

Sustaining energy and food security in transboundary riversystem: case of Indus basin

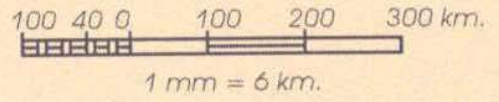
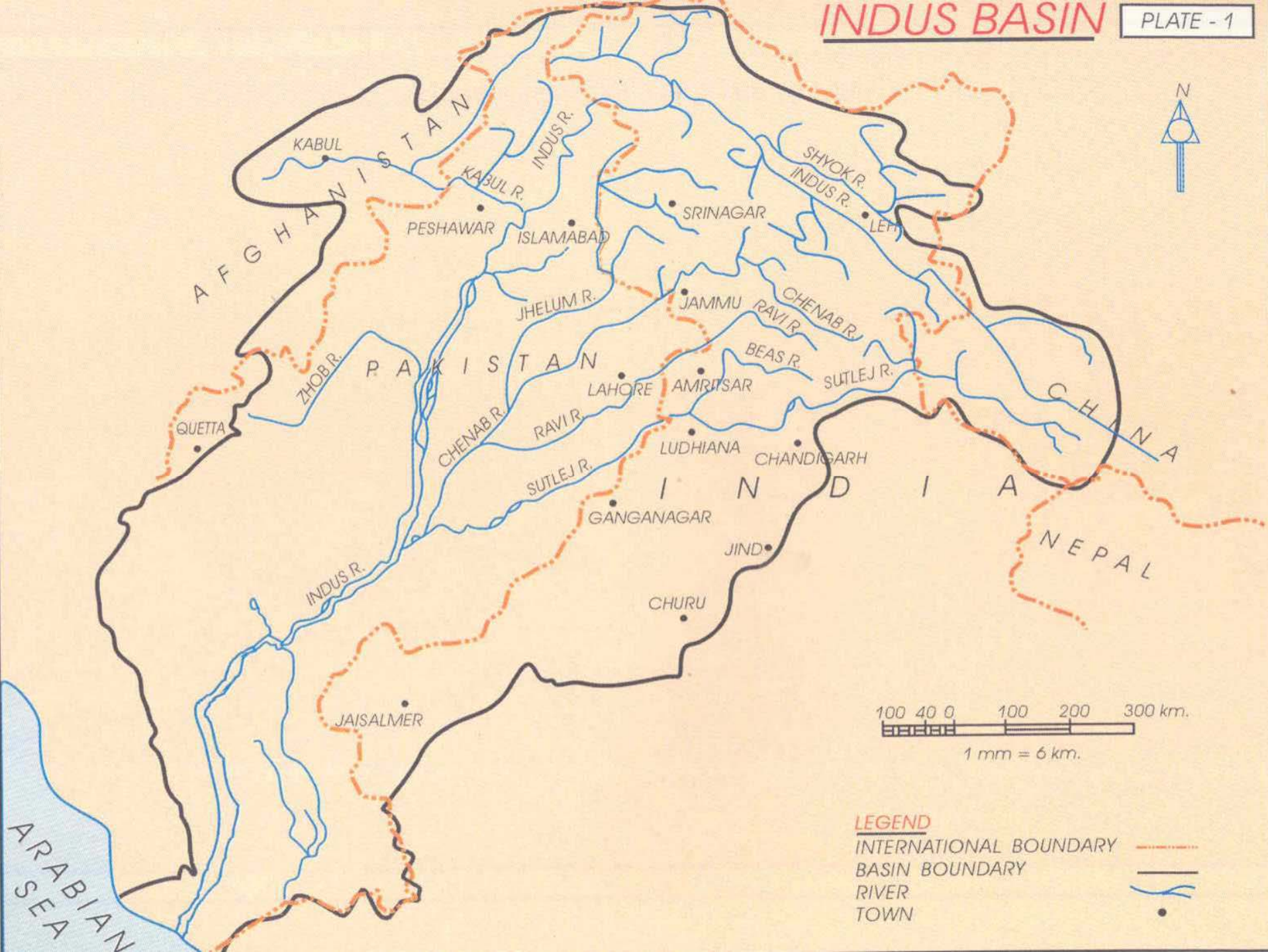
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Indus basin:

- Largest International River Basin.
- Command Area of about 20 million ha.
- Annual Irrigation Capacity of 12 million ha.



- LEGEND**
- INTERNATIONAL BOUNDARY ———
 - BASIN BOUNDARY - - - - -
 - RIVER ———
 - TOWN ●

Indus Water Treaty (1960)

- India

Eastern rivers

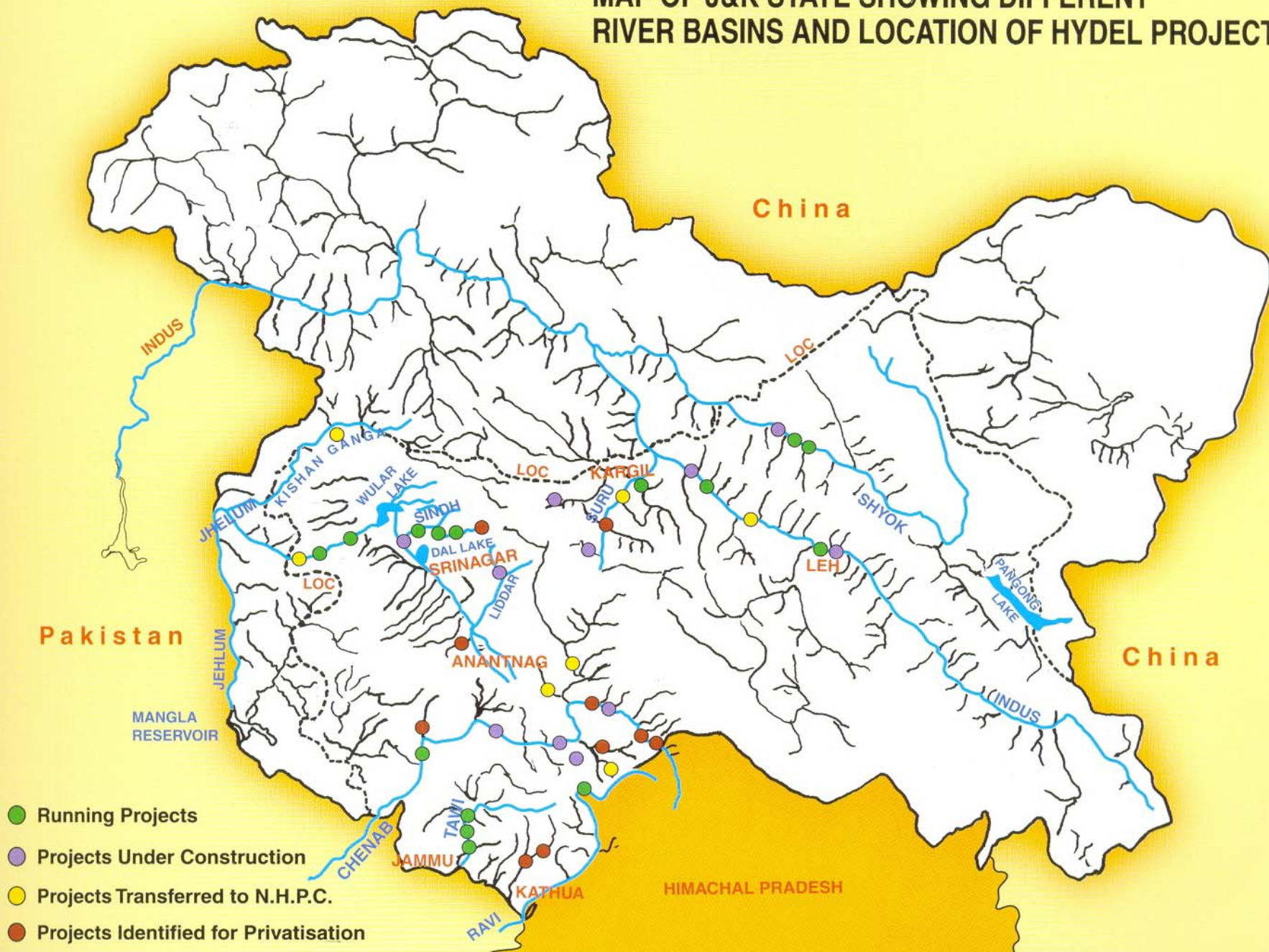
1. Ravi
2. Beas
3. Sutlej

- Pakistan

Western rivers

1. Indus
2. Chenab
3. Jhelum

MAP OF J&K STATE SHOWING DIFFERENT RIVER BASINS AND LOCATION OF HYDEL PROJECTS



IWT vs a vs Jammu and kashmir

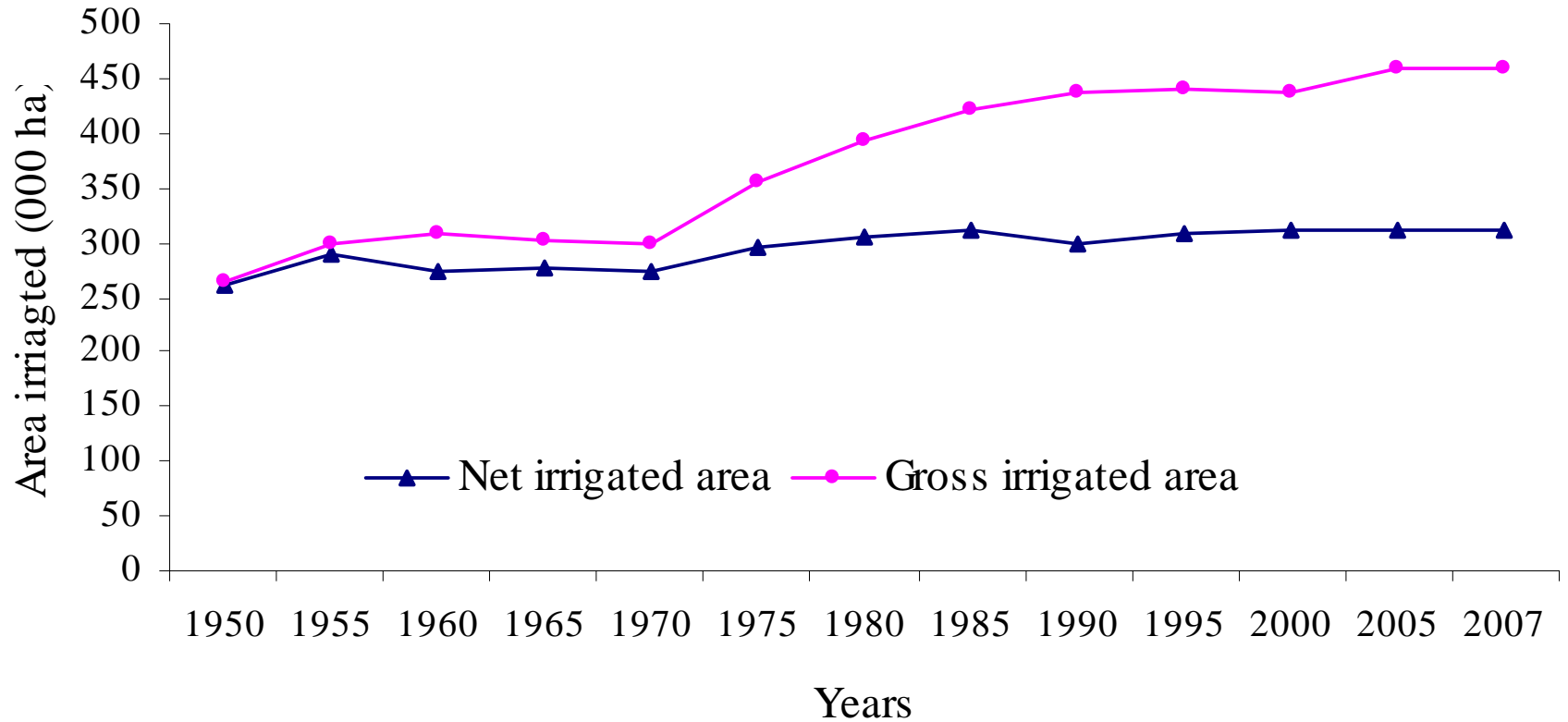
- Deprives J&K to use its own water resources.
- IWT- death kneel to state's economy
- Stagnated the development process
- IWT- estimated annual loss of Rs 6500 crores

IWT- delimits the water rights

- J&K – limited rights on western rivers
- Can't build reservoirs or dams
- Only run-off-the river projects
- Treaty imposes storage capacity

River	Storage Capacity (MAF)	Region
Indus	0.40	Ladakh
Jhelum	1.50	Kashmir
Chenab	1.70	Jammu

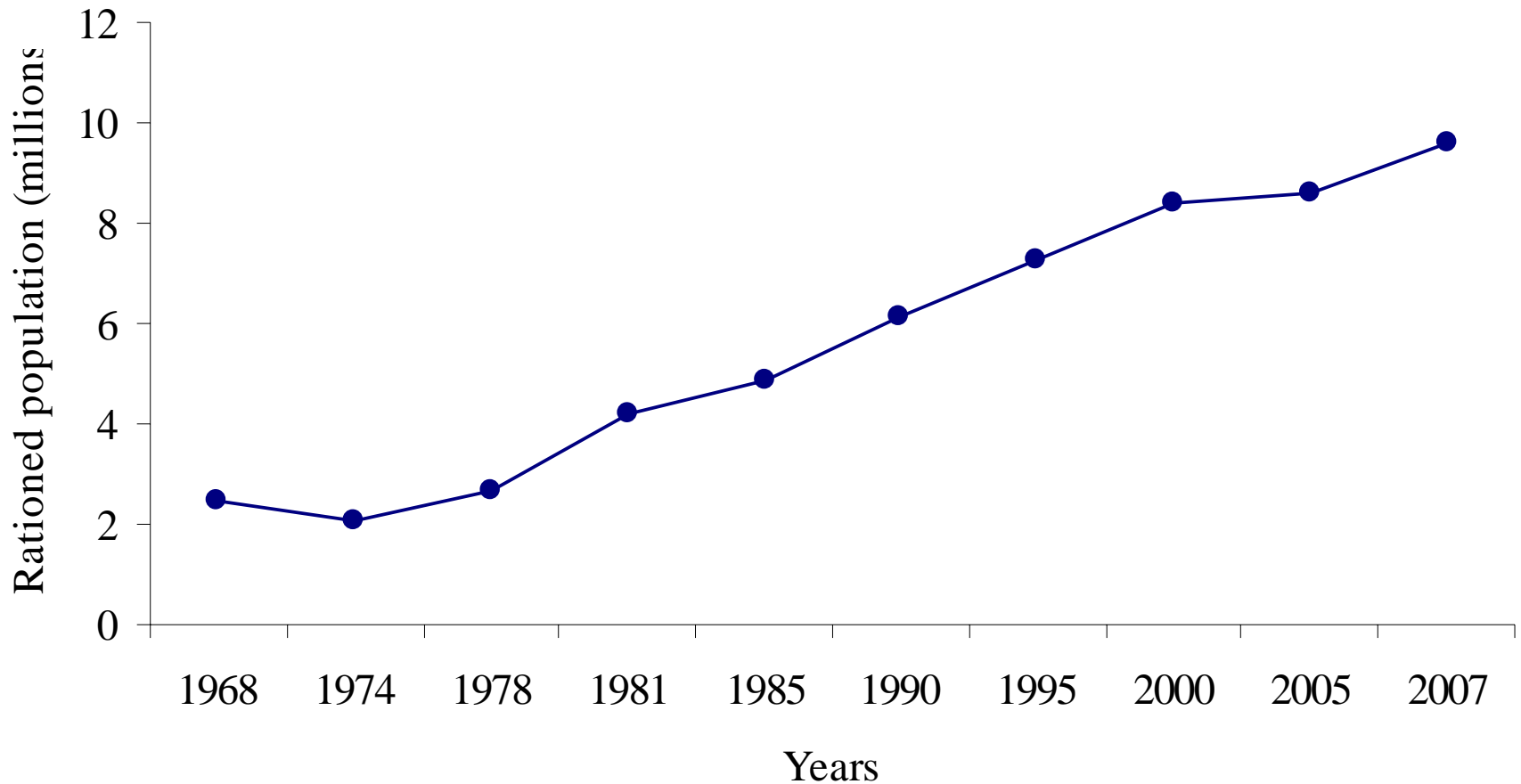
Marginal increase in the irrigation infrastructure



Irrigation: problems and scope

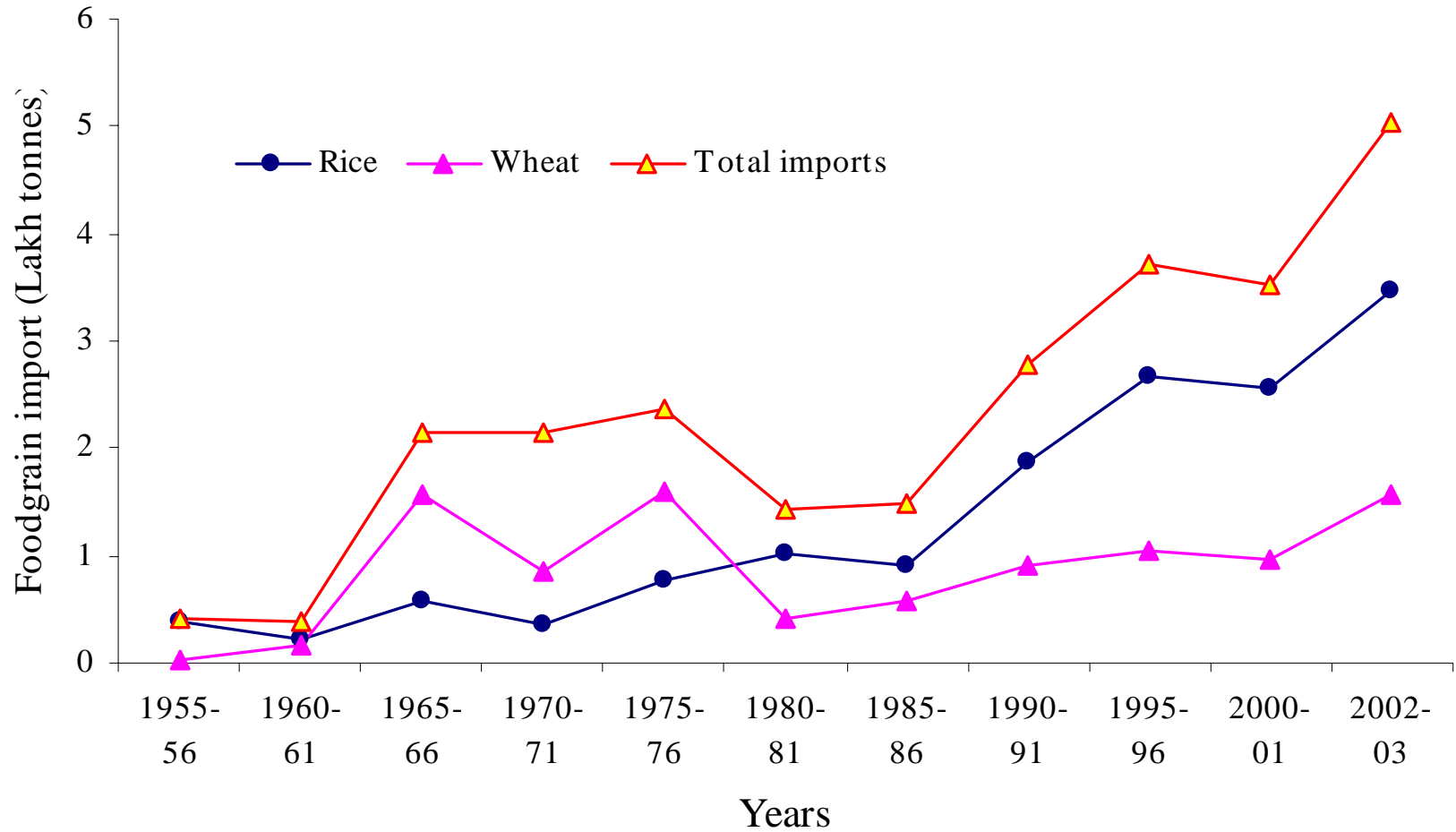
- Scope to increase by One lakh acres
- 12 new irrigation schemes proposed - pending approval.
- Fragility of agriculture – rain gods and snowfall

Growing rationed population of J&K state

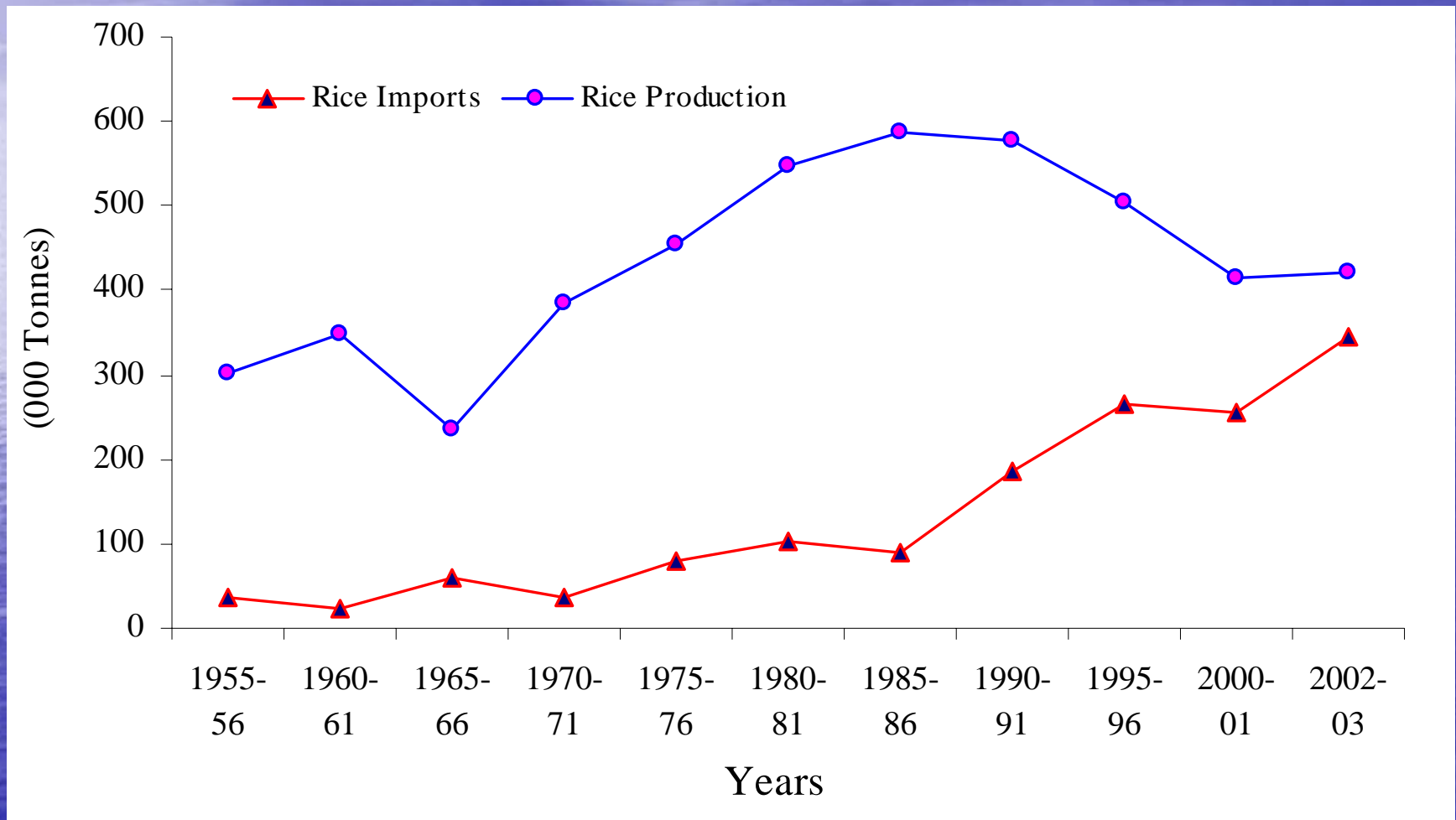


Foodgrain imports = Rs 40 crore per month

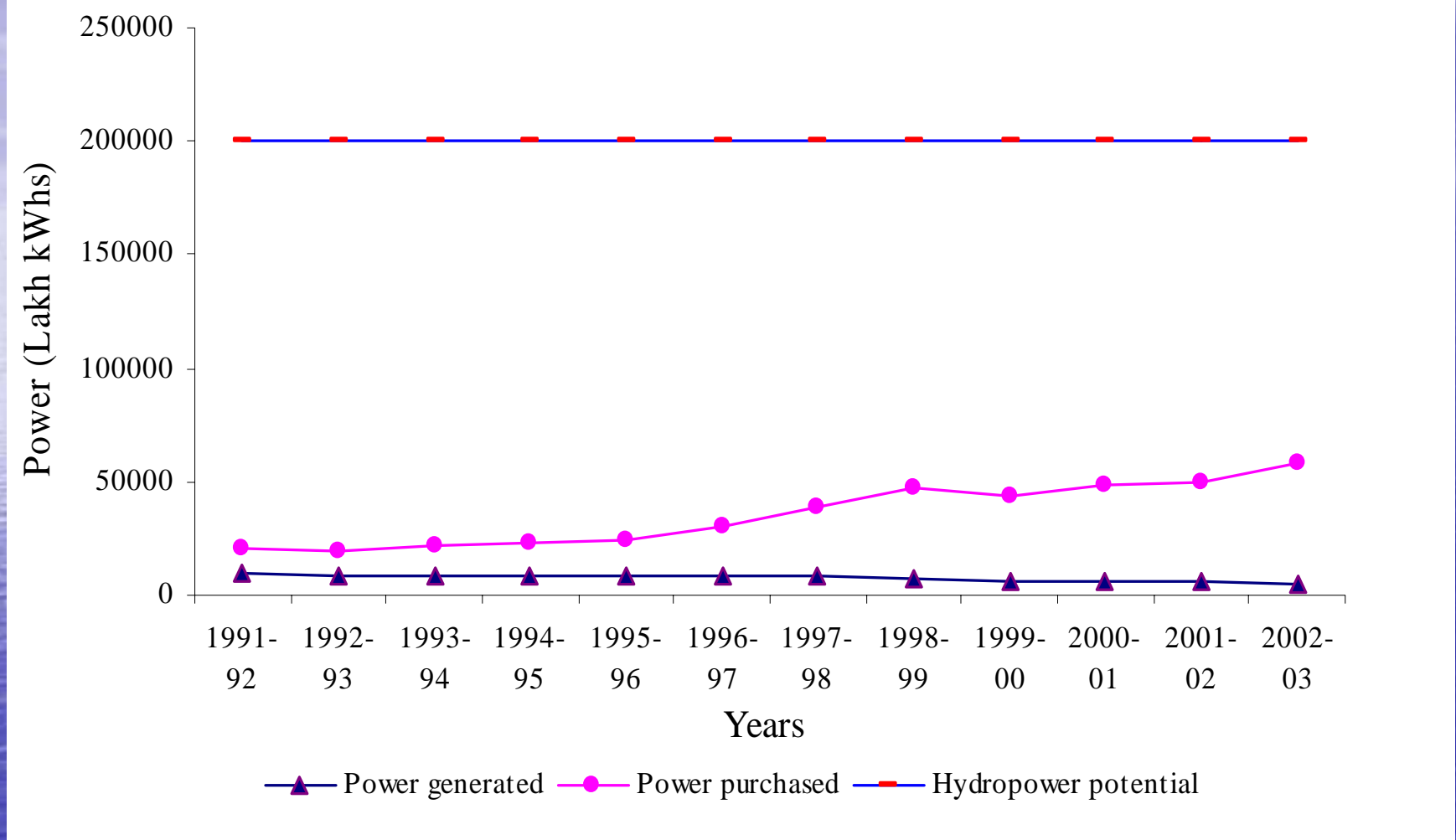
Food grain imports by J&K state



Rice imports and production



Hydro-power generation, import and potential



Power imports drains heavily the state exchequer

IWT – unjust treaty for J&K

- State's consent not taken
- Pak fully compensated for loss of pre-partition canal network
 - (i) Nehru dispensation = Rs 83.3 crore
 - (ii) International Aid = Rs 300 crore
- J&K's rightful riparian rights snatched
=
No Compensation

Other Ways to Compensate

- Favourable sharing of hydropower generation
- New Delhi's score not encouraging
- Salal Power Project
 - capital cost recovered in 1982, but power sharing ratio continues to be as such (royalty of 12%)**
- Case for transfer of centrally funded power project

Wullar Barrage Issue

- Irrigation
- Navigation
- Stabilizing power generation
- Project Commissioned in 1980
- Estimated cost = Rs 30 crore
- Already devoured = Rs 36 crore
- Result = * few shallow waterways,
* skeleton of two storey building

Eight rounds of talks on Wullar barrage between India and Pak.

Result

No Breakthrough

Wullar Barrage Issue

- **India's Claim**

- help to increase irrigation
- provide navigation in northern Kashmir
- stabilize the power generation during lean season
- 90% of project benefit to Pak
- regulate supply to Mangla dam
- increase power generation capacity at Mangla
- regulate irrigation network in Pak's Punjab

- **Pak's apprehensions**

Control of river Jhelum through Wullar Barrage

- A serious threat to withhold water
- Multiply and magnify risks of floods and droughts in Pakistan
- Mangla dam would get seriously affected
- Provide India strategic edge

Baglihar Issue

- **Pak's allegations**

- Violates the IWT
- Could interfere flow of water from Chenab
- withhold water for a period of one month
- Deprive vital irrigation in Pak Punjab

- **India's stand**

- Project within IWT
- Pak's fears baseless

World Bank Arbitration



Present Scenario and Future Confrontations

- Water security in Indus basin ?
- Conflicts – more severe.
- Need for further cooperation.
- Follow-up agreement to 1960 IWT.
- Hostility between two countries.
- Opportunity costs of non-cooperation and confrontation.

Indus Politics

Dissatisfaction in both countries over the IWT

- **Pakistan Punjab**

- buy water from India
- scrap the IWT

- **Jammu and Kashmir**

- consensus among political parties
- consensus among the three regions
- State assembly resolution
- demand of compensation from centre
- demand of scrapping treaty

Conclusion

- Growing population
- Industrialization
- Mounting water problems
- Climate change --->depletion of glaciers
- Political and economic situation
- Need for optimal utilization
- Need for revision of IWT.

Message:

Principle of sharing the of the benefits and responsibilities on all the rivers between the two countries rather than simple sharing the water may be envisaged

Due to the hostility between the two countries, the idea may appear remote at the present time but the very exercise of looking ahead would reveal the opportunity costs of non-cooperation and confrontation.

Thanks