

Deltas in Danger

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Worldwide, 24 of the 33 river deltas are in danger. They are sinking at rates faster than global sea levels are rising due to lower silt and less water flowing in. The Yellow River in China and the Indus in Pakistan have both run dry in some years before they enter the sea. In India, the worst cases are the Krishna and Godavari Deltas.

It was in the mid-19th century when the British began developing the Godavari and Krishna Deltas, repeating the example of the Cauvery delta. Sir Arthur Cotton designed and built the Godavari annicut and his junior did the same for the Krishna annicut. The old Guntur district (renamed Kistna) had lost 40%, and Godavari district, 25% of their population from famine in the 1830s.

Between 1880-81 and 1903-04, total annual tax revenue of the two districts (Godavari and Kistna) went up from Rs 112 lakhs to Rs 201 lakhs! Land revenue contributed almost half of this. Average land revenue per acre for irrigated lands was nearly Rs 8 with an additional Rs 5 as water rate.

Acreage	1888-89	1903-04	2009-10
Godavari	302,000	695,040	10,13,161
Krishna	246,000	497,000	17,58,316

In the Deltas, irrigated acreage doubled in ten years at the end of the 19th century. But in the 100 years of the 20th century, the Krishna Delta grew by 3.5 times in while the Godavari Delta grew by less than half.

The continued progress of the two Deltas made their hinterland (East and West Godavari, Krishna and Guntur districts) the most prosperous districts in the State. Currently, their combined annual income rose from Rs 47,000 crores in 2003-04 to Rs 74,000 crores in 2007-08 constituting 25% of the State income and 55% of that of Coastal Andhra region. Yet with all this, the districts are essentially agricultural and this sector is a weak one and has been growing very slowly.

The Table below gives the District Gazetteer data on past population of the two districts and the official projection for 2011.

Population in lakhs	1871	1881	1891	1901	2011
Godavari	15.9	17.9	20.8	23.0	94.0
Kistna	14.5	15.5	18.6	21.5	96.0

In 1901 Census, the 23-lakh population in Godavari was composed of Kapus (457,000), Malas (391,000), Idigas (toddy-tappers)(167,000), Madigas (114,000) and Kammas (110,000). In the Kistna district, out of the 22-lakh people, Kammas dominated (311,000) with Telegas (148,000), Madigas (142,000), Brahmins (106,000) and Komatis (81,000).

From 1960 onwards, the Deltas progressed due to the construction of Nagarjunasagar and Srisailem dams upstream on the borders of Telangana and Rayalaseema on the Krishna and then, in 1970's, of Pochamad in Telangana on the Godavari. This ensured storage of the river waters, which were released for large-scale irrigation for second crop paddy in the Deltas for the first time in their history. This was the high point for the Deltas.

However, with the construction of multiple dams in the upper reaches of the Krishna and its tributaries in Karnataka and Maharashtra and also the full development of the Nargarjunasagar, Pochampad and Srisailem ayacut, the provision of water to the Deltas in the critical rabi seasons is impossible.

Water in the storage reservoirs is needed for the kharif crop in the upper riverine ayacut, which have the first claim. It is an incontrovertible fact that the Telangana Region covers most of the Godavari and Krishna basin in the State and as such has the major share of the river waters. With the Telangana - and perhaps, Rayalaseema – movement for separate statehood, political aspects have already come to the fore.

The State Government has announced “modernization” schemes for the two Deltas with huge outlays - Rs. 4,573 crores in 2008- for Krishna and - Rs. 1,200 crores, in 2010 - for Godavari. However, very little has been done for various reasons. Experts say that it will take five to six years more and that only if the canals are closed for a year or two to facilitate the works. This is a non-starter and, anyway, fails to address the real problem of limited water.

The Cauvery Delta offers an example of a feasible solution. There is no hope for their Cauvery Delta farmers to get water even for their kharif crop! The Karnataka and upstate Tamil Nadu ryots will have the first claim. As a result, the State Government is encouraging the SRI technique of growing rice, which reduces the need for water, as well as fertilizer. What is more, it gives higher yields (up to ten tons per hectare). This would help farmers who are reporting losses due to high input - especially labour - costs and poor yields and prices. Dr. A Satyanarayana, who has been responsible for research in the Krishna and Godavari deltas, from 1995 to 2000, states that SRI trials show that:

“About 40 farmers got yields over 10t/ha, and 5 districts had average yields over 10t/ha. The highest recorded was 16.2 t/ha followed by 15.7t/ha. The average over all the demonstration plots was 8.36t/ha compared to 4.9 t/ha with conventional practice and the state average of 3.89t/ha”.

Secondly, crop diversification is underway with the help of the National Mission on Bamboo (which plans to bring two million hectares under bamboo cultivation during the 10th Plan with an investment of Rs. 2,608 crores). Bamboo, with its reduced water and input requirements, gives profits of Rs 100,000 per acre every two years. This – given the closeness to paper mills which desperately need bamboo – means that the Cauvery Delta will not be dependent on upper river water releases. The AP Paper Mills at Rajamundry and Sirpur Paper Mills would be the ideal buyers for Krishna and Godavari Delta bamboo.

Both the Andhra Pradesh Government (instead of announcing huge schemes for “modernization” for which it has no money or will to execute) and local politicians (instead of diverting attention to upper river issues which they cannot solve) should encourage farmers in the Deltas to reinvent themselves and the Deltas in the Cauvery model.

With their long history of prosperity, ample private funds, entrepreneurial capacity and political shrewdness, this is something easily achievable by the Delta folk. They have demonstrated their resources, energy and entrepreneurial skill in speculating on real estate in Hyderabad, Vizag, Madras or Bangalore as well as setting up or investing in chit funds, film production and distribution, cinema theatres, hotels and politics. These activities may make money but it may not be the way for Delta residents to defend the gift of their great rivers, which they and their ancestors have enjoyed for over 150 years, which is in danger today.

A new emphasis should be the sea and its infinite opportunities. The long sea coast and the Krishna-Godavari gas fields, the excellent railway and canal system, the existing and new ports, will enable the Delta people to be major players in industry, foreign trade and fishing/shipping sectors in the 21st century

When Coastal Andhra becomes a State, the Delta districts, along with Vizagapatam, will be the main economic driving forces for further all round development. Their people need to save the Deltas that gave them so much rather than spending their efforts elsewhere and causing irritation and generating ill will as a result.

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