Cauvery Delta Region Shrinks

Why in news?

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Recent study concluded that the Cauvery delta region has shrunk and the cultivable lands are increasingly deteriorating into waste lands.

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What was the grim picture presented?

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- The researchers have tracked land use and changes to land cover to show that the delta region has **shrunk by 20%.**
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- It is due to anthropogenic factors such as diversion of land for non-agricultural purposes, as well as factors linked to climate change.
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- The drastic reduction in crop cover and a **13-fold increase in wastelands** between 1971 and 2014 indicate a worrisome phenomenon.
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- The study also reported the increase in mangrove cover (14 times since 1971) in the region as **sea water ingress** (entering) has grown in the coastal areas.
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- This means more and more cultivable agricultural land is coming under sea water and **the soil is turning saline.**
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- Due to sea water ingress, there has been a substantial rise in shrimp farming along the coast, which is detrimental to agricultural practice.
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- With 72% of the low-lying land in the State falling under the delta region along the coast, the land is at greater risk of submergence as a result of rising sea levels.
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- The Cauvery delta has witnessed a **decline of 80% in sediment deposit** over the last century.
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What are the major concerns?

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- A noticeable consequence of climate change has been **the cycle of drought and flood** that coastal areas have been enduring.
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- The rain occurs within a span of a few days, resulting in heavy flooding.
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- The fields get flooded and the crops are destroyed.
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- On the other hand, there is the prevalence of droughts.
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- All these factors have resulted in a **drastic reduction in land under crop cover**.
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- Also, the delta region has clay soil, of which **52% is cracking clay,** which is very vulnerable if it doesn't receive continuous irrigation.
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- The study also points to **the decline of dairy** as a secondary occupation, with the cattle population registering a steep decline.
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- With the Cauvery delta region accounting for 30% of the food grain production in the State, it is imperative that the crisis needs to be solved sooner than later.
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What are the government interventions?

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- **The Tamil Nadu State Climate Action Plan,** drafted in 2014, anticipates many of the challenges that the report has raised, and envisages a slew of measures to make agriculture sustainable.
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- Promotion of drought- and flood-tolerant varieties of paddy, micro-irrigation to promote efficient use of water and use of bio-fertilizers to improve soil health are among the proposals.

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- However, there is **no clarity** on the extent to which these proposals have been incorporated in government interventions.
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- Several schemes have been announced by the State for the farmers' welfare, it remains unclear as to who is benefitting from them.
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- State has placed greater focus on promoting efficient use of water in agriculture through the expansion of the **System of Rice Intensification (SRI).**
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- However, wasteland reclamation work is currently concentrated in the dry regions of Tamil Nadu and not in the Cauvery delta regions.
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- The **State government's 2017-18 policy** note on agriculture admits that agricultural production has been severely affected due to natural factors such as cyclones and drought.
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- Again, it lacks clarity on the specific resources that would be dedicated to developing such 'climate-smart' practices.
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- **Collective farming scheme** was proposed, which aims to promote farmer-producer groups with a corpus fund of Rs 5 lakh per group.
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- This will help reduce the vulnerability of small and marginal farmers to natural hazards as it allows them to **pool their resources** and scale up farm production.
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Source: The Hindu

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