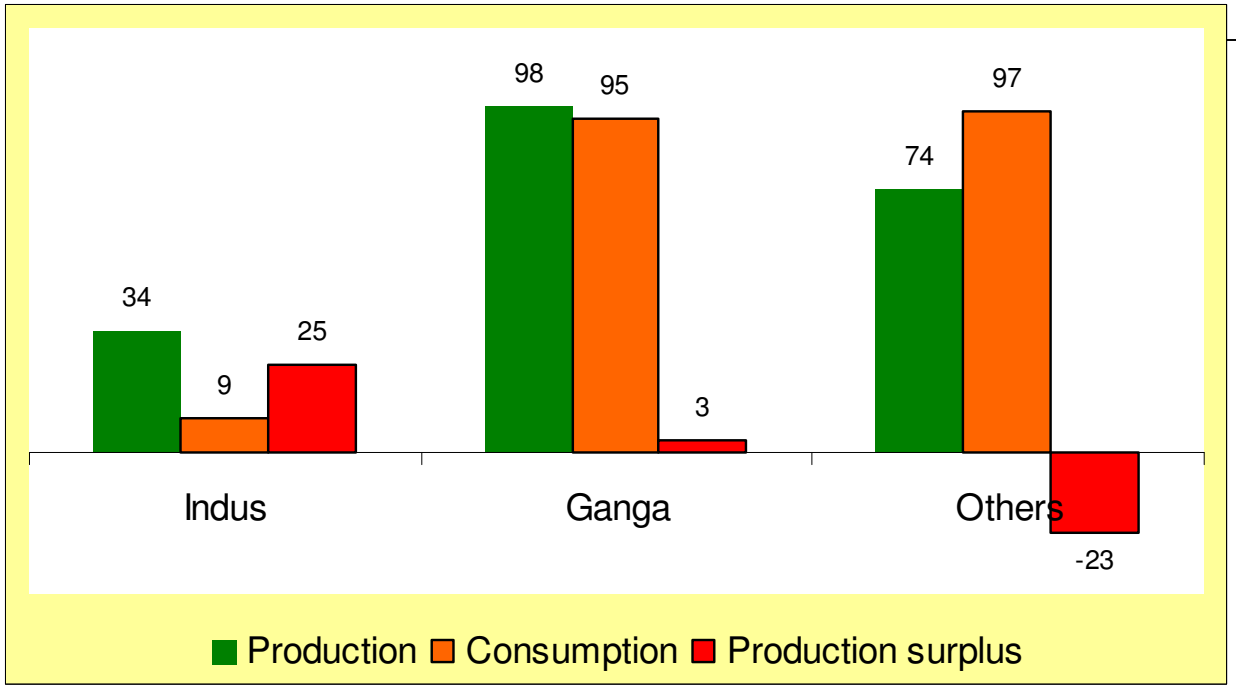
Water accounting in Indus basin





- 61% is of TRWR is potentially utilizable
- 82% of PUWR is depleted in 2000
  - Physically water scarce now
- Groundwater abstraction ratio 67%

Food accounting



- Substantial food production surpluses in Indus
  - More than the production deficits of all other river basins

- Is it sustainable?
- More crop drop!!!!

Thank you