PROPOSAL

EMERGENCY RESPONSE FOR FAMILIES AFFECTED BY COASTAL ABRASION AND HIGH WAVES IN PEBUAHAN, JEMBRANA

Proposed date: 12 July 2023

Prepared by: IDEP Foundation
I. Executive Summary

In response to the devastating effects of the abrasion and high waves that occurred on July 6-7, 2023, IDEP is implementing an emergency response program to provide assistance and support to the affected families of Banjar Pebuahan, Jembrana. Our program aims to address the immediate needs of the affected families and mitigate the risk of further disasters by establishing temporary infrastructure.

Through our emergency response program, we strive to help families overcome the direct threats to their lives and livelihoods by providing evacuation support, essential supplies, and disaster mitigation measures. Furthermore, we have developed a comprehensive recovery plan that encompasses disaster preparedness and economic rehabilitation, which are closely linked to adaptation and disaster mitigation efforts, considering the increasing presence of extreme weather events due to the climate crisis.

This program will directly benefit 216 fishing families affected by the disaster in Banjar Pebuahan, including those whose homes have been damaged or whose livelihoods have been disrupted due to the loss of boats and equipment. The affected families will receive support through temporary wave barriers, boat repairs, Cash Voucher Assistance, adequate shelters, and psychosocial support. Additionally, through educational activities, we aim to reach approximately 1,200 families in Banjar Pebuahan to enhance their awareness regarding disaster adaptation and mitigation due to the climate crisis.

To implement this program successfully, we require financial support from various stakeholders, amounting to USD 98,832. The allocated funds will cover all emergency response activities, including evacuation, temporary infrastructure construction, boat repairs, Cash Voucher Assistance, provision of shelters and sanitation facilities, educational initiatives, and psychosocial support.

II. Introduction

a. Background

The relentless downpour of moderate to heavy rain that engulfed nearly every district and city in Bali on July 6-7, 2023, left an indelible mark on the island. It's impossible to ignore the stark reality that these recent days of extreme weather are a direct consequence of the climate crisis, especially considering that July is traditionally the peak of the dry season. Pebuahan Beach, located in Banjar Pebuahan, Jembrana Regency, was one of the most affected areas due to the extreme weather conditions, followed by heavy rain, strong winds, and high waves. This resulted in the abrasion and disappearance of roads along the Banjar Pebuahan coastline, the boundary between residential areas and the beach, and a vital access route for the community's activities.
Based on the latest data obtained by IDEP from on-site assessments of the disaster as of July 09, 2023, 216 houses were affected, and 59 fishing boats were lost or severely damaged. This severe situation forced several residents whose houses were affected to evacuate to the homes of other residents deemed safer. The residents also took the initiative to build tents to anticipate the possibility of tidal floods and abrasion, as had occurred in October 2022.

Pebuahan Beach has undergone coastline changes due to abrasion over a period of nearly 20 years. Since 2004, coastline change has occurred at an average rate of 1.62 m/year (Pujiniki, 2022).

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Based on satellite imagery mapped between 2011-2022 (as seen in the image), the erosion occurring in Pebuahan Beach has even resulted in the disappearance of land measuring 72,776.1 square meters (72 hectares), which is equivalent to nearly 7 football fields.

This has damaged the village, houses, and highways and caused a decline in tourism activities in the area. The community has been trying to combat abrasion by building groins involving piles of river stones, used tires, and sand-filled sacks. However, these efforts have not prevented the damage caused by abrasion and wave impact.

Until now, the communities have continued to seek assistance from various parties to help them overcome the problems arising from the disaster. However, significant aid
and support have not been received, primarily to address the threat of abrasion and high waves that could occur at any time.

b. IDEP Overview

IDEP Selaras Alam Foundation (IDEP) is a non-governmental organization established in 1999 in Bali, primarily focusing on sustainable development, including disaster management programs. With a vision to create resilient communities and ecosystems, and a mission to enhance disaster management capacity and support sustainable development, IDEP has successfully responded to various natural disasters in Indonesia over the years.

Using a comprehensive framework encompassing disaster risk reduction, emergency response, community-based development, and capacity building, IDEP ensures that interventions are holistic, sustainable, and tailored to the specific needs of the affected communities.

Through a community-centered approach and a commitment to sustainable development, IDEP strives to provide benefits that meet immediate needs and contribute to long-term resilience and development. With a proven track record and expertise, IDEP is highly qualified to implement emergency response projects and assist the affected Banjar Pebuahan community while promoting their long-term resilience.

III. Problem Statement

Banjar Pebuahan, a coastal village in Jembrana Regency, Bali, faces serious challenges due to extreme weather conditions. Since July 6, 2023, the area has experienced heavy rainfall, strong winds, high waves, and abrasion, causing significant damage and threatening the lives and safety of the local community.

Problems

These weather events have caused several interrelated problems that the residents are currently facing:

1. Damage to Coastal Roads that Serve as Wave Barriers
   Heavy rainfall, strong winds, and high waves have eroded and washed away the coastal roads in Banjar Pebuahan. Previously, these roads acted as a barrier between the houses and the shoreline, protecting them from direct wave impact. With the loss of these roads, high waves easily reach the houses. So far, two houses have been severely damaged, and other houses have been abandoned by residents who fear the possibility of further waves that could endanger their lives.

2. Threat to Livelihoods
   Due to the high waves, 59 fishing boats owned by local fishermen that were parked along the coast have sunk, gone missing, or been severely damaged.
This directly affects the primary livelihoods of the community and their families, most of whom are fishermen. They are now vulnerable as they can no longer catch fish as their main source of income. Moreover, the extreme weather conditions have forced the local fishermen to suspend their fishing activities. Even before the events on July 7, 2023, they had already stopped going to sea for two weeks due to dangerous weather conditions.

3. **Overflowing Rivers**

The extreme weather conditions have caused the river to overflow through Banjar Pebuahan, flooding several houses. This situation adds to the threat to the safety and comfort of the affected residents.

4. **Inadequate Evacuation Shelters**

Due to the immediate threat of high waves and the possibility of subsequent waves, residents whose houses are located along the coast have been forced to evacuate. They seek shelter in the homes of other residents that are deemed safer. Meanwhile, evacuation tents have been set up to accommodate the affected residents. However, the lack of adequate shelter facilities, such as sufficient lighting and other shelter equipment, has led residents to stay with other residents.

5. **Risks of Electricity Connections**

The houses abandoned due to the danger of high waves still have active electricity connections. This poses a significant risk during heavy rain and high waves. However, disconnecting the electricity supply, which can only be done by the power utility company (PLN), incurs additional costs. In this disaster-affected condition, disconnecting the electricity burdens the residents. The danger of active electricity adds to the threats faced by residents.

6. **Absence of Emergency Response and Long-Term Disaster Management Efforts**

Despite the high-risk disaster situation in Pebuahan, there has been no serious emergency response effort to address the impacts. Some authorities, such as the Jembrana Regency government, have visited Banjar Pebuahan, but no further action has been taken for emergency response as of the time of this report. Additionally, considering the 19-year-long abrasion since 2004 and the increasing threats of extreme weather due to the climate crisis in recent years, there have been no severe disaster management efforts, such as adaptation and mitigation measures, carried out in Pehuahan. The residents have made efforts in various ways, including building temporary wave barriers and seeking help from all relevant authorities to reduce risks, but the results so far have not been significant.

**Impacts**

The consequences of the extreme weather and its impacts are severe and widespread, affecting both the residents and the general community. The main impacts include:

1. **Threats to Lives and Livelihoods,**
abrasion of wave barriers, house damage, loss of fishing boats, and disruptions to fishing activities directly threaten the lives and livelihoods of the affected residents, especially the local fishermen. Their ability to survive and support their families is significantly affected, pushing them into vulnerable and uncertain economic situations.

2. **Disruption of Community Infrastructure**
   The abrasion of roads, river overflow, and house damage have disrupted vital community infrastructure. This hampers the community's ability to recover and continue activities as usual.

3. **Increased Risk of Further Damage**
   The absence of immediate emergency response efforts and the lack of long-term adaptation and mitigation measures to reduce the impacts of abrasion and high waves in Pebuahan have increased the risk of further losses.

4. **Traumatic Experience for Affected Residents**
   The traumatic experience of losing homes and livelihoods and witnessing the destruction caused by extreme weather has profoundly impacted the psychological well-being of the affected residents. Moreover, the abrasion has been ongoing for 19 years since 2004, and the recent extreme weather events have occurred without significant support to help reduce the risks, further adding to their challenges.

**Temporary Data Regarding the Damages**

The following is the temporary data regarding the damage as of July 9, 2023, by the extreme weather, including heavy rain, strong winds, high waves, and abrasion in Banjar Pebuahan.

<table>
<thead>
<tr>
<th>No.</th>
<th>Area</th>
<th>Number of affected house</th>
<th>Number of damaged fishing boat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RT 05</td>
<td>88 units</td>
<td>35 boats</td>
</tr>
<tr>
<td>2</td>
<td>RT 06</td>
<td>12 units</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>RT 07</td>
<td>6 units</td>
<td>6 boats</td>
</tr>
<tr>
<td>4</td>
<td>RT 08</td>
<td>85 units</td>
<td>16 boats</td>
</tr>
<tr>
<td>5</td>
<td>RT 09</td>
<td>25 units</td>
<td>2 boats</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216 units</td>
<td><strong>59 fishing boats</strong></td>
<td></td>
</tr>
</tbody>
</table>

**a. Needs Assessment**

Here are the results of the needs assessment conducted by IDEP in Banjar Pebuahan from July 8 - 12, 2023:

1. **Evacuation**
   - Heavy machinery such as excavators to expedite the construction of temporary wave barriers for a more efficient process.
- Early warning about extreme weather conditions to provide accurate and timely information about weather threats such as heavy rain and high waves, enabling residents to be more alert.

2. **Cash Voucher Assistance (CVA)**
   - Distribution of CVA to affected families.

3. **Shelter**
   - Sleeping mats or mattresses
   - Blankets
   - Emergency lighting in evacuation tents

4. **Water and Sanitation**
   - Portable clean water storage and filtration systems
   - Emergency toilets and bathing facilities

5. **Livelihood Support for Fishermen**
   - Repair or replacement of fishing boats (*jukung*) along with their equipment.

6. **Psychosocial Support for Affected Residents**

IV. **IDEP Emergency Response Program Plan**

   **a. General Objective**

   To respond to the emergency in Banjar Pebuahan, IDEP is implementing an emergency response program aimed at meeting the urgent needs of affected families, particularly their livelihoods, and reducing the risk of subsequent disasters through the development of temporary infrastructure.

   **b. Key Activities**

   1. **Effective early-stage disaster evacuation and mitigation**
      - Providing heavy machinery support to construct temporary wave barriers to reduce the risk of abrasion and high waves.
      - Collaborating with authorities such as BMKG and BPBD to provide early warning information on weather conditions, enabling residents to be alert and take effective evacuation measures.

   2. **Cash Voucher Assistance (CVA)**
      - Distribution of CVA to 216 affected families, including those with damaged houses and fishermen who lost their boats and equipment.

   3. **Provision of adequate shelter**
      - Providing sleeping mats or mattresses, blankets, and adequate lighting in evacuation tents.
- Providing portable clean water storage and filtration systems.
- Providing emergency toilets and bathing facilities at the evacuation site.

4. Repair/replacement of fishing boats and equipment for affected fishermen
  - Repairing or replacing fishing boats (jukung) and fishing equipment for 59 affected boat owners.

5. Increasing community awareness of preparedness through disaster adaptation and mitigation, as well as climate crisis
  - Conducting educational activities for 1,200 families in Banjar Pebuahan regarding disaster adaptation, mitigation, and climate crisis.
  - Producing and disseminating educational materials regarding disaster adaptation, mitigation, and climate crisis widely to the public.

6. Psychosocial support for affected families
  - Conducting psychosocial activities for 216 families in Banjar Pebuahan.

V. Expected Results and Beneficiaries

Through this emergency response program, the expected results are as follows:
- **216 families** (approximately 864 individuals) in 5 community units (RT) in Banjar Pebuahan affected by the disaster can reduce the risks of abrasion and extreme weather, including their impacts, through the construction of temporary wave barriers.
- **216 affected families** in Banjar Pebuahan receive non-cash assistance (Cash Voucher Assistance, CVA) in emergencies.
- **59 boat owners** and their fishing equipment receive assistance to restore their livelihoods.
- **1,200 families** in Banjar Pebuahan receive information on disaster adaptation in their area.
- **216 families**, including women, children and adolescents, the elderly, and people with disabilities, receive psychosocial support.

VI. Timeframe

The entire emergency response process, including further assessments, beneficiary registration and verification, procurement and distribution of assistance, educational activities, documentation, and reporting, is estimated to take approximately **8 weeks** overall. However, the duration of the emergency response will also be adjusted based on the evolving conditions at the disaster site.

VII. Project Monitoring and Evaluation

During the implementation of this emergency response program, activities will be
regularly monitored to ensure timely progress. Additionally, periodic evaluations will measure the program's achievements against the objectives. The evaluation will involve quantitative and qualitative assessments, including surveys, in-depth interviews, focused group discussions, community meetings, and data analysis of the findings.

At the end of the program, a joint learning activity will be conducted with stakeholders and affected communities to evaluate the program's outcomes and capture lessons learned for future programs.

VIII. Budget

USD 98,832 is needed for this program, as listed in the attached budget. IDEP will manage and account for all donor funds it receives.

IX. Recovery Plan

Based on our rapid assessment and analysis, the following are two linked disaster recovery plans for Banjar Pebuahan, focused on disaster adaptation and mitigation:

1. Establishment of a Community Disaster Management Group (KMPB) in Banjar Pebuahan to reduce disaster risks in the area.
2. Economic recovery program by providing alternative livelihoods for fishermen and their families.

X. Conclusion

Our proposal aims to support the residents of Banjar Pebuahan affected by abrasion and extreme weather, exceptionally high waves. The support includes immediate assistance to affected families, creating safer living conditions, restoring livelihood sources, and supporting the preparedness of Banjar Pebuahan and surrounding communities. Implementing this program will significantly impact meeting immediate needs, reducing vulnerabilities, improving economic stability, and fostering community resilience. We greatly appreciate the support provided by donors, both for the emergency response and the long-term recovery process. We are also open to receiving any feedback and further discussions if needed.

XI. Documentation

The photo and video documentation obtained by IDEP during our visit to assess the current situation in the Banjar Pebuahan area can be viewed through the following link: https://drive.google.com/drive/u/0/folders/1ITLBfTq5g7qqwKC_ZYqUNTIxwwgDYQsZ
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