

### Mount Bagana Volcanic Activity

#### BACKGROUND

On 7 July 2023, Mt. Bagana located in Torokina district in the Autonomous Region of Bougainville (ARoB) in Papua New Guinea, experienced a moderate volcanic eruption that caused significant ashfall. The affected and at-risk communities, especially those living near Mt. Bagana volcano, have started evacuating to identified evacuation/care centres at Wakunai station in Central Bougainville and Piva station (Torokina) in South Bougainville. The evacuation has been undertaken in coordination with the Autonomous Bougainville Government (ABG). On 21 July 2023, the Papua New Guinea National Disaster Centre (NDC) reported that the emergency evacuation operation was ongoing, and locals were in the process of fully evacuating to the temporary care centers. This displacement profile presents findings from the Displacement Tracking Matrix (DTM) assessment conducted at Wakunai and Piva station care centres from 26-30 July 2023.

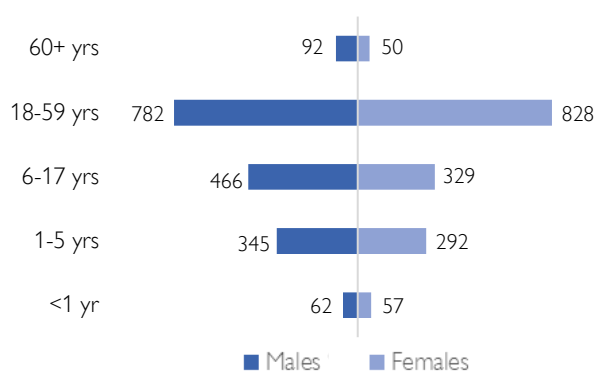
#### Map of the Affected Area



#### POPULATION DEMOGRAPHIC

In total, 3,303 displaced individuals from 724 households (HHs) were identified at Wakunai (1,500 individuals from 315 HHs) and Piva station (1,803 individuals from 409 HHs) care centres. Of these 3,303 Internally Displaced Persons (IDPs), 53 per cent were males, and 47 per cent females. The total number of IDPs is likely to increase as individuals that remained behind, including people living with disabilities and the elderly who were unable to walk the long distances of up to 11 kilometers, one way to the care centres, and men who remained behind to take care of their household belongings, join the evacuees when the necessary arrangements for transportation and safekeeping of household assets are made.

#### No. of IDPs by Gender and Age



*Disclaimer: This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration. © UN Migration/IOM 2023*



Photo: Displaced women and children sheltering in classroom at Wakunai Primary School. © IOM 2023/Mohamud OMER

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### PARTICULARLY VULNERABLE GROUPS

A total of 292 particularly vulnerable individuals were identified.

#### Percentage of Particularly Vulnerable People (n=292)

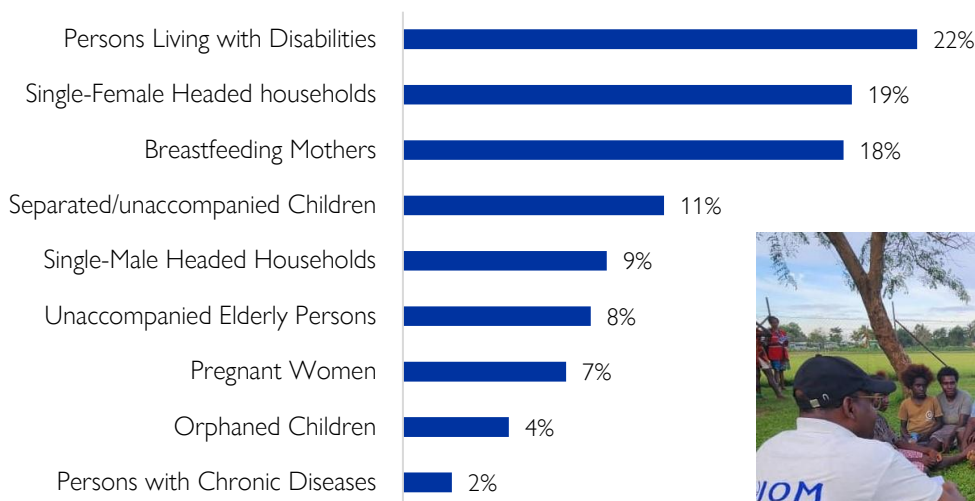


Photo: Bougainville Office for Disaster and Climate Change and IOM conducting displacement tracking assessment at Wakunai care centre. © ABG 2023

### PROTECTION

Due to the rapid response time, there is little known about the protection measures at the site. Verbal harassment of women by intoxicated youths was reported at Wakunai care centre. There were no reports of violence at Piva station against women and girls at Piva station care centre at the time of the assessment. However, the absence of privacy can compromise the dignity and safety of the affected population particularly in communal living spaces and temporary shelters. There is currently no referral mechanism in place for Gender-based Violence (GBV) survivors. It was reported that there is no lighting at the care centres. Insufficient lighting during the night can exacerbate safety concerns, making it difficult for displaced population especially women and girls to move around or access latrines.

Insufficient lighting can create an environment where it becomes easier for criminals or opportunists to target vulnerable populations, leading to an increased fear of assault, harassment, or violence, particularly for women and girls who may feel more at risk. Also, inadequate lighting, for example around latrines can result in a fear of reduced privacy, leaving women and girls feeling exposed and uncomfortable.

To address these fears and improve safety, efforts should be made to provide adequate and reliable lighting at the care centres, especially in places with latrines or communal facilities. This can help alleviate safety concerns, promote movements within the care centre, and create a safer environment for everyone, especially for women and girls.

It was highlighted during the assessment that the lack of transportation, especially for elderly people and people living with disabilities resulted in them being left behind as they were unable to walk long distances of up to 11km to the care centre.

Particularly vulnerable persons including pregnant women, lactating mothers, children, elderly, and people living with disabilities face heightened challenges in accessing safe water and proper sanitation facilities.

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### SITE MANAGEMENT AND ACCESSIBILITY

Following the arrival of the evacuees at the care centres, a Site Management Authority (SMA) made up of district authorities, and as well a Site Management Committee (SMC) consisting of district authorities, IDPs, host community, and Red Cross (for Wakunai care centre) were established. While the SMA is responsible for the overall day to day management of the care centre as well as coordination of assistance and services, the SMC is tasked with activities aimed at strengthening the capacities of the local authorities and complement some of the core activities of the SMA such as providing information on response and displaced communities.

The establishment of the SMA and SMC seek to collectively contribute to building effective collaboration with a diversity of stakeholders including IDP representatives, humanitarian partners, host communities and local authorities.

It was further noted that registration is conducted at the care centres, with a service provider contact list available. At present, only Wakunai care centre has mobile phone coverage. Both Wakunai and Piva station care centres can be accessed from Buka town by sea and road. It takes approximately 3 hours, and 6 hours to access Wakunai and Piva station care centres, respectively, from Buka town.

### SHELTER AND NON-FOOD ITEMS

According to the information from Wakunai SMC, an estimated 136 shelters belonging to the internally displaced persons (IDPs) (in the villages of origin) have been destroyed, largely due to strong winds that stuck their homes following the volcanic activity of Mt. Bagana. *“Our shelters have been destroyed and we have no hope of returning to our homes soon,”* noted an IDP woman.

Key informants and IDPs contacted during the assessments at Wakunai and Piva station mentioned the critical need for temporary shelter at the evacuation centres.

Most of the IDPs, especially women and children, are currently sheltered at the primary school in Wakunai (about 15-20 individuals per classroom). This has caused overcrowding and inadequate living conditions which pose health related risks.

Other IDP households (Wakunai and Piva station) are living in makeshift shelters, with some left exposed to the elements as they work on building makeshift shelters. Other households, especially those at Wakunai are living in traditional and semi-permanent shelters belonging to the host families.

The following were mentioned as urgent needs related to shelter and non-food items: emergency shelter kits (tarpaulins and ropes), bedding sets (blankets, sleeping mats), and kitchen sets (cooking utensils), and mosquito nets.



Photo: ABG, IOM and Red Cross conducting displacement tracking assessment at Piva station care centre. © ABG 2023

### FOOD SECURITY

Heavy ash fall has caused widespread damage to food gardens such as potato, taro, yam, banana, cassava, sweet potato, as well as traditional bush foods, thereby worsening the food insecurity situation of the affected population.

The ABG dispatched food rations including rice, tinned fish, biscuits, and sugar to Wakunai and Piva station care centres. Also, host communities and local business houses have supported the IDPs with food rations. However, the food supply is inadequate to cater to the increasing population as more people move to care centres, and available supplies will be depleted within one week. The IDPs are eating two meals per day. Pregnant, and lactating women have also voiced concerns for supplementary feeding, including for children below 5 years old.

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### WATER, SANITATION AND HYGIENE

The assessment found out that sanitation conditions are poor at both Wakunai and Piva station. There are no sufficient latrines at the care centres, and the school hosting the IDPs at Wakunai has a total of nine latrines. The lack of latrines has resulted in some of the IDPs resorting to open defecation in the nearby bush, and on the beach.

During the assessment, the team found that most rain-fed tanks at the care centre have run dry, and the displaced population are fetching drinking water from different sources including water tanks belonging to host families and/or public servants, creeks/streams, spring and the river, and this pose health risks.



*Displaced woman fetching drinking water from a creek near Wakunai care centre. © Red Cross 2023/ Sione ATUA*

No water treatment is being done by the affected population. It was highlighted during the assessment that the local authorities are providing bottled water for the IDPs for drinking. However, the household allocation is insufficient to even cater for a single person's needs with reference to the recommended daily water consumption per person.

Piva station has about 20 rain-fed tanks, and only 12 are functioning. The remaining eight tanks are not being used due to issues such as leakages, and lack of relevant fittings such as polyvinyl pipes, connectors, and taps.

Water currently being used for cooking, drinking, and washing in the affected communities, and care centres has been contaminated with heavy ashfall. Lack of water jerry cans or containers was reported at the care centres, and the IDPs requested for durable 20L or 25L water containers to help improve the collecting and storage water.

Insufficient water storage capacity leads to frequent trips to the water source, placing an additional burden and heightened risk on IDPs, especially vulnerable groups such as children, pregnant women, and the elderly. Integrating hygiene promotion and installing latrines and handwashing washing facilities would help reduce the risk of disease outbreak at the care centre.

### HEALTH

There is a temporary health facility set up at the Wakunai station to serve the affected population. The health authorities immediately deployed a surveillance and health promotion team, along with medical supplies to assist the affected population. There is a nearby health facility in Piva station and is within a walking distance (<1 km).

The surveillance team is also monitoring the health concerns and diseases that may pose significant health risks, including respiratory diseases, eye irritation, and environmental contamination, that may be caused by volcanic ash fall. The lack of sanitation facilities at the care centres poses serious health and environmental risks to the affected population. More than 60 diarrhoeal cases and other water borne diseases have been reported at Wakunai care centre, and the situation may exacerbate the risk of communicable diseases, owing to the increasing care centre population, limited access to clean and safe drinking water, and poor sanitation conditions.

Cases of malaria have also been reported at Wakunai and Piva station care centres, and the IDPs highlighted the need for mosquito nets.

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### EDUCATION

Schools have been suspended, affecting student's learning. Classrooms are being used to provide accommodation for some of the displaced population. Normal classes for the children in the affected areas have been disrupted for about three weeks, and the IDPs have requested that a plan be put in place to get their children provided with alternative learning.



Displaced children at the river where some of the displaced persons fetch drinking water. © Red Cross 2023/ Sione ATUA



The care centres continue to record an increase in the IDP population as more people evacuate. © IOM 2023/Mohamud OMER

### RESPONSE

Relief assistance was cited as main topic on which the IDPs at Wakunai and Piva station care centres are requesting information on. The assessment found out that the relief supplies provided thus far are limited compared to the urgent needs on the ground. The local authorities provided most of the food rations. Partners including Red Cross, Plan International and IOM began distributing non-food items including collapsible water containers, blankets, plastic sheets, bottled water, and sanitary pads. However, the supplies are in limited quantities, an urgent issue when noting the reported



Response team loading food rations for transportation to Wakunai care centre. © ABG 2023

### CHALLENGES

- Limited relief materials to address the immediate needs of the displaced.
- Lack of transport assets (off-road vehicles, and boats) to move the vulnerable populations to safety, as well as to deploy assessment teams.
- Lack of communication network/ phone coverage in parts of Torokina. The only way of communication being utilized at Piva station is via handheld satellite phone. However, the functionality of the satellite phone is limited to voice calls and short text messages. Digicel network coverage is only accessible at Torokina coastline which is around 10Km away from Piva station. A satellite phones is recommended for teams travelling to the care centre locations.

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## RECOMMENDATIONS

## Short Term

- Establish a care centre coordination hub, that works closely with the local Authorities in Buka town to streamline relief efforts at the field level. IOM is able to support the role of care centre coordination with its available team that are already on the ground. The DTM tool has so far identified a total of 3,303 displaced individuals (724 HHs). These numbers are expected to increase as more people evacuate.
- Provide food rations and supplementary feeding for children, breast feeding mothers, and pregnant women.
- Supply of clean and safe drinking water, and water containers to improve the collection and storage of drinking water. Also, to explore water treatment options to help improve access to safe drinking water.
- Provide emergency shelter and essential non-food items including blankets, sleeping mats, mosquito nets, kitchen utensils to meet the immediate needs of the displaced people.
- Continued health assessments to inform specific health related interventions needed, alongside the dispatch of medical supplies and hygiene kits.
- Distribute dignity kits to women and girls of the reproductive age.
- Distribute solar lights to help address safety concerns and improve lighting conditions in the care centre.
- Improve access to decent sanitation. This could be through installing gender-segregated latrines. It was also noted that installing gender-segregated bathing facilities is required. These efforts will help address the specific needs and privacy concerns especially of women and girls.
- Establish handwashing stations near the latrines to promote good hygiene practices and reduce the risk diseases.
- Establish learning arrangements for children of the school going age.
- Conduct hygiene promotion sessions to raise awareness about the importance of using latrines and proper sanitation practices, targeting both the displaced population and the local community

## Medium to long term

Installation of volcano monitoring equipment on site; establish volcano observatory in ARoB and a team of technical experts; improve communication networks in Torokina district; improve road access networks in Torokina district, undertake disaster risk management targeting local communities, government, and relevant stakeholders in ARoB.

## METHODOLOGY

To better understand the situation including sectoral needs of the affected population, an inter-agency team comprising of local authorities from the Autonomous Bougainville Government (ABG) including the Bougainville Disaster And Emergency Directorate, and the Department of Mineral and Energy Resource, Division of Environment Conservation and Climate Change, Papua New Guinea Red Cross Society – Bougainville Branch, and the International Organization for Migration (IOM) deployed the Displacement Tracking Matrix (DTM) tool to Wakunai and Piva station (Torokina) care centres from 26-30 July 2023. Displacement tracking was conducted through field observations, focus group discussions and key informant interviews with affected population and local authorities. This displacement profile presents findings from the DTM assessment undertaken at Wakunai and remotely Piva station, and recommendations for humanitarian assistance. The situation remains fluid as more people evacuate therefore the numbers and information presented in this displacement profile may continue to change.

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