



Cyclone FANI

Joint Rapid Needs Assessment Report

IN THE AFTERMATH OF CYCLONE FANI IN ODISHA- MAY 2019

Cyclone “FANI” Joint Rapid Needs Assessment Report

In the aftermath of the Cyclone in Odisha in May 2019

Disclaimer:

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1. Background

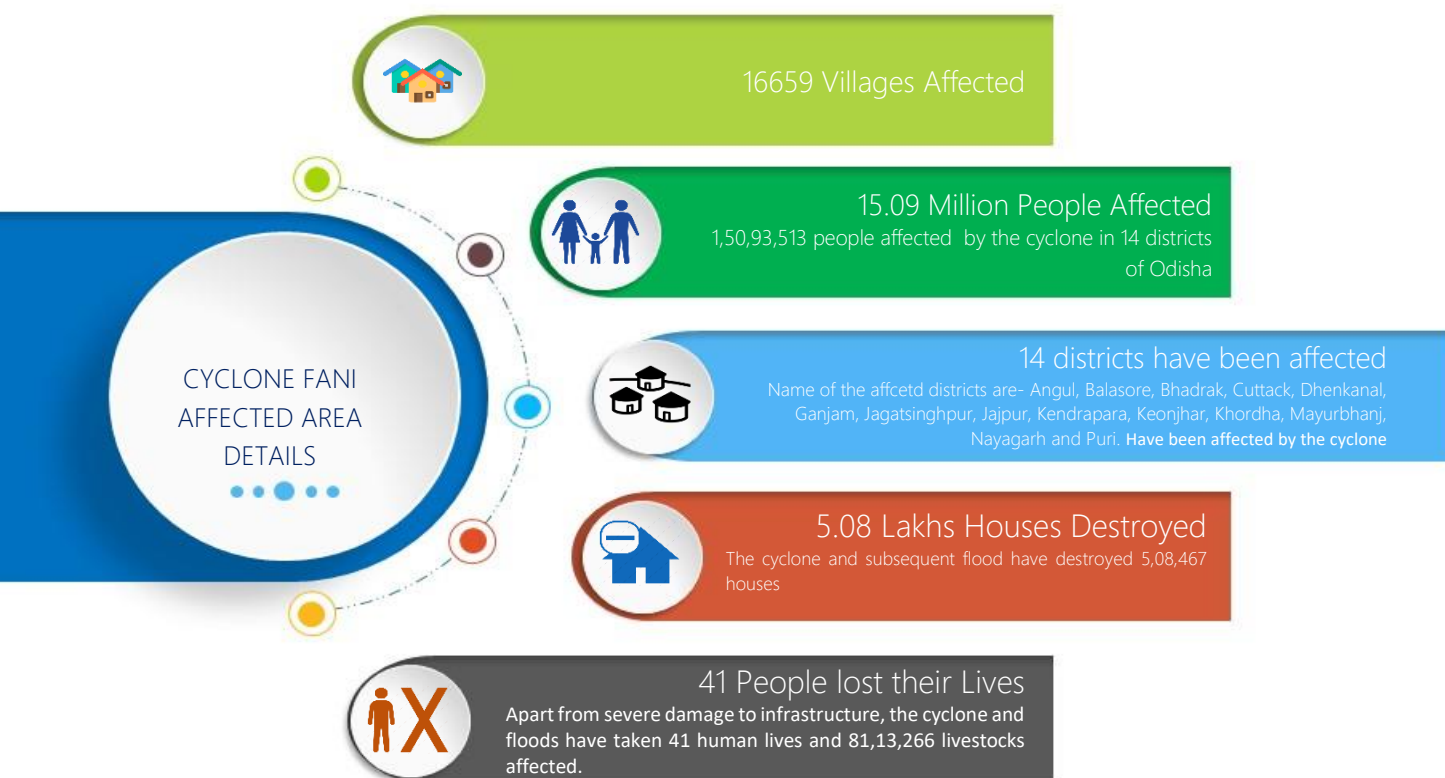
Fani intensified into a cyclone on 27th April 2019. On 3rd May, it took the form of a very severe Tropical Cyclone (Category 4), with an estimated maximum sustained surface wind speed of 175-185 km/h gusting to 210 km/h crossing Odisha coast.

While the cyclone made a landfall at Puri at 8:12 am on the 3rd of May, the storm crossed Bhubaneswar four hours later at around 12:10 pm. After severely hitting the capital city of Odisha for around three and a half hours, the cyclone proceeded north along the coast towards Jagatsinghpur, Bhadrak, Balasore and Mayurbhanj district, before entering into West Bengal. In the hours prior to the Cyclone, nearly 1.2 million people have been evacuated from vulnerable and low-lying areas of at least 11 coastal districts while the evacuees have been accommodated in over 4,000 shelters, including 880 specially designed cyclone centres.

14 districts have been affected by Fani namely- Angul, Balasore, Bhadrak, Cuttack, Dhenkanal, Ganjam, Jagatsinghpur, Jajpur, Kendrapara, Keonjhar, Khordha, Mayurbhanj, Nayagarh and Puri. According to Government

sources, as of 9th of May, 159 blocks, 51 ULBs, 16,659 villages were affected, with a total population of 1,50,93,513. So far, 41 human casualties have been reported. Further, huge damage has been reported to public infrastructure including roads, telecom and KV towers, health facilities, schools. Crops have been heavily damaged in all the affected districts of Odisha as well as fishing boats and nets, leading to loss of livelihoods for people dependent on agriculture and fishing.

The State has witnessed seven major cyclones in the last 50 years. In 1999, Odisha was hit by the strongest recorded tropical cyclone in the North Indian Ocean, categorised as a 'super cyclonic storm', with an estimated maximum wind speed up to 260-270 kmph in the core area. The 1999 super-cyclone claimed about 10,000 lives and affected the lives of about 1.29 crore people. On 12th October 2013, Cyclone Phailin hit the coast of Odisha near Gopalpur in Ganjam district, affecting about 13.2 million people in 171 blocks in 18 Districts of the state, and resulting in 44 human casualties. The damage caused by the cyclone was due to the unprecedented wind velocity of up to 220 kmph.



2. Extent of damages – overview

Human lives and injuries

41 deaths have been reported so far (district wise details given below).

300 people have reported having been injured due to the cyclone.

Sl. No.	District	Casualty Reported
1	Puri	21
2	Kendrapada	03
3	Mayurbhanj	04
4	Jajpur	04
5	Cuttack	05
6	Khordha	04
	TOTAL	41

Electricity

- Power supply snapped due to uprooting of electricity poles, damage to substations and transmission lines.
- 5030 Kms. of 33 KV lines, 38613 Kms. of 11 KV lines, 11077 nos. of distribution transformers, and 79485 Kms. of LT lines damaged.

Governance infrastructures:

Special Circuit House Puri, Office and Residence of SP and Collector have been badly damaged like many other buildings.

Communications

- Huge numbers of trees have been uprooted resulting in disruption of road communication. Khordha and Bhubaneswar city have been severely affected.
- Telecom towers have been affected resulting in cellular and telephone network down in wide area. All telephone and cell phones are down

in Puri district. Telephone and mobile connectivity has also been severely affected in Khordha including Bhubaneswar city.

Accessibility

- Traffic was disrupted in all the PWD roads of Cuttack, Jagatsinghpur, Kendrapada due to up-rooted trees, debris and electric poles.
- 227 no. of breaches, 5596 kms length of road, have been damaged in PWD roads. 556 no. of roads blocked due to uprooted trees, electric poles & wires, cyclone debris.
- 9693.25 kms. of RD roads and 4610 buildings have been affected.
- BBSR airport and the railway station has been damaged and closed for a few days. Most bus stand had been fully or partially damaged.

Health facilities

1031 public health facilities (MC & H/ DHH/ SDH/ CHCs/ PHCs/ Sub-Centers) damaged.

Schools

- 5244 number of Primary School Buildings and 547 number of secondary school buildings damaged.
- 180 number of Higher Education Institutions severely & 90 numbers of HEIs partially damaged.

3. Relief Measures – Government & NGOs

Forces deployed

- 20 Odisha Disaster Rapid Action Force (ODRAF) teams have been deployed for SAR and road clearance in the affected areas.
- 44 National Disaster Response Force (NDRF) teams have been deployed for SAR and road clearance in the affected areas.
- 525 Fire Teams have been deployed for SAR and road clearance in the affected areas.
- 08 teams of Odisha Forest Development Corporation (OFDC) engaged for road clearance and tree cutting in Bhubaneswar.

Actions taken

- As of 6th May, clearing of roads and restoration of power has been in process.
- Road accessibility in Ganjam and Gajapati has been restored. Road clearance and restoration works in other districts including Bhubaneswar city is going on. (repetition?)
- As relief measures for affected populations, rolls of polythene, packets of relief materials (Chuda, Gur, Biscuit, Candle, Match Box & Salt), as well as chlorine tablets are being distributed.
- NGOs and Aid Agencies have responded by conducting rapid assessment in affected areas to set

priorities and for actions to be taken in a timely manner in a timely manner.

Coordination mechanisms

The IAG had a meeting with the Special Relief Commission (SRC) and MD, OSDMA on 6th May 2019. The IAG has committed support to government and supplement efforts of the government in relief and reconstruction.

IAG is in the process of compiling the Unified Response Matrix that will comprise of a detail information about relief operations by various members of IAG Odisha.

The IAG is playing a vital role in GO-NGO coordination at the state as well as the district level.

4. Field Assessment

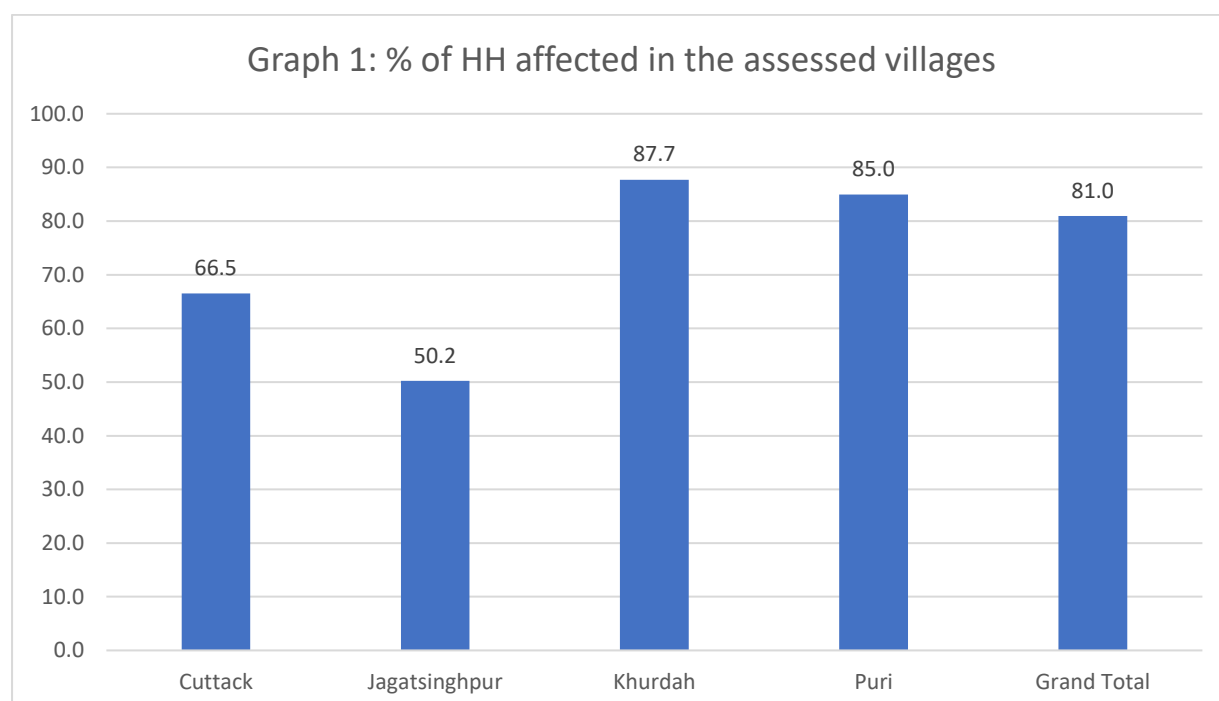
The IAG convened a meeting of member on the very next day of the cyclone's landfall - on May 04, 2019. After preliminary assessment of the situation, IAG decided to send 12 teams to different parts of four most affected districts Puri, Khordha, Jagatsinghpur and Cuttack for a rapid assessment of the situation and needs.

The rapid assessment conducted on the 5th of May by 10 teams composed of 44 professionals of the Inter Agency Group members, which covered 4 of the worst affected districts: Puri, Khordha, Cuttack and Jagatsinghpur, with a total of 65 villages. The teams visited 65 villages of 19 blocks in the four districts on May 05, 2019. During their visit the teams interacted with affected people, government officers, PRI representatives; and made transect walks to assess the situation. However, the teams could meet few government officials as they were very busy in their response activities. The teams also attempted to collect quantitative information through a semi-structured

questionnaire where information were mostly gathered through Focused Group Discussions. The teams met on May 06, 2019. The indicative observations, under some important thematic areas, have been summarized in section B. This report has largely relied on observation of the teams. The observations are not representative of the whole district, but of the villages visited.

As shown in Graph 1, percent of households affected was highest in Khordha district. Nearly 88% of rural households of the villages visited in Khordha district have been badly affected. Puri district was a close second where 85% households have been affected

Field assessment was undertaken by The Inter Agency Group (IAG) Odisha: *Catholic Relief Service (CRS), ChildFund (CF), Oxfam, Save the Children, HelpAge, Indo-Global Social Service Society (IGSSS), Orissa State Volunteers and Social Workers Association (OSVSWA), ActionAid, Plan International, Lutheran World Relief (LWR), CASA, HandiCap, Terres des Hommes (TDH), World Vision (WV), WaterAid, Unicef, ChristianAid.* +++



4.1 Assessment Methodology

- Identify priority needs of the affected population
- Provide approximate number of affected people
- Identify severely affected geographic areas within 4 district, 19 Blocks & 26 Gram Panchayat and 2 municipalities
- Mapping critical needs in the immediate aftermath of the extreme event
- Provide general recommendations to inform strategic decisions on resource mobilization and response planning for medium to long term needs

a. Methodology

- Training on KoBo Collect app
- Identification of Worst affected district from Primary & Secondary information's
- Team building and planning
- Identification of Worst affected block/ Panchayat in consultation with District Administration/Emergency Officer/BDO /NGOs
- Team leader for the operation and communication standards
- District JRNA Tool
- Village JRNA Tool

c. Training:

- IAG Odisha member participants

d. Field Work

- Field Assessments with FGD, interview's, Geo- tagged pictures
- Debriefing by all the team leaders to IAG Odisha.
- Data Analysis and Reporting

b. Tools

- No of blocks covered – 19
- No of Panchayat covered – 26 (plus two municipalities)
- No of Districts – 4
- No of village covered – 65

e. Meeting and Consensus

- The meeting culminated with the finalization on the above mentioned assessment processes and related logistical requirements along with the planning on subsequent analysis and report preparation.

JRNA Timeline





CYCLONE FANI

ASSESSMENT REPORT 2019

SECTOR HIGHLIGHTS
PRELIMINARY
ASSESSMENT REPORT

2019

The Joint Rapid Needs Assessment (JRNA) has been initiated by the members of Inter Agency Group (IAG) Odisha to understand the immediate needs of the cyclone affected districts of Odisha

The Assessment Findings

B.1 WASH

Situation Analysis

The cyclone has affected the water and sanitation condition across all the assessed districts, but with different gravity:

- the villages normally depend on hand pumps, open wells and piped water supply for drinking water needs – some of them have been damaged.
- Most pipes water supply are electric – the power cut has rendered the fresh water inaccessible
- usage of contaminated flood waters for bathing, cleaning kitchen utensils and other cleaning needs are of concern

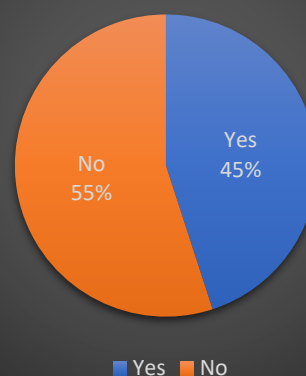
One of the major relief was that cyclone FANI did not bring very serious rainfall. There were no major reports of damages to WASH facilities and systems because of flooding and water stagnation. However, there were apprehensions of contamination of water sources. As shown in Graph 2, 45% of drinking water sources in the villages visited by the assessing teams were contaminated or have risk of contamination.

Drinking water

- o Assessed villages were normally dependent on Pipe Water Supply (PWS). PWS systems are defunct in all villages, largely due to power supply disruptions. Some PWS infrastructures have suffered damages to structures and pipelines. But such damages were marginal.
- o

- o Tubewells are mostly functional and were not affected or contaminated. However due to disruption of piped water supply, women and girls were waiting in long queues to fetch water.
- o Access to water points has been reported by all people including people with disability/ ST/ SC/ minorities. No cases of discrimination were found in the assessed villages.
- o Short term water scarcity was found in almost all villages. This is mainly due to disruption of power leading to non-functional PWS. Water tankers are supplying water in parts of Bhubaneswar and Cuttack cities. However, similar service is not available in rural areas as observed and confirmed by the people in assessed villages.
- o Open defecation practices have increased in Jagatsinghpur. Adolescent girls, women, and elderly were using the toilets prior to disaster. These toilets have been

Graph 2: Whether water source contaminated or at risk of contamination?



damaged due to cyclone Fani, forcing them to go out in dark for defecating, hence increasing their vulnerability. In Puri, open defecation is practiced in normal times. As toilets sustained damages, people those who were using toilets are left with open defecation option.

- Reported to be Water supply in shelters: Water supplied in shelters are inadequate. Most of the shelters have no water storage facility. People taking shelter were procuring water from tube wells.
- There were no waterlogging or flooding situation in assessed villages, water contamination was not reported. In few villages in Puri, cases of water logging and tubewell contamination has been reported. Additionally, pond water has become blackish due to fallen trees and leaves, giving a bad odor.

Actions Needed

- Finding alternative energy to run PWS systems. Mobile generators and other alternative source may be used to pump and supply water.
- Water tanker services to be provided in rural areas
- Chlorination of contaminated tube wells and drinking water sources.
- Repairing of tube wells and other drinking water sources.
- Supply of halogen tablets or other suitable disinfectants.
- Provision of water storage at the shelters as well as at household level where families have lost water storage containers.
- Long term measures for redress of saline ingress issue.

Sanitation and Hygiene

- Women reported that they were using sanitary napkins pre-disaster. Sanitary napkins are not available in shelters and nearby markets. They mentioned that access to market is cut off and they are not able to buy. There is no supply of sanitary napkins from ASHA/AWW. Women are using cloth. Due to insufficient water, women and girls are suffering to wash and dry the sanitary clothes which may pose health threats.
- All ponds in villages of Puri district and most ponds in other districts have been contaminated with decomposable debris. This has affected quality of the ponds and water bodies.
- People are not getting adequate water to properly bath and stay clean in urban areas like Bhubaneswar and Puri.
- Most of individual household toilets have suffered damages to various extent. Use of toilets have substantially decreased due to bad condition of the toilets and unavailability of water. Open defecation has increased.
- In almost all villages, women and children expressed that they are feeling insecure because of open defecation. Women expressed increased fear of sexual threat. Threat of snake bites and wild animals has increased.
- In Shelters, either toilets are not working or unable to cater to the need people staying there.
- As most of the *Kutch* houses have been totally or substantially

damaged, they have very little or no water container left to store water.

- Some coastal villages in Brahmagiri and Gopa blocks in Puri district and Balikuda block of Jagatsinghpur district are affected due to saline ingress.

Actions needed

- Repair of the toilets or construction of temporary toilets.
- Cleaning and sanitization of affected ponds, wells and water bodies.
- Special awareness on hygiene and safe sanitation, especially with children, adolescent girls and women.
- Supply of sanitation kits, including sanitary napkin, soap, hand wash, tooth brush etc.
- Restoration and augmentation of toilets at shelter and public places; and awareness.
- Lighting arrangements in camps and villages at night to ensure safety and security of the vulnerable groups (girls, women, elderly etc.)

B.2. Shelter

Situation Analysis

Shelter is one of the main concern as a large population has lost their shelter with their houses fully damaged or on the verge of collapsing. People are seeking refuge in permanent as well as temporary shelters, such as public buildings, schools, community building, etc. Some people are staying on the roadside, waiting for relief assistance.

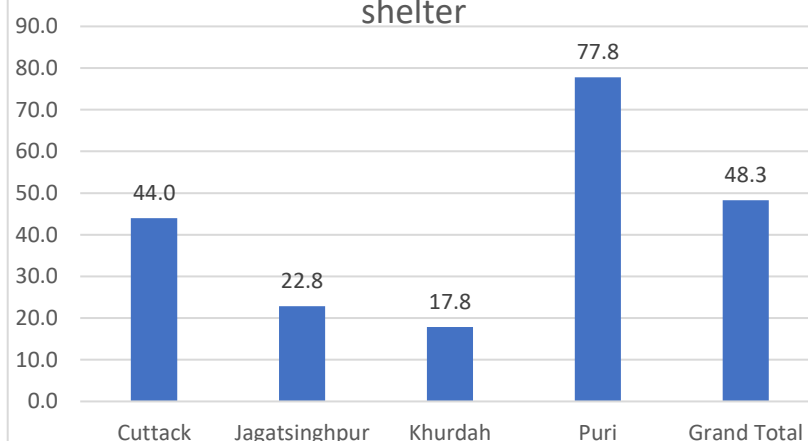
Damage to shelter has been extensive in the villages visited in Puri district. Nearly 78% of

households are in need of immediate shelter. Graph 3 shows immediate shelter need of households in the villages of four district that the teams visited.

Individual Household Dwellings

- Approximately 78% of houses in rural areas of Puri district are totally or substantially damaged.
- Approximately 70% of houses in slums of urban areas of Puri and Bhubaneswar cities are totally or substantially damaged.
- Almost all households living in *Kutcha* houses in Puri district have lost their houses and are staying in shelters, schools or makeshift arrangements. All *Kutcha* houses were found totally or substantially damaged in Brahmagiri, Puri Sadar, Gop and Nimapada blocks of Puri district.
- Most of the households, living in *Kutcha* houses, in Khordha, Jagatsinghpur and Cuttack districts have

Graph 3: % of HHs in need of immediate shelter



been rendered displaced due to full or part damages to their house infrastructures.

- About 60% of *pucca* houses in the all the districts have part of the house, such as kitchen, which is *kutchha*. Such *kutchha* portions of *pucca* houses were found fully damaged in Puri district and partly damaged in Jagatsinghpur, Khordha and Cuttack districts.

- *Pucca* houses have not suffered much damage. Some *pucca* houses in all four districts, more in Puri district, have sustained partial damages due to tree or electric poles falling on those houses.

- The displaced occupants have taken shelter in cyclone/flood shelters, temporary shelters, neighbor's house, have temporarily moved to relative's places or are living in dismal makeshift arrangements.

- Cyclone/temporary shelters
 - Almost all cyclone/flood shelters and some temporary shelters were found with occupants, including women and children.

- Provision of food and water have been made in regular cyclone/flood shelters. However, the team found that provision of food and water was not made available in many temporary shelters.

- Occupants of all cyclone/temporary shelters complained of inadequate food supply. In Jagatsinghpur district food had been provided only on May 05. In Puri district food was provided on May 04.

- No temporary shelter had any special arrangement drinking water storage. No temporary shelter had provision of toilet for the people taking shelter there.

- Caste discrimination was starkly evident in regular as well as temporary shelters, both in occupation of space and supply of food. People belonging to upper caste category occupied space of their choice whereas people from schedule caste communities were left to accommodate in the remaining places. Food was being served to upper caste people first and then to the lower caste people. This caste discrimination was more evident in Puri district.

Actions needed

- Immediate supply of shelter kits, lighting solutions, utensils, stoves etc. and financial support to households who have totally or partly lost their houses.

- Run regular and temporary shelters for at least 15 days with food supply to facilitate temporary accommodation to those who have lost their dwellings and allow them to focus on repairing their houses.

- Mid to long term support to rebuild resilient houses.

B.3 Food and Nutrition

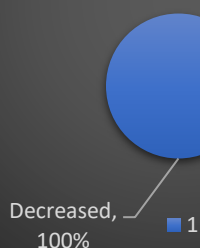
Situation Analysis

- Temporary food scarcity: Food availability has seriously hampered because of losses to cooking infrastructures and stored items as well closure of market or disruptions to supply. Prices have soared and with that access to food materials, vegetables and fruits decreased.
- Long term food scarcity: There have been significant damages to standing crops and harvested crops. That will surely impact food availability in the long term.
- Disruptions and destruction of shops and markets: There has been serious disruptions to markets, especially in Puri and parts of Cuttack district. This has significantly reduced access to food and nutrition.
- Specific food for children has not been provided. In some Panchayat, people did not receive food support till May 05, while in urban slums in Bhubaneswar food was only provided on the 3rd of May.
- Scarcity of food supply is exacerbated by caste-related discrimination. Women are also discriminated: they usually eat what is left.
- Those in temporary shelter (i.e. schools) are not receiving food. According to the Sarpanch, Government authorities have given instructions to only provide food to those staying in formal shelters.
- People are taking loans to cope with the loss of livelihood. This will increase their vulnerability as they have difficulties repaying their debts.
- All households in the villages visited reported significant drop or changes in food intake. Graph 5 indicates this status. This adverse impacts on food intake is largely due to (i) loss to food stocks, (ii) inaccessibility to markets, (iii) inadequate or no emergency food supply.
- About 40% households in rural areas and 70% households in slum areas of Puri, Bhubaneswar and Cuttack cities have no food stock left. As shown in Graph 4, 87% of households in the affected villages reported a stock for just one week.
- About 20% of households in urban slums and rural areas of Puri district reported that they did not take any or adequate food for three days and have nothing to cook and eat. Most of such households reported that they were sustaining with raw coconut or palm. Many households also reported that fallen mango, papaya and jackfruit had been their only food for two days following May 03.
- In all places, including urban areas, food availability has decreased due to (i) loss of stored food materials, and/or (ii) unavailability water and power, and/or (iii) rise in price of vegetables and other food materials, or and/or (iv) serious disruptions to markets or supply chain.
- Kitchen and backyard gardens - having plant, crops and species like banana, papaya, drumstick, peas etc. - have been totally destroyed in Puri district and have been substantially destroyed in other three districts. This has totally or

Graph 4: Food availability at HHs in the affected area



Graph 5: Are there significant changes in the total amount of food?



substantially destroyed easily and cheaply available food and nutrition supplement.

- Many shops and markets have been extensively damaged. This has seriously affected access to income and food. Many households reported that they do not have money to purchase food and/or are not being able to purchase as shops and markets are close or price is too high.
- In about 30% of the villages, the Anganwadi centers had suffered damages. This has impacted food and nutrition access of children and lactating mothers. In about 35% of villages and slums of urban areas, mothers of infant and small kids informed of no or very little child/infant food stock. However, in 65%

of villages the Anganwadis were functional.

Actions needed

- Free supply of cooked food to families whose houses have been totally damaged for at least 15 more days.
- Urgent restoration of all Anganwadi centres and supply of nutrients to children and pregnant/lactating mothers.
- Run Mid Day Meal, even though the schools are in vacation, in schools of affected villages.
- Provide ration, including cereal, pulses and oil etc. to affected household.
- Additional supply of nutrient supplement to children and lactating mothers.
- Financial and material support for restoration of backyard/kitchen gardens.

B.4 Livelihoods

Situation Analysis

- Most plantations (cashew nuts, coconut, beetle leaves and banana plantations) have been strongly affected. Coconut plantations will take 5 to 10 years to be fully restored and around 6 months for beetle leaves as they need to be replanted.
- Vegetable and paddy crops have suffered severe damages, included the harvested paddy (storage houses damaged)
- 70% of small shops and businesses have been severely damaged.
- Many people have lost track of their livestock, once they left home to take shelter.

- Fishermen communities have been severely impacted by the cyclone, as most boats are severely damaged or destroyed as well as nets. Few months will be needed to restore their livelihood.

Daily Wage Earning

- 100% of Daily Wage Earners have lost total or significant income opportunities for two primary reasons, (i) they are totally engaged in repairing the houses or protecting their families as their houses have been destroyed, and (ii) employment opportunities in the sectors in which they were engaged - such as agriculture, shops, construction etc. - have been badly damaged, and thus, are close.

Agriculture and horticulture

- 100% of banana crop totally damaged in all four districts those were assessed.
- Coconut is the most important source of income in Puri district and provides substantial income to farmers in other three districts. About 40% of coconut plant in Puri district have been destroyed. Coconut plantation will take at least five years to regenerate and revive.
- Bettle-vine is another important cash crop in all the four districts assessed. All bettle-vine plantations have sustained serious damages.
- More than 50% of cashew plantation have been damaged. It will take up to five years to restore.
- Mango and jackfruit trees were in fruit bearing stages. Damages to such plants have been extensive and loss to fruits is near total.

- Paddy crops in Puri district were in harvest stage. About 40% of the crop had been harvested. The rest, 60% of paddy crop, have been totally damaged. About 20% of harvested paddy have also been destroyed due to damages to the houses where they were stored.
- Pulses and vegetables are important crops in all four districts. More than 80% of such crops have been damaged.

Fishing

- Fishermen communities in Chilika and along coastal areas in Puri and Jagatsinghpur districts have permanently lost 10% of their boats. Such boats have either been lost or are irreparable.
- About 30% of total boats require major repair.
- All fisherman households reported that they have lost 40% to 80% of their fishing nets.
- All fishing community habitations have been totally destroyed. These fishing communities will require at least a month or more to venture into fishing again. This is likely to seriously impact that income and food security.

Business

- Most of small shops have been totally damaged in Puri districts and partly damaged in other districts. This has not only adversely impacted income opportunity for about 30% of rural households but also has caused significant losses to them.

Livestock and Poultry:

- About 80% of rural households in Jagatsinghpur and 40% to 80% households in rural areas other districts keep cows. Their income has been affected as milk production has reduced and milk procurement by companies have stopped or reduced.
- Availability of food and fodder for cows have been impacted due to damages to storages and engagement of owners in other revival activities.
- While no reports of death to cow or buffalo have come across, most villages reported losses to domestic hens. However, this loss is not very significant.
- All poultry farms have been totally or partly damaged and serious losses have been reported in all four districts.

Actions needed

- Income support to all fishermen households for one month.
- Financial support for repair of boats and purchase of fishing net to affected fishermen households.
- Create immediate scopes for wage earning through MGNREGS, cash for work and similar schemes.
- Create temporary income earning opportunities and integrate skill mapping, livelihoods linkages in the ongoing restoration and infrastructure rebuilding exercise.
- Skill mapping in Gram Panchayats and integrating with restoration plan (including house construction, road building, agriculture and horticulture etc.)

- Cleaning of agriculture waste and debris.
- Facilitate insurance claims and early payment of crop insurance.
- Immediate disbursement of compensations announced by the government.
- Support to affected farmers for revival of banana, cashew, bettlevine and coconut crops.
- Financial support for rebuilding and restoration of business of affected shop owners and poultry farmers.

B.5 Education

Situation Analysis

Disasters have a major impact on children and education systems by destroying school infrastructure and material. School are child-friendly safe places, important for psycho-social well-being of children, especially in post disaster trauma recovery. Quality education in emergencies is viewed as secondary when compared to the provision of vital items and services, although it importantly impacts community resilience in the longer term.

This being the summer vacation for schools and the interim period for progression to the upper classes, the impact on primary education has not been given very serious attention in this assessment. Some broad observation during this assessment were:

- Few schools have sustained damages to their infrastructures

and properties. The damages have been of minor nature.

- Students of poor households with *Kutchha* houses have lost books, copies and study materials. This has mostly impacted students of higher classes.
- Cycles of some students have been damaged. However, such losses are not very extensive.
- Since the schools are closed, the Mid Day Meal (MDM) supply are also closed. It has closed the possibility for students to have good food.

Actions needed

- Start MDM in schools of affected areas.
- Supply support for books and study materials, mostly to secondary and higher level student.
- Assess damages to school teaching learning materials.
- Repair of damaged school buildings.

B.6 Health

Situation Analysis

Due to road inaccessibility and poor communication networks, it is a big challenge for the community to receive immediate health care. An overall 60% decline of access to health is reported. This is attributed to lack of health camps and damage to health centres. Water

contamination concerns are rising as water is being drawn from open wells.

- Almost all pregnant women have been shifted to hospitals or deliver points. This is a commendable achievement.
- No District, PHCs and CHC centers were in 100% functional state because of unavailability of energy supply or damages to infrastructures. Part of Puri district headquarter hospital building has sustained damages. However, patient care has not been affected much. Damages to false ceilings in Puri district head quarter hospital indicate how our buildings have failed to properly integrate risks.
- Injured persons are being provided treatment in hospitals.
- Regular vaccination activities have been affected. Mobile health services have been hugely affected, largely because of obstruction in road communication.
- Health vulnerabilities of women have increased. The assessment did not find special support for special needs of women such as menstruation hygiene.
- Exposure to high heat has seriously increased for almost all population in affected areas, more so of those who have lost their dwellings. This is going to pose very serious threat in the

month of May and first fortnight of June.

- Decomposition of debris and contamination of water sources has increased threats of mosquito bites and diarrhea.

Actions needed

- Supply of clean water, water disinfectants.
- Supply of glucose, ORS etc.
- Debris cleaning and safe disposal.
- Mobile health check-ups and health camps.
- Temporary supply of clean drinking water at public places.
- Provision of shade at public places.
- Repair and renovation of hospitals and medical centers. Free treatment to seriously injured persons and income.
- support to households with seriously injured persons.
- Supply of medicated mosquito nets in affected villages.

B.7 Protection

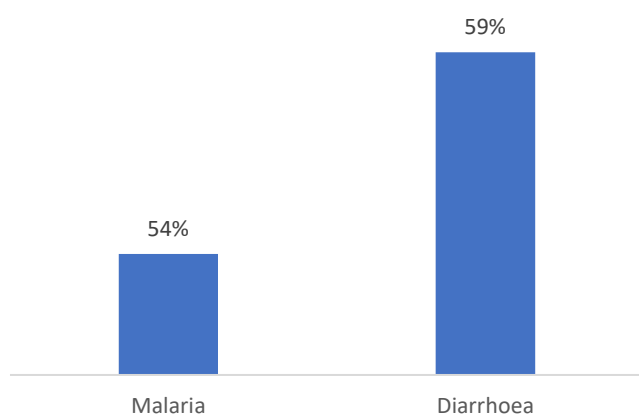
Situation Analysis

Men, women and children are staying together in temporary or permanent shelter buildings, without enough privacy and adapted infrastructures. In most of the areas, there was no incidence of conflict and violence, but frictions are being observed related to:

- religious identity: Muslims and Hindus refused to share shelters
- health status: people affected with leprosy were discarded access to the shelter
- caste system: scheduled castes reported having access to only a limited amount of food
- gender: women have seen their amount of daily intake drastically decreased as they prioritize children and males working on manual labor. Domestic violence seems to be increasing due to heavy consumption of alcohol.

Also, assessment teams as well as authorities reported cases of disputes and riots during distribution of relief materials.

Graph 6: Major health concerns after the disaster



- Not much information could be obtained on offenses against women and children. But the assessments teams do fear a rise in offences against women and children; and increased human trafficking. These aspects need deeper assessment.
- There is a general perception among women that they have become more vulnerable due to lack of light and loss of secured dwellings.

- Children staying in shelters and in open have become vulnerable.
- Reports of law and order problems have already surfaced from many places. Aggrieved people, complaining lack of relief and support from government, have resorted to violence and road blocks at many places. Delay in providing relief and immediate support is causing anger in public.
- The assessment teams did not deeply look into extent of looting and theft. But loot and theft have been reported from shops.

Actions needed

- There is a need for provision of cubicles for women and adolescent girls for privacy during bathing and for menstrual hygiene practices.
- There is a need for creating Child Friendly Spaces to ensure protection of children.

Some issues that required immediate attention and action

Heat wave: This is the month of May. Very high temperature and heat wave is likely to escalate. Damages to houses and tree cover will escalate the threat further. There is an urgent need to address heat stroke threat.

Food and Nutrition:

Many poor households, who are dependent on daily wage, have lost income. There is a need to provide them food support to enable them to focus on repair and reconstruction of their houses and properties. Currently schools are close for summer vacation. The MDM should be started in the affected areas. This will help a lot as children from poor background, whose houses have been damaged, mostly read in government schools.

Power Supply: Extensive damages to power supply infrastructures is likely to take weeks to restore. This is going to be a major challenge. Alternative lighting and energy sources for drinking water supply, addressing heat, cooling, irrigation, and revival of normalcy is required.

Road Communication: There have not been much damage to road infrastructure but roads have been blocked at many places. Blockages have been cleared from most of the important roads but many roads are still blocked.

Telephone Communication: Telephone and mobile network is severely down in most places, including Bhubaneswar, Puri and Cuttack city. This has seriously impacted communication and coordination which is very important for relief and reconstruction.

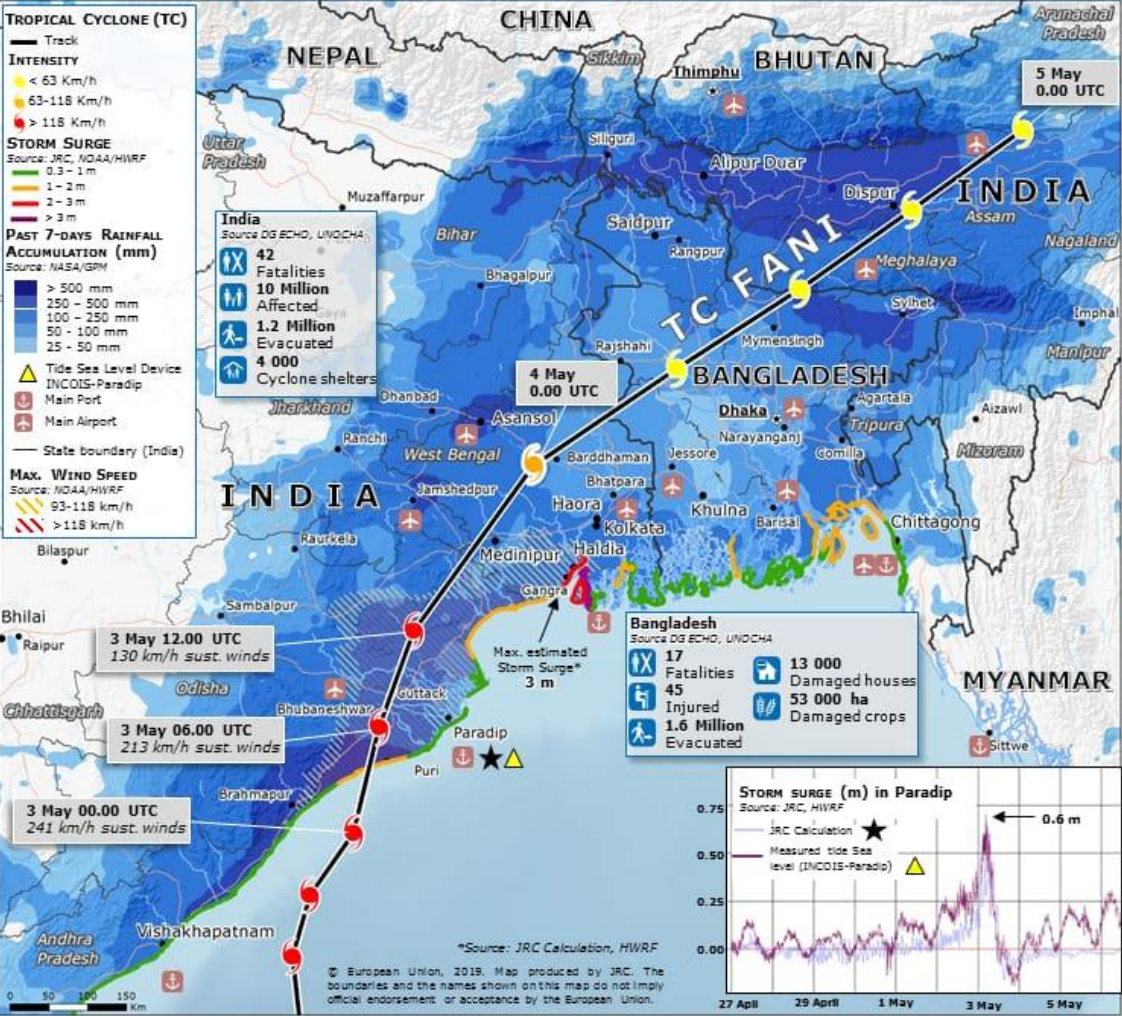
Planned actions by IAG members

The IAG had a series of meetings with the Special Relief Commission (SRC) and MD, OSDMA. Special emphases has been given on GO-NGO coordination at the state as well as the district levels. District level coordination has already started in Puri district. The office of SRC has issued circulars for opening of GO-NGO coordination cells in all districts. IAG will provide support to such coordination cells.

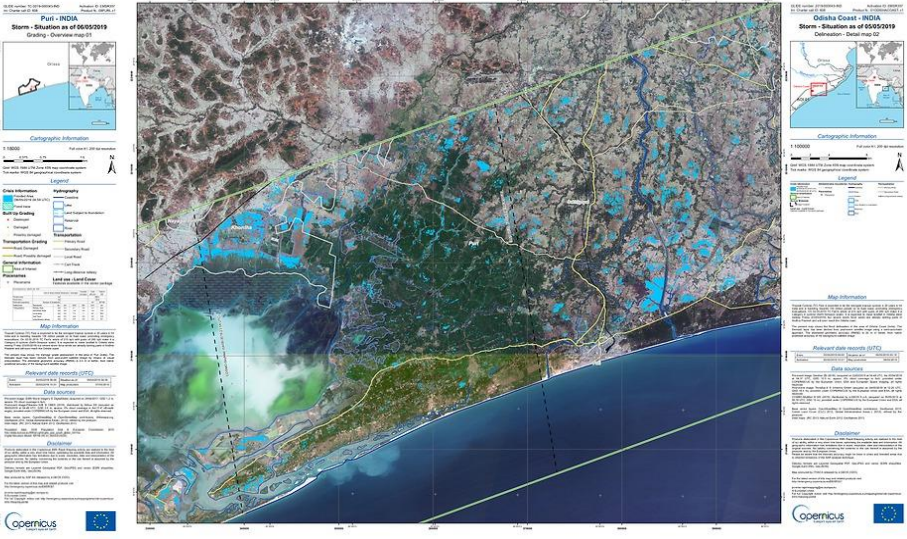
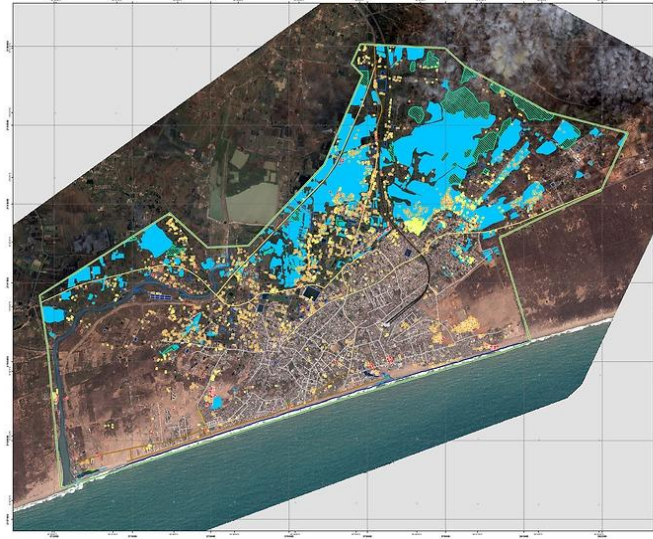
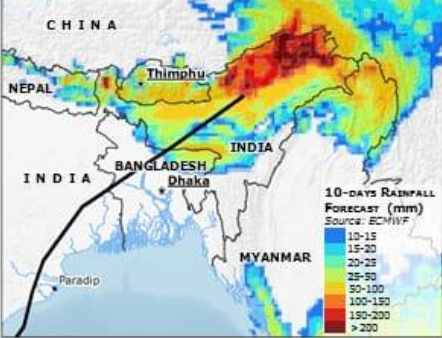
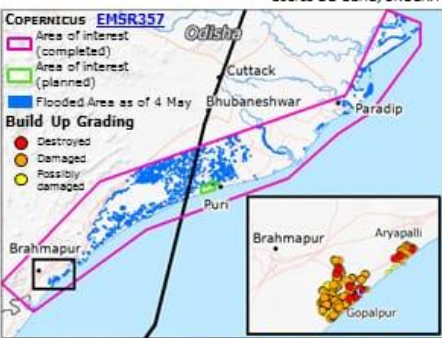
The IAG has prepared a unified response matrix where all its constituents have provided information on the Panchayats and villages where they have planned to intervene. IAG will finalise the villages to intervene and allocate villages to its member agencies very soon. The immediate focus is relief.

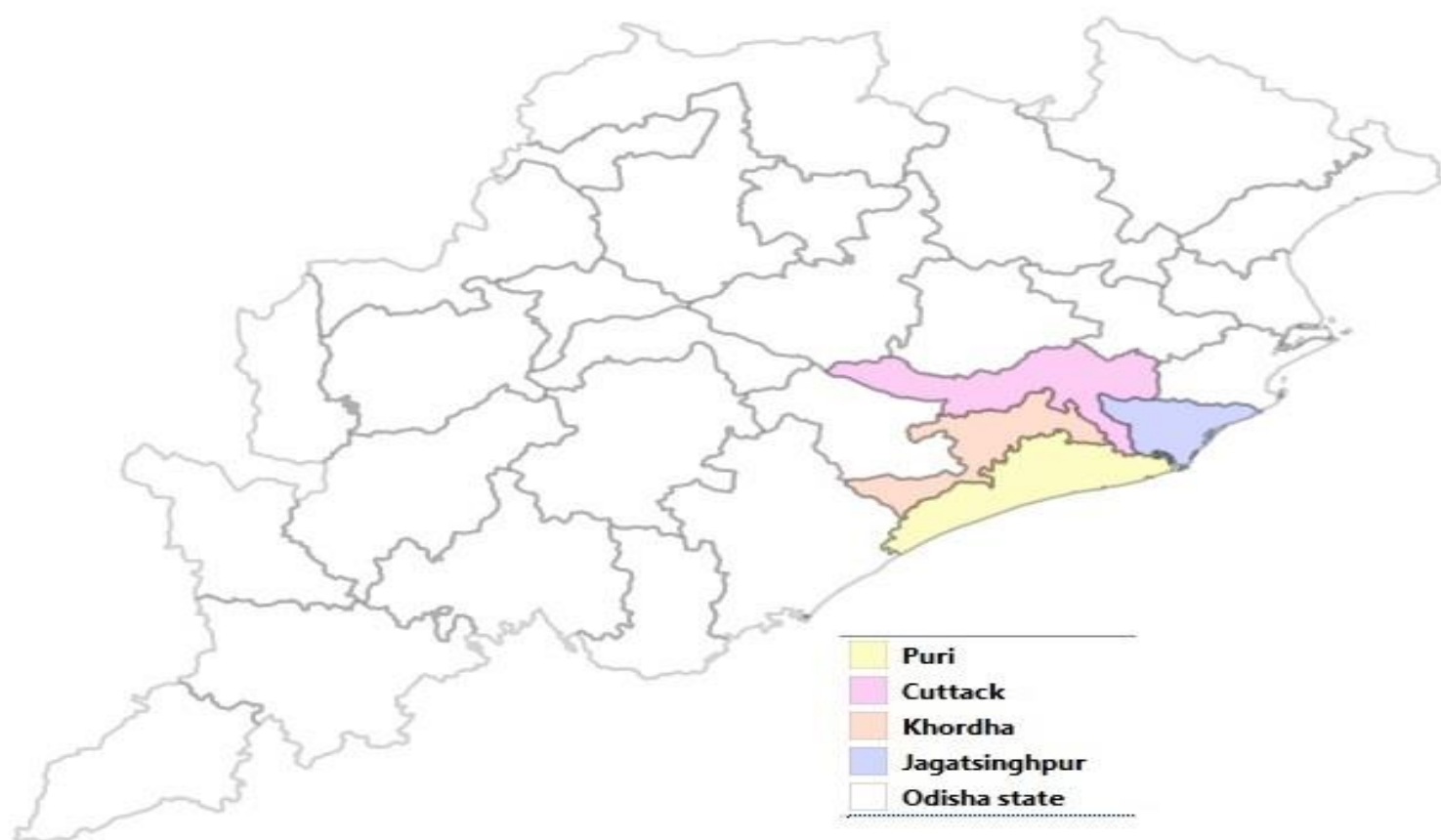


India, Bangladesh | Tropical Cyclone FANI



- Following the passage of Tropical Cyclone FANI, over north-eastern India and western Bangladesh on 3-5 May, the death toll and the damage has increased.
- As of 6 May at least 42 people have been reported dead in Odisha (India) and another 17 in Bangladesh. Odisha state has been the most heavily affected by the passage of the Tropical Cyclone, with electricity and infrastructure being massively damaged. According to Indian national authorities, all families in the districts of Puri and Khurda (Odisha State) have been "extremely severely affected" and aid and restoration work is underway across in north-eastern states of India.
- In Bangladesh, 13 000 houses have been damaged across the country and national humanitarian aid is assisting affected families.
- The early evacuation of 1 million people in India and 1.6 million in Bangladesh prevented a higher number of fatalities, considering the Cyclone's severity.





Annexures 1

STATE EMERGENCY OPERATION CENTER (SEOC), BHUBANESWAR, ODISHA

Situation Report on Extremely Severe Cyclonic Storm – 'FANI'

Date: 09.05.2019, Time: 10.00 AM

1. Impact/ Extent of Damage: (Information received so far)

- 14 Districts affected namely Angul, Balasore, Bhadrak, Cuttack, Dhenkanal, Ganjam, Jagatsinghpur, Jajpur, Kendrapara, Keonjhar, Khordha, Mayurbhanj, Nayagarh and Puri.
- 159 no. of Blocks affected.
- 51 no. of ULBs affected.
- 16659 no. of Villages affected.
- 1,50,93,513 Population affected.
- 5,08,467 Houses damaged
- Livestock Affected: 84,13,266 (LA- 24,40,735, SA-9,88,589, Poultry-49,83,942)
(Mistake was noticed in earlier reports)
- Livestock Casualty 26,15,738 (LA- 1559, SA-1481, Poultry- 26,12,698)
- 41 no. of Human Casualty have been reported so far (district wise details given below)

Sl. No.	District	Casualty Reported
1	Puri	21
2	Kendrapada	03
3	Mayurbhanj	04
4	Jajpur	04
5	Cuttack	05
6	Khordha	04
	Total	41

- 05 Nos. 400 KV towers, 27 Nos. of 220 KV towers, 21 Nos. 130 KV towers have been damaged in the cyclone. 04 numbers of 220 KV Grids at Chandaka, Bidanasi, Samagra,

Mendhasala and 4 numbers of 132 KV Grid at Puri, Nimapada, Mancheswar and Ransinghpur have been damaged.

- 5030 Kms. of 33 KV lines, 38613 Kms. of 11 KV lines, 11077 nos. of distribution transformers, and 79485 Kms. of LT lines damaged.
- In Puri district extensive damages have occurred to kutchha houses. As per report received so far 1,89,095 no. of houses damaged in Puri. Structures of temporary street vendors have been completely damaged. 160 nos. of people injured and admitted to hospital for treatment. Special Circuit House Puri, Office and Residence of SP and Collector have been badly damaged like many other buildings.
- Huge numbers of trees have been uprooted resulting in disruption of road communication. Khordha and Bhubaneswar city have been severely affected.
- In Bhubaneswar 03 persons injured and hospitalized.
- 04 persons in Kendrapada grievously injured and hospitalized.
- Power supply snapped due to uprooting of electricity poles, damage to substations and transmission lines.
- Telecom towers have been affected resulting in cellular and telephone network down in wide area. All telephone and cell phones are down in Puri district. Telephone and mobile connectivity has also been severely affected in Khordha including Bhubaneswar city.
- Summer crops, orchards, plantations devastated in a large scale.
- Traffic was disrupted in all the PWD roads of Cuttack, Jagatsinghpur, Kendrapada due to up-rooted trees, debris and electric poles.
- 1031 number of public health facilities (MC & H/ DHH/ SDH/ CHCs/ PHCs/ Sub-Centers) damaged.
- 5244 number of Primary School Buildings and 1547 number of secondary school buildings damaged.
- 980.69 km. of River/ Saline Embankments have been damaged.
- 50% of the plants have been damaged in Bhubaneswar, Cuttack, Jajpur and Paradeep.
- 65 no. of Cashew fields in Khurdha, Cuttack, and Jajpur damaged.
- 180 number of Higher Education Institutions severely & 90 numbers of HEIs partially damaged.
- 227 no. of breaches, 5596 kms length of road, 326 no. of culverts have been damaged in PWD roads. 556 no. of roads blocked due to uprooted trees, electric poles & wires, cyclone debris.
- 9693.25 kms. of RD roads and 4610 buildings have been affected.

- 3290 no. of Community Lift Irrigation Projects have been damaged in Puri, Khordha, Cuttack, Jagatsinghpur, Kendrapada, Nayagarh.
- 2364 no. of PWS affected in Puri, Khordha, Kendrapada, Jagatsinghpur, Cuttack, Bhadrak and Jajpur.
- In fisheries sector, 6321 no. of Traditional Marine Fishing Boats, 7044 no. of Nets, 2524 no. of fish ponds of area 587 ha., 3 nos. of fishing harbours, 06 no. of fish landing centres, 05 no. of fish farms, building and other infrastructures have been fully/ partially damaged.

2. Action Taken:

- Clearing of roads is going on.
- Power restoration process is in full swing.
- Road communication in Ganjam and Gajapati completely restored. Road clearance and restoration works in other districts including Bhubaneswar city is going on.
- Considering the serious disruption of electricity supply, road communication, telephone and mobile connectivity, additional support has been rushed for immediate restoration. Additional teams for road clearance, police for Law and Order, distribution of dry food such as Chuda and Gud, Polythene mobilized to the district.
- 14,70,197 Persons evacuated and sheltered.
- 24,889 numbers of tourists safely evacuated from Puri, Ganjam, Cuttack and Balasore districts.
- 2398 number of polythene rolls from Gajapati district and 3200 rolls from Ganjam district, 600 rolls from Rayagada, 225 rolls from Jharsuguda, 530 rolls from Dhenkanal and 545 rolls from Nuapada sent to Puri.
- 600 rolls of polythene from Balangir and 200 rolls from Baragarh sent to Cuttack district.
- 500 rolls of polythene from Mayurbhanj, 350 rolls from Keonjhar, 300 rolls from Jharsuguda, and 800 rolls from Koraput sent Khordha district.
- Train services resumed to normalcy from Bhubaneswar on 05th may.
- Dairy plants are fully operational in Bhubaneswar. 25 mobile milk units and 06 e-carts of OMFED are supplying milk in Bhubaneswar.
- 15889 packets of relief materials (Chuda, Gur, Biscuit, Candle, Match Box & Salt) handed over to Puri, 4632 packets to Khordha and 800 packets to E. Co. Rly.
- 1.15 lakh water pkts. and 1.5 lakh chlorine tablets dispatched from Pondichery to Bhubaneswar.
- 70,27,447 lakh messages on post disaster precautionary measures have been sent to 14 affected districts through LABAS from SEOC.

Health:

- 703 no. of MRCs opened.
- 199 number of Mobile Medical Teams Deployed.
- 1945 numbers of pregnant women shifted to Maa Gruhas/ Delivery points.
- 9482 number of open water sources disinfected affected areas.
- 2854947 number of ORS sachets distributed.

- 2386259 number of Halogen Tablets Distributed.
- 47 number of doctors deployed from outside to Jagatsinghpur, Kendrapada and Puri.
- 3565 number of cleanliness drives initiated by GKS/ others.

Veterinary:

- 1138 no. of Veterinary camps organised.
- 64,141 animals treated.
- 1,16,650 vaccinations done.
- 26,15,738 carcass disposed.
- 322 no. of veterinary doctors, 1094 Para-Vets & supportive staff have been engaged for ensuring Health Care measures in flood affected areas.
- A total 946.00 MT of cattle feed have been supplied to cyclone affected districts i.e. 109.00 MT in Cuttack, 376.00 MT in Puri, 191 MT in Jagatsinghpur, 267 MT in Jajpur & 3 MT in Kendrapada district.
- Rapid Response Teams have been formed (34 in Puri district, 03 in Khordha, 33 in Cuttack) to provide necessary Veterinary services.
- 35 Veterinary Officers from the Directorate as well as other veterinary institutions have been deputed to 36 blocks of 3 severely affected districts named Puri, Khordha & Cuttack for monitoring/ supervision of post cyclonic activities, proper disposal of carcasses.

Drinking Water:

- Required no. of DG sets hired and moved to the affected districts.
- Team of officials from adjoining districts deployed in most affected districts like Puri, Khordha and Cuttack for assisting the District Administration.
- Normal water supplies in affected ULBs have been restored except Konark, Puri and Nimapara of Puri district; Jatni, Khordha and Bhubaneswar of Khordha district and Cuttack Municipal Corporation of Cuttack district.
- In ULBs of Puri, Khordha and Cuttack where normal water supply is yet to be restored, 339 no. of tankers, 214 no. of DG sets and 1029 no. of PVC tanks deployed for ensuring water supply.
- Rural- 1550 PWS out of 2364 operationalized through Gensets (542) and through electrification/ solar (1008). Water supply have also been ensured through 464 no. water tankers.

Energy:

- Restoration works have been started by engaging 200 work man gangs mobilized within the State.
- Approximately 200 no. additional gangs have been mobilized from Andhra Pradesh and West Bengal through Partner Agencies such as L & T, TATA Power, PGCIL and NTPC.
- Arrangements have been made for quick procurement and delivery of poles from SAIL for steel poles and State based agencies for PSC (Cement Poles). Distribution transformers are being arranged through Odisha based manufacturers. Other minor material is also being arranged from local sources. In case of any additional requirement of sources from neighbouring States would be tapped.

- The Department of Energy have notified 1.5 times of prescribed wage rate for skilled, semi-skilled and unskilled labourers in cyclone restoration work so as to attract more no of competent gangs from within and outside the State. Fooding wage Rs.150 per person per day has also been prescribed.
- Out of 25,05,556 affected consumers in Angul, Dhenkanal, Cuttack, Puri, Nayagarh, Khurdha, Kendrapada, Jagatsinghpur and Jajpur electricity have been restored to 5,06,180 consumers.
- 263 gangs are engaged for restoration works.

Rural Development:

- In Puri district 64 roads cleared out of 560 affected roads.
- In Khurdha all roads cleared except 11.
- In Jagatsinghpur all roads cleared except in 3 blocks.
- In Cuttack all roads cleared except 11.

Assistance by Indian Coast Guard:

- Clearing of roads and distribution of medical supplies in Puri.
- Distribution of food packets and potable water at Naugaon and Dhanaria.
- Distribution of food packets at Girang Nuasahi, Gaudabadpur and Sunati Village.
- CG helicopter distributed 200 packets of food/ relief material in Konark and Puri
- CG helicopter dropped 400 packets of food/ relief material at Harachandi and Brahmagiri.
- Assistance in restoration of amenities.
- 02 Medical camps have been established by ICG teams at Plashpur (Paradip) and Harachandi & Brahmagiri (Puri)

3. Deployment of Response Forces and others.

- 20 ODRAF units have been deployed for SAR and road clearance in the affected areas (Puri-08, Bhubaneswar-7, Khordha-2, Cuttack-3)
- 44 NDRF teams have been deployed for SAR and road clearance in the affected areas (Puri- 14, Jagatsinghpur- 02, Bhubaneswar- 21, Khordha-02, Cuttack-04, Balasore- 1). NDRF teams have cleared 2059 Km road, 6664 no. of uprooted trees, 946 electric poles and provided medical assistance to 1448 persons so far.
- 245 Fire Teams have been deployed for SAR and road clearance in the affected areas of Puri, Jagatsinghpur, Bhubaneswar, Khordha and Cuttack.
- 40 teams of OFDC engaged for road clearance and tree cutting in Bhubaneswar City.

4. District/ ULB Specific Action Taken:

Puri:

- 70% affected roads have already been cleared.
- Restoration of 132 KV Puri Nimapada line is going on.
- 32 no. of Medical teams deployed.
- 32 no. of medical relief centres opened.
- 34 no. of Veterinary teams deployed.

- 2799.82 Qtl. of Chuda, 468.1 Qtl. of Gur and 30280 polythene sheets have been distributed.

Khordha:-

- All PWD Roads cleared. Uprooted trees have already been cleared from all major roads
- 22 no. of Medical teams deployed.
- 03 no. of Rapid Response Veterinary teams deployed.
- 152 free kitchens running for 19,426 people.
- Hon'ble CM's Package: as on 08.05.2019
 - ✓ Distribution of Cash Component- to 12884 families out of 278094 (4.63 %)
 - ✓ Distribution of Rice Component- to 16804 families out of 278094 (6.04 %)
 - ✓ Distribution of Polythene Component- to 12208 families out of 278094 (4.38%)
 - ✓ Distribution of Additional Monthly Pension Component- Nil

Bhubaneswar:-

- Traffic movement has been restored in all the PWD roads of Bhubaneswar
- Action is in full swing to clear all the up-rooted trees in the arterial roads.
- 27 JCBs with full teams are being engaged for restoration work.
- Distribution of relief package announced by Hon'ble CM, started in BMC area.
- Hon'ble CM's Package: as on 08.05.2019 (BMC)
 - ✓ Distribution of Cash Component- to 48015 families out of 104814 (45.81%)
 - ✓ Distribution of Rice Component- to 1236 families out of 104814 (1.18%)
 - ✓ Distribution of Polythene Component- to 48015 families out of 104814 (45.81%)
 - ✓ Distribution of Additional Monthly Pension Component- Nil

Cuttack:

- Presently 30 % area of Cuttack City has been electrified.
- The power supply in 90% of areas of Cuttack City will be restored by 09.05.2019 and 100% power supply will be restored by 11.05.2019.
- In rural areas 90% electricity restoration works have been completed in 03 blocks i.e. Badamba, Narasinghpur & Tigiria. 50 % restored in Athgarh, Banki and Dompada Blocks. Electricity restored to Block Headquarters of Tangi, Choudwar, Salipur, Nischintakoli Blocks.
- Sanitation works in Cuttack city has been scaled up by sourcing resources from many ULBs including Dhenkanal, Choudhar, Nayagarh and Paradip.
- In City area, 100% road connectivity restored. In rural area, 100% road connectivity is restored up to GPs.
- 50 Inflammable Tower Lights placed by CMC at Traffic Junctions.
- 29 no. of medical teams deployed.
- 33 no. of Rapid Response Veterinary teams deployed.

- 420 Qtls. of Chuda, 61.93 Qtls. of Gur, 38322 pkts. of biscuits distributed.
- Polythene sheets distributed to 8140 families.
- Hon'ble CM's Package: as on 08.05.2019
 - ✓ Distribution of Cash Component- to 40559 families out of 506994 (8%)
 - ✓ Distribution of Rice Component- to 40559 families out of 506994 (8%)
 - ✓ Distribution of Additional Monthly Pension Component- to 19386 beneficiaries out 276945 (7%)

5. Hon'ble Chief Minister's Package:

- The district of Puri and Khurdha have been extremely severely affected. For all families covered under Food Security, 50 KG of rice plus Rs. 2000/- and polythene will be provided.
- Cuttack, Kendrapada and Jagatsinghpur districts are moderately affected. Rs. 500/- plus additional one month quota of rice will be provided in these districts.
- In all the affected districts one month additional pension and house building assistance as per relief code i.e.
 - Rs. 95,100/- for fully damaged structures,
 - Rs. 5,200/- for partially damaged structures and
 - Rs. 3,200/- for minor damages will be provided.
- For all other affected districts, relief to be distributed as per NDRF/ SDRF norms.
- The houses completely damaged will be reconstructed under housing schemes expeditiously.
- Loss of Agriculture and horticultural crops and animal resources, fisheries will be assessed and compensated accordingly.
- Tree plantations will be taken up in mission mode soon after relief and restoration.

Ex-gratia Declared from PMNRF:

- Hon'ble Prime Minister has announced an ex-gratia from Prime Minister's National Relief Fund @ Rs. 2 lakh each for the next of kin of the deceased and Rs. 50,000/- each for the persons, who got seriously injured due to FANI cyclone in the State in 2019.

