

Training program on 'Ocean observation systems and models towards OSF, Coastal dynamics and PFZ'

**20-24th February 2023
Andhra University, Vishakhapattinam**

**Capacity enhancement of fishers for effective use of
INCOIS OSF and PFZ services**



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Importance of Capacity Building

- Increasing the ability to achieve the objectives effectively and efficiently.
- It helps in improving the skills and knowledge of an individual, or the systems of an organization
- Capacity building is an ongoing process
- Proper capacity building equips officials, stakeholders and the fishing communities to perform their functions in a better manner during a crisis/disaster
- Capacity building enables people to turn information into knowledge into practice

Fishing Population of India

Table 4. Profile of marine fisherfolk population by coastal states, 2016

State	Length of coast (km)	Landing centres (No.)	Fishing villages (No.)	Fishermen families (No.)	Traditional fishermen families (No.)	Total fisherfolk population (No.)
West Bengal	158	49	171	81 067	56 447	368 816
Odisha	480	55	739	115 228	92 569	517 623
Andhra Pradesh	974	234	533	155 062	152 062	517 435
Tamil Nadu	1 076	349	575	201 855	196 784	795 708
Puduchery	45	22	39	14 347	14 328	50 270
Kerala	590	174	220	121 637	116 598	563 903
Karnataka	300	84	162	32 479	30 897	157 989
Goa	104	32	41	2 986	2 922	12 651
Maharashtra	720	155	526	87 717	80 906	364 899
Gujarat	1 600	103	280	67 610	64 395	354 992
Daman-Diu	21	8	12	3 163	3 094	15 836
Lakshadweep	–	–	10	4 163	3 003	27 934
Andaman & Nicobar	–	–	169	5 944	4 486	26 521
Total	6 068	1 265	3 477	893 258	818 491	3 774 577

Source: Marine Fisheries Census, 2016.

Note: The figures for 2016 are provisional.

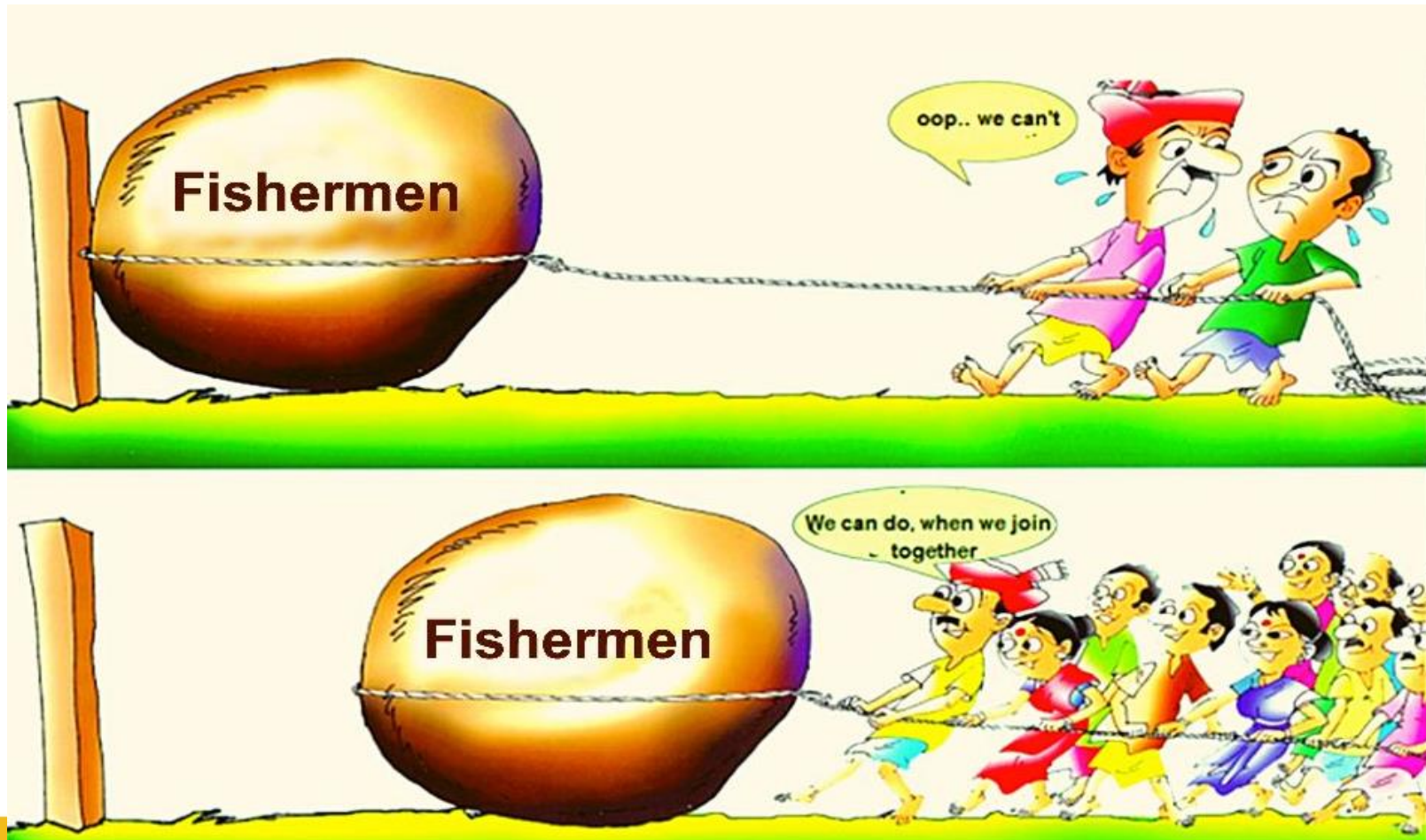
Table 9. Gender-wise occupational profile of marine fisherfolk in India, 2016

Activity	Number		Share (%)	
	Male	Female	Male	Female
Fishing	902 447	0	100.0	0.0
Fish seed collection	10 298	14 336	41.8	58.2
Marketing of fish	28 551	181 686	13.6	86.4
Making/repairing nets	26 135	28 528	47.8	52.2
Curing/ processing	4 669	43 623	9.7	90.3
Peeling	2 514	43 643	5.4	94.6
Labourer	53 971	62 512	46.3	53.7
Others	19 726	26 187	43.0	57.0
Total	135 566	386 179	26.0	74.0

Source: Marine Fisheries Census, 2016; Note: "other than fishing" category is omitted.

Note: The figures for 2016 are provisional.

Importance of Capacity Building



Capacity Building Efforts- What is expected? How we will do?

- Awareness workshops on INCOIS services
- Effective dissemination of INCOIS services to the end users
- Standard operating procedures for the dissemination alerts/warnings
- Feedback mechanism of INCOIS services

Awareness Workshops

- **Village level:** If the fishing village is big in size with more than 2000 households with active fisher's we can go for the village level workshops.
- **Cluster level:** If the village is small with lessor number of households, then we opt for the cluster level workshops in a common place mobilizing people from three to four hamlets located in cluster.
- **District level:** To cover the larger area we can take district as a unit and mobilize people from different villages of the selected district and conduct the programme in one common place.

Village Level awareness workshops

- Identify potential villages
- Organize meetings in fish landing centres and other common premises of the selected villages
- Involve the village traditional leaders or fishermen association leaders for mobilizing appropriate target group for the workshop
- Ensure minimum of 30 fisher participation at the village level workshops
- Mark the lat. long position of the villages for easy reference of coverage area. This will facilitate INCOIS to map the INCOIS services coverage area across the Indian coast



District Level Workshops

- Organize workshop in central location of the district
- Mobilize active fisher leaders and sea going fishers
- Invite fisheries department officials and other relevant stakeholders as special guest to share their views
- Ensure the participation of INCOIS scientists or project team who have thorough knowledge of INCOIS services and explain the details in simple and local vernacular
- Use the digital tools to screen the impact of INCOIS services (videos)
- Ensure minimum participation of 75 fishers
- Document the entire event, key suggestions and feedback emerged from the meeting
- Minimum 2 such workshops to be conducted every year
- Develop brief report and submit to INCOIS



Tips for the successful conduction of INCOIS Awareness Workshops

- Select the potential villages where fishers are not previously aware of the INCOIS services/products
- Organize workshops during fishing ban period or lean period
- Rapport building with local leaders for mobilizing appropriate fishers for the meeting
- Choose the right venue/location
- Invite key stakeholders to address the queries and doubts of fishermen other than INCOIS services to build their confidence
- Make sure the invitees are also prepared to interact with the users
- Consider having a facilitator for guiding workshop participants
- If possible, arrange experience sharing session with fishers who are already using and benefit the services
- Collecting fisher's database who are interested in receiving INCOIS services - Name/Age/Education/village name/District Name/Mobile number/fishing status etc

Ban Period	States covered
15 th April - 14 th June of every year (East Coast)	Tamil Nadu Puducherry UT Andhra Pradesh Odisha, West Bengal
1 st June - 31 st July of every year (West Coast)	Kerala, Karnataka Goa Maharashtra Gujarat

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Some tips for effective communication of INCOIS services to fisher community

- Trust is a big part of effective communication. If the information source cannot be trusted, those who need help or the ones at risk may not respond proactively to the warnings and forecast
- Awareness workshops, user interactions and related discussions among the fisher community will help to build trust.
- Timely forecast and warnings must reach those at risk to take appropriate decisions.
- Clear messages containing simple and vernacular language are mandatory to ensure proper preparedness
- Use of multiple communication tools thereby ensuring that warnings and communications reaches a larger population.
- To disseminate proper information to the fishers it is necessary to obtain basic information of the fishers and their fishing status, time of fishing etc., with their consent to receive the information (and this will be done during the awareness workshops).
- After the collection of data, we have to develop a database of fishers to disseminate the craft-specific appropriate information on time to all the registered fishers.

Some of the effective communication tools for dissemination of INCOIS Services to fishing community

Non-ICT tools	ICT tools
<ul style="list-style-type: none">• Community Radio• FM Radio• Public Address System• Notice Boards	<ul style="list-style-type: none">• Voice calls• Mobile Applications - Fisher Friend mobile application etc• Help Lines• WhatsApp, Telegram and other social media groups• Text SMS

INCOIS Services through voice calls

- Voice call is one of the fisher friendly tool
- It is more suitable for illiterate and neo literate fishers - No need for Android phone
- Pre-recorded audio message sent to the registered fisher's mobile through web based dissemination gateway
- Like other calls, when the mobile rings a person receives a voice call in the form of voice message
- The duration of each audio advisory is between 50 and 55 seconds.
- The registered fishers can receive the voice call in their mobile at a time convenient to them.
- The messages are sent to the fishers based on their demand and the quality is improved based on their feedback

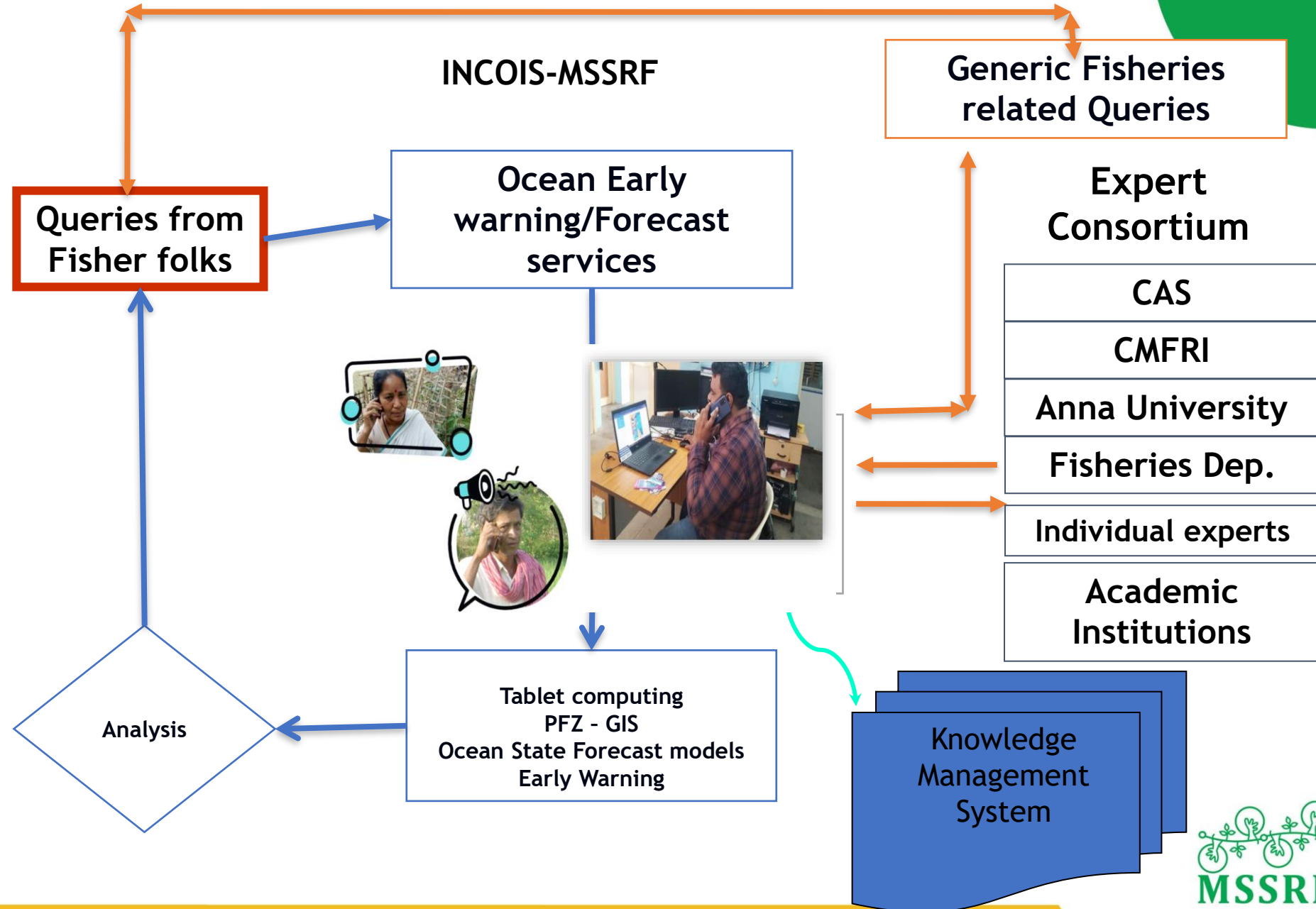


Mandous [Cyclone](#) advisory

Clusters	Morning	Afternoon
Tamil Nadu (North)	8.30-9.30am	4.30-6.30pm
Tamil Nadu (South)	10-11.30am	4.30-5pm
Puducherry		3.30-5.30pm

INCOIS Advisories through Multilingual Helplines

- Mobile numbers for helpline service are need to be popularized among fishers
- Dedicated personnel are responsible for handling the helpline
- Establish a conference call with INCOIS experts based on the fisher's queries.
- Post to providing service, the query of every fisher is documented with contact details.



INCOIS services through Multilingual Mobile Applications

- FFMA - An Innovative, Planning and Decision Making Tool for small scale fishers
- Landing Centre specific data
- Authenticated data Auto ported from INCOIS
- Continuous field trails with user communities

Fisher Friend Mobile Application (FFMA)



ఆంధ్రప్రదేశ్

నీటి ప్రవాహం సమాచారం

14-06-2022

03.00 PM

ఆంధ్రప్రదేశ్

ఉపరితల ఉష్ణోగ్రత సమాచారం

14-06-2022

09.00 AM

ఆంధ్రప్రదేశ్

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14-06-2022

11.30 AM

ఆంధ్రప్రదేశ్

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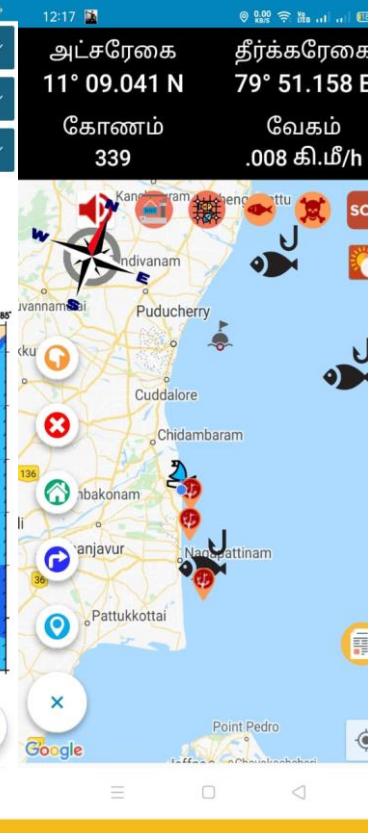
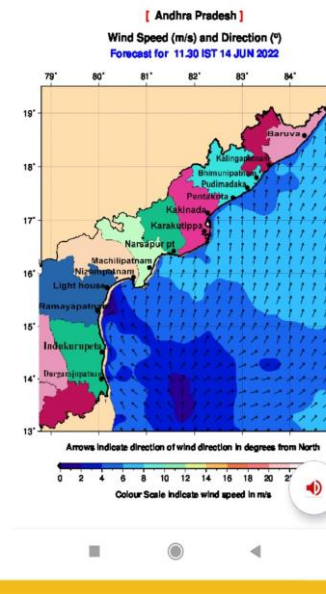
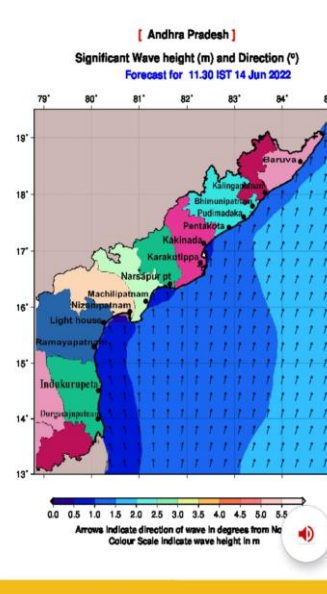
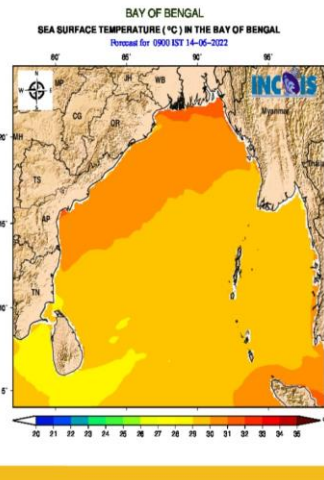
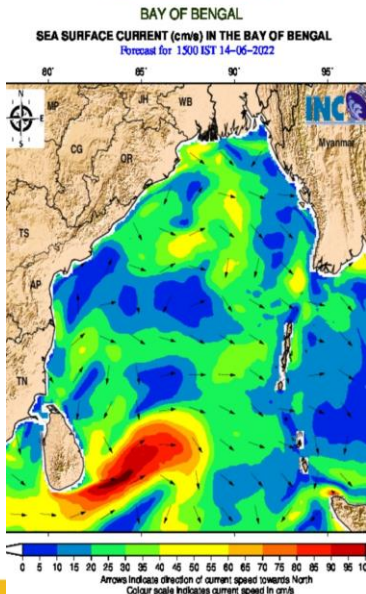
14-06-2022

11.30 AM

Data Source : INCOIS

Data Source : INCOIS

Data Source : INCOIS



23:12

Disaster Alert

HIGH WIND ALERT

HIGH WIND ALERT

29.10.2021 മുതൽ 31.10.2021 വരെ: കേരള തീരത്ത് തെക്കുകിഴക്കൻ അറബിക്കടൽ, മാലിദ്വീപ്, ലക്ഷദ്വീപ് എന്നിവിടങ്ങളിൽ മണിക്കൂറിൽ 40 മുതൽ 50 കിലോമീറ്റർ വേഗതയിലുള്ള ചൂഴലിക്കാറ്റും ഇടയ്ക്കിടെ 60 കിലോമീറ്റർ വേഗതയിൽ ചൂഴലിക്കാറ്റും ഉണ്ടാകാൻ സാധ്യതയുണ്ട്. അതിനാൽ മത്സ്യത്തൊഴിലാളികൾ മേൽപ്പറഞ്ഞ പ്രദേശങ്ങളിൽ മത്സ്യബന്ധനത്തിന് പോകരുതെന്ന് അഭ്യർത്ഥിക്കുന്നു.

Tidal Forecast

Select State

Andhra Pradesh

Select Harbour Location

Bhimunipatnam

Select Date

14/06/2022

Bhimunipatnam

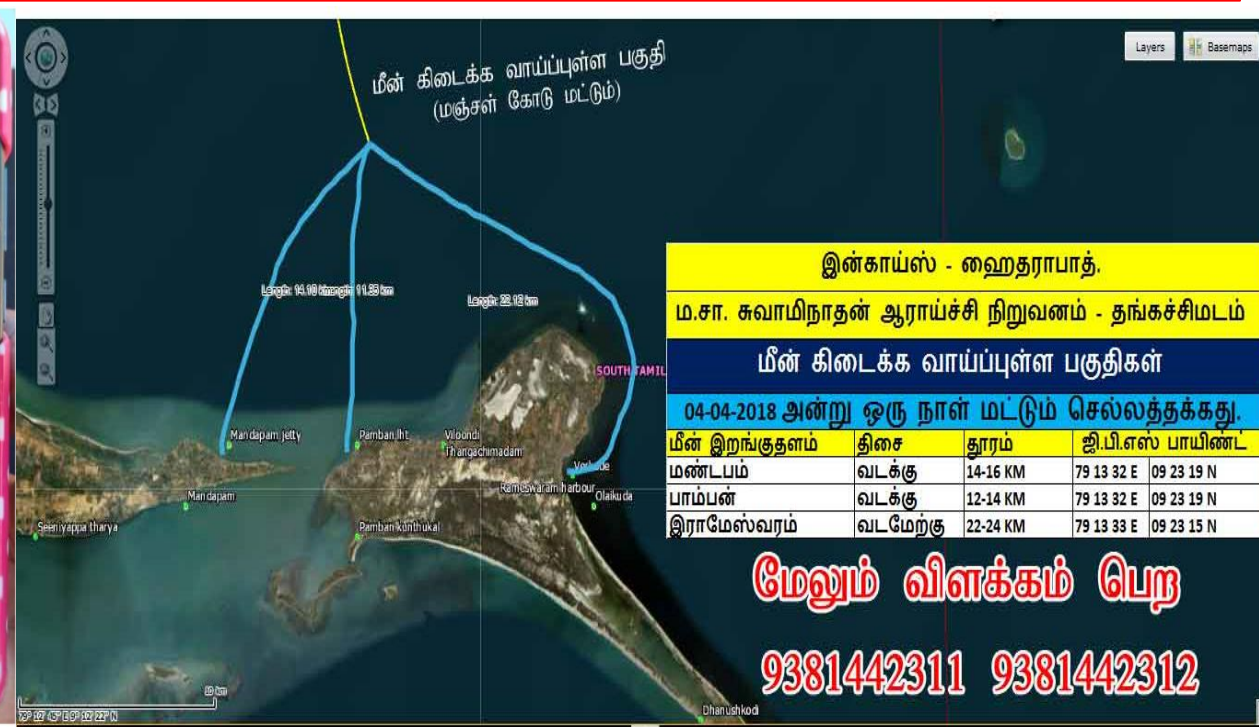
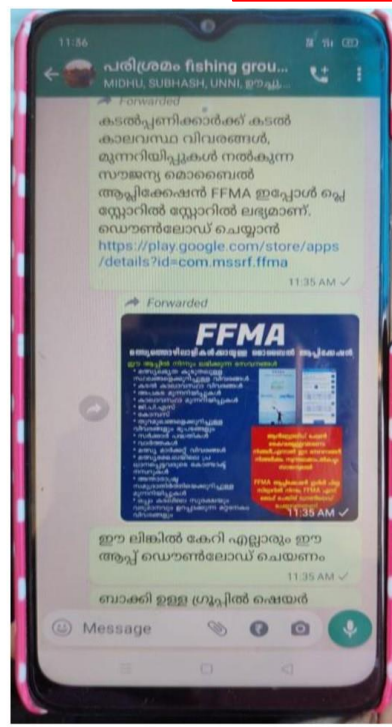
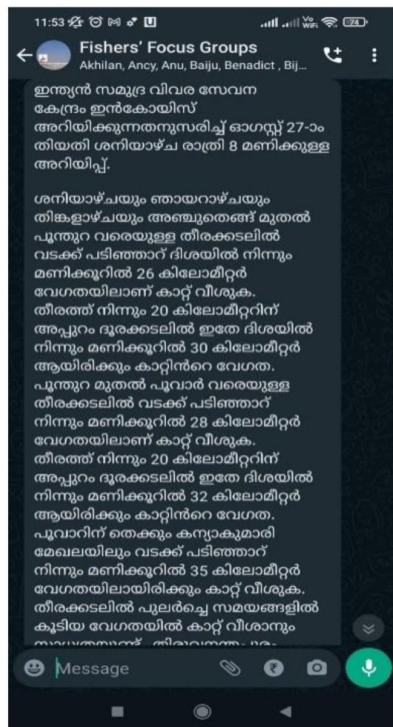
Time	Water Level*	Category
01:41 AM	0.57	Low
08:17 AM	2.06	High
02:35 PM	0.74	Low
08:24 PM	1.68	High

*Height in metres

MSSRF

Other Potential proven social media tools for INCOIS service dissemination

- Fishers' social media groups - Face book, telegram, Whatsapps
- Phone in programmes
- Audio/video Conference
- It has potential to create 'Communities of Practice' among fishers to share their experiences and facilitate both horizontal and vertical learning
- Spreading misinformation is possible - it is important that a certain moderation and controls are instituted.



Standard Operating Procedures for the dissemination of alerts/warnings

- Multiple stakeholders are involved in the process it is important to develop the standard operational procedures (SOP).
- SOP is a set of instructions that describes step-by step process that must be performed before, during and after the disaster events by the agencies who are involved in the process of dissemination of INCOIS services.
- This SOP has to be incorporated in the dissemination strategies of INCOIS for getting better results to improve the services of INCOIS.

Various bulletins/alerts issued by INCOIS

- Cyclone INCOIS-IMD Joint Bulletins
- Storm surges
- Rough Sea alert
- Swell surge (Kallakadal warning)
- Perigian Spring Tide Alert
- High wave alert/warning
- Kondalkattru Alert/Warning
- Add new alerts (RIP current alert, small craft advisory etc)

SOP for the dissemination of INCOIS warnings by the partner agencies

Prior to the event

- Ensure the safety of the wave rider buoys/tidal gauges/AWS and other observatory systems
- Closely monitor the shore stations and ensure the data communication from observatory equipment's to shore station and from shore station to INCOIS
- Ensure necessary power back-ups in shore stations to receive and transmit uninterrupted data
- Regularly monitor and receive the disaster warning bulletins from INCOIS (Email, Website etc)
- Translate the bulletins in local vernacular language if required in the specific format
- Ensure the availability of key fishers /leaders list and their contacts in the area to get time to time feedback on the ground realities
- Disseminate information to the intended registered users/fishers/village leader's area mentioned in the bulletins using available ICT and non-ICT platforms
- Ensure that information reaches the targeted fishers/audience on time

During the event

- Closely observe and monitor the situation through village leaders/master trainers
- Institute is close to the vicinity directly monitor the situation
- Ensure the updated bulletins from INCOIS reaches the end users
- Initiate the documentation of performance during the event
- Depending upon the nature of the event, plan for the field visit to monitor the real time situation.

After the event

- Immediately after the event/crosses coast and weakens- field visit to the area and document the impacts
- A report is to be prepared by respective PIs and submitted to INCOIS within the week period with all necessary contents.
- The report contains following details
 - Type of disaster /warnings by INCOIS
 - Starting and ending time of the event, Duration
 - Observed wave height, storm surges, Sea condition at the beach, Tide condition
 - Wind speed
 - Water inundation extends
 - Extend of damage caused
 - Damage to fishing boats, nets, fishing equipment's, Estimated loss of life (human as well as animals)
 - Loss of property and people rendered homeless
 - Damage to the fishing harbors, jetties
 - Accuracy of INCOIS forecast warning/alert compared with real situation - Was the timing correct? Was the area affected correctly identified?
 - Media clippings
 - Photo copies of the damage happened
 - With details of reporting agency and reporting staff name.

Importance of Feedback for INCOIS services

- Feedback shows if the fishers have received data from INCOIS and whether the data has been understood in the same terms as intended by INCOIS
- It also helps INCOIS to ensure that the fishers have interpreted the data correctly for their fishing activity
- It helps to measure the effectiveness of services they have developed
- It helps to determine the success or failure of the products
- With efficient feedback, INCOIS can determine the next course of action
- Feedback is an excellent tool for innovation of new products
- Feedback helps in making the correct decisions
- Constructive feedback from fishers motivates INCOIS to develop more such products

Characteristics of Effective Feedback

Specific

Feedback should point to a specific problem and include a specific example of the solution recommended

Constructive

Try to seek solutions not just identify the problems

Balanced

Point out strengths as well as the limitations of the services



Criteria for the selection of respondents for feedback collection

- Selection of respondents is crucial for feedback collection
- We have to select appropriate fishers who have been using the INCOIS services in their fishing activities on regular basis
- For example - To get feedback on PFZ services, we have to identify the fishers who have regularly using the service so that he will be in a position to give in-depth and valuable feedback on the services.
- The timing and period of feedback collection is also crucial for getting real time feedback from the fishers.
- It is important to collect the feedback during the peak fishing season and immediately after the extreme event in which the data has been used by the fishers.
- Feedback is also continuous process to understand the impact of the services of INCOIS in an in-depth manner.

Quantitative feedback methods

- Quantitative feedback is number-based using a quantifiable measurement process.
- It gives numeric insights into data, which is useful for gathering a large number of answers from fishers quickly.
- Examples of quantitative feedback would be multiple-choice questions by administering structured data collection tools such as
 - questionnaire
 - online surveys
 - interview schedule etc
- The best time to use quantitative methods is when you are sure of what questions need to be answered.

Qualitative feedback methods

- Qualitative feedback is more in depth to get a wider variety of answers and insights into fishers' thoughts or opinions.
- It is a form of observations of fishers and responses to INCOIS products
- It is very useful because it allows to specify what they like or do not like and what they believe could be improved etc.
- It is possible to get a gist of user's experiences, feelings, and reactions towards new ideas of users about INCOIS product and services.
- Examples of qualitative feedback methods
 - fishermen survey with open-ended questions
 - Focus group discussions
 - Village and district level feedback meetings with selected INCOIS users
 - Case studies
 - video and audio forms, writing letter elaborating the services of INCOIS, sending emails etc.,

Focus Group Discussion:

- INCOIS service users are mobilized share and discuss on INCOIS services benefits and issues
- It should be facilitated by a moderator who is knowledgeable on the topic.
- This method serves to solicit fishers' attitudes, perceptions, knowledge, experiences and practices as to how they use the INCOIS services for their fishing activities.

Interviews:

- Interviews offer a more personal way to collect feedback. Time intensive. Normally qualitative data-driven interview can be unstructured and informal using open- ended questions.
- If interviews are conducted virtually, it can be recorded.
- Interviews conducted in person can be recorded with a simple tape recorder or with computer software in case of laptop.

Case study:

- Investigation of impacts of INCOIS services with one particular individual, group, specific time period or a specific event.
- For example, how the individual fishermen apply the information from INCOIS in his fishing activities and its benefits in terms of risk reduction and socio-economic improvement.

In order to obtain quality feedback on INCOIS services, we can apply both qualitative and quantitative methods for data collection. Both methods of feedback provide valuable insights to improve INCOIS products and its services.

Feedback format – INCOIS Ocean State Forecast

(Survey with Individual Fisherman or Group of Fishers who regularly use the OSF services)

Questionnaire

Section 1: Personnel Information

- Name :
- Nearest Fishing / Landing Centre :
- Occupation :
- Education : (i) Illiterate (ii) Primary (iii) Secondary (iv) Above Secondary
- Fishing Status : (i) With Own Boat (ii) Fishing labour (iii) Partner in fishing (Group) (iv) Any other (specify)
- Type of craft and gears mostly use for fishing:

Craft
Mechanized craft

Gears

Motorized craft

Non Motorized Craft

- What instruments/aids do you have on the boat? : (i) Compass (ii) Cold Storage (iii) GPS (iv)
Mobile (v) Eco sounder (vi) Transistor/Radio/VHF (vii) Satellite phone
- Traditionally on what basis do you verify the ocean condition?
(i) Past Experience (ii) Advice of elderly fishermen
(iii) Position of star (iv) Changes in sea condition (Calm, rough)

Section: 2: Receiving status of Ocean State Forecast

1. Do you receive any forecast information on ocean state and disaster alert?
(i) Yes (ii) No
2. If yes, How you get the information? And the source
 - SMS Directly from INCOIS
 - INCOIS Website
 - INCOIS Email
 - Fisher friend mobile Application
 - Audio Advisory for other agencies (mention the name of the agency)
 - Help Line
 - Fisheries department
 - Radio
 - TV
 - Any other specify

3. Preferable mode of receiving information? And the source (agencies) – Ranking 1 – 9 (1 is high preferable mode 9 less preferable mode)

- Fisher friend
- INCOIS Website
- INCOIS Email
- Social Media (WhatsApp/Telegram)
- Audio Advisory
- Help Line
- Fisheries department
- Radio
- TV
- Directly from INCOIS
- Any other specify

4. How often you receive the information (Frequency/ intervals)

1. 6 hrs 12 hrs. 24 hrs. 48 hrs 60 hrs

5. How long period you will get the information?

- One-day forecast
- Two days' forecast
- Three days' forecast
- Weekly forecast
- Any Others

Section 3: Utility of the information

6. Do you use the received OSF information on regular basis? (yes/No)
Yes/ No

If you have not used the information what are the reasons for not using it?

7. How do you use INCOIS OSF information for fishing?

- Decision making for the fishing trip
- Anchoring the fishing boat
- Casting the net
- Deciding appropriate net for fishing
- Deciding the direction of fishing
- Deciding the number of crew members
- Supplementary information
- Overall planning for the fishing trip
- Any other specify
- None of the above

8. Accuracy of OSF forecast?



Wave Height

1. 0-10%	2.10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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High wave alerts

1. 0-10%	2.10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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Swell surge/Rough Sea alerts

1. 0-10%	2.10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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Wind speed and direction

1. 0-10%	2.10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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Sea surface Current

1. 0-10%	2.10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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Sea surface temperature

1. 0-10%	2. 10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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Cyclone bulletins

1. 0-10%	2. 10-20%	3. 20-40%	4. 40-60%	5. 60-80%	6. 80-100%
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9. What are the benefits realized by using OSF forecast?

- Better planning of the fishing trip
- Saving time for fishing
- Saving fuel for fishing
- Safety of the boat and nets
- Save life.
- Reduce the asset loss during fishing.
- Avoid anxiety during fishing.
- Any other specify.
- None

10. What is the effect of OSF forecast of your net income?

(i) Increased (ii) Not Change (iii) Reduced

If increased how much?

- Below > 10000
- 10000- 50000
- 50000- 100000
- 100000-250000
- 500000-750000
- 750000 and above

If reduced the income, what are the reasons for reducing income due to OSF information.

Section 4: Correlation with Traditional Knowledge

11. What are the traditional methods used for finding out the following OSF status?

- High waves:
- High winds:
- Cyclones:
- Tsunami
- Others if any

12. What way does the forecast information integrated with your traditional knowledge? How it matches with your traditional knowledge?

13. Do you feel to integrate your traditional knowledge in INCOIS OSF forecast system to increase the accuracy of OSF?

Yes

No

If Yes, how we will integrate please specify

13. Which one of the two (Traditional knowledge and scientific data) is more reliable in fishermen's experience?

1. Scientific method 2. Traditional method 3. Both

Section 5 : Information Requirement

15. How much advance time of OSF forecast is required?

- (i) one day (ii) 2 days (iii) 3 days (iv) 4 days (v) 7 days

16. How often (time interval) do you require the forecast?

- (i) 3 hours (ii) 6 hours (iii) 12 hours (iv) 24 hours

17. What is the other Ocean state forecast you expected from INCOIS for safe and efficient fishing? (Please mention even in your location and district specific requirement also)

18. Do you think periodical training programmes will be effective in using the OSF by majority of fishermen in the society?
(Yes /No)

If Yes, Mention the training program

Feedback Form – PFZ services

(Target group: Individual Fishermen or group of fishermen -PFZ regular user)

Section 1: Personnel Information

1. Name _____ :
2. Individual / Group of Fishermen _____ :
3. Nearest Fishing / Landing Centre _____ :
4. Age _____ :
5. Education _____ : (i) Illiterate (ii) Primary (iii) Secondary (iv) Above Secondary
6. Fishing Status _____ : (i) With Own Boat (ii) Fishing Labour (iii) Partner in fishing (Group)

7. *Type of craft and gears using /operating for fishing:*

Craft	Gears
Mechanized craft	
Motorized craft	
Traditional Craft	

8. What instruments/aids do you have on the boat?

- (i) Compass (ii) Fish holder (iii) GPS (iv) Mobile
(v) Eco sounder (vi) Transistor/Radio/VHF (vii) Satellite phone

9. Traditionally on what basis do you decide where to go for fishing?

- (i) Past Experience (ii) Advice of other fishermen (iii) PFZ forecast given in the Telephone/Mobile/Public Address system/VKC/Fisher Friend/SMS services (iv) Advised by the boat owners (v) Any other (Specify)

Section 2 : Information Use and benefit of PFZ forecast

- 1. Are you using INCOIS PFZ information? Yes or No
- 2. If yes what is the source of information and how frequent do you get?

Source	Frequency
INCOIS directly (Website/Email)	
Television	
Radio	
Fisheries Officials	
FFMA	
Audio advisories	
Social Media (WhatsApp/Telegram/Facebook/Twitter)	
Any other specify	

- 3. How do you use PFZ forecast?

- (i) To actually locate the fish availability areas
- (ii) As supplement to other information
- (iii) For general awareness but not actual use
- (iv) Do not use

4. What have been your experiences with using PFZ forecast information from INCOIS?

- The catch was more than the usual volume. If so, how much more? (Quantify?)
- The catch was not more than usual amount?
- Fish catch was good but quality was not good? Mention the species they got?
- More of juveniles were caught (% and species of Juvenile)
- Desired species caught? (List the desired species)
- Fishing was difficult in the forecast zone (if agree what is the difficult mention)
- Any other remarks

5. What is the effect of the following forecast information on your average net income?

(i) Increased (ii) Not Change (iii) Decreased

6. If increased how much (Quantify)

- Below 10000
- 10000-50000
- 50000-100000
- 100000-250000
- 250000-500000
- 500000 – 750000
- 750000 and above

7. If reduced what are the reasons for reducing your average net income due to PFZ forecast information?

8. What are the major groups of fishes that occur by fishing in the PFZ forecast zone?

9. What are the associated fish species in the PFZ Forecast zone

10. What are the traditional methods in vogue in the area for forecasting the fishery zones?

- Color of the water
- Wind direction
- Tide
- Birds
- Algal blooms
- Any other specify

11. Which of the above more reliable? And How?

12. How the forecast information is integrated with the traditional knowledge they had about deciding the fishing spot?

13. Which one of the two (Traditional knowledge and PFZ) is more reliable fishermen's experience?

1. Scientific method 2. Traditional method 3. Combination of both

14. During the course of years of your fishing in the PFZ, did you notice the any species dwindle or disappear in the catches?

15. What are the constraints in getting good catch of desired group of fish?

- | | | | | | |
|------|--|------|---------------------|-------|---|
| (i) | Low stock | (ii) | Due to Migration | (iii) | Due to Poaching by fishermen of other areas |
| (iv) | Conflict with other craft and gears operations | (v) | Lack of information | | |

Support related

16. If you have not used the forecast information what are the reasons for you not using it?
17. Do you need any additional facilities to locate the PFZ forecast zone?
18. Do you think periodical training programmes will be effective in locating the PFZ by majority of fishermen in the society? (yes /No)
19. If yes list out the training programs.

Disaster Event/Warning/Alerts – Feedback Reporting format

Date:

Reporting Agency:

Location (Village/District/State):

- Type of disaster /warnings/alert by INCOIS :
- Brief history of the disaster/warnings/alert (when it was started, how it performs, for eg – Cyclone: The brief history will contain an account of the system from the depression stage onwards including its intensification into a storm/ severe storm, landfall and subsequent weakening. Crucial observations, if any, should be briefly referred to.) :
- Starting and ending time of the event :
- Duration of the entire event :
- Observed wave height, storm surges :
- Sea condition at the beach :
- Tide condition :
- Wind speed :
- Water inundation extends :

- Extend of damage caused with photos :
 - Damage to fishing boats, nets, fishing equipments
 - Estimated loss of life (human as well as animals)
 - Loss of property and people rendered homeless.
 - Damage to the fishing harbours, jetties
- Accuracy of INCOIS forecast warning/alert compare with real situation –
 - Was the timing correct?
 - Was the area affected correctly identified?
- Media clippings
- Photos of the damage that happened.

**Thank you for Your
Kind Attention**

