



Managing the WASH Emergency Response and Recovery in the Aftermath of Cyclone Fani in Puri, Odisha, India

SUMMARY

Cyclone Fani hit Odisha on 3 May 2019. The UNICEF WASH team witnessed that the wind speeds were unprecedented and highly destructive, devastating 14 districts. It was found that among the most affected were villages in Puri district. To address this massive emergency, the WASH team at UNICEF Odisha, immediately started working with other organizations to support the government in effectively coordinating efforts to provide water and sanitation services to the affected population in Odisha.

This note is a diary of the reflections of UNICEF WASH team in response to their engagement in the recovery of Cyclone Fani in the state of Odisha in India.

Background

Puri, a coastal district in the state of Odisha in India, faces disasters almost every year that pose a huge threat to local communities and WASH infrastructures. Cyclone Fani hit Odisha on 3 May 2019. We witnessed that the wind speeds were unprecedented and highly destructive, devastating 14 districts. We found that among the most affected were villages in Puri district. The extensive damage to houses, the disruption of water supplies, as well as the partial and full damage to sanitation facilities presented a massive challenge for the Government of Odisha. Water supply was also majorly affected due to a power supply shortage.

Figure 1: Map of India with Odisha highlighted



Story

We know that challenges to the water supply arise often in the aftermath of any emergency, and the situation was no different when Cyclone Fani hit Odisha's Puri district in May 2019. We witnessed the extensive damage including the disruption of water supplies as well as partial and complete damage to sanitation facilities.

Water supply was also majorly affected due to a power supply shortage. To address this massive emergency, the WASH team at UNICEF Odisha, worked with other organizations to support the government in effectively coordinating efforts to provide water and sanitation services to the affected population in Odisha.

We first identified of utmost priority to provide an adequate quantity of water and to protect water sources from contamination (both at community as well as household level); doing so would be a pre-condition for reducing WASH risks and promoting good hygiene practices. Within 48 hours of the disaster, we made sure that the diesel generators were being used at pump stations to pump water through the piped water systems (source-based treatment interventions were also undertaken in the operational piped water supply) while affected populations in unreached areas were provided with drinking water through tankers (a large part of the affected population continued to rely on trucked water services primarily in the Kanas Block).

Figure 2: Provision of drinking water



We undertook other activities in the emergency response including water point rehabilitation, the management of water quality at the household/point of use level (promoted through NGOs and other organizations), and well disinfection (directly disinfecting all contaminated wells with chlorine to reduce microbiological contamination). Regarding well disinfection, while water quantity usually takes precedence over water quality in emergency situations, in this case various development organizations acted to promote water quality at the household and community level to ensure the maximum-level of water quality in the initial stages of the disaster response. We observed that there were instances of inadequate or excess chlorination (both which can lead to health hazards); self-employed mechanics in charge of piped water supply pumping stations were trained in the chlorination process (including correctly dosing and testing).

Figure 3: 3 Drinking water distribution supplies to RWS&S



The team in UNICEF Odisha worked with other organizations and the government to effectively coordinate efforts in providing water and sanitation services to the affected population. Our contributions included the following:

- We supported the provision of diesel generators and water tankers.
- We helped to manage the water supply system.
- We supported in hygiene promotion activities to ensure that water that was consumed is

safe. We sensitized communities to be aware of health risk through contaminated water. We attained this by involving all women, the elderly, children and the disabled.

- We distributed hygiene kits in severely affected areas helping ensure water safety at the household level (chlorine tablets were very effective in cleansing most bacterial and viral pathogens).
- We worked on preparing a WASH recovery plan through participatory methods (These documented approaches will be helpful in rebuilding the communities as well as building disaster risk resilience in WASH services).
- Our presence before, during and after the emergency provided support in integrating various services and developing a longer-term recovery plan to support a recovery strategy that would ensure the government's work is as efficient and effective as possible.

Figure 4: Provision of drinking water through mobile water treatment plant



Supporting WASH recovery

When we implemented the interventions, the Government highlighted that WASH recovery in

Puri district aims to: restore the disaster area to its original state of water supply and sanitation facilities (i.e. rebuilding destroyed property, infrastructure); sustain WASH practices; restore community management systems in water supply and sanitation systems; strengthen the capacity of relevant institutions (i.e. Village Water & Sanitation Committees, Gaon Kalyan Samitis (GKS)) with regards to WASH-related disaster management; be better informed for any future disasters; and reconstruct in a way that strives for a transformation that will prepare the affected communities to better face future hazards.

KEY STATISTICS

- *The Indian state of Odisha is situated in the eastern part of the country with an area of 155,707 square kilometres and a coastline of 480 kilometres.*
- *The state is divided into 30 districts, 314 blocks and 114 urban local bodies.*
- *Cyclone Fani destroyed more than a million homes.*
- *Approximately 16.5 million people in 14 districts and 16,659 villages were affected.*
- *Preliminary figures by the government estimate the cost of damage and loss were more than 120 billion INR.*

Moreover, the approach we took was to always ensure the functioning of all hand-pump tube wells and replace all defunct tube wells. It incorporates structural measures related to the operation and maintenance of the water supply systems so that breakdowns are less frequent, and the time needed for repairs is reduced. We initiated a mega-water supply project for Kanas Block to help people who face severe problems in getting clean drinking water. As we are aware that Puri is in a low-lying and flood-prone area, the construction of new, disaster-resilient toilets on raised platforms will be promoted. For re-building toilets, the government has approved 5,000 INR for each completely damaged toilet and 2,500 for each

partially damaged household toilet. Our other non-structural measures will focus on intensifying hygiene promotion through GKS and other forums at the village level. Additionally, the recovery process seeks to lead to transformational changes through institutional capacity building.

Challenges facing the WASH Recovery

The WASH recovery phase may face the following challenges:

- We understand that the magnitude, urgency, and number of stakeholders involved in the WASH recovery and reconstruction programme will pose major challenges for the government.
- We know that managing high expectations to restore lost assets and services while delivering robust and climate resilient WASH services requires going above and beyond the existing challenges posed by routine public service delivery.
- We also know that the capacity of the RWS&S department (in terms of repair and reconstruction of WASH infrastructure) varies across the district and will be challenged in implementing the recovery programme.
- Building the capacity to manage communal assets in Gram Panchayats and other field functionaries will be a challenge.
- A final challenge we pose will be defining a time frame for reconstruction implementation; reconstruction must be completed within a stipulated time to bring back life to normalcy.

Conclusion

Challenges related to water supply are bound to occur after any emergency and the same was witnessed in Odisha's Puri district where the

Cyclone Fani was hit. There was a disruption of water supplies accompanied by partial and complete damage in sanitation facilities. Water supply was severely affected due to a power supply shortage. As emergency response, activities such as water point rehabilitation, management of water quality at the household/point of use level and well disinfection were undertaken. UNICEF Odisha worked with local organizations and the government to effectively coordinate efforts in providing water and sanitation services to the affected population.

References

Government of Odisha, *Cyclone Fani: Damage, loss and needs assessment, Odisha, May, 2019*

Photo Credit

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