

Early Response by CSOs and IAG  
Members to Cyclone 'Biparjoy' in the  
Gujarat Coast.

# Cyclone Biparjoy Early Response Report

Gujarat State



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## Cyclone Biparjoy: Early Response by CSOs and IAG Members

(This report is prepared by Ankita Devi with the Guidance of Kirit Parmar, Convener of IAG – Gujarat)

An area of low pressure was developed over the Southeast Arabian Sea on 5<sup>th</sup> June which is named as Cyclone Biparjoy. The cyclone's eye was reported to be 50 km wide (The Times of India, 2023). It gradually transformed into a severe cyclonic storm and then a cyclonic circulation as it continued its northwestward journey on 9<sup>th</sup> June. It is the season's first cyclone to develop in the Arabian Sea. The name 'Biparjoy' was coined by Bangladesh which means 'Disaster' in Bengali (Live Mint, 2023).

As per the forecast by the IMD, the very severe cyclonic storm Biparjoy turned into an extremely severe cyclonic storm at 5.30 am on 11<sup>th</sup> June. It is the second major cyclone to hit Gujarat after Tauktae in 2021. According to the state government, approximately 14,265,258 people residing in 78 Talukas and 5,381 villages across the districts of Kutch, Junagarh, Jamnagar, Porbandar, Devbhumi Dwarka, Gir-Somnath, Morbi, Rajkot, Banaskantha, and Patan were at risk due to cyclone Biparjoy.

Biparjoy made landfall on Jakhau port in Abdasa taluka of Kutch, Gujarat between 6 pm and 11 pm on 15<sup>th</sup> June 2023 with sustained wind speed of 115-125 km per hour gusting to 140 kmph and heavy rainfall (The Hindu, 2023) (The Times of India, 2023).



Pic 1: The path of the Cyclone (Source: Wikipedia)

**Table 1: Timeline of the Movement of the Cyclone, Situation in Gujarat, Early warnings and preparedness**

Date	Cyclone Situation	Warnings and Preparedness
12-06-23	<ul style="list-style-type: none"><li>The cyclone intensified into 'Extremely Severe Cyclonic Storm' with the wind speed of 150 kmph.</li></ul>	<ul style="list-style-type: none"><li>Orange alert issued in Kutch and Saurashtra.</li><li>Schools were shutdown till 15<sup>th</sup> June and all the onshore activities were restricted.</li><li>The coastal districts of Kutch, Porbandar, Devbhumi Dwarka, Jamnagar, Junagadh, and Morbi started evacuating residents who lived close to the sea, ceased fishing operations, and put up warning signs at ports.</li></ul>

		<ul style="list-style-type: none"> <li>In Devbhumi Dwarka, more than 1,500 people were relocated to safer locations while more than 3,000 people were evacuated from 31 villages in Porbandar.</li> <li>2 teams of NDRF and SDRF were deployed in coastal areas.</li> </ul>
13-06-23	<ul style="list-style-type: none"> <li>The powerful cyclone Biparjoy has weakened to a 'very severe cyclonic storm' from an 'extremely severe cyclonic storm.' Heavy rainfall and high wind storm witnessed.</li> </ul>	<ul style="list-style-type: none"> <li>In Kutch, 8000 people have been evacuated and moved to safer location. Additionally, 1.5-2 lakh small and big animals have been also shifted to higher places.</li> <li>The railways identified vulnerable sections on its network, including Bhavnagar, Mahuva, Veraval to Porbandar, Okha to Hapa, and Gandhidham area. Hence, the western railway short-terminated more than 50 trains and cancelled several trains for 3 days.</li> <li>30,000 people from coastal areas shifted to temporary shelters.</li> <li>The Indian Coast Guard (ICG) evacuated a 50-member crew of a jackup rig in Gujarat.</li> </ul>
14-06-23	<ul style="list-style-type: none"> <li>In Porbandar, several trees have been uprooted and traffic disrupted.</li> <li>In Dwarka, more than 20 electric poles got uprooted and some kutcha houses got damaged</li> </ul>	<ul style="list-style-type: none"> <li>Red Alert Issued in Kutch and Saurashtra.</li> <li>Western Railway reported that a total of 69 trains have been cancelled, 33 trains have had their journeys cut short, and 27 trains have had their journeys cut short out of caution.</li> <li>The government evacuated nearly 76402 people living near the sea in eight districts of the state.</li> </ul>
15-06-23	<ul style="list-style-type: none"> <li>Cyclone Biparjoy approaches towards the Kutch coast in Gujarat (less than 200 kms away) with wind speed 125- 150 kmph.</li> <li>Rough sea conditions in Mandvi was observed.</li> <li>It is Heavy to very heavy rainfall in Dwarka and Porbandar.</li> <li>The cyclone made landfall on Jakhau port in Abdasa taluka of Kutch between 6 pm and 11 pm with sustained wind speed of 115-125 km.</li> </ul>	<ul style="list-style-type: none"> <li>The administration has shifted people from nearly 120 villages located between zero and 10 km from the seashore in Kutch district.</li> <li>More than 47,000 people shifted to shelter homes in the Kachchh district.</li> <li>All pregnant women moved to hospitals and other safe locations. Dwarkadhish Temple in Devbhumi Dwarka.</li> <li>Around 21 Disaster Response Teams are deployed across Gujarat.</li> </ul>
16-06-23	<ul style="list-style-type: none"> <li>Heavy rainfall and wind storms were observed around Kutch, Dwarka, Morbi.</li> <li>The Mangrol region in Junagadh was flooded.</li> </ul>	<p>In Kutch:</p> <ul style="list-style-type: none"> <li>54,229 have been evacuated including 414 children, 1399 elderly, 552 pregnant women and 4509 saltpan workers.</li> <li>69 Ph.C., 3 S.D.M. 16 C, HC, have been formed.</li> <li>20 Medical Officers have been deployed from other districts</li> <li>90 Doctor's arrangement and 1874 beds have been arranged</li> <li>552 pregnant women have been admitted to various hospitals. Out of them, 382 deliveries were performed successfully</li> <li>175 Ambulance were arranged.</li> </ul> <p>Overall, 1.08 lakh people were evacuated to shelter homes.</p>

Sources: News articles from The Hindu, Live Mint, The Times of India, The Indian Express, IMD, and Local contacts.

## Shelter Homes:

1,521 cyclone shelters were arranged for 2-4 days in the most affected 8 districts i.e., Junagarh-196, Kutch-173, Jamnagar-56, Porbandar-140, Dwarka-182, Gir Somnath-507, Morbi-31 and Rajkot 236 (UNICEF). Seven Multipurpose Cyclone Shelters (MPCS) constructed under National Cyclone Risk Mitigation Project (NCRMP) with the capacity of 500 people were utilised. These are:

1. Okhamandal, Dwarka- Varvala MPCS,
2. Mandvi, Kutch- Maska and Mandvi MPCS,
3. Gandhidham, Kutch- Bharapar and Chudava MPCS,
4. Kalyanpur, Dwarka- Gangadi and Pindara MPCS.

Where, the IAG members actively assisted in three MPCS- Varvala, Maska, and Gangadi.

## Coordination with IAG Members and Other NGOs:

### 1. Identification of vulnerable districts and focal IAG members working in these regions:

The districts majorly affected by the cyclone are Kutch, Devbhumi Dwarka, Porbandar, Jamnagar, Junagarh and Morbi. However, the daily reports on the cyclone situation in Kutch, Dwarka, Morbi, Porbanda, and Jamnagar were prepared by UNNATI with the help of focal IAG members working in these regions. The information listed in table 2 shows the information of the district and taluka wise focal IAG members who worked actively throughout the cyclone.

### 2. Conducting Meetings with IAG Members operating in the affected regions:

UNNATI- IAG conducted two virtual meetings on 12<sup>th</sup> and 14<sup>th</sup> June with the IAG members and UNICEF for understanding situation status on Cyclone Preparedness of Coastal Areas in Gujarat which are Prone to Disruption due to Cyclone. It was attended by 48 and 23 members respectively, where 3 participants were from UNNATI. The IAG partners in different talukas of Saurashtra & Kutchh region shared the latest update on cyclone preparedness and existing gaps in coordination. The objective of these meetings was to assess the situation, strengthen coordination efforts in the region and channelise the right information to the right IAG partner organisation at the right time.

Additionally, on 13<sup>th</sup> June, another virtual meeting was attended by UNNATI with Kutch Navnirman Abhiyan (KNA) from Kutch region. It was attended by the representatives from different NGOs, Industries, and veterinaries which discussed on cluster wise monitoring. However, the meeting focused mainly on food, water, animal, health and sanitation.

**Table 2: List of Focal IAG members and their operation areas**

Sl. No.	District	Taluka	Name of the Focal IAG Members
1	Kutch	Lakhpat	SETU Abhiyan
		Abdasa and Mandvi	Vivekananda Research and Training Institute (VRTI)
		Bhachau	UNNATI, Bhachau

		Rapar	Gram Swaraj Singh Nilpar
		Mundra	Yusuf Mehroli Charitable trust
		Bhuj	Sahjeevan
		Bhuj	Khamir Organisation
		Bhuj	Kutvh Mahila Vikas Sangathan ( KMVS)
		Mandvi and Bhachau	Kutch Fruit Fodder Forest Development Trust (KFFFD T)
		Bhuj ( Banni area)	Srujan
		Bhuj ( Banni area)	Shroff Foundation
2	Morbi	Maliya	ANANDI
		Maliya	SAFAR organisation
3	Devbhumi Dwarka	Okhamandal and Kalyanpur	Gram Vikas Trust
		Okhamandal and Kalyanpur	Sankalp Trust
		Okhamandal and Kalyanpur	Shiv Hari Cheritable Trust
4	Porbandar	Porbandar	Prem Harsh Mnavata Trust
5	Gir Somnath	Veraval and UNA	HDRC Ahmedabad
	Gir Somnath	Gir Gadhda	Sikhsn ane Samaj Kalyan kendra ( SSKK), Amreli
6	All three Districts		Reliance Foundation Disaster Mangement, Unit Gujarat

### 3. Damage and Needs Assessment in Morbi and Kutch:

UNNATI Organisation for Development Education directly collected data on damage and need post cyclonic event from nine villages and Vandhs of Bhachau Taluka, Kutch Districts. These include- Surajbari, Jangi Vandh, Vandhiya, Cherai Vandh, Godpar, Ambaliyara, Tapal vandh, Amarapar, and Shikarpar. Additionally, it also visited ANANDI India (one of the IAG Members) in Maliya, Morbi to understand the post cyclone situation and experience of the organisation pre and during cyclonic event.

Although the cyclone did not cause major damages but the people living vandhs are affected which resulted in the disruption of their daily activities. They required basic utilities such as food (including dry ration) and water supply. The damage to houses (mainly kutcha and partially kutcha), schools and electric poles affected the population. Additionally, the nutrition, education, and sanitation are a problem in these regions both pre, during, and post disaster and hence need to be prioritised during recovery.

**Field Photographs of Kutch:**



Pic 2 and 3: Damage to electric pole in Jangi (left), Damage to door in Surajbari (Right)



Pic 4 and 5: Damaged roof of the houses in Jangi Kantha Vistar

**Table 3: Response by IAG and Local NGOs throughout the event**

Sl. No.	District	Taluka	Name of the Focal IAG Members	Early Warning Dissemination and Evacuation	Service at Shelter Homes	Role in Search, Rescue, Response, and First-aid	Relief Distribution		Post-Cyclone Assistance in Availing Compensation
							Food Items	Non-food Items	
1	Kutch	Lakhpat	SETU Abhiyan	20 villages were alerted regarding the severity of the cyclone where SETU visited 12 villages physically for warning and shifting the community to shelter home.	There were 8 shelter homes located at a distance of 20-40 km from the coastal villages. The facilities such as food, water, electricity, healthcare (including ambulance service), JCB, Tractors, Bus for transportation are arranged by the government authorities. People stayed for 3 days and 2 night and these facilities were adequate till the end.	Arranged community kitchen in different shelter home, cleared excessive water from the bathroom, and coordinated with Sahjeevan organization along with government for smooth functioning of the shelter home.	Around 2000 food packets were distributed to the affected people while they were returning to their home.	No relief materials provided yet.	Cash doles to all the affected villages.
		Bhachau	UNNATI	Early warning dissemination in 18 coastal villages. Facilitation in Evacuation specially to the Vandhs.	5 shelters. Coordination with local panchayat and mid-day meal functionary.			935 kits including tarpaulin, sanitation, hygiene. water supply in 3 vandhs (hamlets). 15 Kits for Anganwadi. 45 Water Storage tanks in vandhs and water supply through tankers in Vandhs.	Cash doles. Awareness for compensation and damage assessment in 18 villages through community visits.
		Rapar	Gram Swaraj Singh Nilpar				200 kits adesar vandh kolsa koli	200 Tadpatri to Pastoralist	
		Mundra	Yusuf Mehroli Charitable Trust	Information dissemination on warning and follow up warning in all kucchi basti in Mundra slums	Shelter provided to 5000 persons and arranged food for them		1000 Rations kits distributed	water supply by tankers at 12 locations and tarpaulins 200 pcs and 750 hygiene kits will be provided in the slums of Mundra	Information dissemination on cash dole and other benefits and IEC on sanitation and hygiene.

		Mandvi and Abdasa	Vivekananda Research and Training Institute	Mostly worked in Mod Kuba village. Warnings were disseminated through whatsapp group and proactively worked with the government in evacuation process.	Food and other facilities in the shelter homes were provided by the government. The service was satisfactory. Time to time food was provided to the residing population. VRTI coordinated with the government for better implementation of the shelter facilities.	Supported 10 villages through food kits and veterinary services. Free of cost Veterinary care was provided in Naliya, Jakhau, Banni, and Khauda region.	NA	Veterinary services were provided free of cost. Support to agricultural activities and animal husbandry. Collaboration with government and other agencies in damage assessment.	Cash doles
		Bhuj	Sahjeevan	Maldharis (pastoralist) were alerted since they were in open grasslands. 50 families were facilitated to shift to Shelter Homes.		First aid to injured animals. Registration for compensation of the dead animals	Around 55 ration kits to Maldharis		Coordination with local administration for compensation in three areas Banni, Nakhatrana,, and Bhachau.
2	Morbi	Maliya	ANANDI	They alerted the community regarding the severity of the cyclone. They shared information regarding the responsibilities of different authorities.	People were taken to the shelter homes. Dry ration were provided as per the budget of the organisation.	Collaborated with government, angandwadi and other for better facilitation in shelter homes.	Provided dry ration to shelter homes.		
3	Dwarka	Okhamandal and Kalyanpur	Gram Vikas Trust	Conveyed the information regarding the approaching cyclone and importance of safer shelter in Okhamandal and Kalyanpur.	Okha cyclone centre: over 45 families, and in Varvala: 95 families resided. The population mostly consist of fishermen, small shop keepers, and salt workers. Government with other departments(police, health, panchayat) provided food and water facilities for 2 days through mid-day meals. Reliance Foundation assisted with dry ration for 5 days.	Convinced people who were reluctant to shift to shelter homes. Cordinated with government for better facilitation. Community kitchen arranged for cooking and distributing food.	Working with CRY and Suzlon in relief distribution. CRY so far distributed dry ration to 103 families.	Suzlon in coordination with GVT, provided shelter kits to 100 families.  GVT installed temporary doors in Mahila Fisheries Mandali, Okha which were damaged by the cyclone. This place was later used as a shelter.	Cash doles were provided to the cyclone affected people who stayed in shelter homes for 5 days. Total Rs 500 was given to adults (Rs. 100 per day) and Rs. 300 to Children (Rs. 60 per day).

Source: These information were collected directly from the IAG Members through Telephonic conversation



## **Other National Organisation working with the IAG members for Cyclone Relief and Recovery:**

1. **ADRA, Delhi** is working with the Yusuf Mehroli Charitable Trust, Mundra, Kutch. They provided 780 hygiene kits in the Labour Colony (Kutchi basti).
2. **Save the Children, India**- Working in creating child friendly space in 4 locations in the coastal villages of Mandvi. They aim to reach upto 1200 families through hygiene, sanitation, and education.
3. **Goonj**-with the partnership of UNNATI, have distributed 535 shelter and hygiene kits in Bhachau, Kutch.
4. **Humanitarian Aid International (HAI)** is also working in partnership with UNNATI. They have provided 600 shelter kits- 400 kits in Bhachau, Kutch and 200 in Maliya, Morbi with coordination with Anandi- Maliya, Morbi.
5. **Manav Sadhna** of Gandhi ashram supported 1000 ration kits and 200 shelter kits in Kutch with the coordination with Yusuf Mehroli Charitable Trust (Mundra), Gram Swaraj Singh Nilpar (Rapar), and Khamir (Bhuj).
6. **Caritas, India** is still in process of finalizing the location and nature of support.

## **Challenges**

1. **Mapping of Vulnerable people living in the outskirts of villages:** The people living in the vadhds are affected mostly by the cyclone. However, it was one of the challenges to alert, evacuate, and respond to them. The area such as Jangi Kantha Vistar, where the total population is 85 comprised of fishermen and salt pan workers are affected but it was difficult to map them due to lack of documentation and connectivity.
2. **Immediate food arrangements at shelter homes:** Although the government have provided the food and other facilities in the shelter homes, some of the shelter homes still lacked food and water supply. Some of the shelter homes only provided ‘Ganthiya, boondi, and Shukdi’ as food for a few days. However, different NGOs provided them dry ration as per their capacity.
3. **Evacuation:** Another challenge was to convince people to shift to shelter homes. In Dwarka, the population of a few villages were reluctant to leave their home even if they were alerted of the ongoing cyclone and its severity. One of the reasons they cited was due to the fear of theft. Some of them told that it is a wedding season and hence they cannot travel so far leaving everything behind.

## Damage and Loss Assessment by SEOC, Government of Gujarat:

Sl. No.	Department Name	Items	Damages (in Quantity)	Amount (in Lakhs)
1	Revenue and Panchayat	Cash Doles	113952	349.03
		Ghar Vakhari (Household)	340	2.03
		Houses Damaged (Pucca- Fully)	19	—
		Houses Damaged (Pucca- Partially)	1674	35.85
		Houses Damaged (Kutcha- Fully)	101	2.75
		Houses Damaged (Kutcha- Partially)	5425	62.66
		Huts	752	6.2
		Cattle Shed	142	6.87
		<b>Total</b>		<b>465.39</b>
2	Forest	Building (in Nos.)	53	49.03
		Communication Structures	1	0.8
		Roads (in Km)	21	7.5
		Grass Godowns (in Nos.)	22	25.6
		Grass (in lacs kg)	289000	26
		Damage to Trees in Forest Area	532	133
		Damage to Trees in National Park/ Sanctuaries	219	54.75
		Damage to Trees in Terretorial/ Social forest tree plantation (in Nos.)	16775	167.75
		Damage to plants in Nursery (in Nos.)	169464	16.95
		Other Damages	1949	66.03
		Damages to Trees in Roads	6052	1513
		<b>Total</b>		<b>2060.41</b>
		3	Fisheries	Total loss to Trawler Boats
Total loss to FRP & other small Boats	3			0.8
Partially Damaged to Boats	258			34.3
Infrastructure	3			678
<b>Total</b>				<b>713.85</b>
4	Agriculture	Agriculture Crop Loss Area (More than 33% in Hectares)	14333.26	1934.99
	Horticulture	Horticulture Area (more than 33% in Hectares)	4876.01	854.81
		Uprooted Fruitful (in Nos.)	213663	—
	<b>Total</b>		<b>2789.8</b>	
5	Animal Husbandary	Death	3266	464.19
		Poultry	400	0.2
		<b>Total</b>		<b>464.39</b>
6	Education	Primary School (SSA)	569	2061.53
		Higher Education	—	—
		Technical Education	13	126.45
		<b>Total</b>		<b>2187.98</b>
7	Women and Child	Total AWC Damaged (in Nos.)	865	264.52
8	Water Resources	Schemes (in Nos.)	14	207.5
9	Food & Civil Supply	Godown	36	101.7
10	Health	PHCs/CHCs	8	16

Source: State Emergency Operation Centre (SEOC), Gujarat