Enhancing Climate Resilience of India's Coastal Communities

ECRICC

Crab Farming in Odisha

GREEN CLIMATE FUND

Nature Protects if She is Protected

UNDP

Executive Summery

The Enhancing Climate Resilience of India's Coastal Communities (ECRICC) Project, launched in 2019, is a collaborative initiative aimed at strengthening climate adaptation and diversifying livelihoods across vulnerable coastal regions. Supported by the Green Climate Fund (GCF), the Government of India, and the United Nations Development Programme (UNDP), the project is being implemented across three coastal states: Odisha, Andhra Pradesh, and Maharashtra. In Odisha, the project is carried out under the supervision of the Forest, Environment & Climate Change Department and focuses on promoting climate-resilient livelihoods in the fisheries and agriculture sectors. It covers four coastal districts—Balasore, Puri, Kendrapada, and Ganjam—targeting 949 villages across 161 Gram Panchayats.

A key intervention introduced under the ECRICC project in 2024 is Mud Crab Farming (Scylla serrata). This initiative harnesses brackish water aquaculture to provide coastal communities with a sustainable and profitable livelihood. The demand for mud crabs is high in both domestic and export markets, making it a lucrative opportunity for small-scale farmers. The initial phase of the project supported 18 farmers across four districts, utilizing 6 hectares of water spread area. Technical assistance was provided by the Marine Products Export Development Authority (MPEDA) and the Rajiv Gandhi Centre for Aquaculture (RGCA). These institutions ensured the availability of quality crablets by supplying 38,000 matchbox-sized seeds. Despite challenges such as the absence of certified hatcheries in Odisha, the interest among farmers in expanding crab culture remains high.

A State-Level Crab Farmers' & Exporters' Meet was conducted in December 2024 in Bhubaneswar to strengthen farmer-exporter linkages. The workshop brought together government officials, aquaculture experts, farmers, and exporters to discuss opportunities, challenges, and strategies for enhancing the crab farming sector.

To address the critical gap in seed availability, the ECRICC Project is establishing a Crab Hatchery in Odisha. The hatchery, located in Paradeep, Jagatsinghpur district, will help to create a self-sustaining crab farming value chain by producing one million crab seeds annually. This initiative aims to reduce reliance on wild seed collection, ensuring a consistent supply of quality crablets to farmers. It is expected to generate employment opportunities, strengthen Odisha's role in commercial crab farming, and contribute to the state's economic development.

The ECRICC Project's crab farming initiative is a major step toward climate-resilient livelihoods in Odisha. By integrating sustainable aquaculture practices, technical expertise, and market linkages, the project is creating new income opportunities for coastal communities while ensuring long-term environmental sustainability. The establishment of a crab hatchery will further enhance Odisha's potential as a leading hub for mud crab aquaculture, paving the way for a robust, self-sufficient, and globally competitive crab farming sector.


NEW YORK
ATHLETIC NYC DIVISION

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1. Introduction

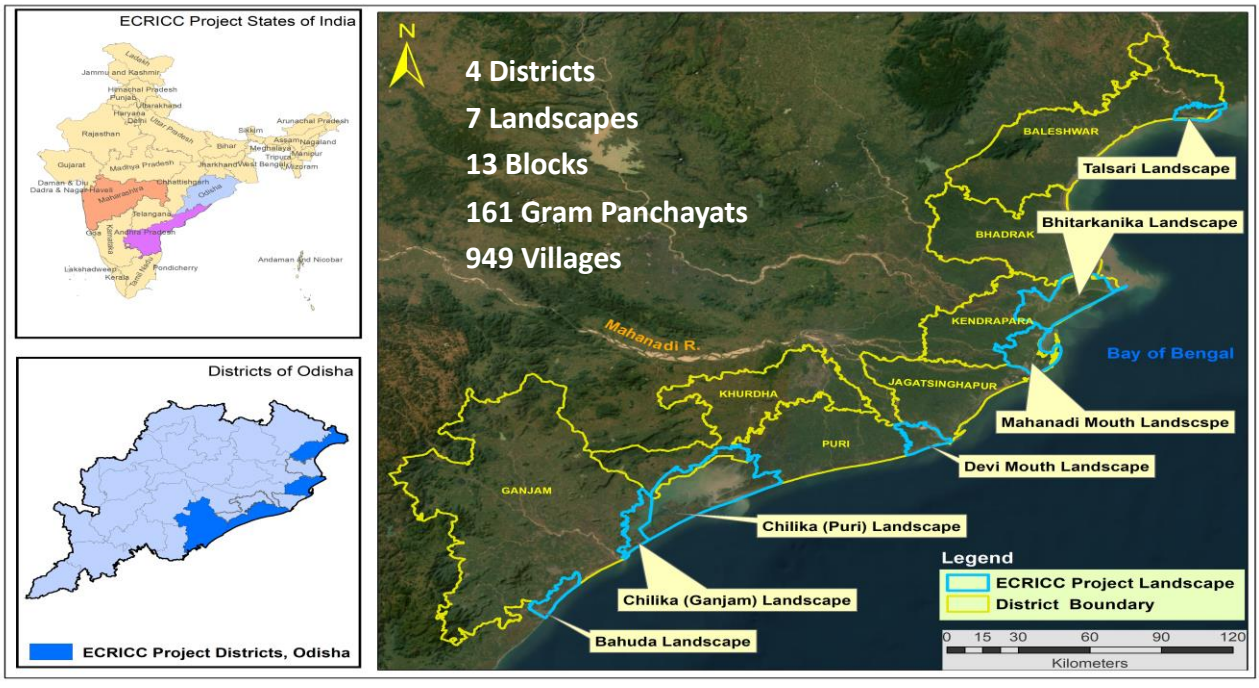
Enhancing Climate Resilience of India's Coastal Communities" (ECRICC) project, initiated in 2019, aims to safeguard vulnerable coastal populations by enhancing ecosystem resilience and diversifying livelihoods. Implemented across 3 coastal states (Adhra Pradesh, Maharashtra and Odisha) of India, the project employs an ecosystem-based adaptation (EbA) approach and is supported by the Green Climate Fund (GCF), state government, and the United Nations Development Programme (UNDP). The project integrates vulnerability assessments, ecosystem restoration, and community-driven livelihood initiatives while strengthening governance mechanisms.

1.1 Project Outputs

Output-1	Output-2	Output-3
•Enhanced resilience of coastal and marine eco-system and their services.	•Climate adaptive livelihoods for enhanced resilience of the vulnerable coastal communities.	•Strengthened coastal governance and institutional framework.

1.2 ECRICC in Odisha

In Odisha, Forest, Environment & Climate Change Department, Government of Odisha under the overall supervision of Ministry of Environment, Forest & Climate Change (MoEFCC), Government of India is implementing this project in 7 landscapes of 4 coastal districts (Balasore, Puri, Kendrapada & Ganjam). Under this project, promotion of climate adaptive livelihoods in the fisheries and agriculture sector is an important component for enhancing climate resilience capacity of the coastal communities through income enhancement and diversification of livelihoods.



2. Mud Crab Culture: An Effort from Mud to Money…

Aquaculture has become essential in fulfilling the growing global demand for fish. With expanding population, increase in income and change in consumer preferences towards healthier and more nutritious food, there is significant demand on the industry to boost the production of quality fish. Aquaculture is the culture of fish, crustaceans, mollusks, and aquatic vegetation across diverse aquatic environments, representing one of the most rapidly expanding sectors in global food production. Brackish water aquaculture contributes to the economic development of our country by generating essential foreign exchange, creating a range of direct and indirect employment opportunities, providing livelihoods, and enhancing nutritional security. The brackish water fin fishes & shell fishes have high consumer preference and market demand. Among the brackish water shell fishes, mangrove crab(Scylla serrata) also known as mud crab is one of the important cultured hardy species.

Mud Crab is highly popular due to its high demand in the domestic as well as in external market. It has the potential of export also. The commercial scale mud crab farming is developing fast along the coastal states like Andhra Pradesh, Tamil Nadu, Kerala, Odisha, West Bengal and Karnataka. Being a coastal district, Puri comprises ample scope in Mud crab culture, especially due to the culture friendly climate and ecosystem conditions as well as availability of crablets in natural sources. Mud crab culture is effectively initiated in the year 2024 under both Devi mouth and Chilika landscapes which are part of the ECRICC Project intervention. Though the number of farmers under mud crab culture is still not very high, but the scope and interest among farmers is very high. With availability of local knowledge and market, the condition is favourable for scale up. Non-availability of certified inputs like crablets is a challenge as there is no Government or Private hatchery in Odisha and supply chain for crablets from trusted

agencies is weak.

2.1 Initiatives of ECRICC Project on Crab Culture Interventions

As part of its fisheries sector interventions, the ECRICC Project introduced mud crab culture (Scylla serrata) in 2024 to enhance sustainable aquaculture practices and improve livelihoods. This initiative targeted 18 farmers across four districts—Puri, Kendrapada, Ganjam, and Balasore—utilizing a combined water spread area of approximately 6 hectares. The project received comprehensive technical support from the Marine Products Export Development Authority (MPEDA) under the Ministry of Commerce and Industry, Government of India. To support this intervention, the Rajiv Gandhi Centre for Aquaculture (RGCA), a unit under MPEDA based in Tamil Nadu, supplied 38,000 matchbox-sized crablets to the farmers. This marked a significant step in ensuring the availability of quality seed stock for the culture operations. Throughout the crab culture cycle, District Project Management Unit (DPMU) teams and fisheries experts from the ECRICC Project worked closely with the farmers, providing technical guidance and hands-on support to optimize production and address challenges. A detailed report on 18 existing crab farmers is placed as Annexure-1.

A key outcome of the initiative was the enrolment of all participating farmers under MPEDA, thereby linking them to export markets. This strategic move ensured that the farmers' produce meets international quality standards, paving the way for higher income opportunities through global market access. Through these efforts, the ECRICC Project has significantly contributed to the development of mud crab aquaculture, promoting sustainable practices and economic empowerment for small-scale fish farmers in the region.

2.2 Process followed for Crab Culture

Culture and fattening of Crab are two different operations though it appears to be the same. Culture is a grow-out operation that involves raising of young seed to marketable sizes of 500g or above over an extended culture period whereas fattening refers to the holding of growers or water crabs (freshly moulted soft crabs) for short duration to acquire maximum biological attributes to realize better economic returns. The SoPs followed for Crab culture are narrated below at a glimpse.

2.3 Pre Implementation Stage

1.1 • Identified suitable location for crab culture, considering factors like water quality, salinity and accessibility in coordination with the FNGO Team and DPMU Team.

1.2 • Secured necessary permits and licenses from relevant authorities to establish a crab culture operation. Facilitated the farmers for getting the CAA license.

1.3 • Five days capsule training on Better Management Practices of Crab Culture was imparted by MPEDA, Regional Office, Bhubaneswar.

1.4 • Baseline surveys were conducted by FNGOs members, by employing structured questionaries for data collection and Free Prior Informed Consent (FPIC) was conducted.

1.5 • A technical training and field demonstration was organized by SPMU, Bhubaneswar and MPEDA-RGCA team on better management practices & practical demonstration at pond site.

1.6 • Climate Champions were trained to facilitate all the processes and provide hand holding support to the farmers.

2.4 Standard Operating Procedures (SoPs) followed for Crab Culture

Pond Preparation

The first step in crab culture is preparing the pond to create a suitable environment for crablets. The pond should be drained and sun-dried for about 10–15 days to eliminate harmful pathogens and unwanted aquatic species. If necessary, excess silt is removed to maintain the proper pond depth and prevent anaerobic conditions. The pond bottom is then leveled to ensure uniform water depth, which facilitates easy management and harvesting. To neutralize soil acidity, agricultural lime is applied at a rate of **500–1000 kg per hectare**. After these preparations, the pond is filled with **50–55 cm** of water, and fertilizers such as **Urea and Single Super Phosphate (SSP) in a 3:1 ratio** are applied to stimulate the growth of natural food sources. A healthy plankton bloom, indicated by a water transparency of **30–40 cm**, is developed to ensure the crabs have an adequate supply of natural feed.

Water Maintenance

Maintaining optimal water quality is critical for crab survival and growth. Regular water exchange is necessary to prevent the accumulation of metabolic waste, with **10% of the water being replaced every 15 days**. Key water parameters should be monitored and maintained within optimal ranges—**dissolved oxygen (DO) should be above 4 ppm**, **pH should be between 7.0 and 8.5**, and **salinity should be maintained between 20 and 32 ppt**. These conditions support healthy molting cycles and overall well-being of the crabs.

Organic Juice Application

To enhance the natural productivity of the pond, organic juice is periodically applied. This juice, prepared from fermented organic materials, helps in increasing the population of phytoplankton and zooplankton, which serve as natural food sources for the crabs. A well-balanced ecosystem with an adequate amount of natural food promotes better growth and survival rates.

Crablet Transport

The transportation of crablets from hatcheries to the pond should be carefully managed to minimize stress and mortality. Crablets are packed in **ventilated onion baskets** with **moist mangrove leaves** to retain humidity and prevent dehydration. During transit, **saline water is sprinkled** at regular intervals to maintain moisture levels. Transportation should be conducted under **cool conditions** to reduce heat stress, ensuring that the crablets reach the pond in healthy condition.

Stocking

Crablets should be stocked at a recommended density of **one crablet per 2 square meters** (**5000 per hectare**) to provide ample space for movement and molting. They are introduced into **deeper water zones** where temperature fluctuations are minimal, reducing the chances of stress. Before release, the crablets must be **gradually acclimatized** to the pond water conditions. This process involves slowly introducing pond water into their transport containers to allow them to adjust to the new environment, preventing shock and increasing survival rates.

Feeding

A well-structured feeding regime is essential for optimal growth. Crabs should be fed **twice daily**, in the morning and evening, using **chopped fish**. The feed size should be adjusted according to the size of the crabs to ensure easy consumption. Overfeeding must be avoided as uneaten feed can deteriorate water quality. **Check trays** are used to monitor feed consumption, helping to determine whether the quantity needs to be adjusted.

Check Tray and Catwalk Usage

To effectively manage feeding, **check trays** are placed in the pond to estimate feed consumption and prevent wastage. The catwalk, a prepared structure, is used to distribute feed in the **middle area** of the pond, ensuring uniform access and reducing competition among the crabs. This setup promotes even growth and minimizes aggressive behaviour among individuals.

Sampling

Regular sampling is conducted to monitor the growth and health of the crabs. The **Average Body Weight (ABW)** is calculated periodically to assess growth rates and survival percentages. Based on the sampling results, adjustments in feed quantity and size are made to optimize growth. By tracking the crabs' development, farmers can ensure that they are growing at a healthy rate and make necessary improvements in management practices.

Harvesting

The final stage of crab culture is harvesting, which must be done carefully to ensure high-quality crabs. The pond is **drained overnight**, allowing for an easier and more efficient collection of crabs. The next morning, crabs are captured using **nets**. Since crabs are highly susceptible to dehydration after being removed from water, they must be kept **moist** by

regularly **sprinkling them with saline water**. Proper post-harvest handling ensures that the crabs remain healthy and fresh for market sales.

2.5 Cost Norm for Mud Crab Culture under ECRICC Project

Sl No.	Particulars	Amount (Rs.)	ECRICC Assistance	Farmer Contribution
A. Capital Cost				
1	Renovation of existing pond	40,000	0	40,000
2	Silpaulin Fencing (190Sq Mt @140 per m2.	26,600	26,600	0
3	Cat Walk-8 No.@Rs.2000 per pieces (4 to 8 Nos of Cat Walk depending upon size of the pond)	16,000	16,000	0
4	Hideouts like clay pots, Tiles, Broken pipe, etc. (1000-1500 pieces)	10,000	5,000	5,000
5	PumpSet (5 HP)	30,000	0	30,000
6	Sludge PumpSet (2HP)	35,000	35,000	0
7	Cost for construction of shed	15,000	0	15,000
	Total Capital Cost	**1,72,600**	**82,600**	**90,000**
B. Operational Cost				
1	Pond preparation (Organic & Inorganic Fertiliser etc.)	20,000	0	20,000
2	Cost of crablet including transportation @ Rs 34/- for 5000 no. of crablet. (SPMU is responsible for making payment towards cost of matchbox size crablets to RGCA directly through DBT)	1,70,000	1,70,000	0

3	Transportation	10,000	10,000	0
4	Cost of trash fish (6000 kg @ Rs 40 /-	2,40,000	1,40,000	1,00,000
5	Cost of probiotic/Zeolite	12,000	9,000	3,000
6	Cost of Fuel for pump operation	30,000	0	30,000
7	Watch and ward @ Rs.9,000/- per month for 09 months	81,000	0	81,000
8	Labour and harvesting charges	15,000	0	15,000
9	Miscellaneous	10,000	0	10,000
Total operational cost		**5,88,000**	**3,29,000**	**2,59,000**
Grand Total (A+B)		**7,60,600**	**4,11,600**	**3,49,000**

NB: The component-wise capital and operational cost to be made depending upon area of the pond as per requirements and as per actual . Contribution of ECRICC project is limited to R**s. 4,11,600/- only per Ha**. DPMU to release fund to the Crab Farmer directly in his/ her bank account through DBT mode in different phases of crab culture cycle as per requirement and progress of the farmer. SMS-Fisheries to closely work with the farmers , provide timely technical and handholding support to farmer and facilitate procurement of standard inputs and materials by the farmer under the guidance of Nodal Officer/ DCO.

2.6 Crab Farmers' and Exporters' Meet

The State-Level Workshop on the theme **"Crab Farmer and Exporter Meet"** was successfully conducted on **12th December 2024** at the **SPRC, SIRD Campus, Bhubaneswar.** The workshop was organized by the **State Project Management Unit (SPMU)** under the **ECRICC Project, Odisha.** The primary objective of the workshop was to bring together key stakeholders, including government agencies, aquaculture experts, crab farmers, and exporters, to deliberate on the challenges, opportunities, and strategies to strengthen the crab farming sector in Odisha.

The event began with an inaugural session, where dignitaries highlighted the importance of crab farming as a sustainable livelihood option, particularly for coastal communities. Crab farming has emerged as a significant contributor to the local economy, offering immense potential for both domestic consumption and export markets. However, the sector faces challenges such as lack of technical knowledge, inadequate infrastructure, limited access to quality seeds, and weak linkages between farmers and exporters. During the technical sessions, aquaculture experts provided insights into improved farming techniques, seed availability, disease management, and climate-resilient practices. Exporters emphasized the growing global demand for crabs and shared strategies for meeting export standards and enhancing product quality. The workshop also facilitated open discussions where crab farmers voiced their concerns, including the need for financial support, market access, and capacity-building programs.

Key outcomes of the workshop included identifying measures to improve farmer-exporter linkages, recommendations for policy support, and the development of training modules to empower crab farmers with modern aquaculture practices. The workshop underscored the need for collaborative efforts among stakeholders to ensure sustainable crab farming practices, strengthen the value chain, and boost the sector's contribution to both livelihoods and the economy. The workshop served as a critical platform for fostering partnerships, addressing challenges, and exploring pathways for enhancing the crab farming and export sector in Odisha.

Crab farmers' meet to strengthen sustainable aquaculture

POST NEWS NETWORK

Bhubaneswar, Dec 12: The State Project Management Unit of the Enhancing Climate Resilience of India's Coastal Communities (ECRICC) initiative organised a crab farmers' and exporters' meet at the State Institute for Rural Development (SIRD) campus, Thursday.

The event aimed to bring together crab farmers, exporters, government officials, and technical experts to foster sustainable aquaculture practices and strengthen market linkages for Odisha's mud crab sector.

Inaugurating the event, Forest, Environment, and Climate Change department's Environment-cum-Special Secretary director and ECRICC state project director, Prem Kumar Jha highlighted the importance of mud crab aquaculture in bolstering Odisha's fisheries sector.

He noted that the initiative offers a sustainable source of income for coastal communities and detailed the project's progress, challenges, and opportunities in crab export.

Marine Products Export Development Authority (MPEDA) deputy director Archiman Lahiri underscored the rising global demand for high-quality mud crabs and Odisha's potential to become a leading exporter. Lahiri emphasised that the state could capitalise on international markets by adopting quality-oriented practices.

The ECRICC project, supported by the Green Climate Fund, aims to enhance the livelihoods of vulnerable coastal populations across three states—Odisha, Maharashtra, and Andhra Pradesh. It focuses on climate-adaptive livelihoods and strengthening community resilience to climate change impacts.

In Odisha, the project is being implemented in seven landscapes across four districts—Puri, Ganjam, Kendrapara, and Balasore—by the Forest, Environment, and Climate Change department under the supervision of the Ministry of Environment, Forest, and Climate Change (MoEFCC), Government of India. The United Nations Development Programme (UNDP), as the Green Climate Fund's official agency, ensures quality assurance for the initiative.

Discussions at the event included plans for scaling crab aquaculture practices, establishing a crab hatchery in Odisha by 2025, and identifying additional farmers for capacity-building programmes. Officials stressed improving access to international markets through quality checks and streamlined export documentation.

Representatives from MPEDA, Fisheries and Animal Resource Development (F&ARD) department, and exporters from West Bengal and Tamil Nadu attended the workshop, sharing insights and best practices. ECRICC state project manager Spandita Kar and her team coordinated the event's proceedings.

The meet marked a significant step in forging partnerships between government bodies, NGOs, and exporters, with a shared vision of driving transformative changes in Odisha's coastal communities. By addressing key challenges and leveraging opportunities, the initiative aims to create a sustainable and thriving aquaculture ecosystem in the state.

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ଜଳବାୟୁ ସହନଶୀଳତା ବୃଦ୍ଧି ପରିପ୍ରେକ୍ଷୀରେ ଓଡ଼ିଶାରେ କଙ୍କଡ଼ା ଜଳଚାଷକୁ ଗୁରୁତ୍ୱ

ଭୁବନେଶ୍ୱର ,୧୨/୧୨ (ଓସନ୍ୟୁ): ଭାରତୀୟ ଉପକୂଳ ସମୁଦାୟ (ଇସିଆରଆଇସିସି) ପ୍ରକଳ୍ପର ରାଜ୍ୟ ପ୍ରକଳ୍ପ ପରିଚାଳନା ୟୁନିଟ୍ ପକ୍ଷରୁ ଆଜି ରାଜ୍ୟ ଗ୍ରାମ୍ୟ ଉନ୍ନୟନ ପ୍ରତିଷ୍ଠାନ (ଏସଆଇଆରଡି) ପରିସରରେ କଙ୍କଡ଼ା ଚାଷ କରୁଥିବା କୃଷକ ଓ ରପ୍ତାନିକାରୀଙ୍କ ସମ୍ମିଳନୀ ଅନୁଷ୍ଠିତ ହୋଇଯାଇଛି । ଏହି କାର୍ଯ୍ୟକ୍ରମରେ କଙ୍କଡ଼ା ଚାଷୀ, ରପ୍ତାନିକାରୀ, ସରକାରୀ ପ୍ରତିନିଧି ଏବଂ ବୈଷୟିକ ବିଶେଷଜ୍ଞମାନେ ଏକତ୍ରିତ ହୋଇ ନିରନ୍ତର ଜଳଚାଷ ପ୍ରଣାଳୀକୁ ପ୍ରୋତ୍ସାହିତ କରିବା ସହ କିପରି ଏ କ୍ଷେତ୍ରରେ ସୁଦୃଢ଼ ବଜାର ସଂଯୋଗୀକରଣ ହୋଇପାରିବ, ସେ ସଂପର୍କରେ ଆଲୋଚନା କରିଥିଲେ ।ଏହି କାର୍ଯ୍ୟକ୍ରମକୁ ନିର୍ଦ୍ଦେଶକ ପରିବେଶ-ତଥା ଓଡ଼ିଶା ସରକାରଙ୍କ ସ୍ୱତନ୍ତ୍ର ଶାସନ ସଚିବ ଏବଂ ଇସିଆରସିସି ପ୍ରକଳ୍ପ, ଓଡ଼ିଶାର ରାଜ୍ୟ ପ୍ରକଳ୍ପ ନିର୍ଦ୍ଦେଶକ ଶ୍ରୀ ପ୍ରେମ କୁମାର ଝା ଉଦଘାଟନ କରି ଓଡ଼ିଶାର ମତ୍ସ୍ୟଚାଷ କ୍ଷେତ୍ରକୁ ସୁଦୃଢ଼ କରିବାରେ ମାଟି କଙ୍କଡ଼ା ଜଳଚାଷର ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକା ରହିଥିବା ପ୍ରକାଶ କରିଥିଲେ । ଏହି ପଦକ୍ଷେପ କିପରି ଉପକୂଳବର୍ତ୍ତୀ ଅଞ୍ଚଳର ସ୍ଥାନୀୟ ଗୋଷ୍ଠୀ ସମୁଦାୟର ଆୟ ପାଇଁ ସ୍ଥାୟୀ ଉତ୍ସ ହେବା ପାଇଁ ସୁନିଶ୍ଚିତ କରିବ, ସେ ବିଷୟରେ ଆଲୋକପାତ କରିଥିଲେ । ପ୍ରକଳ୍ପର ଅଗ୍ରଗତି, କଙ୍କଡ଼ା ରପ୍ତାନିରେ ଆହ୍ୱାନ ଓ ସୁଯୋଗ ଏବଂ ଅଂଶୀଦାରୀମାନଙ୍କ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକା ଇତ୍ୟାଦି ବିଷୟରେ ବିସ୍ତୃତ ଭାବେ କାର୍ଯ୍ୟକ୍ରମରେ ଆଲୋଚନା କରାଯାଇଥିଲା । କାର୍ଯ୍ୟକ୍ରମରେ ସାମୁଦ୍ରିକ ଉତ୍ପାଦ ରପ୍ତାନି ଉନ୍ନୟନ କର୍ତ୍ତୃପକ୍ଷ (ଏମ୍ପିଇଡିଏ)ର ଉପନିର୍ଦ୍ଦେଶକ ଡ. ଅର୍ଚ୍ଚିମାନ ଲାହିରୀ ଆନ୍ତର୍ଜାତିକ ବଜାରରେ ଉନ୍ନତମାନର ମାଟି କଙ୍କଡ଼ାର ଚାହିଦା ବୃଦ୍ଧି ପାଉଥିବା ଏବଂ ଓଡ଼ିଶା ଏ କ୍ଷେତ୍ରରେ ଏକ ଅଗ୍ରଣୀ ରପ୍ତାନିକାରୀ ଭାବେ ଉଭା ହେବାର ପ୍ରଚୁର ସମ୍ଭାବନା ରଖୁଥିବା ଉପରେ ସେ ଆଲୋକପାତ କରିଥିଲେ ।

ସବୁଜ ଜଳବାୟୁ ପାଣ୍ଠି ସହାୟତାରେ ଇସିଆରଆଇସିସି ପ୍ରକଳ୍ପ ବିଶେଷ କରି ଓଡ଼ିଶା ଏବଂ ଅନ୍ୟ ଦୁଇଟି ରାଜ୍ୟ ଯଥା ମହାରାଷ୍ଟ୍ର ଏବଂ ଆନ୍ଧ୍ରପ୍ରଦେଶର ଆର୍ଥିକ ଦୁର୍ବଳ ଉପକୂଳବର୍ତ୍ତୀ ଜନସଂଖ୍ୟାର ଜୀବିକାକୁ ସୁଦୃଢ଼ କରିବାର ଲକ୍ଷ୍ୟ ରଖିଛି । ଏହି ପ୍ରକଳ୍ପ ଜଳବାୟୁ ଅନୁକୂଳ ଜୀବିକାକୁ ପ୍ରୋତ୍ସାହିତ କରିବା ଏବଂ ଜଳବାୟୁ ପରିବର୍ତ୍ତନ ପ୍ରଭାବ ପ୍ରତି ଉପକୂଳବର୍ତ୍ତୀ ଗୋଷ୍ଠୀ ସମୁଦାୟର ସ୍ଥିରତା ବୃଦ୍ଧି ଉପରେ ଗୁରୁତ୍ୱ ପ୍ରଦାନ କରୁଛି ।

ଭାରତ ସରକାରଙ୍କ ପରିବେଶ, ଜଙ୍ଗଲ ଓ ଜଳବାୟୁ ପରିବର୍ତ୍ତନ ମନ୍ତ୍ରାଳୟର ତତ୍ତ୍ୱାବଧାନରେ ଓଡ଼ିଶା ସରକାରଙ୍କ ଜଙ୍ଗଲ, ପରିବେଶ ଓ ଜଳବାୟୁ ପରିବର୍ତ୍ତନ ବିଭାଗ ଦ୍ୱାରା ଓଡ଼ିଶାର ପୁରୀ, ଗଞ୍ଜାମ, କେନ୍ଦ୍ରାପଡ଼ା ଓ ବାଲେଶ୍ୱର ଆଦି ୪ଟି ଜିଲ୍ଲାର ୭ଟି ଅଞ୍ଚଳରେ ଏହି ପ୍ରକଳ୍ପ କାର୍ଯ୍ୟକାରୀ ହେଉଛି । ପ୍ରକଳ୍ପର ଗୁଣାତ୍ମକ ନିଶ୍ଚିତତା ସୁନିଶ୍ଚିତ କରିବା ପାଇଁ ମିଳିତ ଜାତିସଂଘ ବିକାଶ କାର୍ଯ୍ୟକ୍ରମ (ୟୁଏନଡିପି), ସବୁଜ ଜଳବାୟୁ ପାଣ୍ଠିର ସରକାରୀ ଏଜେନ୍ସି ଅଟନ୍ତି ।

୨୦୨୫ ର ଯୋଜନାଗୁଡ଼ିକ ମଧ୍ୟରେ ଏ କ୍ଷେତ୍ରରେ ଆହୁରି ଅଧିକ କୃଷକମାନଙ୍କୁ ଚିହ୍ନଟ, କଙ୍କଡ଼ା ଜଳଚାଷ ପ୍ରଣାଳୀ ଅଭ୍ୟାସ ବୃଦ୍ଧି ଏବଂ ଓଡ଼ିଶାରେ ଏକ ଉତ୍ସର୍ଗୀକୃତ କଙ୍କଡ଼ା ହାଚେରୀ ପ୍ରତିଷ୍ଠା କରିବା ଅନ୍ତର୍ଭୁକ୍ତ ଯାହା ଦ୍ୱାରା ସମସ୍ତ ଅଂଶୀଦାରଙ୍କ ସହ ଆଲୋଚନା କରି କଙ୍କଡ଼ା ଯାଆଁଳ ଯୋଗାଣ ନିରନ୍ତରତାକୁ ସୁନିଶ୍ଚିତ କରିବ । କୃଷକଙ୍କ ସମେତ ସମ୍ପୃକ୍ତ ସମସ୍ତଙ୍କ ଦକ୍ଷତା ବୃଦ୍ଧି ଏହି ପ୍ରକଳ୍ପର ଅନ୍ୟତମ ପ୍ରମୁଖ କାର୍ଯ୍ୟ ହେବ। ଅନ୍ତର୍ଜାତୀୟ ବଜାରରେ କୃଷକଙ୍କ ପ୍ରବେଶକୁ ସହଜ କରିବା, ଗୁଣବତ୍ତା ଯାଞ୍ଚ ଏବଂ ରପ୍ତାନି ଇତ୍ୟାଦିରେ ଉନ୍ନତି ଆଣିବା ପାଇଁ ରଣନୀତି ପ୍ରସ୍ତୁତ ସଂପର୍କରେ ବିସ୍ତୃତ ଆଲୋଚନା କରାଯାଇଥିଲା । ଏହି କର୍ମଶାଳାରେ ସାମୁଦ୍ରିକ ଉତ୍ପାଦ ରପ୍ତାନି ବିକାଶ ପ୍ରାଧିକରଣ (ଏମ୍ପିଇଡିଏ), ଓଡ଼ିଶା ସରକାରଙ୍କ ମତ୍ସ୍ୟ ଓ ପ୍ରାଣୀ ସମ୍ପଦ ବିକାଶ ବିଭାଗର ଅଧିକାରୀ, ପଶ୍ଚିମବଙ୍ଗ ଓ ତାମିଲନାଡୁର ରପ୍ତାନିକାରୀମାନେ ଯୋଗଦେଇଥିଲେ । ଇସିଆରଆଇସିସିର ରାଜ୍ୟ ପ୍ରକଳ୍ପ ପରିଚାଳିକା ଡ. ସ୍ପନ୍ଦିତା କର ଓ ତାଙ୍କ ଟିମ୍ କାର୍ଯ୍ୟକ୍ରମକୁ ସୁଚାରୁ ରୂପେ ପରିଚାଳନା କରିଥିଲେ । ସରକାର, ସ୍ୱେଚ୍ଛାସେବୀ ଅନୁଷ୍ଠାନ ଓ ରପ୍ତାନିକାରୀଙ୍କ ମଧ୍ୟରେ ଭାଗିଦାରୀ ସ୍ଥାପନ ଓଡ଼ିଶାର ଉପକୂଳବର୍ତ୍ତୀ ସମୁଦାୟ ଉପରେ ସକାରାତ୍ମକ ପ୍ରଭାବ ପକାଇବ ବୋଲି ଦୃଢ ଆଶା ପ୍ରକାଶ ପାଇଛି ।

ସମୟ

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ଜଳବାୟୁ ସହନଶୀଳତା ବୃଦ୍ଧି ଲାଗି ଚିନ୍ତା

ରାଜ୍ୟରେ କଙ୍କଡ଼ା ଚାଷକୁ ଗୁରୁତ୍ୱ

ଭୁବନେଶ୍ୱର, ୧୨।୧୨ (ସବ୍ୟୁ) : ଭାରତୀୟ ଉପକୂଳ ସମୁଦାୟ (ଇସିଆରଆଇସିସି) ପ୍ରକଳ୍ପର ରାଜ୍ୟ ପ୍ରକଳ୍ପ ପରିଚାଳନା ୟୁନିଟ୍ ପକ୍ଷରୁ ଆଜି ରାଜ୍ୟ ଗ୍ରାମ୍ୟ ଉନ୍ନୟନ ପ୍ରତିଷ୍ଠାନ (ଏସଆଇଆରଡି) ପରିସରରେ କଙ୍କଡ଼ା ଚାଷ କରୁଥିବା କୃଷକ ଓ ରପ୍ତାନିକାରୀଙ୍କ ସମ୍ମିଳନୀ ଅନୁଷ୍ଠିତ ହୋଇଯାଇଛି । ଏହି କାର୍ଯ୍ୟକ୍ରମରେ କଙ୍କଡ଼ା ଚାଷୀ, ରପ୍ତାନିକାରୀ, ସରକାରୀ ପ୍ରତିନିଧି ଏବଂ ବୈଷୟିକ ବିଶେଷଜ୍ଞମାନେ ଏକତ୍ରିତ ହୋଇ ନିରନ୍ତର ଜଳଚାଷ ପ୍ରଣାଳୀକୁ ପ୍ରୋତ୍ସାହିତ କରିବା ସହ କିପରି ଏ କ୍ଷେତ୍ରରେ ସୁଦୃଢ଼ ବଜାର ସଂଯୋଗୀକରଣ ହୋଇପାରିବ, ସେ ସଂପର୍କରେ ଆଲୋଚନା କରିଥିଲେ ।

ଏହି କାର୍ଯ୍ୟକ୍ରମକୁ ନିର୍ଦ୍ଦେଶକ ପରିବେଶ-ତଥା ଓଡ଼ିଶା ସରକାରଙ୍କ ସ୍ୱତନ୍ତ୍ର ଶାସନ ସଚିବ ଏବଂ ଇସିଆରସିସି ପ୍ରକଳ୍ପ, ଓଡ଼ିଶାର ରାଜ୍ୟ ପ୍ରକଳ୍ପ ନିର୍ଦ୍ଦେଶକ ପ୍ରେମ କୁମାର ଝା ଉଦଘାଟନ କରିଓଡ଼ିଶାର ମତ୍ସ୍ୟଚାଷ କ୍ଷେତ୍ରକୁ ସୁଦୃଢ଼ କରିବାରେ ମାଟି କଙ୍କଡ଼ା ଜଳଚାଷର ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକା ରହିଥିବା ପ୍ରକାଶ କରିଥିଲେ । ଏହି ପଦକ୍ଷେପକିପରି ଉପକୂଳବର୍ତ୍ତୀ ଅଞ୍ଚଳର ସ୍ଥାନୀୟ ଗୋଷ୍ଠୀ ସମୁଦାୟର ଆୟ ପାଇଁ ସ୍ଥାୟୀ ଉତ୍ସ ହେବା ପାଇଁ ସୁନିଶ୍ଚିତ କରିବ, ସେ ବିଷୟରେ ଆଲୋକପାତ କରିଥିଲେ । ପ୍ରକଳ୍ପର ଅଗ୍ରଗତି, କଙ୍କଡ଼ା ରପ୍ତାନିରେ ଆହ୍ୱାନ ଓ ସୁଯୋଗ ଏବଂ ଅଂଶୀଦାରୀମାନଙ୍କ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକା ଇତ୍ୟାଦି ବିଷୟରେ ବିସ୍ତୃତ ଭାବେ କାର୍ଯ୍ୟକ୍ରମରେ ଆଲୋଚନା କରାଯାଇଥିଲା । କାର୍ଯ୍ୟକ୍ରମରେ ସାମୁଦ୍ରିକ ଉତ୍ପାଦ ରପ୍ତାନି ଉନ୍ନୟନ କର୍ତ୍ତୃପକ୍ଷ (ଏମ୍ପିଇଡିଏ)ର ଉପନିର୍ଦ୍ଦେଶକଡ. ଅର୍ଚ୍ଚିମାନ ଲାହିରୀ ଆନ୍ତର୍ଜାତିକ ବଜାରରେ ଉନ୍ନତମାନର ମାଟି କଙ୍କଡ଼ାର ଚାହିଦା ବୃଦ୍ଧି ପାଉଥିବା ଏବଂ ଓଡ଼ିଶା ଏ କ୍ଷେତ୍ରରେ ଏକ (୯ ପୃଷ୍ଠାରେ)

Enhancing climate resilience through sustainable crab aquaculture in State

PBD BUREAU

BHUBANESWAR, DEC 12

THE State Project Management Unit of the Enhancing Climate Resilience of India's Coastal Communities (ECRICC) project today organised the Crab Farmers' and Exporters' Meet at the State Institute of Rural Development (SIRD) Campus, Bhubaneswar.

The event brought together crab farmers, exporters, government representatives, and technical experts to promote sustainable aquaculture practices and create robust market linkages.

Director, Environment-cum-Special Secretary and State Project Director ECRICC Project Prem Kumar Jha emphasized the pivotal role of mud crab aquaculture in strengthening Odisha's fisheries sector. Participating at a crab farmers and exporters meet here, he explained how this initiative is likely to ensure a sustainable source of income to local communities in coastal areas.

The project's progress, the challenges and opportunities in crab export, and the critical role of stakeholders etc were discussed in detail.

Dr. Archiman Lahiri, Deputy Director, MPEDA, highlighted the increasing demand for high-quality mud crabs in international markets and the immense potential for Odisha to emerge as a leading exporter.

The ECRICC project, supported by the Green Climate Fund, aims to bolster the livelihoods of vulnerable coastal populations, particularly in Odisha and two other states, namely, Maharashtra, and Andhra Pradesh. The project focuses on fostering climate-adaptive livelihoods and enhancing the resilience of coastal communities to climate change impacts.

In Odisha, the project is being implemented in 7 landscapes of 4 districts of Odisha (Puri, Ganjam, Kendrapada and Balasore) by Forest, Environment and Climate Change Department under the overall supervision of Ministry of Environment, Forest and Climate Change (MoEFCC). United Nations Development Programme (UNDP) is the official agency of Green Climate Fund to ensure quality assurance of the project.

The Plans for 2025 include identifying additional farmers, scaling crab aquaculture practices, and establishing a dedicated crab hatchery in Odisha to ensure sustainable seed supply will be drawn in consultation with all stakeholders.

The capacity building of all concerned including farmers will be one of the major activities of the project.

The strategies for improving farmers' access to international markets, quality checks, and export documentation etc were discussed to be facilitated through the exporters.

The officials of Marine Products Export Development Authority (MPEDA), Fisheries and Animal Resource Development Department (F&ARD), Government of Odisha, exporters from West Bengal and Tamil Nadu were invited to the workshop.

Dr Spandita Kar, State Project Manager, ECRICC and her team coordinated the smooth conduct of the event.

The establishment of partnerships between government, NGOs, and exporters promises a positive transformative impact on Odisha's coastal communities.

3. Crab Hatchery in Odisha

The Crab Hatchery in Odisha is a significant initiative under the *Enhancing Climate Resilience of India's Coastal Communities (ECRICC)* project. It is designed to establish a self-sufficient crab value chain in the state by producing high-quality crab seeds, thereby reducing dependency on wild seed collection. The hatchery aims to serve as a model for large-scale commercial crab farming in India while promoting climate-adaptive livelihoods for coastal communities. By integrating sustainable practices, it will help communities build resilience against environmental and economic challenges and contribute to sustainable seafood production.

The total available budget for the hatchery is ₹358.29 lakhs, funded by the *Green Climate Fund (GCF)*. For 2025, ₹214.98 lakhs, which is 60% of the total cost, has been allocated to ensure the smooth execution of the project. The primary objective of this initiative is to establish a sustainable crab hatchery for seed production, promote crab farming as an alternative livelihood for coastal communities, and strengthen market linkages for mud crab production. Additionally, the project will focus on developing business plans and providing training to farmers and stakeholders involved in crab farming.

Several crucial steps have already been taken to ensure the successful implementation of this initiative. A joint visit was conducted on 29th January 2025, involving officials from the *Rajiv Gandhi Centre for Aquaculture (RGCA)-MPEDA*, the *Directorate of Fisheries*, and the *ECRICC team* to assess the environmental and technical feasibility of the hatchery site. Following the assessment, *Paradeep* in *Jagatsinghpur district, Odisha*, was identified as the most suitable location due to its proximity to seawater, availability of brackish water, and existing fisheries infrastructure. Various factors, including water quality, temperature conditions, and tidal patterns, were analyzed to ensure optimal hatchery performance. The expected output of this hatchery is promising. As per RGCA estimates, the hatchery will be capable of producing *one million crab seeds annually*, catering to the needs of local and nearby state farmers.

Annexure-1

Sl. No	Name of the CAA Holder	GPS Coordination		Water spread area(Ha)	Block	Crablets supplied by RGCA	Crablet stocked live (in Nos) after transportation from RGCA	Date of stocking	Mortality (in Nos) in the pond	Financial support by ECRICC till Dec'24(Amount in Rs.) in addition to cost of crablets
		LONGITUDE	LATTITUDE							
Puri										
1	Jambeswar Mohapatra	85.469112	19.689323	0.48	Krushnaprasad	2640	2160	08.06.2024	390	38760
2	Ullash Chandra Nayak	86.277494	19.944928	0.43	Astaranga	2420	1895	08.06.2024	385	32127
3	Ajaya Kumar Muduli	86.265152	19.986024	0.25	Astaranga	1430	1112	08.06.2024	188	18349
4	Sibaram Mohapatra	85.46988	19.690017	0.48	Krushnaprasad	2640	1848	20.06.2024	312	37282
5	Sambhu Mohapatra	85.466725	19.682262	0.48	Krushnaprasad	2035	1375	20.06.2024	143	37282
6	Nihar Ranjan Pati	86.297993	19.957325	0.28	Astaranga	1540	745	20.06.2024	105	20880
SUB TOTAL				**2.4**		**12705**	**9135**		**1523**	**184680**
KENDRAPADA										
7	Tapas Sardar	86.735939	20.349046	0.64	Mahakalpada	3300	2989	23.04.2024	129	74200
8	Narayan Chandra Haldar	86.710425	20.371853	1	Mahakalpada	5000	3880	30.04.2024	120	83000
9	Biren Mallik	86.706748	20.367005	0.6	Mahakalpada	3000	2421	30.04.2024	71	66400
	SUB-TOTAL			**2.24**		**11300**	**9290**		**320**	**223600**

Sl. No	Name of the CAA Holder	GPS Coordination		Water spread area(Ha)	Block	Crablets supplied by RGCA	Crablet stocked live (in Nos) after transportation from RGCA	Date of stocking	Mortality (in Nos) in the pond	Financial support by ECRICC till Dec'24(Amount in Rs.) in addition to cost of crablets
		LONGITUDE	LATTITUDE							
	GANJAM									
10	Bhagaban Behera	84.77757	19.1163	0.4	Chikiti	2200	1716	23.04.2024	534	96360
11	Padmanabha Behera	84.778947	19.1167	0.33	Chikiti	2600	1942	23.04.2024	391	87847
12	Bharat Behera	84.779031	19.1167	0.24	Chikiti	1800	1304	23.04.2024	248	75616
13	Nirupama Behera	84.779031	19.115998	0.19	Chikiti	1100	920	30.04.2024	253	68821
14	Jaga Behera	84.777615	19.115998	0.14	Chikiti	800	676	30.04.2024	152	62026
	SUB-TOTAL			**1.3**		**8500**	**6558**		**1578**	**390670**
	BALASORE									
15	Basant Kumar Mandal	87.359694	21.581203	0.428	Bhograi	2720	1944	30.04.2024	179	91252
16	Bhubana Ch. Pramanik	87.395725	21.581616	0.268	Bhograi	1500	1347	30.04.2024	214	64662
17	Yagneswar Sahoo	87.365581	21.57757	0.6	Bhograi	3200	2371	08.06.2024	542	117657
18	Subrat Behera	87.359197	21.578207	0.26	Bhograi	1400	1230	08.06.2024	163	72887
	Sub-total			**1.556**		**8820**	**6892**		**1098**	**346458**


ସବୁଜ ଜଙ୍ଗଡ଼ା ଚାଷ - ତାଳପାରି ଲେଣ୍ଡସ୍କେପ୍
ସହାୟକ - BSSS-FNGO
କାର୍ଯ୍ୟକାରୀକରଣ - MPEDA-RGCA


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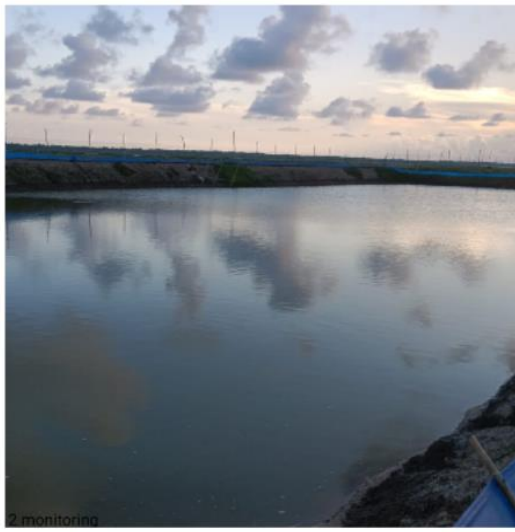
କାର୍ଯ୍ୟକାରୀକରଣ - MPEDA-RGCA


Latitude: 21.581277
Longitude: 87.364135
Elevation: -1.31±8 m
Accuracy: 8.7 m



Enhancing Climate Resilience of India's Coastal Communities

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