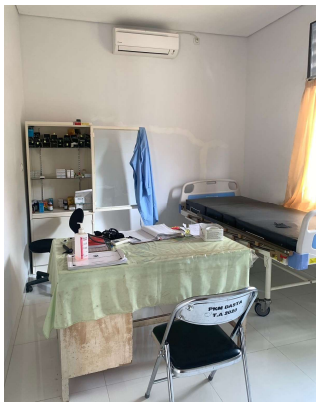
KFW
Bank aus Verantwortung

UNDP
Empowered lives.
Resilient nations.

Terminal Evaluation of Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA)

(Project Award ID: 00116311)



Draft Final Report

TE Timeframe: April - July 2024

Implementing Agency: UNDP Indonesia
Implementing Partner: National Disaster Management Agency (BNPB)

Akhter Hamid, International Consultant/Team Leader[1],
Saediman Mboe, National Consultant, and
Laeli Sukmahayani, National Consultant

October 2024

[1] The Draft Final Terminal Evaluation Report is prepared and submitted by Akhter Hamid, International Evaluation Consultant/Team Leader

Acknowledgements

The Terminal Evaluation (TE) Team would like to extend its gratitude to everyone who participated, supported and contributed to the TE of the UNDP Sulawesi/Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA) Project. The TE team would like to express its deep appreciation to the officials of the UNDP Indonesia Country Office, KfW Development Bank Indonesia, National Disaster Management Agency (BNPB), National Development Planning Agency (BAPPENAS), regional and local government in project provinces, PETRA Project Team, and more importantly the project beneficiaries. The team is grateful to Ms Sujala Pant, Deputy Resident Representative, Mr Christian Budi Usfinit, Team Leader, Resilience and Reconstruction Unit (RRU), Mr Andrys Erawan, Programme Manager, RRU, Mr. Budhi Ulaen, National Project Manager, PETRA, Ms Deasy Ernawati, Budget Management Associate, RRU and Mr. Olyvianus Dadi Lado, Communication, Monitoring, Reporting and Evaluation Officer, PETRA of UNDP Indonesia for their valuable inputs and assistance during the TE exercise.

Akhter Hamid, International Consultant/Team Leader,
Saediman Mboe, National Consultant, and
Laeli Sukmahayani, National Consultant
Terminal Evaluation Team

Table of Contents

Figures

Tables

Acronyms and Abbreviations

APBDes	Village Revenue and Expenditure Budget
APBN	National Revenue and Expenditure Budget
BAPPEDA	Regional Development Planning Agency
BAPPENAS	National Development Planning Agency
BNPB	National Disaster Management Agency
BPBD	Regional Disaster Management Agency
BPKAD	District Financial and Asset Management Agency
BUMDES	Village-owned Enterprise
COVID 19	Corona Virus Disease 2019
CSO	Civil Society Organisation
DAK	Special Allocation Fund
DIKES	Provincial/ District Health Office
DIKPORA	Department of Education, Youth and Sport
DIM	Direct Implementation Modality
CfW	Cash for Work
DLH	Provincial/ District Environment Office
DRR	Disaster Risk Reduction
EAS	Evaluation and Settlement
ESDM	Ministry of Energy and Mineral Resources
ESMF	Environmental and Social Management Framework
FGD	Focus Group Discussion
FSP	Full Sized Project
GA	Geological Agency
GAM	Gender Analysis Matrix
GEDSI	Gender Equality Disability and Social Inclusion
IMB	Building Permit
IMDFF-DR	Indonesia Multi Donor Fund Facility for Disaster Recovery
JICA	Japan International Cooperation Agency
KEMEN PUPR	Ministry of Public Works and Housing
KEMENKEU	Ministry of Finance
KfW	Kreditanstalt für Wiederaufbau (Credit Institute for Reconstruction) – KfW Development Bank

KII	Key Informant Interview
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organisation
NTB	West Nusa Tenggara
PAR	Project Assurance Report
PETRA	Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance
PHO	Professional Hand Over
PMU	Project Management Unit
POKIR	Aspiration Fund (Legislative members)
POPP	Programme and Operations Policies and Procedures
PPE	Personal protective Equipment
PUSKESMAS	Primary Health Centre
PUSTU	Auxiliary Health Service
PWDs	Persons with Disabilities
R3P	Post Disaster Rehabilitation and Reconstruction Programme Preparation and Planning
RAK	Community Action Plan
RENAKSI	Action Plan
Rapides	Village Government Work
RPJMN	National Medium-Term Development Plan
RRU	UNDP ID CO Reconstruction and Rehabilitation Unit
RS	Hospital
SD	Elementary School
SDGs	Sustainable Development Goals
SETDA	Regional Secretary
SK	Decree
SMA	Senior High School
SMKN	Vocational School
SMP	Junior High School
SOP	Standard Operational Procedure
ToC	Theory of Change
TPS3R	Waste Processing Site for Reduce, Reuse, Recycle
TSBD	Village Disaster Response Team

UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
WVI	Wahana Visi Indonesia

1. Executive Summary

Table 1: Project Information Table

Project Information		
Project title	Sulawesi/Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA)	
Atlas ID	00116311	
Corporate outcome and output	• UNSDCF/CPD 2021-2025 Outcome 3: Institutions, communities and people actively apply and implement low carbon development, sustainable natural resources management, and disaster resilience approaches that are all gender sensitive. • CPD 2021-2025 Indicative Output 3.3: Strengthened preparedness of institutions and communities to climate change and disasters risks, including deployment of sustainable solutions. DRR policies/plans in line with the Sendai Framework for Disaster Risk Reduction. • SP Output 3.1: Institutional systems to manage multi-dimensional risks and shocks strengthened at regional, national and sub-national levels • Project Output 1 attribute to SP Output 3.3.1 (GEN2; COVID-19) • Project Output 2 attribute to SP Output 3.3.1 (GEN2; COVID-19)	
Country	Indonesia	
Region	Asia-Pacific	
Date project document signed	28 May 2019 (Revised on 21 November 2022)	
Project dates	Start	Planned End
	1 January 2019	30 June 2024
Total committed budget	$28,441,411	
Project expenditure at the time of evaluation	$25,038,184 (plus commitments of $2,922,673)	
Funding source	KfW Development Bank	
Implementing party	UNDP	

Evaluation Information		
Evaluation type (project/ outcome/thematic/country programme, etc.)	Project Evaluation	
Final/midterm review/ other	Final	
Period under evaluation	Start	End
	1 January 2019	10 June 2024
Evaluators	Akhter Hamid, International Consultant/Team Leader Saediman Mboe, National Consultant Laeli Sukmahayani, National Consultant	
Evaluator email address	akhter.hamid@gmail.com saediman@yahoo.com laeli.sukmahayani@gmail.com	
Evaluation dates	Start	Completion
	April 2024	October 2024

Table 2: Evaluation Ratings Table

1. Monitoring & Evaluation (M&E)	Rating
M&E design at entry	S
M&E Plan Implementation	S
Overall Quality of M&E	S
2. Implementing Agency (IA) Implementation & Executing Agency (EA) Execution	**Rating**
Quality of UNDP Implementation/Oversight	S
Quality of Implementing Partner Execution	S
Overall quality of Implementation/Execution	S
3. Assessment of Outcomes	**Rating**
Relevance	HS
Effectiveness	S
Efficiency	S
Overall Project Outcome	S
4. Sustainability	**Rating**
Financial sustainability	L
Socio-economic sustainability	L
Institutional framework and governance sustainability	L
Environmental sustainability	L
Overall Likelihood of Sustainability	L

1.1 Project Description

The **Sulawesi/Lombok Programme for Earthquake and Tsunami Infrastructure Reconstructive Assistance (PETRA**) of the United Nations Development Programme (UNDP) aims to contribute towards long-term resilient recovery of the Central Sulawesi and West Nusa Tenggara (NTB) regions devasted by the major seismic events in 2018 with a particular emphasis on rehabilitation and reconstruction of essential infrastructure. PETRA has been designed to support the transition from the humanitarian emergency assistance to long term recovery by addressing the need to accelerate the restoration of critical public services (such as health and education), improve livelihood opportunities for affected communities and build inclusive community resilience. The project is aligned with the broader development strategies endorsed by national and sub-national disaster recovery plans and the Sustainable Development Goals (SDGs). It also adheres to the Sendai Framework for Disaster Risk Reduction, which reflects a commitment to enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction.

The project aims attain its outcome - *Vulnerable communities in Central Sulawesi and NTB recover from the impact of the 2018 disasters and are more resilient to withstand future shocks* through the following two outputs:

(i) Rehabilitation and reconstruction of fully damaged infrastructure for critical public services which cover gender needs and other gender concerns,
(ii) Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women.

The project is being implemented using the Direct Implementation Modality (DIM).
Table 2 summarizes the ratings of the project following the below rating scales

1.2 Evaluation Purpose, Scope, Approach and Methods

The objectives of the TE were to assess the achievements of project objectives and outcomes against what was targeted in the project's results framework and harvest lessons learned and best practices from the project that can both improve the sustainability of benefits from this project, and assist in the overall improvement of UNDP programming. The TE reviewed four categories of evaluation criteria - relevance, effectiveness, efficiency and sustainability of the project including the project exit strategy.

The TE used desk review of relevant documents, primary data collection, stakeholder consultations through key informant interviews and focus group discussions with 98 project stakeholders and field visits to selected project sites. This evidence-based TE employed both quantitative and qualitative methods.

1.3 Summary of Findings and Conclusions

Key Findings

- The project objective and component are clear, connected and attainable. The theory of change is too simplistic in portraying the output-outcome-impact pathway.
- The project strategy is aligned with the national policy priority, strategy and development architecture. The project is aligned with SDGs and the Sendai Framework for Disaster Risk Reduction. The project contributes to UNSDCF (UN Sustainable Development Cooperation Framework).
- Two significant risks – low/non-performance of construction contractors and disease outbreak/pandemic - were not included during the initial project design phase. The COVID-19 pandemic and poor performance by a lead construction contractor associated risks occurred. While these risks caused project cost escalation and implementation delay, the project managed these risks innovatively without compromising the planned project outputs by taking an adaptive management approach.
- The project has taken into account the gender consideration in designing and implementing the planned interventions and contributed to gender equality and women empowerment. The project used the Gender and Disability Inclusive Technical Guidelines as a proxy for gender action plan. This is a gender responsive project
- The project does not have an exit strategy. The project concludes by handing over completed infrastructure to BNPB where the prerequisites of asset handovers to local are clearly specified for long term sustainability serve as a proxy to an exit strategy.
- The project conducted both process and results monitoring. Joint monitoring conducted, particularly ahead of the Project Board meetings and project infrastructure handover.
- UNDP Implementation oversight is commendable and highly appreciated by stakeholders. The UNDP Indonesia CO Leadership and RRU provided oversight and mitigated risks. UNDP carried out good liaison and coordination with key stakeholders at central level, government buy-in, and provided technical assistance and necessary support for adaptive management.
- A dedicated and professional Project Team implemented, managed and coordinated the project.
- A substantial number of infrastructure completed and handed over. The remining infrastructure will be completed by the project end date.
- The project has generated relevant reports, considerable communication and knowledge materials. However, progress reports experienced delays.
- The project contributed to community, service providers and local government capacity building. Local government infrastructure capacity building is a key thrust for capacity strengthening.

- Social, financial, institutional and environmental sustainability is likely in a mixed landscape. More sustainability prospects for education and healthcare facilities. Resilient infrastructure contributes to sustainability.
- The project has achieved some of the expected outputs under the project outcome. Out of the 12 output indicators, the project has achieved the targets of 6 indicators. For the remaining 6 indicators, the project has not achieved the targets. Among these 6 not achieved output targets, 3 indicator targets will be achieved by the project end date.
- The project has established a comprehensive model for disaster recovery and resilience-building that integrates infrastructure development with capacity building and community engagement. Such a model offers a replicable template for other regions facing similar challenges..

Conclusions

The project objective and outputs are distinct, connected and attainable.

The project strategy aligns with the country's development priorities and is formulated to be country-driven. The project has been designed in line with the broader development policies and strategies of the country endorsed by national and sub-national disaster recovery plans and the Sustainable Development Goals (SDGs). It also complies with the Sendai Framework for Disaster Risk Reduction, reflecting the country's commitment to effective disaster response through enhanced disaster preparedness and to "Build Back Better" in recovery, rehabilitation, and reconstruction.

The project has successfully developed partnerships with allied national, provincial, regional and district government actors who directly supported the project objective, and played an active role that contributed to project delivery under a country-led project implementation framework. The project formed close partnerships with an NGO and women groups that helped in project delivery. The project endeavoured to have gender responsive stakeholder engagement, particularly at field level for meaningful women participation in project activities.

Low/non-performance of a construction contractors and disease outbreak/pandemic - were not included during the initial project design phase. The COVID-19 pandemic and poor performance by a lead construction contractor associated risks occurred. While these risks caused cost escalation and implementation delay, the project managed these risks innovatively without compromising the planned project outputs by taking an adaptive management approach.

The project has taken into account the gender consideration in designing and implementing the planned interventions and contributed to gender equality and women empowerment. The project used the Gender and Disability Inclusive Technical Guidelines and Recommendations developed by the project as a proxy of Gender Action Plan. This is a gender responsive project.

The project contributed to community, service providers and local government capacity building. While the project does not have an exit strategy for post-project sustainability, the asset handover procedures serve as a proxy to an exit strategy.

Given the post-project sustainability scenarios, the project is likely to sustain offering considerable potential to replicate and scale provided the government continue to provide the sectoral priority. This will further reinvigorate relevant key stakeholders engagement for a disaster resilient future.

1.4 Key Lessons Learned

1. Community resilience building and livelihoods improvements pivot on sustainable and climate and disaster proof relevant physical infrastructure.
2. Participation of all relevant government, non-government, community and other key stakeholders particularly the agencies with post-project infrastructure asset operations and maintenance responsibilities, throughout the lifecycle of a project ensures its success.
3. The consultations with local governments and communities in the planning and execution planned infrastructure and other allied subprojects maximized their local ownerships, effectiveness and acceptance.
4. Similar future UNDP projects should use innovative communication tools and regular briefing sessions engaging a broader range of stakeholders during project implementation to ensure that changes in personal at different levels do not affect project efficiency.
5. A robust and user-friendly communication and knowledge management system helps in disseminating project best practices and other related information for scaling and replication. It also enhances project visibility among wider communities.

Table 3: Recommendations Summary Table

Rec #	TE Recommendation	Entity Responsible	Time frame
1	***Project Specific:*** Store and make available project communication and knowledge materials to wider audience through different outlets, including on the UNDP and relevant websites.	UNDP	Short term
2	***For Future Programming:*** UNDP project design should be based on a theory of change that clearly shows output-outcome-impact pathways.	UNDP	Future programming
3	UNDP project should develop an exit strategy detailing custodianship journey of project infrastructure to local/regional governments to ensure the sustainability of project interventions after the project life. This will help local governments in post-project operations and	UNDP	Future programming

Rec #	TE Recommendation	Entity Responsible	Time frame
	maintenance and thereby add to the success and impact of the project.		
4	UNDP project should develop a gender action plan based a comprehensive gender analysis for improved gender outcomes where women and other underserved groups enjoy increased benefits through project implementation process and results.	UNDP	Future programming
5	UNDP project should include a dedicated, user-friendly and robust Grievance Redress Mechanism/Complaint Feedback Mechanism in place that will gather complements and complaints on project matters for necessary action and strengthen safeguards.	UNDP	Future programming
6	In future UNDP construction/rehabilitation of educational facilities project should include the provision for essential furnishings such as chairs and tables and teaching aids in order to utilize the infrastructure effectively for their intended educational purposes.	UNDP	Future programming
7	More disaster proof planning needs to be done through geological survey and assessing unique environmental characteristics to ensure the infrastructure like water facilities withstand recurrent natural disasters in the region	UNDP	Future programming

2. Introduction

It is mandatory for a UNDP-supported full-sized project (FSP) to undergo a Terminal Evaluation (TE) as per the UNDP Evaluation Guidelines[2]. This section depicts the purpose and objective, scope, approach and methodology, ethics, and limitations of the TE of the UNDP ***Sulawesi/Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA).*** The TE was commissioned by the UNDP Indonesia Country Office and undertaken during April to October 2024. The audience and users of this TE report, in the main, include the Commissioning Unit – UNDP Indonesia Country Office, UNDP Regional Office for Asia and the Pacific, Management Performance Oversight, Resilience and Reconstruction Unit (RRU), Programme Manager and Programme Officers of UNDP Indonesia, National level Government Implementing Partners and Collaborating Agencies, and the KfW Development Bank.

2.1 Purpose of the Terminal Evaluation (TE)

The objectives of the TE are to assess the achievements of project objectives and outcomes against what was targeted in the project's results framework and harvest and analyze lessons learned from the project and best practices relevant to the strategies used, and implementation arrangements employed that can both improve the sustainability of benefits from this project, and assist in the overall improvement of UNDP programming. The TE report fosters accountability and transparency and assesses the extent of project accomplishments.

The TE aims to synthesize lessons that can help improve the identification, design and implementation of future UNDP-supported projects.

The TE further intends to learn from the project in developing policies and strategies for participatory and inclusive disaster risk reduction, sustainable natural resource management and livelihood development in Indonesia and to contribute towards the overall improvement of the UNDP programming.

2.2 Report Preparation and Outline of the draft/ final report

The TE findings were triangulated with the project results framework outcome and output level indicators (baselines, targets and achievements). Triangulation of evidence and information gathered reinforces its validation and analysis, and supports TE conclusions and recommendations for future programming.

The final TE report includes the following contents as per the *Guidance for Conducting Terminal Evaluations of UNDP-Supported Projects*.

i. Title page
   - Title of UNDP project
   - TE timeframe and date of final TE report

[2] UNDP. 2021. *UNDP Evaluation Guidelines*. Independent Evaluation Office, UNDP. New York. http://web.undp.org/evaluation/guideline/documents/PDF/UNDP_Evaluation_Guidelines.pdf

- Project country
- Implementing agency and Government implementing partner
- TE Team members

ii. Acknowledgments
iii. Table of Contents
iv. Acronyms and Abbreviations

1. Executive Summary
    - Project Information Table
    - Project Description
    - Evaluation Rating Table
    - Concise summary of findings, conclusions, and lessons learned
    - Recommendations summary table

2. Introduction
    - Evaluation Purpose
    - Scope of the Evaluation
    - Methodology
    - Data Collection and Analysis,
    - Ethics
    - Limitations
    - Structure of the TE Report

3. Project Description
    - Project start and duration, including milestones
    - Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope
    - Problems that the project sought to address
    - Immediate and development objectives of the project
    - Expected results
    - Main stakeholders
    - Theory of Change

4. Findings
    - Project Design/Formulation
    - Project Implementation
    - Project Results and Impacts

5. Main Findings, Conclusions, Recommendations and Lessons Learned
    - Main Findings
    - Conclusions
    - Recommendations
    - Lessons Learned

5. Annexes

3. Project Description and Development Context

3.1 Project Start Date, Duration and Milestones

The PETRA Project is a 5.5-year project that started in January 2019 with an end date of June 2024. While the initial duration of the project was 3 years (1 January 2019 - 31 December 2021), the project received a no-cost extension up to 30 June 2024, resulting in additional 2.5 years of implantation period. Table 5 furnishes the project cycle milestones.

Table 4: Project Milestones

Milestone	Date
KfW-UNDP Financing Agreement signed	12 December 2018
PAC meeting	18 December 2018
Project Document signed	28 May 2019
Project launch	28 May 2019
Terminal Evaluation due	April 2024

3.2 Development Context

Indonesia, the largest archipelagic country in the world comprising more than 17,000 islands situated in the Pacific Ring of Fire, is one of the most disaster-prone countries in the world.[3] The risk index for natural disasters including volcanic eruptions, earthquakes, cyclones, tsunamis, floods, landslide and drought in Indonesia is relatively high [4], where more than 90% of its population is exposed to natural disasters. In addition to colossal loss of life and property, natural disasters undermine and/or reverse the country's economic and development gains. During 2007-2018, Indonesia suffered an annual economic loss of US$ 2.2 to US$ 3 billion, which is equivalent to 0.2-0.3% of the country's gross domestic product (GDP).[5] Against this backdrop, comprehensive disaster management is of utmost importance to improve the country's disaster resilience where more than 260 million people live in natural disaster risk area.

The catastrophic Boxing Day Indian Ocean Earthquake and Tsunami that hit several countries of South and South-east Asia in December 2004 caused most havoc in Aceh province killing 130,000 lives and destroying 250,000 houses. Following this deadliest disaster, which is recognized as the second largest natural disaster ever happened in the world, the country has put a strong emphasis on understanding and managing disaster risks through a number of measures. These include passing of legal and policy frameworks

[3] UNDRR. 2019. "The Singapore of Java" – Cilacap Regency, Indonesia. https://www.undrr.org/news/singapore-java-cilacap-regency-indonesia

[4] Statista. 2023. Natural Disasters in Indonesia – Statistics and Facts. https://www.statista.com/topics/8305/natural-disasters-in-indonesia/#topicOverview

[5] World Bank. 2020. Project Appraisal Document – Indonesia Disaster Risk Finance and Insurance Project. https://documents1.worldbank.org/curated/en/316601611543685552/pdf/Indonesia-Disaster-Risk-Finance-and-Insurance-Project.pdf

outlining roles and responsibilities of different stakeholders before, during and after disasters, creation of the National Disaster Management Authority (*Badan Nasional Penanggulangan Bencana,* BNPB) to coordinate activities of government agencies, non-government organizations and other actors [6], putting in place improved early warning systems, updating the national earthquake hazard maps, modelling the impacts of potential earthquakes and tsunamis, increasing community awareness and strengthening community resilience, integrating disaster risk reduction strategies into spatial planning.

Although the country has developed internationally recognized emergency response and community-based recovery best practices,[7] the two recent earthquakes in Central Sulawesi and Lombok suggest that there is a pressing need to further strengthening gender-responsive disaster risk reduction strategies and best practices, raising public awareness, constructing earthquake proof buildings, assessing spatial plans for potential disasters, and developing integrated community-based early warning systems.

3.3 Problems that the Project Sought to Address

Two high-magnitude earthquakes struck West Nusa Tenggara (NTB) and Central Sulawesi provinces within weeks of each other in the second half of 2018. The first, a 7.0 magnitude earthquake in NTB on 5 August, resulted in 564 fatalities and severe damage to over 73,000 houses, displacing around 400,000 people. Infrastructure, including over 600 educational facilities and nearly 100 health facilities, suffered extensive damage and livelihoods of local communities were severely affected. The total losses were estimated at IDR 18.20 trillion (approximately EUR 1 billion). Shortly thereafter, Central Sulawesi experienced a 7.4 magnitude earthquake and subsequent tsunami on 28 September, which led to over 2,096 fatalities, 1,373 people missing, damage to 68,451 houses and displacing around 173,522 people. This disaster also caused profound damage to local infrastructure, including 1,509 educational facilities, 176 health facilities, and 13 marketplaces. In addition, more than 9,700 ha of agricultural land were negatively affected. The estimated total losses were IDR 18.48 trillion (EUR 1.1 billion).

The **Sulawesi/Lombok Programme for Earthquake and Tsunami Infrastructure Reconstructive Assistance (PETRA**) of the United Nations Development Programme (UNDP) aims to contribute towards long-term resilient recovery of the Central Sulawesi and West Nusa Tenggara (NTB) regions devasted by the major seismic events in 2018 with a particular emphasis on rehabilitation and reconstruction of essential infrastructure. PETRA has been designed to support the transition from the humanitarian emergency assistance to long term recovery by addressing the need to accelerate the restoration of critical public services (such as health and education), improve livelihood opportunities for affected communities and build inclusive community resilience. The project is aligned with the broader development strategies endorsed by national and sub-national disaster recovery plans and the Sustainable Development Goals (SDGs). It also adheres to the Sendai Framework for Disaster Risk Reduction, which reflects a commitment to enhancing

[6] World Bank. 2019. Strengthening the Disaster Resilience of Indonesian Cities – A Policy Note. https://documents1.worldbank.org/curated/en/748581569515561529/pdf/Strengthening-the-Disaster-Resilience-of-Indonesian-Cities-A-Policy-Note.pdf

[7] ibid

disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction.

The project aims to attain its outcome - *Vulnerable communities in Central Sulawesi and NTB recover from the impact of the 2018 disasters and are more resilient to withstand future shocks* through the following two outputs:

(iii) Rehabilitation and reconstruction of fully damaged infrastructure for critical public services which cover gender needs and other gender concerns,
(iv) Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women.

The project is implemented by UNDP using the Direct Implementation Modality (DIM). Figure 1 & 2 below show project intervention sites in target provinces.

3.4 Immediate and Development Objectives

The development objective of the project is to contribute towards long-term resilient recovery of the Central Sulawesi and West Nusa Tenggara (NTB) regions devasted by the major seismic events in 2018 with a particular emphasis on rehabilitation and reconstruction of essential infrastructure and livelihoods improvement for enhanced community resilience to shocks and stresses.

3.5 Expected Results

The project aims to contribute to the rehabilitation and reconstruction of key infrastructure to support the resilient recovery of disaster-affected communities in the two project provinces through the following two outputs.

Output 1: Rehabilitation and reconstruction of fully damaged infrastructure for provision of critical public services which cover gender needs and other gender concerns

Output 2: Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women

By delivering these two outputs, the project further aims to strengthen local government capacities in programming and management of recovery investments, inclusive recovery governance, adoption of greener, 'Build-Back-Better' construction standards, and integration of climate change mitigation and disaster risk management (DRM) into local plans (including spatial plans) and budgets.

Figure 1: Map of West Nusa Tengarra Province showing PETRA sub-project sites

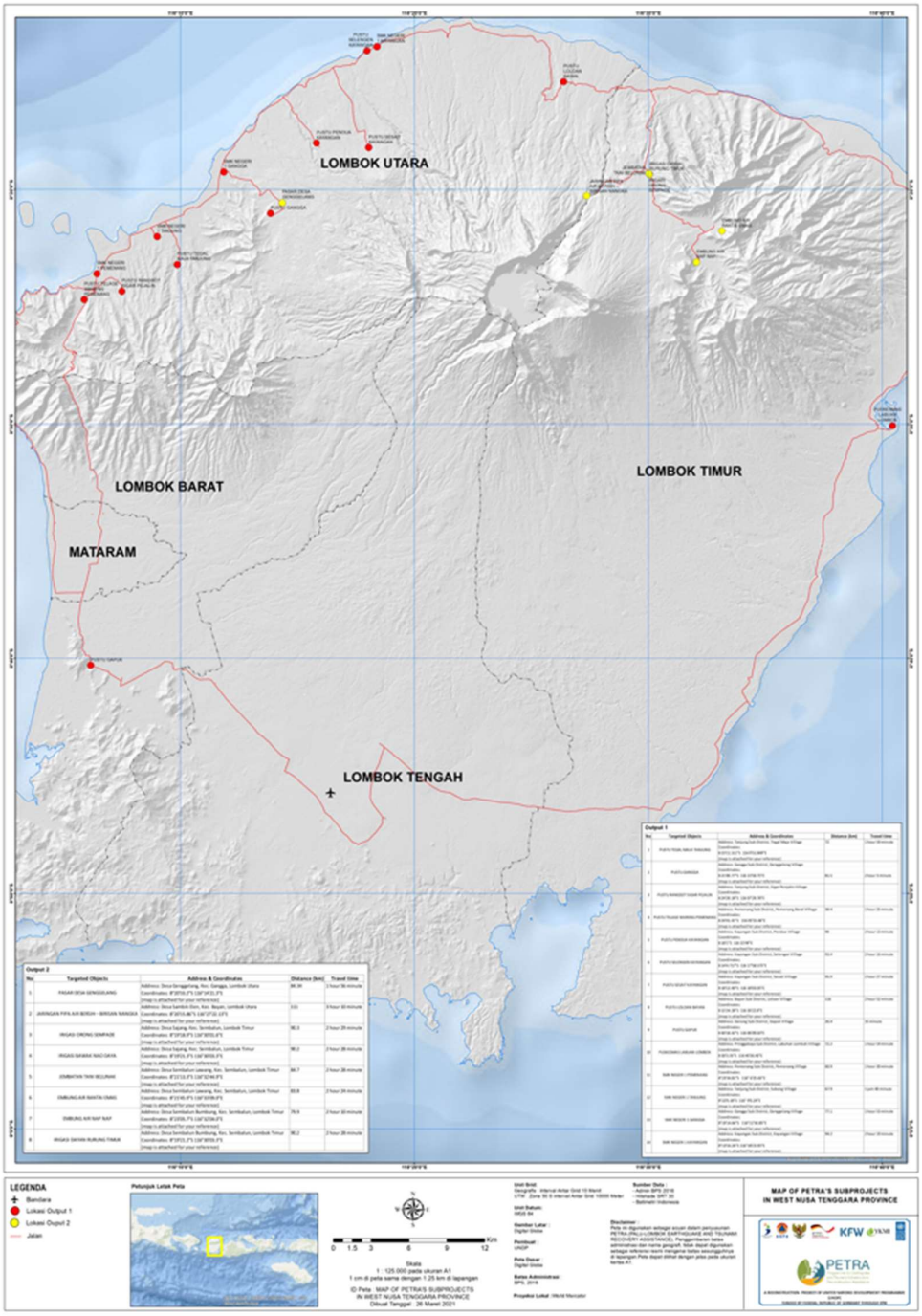
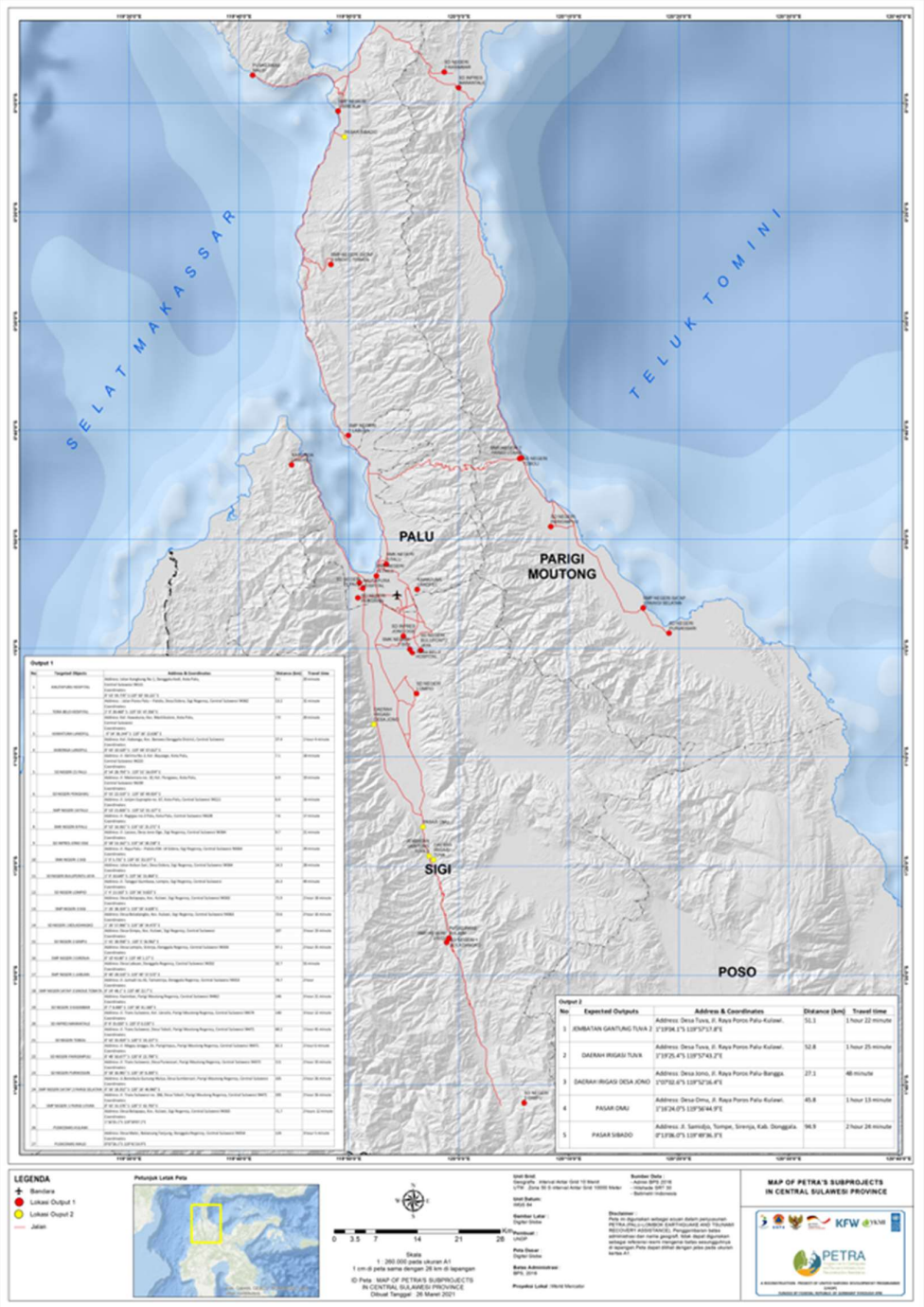


Figure 2: Map of Centra Sulawesi Province showing PETRA sub-project sites



3.6 Main Stakeholders

The key stakeholders of the projects include:

- National Disaster Management Agency (BNPB)
- UNDP
- KfW Development Bank
- Ministry of National Development Planning (Bappenas)
- Ministry of Finance (MoF)
- Geological Agency, Ministry of Energy and Mineral Resources
- Project Provinces & Districts
- Project beneficiaries
    - Project infrastructure managers
        - Vocational Schools SMKN
        - Auxiliary Health Center
        - Hospitals
        - Market places
    - Project Infrastructure end users and other intervention participants
    - Local labour force
    - Local communities
- NGOs, CSOs and CBOs

Table 5 shows the role and nature of engagement of different stakeholders during the project implementation.

Table 5: Roles and Participation of Different Project Stakeholders

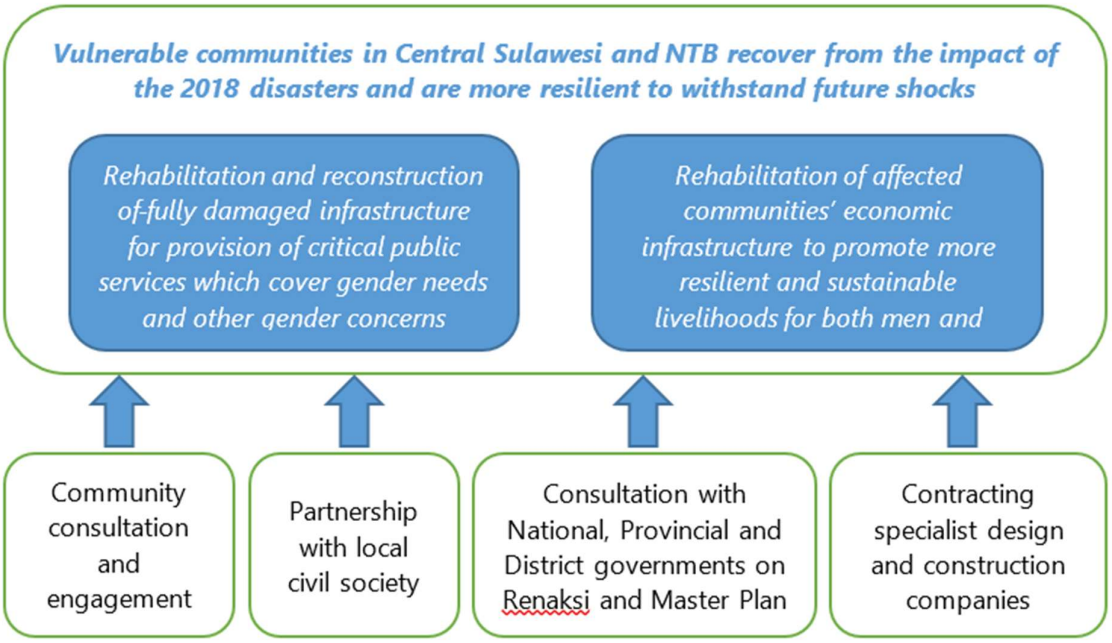
Stakeholder	Roles
National Disaster Management Agency (BNPB)	Project Board member and Senior Beneficiary, Coordination, Implementation support, Technical oversight Reporting
UNDP	Project Board member and Executive, Project implementation, management, coordination, monitoring, and evaluation, Technical oversight/ backstopping, Reporting
KfW Development Bank	Project Board member and Senior Supplier, Funding support , Project design/amendment approval

Stakeholder	Roles
Ministry of National Development Planning (Bappenas)	Coordination and strategic alignment in line with national development objectives. Monitoring
Ministry of Finance (MoF)	Financial regulation compliance and oversights Oversee project asset handover
Geological Agency, Ministry of Energy and Mineral Resources	Technical support on geological aspects Project site selection
Project Provinces & Districts (BPKAD, DLH, BPBD, DIKBUD)	Local implementation support Project beneficiaries
SD, SMP and Vocational Schools SMKN Management	Project beneficiaries of educational infrastructure enhancement, utilizing improved facilities to advance vocational education.
Auxiliary Health Center Management	Project beneficiaries of healthcare infrastructure improvements, to enhance service delivery and community health outcomes at the subdistrict level
Hospitals Management	Project beneficiaries of healthcare facilities to improve healthcare services and patient care capacities at the municipality/district level.
Market Places Management	Project beneficiaries of economic infrastructure that utilize enhanced facilities to boost local commerce and economic activities.
Local Labor Force	Project beneficiaries - engaged in construction and rehabilitation activities, which provide local employment and skill development opportunities.
Women's Group	Project beneficiaries - engaged in social and economic empowerment programs, including those focusing on small scale enterprises.
NGOs, CSOs, and CBOs	Implementation support Coordination - community engagement and support, which facilitates effective communication and participatory approaches.
Local communities	Project beneficiaries

3.7 Theory of Change

The project's Theory of Change (ToC) is presented in Figure 3. The ToC used in the project design shows that a group of project actions/interventions will lead to 2 project outputs and thereby will attain the project outcome. The graphic presentation of the ToC is simplistic in showing the output- impact pathway. The ToC does not include assumptions and risk for attaining the project goal.

Figure 3: Theory of Change



4. Evaluation Scope, Approach and Methodology

4.1 Scope of the TE

The TE report defined the parameters and focus of the evaluation. The evaluation covered all target beneficiary groups of different project interventions under the two outputs implemented during the project period in two target provinces. The TE report provided evidence-based information that is credible, reliable and useful.

The TE reviewed four categories of evaluation criteria - relevance, effectiveness, efficiency and sustainability of the project including the project exit strategy. The TE also looked into coherence of the project interventions. In addition, the TE assessed the following criteria:

- Gender and human rights,
- Additional cross-cutting issues, such as: persons with disabilities, vulnerable groups, poverty and environment nexus, climate change adaptation and mitigation,
- Results Framework,
- Progress to Impact,

- M&E Design and Implementation,
- UNDP oversight/implementation,
- Government Implementing Partner execution,
- Adaptive Management,
- Stakeholder Engagement,
- Co-financing, and
- Social and Environmental Safeguards.

The TE provided ratings of the project's results with brief descriptions of the related achievements in line with the evaluation criteria.

The TE team consisted of one international consultant/Team Leader and two national consultants (one for each project province) recruited by the UNDP Indonesia Country Office. The Terms of Reference for the International Consultant and National Consultants are attached as Annex 1.

4.2 TE Approach and Methodology

4.2.1 Approach

The TE adhered to the guidance outlined in the 'UNDP Evaluation Guidelines'.[8] The TE also looked into a new evaluation criteria under the revised DAC framework – Coherence.[9] The TE employed a collaborative, participatory and empowerment evaluation approach ensuring close participation of all relevant stakeholders including the project team, government counterparts – National Disaster Management Agency (BNPB), Ministry of National Development Planning (Bappenas), Ministry of Finance (MoF), Geological Agency of The Ministry of Energy and Mineral Resources and other related government agencies at national, provincial and local levels, KfW Development Bank, UNDP Country Office, NGOs/CSOs, beneficiary groups and other key stakeholders. The evaluation adopted a consultative and transparent approach with internal and external stakeholders throughout the evaluation process.

The TE approach used desk review, primary data collection, stakeholder engagement through key informant interviews with project stakeholders including National Disaster Management Agency (BNPB), Ministry of National Development Planning (Bappenas), Ministry of Finance (MoF), Geological Agency of The Ministry of Energy and Mineral Resources and related provincial and local government agencies, NGOs/CSOs, Project Board/Project Advisory Committee members, project infrastructure users etc., focus group discussions with beneficiaries / target communities and field visits to selected project sites.

The TE used both quantitative and qualitative methods.

[8] UNDP. 2021. *UNDP Evaluation Guidelines*. New York: IEO UNDP. http://web.undp.org/evaluation/guideline/documents/PDF/UNDP_Evaluation_Guidelines.pdf

[9] AfDB. 2017. *Better Criteria for Better Evaluation: Revised Evaluation Criteria Definitions and Principles for Use.* https://www.oecd.org/dac/evaluation/revised-evaluation-criteria-dec-2019.pdf

4.2.2 Methods

The TE employed a participatory, inclusive and evidence-based evaluation method in order to meet the TE purpose and objectives and in answering the evaluation questions taking into consideration the available budget, time and data.

The TE team used gender-responsive methodologies and tools including Gender Analysis Matrix (GAM), sex-disaggregated data collection, and inclusive data collection methods such as Focus Group discussions (FGD) and interviews ensuring significant women participation. The TE employed both quantitative and qualitative methods for data collection and analysis and ensured that gender equality and women's empowerment, as well as other cross-cutting issues, such as climate actions and SDGs are fully considered throughout the TE exercise and incorporated into the TE report. Data disaggregated by gender, persons with disability and other vulnerable and underserved groups were collected from multiple sources and triangulated.

The Gender Analysis Matrix (GAM) along with other evaluation tools were employed to assess and analyze the differential impacts of disasters, as well as development interventions, on different genders. In the context of crosscutting issues of post-earthquake and tsunami efforts, GAM provided valuable insights into how these disasters affected men and women differently, and helped delineate the impact of gender-responsive strategies for recovery and reconstruction efforts. The TE drew upon the PETRA Gender and Disability Inclusive Technical Guidelines and Recommendations

A particular emphasis was given on assessing the capacity strengthening and knowledge management aspects in the design, implementation and results of the project. The sustainability issue and lessons learned was analysed closely.

The TE used desk review, stakeholder interviews and field visits to collect data and evidence that answered the evaluation questions.

The TE team has undertaken a series of activities under three main steps to complete the TE exercise as furnished in Table 4.

4.3 Data Collection and Analysis

In order to draw upon multiple lines and levels of evidence within the available time and resources, the TE used the following methods to collect data and evidence as per the Evaluation Question Matrix (Annex 2) and analyse relevant data.

Table 6: TE Steps followed by the TE Team

	TE Steps
i.	**Planning and Inception** ➢ Kick-off meeting ➢ Prepare and finalize TE assignment workplan ➢ Collect and review project documents ➢ Draft, finalize and submit Inception Report
ii.	**Data Collection** ➢ Stakeholder consultations – key informant interviews, Focus Group Discussions ➢ Field visit ➢ Collect additional documents for review ➢ Share preliminary findings
iii.	**Data Analysis** ➢ In-dept analysis and interpretation of data ➢ Collect additional data ➢ Prepare and submit draft TE Report ➢ Submit final TE Report addressing comments

4.3.1 Documents Review

Desk review of different project-related documents including the Project Document, UNDP Social and Environmental Screening Procedure/SESP, project reports including quarterly and annual progress reports, project assurance reports (PARs), project budget revisions, audit reports, Project Board/Project Advisory Committee meeting minutes, pertinent national policy, strategy and legal documents, and any other materials that the team considered useful for this evidence-based evaluation enabled the TE team to collect relevant data/information for the TE. The reported project results and achievements identified through desk review were verified during stakeholder meetings and field visits. Following the initial desk review and other data collection exercises, the evaluation team requested for additional information for further review. A list of documents reviewed during the evaluation is presented in Annex 3.

4.3.2 Interviews with Key Project Stakeholders

The TE team conducted semi-structured interviews with key informants and stakeholders, including the project partners and beneficiaries at different levels (implementing agency, partner government agencies senior officials, key experts/consultants in related fields, Project Board/Project Advisory Committee, local communities etc.). Drawing upon the review of relevant documents, focused key evaluation questions around relevance, effectiveness, efficiency and sustainability were used in the stakeholder interviews to ensure maximum desired outcomes from each interview. The TE team developed interview protocols and an interview questionnaire (presented in Annex 4) in line with the scope of the TE as outlined in the ToR at the beginning of the TE mission. A stakeholder mapping was undertaken with the support of the project team and UNDP CO to obtain answers to evaluation questions through interviews.

4.3.3 Field Visits to Project Areas

In order to observe field interventions – infrastructure rehabilitation/reconstruction and other recovery activities first-hand, validate reported results and assess project achievements on the ground, the TE has undertaken field visits to the two project provinces - West Nusa Tenggara (NTB) and Central Sulawesi and conducted interviews and consultations with project facility users, beneficiaries and stakeholders. The TE team ensured that the selected project sites, types of interventions, users and beneficiaries of project interventions, and other project stakeholders were representative and inclusive. Sampling strategies used include selection of stakeholders and intervention sites based on sectoral representation, geographical coverage, diversity of interventions and beneficiary groups, gender consideration, their role in the project, impact on project outcomes and views on project benefits and challenges that facilitated the TE to reflect a balanced view of the project achievements and areas of improvement. The TE team discussed with the UNDP CO and Project Management at the beginning of the field visits and TE mission for endorsement and finalisation of the field visit and TE mission schedule.

In the selected project areas, the TE team carried out consultations with project stakeholders. Consultations and/or focus group discussions were carried out to obtain the views of the project facility users, beneficiaries and local communities. The TE mission assessed infrastructure reconstructed/rehabilitated and other recovery activities implemented by the project. The TE mission gauged both positive and negative results at different levels.

The TE team used a participatory approach to ascertain stakeholders have full opportunity to meaningfully take part in the evaluation, offering their own observations and analyses impartially. This included identification and engagement of stakeholders who have had decisive power to shape allied policies and strategies and stakeholders who have implemented relevant policies, strategies, plans and interventions. The mission employed a gender sensitive approach during the field visits.

The TE engaged all key stakeholders with a particular attention given to the most affected and least influential stakeholders, so they have a strong say in the evaluation. In order to ensure analysis grounded in the realities of project stakeholders, the TE used fully participatory methods including focus group discussions and individual/group interviews so that stakeholders have 'ownership' over the evaluation results and recommendations. Triangulation was done using different complementary methods to verify results.

The TE consulted with a total of 98 people at different levels. Annex 5 presents the list of stakeholders consulted during the TE.

4.4 Data Analysis

For data analysis, the TE mainly used data and method triangulation by putting a special focus on types, sources and usefulness of data and method of data collection to increase the validity and reliability of the findings. Accordingly, for data triangulation, TE collected

data on the same indicators from different sources and from different stakeholders to compare and consolidate findings. For method triangulation, TE used multiple methods of data collection that included direct observations, interviews, FGDs and reports to confirm the same findings through an in-depth analysis.

4.5 Ethics

The TE complied with the principles outlined in the United Nations Evaluation Group (UNEG) 'Ethical Guidelines for Evaluations'.[10] A signed Code of Conduct for Evaluation Consultants is attached is attached as Annex 6.

The TE team has taken necessary measures to protect the rights and confidentiality of individuals interviewed In conducting the evaluation. The TE team has made it clear to all stakeholders interviewed that their feedback and inputs would remain confidential.

4.6 Limitations

Due to the time and budget constraints, the TE team members conducted concurrent field visits to project provinces and TE mission in the national capital. This limited the opportunities for the TE team to discuss and consolidate findings of key informant interviews, FGDs, direct observations in the field, and identify data gaps in real time or immediately following the meetings, interviews and consultations. In order to address this limitation, the TE team members share the key findings from the field, data gaps and any challenges with the team on a daily basis during the TE mission/field visits. Key findings and project intervention photos were shared to keep the TE abreast of the TE preliminary findings.

The provincial and district level government staff turnover presented some challenges in harvesting project milestones, achievements and lessons learned based on their institutional memory. To overcome this challenge, the TE team reached out to relevant former officials who kindly provided relevant information sought by the TE despite their retirement/transfer from the job/project location.

Support and inputs from the UNDP CO and PETRA Project Management Unit further helped the TE team significantly in addressing these limitations.

[10] UNEG. 2020. Ethical Guidelines for Evaluation. UNEG. New York. http://www.unevaluation.org/document/detail/2866

5. Findings

5.1 Project Design/Formulation

5.1.1 Analysis of Results Framework: Project logic and strategy, indicators

The objective of the project to contribute towards long-term resilient recovery of the Central Sulawesi and West Nusa Tenggara (NTB) regions devasted by the major seismic events in 2018 through two outputs – (1) Rehabilitation and reconstruction of fully damaged infrastructure for provision of critical public services which cover gender needs and other gender concerns, and (2) Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women was clear and logical. The project outputs are distinct, connected and attainable.

The project strategy aligns with the country's development priorities and is formulated to be country-driven. The project has been designed in line with the broader development policies and strategies of the country endorsed by national and sub-national disaster recovery plans and the Sustainable Development Goals (SDGs). It also complies with all priority areas of the Sendai Framework for Disaster Risk Reduction – (i) Understanding disaster risk, (ii) Strengthening disaster risk reduction governance, (iii) Investing in disaster risk reduction for resilience, and (iv) Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation, and reconstruction reflecting the country's commitment to implementing the Framework at all levels and fully incorporating the Framework into national development priorities and programmes.

The project has portrayed distinctly the problems to be addressed, root causes of the problem, expected outputs, constraints and allied triggers.

The theory of change (ToC) included in the project design is simplistic in portraying the output- impact pathway. The ToC is based on the assumptions that consultations and partnerships with different stakeholders and engaging contractors will help deliver outputs to attain the project objectives. It did not show linkages between different stakeholders and consultations at different levels, soft sector interventions – community capacity building and income generating activities, and assumptions, risks and drivers that considerably shape the project impacts.

The project document describes project outcomes, outputs and activities. While the programme logic includes the project outcome, the results framework does not feature the project outcome.

The TE analyzed all indicators and found a few inconsistencies in indicator targets in the results framework itself as presented below. The assessment of these indicators relied on a comprehensive review of project documentation supported by data from field visits and consultations with stakeholders. For example, the adoption of gender-sensitive guidelines (Indicator 1.6) was verified through interviews with contractors and government officials, which confirmed a growing acceptance of these standards in construction practices. Similarly, the extent of rehabilitated infrastructure (Indicator 2.1) was confirmed through

site inspections and reports from local government units, providing a tangible measure of project impact.

(i) *Output Indicator 1.6:* Extent to which a technical guideline on gender sensitive rehabilitation and reconstruction inclusive preparedness is available.

Targets for Year 3 and 4: Adoption of the technical guideline by the government's contractors for school and health facilities.

The targets for year 3 and four should be incremental uptake coverage.

(ii) *Output Indicator 2.1:* Cumulative # km of irrigation canals, drainage and *other water facilities* in disaster-affected areas rehabilitated or reconstructed for improved agriculture, subject to consultation with local government and communities.

Other water facilities may not be measured by km like irrigation/drainage channels.

(iii) *Output Indicator 2.4:* Cumulative # households that benefit from economic infrastructure rehabilitation (men and women), including direct beneficiaries (self-employed; employees) and indirect beneficiaries (consumers/users) – in retail and agriculture, subject to consultation with local government and communities.

It is not clear whether these beneficiary are mutually exclusive and how the number of indirect beneficiaries was calculated.

5.1.2 Assumptions and Risks

The project identified six risks during the design phase and recorded in the project document together with the probability of risk occurring, risk category, impact level and mitigation measures (see Annex 7). The project assumptions and risks were well presented and logical. Two significant risks – low/non-performance of construction contractors and disease outbreak/pandemic were not included during the initial project design phase. It is obvious that the project didn't predict the COVID19 pandemic associated risks that took a life and considerably slowed down the project progress. Subsequently, additional seven risks including the COVID-19 pandemic and poor performance of project contractors with mitigation measures were included in the revised project document. Mitigation strategies for two major risks are presented below:

- **COVID-19 Pandemic:** The project adapted to pandemic-related disruptions by shifting to virtual platforms for stakeholder engagements and training sessions, and by re-scheduling construction activities to comply with health guidelines. These adjustments allowed the project to continue its operations while ensuring the safety of all participants.
- **Contractor Performance:** In response to the poor performance of the lead construction contractor, the project management initiated corrective measures,

including the reassignment of tasks to more reliable contractors and increased oversight of construction activities to ensure quality and timely completion.

5.1.3 Lessons from other Relevant Projects Incorporated into the Project Design

Considering the country's vulnerability to substantial disaster risks and experience in implementing reconstruction and rehabilitation projects following catastrophic disaster events, Indonesia is in an advance level in terms of disaster risk reduction and management. As a result, the project design benefited from the lessons learned from previous post-disaster recovery, infrastructure reconstruction and rehabilitation projects including, post tsunami Aceh reconstruction projects.

The project drew upon social and environmental standards best practices and lessons learned from related past and ongoing development projects of UNDP and other development partners.

5.1.4 Planned Stakeholder Participation

The project document highlighted a broad stakeholder engagement strategy for the project implementation. The project put a special emphasis on consultation with women's organizations and other gender stakeholders during the project's life cycle, particularly at decision making stage to address barriers for gender equality and women empowerment.

The project had a number of meetings and consultations to identify and engage project stakeholders including national line agency and relevant national, provincial and local governments, NGOs, CSOs, donor, international development agencies and local communities, and define their roles and responsibilities. The project has put in place a stakeholder engagement plan during the project implementation. Project has engaged target beneficiaries at community level in project implementation.

The views of individuals who would be impacted by project decisions, those who could influence the outcomes, and those who could provide information or other resource support were taken on board during the project intervention planning phase.

5.1.5 Linkages between project and other interventions within the sector

Given that PETRA is nationally-led with a strong national ownership, the project design showcased an architecture to facilitate close linkages between the project and other interventions coordinated by the national and provincial government within the sector. Considering the scale of damages caused by the disaster events and scope of PETRA, the project design aimed to reinforce impacts of the project interventions by developing synergies with interventions implemented by government, non-government and other development actors within the sector. PETRA project helped to fill gaps in implementation of action plan of BNPB. The linkage between PETRA and the Accelerating Clean Energy Access to Reduce Inequality (ACCESS) project deserves a special mention.

5.2 Project Implementation

5.2.1 Adaptive Management

The project has used adaptive management to adapt to changing circumstances to ensure project implementation to attain the overall project objective and goal. The following issues were addressed during the project implementation using a proactive adaptive management approach:

- The project was considerably affected from the outset of the COVID-19 pandemic in the first Quarter of 2020. The project went into COVID-safe mode to continue implementation of project interventions.
- Slow/non-performance of a project contractor – PT Istaka Karya, tasked to construct 20 infrastructure considerably slowed down the project progress. The project terminated the contract with the contractor to minimise any financial loss and engaged another contractor to continue with unfinished construction work without compromising with the quality and extent of works through a no-cost extension to cover the lost time. Considering the nature of work the contractor was hired for, raising a red flag earlier than the 3rd quarter of 2021 was challenging. Nevertheless, replacing Istaka Karya with a new contractor was timely as the contractor went into bankruptcy soon after the contract termination by UNDP.

5.2.2 Actual stakeholder participation and partnership arrangements

The project identified direct and secondary stakeholders during the project design phase and earlier part of implementation and augmented stakeholder participation and partnership building as outlined in previous section. The project took necessary steps to successfully engage and formed partnerships with relevant national, provincial, districts and community level stakeholders.

The project has successfully developed partnerships with allied national, provincial, regional and district government actors who directly supported the project objective, and played an active role that contributed to project delivery under a country-led project implementation framework. This was achieved through regular Project Board/Project Advisory Committee meetings, Indonesia Multi Donor Fund Facility for Disaster Recovery (IMDFF-DR) Steering Committee meetings, coordination meetings, handover events and other such platforms.

The project formed close partnerships with an NGO and women groups that helped in delivering the project. The project endeavoured to have gender responsive stakeholder engagement, particularly at field level ensuring meaningful women participation in project activities.

Both formal and informal platforms have been used for stakeholder participation that occurred both at organizational and individual levels.
Varied stakeholder participation and considerable communication and visibility campaigns have assisted the project buy in support at different levels required for successful project implementation.

5.2.3 Project Finance and Co-finance

As per the Project Document and Project Financing Agreement between KfW and UNDP, the total budget of the project was US$ 28,441,411 (Euro 25,000,000) funded by the KfW Development Bank. Any exchange rate loss or gain has not been reported.

Although there was no Government or UNDP cofinancing, UNDP contributed around US$100,000 to absorb some increased expenditures resulted from termination of contract with the project contractor – PT Istaka Karya. This helped to ensure that the project implement the remaining interventions during the no-cost extension period as originally planned.

The project has shown high financial execution as 98% of the total budget was disbursed during the TE.. This figure encompasses both expenditures and commitments made up to the terminal evaluation. Yearly financial delivery highlights fluctuations in expenditure, with the highest spending occurring during the mid-term phase of the project. This peak corresponds with the most intensive period of project implementation, where major construction and rehabilitation activities were underway. Table 7 presents year wise budget delivery. The project expenditure peaked during the mid-term of the project.

Table 7: Year wise Distribution of Project Budget Delivery

Description	EURO	USD	%
Contribution from KfW	25,000,000.00	28,441,410.70	
Expenses per year			
2019*	915,317.99	1,041,317.39	
2020*	3,026,983.47	3,443,667.20	
2021*	8,245,320.49	9,380,341.86	
2022*	4,954,705.68	5,636,752.77	
2023*	4,500,069.99	5,119,533.55	
2024 up to 10 June **	366,166.42	416,571.58	
Commitments	2,569,029.80	2,922,673.26	
Total Expenses and Commitments	**24,577,593.84**	**27,960,857.61**	**98%**
Remaining balance	**422,406.16**	**480,553.09**	

* Based on CDR UNDP
** Based on Executive Snap UNDP

The project audit conducted in June 2022 did not have any reportable findings and recommendations. This validates the project's adherence to stringent financial controls and transparent accounting practices.

5.2.4 Monitoring & Evaluation: Design at Entry (*), Implementation (*), Overall Assessment of M&E (*)

The project design included a comprehensive Project Monitoring and Evaluation (M&E) Plan (see Annex 11) The M&E plan captured key M&E activities. The project planned to have quarterly, biannual and annual M&E activities and reported through Quarterly Project Report (QPR), Project Assurance Report (PAR) and annual progress report to monitor and evaluate project results. The M&E plan included a terminal evaluation as a requirement for UNDP-supported full-sized projects. The M&E plan had the provision to review and revise the M&E plan highlighting roles and remit of the project team and other stakeholders in implementing the M&E plan.

The Monitoring & Evaluation design at entry is rated as Satisfactory (S).

The implementation of M&E gradually progressed as the project implementation gained momentum. The project conducted both process and result monitoring involving all relevant stakeholders using participatory M&E systems where project beneficiaries, local communities, project team and other stakeholders were involved. The Bappenas, BNPB, Ministry of Finance, Ministry of Energy and Mineral Resources and UNDP CO participated in joint M&E missions to the Project provinces. Under the UNDP CO programme level oversight and direct supervision of the Project Manager, the PETRA M&E Officer was responsible for M&E activities. The M&E findings were essential in making necessary changes using adaptive management.

A few stakeholder shared their concerns with the TE team about timely transmission of Annual Project Reports highlighting project progress. Gender disaggregated data was collected and presented as applicable. The project prepared Quarterly Progress Reports (QPR).

The M&E during implementation is rated as Satisfactory (S).

The overall quality of M&E is rated as Satisfactory (S).

5.2.5 UNDP implementation/oversight (*), Implementing Partner execution (*) and overall assessment of implementation/oversight and execution (*)

The project was implemented by UNDP under the Direct Implementation Modality (DIM) following the operations and management structure and guidelines set out in the project document. The DIM provided UNDP Indonesia, the lead UN agency on international development, an opportunity to showcase leadership, jumpstart of project activities, technical and operational oversight and effective coordination for successful project implementation with a particular emphasis on gender equality and women empowerment, social and environment safeguards, monitoring and evaluation, and risk management to ensure that the project was on track to attain the expected results.

The experienced, committed and passionate Team Leader, Resilience and Reconstruction Unit (RRU) and Programme Manager/Technical Analyst, RRU, UNDP Indonesia Country Office provided regular and first rate technical advice and operational support to the project throughout the project cycle through oversight, supervision, execution of actions, and evaluation of the project in a timely manner. The close guidance provided by the Deputy Resident Representative, UNDP Indonesia has further contributed to smooth project implementation. The UNDP annual reporting displayed candour and realism.

The Project Management Unit comprised of dedicated professionals was headed by an experienced and passionate National Project Manager (PM). The Communication, Reporting and M&E Officer and Resident Engineers played a pivotal role to support the PM.

The project has benefited from the technical backstopping and advisory services provided by the UNDP's Bangkok Regional Hub.

UNDP has played an instrumental role in stakeholder coordination, obtaining development partners' support, and raising the project profile and visibility among policy planners, development actors and the wider community.

Despite the delays in payments by UNDP due to the introduction of Quantum, given the its capacity, UNDP strived to expedite the payments for smooth project delivery.

UNDP successfully employed adaptive management as and when needed (mentioned in earlier section).

The UNDP implementation/oversight is rated as Satisfactory (S).

The National Disaster Management Authority (BNPB) lent all necessary support in a challenging post-disaster landscape for successful project implementation where project activities were implemented in line with the Government's Master Plan for Central Sulawesi, the Renaksi for Central Sulawesi and the Renaksi for NTB.

Multiple Sub-/Directorates within BNPB were involved in PETRA Project implementation with varied roles. BNPB successfully coordinated with Bappenas, Ministry of Finance and Ministry of Energy and Mineral Resources. Despite some coordination challenges among the counterpart entities in the project Provinces and Districts, BNPB has spearheaded the project infrastructure handover.

The changed role of Bappenas in the no-cost extension period enabled BNPB to increase its engagement in PETRA project delivery for impact and sustainability

The implementing partner execution is rated as Satisfactory (S).

The overall assessment of implementation/oversight and execution is rated as Satisfactory (S)

5.2.6 Risk Management

The project's risk log was populated with possible six risks and mitigation measures showing probability and impact level. The UNDP Social and Environmental Screening Procedure also presented relevant risks and management measures with probability, impacts and significance. The project has identified possible risks except the risks of the COVID19 pandemic (disease outbreak/pandemic) and low/non-performance of project contractors that substantially impacted the project implementation. These two risks were not foreseen.

The project reported on the risks eventuated and new risks appeared during the project implementation and proposed mitigation measures regularly in the Project Assurance Reports and Quarterly Progress Reports. A further seven risks were added in the revised Project Document.

Critical risks reported during the project implementation included:

- The Covid-19 pandemic adversely impacting project implementation, particularly for the activities that entail physical presence.
- Poor performance of a lead project construction contractor - PT Istaka Karya to jeopardize project implementation progress
- Potential La Nina induced bad weather risk in 2022 that may hinder the project delivery and meet targets.

The project managed these risks through adaptive management.

The project did not produce a complaints log under the Grievance Redress Mechanism (GRM)/ Complaints Feedback Mechanism as part of the project's Social and Environmental Safeguards. This limited the project's ability to capture concerns/complaints/feedback of project beneficiaries and other stakeholders and as a result, the project could not address the complaints and concerns the stakeholders might have in a systematic way.

Apart from the non-participation of women in some manually demanding construction work as shared by the women workers engaged by the project, the TE team did not observe any concerns for the project's compliance with UNDP's Social and Environmental Standards (SES).

5.3 Project Results and Impacts

5.3.1 Progress Towards Objective and Expected Outcomes

The project achievements against the expected outcome and outputs as outlined in the results framework are presented below[11].

Outcome: Vulnerable communities in Central Sulawesi and NTB recover from the impact of the 2018 disasters and are more resilient to withstand future shocks.

Output 1: Rehabilitation and reconstruction of fully damaged infrastructure for provision of critical public services cover gender needs and other gender concerns.

Output Indicator 1.1: Cumulative number of health units reconstructed or rehabilitated using 'build-back better' construction standards (subject to design geotechnical assessment, estimated 80% of the targeted health units).

Target: 14 health units

Progress: Target not achieved

Thirteen out of 14 health units have been completed.

PETRA project aimed to reconstruct a total of 14 health facilities in NTB and Central Sulawesi Provinces adhering to 'build-back better' construction standards. As of December 2023, substantial progress has been achieved towards the target. Ten health facilities in NTB and three in Central Sulawesi have been reconstructed successfully and are now fully operational. The operationalization of these facilities has been crucial to restore essential health services and to improve access to healthcare for the affected communities.

The reconstruction of the remaining facility, Puskesmas Kulawi in Sigi District commenced in August 2023. as part of Batch 2 of the project's implementation phase. Given the rate of progress, the completion of this Puskesmas is expected by the end of the project.

Output Indicator 1.2: Cumulative # educational establishments reconstructed or rehabilitated using 'build-back better' construction standards (subject to design geotechnical assessment, estimated 80% of the targeted educational establishments).

Target: 25 educational establishments (as per the original and revised Project Document, the target is 21 educational establishments).

[11] The assessment is based on data collected primarily from the Project Assurance Reports, Quarterly Progress Reports, TE Field Visits and other data sources.

Progress: Target not achieved

The TE mission observed significant progress towards achieving this target of reconstructing 25 educational establishments using 'build-back better' construction standards to enhance the resilience and functionality of educational infrastructure and to restore and improve educational services in regions affected by natural disasters.

Seven schools - four in Nusa Tenggara Barat (NTB) and three in Central Sulawesi - have been successfully reconstructed, transferred, and operationalized. These facilities now cater for a total of 2,663 students (1,644 boys and 1,019 girls), thereby reinstating vital educational services and providing enhanced learning environments.

The remaining 18 schools are currently under reconstruction in Palu, Parigi Moutong, Sigi, and Donggala. However, the TE mission has noticed that the schools in Palu and Parigi Moutong have been completed, with joint monitoring conducted by UNDP and local stakeholders to ensure that the facilities meet the specified standards prior to their formal handover. Furthermore, visits to a number of other schools still under construction in Sigi District have revealed a positive outlook, with projections indicating that the construction will be completed before the project's closure in June 2024. This suggests that the progress is on track to achieve the target of reconstructing 25 schools, pending the final handover to the Government of Indonesia through BNPB.

Output Indicator 1.3: Cumulative # men and women live in the surrounding area that potentially benefit from rehabilitated/ reconstructed health facilities (men and women; girls and boys).

Target: 250,000 women and men

Progress: Target exceeded

The completion and operationalization of 13 out of the planned 14 health units across West Nusa Tenggara and Central Sulawesi have extended potential health benefits to approximately 450,000 women and men against a target of 250,00 women and men. This is based on the population data within the service coverage areas of these health facilities, indicating a substantial increase in the accessibility of quality healthcare services as a result of the project's interventions.

The achievement of benefitting 450,000 individuals significantly exceeds the initial target by 80%, demonstrating significant performance and impact of the project activities. This overachievement highlights the project's effectiveness in extending healthcare access and improving the infrastructure to cater to a larger population than initially anticipated.

Furthermore, the anticipated operationalization of the remaining primary healthcare facility in Sigi District is expected to further increase these figures. Assuming the accuracy of these population figures and service capacity estimates, the PETRA project has surpassed its set objectives in terms of expanding healthcare accessibility.

Output Indicator 1.4: Cumulative # of school-age girls and # school-age boys that benefit from reconstructed or rehabilitated educational facilities.
Target: 6,000 girls and boys

Progress: Target not achieved

The completion and operationalization of seven out of the planned 25 schools have provided benefits to 2,663 students comprising 1,644 boys and 1,019 girls in the provinces of Nusa Tenggara Barat (NTB) and Central Sulawesi. While this represents less than 50% of the targets, the ongoing reconstruction efforts for the remaining 18 schools across four districts in Central Sulawesi will further increase these numbers towards the set target, since most of these schools have been completed, with remaining few schools are under finishing work as observed by the TE mission.

According to the relevant stakeholders these schools will be ready for use by the beginning of the school year in July 2024 and therefore, this target achievement could fall outside the project duration. Nevertheless, meeting the educational needs of the communities affected by previous disruptions and aligning with the academic calendar by timely completion of these subprojects will ensure that target number of girls and boys can benefit from the new educational facilities. It is expected that this target will be achieved beyond the project life.

In addition, a total of 266 teachers and staff – 123 females and 143 males, are now working in an improved educational environment as a result of the project intervention, which improves the quality of teaching and learning for the students.

Output Indicator 1.5: Cumulative # tonnes of municipal solid waste sustainably disposed of and/or recycled per day, using rehabilitated facilities and newly introduced waste management systems

Target: 200 tonnes

Progress: Target exceeded

The reconstruction and operationalization of two key landfill sites in Central Sulawesi - the Kawatuna Landfill in Palu and the Kabonga Landfill in Donggala District - have been successfully completed and transferred to the Government of Indonesia. These facilities are now collectively processing a total of 324.13 tonnes of municipal solid waste per day. This includes 202.94 tonnes per day at the Kawatuna Landfill and 121.19 tonnes per day at the Kabonga Landfill. Hence, the project has far exceeded (by more than 60%) this target reflecting the effectiveness of the newly rehabilitated landfills and the efficiency of the waste management systems implemented by the project. It further highlights the project's broader environmental sustainability goals, including improved waste management practices in Central Sulawesi. The capacity to handle a significantly higher volume of waste than expected demonstrates a strong project impact on local environmental management practices, contributing to more sustainable waste disposal and recycling processes.

Output Indicator 1.6: Extent to which a technical guideline on gender sensitive rehabilitation and reconstruction inclusive preparedness is available.
Target: Adoption of the technical guideline by the government's contractors for school and health facilities.

Progress: Target achieved

Since the project was specifically designed to promote gender sensitivity and inclusivity by developing and adopting technical guidelines for the rehabilitation and reconstruction of educational and healthcare facilities, the Gender and Disability Inclusive Technical Guidelines were developed in December 2019 to ensure accessibility and accommodation for vulnerable groups, including women and persons with disabilities (PwD).

Afterwards, these guidelines were disseminated to contractors, consultants, and local governments in Central Sulawesi and NTB to embed these critical principles into the planning and execution phase of construction projects in order to influence broader industry practices within the regions. Despite some implementation challenges, the dissemination and consistent application of the guidelines in all 54 targeted PETRA subprojects across both provinces have notably enhanced the accessibility features of the facilities, improving access for women and PwD significantly.

While the impact of these guidelines on the inclusivity of the project's infrastructure is commendable, the scope of Output Indicator 1.6 could be perceived as somewhat limited given the project's broader potential impact on systemic gender issues. The output focuses primarily on the availability and application of the guidelines, which, while essential, does not fully encapsulate the broader aspects of gender equality and women's empowerment. This focus suggests a potential oversight in prioritizing deeper, more systemic changes that could further enhance gender equality and women's empowerment beyond physical infrastructure.

Although the guidelines have facilitated some involvement of women in construction works, the adjustments made to accommodate local cultural sensitivities, particularly in Central Sulawesi where women's participation in physically demanding tasks is restricted, may indicate a missed opportunity to challenge and transform traditional gender roles more profoundly. The project's significant reliance on infrastructure as a primary vehicle for gender inclusivity might inadvertently sideline more comprehensive approaches that address the root causes of gender disparities.

Furthermore, the engagement of women through Cash-for-Work schemes and skill enhancement in agriculture and handicrafts points to positive strides in community-level empowerment. However, these efforts, while valuable, do not fully leverage the potential to institutionalize gender equality practices within broader governmental and industrial systems.

While the Output Indicator 1.6 has achieved its target, its scope and application highlight a broader need for a more holistic approach to gender equality and women's empowerment in future projects. Expanding the focus to include more systemic changes

could potentially provide more meaningful and lasting impacts on gender equality and women empowerment, moving beyond physical accessibility to address socio-economic and cultural barriers that women endure.

Output 2: Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women

Output Indicator 2.1: Cumulative # km of irrigation canals, drainage and other water facilities in disaster-affected areas rehabilitated or reconstructed for improved agriculture, subject to consultation with local government and communities.

Target: 4.2 km

Progress: Target achieved

The project has completed eight water facilities spanning 4.264 km in length. These include reconstruction of 3.914 km of irrigation canals and water facilities across six villages in West Nusa Tenggara (NTB), and 0.35 km of the same in two villages in Central Sulawesi.

These newly rehabilitated facilities have significantly restored and improved water access for farming and domestic uses, directly benefiting 5,337 farmers in the targeted villages within Central Sulawesi and NTB provinces. This improved water management systems have supported agricultural activities and ensured sustainable water supply for the affected communities.

The project's outreach and impact were further extended through collaborative partnerships with external partners such as JAGA (Jakarta Ambassador Golf Association), the Government of Japan (GoJ), and Badan Amil Zakat Nasional (BAZNAS). Notably, JAGA supported the extension of the reconstruction efforts to include additional irrigation canals, namely the Bawak Nao Daya Sajang canal extending 400 meters and the Dayan Rurung Timuk Sembalun Bumbung canal extending 200 meters, both completed in November 2021. These partnerships facilitated additional interventions in East Lombok and North Lombok, extending the benefits derived from the PETRA project activities funded by KfW.

While this project intervention has contributed towards increased agricultural productivity and production, some irrigation infrastructure in Tuva Village, Central Sulawesi, suffered significant damage due to severe flooding affecting the continuity of the project gains.

The field mission observed significant environmental pressures that challenge the sustainability of infrastructure such as irrigation canals in Central Sulawesi. The region, known for its vulnerability to natural disasters, frequently experiences severe flooding that can have detrimental effects on the newly constructed or rehabilitated facilities. These floods are not merely water-based but often carry debris such as wood, stones, and other materials, which can be due to landslides triggered by the region's particular soil structure and human activities in upstream areas. Such events pose a direct threat to the

structural integrity of water management systems, including irrigation canals and bridges, potentially leading to substantial damage or destruction.

Output Indicator 2.2: Cumulative number of culverts and bridges in disaster-affected areas rehabilitated or reconstructed for improved agriculture, subject to consultation with local government and communities.

Target: 2

Progress: Target achieved

The project has successfully met this target by completing two subprojects. The first, the farmer bridge in Belunak located in the East Lombok District of Nusa Tenggara Barat (NTB) Province, was completed in December 2020. This bridge plays a vital role in supporting local agricultural activities by facilitating easier and safer access for farmers to transport their goods to market, thereby contributing to the economic stability of the agricultural sector in the region.

The second project, the Tuva suspension bridge in the Sigi District of Central Sulawesi Province, was completed in April 2021. This suspension bridge is particularly crucial not only for its role in agricultural logistics but also because it enhances the overall connectivity of the community, providing safe passage over the river and improving access to essential services and markets.

The successful completion of these structures not only fulfills the specified project target but also significantly impacts the local communities. By improving infrastructure in disaster-prone areas, these bridges ensure sustained agricultural productivity and provide community resilience against future disruptions caused by natural disasters, and thereby contribute to local economic stability.

Output Indicator 2.3: Cumulative # local markets rehabilitated or reconstructed, subject to consultation with local government and communities

Target: 3

Progress: Target achieved
The project has successfully reconstructed three local markets in disaster-affected areas to revitalize community commerce and ensure access to market facilities for local producers and consumers. The local markets that have been reconstructed include the Genggelang village market in Nusa Tenggara Barat (NTB) Province, along with the Omu and Sibado local markets in Central Sulawesi Province. Each of these markets plays an important role in their respective communities by providing a centralized location for buying and selling of goods, which is essential for the economic well-being of the local population.

The reconstruction of these markets was executed in close consultation with local government entities and community groups to ensure that the new facilities meet the

specific needs and preferences of each area. While the market in NTB faces some operational challenges in terms of running cost and administrative processes and not been operational for the last one year as identified by the TE mission, the remaining two markets have been operationalized and are currently being utilized by the communities. The return to functionality of these markets has restored vital economic activities, enabling local vendors to resume business and providing consumers with access to a diverse range of products. The successful completion of these subprojects has not only achieved the specified project target but has also significantly contributed to reinvigorating local economies and supporting community resilience in the aftermath of adversity.

Output Indicator 2.4: Cumulative # households that benefit from economic infrastructure rehabilitation (men and women), including direct beneficiaries (self-employed; employees) and indirect beneficiaries (consumers/users) – in retail and agriculture, subject to consultation with local government and communities

Target: Direct beneficiaries – approximately 400 retailers; indirect beneficiaries - approximately 5,000 retailers in agriculture and 4,000 agriculture workers/farmers in catchment area.

Progress: Target partly achieved

A total of 3,514 households, comprising 12,787 individuals (6,480 men and 6,307 women), have been reported to reside in the areas surrounding the subprojects, indicating a broad base of community members who could potentially benefit from the enhanced infrastructures.

In Central Sulawesi, 252 household local traders (118 males and 134 females) are now directly benefiting from the market reconstruction (the market in NTB remains non-functional for the last one year), which support their commercial activities and enhance their economic stability. In addition, 20 local workers representing 40 percent of the total workforce were actively engaged in the subprojects reflecting the project's commitment to local engagement and employment.

The project has successfully integrated a Cash-for-Work program, enrolling 592 workers (474 males and 118 females, including 9 persons with disabilities) in the rehabilitation and reconstruction processes. This program has provided immediate employment opportunities and also contributed to skill development among the local workforce.

Indirectly, the reconstruction of 13 community infrastructures has benefited 10,722 households, translating into 41,192 individuals (20,971 males and 20,221 females) who now enjoy improved access to services and facilities.

The project rehabilitation and reconstruction efforts have facilitated substantial economic and social benefits for a significant number of households, both directly and indirectly. These achievements could contribute to fostering economic revitalization and supporting

sustainable community development in the targeted regions and thus contributing to broader community resilience and recovery.

Output Indicator 2.5: Cumulative # newly created jobs in the waste management and recycling ecosystem (collection, sorting, processing retailing), direct and indirect, men and women, subject to consultation with local government and communities.

Target: 500 HH

Progress: Target not achieved

This target is not clear because while the indicator refers to number of jobs created, the target is set for the number of HH benefited.

The project has trained a total of 654 households from the villages of Genggelang and Sambik Elen on various waste management-related skills. This initiative has effectively reached approximately 3,200 individuals, comprising 2,047 males and 1,153 females. Subsequently, 294 (45%) of these trained households have begun leveraging their newly acquired skills to develop their own waste-based business models. This entrepreneurial uptake not only signifies successful skill transfer but also highlights the initiative's impact in fostering sustainable economic activities. These new business ventures will contribute to the local economy by creating additional job opportunities and promoting environmental sustainability through innovative waste management practices.

The direct involvement of households in waste management not only aids in addressing local waste issues but also supports broader environmental goals by integrating sustainable practices into everyday economic activities.

Output Indicator 2.6: Cumulative # male and # female access newly created jobs in livelihood opportunities

Target: 600 males and 250 females

Progress: Target not achieved

A total of 583 individuals have accessed new job opportunities created by the project, including 400 males and 183 females. Although this marks significant advancement towards the target, there is a shortfall in attaining the target, particularly in the engagement of female beneficiaries.
The project reported that there have been no additional beneficiaries in Central Sulawesi to gain access to newly created job opportunities beyond those involved in construction works and capacity building related to Disaster Risk Reduction (DRR). This suggests either the target was not realistic or the project efforts concentrated on infrastructure recovery and resilience training, rather than a diverse livelihoods focus.

The TE noted changes in Output Indicator targets between the initial and revised project results frameworks under all Output Indicators except the target for a technical guideline

on gender sensitive rehabilitation and reconstruction inclusive preparedness and output indicator 1.6 of initial results framework was not included in the revised results framework.

5.3.2 Relevance (*)

The project is relevant for RPJMN (National Medium Term Development Plan) 2015-2019 and RPJMN (National Medium Term Development Plan) 2020-2024. The project is in line with the Law No. 24/2007 on Disaster Management, Presidential Instruction No. 5 of 2018, on rehabilitation and reconstruction following the earthquake disaster in West Lombok Regency, North Lombok Regency, Central Lombok Regency, East Lombok Regency, Mataram City, and affected areas in West Nusa Tenggara Province, Presidential Decree No. 28 of 2018, Presidential Instructions, 2018 on Post-Disaster Rehabilitation and Reconstruction, and Central Sulawesi Rehabilitation and Reconstruction Action Plan (R3P) 2019-2021 and 2022-2024. The project is fully aligned with the Action Plan 2019-2021 that formed the basis of the project planning.

The project is aligned with the Provincial Regulation No. 5/2016 on Disaster Management, West Nusa Tenggara Provincial Regulation No. 8/2017 on Spatial Planning, West Nusa Tenggara Provincial Regulation No. 3/2018 on Regional Development Plans (RPJMD 2018-2023), regulation enacted by the Governor of West Nusa Tenggara No. 46/2018 on Post-Disaster Recovery in Lombok and SK Gubernur No. 360-645/2019 Action Plan RP3 (*Dokumen Rencana Aksi Rehabilitasi dan Rekonstruksi Pascabencana Gempabumi NTB di 7 kabupaten*)

The project contributes to **UNPDF/CPD 2016-2020 Outcome 3:** By 2020, Indonesia is sustainably managing its natural resources, on land and at sea, with increased resilience to the effects of climate change, disasters and other shocks.

The project is linked to **CPD 2016-2020 Indicative Output 3.9:** Recovery preparedness is strengthened particularly in the area of methodology, financing schemes and institutional arrangements.

The project is aligned with the **UNSDCF/CPD 2021-2025 Outcome 3:** Institutions, communities and people actively apply and implement low carbon development, sustainable natural resources management, and disaster resilience approaches that are all gender sensitive.
The project is linked to **UNSCDF/CPD 2021-2025 Indicative Output 3.3:** Strengthened preparedness of institutions and communities to climate change and disasters risks, including deployment of sustainable solutions.

The project is aligned with all four priority areas of the Sendai Framework for Disaster Risk Reduction - – (i) Understanding disaster risk, (ii) Strengthening disaster risk reduction governance, (iii) Investing in disaster risk reduction for resilience, and (iv) Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation, and reconstruction reflecting the country's commitment to implementing the Framework at all levels and fully incorporating the Framework into national development priorities and programmes.. The project contributes to **SDG 9** - Build resilient

infrastructure, promote inclusive and sustainable industrialization and foster innovation, **SDG 11 -** Make cities and human settlements inclusive, safe, resilient and sustainable, **SDG 3 -** Ensure healthy lives and promote well-being for all at all ages, **SDG 4 -** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, **SDG 8 -** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, **SDG 13** - Take urgent action to combat climate change and its impacts, and **SDG 5 -** Achieve gender equality and empower all women and girls.

All the above mentioned TE assessments of the project relevance have been confirmed through stakeholder interviews, FGD and other data triangulation.

The Relevance is rated as Highly Satisfactory (HS).

5.3.3 Effectiveness (*)

The project has attained some of the expected outputs under the project outcome as outlined in the results framework. Out of the 12 output indicators, the project has achieved the targets of 6 indicators where for two indicators, targets were exceeded. For the remaining 6 indicators, the project has partially or not achieved the targets. However, among these 6 partially/not achieved output targets, the TE team is of the opinion, based on the current state of the interventions and rate of progress that 3 indicator targets will be met by the project end date, which is also confirmed the PMU and UNDP senior management.

The project has either achieved or will achieve by the project end date, all the indicators targets for infrastructure reconstruction and rehabilitation in project provinces.

The number of women and men benefited from the project reconstructed health facilities has exceeded the target.

The project has also exceeded the target on the municipal solid waste disposal and/or recycling using rehabilitated facilities and newly introduced waste management systems.

The engagement of skilled workers from outside of project areas facilitated a substantive transfer of knowledge and expertise to local workers, encompassing not only advanced construction techniques but also essential safety practices, such as the mandatory use of helmets and other protective equipment. This initiative has served to elevate local standards in construction safety and workmanship.

Rigorous quality control measures were a cornerstone of the project, providing local contractors with practical experience in applying high standards of material and construction quality checks. This exposure has instilled a deep-rooted appreciation for meticulous quality assurance processes among the contractors. The local contractors perceived their involvement with PETRA as a mentorship, which enriches their experience and capabilities in handling complex infrastructural projects.

The progress towards the project objective and expected outcome has been achieved through reconstruction and rehabilitation of health, educational and economic/rural infrastructure including water facilities, culverts/bridges, markets and waste disposal/recycling facilities, community livelihoods skill training, and creation of diverse livelihood opportunities with particular focus on gender and disability inclusion (discussed in details in section 5.6 and 5.7), environmental sustainability, and disaster and climate resilience.

The project created synergies among the interventions that reinforced the project results. The project was actively engaged with local government institutions to align project initiatives with local development plans and priorities, which helped ensure that the project interventions were not only relevant but also supported by local governance structures, facilitating smoother implementation and increased effectiveness. Moreover, the integration of skilled labor and rigorous quality control measures not only enhanced local construction standards but also facilitated a substantive transfer of knowledge and expertise to local workers.

The PETRA project has not resulted in any negative unintended outcomes and has extended its positive impacts beyond its initial scope, notably in promoting inclusivity and gender equality.

In the face of a number of challenges that the project faced, including the COVID-19 induced risks and restrictions and non-performance of a lead construction contractor, the project managed to navigate towards the project outcome and objective as set out in the results framework.

The Effectiveness is rated as Satisfactory (S).

5.3.4 Efficiency (*)

The project has implemented a number of planned interventions/sub-projects, particularly under Batch 1, in an efficient and cost-effective way. The project has delivered some of the expected outputs and an extensive volume of knowledge and communication products within time and allocated budget.

The project faced significant delay in the implementation of some infrastructure reconstruction and/or rehabilitation due non-performance of a lead project construction contractor and the COVID-19 associated challenges. This entailed a no-cost extension of the project for additional 2.5 years that saw a revision of all output indicator targets except one on the technical guideline on gender sensitive rehabilitation and reconstruction inclusive preparedness and removal of one target indicator (# 1.6) on recycling of earthquake and tsunami debris through a results framework revision. The project expenditures also increased due to the non-performance of the construction contractor, a part of which was covered by UNDP funding of around USD 100,000 Consequently, the project managed to deliver without compromising the scope and quality of project interventions originally envisioned.

The project information flow and reporting among key partners, namely the donor, relevant Government entities and UNDP, and between national government agencies and their sub-national counterparts encountered some challenges. Frequent government staff changes, particularly at sub-national level further add to these challenges.
The project had a well structure and efficient Project Management Unit to manage and coordinate the project delivery. It was prudent to have the inhouse dedicated Resident Engineer and Communication, Reporting and M&E positions.

A close coordination with the UNDP Resilience and Reconstruction Unit and other allied units and oversight by the UNDP senior leaderships considerably helped the project in successful implementation, coordination and management of the project delivery. The Direct Implementation Modality (DIM) has further aided the swift and efficient project implementation.

The project has enhanced capacity of the project contractors on resilient and inclusive infrastructure construction through supervisions and quality control.

The Efficiency is rated as Satisfactory (S).

5.3.5 Overall Project Outcome (*)

Considering the high relevance and satisfactory level of effectiveness and efficiency of the project, the ***Overall Project Outcome is rated as Satisfactory (S).***

5.4 Sustainability: financial (*), socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*)

5.4.1 Financial Sustainability (*)

The financial sustainability of the infrastructure developed under PETRA is supported by the commitment of the local government, which has assumed responsibility for the operation and maintenance of the facilities post-handover. This transition will be backed by allocations from the local government's regular budget. Specific departments, such as the Dinas for Education, Dinas for Health, and Dinas for Environment, are tasked with budgeting for the ongoing needs of these infrastructures.

The readiness of the local government to allocate funds for the operation and maintenance of the built infrastructure was a critical criterion at the project's inception and has been reaffirmed during the handover process to the district government. This preparation indicates a proactive approach to ensuring the continuity of the project's benefits and highlights the local government's capacity to sustain these critical infrastructures financially.

The commitment of local governments to allocate sufficient budgets for the operation and maintenance of infrastructure built under the PETRA project is crucial, particularly for educational facilities. This commitment is underscored by two critical factors. Firstly, the high quality of the constructed infrastructure necessitates potentially higher maintenance costs compared to other facilities built through regular government budgets. The superior construction standards, while enhancing durability and service life, may require specialized upkeep to maintain their condition and functionality. Secondly, the district government's approach to budget allocation often operates on the principle of 'skala prioritas' (prioritization rating), which prioritizes facilities based on their level of damage. This method ensures that resources are directed first to facilities in the worst condition. Consequently, newly built or rehabilitated facilities with less damage, such as those constructed under PETRA, may receive lower budgetary priority. This approach, while pragmatic, underscores the importance of confirming the local government's readiness to allocate sufficient funds for the maintenance of these high-quality facilities.

The ongoing need for reconstruction and rehabilitation in the region, due to numerous facilities still awaiting attention due to budget constraints, further complicates the financial landscape. This context makes the local government’s role in financially sustaining project outcomes even more vital. Ensuring that sufficient funds are directed not just towards immediate repair but also towards the long-term maintenance of less damaged facilities will be critical in preserving the value and functionality of the infrastructure delivered by the PETRA project.

Thus, the financial sustainability of the PETRA project’s outcomes relies significantly on the local government's strategic financial planning and commitment.

The sustainability of the suspension bridge, under the ownership and management of the village government, showcases an example of community-led infrastructure maintenance. Constructed primarily by local workers through a cash-for-work approach, the bridge maximized the use of local resources, fostering a deep connection with the community. This approach was employed by the civil society organization (CSO) acting as the contractor, which utilized empowerment and participatory methods extensively. The primary objective of these methods was to cultivate a strong sense of belonging and ownership among the villagers and the village government, which is crucial for the long-term sustainability of the facility.

To ensure the bridge's upkeep, the village government, in consultation with the villagers, has implemented a funding mechanism. They have agreed to collect fees from farmers, which are proportionate to the size of their land and the yields produced. This fee structure is designed to generate a sustainable financial resource for maintenance needs. Particularly, the bridge's wooden floor, which requires regular maintenance every two to three years due to wear, can be managed through this community fund. The community has proactively conducted meetings to agree upon the costs and logistics for repairing or replacing the wood, utilizing locally available materials.

Moreover, the village also receives adequate funding through government allocations known as Dana Desa (DD) and Alokasi Dana Desa (ADD), which are intended to support various village needs, including infrastructure maintenance. The village government might use these funds to cover minor damages and routine maintenance of the bridge, such as the upkeep of the bridge floor. Thus, the sustainability of the suspension bridge is well-supported by both community-driven initiatives and government funding.

The irrigation canals in two villages within the Sigi District of Central Sulawesi have demonstrated significant utility in enhancing agricultural productivity. However, the canal no longer functions due to damage incurred from recent severe flooding. The financial implications of reconstructing the canal are substantial, exceeding the fiscal capacity of the village, and thus, external support from the district government is required to restore functionality.

The project has delivered skills training for livelihoods improvement in target areas. The project beneficiaries trained would need to have access to finance to embark on a self-employed business model to use their newly acquired skills. This could be done by financial institutes, preferably microfinance service providers for easy-term loans. The current and pipeline development projects could also support these efforts.

The Financial Sustainability is rated as Likely (L).

5.4.2 Socio-political Sustainability (*)

The sustainability of the suspension bridge, constructed primarily by local workers through cash-for-work depends on community-led infrastructure maintenance. The bridge maximized the use of local resources, fostering a deep connection with the community. The construction work utilized empowerment and participatory methods extensively to

cultivate a strong sense of belonging and ownership among the villagers and the village government, which is crucial for the long-term sustainability of the facility.

Stakeholder ownership plays an essential role in the sustainability of the project's benefits. For example, at SMKN I Pemenang, a lack of cleanliness culture and sense of ownership posed challenges, requiring continuous advocacy.

The local workers gained experience in construction work through the project could continue working in this sector if they are linked with the labour market. This will have significant social implications.

The different beneficiary groups, particularly women groups formed in the project areas under the project framework need to continue activities learned through the project and expedite the change process by snowballing allied activities.

The community skills development, livelihoods improvement, climate and disaster resilient and environment-positive infrastructure construction and support services, and gender equality and disability inclusion all contribute to social sustainability.

Since disaster risk reduction is a top priority in the country, it attracts considerable political support which the project has substantially drawn upon.

The Socio-Political Sustainability is rated as Likely (L).

5.4.3 Institutional Framework and Governance Sustainability (*)

Post-handover, the infrastructure developed by the project will be managed as any other government-owned facility within country, adhering strictly to the national legal framework and local regulations. This alignment ensures that the project complies with all relevant Indonesian laws, a fundamental aspect of its sustainability strategy. The local governments involved have demonstrated their commitment by officially signing on to maintain and operate these facilities, which includes allocating necessary funds from their respective budgets for ongoing maintenance and operations. This standardization across local governments regarding funding sources and the agencies responsible for maintenance ensures a uniform approach to infrastructure upkeep.

The project has actively engaged stakeholders through comprehensive strategies designed to foster a sense of involvement and ownership among all parties. This engagement is crucial for the sustained interest and prioritization of the infrastructure's benefits by the community and local officials.

However, it is important to recognize that the financial and institutional capacities to maintain these commitments may vary significantly among the local governments and communities involved. Variability in these capacities can pose a risk to the long-term sustainability of the project benefits. Additionally, the frequent rotation of duties among government officials can lead to challenges in maintaining consistent advocacy and support for the project’s achievements. The continuity of contact persons or partner

officials, who have worked closely with the project and understand its value, in relevant offices or decision-making positions is critical. Their presence can be a decisive factor in ensuring that local governments continue to prioritize the maintenance and effective use of the built infrastructure.

Effective coordination mechanisms are crucial for the long-term sustainability and scaling of development projects such as PETRA. The challenges experienced in these areas during the project's implementation have raised some concerns about the sustainability of its outcomes. Specifically, the observed deficiencies in information sharing among local government agencies, particularly during transitions in personnel, highlight a critical vulnerability in the project's sustainability framework. The discontinuity in knowledge and lack of cohesive information flow can lead to a fragmented understanding of project goals, achievements, and operational strategies, thereby impacting the ability of new officials to effectively support and continue project initiatives. This gap not only threatens the maintenance of the project's achievements but also its capacity to be scaled up or replicated effectively in other regions or contexts.

To ensure the long-term sustainability of the outcomes, it is essential to institutionalize the project's achievements within local government operations. This can be accomplished by establishing formal protocols for information transfer and creating comprehensive documentation of project processes and outcomes that are readily accessible to all stakeholders, regardless of personnel changes. Additionally, strengthening the role of agencies like Bappeda in ongoing project oversight and integration into broader regional development plans will ensure that the initiatives started by PETRA are not isolated but are integrated into the continuous development agenda.

Enhancing the capabilities of BPBD in leading and coordinating the dissemination of information and engaging all relevant Dinas in regular updates and consultations will be instrumental. Such measures will not only secure the gains made but also provide a solid foundation for future initiatives to build upon, thereby enhancing both the sustainability and the potential for the replication of successful models.

Implementing these communication and coordination improvements will ensure that the infrastructure and community resilience advancements achieved by the PETRA project are sustained and that they continue to contribute to regional development and disaster preparedness in the long term.

In assessing the sustainability of reconstructed community markets in Central Sulawesi, it is pertinent to consider the role of the Dinas for Trade and Cooperatives. While the project has successfully handed over the markets to these local government bodies, there was limited proactive engagement with them during the project's planning and implementation phases. This oversight could potentially impact the long-term maintenance and operational efficiency of these markets. The NTB market needs more closer administrative oversights from the local government.

The project has established a network of stakeholders created following meetings/workshops, and gender-sensitive and inclusive (men, women, PWD) community

beneficiary groups to deliver the project. All these platforms will augment institutional framework and governance sustainability.

A substantial volume of communication and visibility products have helped in underpinning institutional sustainability.

The Institutional Framework and Governance Sustainability is rated as Likely (L).

5.4.4 Environmental Sustainability (*)

The project has consistently applied environmentally sustainable practices in its infrastructure subprojects, including the use of durable and locally-sourced materials, and the implementation of 'build-back better' strategies to reduce future environmental impacts and other project soft interventions. Additionally, the waste management facilities have been upgraded to encourage recycling and reduce landfill use, significantly contributing to environmental conservation in the project areas. Therefore, all the project interventions are disaster and climate resilient and environmentally positive. The project interventions are designed to minimize environmental externalities.

The Environmental Sustainability is rated as Likely (L).

5.4.5 Overall Likelihood of Sustainability (*)

The Overall Likelihood of Sustainability is rated as Likely (L).

5. 5 Country Ownership

The project has promoted strong country ownership throughout its implementation, which is a crucial factor in its effectiveness and the sustainability of its results. This ownership is reflected in the project's alignment with national development plans, strategies and priorities, as well as the active involvement of local government entities and communities throughout the project cycle. The ownership can be seen from various aspects, namely alignment with national priorities, government engagement and partnership, local community involvement, and asset transfer compliance. These elements together have ensured that the project outputs are well-integrated into the national and local systems.

The project's objectives and activities were carefully designed to align with Indonesia's broader development goals, particularly those related to disaster resilience, infrastructure development, and community empowerment. This strategic alignment ensured that the project contributed directly to the national agenda for reducing disaster risk and enhancing public infrastructure resilience, crucial in a country prone to natural calamities. From the outset, the PETRA project engaged local and national government agencies to ensure that all interventions were coordinated and supportive of ongoing government efforts. Ministries, local government units, and other statutory bodies were involved at every stage, from conceptualization to implementation. For example, eligible infrastructure projects, listed in the NTB Renaksi and Central Sulawesi Master Plan, were identified and selected in consultation with the Government (at national and sub-national levels). The Project also obtains community feedback throughout project implementation – before, during and after completion of the civil works, and document such feedback in PETRA's progress reports. Such engagement is critical to promote local ownership and ensure the longer-term sustainability of the PETRA-supported investments. This collaboration facilitated smoother execution and increased the project's acceptability and relevance to the local context.

Besides governmental bodies, the PETRA project ensured community involvement to foster a sense of ownership and responsibility towards the outcomes, notably on activities under Output 2. Community consultations and the use of local labour and materials in project activities helped embed the project within the local socio-economic fabric, making its impacts more sustainable and accepted.

An integral aspect of country ownership in the PETRA project is evident in the meticulous compliance with the Government of Indonesia's regulations concerning the transfer of assets derived from grant funding assistance. The process adheres strictly to established legal frameworks, ensuring that all actions are transparent, accountable, and aligned with national priorities. The adherence to these formal procedures exemplifies robust country ownership, reflecting a deep integration of the PETRA project within the national regulatory and administrative frameworks.

5. 6 Gender Equality and Women's Empowerment

The project has demonstrated a strong commitment to promoting gender equality and empowering women through its targeted interventions and inclusive project design. This commitment is evident in both the planning and execution of various project activities, which contribute to the advancement of gender equity in both project Provinces.

The project developed and implemented a Gender and Disability Inclusive Technical Guideline across all construction and rehabilitation works. The guideline aimed to ensure that the new and rehabilitated infrastructure, including schools, healthcare facilities, and public markets, was accessible to and accommodating everyone, particularly women and persons with disabilities. This approach not only improved physical access but also fostered an inclusive environment where women and girls feel safe and valued.

However, the application of the gender mainstreaming and social inclusion for constructive work guidelines needed to be closely monitored and appropriately disseminated to all personnel involved in rehabilitation and reconstruction work, enabling the users to grasp the essential principles. In NTB, some school and healthcare reconstruction work did not fully comply with the guidelines, which could hinder the functionality of the services. At SMKN Gangga, disability toilets lacked ramps, and there was a gap between the toilet floor and the exit. At Puskesmas Labuhan Lombok, where the handle of the disability toilet was quite far from the wall, contrary to the guidelines. Additional efforts to engage more women in project activities were reflected in the involvement of women workers in all built infrastructure. Women and men were remunerated the same amount of money and women were provided some of affirmative actions and policies. This includes advocacy to involve women workers in the construction work, this is was feasible after series of project advocacy campaigns with the related stakeholders (Women Empowerment and Child Protection office, project contractors and local communities). In addition, through this opportunity local workers in general and women worker in particular have learn the essential about the PPE and safety work in construction environment. Despite the benefits women gained from construction work, their burden of domestic chores remains unchanged as they had to wake up earlier than male counterparts to prepare breakfast and lunch, and to ensure someone would take care of their children while they were at work, usually a grandmother. Additionally, during break times, women workers usually provided coffee or refreshments for the men. These societal norms perpetuate inequality and impose multiple burdens on women workers.

Acknowledging the cultural sensitivities in regions like Central Sulawesi, the project customised its workforce participation strategies to involve women in less physically demanding tasks within construction projects. Beyond direct employment, the project also facilitated numerous capacity-building sessions aimed at enhancing women's skills in various sectors, including agriculture and handicrafts, thereby improving their economic independence and societal roles.

The reconstruction of local markets has played a pivotal role in women's economic empowerment. By improving the infrastructure of markets, the project has enabled women traders and entrepreneurs to operate in a safer and more business-conducive environment, leading to increased economic activities and opportunities for women to participate in and benefit from the local economy. The TE mission noticed that the number of women utilizing these markets significantly exceeds that of male traders and retailers. This trend underscores the effectiveness of the project in creating spaces that actively support and promote the economic activities of women and further contribute to gender equality in the marketplace.

The project efforts have also contributed to shifting social norms regarding women's roles in society. By providing women with employment opportunities, access to improved educational and health facilities, and more involvement in DRR-related capacity building activities, the project has contributed to the promotion of gender equality as a norm.

The project's targeted reconstruction of the maternity, childcare, and surgery sections at Tora Belo hospital reflects its commitment to gender equality and women's empowerment. By enhancing facilities dedicated to maternal and child health, the project significantly advances the health rights of women and supports safer childbirth conditions, thereby empowering women through improved healthcare services.

As per the UNDP Gender Results Effectiveness Scale (GRES), the project is ranked as Gender Responsive.

5. 7 Cross-cutting Issues

The project has effectively incorporated a range of cross-cutting issues into its implementation strategy, ensuring that these issues are addressed throughout the project lifecycle as presented below.

Environmental Sustainability. One of the key cross-cutting issues of the project has been the environmental sustainability. The project has consistently applied environmentally sustainable practices in its infrastructure projects, including the use of durable and locally-sourced materials, and the implementation of 'build-back better' strategies to reduce future environmental impacts. Additionally, the waste management facilities have been upgraded to encourage recycling and reduce landfill use, significantly contributing to environmental conservation in the project areas.

Climate Change Adaptation. Closely related to environmental sustainability is the project's focus on climate change adaptation. By reconstructing critical infrastructure such as bridges, culverts, and water infrastructure to be more resilient against climate and natural disasters, the project has enhanced the community capacity to adapt to adverse climatic conditions. These efforts are crucial in regions that are frequently affected by natural disasters, helping to adapt and mitigate the impacts of climate change on vulnerable communities.

Social Inclusion. The project has placed a strong emphasis on social inclusion, particularly in ensuring that all segments of the community, including women and persons with disabilities, benefit equitably from the project. The use of Gender and Disability Inclusive Technical Guideline in construction subprojects has ensured that facilities are accessible to all, promoting inclusivity. These guidelines ensured that all newly constructed or rehabilitated facilities are accessible to everyone, including those with disabilities. Specifically, provisions for wheelchair access were integrated into the design of key infrastructural projects, such as schools and healthcare facilities, to promote physical accessibility. Moreover, the project's capacity-building initiatives have targeted diverse groups, thereby fostering social cohesion and integration.

In addressing the needs of vulnerable populations, the reconstruction of specialized hospital sections for maternity and childcare by the project is a reflection to its commitment to inclusivity and responsive healthcare. These efforts ensure that the most vulnerable, particularly women and children, receive focused and enhanced care, which is crucial for their protection and well-being in disaster-prone areas.

Participation of Local Communities. Local community participation has been pursued in the PETRA project, particularly through the Output 2 interventions. Focus Group Discussions (FGDs) were conducted at the village level involving village government representatives and community members, including women, youth, and persons with disabilities during the project intervention planning. These discussions aimed to identify priority infrastructures for rehabilitation and to establish working modalities that reflect community preferences. The outcomes of these FGDs were subsequently presented to the District Government, securing further acknowledgment and support. During the implementation, the project has used Cash-for-Work schemes to facilitate the involvement of local populations, including women, in the rehabilitation and reconstruction of community infrastructures. This approach fostered a greater sense of ownership among the participants. This inclusive and participatory approach has improved the community's sense of belonging to the facilities being built, thereby enhancing the effectiveness and sustainability of the project's impacts.

The project addressed the human rights issues that were significantly compromised following the disasters. These include:

1) Restoration of essential services: Critical infrastructures such as healthcare facilities and schools were prioritized for reconstruction to restore access to essential health and education services, which are fundamental components of human rights.

2) Economic rights through infrastructure development: (i) The reconstruction of irrigation systems was crucial in revitalizing agricultural productivity, which directly impacts the right to food.; (ii) Rebuilding bridges improved connectivity for isolated communities, facilitating access to markets and essential services. This supported the right to mobility and bolstered economic activities by enabling farmers and traders to access wider markets, thereby supporting their right to an adequate standard of living; (iii) The reconstruction of community markets, facilitated the restoration of economic activities and livelihoods which significantly contributed to the overall enhancement of living standards within the affected communities.

The project is aligned with the Sendai Framework for Disaster Risk Reduction by addressing the 4 priorities of the framework - (i) Understanding disaster risk, (ii) Strengthening disaster risk reduction governance, (iii) Investing in disaster risk reduction for resilience, and (iv) Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation, and reconstruction reflecting the country's commitment to implementing the Framework at all levels and fully incorporating the Framework into national development priorities and programmes. The project contributed to Sustainable Development Goals (SDGs) .

5. 8 Catalytic/Replication Effect

The project strategy to achieve its objective, outcome and outputs through planned activities has generated the following catalytic/replication effect that could influence broader developmental policies and practices in disaster prone regions within and beyond the country.

Production of public goods. The project has produced different public goods – public and economically important infrastructure including schools, health facilities, markets, bridges/culverts and water infrastructure. The project has generated a considerable volume of allied knowledge products.

Replication. The project has established a comprehensive model for disaster recovery and resilience-building that integrates infrastructure development with capacity building and community engagement. This model is characterized by its adherence to 'build-back better' principles, inclusion of gender and disability considerations in infrastructure projects, and effective use of Cash-for-Work schemes to stimulate local employment and skill development. Such a model offers a replicable template for other regions facing similar challenges, providing a tested approach to enhancing infrastructure resilience and community empowerment.

Scaling up. The success of the PETRA project—such as the improved resilience of infrastructure, enhanced community capacities, and increased local participation—suggests that the project's approaches could be effectively scaled up. By adopting similar strategies, other projects could leverage the lessons learned to maximize impacts in different contexts, potentially extending the benefits of the PETRA project's approach to a wider audience.

Policy and Practice. The project's alignment with the national recovery and disaster risk reduction strategies demonstrates its relevance to current policy frameworks. The demonstrated effectiveness of the project's approaches could serve as a catalyst for policy review, update and development, encouraging the incorporation of similar principles in future government-led initiatives. Moreover, the successful implementation of the project under the government collaboration underscores the potential for these practices to be adopted more broadly within government planning and execution process.

Documentation and Dissemination: To facilitate the replication and scaling up of its successful practices, it is crucial for the project outcomes and methodologies to be thoroughly documented and disseminated among stakeholders, including local and national governments, international development agencies, and other relevant entities. This dissemination will ensure that the valuable insights gained from the PETRA project can inform future projects and policies, enhancing their effectiveness and sustainability. In this regard, the project has produced a wide range of knowledge and visibility products.

5. 9 Progress to Impact

The project has created significant long-term changes that extend well beyond the immediate completion of planned infrastructure. The improved healthcare and educational facilities have led to improved health and educational outcomes across the target regions.

The health care facilities, rebuilt to higher standards, are now better equipped to cater for the local communities and to withstand future natural disasters, ensuring sustained benefits. The project's impact on local health systems includes not only better physical infrastructure but also improved accessibility for vulnerable populations, contributing to broader public health resilience.

The newly constructed and rehabilitated schools offer safer and more conducive learning environments, which are expected to contribute to higher attendance rates, better learning outcomes, and, ultimately, greater socio-economic mobility for students. The introduction of gender-sensitive and disability-inclusive designs in these schools promotes an inclusive educational approach, potentially influencing broader regional educational policies and practices.

The reconstruction of markets, and development of irrigation facilities and bridges/culverts have revitalized local economies, particularly in agriculture and retails. By improving market facilities and agricultural water management, the project has boosted agricultural productivity and commercial activities, and supported local businesses and increased income security for rural communities. This economic uplift is crucial for the long-term development and stability in the regions.

The Community Markets have significantly transformed the economic landscape of the surrounding villages. Serving as the principal trading hub in the area, the market not only supports local traders and retailers by providing a venue that maximizes their profit potential but also plays a pivotal role in stabilizing prices and ensuring the availability of a diverse range of products. This dynamic has not only boosted the local economy but also enhanced the residents' access to necessary resources, thereby contributing significantly to the improvement of living standards within the community.

The project's emphasis on creating new jobs and livelihood opportunities, especially through Cash-for-Work schemes, has not only provided immediate employment but also helped build skills among the local workforce. This investment in human capital is likely to

yield continued economic benefits as these skills are utilized in future local and regional development projects.

Environmental sustainability has been a significant focus of the PETRA project, particularly through the introduction of improved waste management facilities. These enhancements have fostered more sustainable waste handling practices, contributing to reduced pollution levels and better public health outcomes. The successful implementation of these initiatives has also heightened community awareness and engagement in environmental conservation efforts, marking a notable shift in local environmental stewardship.

All these changes have been recognized and supported at the sub-national level. Following the project implementation, local governments have increased its budgeting, for example, for waste management, demonstrating a commitment to sustaining and expanding upon the improvements initiated by PETRA. This increased financial commitments have enabled continuous improvement in waste management practices, further reducing environmental impact.

The project's contribution to enhancing local waste management capabilities has led the Palu municipality in achieving the prestigious Adipura award, a recognition given to cities in Indonesia for outstanding environmental management. This award not only highlights the effectiveness of the project's environmental interventions but also serves to elevate the profile of Palu as a leader in sustainable urban management.

Beyond the direct beneficiaries, the broader community has also experienced positive impacts. For example, improved bridge infrastructure facilitates better access to farming, markets, schools, and hospitals, benefiting the wider population. The enhanced resilience of infrastructure and communities contributes to regional stability and attractiveness for future investments, indirectly benefiting a broader demographic beyond the immediate project scope.

The success of the PETRA project serves as a platform for scalability and replication. The models developed for resilient infrastructure, inclusive public facilities, and community engagement in disaster-prone areas offer valuable blueprints for similar projects both within Indonesia and in other regions facing similar challenges. The project’s achievements in integrating disaster risk reduction with community development have particularly significant implications for scaling up and adapting these practices in other vulnerable regions.

6. Main Findings, Conclusions, Recommendations, Lessons Learned

6.1 Main Findings

The main findings of the TE are presented below:

1. The project objective and component are clear, connected and attainable. The theory of change is too simplistic in portraying the output-outcome-impact pathway.

2. The project strategy is aligned with the national policy priority, strategy and development architecture. The project is aligned with SDGs and the Sendai Framework for Disaster Risk Reduction. The project contributes to UNPDF (UN Partnership for Development Framework)/ UNSDCF (UN Sustainable Development Cooperation Framework).

3. Two significant risks – low/non-performance of construction contractors and disease outbreak/pandemic - were not included during the initial project design phase. The COVID-19 pandemic and poor performance by a lead construction contractor (PT – Istana Kayra (Persero) associated risks occurred and identified by the project in Q1 2020 and Q3 2021 respectively. While these risks led to an increase in project costs and implementation delay, the project managed these risks innovatively without compromising the planned project outputs by taking an adaptive management approach.

4. The project has taken into account the gender consideration in designing and implementing the planned interventions and contributed to gender equality and women empowerment. The project has not developed a gender action plan to remove gender barriers to enhance women participation and hence empower women. However, the project used the Gender and Disability Inclusive Technical Guidelines and Recommendations developed by the project as a proxy that, in main, emphasises on inclusive and gender-friendly infrastructure in project areas. More gender participation in output 2 than output 1 due to local norms. This is a gender responsive project

5. The project does not have an exit strategy for post-project sustainability as such. The project concludes by handing over completed infrastructure to BNPB where the prerequisites of asset handovers to local authorities including custodianship of project assets and post-project operations and maintenance mechanisms by local authorities are clearly specified for long term sustainability serve as a proxy to an exit strategy.

6. The project conducted both process and results monitoring. Joint monitoring conducted, particularly ahead of the Project Board meetings and project infrastructure handover. However, the project did not have an effective Grievance Redress Mechanism (GRM)/ Complaints Feedback Mechanism as part

of the project's Social and Environmental Safeguards to generate complaints log. This limited the project's ability to address the complaints and concerns the stakeholders might have in a systematic way.

7. UNDP Implementation oversight is commendable and highly appreciated by stakeholders. The UNDP Indonesia CO Leadership and RRU provided oversight and mitigated risks. UNDP carried out good liaison and coordination with key stakeholders at central level, government buy-in, and provided technical assistance and necessary support for adaptive management.

8. A dedicated and professional Project Team implemented, managed and coordinated the project.

9. A substantial number of infrastructure completed and handed over. The remining infrastructure will be completed by the project end date.

10. The delay in implementation and project cost increase due to a lead construction contractor's poor performance and eventual termination of the contract were managed by the project through adaptive management.

11. The project has generated relevant reports, produced considerable communication and knowledge materials. However, progress reports experienced delays. In a few cases, not adequate visibility to distinguish between interventions co-/financed by other donor(s).

12. The project did not foresee the need to include furnishings such as chairs and desks for the reconstructed/rehabilitated infrastructure. As a result, some completed infrastructure were not fully utilized immediately after handover since some main furnishings were essential for the operations of these infrastructure.

13. The project contributed to community, service providers and local government capacity building. Local government infrastructure capacity building is a key thrust for capacity strengthening.

14. Social, financial, institutional and environmental sustainability is likely in a mixed landscape. More sustainability prospects for education and healthcare facilities. Resilient infrastructure contributes to sustainability. Local governments commitments vs budget availability present sustainability challenges.

15. A few infrastructure were damaged after completion following natural disasters/extreme climate events. This warrants more disaster proof planning based on geological survey and taking into account environmental features to ensure newly built/rehabilitated infrastructure facilities withstand recurrent natural disasters in the region and thereby contributes to their sustainability.

16. The project has achieved some of the expected outputs under the project outcome. Out of the 12 output indicators, the project has achieved the targets of 6 indicators where for two indicators, targets were exceeded. For the remaining 6 indicators, the project has partially or not achieved the targets. Among these 6 partially/not achieved output targets, 3 indicator targets will be achieved by the project end date.

Table 8 presents summary achievements of the project against the outputs

Table 8: Project's Summary Achievements

Indicators	Target	Progress
Output Indicator 1.1: Cumulative number of health units reconstructed or rehabilitated using 'build-back better' construction standards (subject to design geotechnical assessment, estimated 80% of the targeted health units).	14 health units	13 health units have been completed. **Target not achieved**
Output Indicator 1.2: Cumulative # educational establishments reconstructed or rehabilitated using 'build-back better' construction standards (subject to design geotechnical assessment, estimated 80% of the targeted educational establishments).	25 educational establishments (as per the original and revised Project Document, the target is 21 educational establishments).	7 schools have been reconstructed, transferred, and operationalized. **Target not achieved**
Output Indicator 1.3: Cumulative # men and women live in the surrounding area that potentially benefit from rehabilitated/ reconstructed health facilities (men and women; girls and boys).	250,000 women and men	Approximately 450,000 women and men **Target exceeded**
Output Indicator 1.4: Cumulative # of school-age girls and # school-age boys that benefit from reconstructed or rehabilitated educational facilities.	6,000 girls and boys	2,663 students - 1,644 boys and 1,019 girls **Target not achieved**

Indicators	Target	Progress
Output Indicator 1.5: Cumulative # tonnes of municipal solid waste sustainably disposed of and/or recycled per day, using rehabilitated facilities and newly introduced waste management systems	200 tonnes	324.13 tonnes **Target exceeded**
Output Indicator 1.6: Extent to which a technical guideline on gender sensitive rehabilitation and reconstruction inclusive preparedness is available.	Adoption of the technical guideline by the government's contractors for school and health facilities.	The Gender and Disability Inclusive Technical Guidelines were developed and disseminated to ensure accessibility and accommodation for vulnerable groups, including women and persons with disabilities (PwD). **Target achieved**
Output Indicator 2.1: Cumulative # km of irrigation canals, drainage and other water facilities in disaster-affected areas rehabilitated or reconstructed for improved agriculture, subject to consultation with local government and communities.	4.2 km	8 water facilities spanning 4.264 km in length. **Target achieved**
Output Indicator 2.2: Cumulative number of culverts and bridges in disaster-affected areas rehabilitated or reconstructed for improved agriculture, subject to consultation with local government and communities.	2	2 **Target achieved**
Output Indicator 2.3: Cumulative # local markets rehabilitated or reconstructed, subject to consultation with local government and communities	3 local markets	3 local markets **Target achieved**

Indicators	Target	Progress
Output Indicator 2.4: Cumulative # households that benefit from economic infrastructure rehabilitation (men and women), including direct beneficiaries (self-employed; employees) and indirect beneficiaries (consumers/users) – in retail and agriculture, subject to consultation with local government and communities	Direct beneficiaries – approximately 400 retailers; indirect beneficiaries - approximately 5,000 retailers in agriculture and 4,000 agriculture workers/farmers in catchment area.	252 local traders (118 males and 134 females) directly benefiting from the market reconstruction. Indirectly, the reconstruction of 13 community infrastructures has benefited 10,722 households - 41,192 individuals (20,971 males and 20,221 females) **Target not achieved**
Output Indicator 2.5: Cumulative # newly created jobs in the waste management and recycling ecosystem (collection, sorting, processing retailing), direct and indirect, men and women, subject to consultation with local government and communities.	500 households	The project trained 654 households on various waste management-related skills. 294 trained households begun leveraging newly acquired skills to develop waste-based business models. **Target not achieved**
Output Indicator 2.6: Cumulative # male and # female access newly created jobs in livelihood opportunities	600 males and 250 females	400 males and 183 females **Target not achieved**

17. The **Relevance** of the project is rated as Highly Satisfactory. The **Effectiveness** and **Efficiency** of the project are rated as Satisfactory. The overall likelihood of **Sustainability** of the project is rated as Likely.

18. The project has established a comprehensive model for disaster recovery and resilience-building that integrates infrastructure development with capacity building and community engagement. This model is characterized by its adherence to 'build-back better' principles, inclusion of gender and disability considerations in infrastructure projects, and effective use of Cash-for-Work schemes to stimulate local employment and skill development. Such a model offers a replicable template for other regions facing similar challenges, providing a tested approach to enhancing infrastructure resilience and community empowerment.

6.2 Conclusions

1. The project aimed to contribute towards long-term resilient recovery of the Central Sulawesi and West Nusa Tenggara (NTB) regions devasted by the major seismic events in 2018 through two outputs – (1) Rehabilitation and reconstruction of fully damaged infrastructure for provision of critical public services which cover gender needs and other gender concerns, and (2) Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women was clear and logical. The project outputs are distinct, connected and attainable.

2. Based on the findings of evaluation of project design/formulation, the TE team concludes that the project strategy aligns with the country's development priorities and is formulated to be country-driven. The project has been designed in line with the broader development policies and strategies of the country endorsed by national and sub-national disaster recovery plans and the Sustainable Development Goals (SDGs). It also complies with the Sendai Framework for Disaster Risk Reduction, reflecting the country's commitment to effective disaster response through enhanced disaster preparedness and to "Build Back Better" in recovery, rehabilitation, and reconstruction.

3. While the project objective and component are clear, linked and feasible, the theory of change did not adequately show the output-outcome-impact pathway and related assumptions and risks.

4. The project has portrayed distinctly the problems to be addressed, root causes of the problem, expected outputs, constraints and allied triggers.

5. The evaluation findings of project implementation led the TE team to conclude that the project has successfully developed partnerships with allied national, provincial, regional and district government actors who directly supported the project objective, and played an active role that contributed to project delivery under a country-led project implementation framework. This was achieved through regular Project Board/Project Advisory Committee meetings, Indonesia Multi Donor Fund Facility for Disaster Recovery (IMDFF-DR) Steering Committee meetings, coordination meetings, handover events and other such platforms.

6. The project formed close partnerships with an NGO and women groups that helped in delivering the project. The project endeavoured to have gender responsive stakeholder engagement, particularly at field level ensuring meaningful women participation in project activities. Both formal and informal platforms have been used for stakeholder participation that occurred both at organizational and individual levels.

7. The project has used adaptive management to adapt to changing circumstances to ensure project implementation to attain the overall project objective and goal. Low/non-performance of a construction contractors and disease outbreak/pandemic - were not included during the initial project design phase. The COVID-19 pandemic and poor performance by a lead construction contractor associated risks occurred. While these risks caused cost escalation and implementation delay, the project managed these risks innovatively without compromising the planned project outputs by taking an adaptive management approach.

8. The project has taken into account the gender consideration in designing and implementing the planned interventions and contributed to gender equality and women empowerment. The project used the Gender and Disability Inclusive Technical Guidelines and Recommendations developed by the project as a proxy of Gender Action Plan. The project saw more gender participation in output 2 than output 1 due to local norms. This is a gender responsive project.

9. The incorporation of Disability Inclusion (DI) strategies in the design of infrastructure represents a significant advancement within the local context. While the initiative has been well-received and has inspired local government interest in similar future projects, its effective implementation faces challenges. These challenges stem primarily from existing perceptions and the lack of prior experience with DI projects, which could influence both maintenance practices and the allocation of necessary budgets.

10. The project does not have an exit strategy for post-project sustainability as such. The project hands over infrastructure to BNPB with agreed conditions of post-project management of assets by the recipient local agencies. However, an exit strategy would outline the process of asset transfers including the conditions laid out for the relevant local government agencies.

11. The project did not have an effective GRM/Complaints Feedback Mechanism to generate a beneficiary complaints log. This limited the project's ability to address the complaints, concerns and feedback the stakeholders might have in an orderly fashion.

12. The significant volume of relevant knowledge and communication products produced by the project would help the broader communities in disaster risk reduction and management, if stored and shared widely.

13. The project infrastructure didn't not come with some essential furnishings. As a result, full utilization of some completed infrastructure were delayed.

14. The project contributed to community, service providers and local government capacity building. Local government infrastructure capacity building is a key thrust for capacity strengthening. While the project does not have an exit strategy for post-project sustainability, the asset handover procedures serve as a proxy to an exit strategy.

15. In order to protect infrastructure facilities from damage by natural disasters/extreme climate events, more disaster proof planning based on geological survey and environmental features should be put in place for infrastructure construction. This will help to attain sustainability of constructed/rehabilitated infrastructure facilities in project provinces.

16. The **Relevance** of the project is rated as Highly Satisfactory. The **Effectiveness** and **Efficiency** of the project are rated as Satisfactory. The overall likelihood of **Sustainability** of the project is rated as Likely.

17. Given the post-project sustainability scenarios, the project is likely to sustain offering considerable potential to replicate and scale provided the government continue to provide the sectoral priority and put in place related resources accordingly. This will further reinvigorate relevant key stakeholders engagement for greater success and impacts of the country's initiatives for a disaster resilient future.

6.3 Recommendations

Rec #	TE Recommendation	Entity Responsible	Time frame
1	***Project Specific:*** Store and make available project communication and knowledge materials to wider audience through different outlets, including on the UNDP, government and relevant websites, banners/posters on allied events with key messages, and sharing links/digital copies with other development actors. Finding # 11, Conclusion # 11	UNDP	Short term
2	***For Future Programming:*** UNDP project design should be based on a theory of change that clearly shows output-outcome-impact pathways by developing a well-designed ToC at the outset of project design phase. Finding # 1, Conclusion # 3	Government, UNDP	Future programming

Rec #	TE Recommendation	Entity Responsible	Time frame
3	UNDP project should develop an exit strategy detailing custodianship journey of project infrastructure to local/regional governments to ensure the sustainability of project interventions after the project life during the project development phase with subsequent updates as needed. This will help local governments in post-project operations and maintenance and thereby add to the success and impact of the project. Finding # 5, Conclusions # 10	UNDP	Future programming
4	UNDP project should develop a gender action plan based a comprehensive gender analysis for improved gender outcomes where women and other underserved groups enjoy increased benefits through project implementation process and results. Finding # 4, Conclusions # 8	UNDP	Future programming
5	To ensure the sustainability and effectiveness of Disability Inclusion (DI) practices, continuous training and awareness programs be established to shift local perceptions and foster a more inclusive approach to infrastructure development. Local governments should consider integrating DI considerations into their future infrastructure projects, supported by specific budget allocations and policy guidelines that prioritize accessibility. Additionally, partnerships with disability advocacy groups could be strengthened to provide expert insight and oversight in the design and maintenance of DI facilities, ensuring that these infrastructures remain functional and truly accessible to all members of the community." Finding # 4, 18 Conclusions # 9	UNDP	Future programming
5	UNDP project should include a dedicated, user-friendly and robust Grievance Redress Mechanism/Complaint Feedback Mechanism in place that will gather complements and complaints on project matters for necessary action and strengthen safeguards. Finding # 6, Conclusions # 11	UNDP	Future programming

Rec #	TE Recommendation	Entity Responsible	Time frame
6	In future UNDP construction/rehabilitation of educational facilities project should include the provision for essential furnishings such as chairs and tables and teaching aids in order to utilize the infrastructure effectively for their intended educational purposes. Finding # 12, Conclusions # 13	UNDP	Future programming
7	More disaster proof planning needs to be done through geological survey and assessing unique environmental characteristics to ensure the infrastructure like water facilities withstand recurrent natural disasters in the region Finding # 15, Conclusions # 15	UNDP	Future programming

6.4 Lessons Learned

1. Community resilience building and livelihoods improvements pivot on sustainable and climate and disaster proof relevant physical infrastructure.

2. Participation of all relevant government, non-government, community and other key stakeholders particularly the agencies with post-project infrastructure asset operations and maintenance responsibilities, throughout the lifecycle of a project ensures its success.

3. The consultations with local governments and communities in the planning and execution planned infrastructure and other allied subprojects maximized their local ownerships, effectiveness and acceptance.

4. Similar future UNDP projects should use innovative communication tools and regular briefing sessions engaging a broader range of stakeholders during project implementation to ensure that changes in personal at different levels do not affect project efficiency.

5. A robust and user-friendly communication and knowledge management system helps in disseminating project best practices and other related information for scaling and replication. It also enhances project visibility among wider communities.

Annex 1: Terms of Reference (ToR) for Terminal Evaluation – Team Leader/ International Consultant

Terms of Reference for ICs and RLAs through /GPN ExpRes
Terminal Evaluation Team Leader for PETRA Project

Assignment Title:	**International Evaluator/Team Leader for PETRA Project Terminal Evaluation**
Project Name:	**Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstructive Assistance (PETRA).**
Duty Station:	**Home-based with travel to Jakarta.**
Application Deadline:	**22 March 2024**
Category:	**International Evaluator/ Senior Specialist**
Type of Contract:	**Individual Consultant (IC)**
Assignment Type:	**Terminal Evaluation (TE) International Evaluator**
Languages Required:	**English**
Starting Date:	**1 April 2024**
Duration of Initial Contract:	**45 workdays**
Expected Duration of Assignment:	**April-May 2023 (45 workdays)**

Services/Work Description:
UNDP Indonesia is currently implementing a project called "Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstructive Assistance (PETRA)" which was started on January 1, 2019, and is expected to be completed by June 30, 2024. As per UNDP policies, all full-sized projects supported by UNDP must undergo a Terminal Evaluation (TE) at the end of the project. The TE process must follow the guidance outlined in the document 'Guidance for Conducting Terminal Evaluations of UNDP-Supported' (Link: http://web.undp.org/evaluation/guideline/documents/PDF/UNDP_Evaluation_Guidelines.pdf).

The Terms of Reference (ToR) outlines the responsibilities of the International Consultant of Team Leader to conduct the TE with the support of National Evaluators. The tentative starting date of the assignment is 26/03/2024. The PETRA project is implemented directly by UNDP Indonesia under the Resilience and Reconstruction Unit (RRU).

Project/Programme Title:
Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstructive Assistance (PETRA)

Consultancy Title:
Terminal Evaluation Team Leader for the PETRA project
Terminal Evaluation timeframe:
26/03/2024 to 31/05/2024

Duty Station:
Home-based

Duration:
45 working days April – May 2024

Expected start date:
1 April 2024

1. BACKGROUND

In 2018 Indonesia was struck by two particularly severe disasters: a 7.0 magnitude earthquake in West Nusa Tenggara (NTB) on 5 August and, less than 8 weeks later - on 28 September - a 7.4 magnitude earthquake, followed by a tsunami and a rare phenomenon known as 'soil liquefaction', in Central Sulawesi.

In Lombok, according to the National Disaster Management Authority (BNPB), 564 people died; 73,000 houses were heavily damaged, and approximately 400,000 people were displaced as a result of the earthquake; total loss is estimated at IDR 18,20 trillion (Euro 1 billion). Affected infrastructure, besides housing, includes over 600 education facilities and nearly 100 health facilities; the economic livelihoods of local communities, inter alia, have also been severely impacted by the earthquake.

In Central Sulawesi, over 2,096 people are known to have died because of the disaster, with more than 4,438 people seriously injured and 1,373 people missing. 68,451 houses are estimated to have been directly damaged and over 173,522 people were displaced. Affected public service infrastructure includes 176 health facilities (among which two hospitals, in Palu City and Parigi Moutong, have been severely impacted) and 1509 education buildings (ranging from elementary schools to universities). Local economic infrastructure has not been immune to damage: 13 marketplaces and 9718 ha of agricultural land have been adversely impacted– with extensive losses being reported in other sectors, such as fisheries and public administration.

Beyond the immediate humanitarian and relief assistance, UNDP has initiated engagements with national and local governments and international partners in support of Central Sulawesi and NTB's recovery efforts. The Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance ('PETRA' in short) has been designed to contribute to such transition: from the immediate response to longer-term recovery.

The ultimate goal of PETRA is to contribute to the rehabilitation and reconstruction of key infrastructure to support the resilient recovery of disaster-affected communities in both provinces. It addresses the need to accelerate the restoration of critical public services (such as health and education) and improve economic livelihood opportunities for affected communities (both men and women), while, at the same time, enhancing resilience to future shocks in both provinces. It is guided and informed by gender-sensitive post-disaster needs assessments and fully aligned with relevant national and sub-national post-disaster recovery plans.

PETRA-supported investments were delivered through coordinated, inclusive, and well-informed (national and sub-national) decision-making processes, with due attention to vulnerable populations and the need to promote gender-sensitive development. 'Build back better' principles were reflected throughout the initiative, to enhance the safety, resilience, energy-efficiency, and more gender-friendly of the local infrastructure. Accessibility considerations (to enable and facilitate physical access to persons with disabilities) have also informed the design of infrastructure rehabilitation or reconstruction projects.

The project contributed to the promotion of gender equality by considering gender concerns, encouraging gender equality in participation, gender equal access and control over livelihood resources, and women's leadership. PETRA has consulted women's organizations and gender stakeholders in the project's implementation cycle, including at decision-making processes. The project also supported addressing gender barriers for equality.

PETRA's objectives are aligned with the Sustainable Development Goals (SDGs) as well as with the Sendai Framework for Disaster Risk Reduction. Very importantly, the project is guided and informed by nationally-led and locally-driven recovery efforts, to ensure full national and local ownership and sustainability.

Table 1. Link of project outputs to global strategy

PETRA Project Document (Outcome and Output)	UNDP Global Strategic Plan 2022-2025	2021-2025 UNSDCF/ CPD
Outcome: Vulnerable communities in Central Sulawesi and NTB recover from the impact of the 2018 disasters and are more resilient to withstand future shocks	OUTCOME 3: Resilience built to respond to systemic uncertainty and risk.	OUTCOME 3: Institutions, communities, and people actively apply and implement low carbon development, sustainable natural resources management, and disaster resilience approaches that are all gender sensitive.
Output 1. Rehabilitation and reconstruction of partially and fully damaged infrastructure for provision of critical public services cover gender needs and other gender concerns	Output 3.1 Institutional systems to manage multi-dimensional risks and shocks strengthened at regional, national, and sub-national levels.	Output 3.3. Strengthened preparedness of institutions and communities to climate change and disasters risks, including deployment of sustainable solutions.
Output 2. Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women	Output 3.1 Institutional systems to manage multi-dimensional risks and shocks strengthened at regional, national, and sub-national levels.	Output 3.3. Strengthened preparedness of institutions and communities to climate change and disasters risks, including deployment of sustainable solutions.
Output 3. Under the Direct Implementation Modality (DIM), Indonesia Country Office establish and fully responsible in the implementation of PETRA project. The project will intervene rehabilitation and	Output 3.1 Institutional systems to manage multi- dimensional risks and shocks strengthened at regional, national, and sub-national levels.	Output 3.3. Strengthened preparedness of institutions and communities to climate change and disasters risks, including deployment of sustainable solutions.

reconstruction after earthquake
disaster in 2018.

To achieve the outcome described in the abovementioned, PETRA has two specific outputs, namely:

Output 1: Rehabilitation and reconstruction of fully damaged infrastructure for critical public services which cover gender needs and other gender concerns.

This is the main output of the project, in terms of programmatic investments. It contributed to the accelerated restoration of critical services, including health, education, and solid waste management. The interventions undertaken for this output are the following:

- Technical assistance and advisory support in the finalization/ updating of the Multi-Hazard Risk Assessment/ Mapping for Central Sulawesi and Nusa Tenggara Barat (NTB). The Risk Assessment allowed for a granular analysis of the varying degrees of exposure that different locations had to disaster risks – not only tsunami and earthquakes, but other types of disasters. This constituted a critical enabler, as it informed spatial planning and referred to SNI 1726:2012 about Procedures for Planning Earthquake Resilience for Building Structure and Non-Building for Safe Construction. Significant infrastructure investments were only undertaken if they were well-informed by sufficiently detailed, location-specific information on disaster risks. The PETRA Project collaborated with the National Geological Agency to conduct a detailed Geological investigation in all 54 targeted sites (41 sites of Output 1 and 13 sites of Output 2) before the construction works began. The findings and recommendations were shared with Government counterparts (national, Sub-national, and district level), consultants, and contractors. The recommendations were also incorporated into the technical design and location selection of targeted infrastructures.

- To mainstream gender and social inclusion into post-reconstruction efforts, The PETRA project engaged a gender expert to conduct a gender and social-inclusive assessment that resulted in the issue of A Gender Mainstream and Social Inclusive Technical Guideline for Reconstruction works. The guideline was socialized to users, design consultants, and contractors. Thus, it was incorporated into the targeted infrastructure design.

- Preparation of PETRA's annual investment plans for local recovery was conducted in close consultation with relevant national and local authorities and local communities (men and women) till the end of 2019. Such plans were informed by 8 readiness criteria established by BNPB and Bappenas, including the planned investments aligned with the Renaksi (the local Recovery and Rehabilitation Action Plans for both NTB and Central Sulawesi). 'Build Back Better' principles were mainstreamed through the investment planning process. UNDP's Social and Environmental Standards and Screening Procedures were used to inform such

planning. As a result, 41 public basic service facilities had been selected as UNDP's targeted reconstruction projects under PETRA.

- The PETRA project conducted two separate tendering processes for Civil works design and supervision and Construction works.

(a) For civil works design in both targeted provinces Central Sulawesi and NTB, there were four tender packages for civil works design and supervision namely, (1) design and supervision for the construction works of 4 schools and 10 health facilities in NTB; (2) Two hospitals in Central Sulawesi; (3) 21 schools and two health facilities in Central Sulawesi and (4) Two landfills in Central Sulawesi.

(b) For construction works in both targeted provinces, there were several tendering packages which were tender package for the construction of 4 schools and 10 health facilities in NTB, two hospitals, 21 schools and two health facilities, and the package for construction of two landfills in Central Sulawesi.

Those tendering processes for civil works design and supervision were conducted under the UNDP's POPP standards which went through several steps namely, the preparation and advertisement of relevant tendering documents required for the design, (re)construction/rehabilitation of the PETRA's targeted infrastructure identified, and engineering supervision. It also encompasses the subsequent review, evaluation, selection, negotiation, and award of contracts.

The tendering documents reflected the 'Build Back Better' principles, including standards for improved safety, resilience, and energy efficiency, as well as accessibility (enabled and facilitated physical access to persons with disabilities). Cost-effectiveness considerations (e.g., to minimize maintenance and operations costs) and compliance with UNDP's Social and Environmental Standards.

The procurement process was conducted in two stages:
First, Request for Proposals (RFPs) will be issued through a competitive tendering process – for the submission of architectural services/engineering design (including drawings), detailed scope of construction services, bill of quantities; tender documentation for construction; supervisory services and building approval processes.
Second, 'Invitations to Bid' (ITBs) will be advertised for construction companies to respond to the scope of services defined through the RFPs. ITBs will be preceded by request for 'Expressions of Interest' (EoIs), as it will help expedite the tendering process (EoIs can be issued while the RFPs are underway). Firms selected through the RFPs can be engaged in the process of review and evaluation of bids once these are received.

- Civil works/Construction. This is the most capital-intensive intervention under PETRA (over 50% of total project funding). Following the award of the contract, the Project closely supervised the timely delivery of civil works - including through the Project's own Resident Engineers and the supervisory firm.

Supervision also sought to ensure due compliance with Indonesia's Building Code and relevant regulations. Payments were performance or delivery-based, as per the terms of the contract. The contract also included arbitration provisions to address potential disputes between the contractor and UNDP and other risk mitigation measures. Compliance with UNDP's Social and Environmental Standards was also closely monitored during construction. As of Q4 2023, 22 out of total 41 targets have been reconstructed and handed over to the Government of Indonesia (GoI), whilst the remaining 19 targets are expected to be completed by May 2024.

- Provision of equipment to accelerate the restoration and enhancement of critical public services was conducted. This activity complemented the civil works/construction component and was carried out in close coordination with relevant national and local authorities to ensure due alignment with national legal requirements (e.g., for medical equipment). For instance, The PETRA project restored capacity of the electrical power transformer in Anutapura Hospital, Palu has allowed the hospital to step up the operational capacity of critical facilities that previously had to be operated alternately, such as Radiology, Hemodialysis, Electrocardiogram (EKG), CT scan, as well as the Polyclinic.

- Provision of formal and on-the-job training to relevant sub-national authorities and community organizations. Several capacity development activities were important to inform, enable, and/or facilitate the delivery of the interventions described above, as well as to ensure the sustainability of the results post-project completion, including asset management/maintenance and operations. The PETRA project encouraged contractors and consultant to inform, enable, and/or facilitate knowledge transfer to users, and local communities surrounding in several ways, namely, internship for students, training on site for users, and involve locals as labor in the construction works.

Output 2: Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods for both men and women.

This output focused on smaller-scale community infrastructure through the following interventions:

- Facilitation of community-led processes for the identification and prioritization of critical local economic assets (infrastructure) to be recovered/rehabilitated – including, for instance, community bridges, feeder roads, local markets, and/or irrigation systems. Through a series of community consultations, the PETRA project has identified and prioritized 13 community economic infrastructures to be reconstructed, namely, 2 community bridges, 3 local markets, and 8 irrigation systems in both provinces Central Sulawesi and NTB. The consultation process involved both men and women as well as with women's organizations and local government.

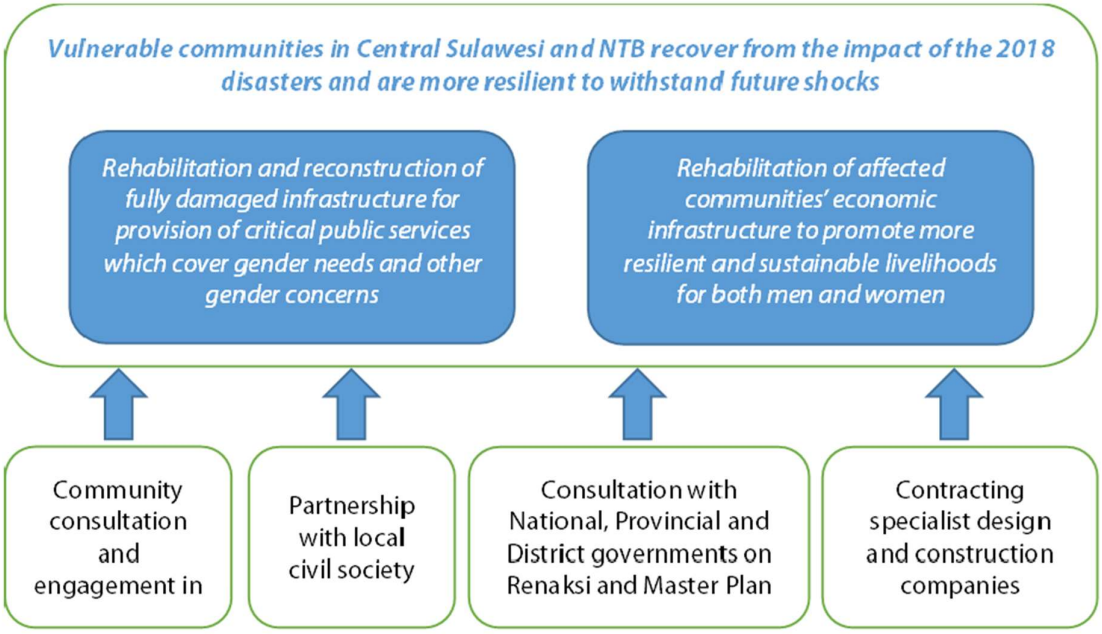
- Conduction of tendering processes for the rehabilitation of prioritized community (economic) infrastructure. The PETRA project has conducted two different types of tender which are: (1) Invitations to Bid (ITB) was issued to identify construction companies to be contracted for the rehabilitation of small-scale community infrastructure namely, 1 waste segregated facility (supported facility to local market) in NTB and 2 local markets in Central Sulawesi, that require specialized engineering services and which cannot be adequately delivered by NGOs or through cash-for-work schemes. The preparation of tender documents was led by PETRA's resident engineers and/or engineering consultants, and with the support of the procurement analyst. (2) Low Value Grant Agreement (LVGA) for scope of works that are technically uncomplicated and can be delivered by CSO/NGO with community participation by applied cash-for-work schemes such reconstruction of 5 irrigation system, 1 commodity kiosk (local market) and 1 farmer bridge in NTB, and 2 irrigation system and 1 suspensions bridge in Central Sulawesi. Two local contractors and 5 CSOs have been awarded for the reconstruction of 13 community infrastructures in both NTB and Central Sulawesi province.

- Civil works/Construction: Contract management and supervision. Following the tendering processes and the issuance of contracts to two selected local contractors, PETRA supervised the civil works through resident engineers and engineering consultants; UNDP CO also provided oversight (spot checks) to verify the effectiveness, quality, and timeliness of the civil works sub-projects, as well as compliance with the Environmental and Social Management Plans. 5 CSOs were also engaged by UNDP to manage the community involvement in such infrastructure sub-projects (however, all design and construction activities were undertaken by qualified engineering companies).

- Implementation of small scale, cash-for-work schemes for reconstruction of community infrastructures with environmentally sound approaches through NGOs/CSOs. This intervention focused on complementing the more complex civil works delivered through specialized construction firms (as indicated in the activities above). PETRA identified 5 CSOs that had demonstrated experience in the management of cash-for-work schemes for debris management and recycling. Small-scale training of masons and construction workers – promoting local "know-how" and public awareness for safe civil works practices was also delivered by the CSO partner. Community-level interventions, implemented by the awarded CSOs, mainly consisted of community "cash for work activities," where the community provided labor to construct or rehabilitate local infrastructure, like tertiary canals for irrigation; site clearing before construction works, and farmer bridges. These activities were managed in line with government regulations and international standards. In the implementation of small-scale, cash-for-work schemes, the project promoted gender equality by providing gender-equal access in participation and equal benefit from the intervention. The project helped in tackling gender stereotypes that may have become barriers in supporting gender equality and women's leadership in the implementation of small-scale, cash-for-work schemes.

- Design and piloting of a sorting and recycling facility, with the engagement of local authorities and communities. PETRA contracted a company to design a sorting and recycling facility to process debris. It is built on UNDP's previous experiences in such types of initiatives (e.g., in Aceh), whereby local communities benefited from the income-generating opportunities afforded by sustainable debris and waste management and recycling. In NTB, to support the local market waste management, PETRA built a segregated waste facility in which the community members of Genggelang and Sambik Elen were introduced to environmentally sound practices and trained communities in sorting, recycling, reusing, and retailing material for reconstruction and/or other activities. Men and women were encouraged to participate in this area of intervention. The project paid attention to gender-equal benefits on income-generating opportunities, especially in providing equal wages, gender-sensitive policies at the workplace, etc.

Figure 1. Project's Theory of Change



2. SCOPE OF WORK, RESPONSIBILITIES AND DESCRIPTION OF THE PROPOSED WORK

Scope of work

The objective of the Terminal Evaluation is to assess project performance against expectations set out in the project's Logical Framework/Results Framework (see ToR Annex A). The TE will assess results according to the criteria outlined in the Guidance for TEs of UNDP-supported Projects (Link: http://web.undp.org/evaluation/guideline/documents/PDF/UNDP_Evaluation_Guidelines.pdf).

The Findings section of the TE report will cover the topics listed below (A full outline of the TE report's content is provided in ToR Annex C).

a. Findings

- Project Design/Formulation
- National priorities and country-driven-ness
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Safeguards
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g. same focal area) incorporated into project design
- Planned stakeholder participation.
- Linkages between project with post-disaster recovery and other development interventions within the sector in two provinces.
- Management arrangements

b. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Actual stakeholder participation and partnership arrangements
- Project Finance and Co-finance
- Monitoring & Evaluation: design at entry, implementation, and overall assessment of M&E
- Implementing Agency (UNDP) and Executing Agency, overall project oversight/implementation and execution
- Risk Management, including Social and Environmental Standards

c. Project Results

- Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements.
- Relevance, Effectiveness, Efficiency, and overall project outcome
- Sustainability: financial, socio-political, institutional framework and governance, environmental, overall likelihood of sustainability
- Country ownership
- Gender equality and women's empowerment
- Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, digitalization, human rights, capacity development, South-South cooperation, knowledge management, etc., as relevant)
- Catalytic Role / Replication Effect

- Progress to impact

d. Main Findings, Conclusions, Recommendations, and Lessons Learned

- The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data. The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses, and results of the project, and respond to key evaluations.
- Questions and provides insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP, including issues about gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible, and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make.
- conclusions around key questions addressed by the evaluation.
- The TE report should also include lessons that can be taken from the evaluation, including best and worst practices in addressing issues relating to relevance, performance, and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that apply to UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.

The conclusions, recommendations, and lessons learned in the TE report need to include results related to gender equality and the empowerment of women.

Team leader's responsibilities

- Providing overall leadership on the independent evaluation of the project based on inputs and insights from the other consultants in the evaluation team;
- Covering at least one component (Coordination) of the project evaluation;
- Supervising and coordinating the work of evaluation team members and responsible for the quality assurance of all evaluation deliverables;
- Developing the design report including the evaluation matrix and the work plan;
- Collecting information, conducting desk reviews of relevant documents and interviews with key stakeholders;
- Drafting the first comprehensive draft of the evaluation report with inputs from team members, addressing the comments from UNDP CO and relevant stakeholders to produce the 2nd draft and final evaluation report in line with UNDP evaluation quality standards; and
- Ensuring that all the evaluation team members selected to work under his/her supervision are fully briefed about the whole evaluation process, objectives, methodology framework, evaluation tools, ethical standards, and key milestones/deliverables.

3. Methodology and Approach

Evaluation Approach

The Evaluation will utilize a mixed-method approach, using qualitative and quantitative methods as necessary. The theory of change used to design the project will be reviewed and revised as necessary, based on stakeholder consultations to provide the basis for this evaluation. The evaluation will pay special attention to ensuring equity, gender, and human rights-based approaches are embedded into the data collection and analysis. It will also be guided by the United Nations Evaluation Group (UNEG) ethical guidelines for evaluation, as well as UNEG Norms and Standards.

The evaluation will be transparent, inclusive, and participatory as well as gender and human rights responsive. It will seek and utilize data disaggregated by age, gender, vulnerable groups, etc. to ensure findings are gender reflective and targeted.

Sampling Strategy

The team will identify a suitable sampling strategy to select, interventions to scrutinize, field visits as well as stakeholders to interview. Sampled sites and stakeholders should reflect the full range of interventions under the project in terms of themes and contexts (post-disaster recovery programming and humanitarian response) across priority geographic areas of work as well as target groups.

Data Collection

Primary data will be collected at the national and sub-national levels through semi-structured interviews, focus group discussions, and direct observation during field site visits as appropriate. Secondary data will be collected through a desk review of existing literature (evaluations, research, and assessments), annual reviews/progress reports, and other monitored data.

Validation Mechanisms

The Evaluation Team will use a variety of methods to ensure the validity of the data collected including systematic triangulation of data sources and data collection. Further, the team will validate findings with key stakeholders and ensure that there are no factual or interpretive errors or missing evidence that could materially change findings.

Stakeholder Participation

An inclusive approach, involving a broad range of partners and stakeholders, will be taken. The evaluation team will perform a stakeholder mapping to identify both the project's direct and indirect partners (i.e. partners who do not work directly with the project and yet play a key role in a relevant output area in the national context). These stakeholders may include representatives from the Government, civil society organizations, the private sector, UN organizations, other multilateral organizations, bilateral donors, and most importantly, the beneficiaries of the project.

Evaluation Audience

Findings, lessons learned, and recommendations of the project shall be used to assess the achievements of the project. In relation to transparency and accountability purposes, the evaluation report shall be communicated to all stakeholders including district-level partners, government, civil society organizations, and donors.

Limitations to the methodology and constraints to the data collection process

Certain constraints have been identified that may have implications on the methodological approach and data collection process during the evaluation. These include:

- Given the complex nature of the programming and time constraints for the data collection by the evaluation team, the selection of stakeholders will be undertaken, and the results will be based on interpreting the responses obtained from the selection concerned. The evaluation team will need to ensure a sufficient level of representation of the diversity of stakeholders and implementation areas concerned;
- Unavailability of key government officials and other stakeholders during data collection; and
- The evaluation team will assess the limitations and conclude with a clear description of mitigating measures such as triangulation and validation in the design report.

4. Evaluation Process

A. Design Phase (output: Inception Report)

This phase will include:

- Desk review by the evaluation team of all relevant documents available for the period under assessment.
- Develop a stakeholder map – The evaluation team will prepare a map of stakeholders relevant to the evaluation and strength of relationship to project. The mapping exercise will include state, civil-society stakeholders and other development actors including, sister UN agencies and bilateral donors;
- Reconstruct the program Theory of Change (TOC) – revisit the existing TOC that links planned activities to the intended results of the project;
- Develop the evaluation matrix – finalize the evaluation questions, identify related assumptions and indicators to be assessed, and data sources;
- Develop a data collection and analysis strategy as well as a concrete work plan for the field phase, including division of labor;
- Specify limitations and challenges expected to conduct the evaluation and any mitigation efforts to be taken to overcome these;
- Share with UNDP and relevant stakeholders for review, discussion and finalization of the report addressing all comments received; and
- Clearance of the design report by UNDP CO Approval of the design report.

B. Field phase – (output: debriefing presentation on the preliminary results of the evaluation and testing conclusions)

The evaluation team will collect data involving a series of individual and group interviews, focus group discussions, and field visits to answer the evaluation questions identified in the design phase. 3 weeks will be allocated to do these exercises. At the end

of the field phase, the evaluation team will provide the UNDP CO with a debriefing presentation on the preliminary findings of the evaluation.

C. Reporting phase – (Output: first draft of final report)
During this phase, the evaluation team will continue the analytical work initiated during the field phase and prepare a first draft of the evaluation report, taking into account comments made by the UNDP CO at the field phase debriefing meeting.
The evaluation team will submit a second draft of the report addressing the comments made by UNDP and relevant stakeholders. This second draft report will form the basis for an in-country dissemination workshop, which will be attended by UNDP Indonesia as well as all the key project stakeholders (including key national counterparts).
The final report will be drafted considering comments received from the participants of the workshop. The Report will be cleared by the UNDP CO.

5. Expected Outputs and deliverables

Payments	Deliverables/Outputs	Estimated number of working days and completion date	Review and Approvals required (indicate the designation of the person who will review the output and confirm acceptance)
Installment 1 (25%)	TE Inception report: The TE team clarifies the objectives and methods of the TE no later than 2 weeks before the TE mission. TE team submits the Inception Report to the Commissioning Unit and project management.	5 Days (09/04/2024)	Head of Quality Assurance and Results Unit (QARE) UNDP and Head of Resilience and Reconstruction Unit
	TE mission: stakeholder meetings at national level and interviews in Jakarta.	5 Days (19/04/2024)	Head of Quality Assurance and Results Unit (QARE) UNDP and Head of Resilience and Reconstruction Unit
	Presentation: TE team presents initial findings to project management and the Commissioning Unit at the end of the TE mission.	1 Day (25/04/2024)	Head of Quality Assurance and Results Unit (QARE) UNDP and Head of Resilience and Reconstruction Unit
Installment 2 (35%)	Draft TE Report: TE team submits full draft report with annexes within 5 weeks of the end of the TE mission.	25 Days (21/05/2024)	Head of Quality Assurance and Results Unit (QARE) UNDP and Head of Resilience and Reconstruction Unit
Installment 3 (40%)	Final TE Report and Audit Trail: TE team submits revised report, with Audit Trail detailing how all received comments have (and have not) been addressed in the final TE report, to the Commissioning Unit.	9 Days (31/05/2024)	Head of Quality Assurance and Results Unit (QARE) UNDP and Head of Resilience and Reconstruction Unit

The final TE report must be in English. All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of

decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines. All deliverables will be in English.

6. Institutional arrangements/reporting lines

The principal responsibility for managing this TE resides with the Head of the Quality Assurance and Results Unit (QARE) and the Head of the Resilience and Reconstruction Unit of UNDP.

The Project will contract the consultants and ensure the timely provision of per diems and travel arrangements within the country (if applicable) and will provide an updated stakeholder list with contact details (phone and email). The Project Team will also be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

7. Team Leader Qualification

The **Evaluation Team Leader** will be an international expert in the evaluation of development projects with:

Academic qualification:
Advanced degree in evaluation, development studies, disaster management, public health, population and gender studies, or any other social science studies.

Years of experience:
At least 10 years of proven experience in conducting evaluations in the field of development for UN organizations or other international organizations.
Experience in leading complex programs and/or country-level evaluations.
Experience in the Southeast Asia region, preferably in Indonesia.
Strong technical and analytical capacities and demonstrated knowledge of evaluation methods and techniques for data collection and analysis.
Excellent leadership, communication ability, and excellent writing skills in English.
Familiarity with UNDP and/or UN; and
Ability to lead a diverse team.

Language: English

6. Payment Modality

- 25% payment upon satisfactory delivery of the final TE Inception Report and approval by the Commissioning Unit.
- 35% payment upon satisfactory delivery of the draft TE report to the Commissioning Unit.
- 40% payment upon satisfactory delivery of the final TE report and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail.

Criteria for issuing the final payment of 40%:

- The final TE report includes all requirements outlined in the TE TOR and is in accordance with the TE guidance.
- The final TE report is clearly written, logically organized, and is specific for this project (i.e. text has not been cut & pasted from other MTR reports).
- The Audit Trail includes responses to and justification for each comment listed.

7.

Annex 2: Evaluation Question Matrix

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the country's DRR, reconstruction and rehabilitation, and long-term recovery policies and strategies, and to the environment and development priorities at the local, regional, and national levels?			
To what extent was the project in line with the project design matrix, national development priorities, the country programme's outputs and outcomes, the UNDP Strategic Plan, and the SDGs?	Alignment rate of project objectives with national development priorities and SDGs; percentage of project outcomes contributing directly to the country programme.	ProDoc, Project documents, Government development plans, SDG reports, UNDP country program documents.	Desk study, Interviews, Field visit, FGD
To what extent was the design of PETRA program activities in synergy with the strategic issues of the region/ district?	Synergies between PETRA activities and provincial strategic issues; Stakeholder satisfaction with project alignment to local needs.	ProDoc, Project documents, progress reports, local government strategic plans, stakeholder \and beneficiaries, Project Team/UNDP	Desk study, Interviews, Field visit, FGD
To what extent does the project contribute to the theory of change for the relevant country programme outcome?	Contribution to country programme outcomes; specific changes attributed to project interventions.	Prodoc, Project documents, country programme outcome reports.	Desk study, Interviews, Field visit, FGD

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent were lessons learned from other relevant projects considered in the project's design?	Lessons incorporated from previous projects; effectiveness of incorporated lessons in enhancing project design.	Previous project reports, Project documents, ProDoc, Project Team/UNDP	Desk study, Interviews, Field visit, FGD
To what extent were perspectives of those who could affect the outcomes and those who could contribute information or other resources to the attainment of stated results, taken into account during the project design processes?	Diversity and number of stakeholders involved in the design process; level of stakeholder input integration into project design.	Meeting minutes, project documents/ reports, ProDoc, Project Team/UNDP,	Desk study, Interviews, Field visit, FGD
To what extent does the project contribute to gender equality, women's empowerment, and the human rights-based approach?	Specific gender equality and human rights outcomes achieved; integration of gender and human rights in project activities.	Gender action plans, monitoring and evaluation reports, Project Document, Progress reports, beneficiaries, Project Team/UNDP	Desk study, Interviews, Field visit, FGD
To what extent has the project been appropriately responsive to political, legal, economic, institutional, etc., changes in the country?	Number of project adaptations in response to external changes; effectiveness of responses in maintaining project relevance.	Project Document, Progress reports, Communication materials, Project Team/UNDP	Desk study, Interviews, Field visit, FGD
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent have the expected outcomes and objectives of the project been achieved?	Achievement of project outcomes and objectives, percentage of deliverables completed as planned.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What have been the key results and changes attained for men, women, and vulnerable groups?	Number and type of benefits accrued to different groups, changes in social/economic indicators for targeted groups.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What was the role of the PETRA Project in building the capacity of related Regional Government Agencies (OPDs) in the region/ district to maintain the legacy or footprint after the program ends?	Level of capacity improvement in OPDs, sustainability of project initiatives post-project.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
In which areas has the project had the greatest achievements? Why and what have been the supporting factors? How can the project build on or expand these achievements?	Areas of highest performance, factors contributing to success, recommendations for future expansion.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What factors have contributed to achieving or not achieving intended country programme outputs and outcomes? What would be constraints and changes if the project is not achieving the results as planned? (it should consider both external and internal factors)	Key performance drivers and barriers, impact of external/internal factors on project results.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, MTR Reports, Key informants	Desk study, Interviews, Field visit, FGD

Evaluative Criteria Questions	Indicators	Sources	Methodology
What were the visible and tangible benefits of various activities implemented through the PETRA Project, especially for women and marginalized groups?	Specific benefits identified for women and marginalized groups, testimonials of changes in quality of life	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, NGO/CSOs	Desk study, Interviews, Field visit, FGD
Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?			
To what extent was the project management structure as outlined in the project document efficient in generating the expected results?	Correlation between management structure and project results, timeliness of result delivery.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
To what extent have the UNDP project implementation strategy and execution been efficient and cost-effective?	Cost per output or outcome, comparison of planned vs. actual budget expenditure.	Financial reports, audit report, annual workplan and budget	Desk study, Interviews, Field visit, FGD
To what extent has there been an economic use of financial and human resources? Have resources (funds, human resources, time, expertise, etc.) been allocated strategically to achieve outcomes	Resource utilization, alignment of resource allocation with strategic goals.	Financial reports, audit report, annual workplan and budget, ProDoc, Progress reports	Desk study, Interviews, Field visit, FGD
To what extent have resources been used efficiently? Have activities supported the strategy been cost-effective?	Cost-effectiveness ratios	Financial reports, audit report, annual workplan and budget, ProDoc, Progress reports	Desk study, Interviews, Field visit, FGD

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent has the project promoted positive changes in gender equality and the empowerment of women? Did any unintended effects emerge for women, men or vulnerable groups?	Changes in gender equality, instances of unintended effects.	Gender analysis reports, monitoring and evaluation (M&E) report, Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
To what extent have poor, and PWDs, women, men and other disadvantaged and marginalized groups benefited from the work of PETRA Project in the country?	Benefit distribution across groups, specific benefits to disadvantaged groups.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, NGO/CSOs	Desk study, Interviews, Field visit, FGD
To what extent have project funds and activities been delivered on time?	Percentage of activities and funds delivered as per the timeline, delays and their causes.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, Financial report	Desk study, Interviews, Field visit, FGD
To what extent do the Monitoring & Evaluation (M&E) systems utilized by UNDP ensure effective and efficient project management?	Effectiveness of M&E systems in detecting and correcting inefficiencies, stakeholder satisfaction with M&E.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?			

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent will financial and economic resources be available to sustain the benefits achieved by the project?	Availability of financial resources post-project, plans for ongoing funding.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews (including with donor), Field visit, FGD
Do the legal frameworks, policies, and governance structures, and processes within which the project operates pose risks that may jeopardize the sustainability of project benefits?	Stability and adequacy of legal and policy frameworks, risk assessments of governance structures.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What is the risk to ensure the level of stakeholders' ownership will be sufficient to sustain the project benefits?	Levels of stakeholder engagement, risk indicators of reduced engagement.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What are the long-term effects felt from the PETRA Project on gender equality, women's empowerment, and social inclusion? (If any, can the positive results regarding gender equality and social inclusion be sustained)?	**C**hanges in gender equality and social inclusion, sustainability of gender and social inclusion initiatives.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What recommendations can be given for the sustainability of the PETRA Project regarding women's empowerment and marginalized groups?	Effectiveness of current recommendations, actionable points for future sustainability.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, meeting minutes	Desk study, Interviews, Field visit, FGD

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent do mechanisms, procedures and policies exist to allow primary stakeholders to carry forward the results attained on gender equality, women's empowerment, human rights, and human development?	Existence and effectiveness of mechanisms and policies, degree of institutionalization of project gains.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, meeting minutes	Desk study, Interviews, Field visit, FGD
To what extent do stakeholders support the project's long-term objectives?	Stakeholder support levels, commitment indicators, potential for ongoing collaboration.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, meeting minutes	Desk study, Interviews, Field visit, FGD
Are there (written/ unwritten) joint strategies regarding gender mainstreaming and social inclusion for future project implementation or recommendation? If yes, how effective are they in implementation? And what is their continuity beyond the project period?	Existence and effectiveness of joint strategies, continuity plans for strategies.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, meeting minutes	Desk study, Interviews, Field visit, FGD
To what extent do UNDP interventions have well-designed and well-planned exit strategies	Quality and comprehensiveness of exit strategies, alignment with long-term project goals.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, meeting minutes, exit strategy	Desk study, Interviews, Field visit, FGD
Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?			

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent have gender equality and the empowerment of women been addressed in the design, implementation and monitoring of the project?	Integration of gender-sensitive measures in project design, percentage of activities that specifically target women's empowerment, reporting on gender-specific outcomes.	Gender studies. Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
Is the gender marker assigned to this project representative of reality?	Accuracy of gender marker in reflecting actual project impact on gender equality and women's empowerment.	Gender studies. Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
To what extent has the project promoted positive changes in gender equality and the empowerment of women? Did any unintended effects emerge for women, men or vulnerable groups?	Specific changes in gender equality and women's status, instances of unintended effects on gender dynamics.	Gender studies. Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, interviews with beneficiaries and stakeholders
How are gender issues included in the monitoringsystems?	Presence of gender-specific indicators in the M&E system	M&E frameworks, Meeting minutes. Gender studies. Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Analysis of M&E frameworks, review of project updates and meeting minutes, interviews (with M&E officers)
Human rights			

Evaluative Criteria Questions	Indicators	Sources	Methodology
To what extent have poor, indigenous and physically challenged, women, men and other disadvantaged and marginalized groups benefited from the work of PETRA Project?	Level of access and benefits received by disadvantaged and marginalized groups, specific improvements in human rights conditions for these groups.	Gender studies. Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants, NGO/CSOs .	Desk study, Interviews, Field visit, FGD
Disability			
Were persons with disabilities consulted and meaningfully involved in programme planning and implementation?	Level of involvement of persons with disabilities in planning and implementation phases, consultation processes documented.	Meeting minutes,. Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What proportion of the beneficiaries of a programme were persons with disabilities?	Percentage of persons with disabilities among total beneficiaries, comparison with regional or national disability prevalence rates.	Progress reports, ProDoc, beneficiaries, Project Team/UNDP, Key informants	Desk study, Interviews, Field visit, FGD
What barriers did persons with disabilities face?	Types of barriers encountered (physical, social, communication), frequency of reported barriers, effectiveness of measures to overcome these barriers.	Accessibility audits, beneficiary feedback, NGO/CSOs, Progress reports, ProDoc, beneficiaries, Project Team/UNDP, MTR Key informants	Desk study, Interviews, Field visit, FGD

Annex 3: List of Documents Reviewed

1. UNDP (Project Award ID: 00116311) PETRA – Project Document
2. UNDP (Project Award ID: 00116311) PETRA – Revised Project Document
3. PETRA Project Financing Agreement between KfW and UNDP, 12 December 2018
4. UNDP's Letter of Request to KfW for PETRA Project extension and budget revision, 18 August 2022
5. Minutes of the KFW-UNDP PETRA Project Grant Agreement Verification and Coordination Meeting, 26 March 2019
6. Minutes of IMDFF-DR Coordination Meeting on KfW-UNDP Recovery Grants Agreement in Central Sulawesi, 21 May 2019
7. Minutes of Meeting of the IMDFF-DR Steering Committee Meeting of 2019, 28 May 2019
8. Minutes of the Project Board Meeting, 30 April 2021
9. Minutes of the Project Board Meeting, 30 June 2021
10. Minutes of the Project Board Meeting, 21 November 2022
11. Minutes of the Project Board Meeting, 11 August 2023
12. Minutes of the Project Site Coordination Meeting, 3 July 2021
13. Minutes of Kick-off and Biweekly Meetings, Output 1
14. Minutes of Meeting on Contractors'/Consultants' Delivery Update, 5 April 2022
15. Minutes of Review Meeting of Joint-Measurement Technical Team, 6 July 2022
16. Minutes of 2nd Review Meeting of Joint-Measurement Technical Team, 13 July 2022
17. Minutes of Meeting with PT AGC and PT Arkonin regarding COVID-19 Infection, 1 February 2021
18. Minutes of Coordination Meeting on Progress Claim and CCO Hospital Package, 26 February 2021
19. Minutes of the Meeting on PETRA- PK Istaka Karya Issue, 16 December 2022
20. Agreement to terminate Contract with PT. Istaka Karya (Persero), Contract No. CW/2021/0000001390, 17 March 2022
21. Geological Agency Final Survey Report for Palu, Sigi, Donggala, Central Sulawesi, April 2020
22. Geological Agency Final Survey Report for Lombok, NTB

23. Design and Approval Stage Quality Assurance Report
24. Implementation Stage Quality Assurance Report
25. Project Assurance Report (PAR), 2nd Semester, 2019
26. Project Assurance Report (PAR), 1st Semester, 2020
27. Project Assurance Report (PAR), 2nd Semester, 2010
28. Project Assurance Report (PAR), 1st Semester, 2021
29. Project Assurance Report (PAR), 2nd Semester, 2021
30. Project Assurance Report (PAR), 1st Semester, 2022
31. Project Assurance Report (PAR), 2nd Semester, 2022
32. Project Assurance Report (PAR), 1st Semester, 2023
33. Quarterly Progress Report, Q1, 2019
34. Quarterly Progress Report, Q2, 2019
35. Quarterly Progress Report, Q3, 2019
36. Quarterly Progress Report, Q4, 2019/Annual Progress Report 2019
37. Quarterly Progress Report, Q1, 2020
38. Quarterly Progress Report, Q2, 2020
39. Quarterly Progress Report, Q3, 2020
40. Quarterly Progress Report, Q4, 2020/Annual Progress Report 2020
41. Quarterly Progress Report, Q1, 2021
42. Quarterly Progress Report, Q2, 2021
43. Quarterly Progress Report, Q3, 2021
44. Quarterly Progress Report, Q4, 2021/Annual Progress Report 2021
45. Quarterly Progress Report, Q1, 2022
46. Quarterly Progress Report, Q2, 2022
47. Quarterly Progress Report, Q1, 2023
48. Quarterly Progress Report, Q2, 2023
49. Quarterly Progress Report, Q3, 2023
50. Quarterly Progress Report, Q4, 2023/Annual Progress Report 2023
51. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Auxiliary Health Center (Puskesmas Pembantu/Pustu) Gangga North Lombok, West Nusa Tenggara, 20 October 2021

52. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Health Puskesmas Labuhan, East Lombok, West Nusa Tenggara, 20 October 2021
53. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Auxiliary Health Center (Puskesmas Pembantu/Pustu) Gapuk, West Lombok, West Nusa Tenggara, 20 October 2021
54. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Auxiliary Health Center (Puskesmas Pembantu) Loloan North Lombok, West Nusa Tenggara, 20 October 2021
55. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Auxiliary Health Center (Puskesmas Pembantu/Pustu) Pendua North Lombok, West Nusa Tenggara, 20 October 2021
56. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Auxiliary Health Center (Puskesmas Pembantu) Rangsot North Lombok, West Nusa Tenggara, 20 October 2021
57. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Auxiliary Health Center (Puskesmas Pembantu/Pustu) Selengen North Lombok, West Nusa Tenggara, 20 October 2021
58. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Auxiliary Health Center (Puskesmas Pembantu) Sesait North Lombok, West Nusa Tenggara, 20 October 2021
59. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Auxiliary Health Center (Puskesmas Pembantu/Pustu) Tegal Maja North Lombok, West Nusa Tenggara, 20 October 2021
60. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Auxiliary Health Center (Puskesmas Pembantu/Pustu) Telaga Wareng North Lombok, West Nusa Tenggara, 20 October 2021
61. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Education Facilities (SMKN 1 Gangga), North Lombok, West Nusa Tenggara, 20 October 2021

62. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Education Facilities (SMKN 1 Kayangan), North Lombok, West Nusa Tenggara, 20 October 2021
63. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Education Facilities (SMKN 1 Pemenang), North Lombok, West Nusa Tenggara, 20 October 2021
64. Sub-Project Completion Report – Sub-Project Code: LOT 1. Construction of Health Facilities / [00114357] / 2019 - Reconstruction of Education Facilities (SMKN 1 Tanjung), North Lombok, West Nusa Tenggara, 20 October 2021
65. Sub-Project Completion Report – Sub-Project: Construction of Inpatient Buildings, Pharmacy, and Maternity Building in Two Hospitals in Central Sulawesi [00114357] / 2019 - Reconstruction of a two-story building, consisting of Murai inpatient building, Stroke Center, and Pharmacy in Anutapura Hospital, 31 July 2022
66. Sub-Project Completion Report – Sub-Project: Construction of Inpatient Buildings, Pharmacy, and Maternity Building in Two Hospitals in Central Sulawesi [00114357] / 2019 - Reconstruction of two storage Inpatient buildings (Pinus and Ebony), and reconstruction of the Maternity Building in Torabelo Hospital, 31 July 2022
67. Sub-Project Completion Report – Sub-Project Code: LOT 2. Construction of Health and School Facilities in Donggala District Central Sulawesi / [00114357] / 2019 - Reconstruction of School Facilities SMPN 1 Labuan, Donggala, Central Sulawesi, 30 June 2022
68. Sub-Project Completion Report – Sub-Project Code: LOT 2. Construction of Health and School Facilities in Donggala District Central Sulawesi / [00114357] / 2019 - Reconstruction of School Facilities SMPN SATAP 3 Sindue Tobata, Donggala, Central Sulawesi, 30 June 2022
69. Sub-Project Completion Report – Sub-Project Code: LOT 2. Construction of Health and School Facilities in Donggala District Central Sulawesi / [00114357] / 2019 - Reconstruction of School Facilities SMPN 3 Sirenja, Donggala, Central Sulawesi, 30 June 2022
70. Sub-Project Completion Report – Sub-Project Code: LOT 2. Construction of Health and School Facilities in Donggala District Central Sulawesi / [00114357] / 2019 - Reconstruction of Health Puskesmas Malei, Donggala, Central Sulawesi, 30 June 2022

71. Sub-Project Completion Report – Sub-Project Code: Construction of Two Landfills and Supporting Facilities in Central Sulawesi / [00114357] / 2019- Reconstruction of Kabonga Landfills in Donggala District, Central Sulawesi Province, 15 March 2023
72. Sub-Project Completion Report – Sub-Project Code: Construction of Two Landfills and Supporting Facilities in Central Sulawesi / [00114357] / 2019- Reconstruction of Kawatuna Landfill in Palu Municipality, Central Sulawesi Province, 15 March 2023
73. Sub-Project Completion Report – Reconstruction Community Infrastructures in West Nusa Tenggara Province – Sub-Projects: Commodity Kiosk at Genggelang Market; Birisan Nangka Clean Water Installation; Orong Sempada Irrigation Canal; Bawak Nao Daya Irrigation Canal; Rantai Mas Water Retention Basin and Drainage; Belunak Farmer Bridge; Nap-Nap Water retention basin and Drainage; and Dayan Rurung Timuk Irrigational Pipe
74. PETRA Project Revised Annual Workplan and Budget
75. Report on Handover of Grant Aid in the form of Goods from United Nations Development Programme to National Disaster Management Authority, Number: 01/BAST/PETRA-UNDP/06/2022, Number: 01/BAST/BNPB/06/2022, 8 June 2022
76. Report on Handover of Grant Aid in the form of Goods from United Nations Development Programme to National Disaster Management Authority, Number: 02/BAST/PETRA-UNDP/12/2022, Number: /BAST/BNPB/12/2022, 19 December 2022
77. Report on Handover of Grant Aid in the form of Goods from United Nations Development Programme to National Disaster Management Authority, Number: 01/BAST/PETRA-UNDP/03/2023, Number: 01/BAST/BNPB/03/2023, 15 March 2023
78. UNDP PETRA Project Financial Report, June 2024
79. UNDP Combined Delivery Report, 2019
80. UNDP Combined Delivery Report, 2020
81. UNDP Combined Delivery Report, 2021
82. UNDP Combined Delivery Report, Q4, 2022
83. UNDP Combined Delivery Report, Q3 2023
84. UNDP Combined Delivery Report, Q4 2023
85. PETRA Project Process Flow of Hand Over of Goods and Services (BAST)
86. UNDP PETRA Gender and Disability Inclusive Technical Guidelines and Recommendations, December 2019

87. UNDP PETRA Environmental and Social Management Framework (ESMF), June 2019
88. PETRA Project Audit Report, 30 August 2022
89. UNDP Office of Audit and Investigations Interoffice Memorandum on PETRA Project Audit, 2 September 2022
90. Audit Report of PETRA Project directly implemented by UNDP Indonesia, Report No. 2533, UNDP Office of Audit and Investigations, 2 September 2022
91. Knowledge Management/Communication: Infographic – PETRA Project Infrastructure in West Nusa Tenggara
92. Knowledge Management/Communication: Infographic – PETRA Project Infrastructure in Central Sulawesi
93. Knowledge Management/Communication: Infographic – Map showing PETRA Sub-Projects in West Nusa Tenggara
94. Knowledge Management/Communication: Infographic – Map showing PETRA Sub-Projects in Central Sulawesi
95. Knowledge Management/Communication: Infographic – PETRA Project Fact Sheet
96. Knowledge Management/Communication: Story from the Field
97. Knowledge Management/Communication: Video documentary – PETRA Gender empowerment - a story of Woman Engineer Ms. Herlinda in Hospital Reconstruction Work in Central Sulawesi
98. Knowledge Management/Communication: Video documentary - On-the-job-training - PETRA West Nusa Tenggara
99. Knowledge Management/Communication: Video documentary – PETRA Local participation at Reconstruction Progress of Tuva Suspension Bridge in Sigi Central Sulawesi
100. Knowledge Management/Communication: Green Infrastructure on the Go: A Snapshot of PETRA and ACCESS Projects in Indonesia
101. Knowledge Management/Communication: Video documentary - Women Group in East Lombok
102. Knowledge Management/Communication: Video documentary - Women Group – Ecoprint
103. Knowledge Management/Communication: Video documentary - Local participation in Reconstruction of Tuva Suspension Bridge in Sigi Central Sulawesi

104. Knowledge Management/Communication: Video documentary – Women-led Reconstruction
105. Knowledge Management/Communication: Video documentaries – Baseline Output 1 NTB
106. Knowledge Management/Communication: Video documentary – Clean water in Sambik Elen
107. Knowledge Management/Communication: Video documentary – Rebuilding Genggelang Market
108. Knowledge Management/Communication: Video documentaries on completed PETRA sub-projects
109. Knowledge Management/Communication: Video documentary – Joint visit of German Embassy, KfW and UNDP to Central Sulawesi, July 2022
110. Knowledge Management/Communication: Video documentary –Visit of Deputy Governor, NTB
111. Knowledge Management/Communication: PETRA Posters showing before and after project interventions
112. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1689558735147147264
113. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1689571604546887680
114. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1689573930221322240
115. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1689575261912920066
116. Knowledge Management/Communication: https://www.undp.org/indonesia/press-releases/undps-ongoing-dedication-rebuilding-central-sulawesi-steady-path-towards-recovery
117. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1717016362584097059?t=8eX3T4ulaA2vF9IaNPKaOQ&s=19
118. Knowledge Management/Communication:

https://twitter.com/UNDPIndonesia/status/1717016366027542613?t=wt2fTh1a3Rc-YjwXs5VKDA&s=19

119. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1715301226848657472?t=uSnPhZ8CKyuaGSEYAVukeQ&s=19
120. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1714860307586351508?t=hOhn_RRMFEqhZPkMPqvg8g&s=19
121. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1714578907876512188?t=WqFs5QCbOAZUAy1l85NOCQ&s=19
122. Knowledge Management/Communication: https://www.undp.org/indonesia/stories/ruins-resurgence-how-undps-transformation-omu-market-became-beacon-hope
123. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1712748526910996496?t=_7Pty9PLlV1YVVou6SnIbQ&s=19
124. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1712748529184317601?t=E4V2VVH9OZ9ksqg-m0hVpA&s=19
125. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1712748531348639798?t=PpmsVRF1ggEtnDpcXmWI6Q&s=19
126. Knowledge Management/Communication: https://referensia.id/duta-besar-jerman-kunjungan-ke-sulteng-untuk-resmikan-proyek-undp-petra/
127. Knowledge Management/Communication: https://ayotau.id/pemkab-sigi-siap-sambut-kedatangan-kedutaan-besar-jerman/
128. Knowledge Management/Communication: https://rri.co.id/palu/daerah/1544323/duta-besar-jerman-akan-datang-ke-palu-resmikan-proyek-strategis-pasca-bencana
129. Knowledge Management/Communication: https://www.sultengnews.com/tinjau-proyek-petra-duta-besar-republik-federal-jerman-kunjungi-kota-palu/

130. Knowledge Management/Communication: https://kumparan.com/paluposo/dubes-jerman-kunjungi-sulteng-ini-agendanya-1yX5Kd7v82f/fullKnowledge Management/Communication:
131. https://www.kabarselebes.id/berita/2022/07/25/kunjungi-palu-duta-besar-republik-federal-jerman-tinjau-proyek-petra/
132. Knowledge Management/Communication: https://sultengraya.com/read/137220/duta-besar-jerman-tinjau-proyek-petra-di-palu/
133. Knowledge Management/Communication: https://teraskabar.id/dubes-jerman-kunjungi-fasilitas-bantuan-pemulihan-dampak-bencana-pasigala/
134. Knowledge Management/Communication: https://channelsulawesi.id/2022/07/26/pemkot-palu-harap-bantuan-jerman-segera-dimanfaatkan/
135. Knowledge Management/Communication: https://www.infoselebes.com/2022/07/dampingi-kedubes-republik-federal.html
136. Knowledge Management/Communication: https://mercusuar.web.id/sulteng-membangun/bantuan-dari-jerman-menyentuh-kebutuhan-sosial-masyarakat/
137. Knowledge Management/Communication: https://palu.tribunnews.com/2022/07/26/berikut-daftar-pembangunan-proyek-petra-di-sulawesi-tengah
138. Knowledge Management/Communication: https://rri.co.id/mataram/daerah/1588346/terima-audiensi-undp-petra-wagub-ntb-akan-ikuti-lokakarya-di-bangkok
139. Knowledge Management/Communication: http://matalensanusantara.com/2022/08/19/terima-audiensi-undp-petra-wagub-ntb-akan-ikuti-lokakarya-di-bangkokl/
140. Knowledge Management/Communication: https://dutaselaparang.com/audiensi-undp-petra-wagub-ntb-akan-sharing-pengalaman-di-bangkok/
141. Knowledge Management/Communication: https://biroadpim.ntbprov.go.id/terima-audiensi-undp-petra-wagub-ntb-akan-ikuti-lokakarya-di-bangkok/

142. Knowledge Management/Communication: https://dutaselaparang.com/audiensi-undp-petra-wagub-ntb-akan-sharing-pengalaman-di-bangkok/
143. Knowledge Management/Communication: https://utarapost.net/2022/08/19/terima-audiensi-undp-petra-wagub-ntb-akan-jadi-pematy-lokakarya-di-bangkok/
144. Knowledge Management/Communication: https://twitter.com/GermanAmbJaka/status/1551918856083771393
145. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1551903210436435968
146. Knowledge Management/Communication: https://www.undp.org/indonesia/press-releases/new-key-facilities-stimulate-local-economy-indonesias-quake-hit-c-sulawesi
147. Knowledge Management/Communication: https://twitter.com/Norimasa_UN/status/1551865832157786113
148. Knowledge Management/Communication: https://palu.tribunnews.com/2022/07/25/duta-besar-jerman-untuk-indonesia-datang-ke-kota-palu-melihat-lokasi-eks-likuefaksi
149. Knowledge Management/Communication: https://sulteng.pikiran-rakyat.com/sulteng/pr-26051110496/duta-besar-jerman-ramah-tamah-bersama-gubernur-sulawesi-tengah-di-bukit-doda-kabupaten-donggala
150. Knowledge Management/Communication: https://jppos.id/pembangunan/gubernur-sulawesi-tengah-menerima-kunjungan-duta-besar-jerman-di-palu/
151. Knowledge Management/Communication: https://www.responaktual.online/2022/07/pemkab-sigi-terima-kunjungan-duta-besar.html
152. Knowledge Management/Communication: https://sultengraya.com/read/137220/duta-besar-jerman-tinjau-proyek-petra-di-palu/
153. Knowledge Management/Communication: https://www.kabarselebes.id/berita/2022/07/25/kunjungi-palu-duta-besar-republik-federal-jerman-tinjau-proyek-petra/

154. Knowledge Management/Communication: https://rri.co.id/palu/tanggap-bencana/1553735/duta-besar-federal-jerman-kwf-dan-undp-tinjau-pemulihan-pasca-bencana-di-sulteng?utm_source=news_main&utm_medium=internal_link&utm_campaign=General%20Campaign
155. Knowledge Management/Communication: https://ayotau.id/pemkab-sigi-siap-sambut-kedatangan-kedutaan-besar-jerman/
156. Knowledge Management/Communication: https://kumparan.com/paluposo/dubes-jerman-kunjungi-sulteng-ini-agendanya-1yX5Kd7v82f
157. Knowledge Management/Communication: https://www.antaranews.com/berita/3019029/bupati-sigi-bantuan-jerman-topang-kualitas-layanan-kesehatan
158. Knowledge Management/Communication: https://metrosulawesi.id/2022/07/27/pemerintah-jerman-diharap-bantu-ekonomi-penyintas-bencana/
159. Knowledge Management/Communication: https://www.kabarluwuk.com/duta-besar-republik-federal-jerman-berkunjung-ke-sulawesi-tengah-ada-apa/
160. Knowledge Management/Communication: https://referensia.id/duta-besar-jerman-kunjungan-ke-sulteng-untuk-resmikan-proyek-undp-petra/
161. Knowledge Management/Communication: https://rri.co.id/palu/daerah/1544323/duta-besar-jerman-akan-datang-ke-palu-resmikan-proyek-strategis-pasca-bencana
162. Knowledge Management/Communication: https://kompassulawesi.id/2022/09/21/bencana-pasigala-sepekan-lagi-genap-4-tahun/
163. Knowledge Management/Communication: https://gnews.co.id/apresiasi-undp-pj-sekdaprov-akui-pemulihan-bencana-belum-100-persen/
164. Knowledge Management/Communication:

https://mercusuar.web.id/sulteng-membangun/pemprov-apresiasi-undp-dalam-pemulihan-pascabencana/

165. Knowledge Management/Communication: https://www.sultengnews.com/pemprov-sulteng-apresiasi-undp-dalam-pemulihan-pasca-bencana-pasigala/
166. Knowledge Management/Communication: https://redaksirakyat.id/2022/09/21/proyek-undp-petra-upaya-pemulihan-pasca-bencana-pasigala/
167. Knowledge Management/Communication: https://sulteng.antaranews.com/berita/256233/pemkot-palu-dan-undp-kolaborasi-rekonstruksi-bangunan-pascagempa
168. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1591324922428604416?t=OW9UuwTDRO5cjzdFv20QfQ&s=08
169. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1509063852562042884
170. Knowledge Management/Communication: https://t.co/vEmUA36GUY
171. Knowledge Management/Communication: https://biroadpim.ntbprov.go.id/wagub-ntb-optimis-monitoring-dan-pemeriksaan-proyek-undp-petra-di-ntb-berjalan-lancar/
172. Knowledge Management/Communication: https://kicknews.today/regional/kementerian-lembaga-monitoring-proyek-undp-petra-bagi-masyarakar-terdampak-gempa-bumi-di-ntb/
173. Knowledge Management/Communication: https://utarapost.net/2022/03/26/wagub-optimis-monitoring-dan-pemeriksaan-proyek-undp-petra-di-ntb-berjalan-lancar/
174. Knowledge Management/Communication: https://www.youtube.com/watch?v=LvJV38Bz2Mc
175. Knowledge Management/Communication: https://ntb.genpi.co/ntb-terkini/3605/optimis-monitoring-dan-pemeriksaan-undp-petra-berjalan-baik?page=2
176. Knowledge Management/Communication: https://www.talikanews.com/2022/03/26/wagub-ntb-akan-mendorong-agar-masyarakat-dapat-menikmati-fasilitas-yang-dikerjakan-undp-petra/

177. Knowledge Management/Communication: https://www.lombokinsider.com/ntb/pr-1553034206/wagub-ntb-optimis-monitoring-dan-pemeriksaan-proyek-undp-petra-di-ntb-berjalan-lancarhttps://www.youtube.com/watch?v=LvJV38Bz2Mc
178. Knowledge Management/Communication: https://www.ntbprov.go.id/post/wagub-ntb-optimis-monitoring-dan-pemeriksaan-proyek-undp-petra-di-ntb-berjalan-lancar https://www.youtube.com/watch?v=LvJV38Bz2Mc
179. Knowledge Management/Communication: https://rri.co.id/mataram/ekonomi/1401266/undp-petra-periksa-22-proyek-penunjang-ekonomi-di-ntb?utm_source=news_main&utm_medium=internal_link&utm_campaign=General%20Campaign
180. Knowledge Management/Communication: https://ntbsatu.com/2022/03/25/wagub-berharap-22-fasilitas-proyek-undp-petra-di-ntb-cepat-dituntaskan.html
181. Knowledge Management/Communication: https://lombokpost.jawapos.com/astra-honda/11/06/2022/kerja-sama-semakin-erat-prestasi-meningkat/
182. Knowledge Management/Communication: https://ntb.jpnn.com/ntb-terkini/1165/lombok-utara-terima-12-bangunan-senilai-rp-79-miliar-lihat-apa-saja?page=2
183. Knowledge Management/Communication: https://lomboktimur.pikiran-rakyat.com/ntb-raya/pr-2554693030/undp-dan-bnpb-serah-terima-22-fasilitas-kepada-pemda-ntb
184. Knowledge Management/Communication: https://www.postkotantb.com/2022/06/bupati-sukiman-azmy-teken-berita-acara.html
185. Knowledge Management/Communication: https://utarapost.net/2022/06/09/sestama-bnpb-serahterimakan-dokumen-bast-petra-undp-kepada-bupati-lombok-utara/
186. Knowledge Management/Communication: https://www.suara.com/partner/content/lombokita/2022/06/09/151254/bupati-lotim-terima-bantuan-dari-undp-petta-ntb
187. Knowledge Management/Communication:

https://mataram.antaranews.com/berita/198161/lombok-utara-menerima-dokumen-pembangunan-pascagempa-senilai-rp79-miliar

188. Knowledge Management/Communication: https://lombokita.com/bupati-lotim-terima-bantuan-dari-undp-petta-ntb/
189. Knowledge Management/Communication: https://obligasi.id/lombok-utara-terima-12-bangunan-senilai-rp-79-miliar-lihat-apa-saja-240971.html
190. Knowledge Management/Communication: https://www.swarakonsumenindonesia.com/lotim-dapat-bantuan-fasilitas-pendidikan-kesehatan-dan-infrastruktur/
191. Knowledge Management/Communication: https://miindonews.co.id/berita/bupati-lotim-hadiri-serah-terima-bantuan-undp-petra/
192. Knowledge Management/Communication: https://rri.co.id/mataram/daerah/1486161/bupati-lombok-utara-terima-dokumen-bast-petra-undp?utm_source=terbaru_widget&utm_medium=internal_link&utm_campaign=General%20Campaign
193. Knowledge Management/Communication: https://www.nusrapost.com/2022/06/mataram-nusrapost.html
194. Knowledge Management/Communication: https://biroumum.ntbprov.go.id/2022/06/08/serah-terima-fasilitas-pendidikan-kesehatan-dan-infrastruktur-masyarakat-proyek-petra-di-ntb/
195. Knowledge Management/Communication: https://setda.lombokutarakab.go.id/bupati-lombok-utara-terima-dokumen-bast-petra-undp/
196. Knowledge Management/Communication: https://bpbd.ntbprov.go.id/detailpost/serah-terima-fasilitas-pendidikan-kesehatan-dan-infrastruktur-masyarakat-proyek-undp-petra-di-ntb-rabu-08-juni-2022
197. Knowledge Management/Communication: https://www.selaparangnews.com/2022/06/bupati-sukiman-berjanji-bakal-pelihara.html
198. Knowledge Management/Communication: https://kicknews.today/regional/habiskan-rp79-miliar-22-fasilitas-umum-pasca-gempa-dibangun-kembali-di-ntb/

199. Knowledge Management/Communication: https://bpbd.ntbprov.go.id/detailpost/rapat-persiapan-serah-terima-aset-dari-undp-ke-bnpb-dan-dari-bnpb-ke-pemprov-ntb-kabupaten-lombok-barat-dan-kabupaten-lombok-timur
200. Knowledge Management/Communication: https://www.selaparangnews.com/2022/06/bupati-sukiman-berjanji-bakal-pelihara.html
201. Knowledge Management/Communication: https://lomboksatu.com/2022/06/08/pemkab-lombok-timur-dapatkan-bantuan-dari-undp/
202. Knowledge Management/Communication: https://lomboksatu.com/2022/06/08/pemkab-lombok-timur-dapatkan-bantuan-dari-undp/
203. Knowledge Management/Communication: https://www.id.undp.org/content/indonesia/en/home/presscenter/pressreleases/2019/UNDP-BAZNAS-Central-Sulawesi.html
204. Knowledge Management/Communication: https://www.id.undp.org/content/indonesia/en/home/presscenter/pressreleases/2019/UNDP-and-Baznas-to-build-back-better.html
205. Knowledge Management/Communication: https://koranntb.com/2019/09/14/undp-dan-baznas-bantu-lombok-utara-pulih-pasca-gempa/
206. Knowledge Management/Communication: https://businesstoday.id/undp-dan-baznas-bermitra-membangun-perekenomian-lombok-utara/
207. Knowledge Management/Communication: https://www.antaranews.com/berita/1060588/undp-dan-baznas-bermitra-membangun-perekenomian-lombok-utara
208. Knowledge Management/Communication: https://baznas.go.id/pendistribusian/ekonomi/zcd/959-baznas-dan-undp-kerjasama-pulihkan-ekonomi-desa-tuva-sulawesi-tengah
209. Knowledge Management/Communication:

https://www.antaranews.com/berita/1140451/undp-baznas-bantu-bangun-ketahanan-ekonomi-korban-bencana-sigi

210. Knowledge Management/Communication: https://www.kompas.com/ramadhan/read/2021/04/24/203801772/hikmah-ramadhan-membumikan-gerakan-cinta-zakat-dari-desa-ke-pentas?page=all
211. Knowledge Management/Communication: https://www.kabarselebes.id/berita/2019/10/31/09-undp-baznas-luncurkan-program-pembangunan-ekonomi-lokal-di-desa-tuva/
212. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1621823643939672064?t=wRr5h8DV83jiX6TCdUPJWA&s=08
213. Knowledge Management/Communication: https://channelsulawesi.id/2023/03/16/proyek-petra-tpa-kawatuna-diserahkan-ke-kota-palu/
214. Knowledge Management/Communication: https://channelsulawesi.id/2023/03/13/dari-jerman-undp-bangun-fasilitas-tpa-kawatuna-palu/
215. Knowledge Management/Communication: https://www.suluhmerdeka.com/berita/6807997905/proyek-petra-akan-dibangun-di-tpa-kawatuna-palu
216. Knowledge Management/Communication: https://mediasulawesi.id/read/6310-tpa-kawatuna-terapkan-konsep-modern/
217. Knowledge Management/Communication: https://sultengraya.com/read/150787/revitalisasi-tpa-kelar-wali-kota-hadianto-terima-kasih-undp-dan-kfw/
218. Knowledge Management/Communication: https://gnews.co.id/2023/03/13/wali-kota-tinjau-bantuan-fasilitas-dari-undp-di-tpa-kawatuna/
219. Knowledge Management/Communication: https://sultengterkini.id/2023/03/14/walikota-palu-kunjungi-fasilitas-tpa-kawatuna/
220. Knowledge Management/Communication:

https://palu.tribunnews.com/2023/03/13/hadianto-rasyid-tinjau-tpa-kawatuna-ajak-masyarakat-pemilahan-sampah-dari-rumah

221. Knowledge Management/Communication: https://www.paluposo.id/tinjau-pengerjaan-revitalisasi-tpa-kawatuna-hadianto-temukan-hal-ini/
222. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1635839367598964737
223. Knowledge Management/Communication: https://www.youtube.com/watch?v=iUDcLG_4u5s
224. Knowledge Management/Communication: https://twitter.com/UNDPIndonesia/status/1669545140443287552
225. Knowledge Management/Communication: https://twitter.com/valeriejulliand/status/1654382472807739392
226. Knowledge Management/Communication: https://www.satusulteng.com/wali-kota-palu-bersama-undp-tinjau-fasilitas-tpa-kawatuna/

Annex 4: Interview Questionnaire[12]

Relevance

1. To what extent was the project in line with the project design matrix, national development priorities, the country programme outputs and outcomes, UNDP Strategic Plan, and the SDGs?
2. To what extent do the project activities address provincial/district priorities and community needs?
3. To what extent does the project contribute to the theory of change for the relevant country programme outcome?
4. To what extent were lessons learned from other relevant projects considered in the project's design?
5. To what extent were perspectives of those who could affect the outcomes and those who could contribute information or other resources to the attainment of stated results, taken into account during the project design processes?
6. To what extent is the project implementation a participatory and inclusive process?
7. To what extent does the project contribute to gender equality, women's empowerment, and the human rights?
8. To what extent has the project been appropriately responsive to legal, economic, institutional, etc., changes in the country?
9. To what extent do local and national government stakeholders support the project objectives?

Effectiveness

1. To what extent were the expected outputs and objectives of the project achieved?
2. To what extent did the project contribute to the results and outputs of the National Plan, the SDGs, the UNDP Strategic Plan, and national development priorities?
3. In which areas has the project had the greatest achievements? Why and what have been the supporting factors? How can the project build on or expand these achievements?

[12] This interview questionnaire serves as guide for the TE team. Not all these questions will be asked to each individual/group during interviews

4. What factors have contributed to achieving or not achieving intended programme outputs and outcomes? What would be bottlenecks and changes if the project is not achieving the results as planned? (it should consider both external and internal factors)

5. What have been the key results and changes attained for men, women, and vulnerable groups?

6. Did the project produce unintended positive or negative results?

7. In case of negative results, what mitigation measures were implemented?

8. What evidence is there that suggests the project has achieved/will achieve the results and objective by the end of the project?

9. What was the role of the PETRA Project in building the capacity of related Regional Government Agencies (OPDs) in the region/ district to maintain the legacy or footprint after the program ends?

Efficiency

1. To what extent was the project management structure as outlined in the project document efficient in generating the expected results?

2. To what extent have the UNDP project implementation strategy and execution been efficient and cost-effective?

3. To what extent has there been an economic use of financial and human resources? Have resources (funds, human resources, time, expertise, etc.) been allocated strategically to achieve outcomes

4. To what extent has the project promoted positive changes in gender equality and the empowerment of women? Did any unintended effects emerge for women, men or vulnerable groups?

5. To what extent have poor, and PWDs, women, men and other disadvantaged and marginalized groups benefited from the work of PETRA Project in the country?

6. To what extent have project funds and activities been delivered on time?

7. To what extent do the Monitoring & Evaluation (M&E) systems utilised by UNDP ensure effective and efficient project management?

Sustainability

1. To what extent will financial and economic resources be available to sustain the benefits achieved by the project?

2. Do the legal frameworks, policies, and governance structures, and processes within which the project operates pose risks that may jeopardise the sustainability of project benefits?
3. What is the risk to ensure the level of stakeholders' ownership will be sufficient to sustain the project benefits?
4. What are the environmental risks to the sustainability of project results? How are they managed and mitigated?
5. What are the long-term effects felt from the PETRA Project on gender equality, women's empowerment, and social inclusion? (If any, can the positive results regarding gender equality and social inclusion be sustained)?
6. What recommendations can be given for the sustainability of the PETRA Project regarding women's empowerment and marginalized groups?
7. To what extent do mechanisms, procedures and policies exist to allow primary stakeholders to carry forward the results attained on gender equality, women's empowerment, human rights, and human development?
8. To what extent do stakeholders support the project's long-term objectives?

Gender

1. To what extent have gender equality and the empowerment of women been addressed in the design, implementation and monitoring of the project?
2. Is the gender marker assigned to this project representative of reality and supported by a gender analysis?
3. To what extent has the project promoted positive changes in gender equality and the empowerment of women? Did any unintended effects emerge for women, men or vulnerable groups? If so, how was this addressed?
4. How are gender issues included in the monitoringsystems?
5. Do the activities implemented by the PETRA Project provide equal opportunities for women and men? To what extent?

Human Rights

1. To what extent have poor, indigenous and physically challenged, women, men and other disadvantaged and marginalized groups participated/ benefited from the PETRA Project?
2. Were persons with disabilities consulted and meaningfully involved in programme

planning and implementation?

3. What proportion of beneficiaries of the programme was persons with disabilities?

4. What barriers did persons with disabilities face?

Annex 5: List of Stakeholders Interviewed /Consulted

Sl. No.	Name	Gender	Organization	Position
1	Diah Lenggogeni, ST., M.Sc.	F	BAPPENAS (Ministry of National Development Planning)	Intermediate Expert for Spatial Planning and Disaster Management (Coordinator of Disaster Management Sector), Directorate of Spatial Planning, Land and Disaster Management
2	Melinda Irfiani, S.Psi, M.Psi.	F	BNPB (National Disaster Management Agency)	Head of Sub Directorate for Cooperation, Bureau of Legal, Organization and Cooperation of Main Secretariat
3	Ati Setiawati, S.H, M.A.	F	BNPB (National Disaster Management Agency)	Head of the Sub-Directorate for Recovery and Improvement of Social Facilities, Directorate of Recovery and Physical Improvement, Deputy for Rehabilitation and Reconstruction
4	Indra Suryadi Ilyas, S.E	M	BNPB (National Disaster Management Agency)	Head of Section of Programme Development and Budget IIB
5	Rahmi Suryaningrum, STP	F	BNPB (National Disaster Management Agency)	Planning Expert (Planning Bureau Staff)
6	Hendriansyah, SKM., MM	M	Ministry of Finance	Head of Section for Accounting and Reporting
7	Dita Arif Yuwana, ST., MT., MA.	M	Geological Agency of the Ministry of Energy and Mineral Resources	Environmental Geologist
8	Mr. Taufik	M	Geological Agency of the Ministry of Energy and Mineral Resources	Environmental Geologist
9	Burkhard Hinz	M	KfW Indonesia	Director KfW Office Jakarta
10	Olaf Goerke	M	KfW Indonesia	Senior Portfolio Manager Green Infrastructure

				KfW Office Jakarta
11	Ike Larasayu	F	KfW Indonesia	Senior Coordinator Green Infrastructure KfW Office Jakarta
12	Ms Sujala Pant	F	UNDP Indonesia	Deputy Resident Representative
13	Mr Christian Budi Usfinit	M	UNDP Indonesia	Team Leader - Resilience and Reconstruction Unit (RRU)
14	Mr Andrys Erawan	M	UNDP Indonesia	Programme Manager, RRU
15	Ms Deasy Ernawati	F	UNDP Indonesia	Budget Management Associate, RRU
16	Mr. Budhi Ulaen	M	UNDP Indonesia	National Project Manager, PETRA
17	Mr. Olyvianus Dadi Lado	M	UNDP Indonesia	Communication, Monitoring, Reporting and Evaluation Officer, PETRA
18	Ms. Rini	F	UNDP Indonesia	Project Associate, PETRA
19	Ms. Sukma Impian Riverningtyas	F	UNDP Indonesia	Project Support, Monitoring, Communication and Reporting, PETRA
20	Mr. Yeka Kusumajaya	M	UNDP Indonesia	Field Coordinator Associate, PETRA
21	Dr. Suryani Eka Wijaya	F	Development Planning Agency of NTB Province	Planner Fungsional
22	Dr. Aidy Furqon	M	Education Service of NTB Provincial Office	Head of the Office
23	Ilham Ardiansyah	M	Disaster Management Agency of NTB Provincial Office	Head Division of Rehabilitation and Reconstruction
24	Mr. Subhan Basir	M	Development Planning Agency/ Bappeda Palu	Head of Infrastructure and Regional Affairs
25	Ms. Triasih	M	Planner, Infrastructure Division	Head of Infrastructure and Regional Affairs
26	Mr. Presly Tampubolon	M	Disaster Management Agency/ BPBD Palu	Head of BPBD

27	Mr. Gandhi T. Persada	M	Financial and Asset Management Agency/ BPKAD Palu	Municipality Property Management Analyst
28	Mr. Moh. Irfan	M	Education Service of Palu	Head of Curriculum Section
29	Ms. Uriani Hasan	F	Education Service of Palu	Head of Vocational School Students' Affairs Section
30	Ms. Rosa	F	Director	Anutapura Hospital, Palu
31	Ms. Laila Husin	F	Vice Director	Anutapura Hospital, Palu
32	Ms. Ayu Susanti	F	Planning Section	Anutapura Hospital, Palu
33	Ms. Masaat	F	Principal	Junior High School 12, Palu
34	Mr. Muh. Syaiful	M	Landfill of Kawatuna	Head of Kawatuna Landfill, Palu
35	Fauzan	M	Financial and Asset Management Agency of West Lombok	Head of office
36	Didit Hijrianto	M	Development Planning Agency of West Lombok	Sub-field of Spatial Planning and Environment of Regional Facilities and Infrastructure Development Planning (Planner Fungsional)
37	Bisri	M	Health Service of West Lombok District	Programme Division
38	Abdul Hadi	M	Health Service of West Lombok District	Asset Division
39	Agus Ibrahim	M	Environmental Agency of North Lombok	Sub coordinator of Waste Management
40	Ahmad Nazalul Haq	M	Auxiliary Health Service Gapuk West Lombok District	Nurse
41	Gunadi	M	Financial and Asset Management Agency of North Lombok	Head of Office
42	Haryani	F	District Health Office of North Lombok	Sub-coordinator of Health Services
43	Hidayati	F	District Health Office of North Lombok	Sub-coordinator of Human Resources

44	Aswida	F	Vocational School of Pemenang	Principal
45	M. Sabri	M	Vocational School Kayangan	Principal
46	M. Andi Munif	M	Vocational School Gangga	Principal
47	Anis Alwaini	M	Auxiliary Health Service Telage Wareng	Nurse
48	Ilyas	M	Auxiliary Health Service Rangsot	Nurse
49	Dedi Mahendra	M	Auxiliary Health Service Gangga	Nurse
50	Mustiarep	M	Financial and Asset Management Agency of East Lombok	Head of Asset Division
51	Rudi Suhendra	M	Health Service of East Lombok District	Chief of Infrastructure
52	Hadi Jayaki	M	Disaster Management Agency of East Lombok District	Head of RR Division
53	Lalu Kahanan	M	Sajang Village	Head of Village
54	Arif Rahman Hakim	M	Sajang Village	Village Secretary
55	Nopa	M	Sembalun Lawang	Village Secretary
56	Hartanto	M	Gangga Village Government	Village Secretary
57	Harlan	M	Sambik Elen Village	Village official
58	Mayani	F	Gangga Village	Ecoprint group
59	Agus Sastrawan	M	Gangga Village	Committee recycling facility (TPS3R)
60	Hamzani	M	Gangga Village	Representative of PWDs
61	Rusli	M	Sambik Elen Village	Cashew Group
62	Jasak Susilawati	F	Sambik Elen Village	Village Cadre
63	Kerniatun/Bu Sahnun	F	Sambik Elen Village	Clean Water Group
64	Ibu Siska	F	Sembalun Lawang	AZKA group
65	Ibu Saeun	F	Sembalun Bumbung	SME group
66	Marianti	F	North Lombok	Safety guard for women worker
67	Ainun	F	North Lombok	Head of PEKKA Lombok

68	Rohaniah	F	North Lombok	Women Worker
69	Ummi	F	PALUMA Nusantara	
70	Mr. Juhuri	M	Development Planning Agency/ Bappeda Sigi	Head, Division of Research, Natural Resources, Infrastructure, and Regional Affairs
71	Mr. Rustam	M	Head of Planning Section	Torabelo Hospital, Sigi
72	Mr. Arif	M	Teacher and Head of Program	Vocational School Of Sigi 1
73	Ms. Nirwana	F	Elementary School of Pengawu	Principal
74	Ms. Selvie	F	Elementary School Jono Oge 1	Principal
75	Mr. Hattang	M	Sigi District	Supervisor of Omu Community Market, Sigi District
76	Mr. Bahtiar	M	Tuva Village	Head of Tuva Village, Sigi District
77	Mr. Markus Buntu	M	Tuva Village	Farmer, Tuva Village, Sigi District
78	Mr. Marthen	M	Tuva Village	Farmer, Tuva Village, Sigi District
79	Mr. Hadawi	M	Tuva Village	Farmer, Tuva Village, Sigi District
80	Mr. Pariani	M	Disaster Management Agency/ BPBD Donggala	Secretary
81	Mr. Hafid	M	Disaster Management Agency/ BPBD Donggala	Head of rehabilitation and Reconstruction Division
82	Ms. Fajriah	F	Financial and Asset Management Agenc/ BPKAD Donggala	Head of Asset Division
83	Ms. Ayu	F	Financial and Asset Management Agenc/ BPKAD Donggala	Staff of Asset Divison
84	Mr. Mohammad Rifai	M	Financial and Asset Management Agenc/ BPKAD Donggala	Staff of Asset Division
85	Mr. Hairun	M	Education Service of Donggala	Head of Junior High School Development Division

86	Mr. Tasman	M	Junior High School 3 Sindue Tobatata, Donggala	Principal
87	Mr. Azan S. Sinabu	M	Sibado Village, Donggala District	Head of Village
88	Mr. Marwin	M	Sibado Village, Donggala District	Supervisor of Sibado Community Market, Donggala District
89	Mr. Idran	M	Disaster Management Agency/ BPBD Parigi Moutong	Head of BPBD
90	Ms. Vadlon	M	Disaster Management Agency/ BPBD Parigi Moutong	Secretary of BPBD
91	Ms. Fatmah	F	Tiboli Elementary School, Parigi Moutong	Principal
92	Mr. Ulumul Muhid	M	Junior High School 1 Parigi Utara, Parigi Moutong	Teacher, SMPN 1 Parigi Utara, Parigi Moutong
93	Mr. Zulkifli	M	YKMI, PALU	Project Coordinator
94	Mr. Abdul Latif	M	PT. mahardika	Director
95	Mr. Apjelvian Henri	M	PT. Yodya Karya	Team Leader
96	Mr. Ketut Sulendra	M	PT. Yodya Karya	Engineer
97	Mr. Lalu Resha Aditya	M	Setia Mulia Abadi	Director
98	Mr. Faris	M	Setia Mulia Abadi	Engineer

Annex 6: UNEG Code of Conduct for Evaluation Consultants

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained, and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated and did not carry out the project's Mid-Term Review.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Evaluators: Akhter Hamid, Saediman Mboe, Laeli Sukmahayani

We confirm that we have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Brisbane, 22 April 2024 Signed at Kendari, 22 April 2024 Signed at Lombok, 22 April 2024

Signature:  Signature:  Signature: _ 

Akhter Hamid, IC/Team Leader Saediman Mboe, NC Laeli Sukmahayani, NC

Annex 7: Project Risks and Mitigation Measures

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
1	There is a risk that a leachate from the waste management facility	As a result of Damaged waste facilities impacted by the earthquake	Which will impact in damage to the quality of surrounding environment for example the aquifer if the leachate from the waste management facility was not treated appropriately.	**1. SOCIAL AND ENVIRONMENTAL (1.6. Community health, safety and security) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 18-Dec-18 To: 31-Dec-22	Project Manager	Risk Treatment 1.1: Environmental and Social Management Framework to identify and plan for potential risks. Each subproject will have its own environmental and social risk management. Risk Treatment Owner: Project Manager
								Risk Treatment 1.2: ESMF integrated into RFPs/ ITBs of design, construction, and supervision. Risk Treatment Owner: Project Manager
								Risk Treatment 1.3: Include reconstruction of waste management facilities amongst priority targets Risk Treatment Owner: Project Manager
2	There is a risk that occupational health and safety due to physical, chemical,	As a result of project construction, operation, or decommissioning may carry occupational	Which will impact in contaminants during demolition, construction	**1. SOCIAL AND ENVIRONMENTAL (1.10. Labour and working conditions) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate**	From: 18-Dec-18 To: 31-Dec-22	Project Manager	Risk Treatment 2.1: Environmental and Social Management Framework to identify and plan for potential risks. Each subproject will have its own environmental and social risk management plan.

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
	biological, and radiological hazards during project construction, operation, or decommissioning	risks such as contaminants during demolition and/or construction			Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**			Risk Treatment Owner: Project manager Risk Treatment 2.2: Project ensured use of PPE by project personnel, partners, and involved beneficiaries, i.e. in Cash-for-Work, in demolition and construction related activities Risk Treatment Owner: Project Manager Risk Treatment 2.3: Adopting GoI standard policy on COVID-19 Preventive Measures in Construction Works. Risk Treatment Owner: Project Manager

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
3	There is a risk that the national and sub-national stakeholders do not support PETRA's objectives and are not willing to cooperate.	As a result of changes in government structure, both at national and sub-national level may affect the project implementation. New structure may have different priorities.	Which will impact in project would not be able to identify and restore damaged infrastructure.	**7. STRATEGIC (7.6. Change/turnover in government) - UNDP Risk Appetite: OPEN TO SEEKING**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 18-Dec-18 To: 31-Dec-22	…	Risk Treatment 3.1: Active consultation with the government at all stages of the programme. Seek approval from government on the proposed infrastructure. Develop a consultation and monitoring framework with Government stakeholder for the design and construction work of infrastructure sub-projects. Risk Treatment Owner: Project Manager
4	There is a risk that qualified construction companies are not (a) available in the market, (b) interested to engage in the implementation of the various components of the civil works/contracts	As a result of some requirements may be difficult to be met by the interested qualified bidders.	Which will impact in poorly constructed infrastructure will place communities at risk	**3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 18-Dec-18 To: 31-Dec-22	…	Risk Treatment 4.1: Asking potential companies to submit EOI. Ensure tenders are widely advertised; Prepare detailed RFQs/ ITBs; RFQs/ ITBs are packaged in accordance with GoI's standard classification of construction companies' financial capacity. Risk Treatment Owner: Project Manager
								Risk Treatment 4.2: Re-strategizing construction tender subprocess;

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
								Adopting GoI standard policy on COVID-19 Preventive Measures in Construction Works.Risk Treatment Owner: Project Manager
								Risk Treatment 4.3: Intensifying communications as part of monitoring and oversight over partners in assuring delivery of contracted works. Risk Treatment Owner: Project Manager
5	There is a risk that eligible CSOs/ NGOs are not able to engage with the community, or do not have appropriate experience.	As a result of low level of awareness of the project may result in reluctance in communities.	Which will impact in CSOs/NGOs are not able to mobilize communities to support project implementation, including the rehabilitation of community economic infrastructure, and	**3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 18-Dec-18 To: 31-Dec-22	…	Risk Treatment 5.1: Select local NGOs that already have community networks in Palu and Lombok. Establish, review and update NGO/ CSO roster; Maintain relationship with NGO previously worked with UNDP through informal discussion and learning forum. Risk Treatment Owner: Project Manager

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
			are willing to receive and adhere to UNDP's advice with regards to required social, environmental and safety standards.					Risk Treatment 5.2: Keep abreast of activities and/or event managed by potential NGOs/ CSOs, to indirectly monitor their capacities and performance; Adopting GoI standard policies on COVID-19 Preventive Measures in Construction Works issued by MOPW, and similar COVID-19 preventive measures policy in conducting Village-based Cash for Work issued by MoV by end of March 2020. Risk Treatment Owner: Project Manager

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
6	There is a risk that Local communities will not engage with the project and have a low sense of ownership for project results, including rehabilitated/ reconstructed local community infrastructure.	As a result of low level of awareness of the project at the targeted community	Which will impact in community Infrastructure not operated or maintained.	**3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 18-Dec-18 To: 31-Dec-22	Project Manager	Risk Treatment 6.1: Community mobilizer involves communities at all stages of the project cycle; Engagement with communities and local government started before assignment of Implementing Partners to sense on their acceptance towards the Project's scope of intervention. Risk Treatment Owner: Project Manager

7	There is a risk that social distancing policy and consequently limitations to physical activities may likely slowing the project implementation progress.	As a result of COVID-19 global pandemic	Which will impact in health risk to project personnel, beneficiaries and other involved stakeholders	**3. OPERATIONAL (3.7. Occupational safety, health and well-being) - UNDP Risk Appetite: EXPLORATORY TO OPEN**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 16-Mar-20 To: 31-Dec-22	Project Manager	Risk Treatment 7.1: Set up protocol for safety, especially activities that required physical contact. Optimizing utilization of online technology platform as media for coordination and communication. Revisiting workplan and target. Re-strategizing activities monitoring and supervision by optimizing the visual documentation. Implementation of construction activities by putting in practice the COVID-19 Prevention Measures in Construction Works. Optimizing utilization of online technology platform as media for coordination and communication; Revisiting workplan and target; Re-strategizing activities monitoring and supervision by optimizing the visual documentation. Risk Treatment Owner: Project Manager

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
8	There is a risk that disrupted access to sites, sites' condition, and damaged construction in progress due to heavy rain, strong winds, and flashfloods in project locations	As a result of natural hazards event	Which will impact in slow the pace of activities implementation and incur project's financial implications	**1. SOCIAL AND ENVIRONMENTAL (1.5. Climate change and disaster risks) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 09-Aug-20 To: 31-Dec-22	Project Manager	Risk Treatment 8.1: Closely monitor meteorological data and trends jointly with implementing partners and discussed relevant anticipative measures. Risk Treatment Owner: Project Manager Risk Treatment 8.2: Construct scenarios and possible approaches and strategies in project activity implementation, including scenarios on securing work-in-progress construction sites Risk Treatment Owner: Project Manager
9	There is a risk that project implementation affected by new interest or policy of new local government leadership, or to the worst scenario, an "elite capture" situation	As a result of general elections activities in the Project's target provinces and municipality/district, and PETRA Project is associated with any of incumbents who were actively involved in project planning.	Which will impact in less support from the new Provincial/District Government administration to or interruption in project activity implementation	**7. STRATEGIC (7.6. Change/turnover in government) - UNDP Risk Appetite: OPEN TO SEEKING**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 31-Jul-20 To: 30-Jun-21	Project Manager	Risk Treatment 9.1: Maintain neutrality in communication and coordination, including individual interactions; regularly update key stakeholders on implementation progress through written materials that widely distributed. Risk Treatment Owner: Project Manager

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
10	There is a risk that reduced or loosen institutional memory and commitment of new local government structure towards PETRA Project	As a result of general elections may result in new leadership, which likely means new structure of local government	Which will impact in challenges in maintain commitment towards fulfilment of the 8 criteria agreed during identification and prioritization of Project's targets	**7. STRATEGIC (7.6. Change/turnover in government) - UNDP Risk Appetite: OPEN TO SEEKING**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 31-Jul-20 To: 31-Dec-21	Project Manager	Risk Treatment 10.1: Maintain regular updates and coordination at technical/ operational level of respective Local Government Units; Maintain communications with key individuals within the LGUs who regarded as ones championing the project. Risk Treatment Owner: Project Manager
11	There is a risk that construction works are not finished and completed by Project's contractor as agreed schedule.	As a result of poor performance in work progress and issues in the national media on the closure of PT. Istaka Karya (Persero) as the Contractor for 19 subprojects in Central Sulawesi.	Which will impact in delayed delivery of benefits to project stakeholders and most likely longer timeline for completion of PETRA Project, which may lead into reputational hazard to UNDP	**3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 01-Jul-21 To: 31-Dec-22	Project Manager	Risk Treatment 11.1: Intensive technical oversight, discussion between PETRA Project Team and Supervision Consultant Firm with PT. Istaka Karya's Project Management Team and Senior Management Team in Jakarta; PETRA Project Team instructed provision of an Action Plans from the Contractor for accelerating work progress Issuance of technical warnings up to temporary suspension for some sites. Risk Treatment Owner: …
12	There is a risk that a fraction of local project	As a result of construction progress in 19	Which will impact in decreased public confidence	**5. REPUTATIONAL (5.1. Public opinion and media) - UNDP**	Likelihood: **4 - Highly likely**	From: 07-Mar-22	Senior Management Operations Team	Risk Treatment 12.1: Managerial review and decision for providing proper

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
	stakeholders and community in Central Sulawesi perceived that UNDP is not capable in delivering reconstruction works.	locations stopped few times for few months; students are having learning activities in poor temporary structure, e.g. tarpaulin, as previous temporary learning facilities were already demolished when construction work began in Q2 2021.	towards capacity of UNDP for post-disaster recovery, increased anxiety of public in surrounding target facilities specifically the direct beneficiaries.	**Risk Appetite: CAUTIOUS**	Impact: **4 - Extensive** Risk level: **HIGH RISK (equates to a risk appetite of SEEK)**	To: 31-Dec-22	RRU Team Leader Project Manager Communication Team	temporary facilities for children to study. Risk Treatment Owner: SM,Ops,Comms,RRU TL-NPM Risk Treatment 12.2: Accelerating lead time and/or processes for continuation of construction work Risk Treatment Owner: SM,Ops,Comms,RRU TL-NPM Risk Treatment 12.3: Plan, deliver, and regularly review communication strategy, including guiding messages tailored to each identified stakeholders. Risk Treatment Owner: SM,Ops,Comms,RRU TL-NPM Risk Treatment 12.4: Inform Project Board and KfW on key follow up actions related to closure of contract with PT. Istaka Karya and completion of its outstanding construction work Risk Treatment Owner: SM,Ops,Comms,RRU TL-NPM
13	There is a risk that losses of materials on-site and/or	As a result of minimum or absence of site security which	Which will impact in to greater loss of financial cost in the project sites.	**2. FINANCIAL (2.5. Delivery) - UNDP Risk Appetite:**	Likelihood: **4 - Highly likely** Impact:	From: 01-Jun-22 To: 31-Dec-22	John Benjamin, Operation manager	Risk Treatment 13.1: Intensive coordination with village government and school principal for participatory

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
	installed in construction sites in Vocational High School (SMKN) 1 Sigi due to theft.	implicated from contract termination of PT. Istaka Karya.	Disharmony between UNDP and PT. Istaka Karya's local vendors leading to impedance and slow progress of the subproject, and potential disruption on sites during continuation of works.	**MINIMAL TO CAUTIOUS**	**3 - Intermediate** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**			security measures in the subproject sites.. Risk Treatment Owner: John Benjamin, Operation manager

Annex 8: Social and Environmental Screening Procedure (SESP)

Project Information

Project Information	
1. Project Title	Sulawesi/Lombok Programme for Earthquake and Tsunami Infrastructure Reconstructive Assistance
2. Project Number	00116311
3. Location (Global/Region/Country)	Indonesia

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
The project will consult all stakeholders including the poor and vulnerable throughout the project cycle. Any potential impacts will be identified and will be addressed in a timely way.
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment
The project will actively involve women throughout the project cycle. All rehabilitation and reconstruction works will be assessed to ensure they are appropriate for women, girls and people with disabilities. For example, adequate and appropriate toilets, ease of access and other facilities required by Indonesian law, like breastfeeding rooms.
Briefly describe in the space below how the Project mainstreams environmental sustainability
The project will follow International standards and Indonesian law to ensure environmental sustainability is mainstreamed throughout. The Environmental Management Plans (EMP) will ensure all infrastructure address any potential environmental risks post-handover. All EMP will be discussed with the beneficiary of the infrastructure to ensure it is understood, budget allocated to operate and maintain the assets post-handover. All infrastructures will be designed to minimise environmental impact where ever possible.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Impact and Probability (1-5)***	***Significance (Low, Moderate, High)***	***Comments***	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***
Risk 1: Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	I = 1 P =4	**Medium**	**The project will construct an integrated landfill facility. Also support to medical facilities will result in possible management of medical waste management**	**EIA (AMDAL) in line with International standards and Indonesian Law**
Risk 2 Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	I = 4 P = 4	**Medium**	**Debris management and recycling activities.**	**OSH Risk management strategy to minimise potential risks. Use of PPE, safe disposal of waste.**
	QUESTION 4: What is the overall Project risk categorization?			

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Impact and Probability (1-5)***	***Significance (Low, Moderate, High)***	***Comments***	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***
	Select one (see SESP for guidance)			**Comments**
			Low Risk ☐	
			Moderate Risk ☒	**Construction related waste is the main risk.**
			High Risk ☐	
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?			
	Check all that apply			**Comments**
	Principle 1: Human Rights ☒			**Conflict risk – Stakeholder engagement, grievance mechanism**
	Principle 2: Gender Equality and Women's Empowerment ☐			
	1. Biodiversity Conservation and Natural Resource Management ☐			

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Impact and Probability (1-5)***	***Significance (Low, Moderate, High)***	***Comments***	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***
	2. Climate Change Mitigation and Adaptation		☐	
	3. Community Health, Safety and Working Conditions		☒	OSH risk assessment and management plan
	4. Cultural Heritage		☐	
	5. Displacement and Resettlement		☐	
	6. Indigenous Peoples		☐	
	7. Pollution Prevention and Resource Efficiency		☒	Municipal and Medical waste management strategies.

Final Sign Off

Signature	*Date*	*Name*
QA Assessor		Christian Budi Usfinit Head of the Resilience and Reconstruction Unit
QA Approver		Nika Saeedi Deputy Resident Representative
PAC Chair		

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks	**Answer (Yes/No)**
Principles 1: Human Rights	
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	NO
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?[13]	NO
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	NO
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	NO
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	NO
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	NO

[13] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	NO
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	YES
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	NO
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	NO
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	NO
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? *For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being*	NO
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? *For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes*	NO
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	NO
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	NO

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
1.4	Would Project activities pose risks to endangered species?	NO
1.5	Would the Project pose a risk of introducing invasive alien species?	NO
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	NO
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	NO
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	NO
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	NO
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	NO
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? *For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.*	NO
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant[14] greenhouse gas emissions or may exacerbate climate change?	NO
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	NO
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	NO
Standard 3: Community Health, Safety and Working Conditions		

[14] In regards to CO_2, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	YES
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	NO
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	NO
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	YES
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	NO
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	NO
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	YES
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	NO
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	NO
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	NO
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	NO
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	NO

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	NO
5.3	Is there a risk that the Project would lead to forced evictions?[15]	NO
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	NO
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	NO
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NO
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? *If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.*	NO
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	NO
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	NO
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	NO
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NO
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	NO

[15] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	NO
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	NO
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	YES
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol*	NO
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	NO
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	NO

Annex 9: Project M&E Plan

Monitoring Plan

Monitoring and Oversight Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the Results Framework will be collected and analysed to assess the progress of the project in achieving the agreed outputs. Community and user-centred feedback will be collected to inform tracking of progress	Quarterly[16], or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.		
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions and mitigation measures using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.		

[16] As per the Quarterly Report Template

	with UNDP's audit policy to manage fiduciary risk.				
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project. A final independent evaluation at the end of the Project period will also be conducted with a view to contribute to the capture of lessons and to inform (advise on) the design of future initiatives	At least annually (to be reflected in annual report); Final evaluation to be conducted in Q3-Q4 2022	Relevant lessons are captured by the project team and used to inform management decisions. An independent evaluation at the end of the project period is organized, with the technical assistance of UNDP's Independent Evaluation Office (IEO) to capture lessons learned and inform organizational learning.		
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.		
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.		
Project Report	A progress report will be presented to the Project Advisory Committee and key	Quarterly, annually, and at the end of the project (final report)			

	stakeholders, on a quarterly and annual basis.				
Project Review (Project Advisory Committee)	The project's Advisory Committee will hold regular project reviews to assess the performance of the project. In the project's final year, the Committee shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up, if any, and to socialise project results and lessons learned with relevant audiences.	Twice a year; additional ad hoc meeting can be arranged on a need basis	Any quality concerns or slower than expected progress should be discussed by the Committee and management actions agreed to address the issues identified.		

Evaluation Plan

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNSCDF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Final Evaluation	BNPB, Bappenas	Output 3.3	3 (Institutions, communities and people actively apply and implement low carbon development, sustainable natural resources management, and disaster resilience approaches that are all gender sensitive)	April 2024	BNPB, BAPPENAS, KFW	USD 25,000 KFW

Annex 10: TE Report Clearance Form

Terminal Evaluation Report for *(Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA) (Project Award ID: 00116311)*

Reviewed and Cleared By:

Commissioning Unit (M&E Focal Point)

Name: Ari Pratama (Management Performance Oversight Unit)

Signature: DocuSigned by: A9E92855636D444... **Date:** 19-Nov-2024

Deputy Resident Representative

Name: Sujala Pant

Signature: DocuSigned by: 04186D9E3AB9435... **Date:** 19-Nov-2024