

F. No. Ad-35012/1/2023-NMCG-NMCG
Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development & Ganga Rejuvenation
National Mission for Clean Ganga

1st Floor
Major Dhyan Chand, National Stadium
India Gate, New Delhi-110001
Dated: 3rd November 2023

To,
Director,
ICAR-Central Inland Fisheries Research Institute,
Barrackpore - 700 120,
West Bengal, India

Subject: Administrative Approval and Expenditure Sanction for the Central Inland Fisheries Research Institute (CIFRI) project "Fish Conservation and Stock Enhancement of Fishery of Ganga river basin (Phase-III)" under *Namami Gange* Mission – II, at an estimated cost of Rs. 3138.44 lakhs (Rupees Thirty One Crore Thirty Eight Lakh Forty Four Thousand only).

Sir,

I am directed to convey the grant of Administrative Approval and Expenditure Sanction (AA&ES) for the CIFRI project "Fish conservation and stock enhancement of fishery of Ganga river basin (Phase III)" under National Ganga Plan (NGP) – (Non EAP) budget head of *Namami Gange* Mission – II, with 100% central sector support at an estimated cost of Rs. 3138.44 lakhs (**Rupees Thirty One Crore Thirty Eight Lakh Forty Four Thousand only**) and project completion till 31st March, 2026.

2. This project is a follow-up of the phase-II project "Fish stock enhancement including Hilsa and livelihood improvement for sustainable fisheries and conservation in River Ganga" to continue the benefits of the project from mainstream Ganga to its basin level. The project has 5 components as under:

- i. Ex situ captive breeding of commercially important indigenous fish species of Ganga basin followed by ranching programme for improving the pray base for the aquatic animals and to improve the livelihood of fishers in the line of Arth Ganga concept.
- ii. Ex situ development of Hilsa seeds collected from wild adults from river Ganga and enhancement of Hilsa stock in the middle stretch of river Ganga through ranching.
- iii. Seed production, restoration and stock assessment of selected Mahseer species in upper stretches of river Ganga.
- iv. Stock assessment of important fish species in selected tributaries and wetlands of Ganga River basin for their conservation and management
- v. Community sensitization on biodiversity conservation, including river dolphin, along with fish biodiversity including Hilsa for improving the livelihood of fishers.

Based on above five components, the main objectives to be undertaken for implementation of the project are as follows:

- i. To produce selected fish seed of the river Ganga using riverine germplasm.

- ii. To restore selected fish species (IMC, catfish and Mahseer) of the Ganga through ranching.
- iii. To ranch the juvenile and adult Hilsa collected from the wild and carry out in situ breeding to enhance natural stock in the middle stretch of river Ganga.
- iv. To assess the impact of the ranching program in the Ganga basin
- v. To characterize the fish stock of important fish species in selected tributaries and wetlands of the Ganga River basin for fisheries management.
- vi. To enhance public and fisher's participation in dolphin and fish diversity conservation with special reference to Hilsa.
- vii. To carry out nutrient profiling of commercially important fish species of the river Ganga.
- viii. To assess the impact of climate change on Ganga River ecology and biodiversity.

3. The summary of budget is given at Annexure-I.

4. AA&ES for the project is granted subjected to General & Technical conditions as per Annexure-II, specific conditions and directions of EC as per Annexure-III and Financial conditions as per Annexure-IV.

5. The period of completion of the project is up to 31st March, 2026. The procurement of goods and services shall be made strictly as per the 'NGRBA programme framework' and various other guidelines of NMCG. The detailed schedule of the project implementation is given in Annexure-V.

6. Any cost escalation over and above the sanctioned cost attributable to the ICAR-Central Inland Fisheries Research Institute (CIFRI), Barrackpore, West Bengal, including due to delay in hiring Manpower, Instruments, Farm / Hatchery / Operational, Travel & Transport, Miscellaneous / Other Expenses, Consumables & Contingency and items required for Fish Conservation and Stock Enhancement of Fishery of Ganga river basin (Phase-III), any change in scope post approval etc., will be borne by ICAR- CIFRI.

7. The sanctioned cost of the project will be borne from the 'National Ganga Plan – Non-EAP budget head of *Namami Gange* Mission – II and expenditure incurred will be booked under the component "Aviral Ganga- Ecological Sustainability – Afforestation & Biodiversity conservation". The NMCG/Government of India reserves the right to withdraw the sanction at any stage, if it is convinced that the fund has not been properly utilized or appropriate progress is not being made.

8. In case of violation of any of the conditions of the grant or in case of closure or dissolution of the grantee organization, the Government shall take possession of all the assets of the organization acquired out of the Government grants and use them in any manner deemed appropriate or to recover from the organization the value of such assets at its discretion.

9. This AA&ES is issued based on the appraisal and sanction of the Executive Committee vide its 51st EC meeting held on 12th October 2023 as well as the approval of DG, NMCG vide e office file no. Ad-35012/1/2023-NMCG-NMCG, Note # 52 dated 03/11/2023 and concurrence of ED (Finance), NMCG vide e office file no. Ad-35012/1/2023-NMCG-NMCG, Note# 48 dated 02/11/2023.

Yours faithfully,



(Binod Kumar)
Director, NMCG

Copy forwarded for information to: -

- 1) PPS to Secretary, DoWR, RD & GR, Shram Shakti Bhawan, New Delhi-110001
- 2) PS to DG / ED(Finance), NMCG, New Delhi
- 3) Sanction Folder/Guard File/MIS Division NMCG


(Binod Kumar)
Director, NMCG

Summary of cost for the project "Fish Conservation and Stock Enhancement of Fishery of Ganga river basin (Phase-III)".

Component wise budget breakup

Sl. No.	Description of Component-wise Activities	Oct. 2023-Mar. 2024	Apr. 2024-Mar. 2025	Apr. 2025-Mar. 2026	Total Cost (Rs. in Lakh)
1	Captive breeding of commercially important indigenous fish species and ranching programme through livelihood enhancement and conservation in Arth Ganga concept	520.12	396.24	492.30	1408.66
2	Establishment of Hilsa stock in Middle Stretch of river Ganga through ranching of Hilsa seed bred through captive and wild adults	177.83	343.65	311.36	832.84
3	Seed production, restoration and stock assessment of selected Mahseer species in upper stretches of river Ganga	73.12	108.24	115.20	296.56
4	Stock assessment of important fishes in selected tributaries and wetlands of Ganga River basin for their conservation and management	78.76	139.52	141.20	359.48
5	Community sensitization on dolphin and fish biodiversity including Hilsa for improving the livelihood of fishers	50.80	86.60	103.50	240.90
Grand Total (Rs. in Lakh)		900.63	1074.25	1163.56	3138.44

Note: Detailed component wise physical & financial break up of CIFRI Phase III project is given in Annexure-VI.

Payment milestone

Sl. No.	Milestone	Limit to be assigned	
		In %	Rs. in Lakh
1.	On issuing of AA&ES and submission of fund request which includes the activities planned to be carried out up to 31st March, 2024.	20%	627.688
2.	After submission of 1 st Six month physical & financial progress report	40%	1255.376
3.	After submission of annual report for year 2024-25	38%	1192.607
4.	After submission of draft final report before one month of the closing of Project	2%	62.769
Total		100%	3138.44

General & Technical conditions:

Conditions on Administrative Approval and Expenditure Sanction for the project proposal submitted by ICAR-CIFRI, Barrackpore, West Bengal on "Fish Conservation and Stock Enhancement of Fishery of Ganga river basin (Phase-III)" approved under the "Namami Gange" programme with project completion till 31st March, 2026.

1. The ICAR-Central Inland Fisheries Research Institute (ICAR-CIFRI), Barrackpore, West Bengal, India is the implementing agency and shall be responsible for effective implementation of the project on 'Fish Conservation and Stock Enhancement of Fishery of Ganga river basin (Phase-III)'.
2. Implementation of the project progress will be monitored half yearly by the Biodiversity Task Force (BTF) or Monitoring Committee constituted by the NMCG to monitor its biodiversity conservation and river rejuvenation projects to ensure that the project is completed within the stipulated period of time.
3. The ICAR-CIFRI shall submit Physical Progress Report on Quarterly (QPPR) basis followed by six monthly, annually and a detailed final report with photo-evidences of the project activities after completion of the project along with Project Completion Certificate in the prescribed format provided by NMCG.
4. All project implementation sites on river Ganga and its selected tributaries for ranching, research and captive breeding centers and ponds to be used for cultural fishery including sites at Farraka Hilsa center etc. should have a proper display board with Logo of NMCG and ICAR-CIFRI along with display of the project. NMCG Logo is enclosed for reference - as **Annexure-VII**. Soft copy of logo is also being sent by email.
5. The ICAR-CIFRI needs to follow all the observation of NMCG / SPMG and Third Party Inspection (TPI) agency, if any, during the project implementation period.
6. Any additional component relevant for project or any component require modification or deletion, may be added or modified or deleted as the case may be, only with the prior approval of the competent authority of NMCG.
7. Staff employed by the ICAR-CIFRI under this project are not to be treated as employees of the NMCG.
8. The ICAR-CIFRI shall ensure that all provisions of the RTI Act 2005 are adhered to as far as information pertaining to the project is concerned.
9. Conditions/commitment indicated in the Executive Committee (EC) Memo, Minutes and other documents, including those to be fulfilled before start of the programme shall be strictly adhered to in the project implementation and management.
10. All the equipment's/data generated out of the study would be property of Govt. of India and decision as to its storage/ownership and disposal would be undertaken with the approval of NMCG on completion of study.



Project Specific conditions:

- i. The logo and name of Namami Gange should be prominently displayed in all signages of the project components and its influenced zone.
- ii. All technical and skilled or semiskilled man power should be timely involved for implementation of project.
- iii. Under ranching programme, cultural fisheries techniques developed for IMCs, Catfishes, Hilsa and Mahseer under the project, shall be shared with the Ganga bank state fishery department for the long term sustainability of the project.

Submission of Quarterly Physical & Financial Progress Report (QPFPR):

- i. The ICAR-CIFRI, Barrackpore, West Bengal shall report the progress of implementation (both physical and financial progress including expenditure statement) quarterly to NMCG with evidence and geo-tagged photographs. The report should be signed by the designated officer of the Institution.
- ii. Consistency between physical progress and expenditure shall be maintained and reasons for substantial variations shall be appropriately explained against each item in QPFPR.

Inspection and Monitoring:

- i. NMCG may depute any person to visit the Implementation area for the purpose of monitoring of its work. Full facilities including local logistics shall be provided by the ICAR-Central Inland Fisheries Research Institute (ICAR-CIFRI), Barrackpore to the person deputed for inspection.
- ii. Monitoring Committee constituted may have half yearly meeting for the evaluation of progress of work and way forwards accordingly.
- iii. Director General, NMCG will monitor the overall progress of the project periodically or at least six monthly.



Financial Conditions:

1. Flow of Funds:

(i) Funds for the present project will be made available to the ICAR-CIFRI by the National Mission for Clean Ganga through allocation of assignment limit as per the Treasury Single Account (TSA) System, based on projected fund requirements/ payment milestones (use whichever is applicable). The objective of the TSA is to ensure "just in time release" and eliminate/ reduce parking of funds at all levels of project implementation.

(ii) The TSA guidelines prohibit transfer of funds by Autonomous Bodies (ABs)/ Sub-ABs to their own Bank Accounts as this is akin to acting like one's own vendor. Executing Agencies will, therefore, ensure that no assignment limit is transferred to their Bank Accounts, and all payments from Assignment Limits are made directly to vendors/ contractors.

(iii) Executing Agencies will ensure that no parking of fund happens while transferring fund from them to the contractors/ vendors. Such transfer must be effected "just in time", and should be as reimbursement of bills raised/ submitted.

(iv) Since the fund flow is based on "just in time release", there should not be any accrual of interest on grants-in-aid received from NMCG. However, any interest earned on the grant received from NMCG/ Gol should mandatorily be remitted back to NMCG immediately after finalization of accounts for depositing the same to the Consolidated Fund of India.

(v) The assignment limit allocated to ICAR-CIFRI will lapse at the end of financial year.

(vi) Allocation of assignment limit to ICAR-CIFRI will not be counted as expenditure under TSA. Only final payment to vendor/ contractor will be counted as expenditure. Hence all Bills/ payments should be settled immediately".

2. Submission of Utilization Certificate (UC) by the Executing Agency:

(i) The quarterly Utilization Certificates (UCs) in respect of grant-in-aid received during various quarters shall be furnished by the ICAR-CIFRI to the NMCG in the prescribed format (GFR 12-A), duly signed and stamped by the Head of the Organization and Chief Finance Officer, within 30 days from the end of quarter.

(ii) The subsequent allocation of Assignment Limit will be made based on Utilization Certificate/ Expenditure Statement of the previously allocated assignment limit.

(iii) The UCs, in addition to the financial progress, should also indicate physical progress/ outcomes achieved, in the prescribed format.

3. Audit

(i) The Comptroller & Auditor General of India at his discretion shall have the right of access to the project related books of accounts of the ICAR-CIFRI for the purpose of Audit.

(ii) The books of accounts of the grantee, relating to this grant, shall be open to audit by the Internal Auditor and External Auditor of National Mission for Clean Ganga.



(iii) Executing Agency to ensure that all financial documents related to the project are maintained by them for submission to NMCG/ Audit on demand.

4. Other Aspects:

(i) The ICAR-CIFRI shall take all necessary legal and executive measures to ensure adequate resources available for operation & maintenance of the assets created under the project to fulfill its mandate.

(ii) The ICAR-CIFRI is not permitted to seek or utilize funds for the same purpose from any other organization (Government, semi-Government, autonomous or private) without prior approval of the competent authority.

(iii) The sanctioned amount should be spent exclusively as per the scope of the project and within the stipulated time. The liability of NMCG will not exceed the amount sanctioned for the project. For carrying forward any work(s) /activities beyond the specified time limit prior approval of the NMCG should be obtained.

(iv) It is the responsibility of the CIFRI to ensure that the assets are exclusively used for the purpose for which grant is sanctioned and to maintain the assets and their records properly.

(v) All the assets acquired/created out of the grants shall not be disposed of, encumbered, or utilized for any purpose other than that for which sanctioned without prior approval of the Government.

5. General Financial Rules, 2017:

All relevant provisions of General Financial Rules, 2017, as amended from time to time, will be applicable to grantee organization.



Project Implementation Schedule

The project aims to restore fish diversity, enhance fish stocks, and promote sustainable fishing practices in the Ganga River system. It includes captive breeding, ranching, stock assessment, habitat restoration, and community sensitization to address challenges posed by anthropogenic activities and climate change, ultimately ensuring ecological and socio-economic well-being.

The outcomes, deliverables and measurable indicator along with specific target deliverables and logical framework / timeline is described in tabulated form in the below section.

A. Detailed outcomes, deliverables with measurable indicators of the project:

Component activities	Objectives	Output	Outcome	Deliverables (with Measurable Indicators)
1. Captive breeding of commercially important indigenous fish species and ranching programme through livelihood enhancement and conservation in the Artha Ganga concept	<ol style="list-style-type: none"> 1. Seed production of selected fish species of the river Ganga using riverine germplasm 2. Restoration of selected fish species (IMC and catfish) of the river Ganga through ranching 3. Assessing the impact of the ranching programme on the river 4. Assessing the impact of climate change on Ganga River ecology and biodiversity 5. Nutrient profiling of commercially important fish species of river Ganga 	<ol style="list-style-type: none"> 1. Numbers of selected fish fingerlings to be stocked 2. Impact of ranching in terms of fish catch enhancement 3. Data base on nutrient profiling of commercially important fish species 	<ol style="list-style-type: none"> 1. Livelihood enhancement of local fishermen by improving riverine health and aquatic life including fisheries 2. Increase in the fish catch in the river Ganga 3. Potentiality of natural fisheries contributing towards Artha Ganga and Nirmal Dhara 4. A vulnerability map on climate change with stakeholder interaction as well as historical data and its management strategy for the sustainability of the river quality 5. Database on nutrient profiling of Ganga fishes towards upholding the good health of the dependent population 	<ol style="list-style-type: none"> 1. A total of 1.5 crore fish fingerlings will be ranched 2. Different forms of publications, such as research findings, popular articles, etc. 3. Nutrient profiling of 15-20 numbers of commercially important fish species
2. Establishment of hilsa stock in the middle stretch of the river Ganga through ranching of hilsa seed bred through captive breeding and wild adults	<ol style="list-style-type: none"> 1. Ranching of juvenile and adult Hilsa collected from the wild and artificially bred to enhance the natural stock of Hilsa in the middle stretch from Prayagraj to Farakka in the river Ganga 2. Developing Hilsa brood stock in artificial rearing facilities and larval production 3. Developing a Hilsa nutri-profile database of different size groups for human health and nutritional security 4. Establishing the breeding grounds and Hilsa migratory path in the river Ganga by using Floy tagging and other cutting-edge methods 5. Identifying the key responsible factors contributing to the decline of the Hilsa 	<ol style="list-style-type: none"> 1. Numbers of selected hilsa spawn/fingerlings/adults to be stocked through wild collection and artificial breeding 2. Impact of ranching in terms of the hilsa fishery 3. Identification of the hilsa migratory routes through tagging 4. Data base on nutrient profiling of different size groups of hilsa 	<ol style="list-style-type: none"> 1. Artificial breeding of Hilsa and seed production 2. Developing a management plan for Hilsa restoration in the Ganga River for enhancing the livelihood of fishermen in the lower stretches of the Ganga 	<ol style="list-style-type: none"> 1. A total of 1 lakh hilsa will be ranched 2. Different forms of publications, such as research findings, popular articles, etc. 3. Nutrient profiling of different stages of Hilsa

	<p>population in the selected canals of the Sundarbans</p> <p>6. Sensitizing the fishers on Hilsa conservation and management in the middle stretches of the river Ganga from Prayagraj to Farakka by way of Ballia, Buxar, Patna, Bhagalpur, and Rajmahal.</p>			
3. Seed production, restoration, and stock assessment of selected mahseer species in upper stretches of the river Ganga	<p>1. Brood stock development and seed production of selected Golden Mahseers of the river Ganga using riverine germplasm</p> <p>2. Restoration of Golden Mahseer (<i>Tor putitora</i>) and Chocolate Mahseer (<i>Neolissochilus hexagonolepis</i>) in the upper stretch of the river Ganga through ranching</p> <p>3. Stock assessment of Golden Mahseer (<i>Tor putitora</i>) and Chocolate Mahseer (<i>Neolissochilus hexagonolepis</i>) fish in the upper stretch of the river Ganga</p>	<p>1. Seed production of mahseer species from wild stock</p> <p>2. Restore the mahseer fishery through river ranching</p> <p>3. Stock status of golden mahseer and chocolate mahseer</p>	<p>1. Enhanced fish stock of selected mahseer species of the river Ganga</p> <p>2. Increased awareness among the fishers for conservation</p>	<p>1. Implementation of prescribed conservation sites (aquatic sanctuary)</p> <p>2. Support in selecting an in-situ seed production site</p> <p>3. To collaborate on the organization of awareness campaign and implementation of prescribed conservation plan</p>
4. Stock assessment of important fishes in selected tributaries and wetlands of the Ganga River basin for their conservation and management	<p>1. Assessing the fish diversity in selected tributaries and wetlands of the Ganga River basin</p> <p>2. Charactering the fish stock of important fish in selected tributaries and wetlands of the Ganga River basin for fisheries management</p> <p>3. Charactering the different habitat types based on quantitative and qualitative attributes in selected tributaries and wetlands of the Ganga River basin</p> <p>4. Identifying the essential fish habitat/key aquatic habitat important for fish conservation in selected tributaries and wetlands of the Ganga River basin</p>	<p>1. Data base on fish diversity and stock status of important fish species</p> <p>2. Habitat characterisation of wetlands/tributaries based on pollution indicators</p> <p>3. Suitable fish species habitat identification and suggestive conservation measures</p>	<p>1. Improved fisheries management guidelines for sustainable fisheries in selected tributaries and wetlands of the Ganga River basin</p> <p>2. Biodiversity of the tributaries and wetlands and its impact on the main river.</p>	<p>1. Different forms of publications, such as research findings, popular articles, etc.</p> <p>2. Conservation guidelines for suitable fish habitat</p>
5. Community sensitization on dolphin and fish biodiversity, including Hilsa, for improving the livelihood of fishers	<p>1. Creating public and fisher's participation in dolphin and fish diversity conservation with special reference to Hilsa</p> <p>2. Establishing the economic status and contribution of the local fishers under 'Artha Ganga' concept of the river Ganga.</p>	<p>1. Survey-based data generation on the economic status of fishers</p> <p>2. Documentation on dolphin and fish diversity status based on primary observations</p>	<p>1. Gangetic dolphin conservation through community participation</p> <p>2. Fish species diversity conservation for sustainable fisheries at the Ganga</p> <p>3. To ensure the livelihood security of the fisher community of the Ganga</p> <p>4. Establishment of relationship between aqualife and Nirmal Ganga</p>	<p>1. Need-based awareness programs in dolphin habitat areas</p> <p>2. Community sensitisation through participatory approaches</p>

B. The specific targets & their quarter-wise progress /deliverable

Year -1 Oct 2023-Mar 24	Target/ Deliverables
Quarter-I	<ol style="list-style-type: none"> 1. 10.0 Lakh IMC fingerlings will be ranched in the river Ganga. 2. 2,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 3. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 4. 5,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 5. 2.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 6. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 7. Stock characterisation of 1 fish species including Mahseer will be carried out. 8. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-II	<ol style="list-style-type: none"> 1. 20.0 Lakh IMC fingerlings will be ranched in the river Ganga. 2. 2,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 3. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 4. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 5. 2.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 6. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 7. Stock characterisation of 1 fish species including Mahseer will be carried out. 8. Vulnerability assessment of 2 wetlands will be carried out. 9. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Year-II Apr 2024-Mar 25	
Quarter-I	<ol style="list-style-type: none"> 1. 20.0 Lakh IMC fingerlings will be ranched in the river Ganga. 2. 3,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 3. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 4. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 5. 1.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 6. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 7. Stock characterisation of 1 fish species including Mahseer will be carried out. 8. 5000 no. Mahseer fingerlings will be ranched in river Ganga. 9. Vulnerability assessment of 2 wetlands will be carried out. 10. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-II	<ol style="list-style-type: none"> 1. 20.0 Lakh IMC fingerlings will be ranched in the river Ganga. 2. 3.0 Crore Indian Major Carps (IMC) spawn will be produced. 3. 3,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 4. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 5. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 6. 1.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 7. 150 hilsa brooders will be developed in the captive condition particularly in the cages. 8. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 9. Stock characterisation of 2 fish species including Mahseer will be carried out. 10. 50 no. of Mahseer brooders will be developed under controlled condition. 11. Vulnerability assessment of 2 wetlands will be carried out. 12. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-III	<ol style="list-style-type: none"> 1. 3,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 2. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized.

	<ol style="list-style-type: none"> 3. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 4. 1.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 5. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 6. Stock characterisation of 2 fish species including Mahseer will be carried out. 7. Habitat characterisation of 2 wetlands associated with river Ganga. 8. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-IV	<ol style="list-style-type: none"> 1. 20.0 Lakh IMC fingerlings will be ranched in the river Ganga. 2. 3,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 3. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 4. 20,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 5. 1.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 6. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 7. Stock characterisation of 2 fish species including Mahseer will be carried out. 8. Habitat characterisation of 2 wetlands associated with river Ganga. 9. Habitat characterisation of 1 selected tributaries of river Ganga. 10. Mapping of heavy metal pollution in river Ganga will be developed. 11. Vulnerability assessment of wetlands will be carried out. 12. 10 research manuscripts, 5 Leaflets will be generated. 13. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Year -III Apr 2025-Mar 26	
Quarter-I	<ol style="list-style-type: none"> 1. 20.0 Lakh Crore IMC fingerlings will be ranched in the river Ganga. 2. 2,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 3. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 4. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 5. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 6. Stock characterisation of 1 fish species including Mahseer will be carried out. 7. 5000 no. Mahseer fingerlings will be ranched in river Ganga. 8. Vulnerability assessment of 2 wetlands will be carried out. 9. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-II	<ol style="list-style-type: none"> 1. 20.0 Lakh Crore IMC fingerlings will be ranched in the river Ganga. 2. 3.0 Crore Indian Major Carps (IMC) spawn will be produced. 3. 2,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 4. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 5. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 6. 100 hilsa brooders will be developed in the captive condition particularly in the cages. 7. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 8. Stock characterisation of 1 fish species including Mahseer will be carried out. 9. 50 no. of Mahseer brooders will be developed under controlled condition. 10. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-III	<ol style="list-style-type: none"> 1. 2,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 2. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 3. 10,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 4. 1.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 5. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 6. Stock characterisation of 1 fish species including Mahseer will be carried out. 7. Habitat characterisation of 2 wetlands associated with river Ganga.

	8. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.
Quarter-IV	<ol style="list-style-type: none"> 1. 20.0 Lakh IMC fingerlings will be ranched in the river Ganga. 2. 2,000 fishers will be sensitized all along the river Ganga and associated selected tributaries. 3. 5 awareness programmes on Dolphin, Hilsa and Sustainable Fisheries will be organized. 4. 5,000 adult hilsa will be ranched in the upstream of Farakka barrage in river Ganga. 5. 1.0 lakh hilsa spawn will be ranched in the upper stretches of river Ganga at Farakka. 6. Nutrient profiling of 2 indigenous fish species from river Ganga, and associated wetlands will be carried out. 7. Mapping of Climate vulnerability in relation to the selected indigenous fish species would be made. 8. 5000 no. Mahseer fingerlings will be ranched in river Ganga. 9. Habitat characterisation of 1 selected tributaries of river Ganga. 10. 20 research manuscripts, 3 PhD students, 10 Leaflets will be generated. 11. 5 Mass media communications such as News Paper including national and regional, YouTube, infographics will be generated.



C. Activity phasing, work plan and logical framework

Overall output of the project is to serve both in-situ and ex-situ conservation of biodiversity, gene pool, and ecosystem services in the riverscape at Ganga basin level, the component-wise activity phasing and work plan along with logical framework / timeline of the project is as follows:

Component – 1

Sl. No.	Plan	Activities	2023-24		2024-25				2025-26			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Objective. I: Seed production of selected fish species of river Ganga using riverine germplasm	Collection of brooders from riverine stretches										
		Seed production of IMC through artificial hypophysation technique										
		Nursery rearing of fish spawns up to fingerling sizes for ranching										
		Collection of spawn of selected catfishes and rearing in the nursery facilities up to fingerling size for river ranching										
2.	Objective. II Restoration of selected fish species (IMC and catfishes) of river Ganga through ranching	Ranching of catfishes in the middle and lower stretches of river Ganga										
		Ranching of Indian Major Carp in different states										
		Tagging of selected fish species to observe their respective migration behaviour										
3.	Objective. III To assess the impact of the ranching programme on the river	Impact assessment of ranching programme in different stretches of river Ganga										
		Fish catch estimation along with respected CPUE will be done on regular basis										
4.	Objective. IV To study the impact of climate change on	Impact assessment of climate change on few important										



	riverine ecology and biodiversity	fish species in different stretches of river Ganga											
5.	Objective. V Nutrient profiling of commercially important fish species of river Ganga	Nutritional profiling of few commercially important Gangetic fish species											

Component – 2

Sl. No.	Plan	Activities	2023-24		2024-25				2025-26				
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.	Objective. I: i. Ranching of juvenile and adult Hilsa collected from the wild and artificial breed to enhance natural stock of Hilsa in the middle stretch from Prayagraj to Farakka in river Ganga.	Exploitation of adult Hilsa in the Feeder canal and downstream of river Ganga and its tributaries											
		Adult Hilsa collection in the downstream of Farakka barrage and transportation through open system to the ranching Sites											
2.	Objective. II ii. Developing Hilsa brood stock in artificial rearing facilities and larval production.	Juvenile Hilsa rearing in the cage/ ponds for domestication											
		Adult Hilsa acclimatization in the cage/ ponds for domestication and gonadal maturation											
		Growth and survivability study of Hilsa in cages / enclose system											
		Collection of brooders and artificial breeding											
		Rearing of Hilsa spawn and seed in grow-out system											
		Ranching of Hilsa fertilized eggs, seed & spawn in the upstream of Farakka barrage											
3.	Objective. III i. Developing Hilsa nutri-profile database of different size groups for human health and nutritional security.	Collection of Hilsa fish of different size group across the sampling sites for nutrient profiling											
		Carcass composition of Hilsa from different size											

		group to characterized location specific																			
		Seasonal changes of carcass composition of different size group & location specific																			
		Evaluation of dietary components of Hilsa on its genetics differentiates towards captive maturation and domestication																			
		Nutritional changes in brood Hilsa fish during migration																			
		Analysis of nutrient composition of Essential Fatty Acid, minerals, macro and micro nutrient																			
4.	Objective. IV i. Establishing the breeding grounds and Hilsa migratory path in the river Ganga by using Floy tagging and other cutting-edge methods	Tagging of adult Hilsa with Floy tags and transportation to different ranching sites																			
		Understand the efficacy of tagging through recovery report																			
		Migration study through advanced tagging techniques and standardization																			
5.	Objective. V i. Identifying the key responsible factors contributing the decline of Hilsa population in the selected canals of Sundarbans	Selection of the major canals in the Sundarbans for Hilsa availability																			
		Mapping of the canals for the Hilsa availability																			
		Identifying the major scientific reasons for non-migration of the Hilsa																			
		Developing management plans for the restoration of Hilsa in those canals in Sundarbans																			
6	Objective. VI i. Sensitizing the fishers on Hilsa conservation and management in the middle stretches of river Ganga from Prayagraj to Farakka by way of Ballia, Buxar, Patna, Bhagalpur, and Rajmahal.	Communication and development on Hilsa awareness with State Fisheries Departments (W.B, Jharkhand, Bihar, U.P)																			
		Creating awareness for juvenile Hilsa conservation specific in the villages																			

	upstream of Farakka barrage								
	Report submission & final report submission								

Component - 3

Sl. No.	Objectives	Activities	2023-24		2024-25				2025-26				
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.	Seed production of selected Mahseer of river Ganga using riverine germplasm.	a) Development of facilities at Garwal University with renovation of existing facilities at Srinagar, Uttarakhand											
		b) Collection of prospective fish brooders from river Ganga and maintaining them in broodstock ponds											
		c) Brood stock development of Golden and Chocolate Mahseer species											
		d) Seed production of Mahseer through artificial hypophysation technique											
		e) Nursery rearing of fish spawns upto fingerling sizes ready for ranching											
2.	Restoration of selected Mahseer of river Ganga through ranching.	a) Collection of wild brooder species											
		b) Ranching of Mahseer in Upper stretch of river Ganga (Haridwar and above)											
3.	Stock assessment of selected Mahseer fishes of river Ganga												
4.	Creation of awareness among stakeholders regarding sustainable fisheries												

Component - 4

Sl. No.	Plan	Activities	2023-24		2024-25				2025-26				
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.	Objective. I: To assess the fish diversity in selected tributaries and wetlands of Ganga River basin	Quarterly sampling and collection of fishes through experimental fishing and commercial catch observations											
		Inventory of fishing crafts and gears and prevailing fishing practices in selected tributaries and wetlands of Ganga River basin											
		Digitalization of various parameters on GIS platform											
2.	Objective. II To characterize	Collection of fish catch and effort and biological data											

	the fish stock of important fishes in selected tributaries and wetlands of Ganga River basin for fisheries management	through quarterly catch observations																	
		Estimation of important population parameters using computer-based software applications																	
3.	Objective. III To characterize the different habitat types based on quantitative and qualitative attributes in selected tributaries and wetlands of Ganga River basin	Assessment of habitat quality (sediment, water: physical, chemical with pollution parameters) of important (commercial and conservation) fishes																	
		Collection and identification of plankton along selected sites and analysis of biological attributes (diversity, abundance, habitat preferences)																	
		Collection and identification of macro-benthos along selected sites and analysis of biological attributes (diversity, abundance, habitat preference)																	
		Collection, identification of fin fish and shellfish along selected sites and analysis of biological attributes (diversity, abundance, habitat preference)																	
4.	Objective. IV To identify the essential fish habitat/key aquatic habitat important for fish conservation in selected tributaries and wetlands of Ganga River basin	Compilation and analysis of collected fisheries, and habitat data of the studied riverine stretches/wetlands/ tributaries of Ganga River basin																	
		Organization of meetings, brainstorming and workshops with stakeholders for recording of their perceptions on declaration of fish conservation site/parks based on the scientific studies																	

Component - 5

Sl. No.	Plan	Activities	2023-24		2024-25				2025-26			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

1.	<p>Objective. I: Community participation on dolphin and fish diversity conservation with special reference to Hilsa</p>	Participation of a significant number of river associated stakeholders, including fishers, on-site through individual involvement and awareness activities										
		Participation and sensitization of the population at large through the preparation of awareness materials (pamphlets, booklets, hoardings, paintings, etc.) in local languages										
2.	<p>Objective. II To aware the local fishers on the contribution of the river Ganga towards improving their economic status under 'Arth-Ganga' concept</p>	Sensitizing fishers to biodiversity protection through restrictions on harmful fishing methods and regulating mesh size of fishing nets with the support of local NGOs and fishers' groups.										
		To organize workshop or training programme for the various stakeholders involved in biodiversity protection.										

Annexure VI: Budgetary Provisions

	Budget Heads	Year 1	Year 2	Year 3	Amount (INR) in Lakhs
Component I	Manpower	68.12	136.24	136.24	340.60
Component I	Instruments	297.00	6.00	7.00	310.00
Component I	Operational	100.00	144.00	124.00	368.00
Component I	Travel	25.00	50.00	50.00	125.00
Component I	Misc./Other expenses/Consumables	30.00	60.00	47.00	137.00
Component I	Office management costs				128.06
Total (Component I)		520.12	396.24	364.24	1408.66
Component II	Manpower	48.83	97.65	94.65	241.13
Component II	Instruments (Tag, Tag Reader, Telemetry)	13.00	11.00	5.00	29.00
Component II	Operational	50.00	47.00	5.00	102.00
Component II	Travel	10.00	18.00	20.00	48.00
Component II	Misc./Other expenses/Consumables	22.00	48.00	29.00	99.00
Component II	Contingency	34.00	122.00	82.00	238.00
Component II	Office management costs				75.71
Total (Component II)		177.83	343.65	235.65	832.84
Component III	Manpower	10.12	20.24	20.24	50.60
Component III	Instruments	04.00	02.00	01.00	07.00
Component III	Travel & transport	05.00	05.00	05.00	15.00
Component III	Operational	44.00	72.00	54.00	170.00
Component III	Misc./Other expenses/consumables	10.00	09.00	08.00	27.00
Component III	Office management costs				26.96
Total (Component III)		73.12	108.24	88.24	296.56
Component IV	Manpower	26.76	53.52	53.52	133.80
Component IV	Instruments	13.00	23.00	01.00	37.00
Component IV	Travel & transport	05.00	10.00	10.00	25.00
Component IV	Misc./Other expenses/Consumables	34.00	53.00	44.00	131.00
Component IV	Office management costs				32.68
Total (Component IV)		78.76	139.52	108.52	359.48
Component V	Manpower	20.80	41.60	41.60	104.00
Component V	Instruments	05.00	05.00	0.00	10.00
Component V	Travel & transport	10.00	20.00	15.00	45.00
Component V	Misc./ Other expenses	15.00	20.00	25.00	60.00
Component V	Office management costs				21.90
Total (Component V)		50.80	86.60	81.60	240.90

	Oct. 2023- Mar. 2024	Apr. 2024- Mar. 2025	Apr. 2025- Mar. 2026*	Total
Component I	520.12	396.24	492.30	1408.66
Component II	177.83	343.65	311.36	832.84
Component III	73.12	108.24	115.20	296.56
Component IV	78.76	139.52	141.20	359.48
Component V	50.80	86.60	103.50	240.90
Grand Total				3138.44

Namami Gange logo:

