



# List of Planned Grant Projects (DRKH)

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**2025**



**Ministry of National Development Planning/  
National Development Planning Agency**



REPUBLIC OF INDONESIA

# List of Planned Grant Projects (DRKH) 2025

Ministry of National Development Planning/  
National Development Planning Agency

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## Foreword

The National Medium-Term Development Plan (RPJMN) 2025–2029 provides the overarching policy framework for Indonesia’s development. In support of its implementation, the State Budget (APBN) recognizes foreign grants as an integral source of development financing, contributing to the acceleration of priority national programs.

In accordance with national policy, the utilization of grant financing shall be aligned with the priorities of the RPJMN 2025–2029 and implemented in an effective, efficient, and accountable manner.

Therefore, the Ministry of National Development Planning/Bappenas hereby publishes the 2025 List of Planned Grant Projects (Daftar Rencana Kegiatan Hibah – DRKH). This document consolidates grant-funded project proposals that have met prescribed readiness criteria and obtained funding indications from development partners.

The DRKH 2025 serves as the primary planning reference for relevant Ministries and Agencies in the implementation of foreign grant activities, ensuring coherence with national development priorities and sound governance in execution. Following the issuance of the DRKH, the project is expected to proceed to further processing and commence implementation in 2026.

The implementation of programs financed by foreign grants will be monitored and evaluated periodically. This initiative is undertaken to ensure that all activities are implemented in a timely and achieve the strategically defined goals and measurable outcomes.

Ministry of National Development Planning/  
Head of National Development Planning Agency (Bappenas),



**Rachmat Pambudy**

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# Chapter 1

## 1. Introduction

Grants, whether from domestic or international sources, constitute a form of state revenue provided by development partners. These grants serve as a flexible financing mechanism for development initiatives, as they do not require repayment, unlike foreign loans. In accordance with Article 41 of the Regulation of the Minister for National Development Planning/Head of the National Development Planning Agency Number 4/2011, which outlines the procedures for planning, proposing, evaluating, monitoring, and assessing projects funded by external loans and grants, grants are intended to support national development programs, disaster management, and humanitarian assistance. Such grants must align with the national development priorities set forth in the 2025-2029 Medium-Term National Development Plan (RPJMN). Given Indonesia's economic advancement and the resulting limitations on grant availability, it is crucial that grants be allocated effectively. To this end, the Ministry of National Development Planning/National Development Planning Agency (Bappenas), responsible for coordinating national development planning, administers a meticulous planning process. This process culminates in the production of an annual planning document known as the List of Planned Grant Projects (*Daftar Rencana Kegiatan Hibah*, or DRKH), which enumerates projects deemed eligible for grant financing.

For the year of 2025, DRKH 2025 is enacted through the decree of Minister of National Development Planning/Head of National Development Planning Agency (Bappenas) number KEP. 102/M.PPN/HK/12/2025 on List of Planned Grant Projects (DRKH) Year 2025 (*Daftar Rencana Kegiatan Hibah Tahun 2025*). It consists of 7 projects in 5 ministries/institution with the total grant amount of USD 123.106 million. The document reflects that the 2025 grants are used to contribute in research project, infrastructure development, public health, social forestry, and environmental management.

In this Chapter 1, it is presented the recapitulation of the projects by line ministries and the list of projects along with an indication of its source of financing. Whilst Chapter 2 presents the digest for each grant project, containing a summary of the project information such as its location, scope, outputs and outcomes as well as institutions involved in project implementation.

## 2. Recapitulation and List of Projects in DRKH 2025

The grant which is received by the Indonesian Government this year are grant which support research project, infrastructure development, public health, social forestry,

and environmental management. Most of these proposed grants are from multilateral and bilateral development partners.

The list of projects in the DRKH 2025 is shown in Table 1.

**Table 1. List of Grant Projects DRKH 2025**

(US\$'000)

No	Project	Grant	Local	Donor Indication
<b>Ministry of Forestry</b>				
1	Forest Programme V – Social Forestry Support Programme Phase II (FPV Phase II)	11,580.00	1,158.00	KfW
<b>Ministry of Health</b>				
2	Collaborative Approach for Resilient Surveillance and Pandemic Preparedness in Indonesia Project (CARE-I)	20,722.81	0.00	World Bank
<b>Ministry of Public Works</b>				
3	Support (Additional Financing) for Solid Waste Management for Sustainable Urban Development (SWM-SUD) Project	40,000.00	0.00	AEPW through AIIB
4	Support for Feasibility Studies and Development of Projects of the Green Infrastructure Initiative (GII)	15,116.28	0.00	KfW
5	Semarang Urban Flood Resilience Project	24,840.00	0.00	Netherlands

(US\$'000)

No	Project	Grant	Local	Donor Indication
<b>Ministry of Higher Education, Science, and Technology</b>				
6	Development of High-Performance Pilot Solar Cells and Energy Storage Batteries Based on Emerging Technologies	5,000.00	0.00	ADB
<b>Ministry of Environment/Environmental Protection Agency</b>				
7	"Plastik Suli": Accelerating Circular Economy for Difficult Plastics in Indonesia	5,847.25	0.00	ADB
<b>Total</b>		<b>123,106.33</b>	<b>1,158.00</b>	

# **Chapter 2**

## **Project Digest**

**Ministry of Forestry /**  
***Kementerian Kehutanan***

1. **Project Title** : **Forest Programme V – Social Forestry Support Programme Phase II (FPV Phase II)**
  2. **Executing Agency** : Directorate General of Social Forestry, Ministry of Forestry
  3. **Implementing Agency** :
    1. Directorate General of Social Forestry
      - Directorate of Conflict Interest Tenurial Affairs and Customary Forest Management
      - Social Forestry Regional Office of Banjarbaru
      - Social Forestry Regional Office of Kupang
    2. Directorate General of Natural Resources and Ecosystem Conservation (Bukit Baka Bukit Raya National Park)
  4. **Duration** : 78 months (2026-2032)
  5. **Location** :
    - a. Sintang Regency and Melawi Regency, West Kalimantan Province
    - b. South Central Timor Regency, East Nusa Tenggara Province
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## 6. **Background and Justification**

FPV Phase II is a continuation of Forest Program V Phase I, and will contribute to the implementation of the EU's 2030 strategy. Phase II will support Indonesia to fulfil the NDCS (Nationally Determined Contributions) of the country. ACS IP has allocated this amount from the commitment to establish 1.27 million hectares of social forestry by 2024. In addition, the German Government Operations, in November 2021, of the Germany Development Bank committed EUR 10 Million for FPV Phase II. A condition for the commitment is that from this budget, activities of EUR 3 million related to zoonosis in the framework of social forestry must be included in the Project design. It is believed that one of the most effective activities in preventing future zoonoses is through biodiversity protection and access control to it. Hence, the second phase of Forest Program V shall be seen as a continuation of the first phase with a stronger focus on carbon, biodiversity and other non-carbon benefits. Social forestry contributes to sustainable forest management, reduces deforestation and forest degradation, improves community involvement and ownership in forest management, provides incentives, and promotes agroforestry and mixed-use systems. In addition, a reduction in soil erosion, improved water protection and a significant contribution to the conservation of biodiversity can be

expected. The Project recognizes that social forestry supports forest carbon stocks and biodiversity protection and therefore contributes to the prevention of zoonotic disease outbreaks. The Project will provide alternative livelihoods to people living from forest resources as well as incentives for forest protection. This will increase the community members' interest in the long-term protection of forest areas as well as reduce human-wildlife interactions and the pressure on forests.

## 7. Scope of Work

- a. Support for the issuance of new Social Forestry approvals (pre-approval).
- b. Development and implementation of sustainable forest management concepts in Social Forestry areas (post-approval support).

## 8. Priority

- a. Enhancing the National Defense and Security System and Promoting National Independence through Self-Sufficiency in Food, Energy, Water, Sharia Economy, Digital Economy, Green Economy, and Blue Economy.
- b. Developing from villages and the grassroots level to drive economic growth, promote economic equity, and eradicate poverty.
- c. Strengthening the harmonization of life with the natural environment and cultural values, as well as enhancing interfaith tolerance to achieve a just and prosperous society.

## 9. Output and Outcome

### a. Output

- 1) Social forestry-related capacity of all relevant stakeholders (Social Forestry staff in the Ministry (Social Forestry Directorate, PS), Adat/Customary Law Communities, regional offices of Social Forestry (Social Forestry Agency), Provincial Forestry Service, Social Forestry Task Force (*Pokja* PPS), and Forest Management Units (*Kesatuan Pengelolaan Hutan*, KPH) staff and communities in the field of Social Forestry) has improved.
- 2) Local communities apply climate-resilient and biodiversity-positive forestry models.

### b. Outcome

Forest authorities and communities manage selected forest areas in Indonesia in a socially, ecologically, and economically sustainable way.

- 1) Indicator 1: Development of average biomass volume in Project-supported forests.
- 2) Indicator 2: Change of average natural forest coverage in the licensed areas.
- 3) Indicator 3: Change of average income from (sustainable) forest management activities under the five social forestry schemes.
- 4) Indicator 4: Number of Project relevant experiences included in the regulatory framework at national and sub-national level.

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
KfW	11,580	1,158	12,738
<b>Total</b>	<b>11,580</b>	<b>1,158</b>	<b>12,738</b>

\*Note: 1 USD = 0.86 EUR

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)							Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	
1,896.18	1,931.37	2,200.34	1,962.94	1,812.34	1,459.84	316.99	11,580

\*Note: 1 USD = 0.86 EUR

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
Output A	961.26	176.95	1,138.22
Output B	5,965.13	488.87	6,454.01
PEA	4,653.60	492.16	5,145.76
<b>Total</b>	<b>11,580.00</b>	<b>1,158.00</b>	<b>12,738.00</b>

\*Note: 1 USD = 0.86 EUR

**Ministry of Health /**  
*Kementerian Kesehatan*

1. **Project Title** : **Collaborative Approach for Resilient Surveillance and Pandemic Preparedness in Indonesia (CARE-I)**
  2. **Executing Agency** : Directorate General of Disease Control, Ministry of Health
  3. **Implementing Agency** :
    1. Directorate General of Disease Prevention and Control, Directorate General of Primary Health Care Management, Ministry of Health
    2. Coordinating Ministry for Human Development and Culture
      - Assistant Deputy for Capacity Building and Health Resilience (PIU)
      - Assistant Deputy for Nutrition Improvement and Stunting Prevention
      - Assistant Deputy for Disaster Risk Reduction
    3. National Research and Innovation Agency
      - Veterinary Research Center
      - Public Health and Nutrition Research Center
      - Pre-Clinical and Clinical Medicine Research Center
      - Biomedical Research Center
      - Eijkman Research Center for Molecular Biology
    4. Deputy for Coordination of Social Welfare Improvement, Coordinating Ministry for Community Empowerment
      - Bureau of Performance Management and Cooperation
    5. Directorate General of Livestock and Animal Health Services, Ministry of Agriculture
      - Directorate of Animal Health
    6. Directorate General of Natural Resources and Ecosystem Conservation, Ministry of Forestry
      - Directorate of Species and Genetic Conservation
  4. **Duration** : 30 months (2026-2028)
  5. **Location** : Nationwide
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## **6. Background and Justification**

Indonesia remains vulnerable to infectious disease outbreaks despite its post-COVID-19 recovery. The high diversity of zoonotic pathogens, intensified human-animal mobility, and environmental pressures increase the risk of emerging diseases, while the country's archipelagic geography complicates early detection and rapid response. Gaps in surveillance, laboratory capacity, and multisectoral coordination persist at both national and subnational levels. A strengthened One Health approach is essential to improve data integration, cross-sector collaboration, and emergency response capabilities. Supported by the Pandemic Fund, the CARE-I project aims to enhance integrated surveillance, laboratory systems, risk communication, and sustainable One Health governance. These improvements will bolster Indonesia's preparedness to prevent, detect, and respond to health threats more effectively and promptly.

## **7. Scope of Work**

- a. Component 1: Strengthening Integrated One Health Surveillance and Early Warning;
- b. Component 2: Strengthening Laboratory Systems;
- c. Component 3: Strengthening Infectious Disease Outbreak Prevention and Response;
- d. Component 4: Strategic Planning, Strengthening Cross-sectoral Coordination and Capacity, Project Management, and Monitoring and Evaluation (M&E).

## **8. Priority**

Strengthening human resource development (HRD), science, technology, education, health, sports achievement, gender equality, and strengthening the role of women, youth, and people with disabilities.

## **9. Output and Outcome**

- a. Output
  - 1) Laboratory specimens collected, delivered, and tested at target referral laboratories;
  - 2) Diagnostic assays have been developed and validated;
  - 3) Laboratory staff trained on: (i) genomic surveillance; and (ii) biosafety and biosecurity management;
  - 4) Security Sensitive Biological Agents (SSBAs) list has been developed;
  - 5) SIZE has been activated in target districts, with community health and community animal health workers trained;

- 6) Public health, veterinary, and wildlife field epidemiologists have been trained;
  - 7) A One Health RCCE strategy for high-risk areas has been developed and disseminated;
  - 8) National contingency plan for zoonoses and EID has been developed and disseminated;
  - 9) CARE-I Steering Committee has been established and institutionalized;
  - 10) The National Action Plan for Health Security (NAPHS) for 2025 – 2029 has been developed and approved.
- b. Outcome
- 1) Strengthened capacity to prevent, detect, and respond to infectious disease outbreaks;
  - 2) Institutionalized One Health coordination mechanism in place for cross-sectoral policymaking, communication, and intervention.

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
World Bank	20,722.81	0	20,722.81
<b>Total</b>	<b>20,722.81</b>	<b>0</b>	<b>20,722.81</b>

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)			Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
8,289.12	8,289.12	4,144.56	<b>20,722.81</b>

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
Strengthening Indonesia’s capacity to prevent, detect, and respond to infectious disease outbreaks, and to establish and integrate a One Health coordination mechanism	20,722.81	0	20,722.81
<b>Total</b>	<b>20,722.81</b>	<b>0</b>	<b>20,722.81</b>

**Ministry of Public Works /**  
***Kementerian Pekerjaan Umum***

1. **Project Title** : **Support (Additional Financing) for Solid Waste Management for Sustainable Urban Development (SWM-SUD) Project**
  2. **Executing Agency** : Directorate General of Human Settlements, Ministry of Public Works
  3. **Implementing Agency** :
    1. Directorate General of Human Settlements, Ministry of Public Works
    2. Directorate General of Regional Development, Ministry of Home Affairs
    3. Directorate General of Disease Control, Ministry of Health
  4. **Duration** : 60 months (2026-2031)
  5. **Location** :
    1. Regional Aceh (Banda Aceh City and Aceh Besar Regency), Nanggroe Aceh Darussalam
    2. Tasikmalaya Regency, West Java
    3. Jepara Regency, Central Java
    4. Rembang Regency, Central Java
    5. Temanggung Regency, Central Java
    6. Cirebon Regency, West Java
    7. Regional Magelang (Magelang City and Magelang Regency), Central Java
    8. Gunungkidul Regency, Special Region of Yogyakarta
    9. Banyuwangi Regency, East Java
    10. Tabalong Regency, South Kalimantan
    11. Malang Regency, East Java
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## 6. Background and Justification

Indonesia is currently experiencing a waste emergency and is facing critical challenges that need to be addressed from economic, social, technology, and governance aspects. In 2023, the total waste generation reached 38.39 million tons, with only 33% of it being improperly managed. Furthermore, only 45.4% of households have access to waste collection, while only 1.6% of households already practice waste reduction (2022). The low percentage of waste collection services

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indicates the waste leakage into the environment (water bodies, rivers, etc.) as well as the large amount of waste generated dumped in the landfill.

The escalating amount of waste can damage natural biota and ecosystems, pollute environmental quality, worsen aesthetics, and cause health problems that will negatively impact the community, ultimately affecting the quality of Social, Economic, and Cultural aspects (SOM), thereby hindering the achievement of Indonesia's Golden 2045 vision. Therefore, a holistic solution is needed for waste management in Indonesia, including the creation of circular solutions especially for plastic waste.

To support the SWM SUD Foreign Loan activities, the Directorate General of Human Settlements (*Direktorat Jenderal Cipta Karya*), along with development partners, will implement a grant activity integrated with the loan as an additional support for 10 locations and 1 additional dedicated grant-funded location (*Kab. Malang*). Other local governments also can be supported if needed, met selection criteria, and the grant funds is available. The grant will support the Asta Cita by contributing to the National Priority Target 2: Strengthening the State Defense and Security System and Encouraging National Self-Reliance through Food, Energy, Water, Sharia Economy, Digital Economy, Green Economy, and Blue Economy with objective to achieve Indonesia's Green Economy Transformation.

One of the priorities program under Indonesia's Green Economy Transformation is Integrated Upstream to Downstream Waste Management Reform Development Program, where the reform will be carried out through priority activities, i.e.: (a) behaviour change and strengthening of waste governance, and (b) improvement of waste collection and processing, as well as residue treatment at Final Disposal Sites (TPA/LUR). The achievement of these priorities will be supported by the implementation of the grant.

## 7. Scope of Work

- a. Development of waste management infrastructure, including for plastic waste management;
- b. Enhancement of community participation in waste management;
- c. Strengthening of local government institutional capacity; and
- d. Circular economy initiatives.

**8. Priority**

Enhancing the National Defense and Security System and Promoting National Independence through Self-Sufficiency in Food, Energy, Water, Sharia Economy, Digital Economy, Green Economy, and Blue Economy.

**9. Output and Outcome**

a. Output

1. Through a Foreign Grant Value of USD 18,500,000.

a. Physical :

Development of appropriate waste processing facilities that will be functional and effectively treated the waste equivalent to 2 Material Recovery Facilities (MRFs) / Integrated Waste Treatment Facilities (TPST) and 2 Transfer Stations (TS) / Waste Transfer Facilities (SPA) (including all related equipment). The facilities' capacity must be sufficient to manage the projected waste generation in each service area. Related equipment to be funded (subject to fund availability within the USD 18,500,000 grant) includes:

1. Equipment and vehicles for waste collection from households and non-households.
2. Allocation of contingency funds to support the capital expenditure (Capex) needs for waste management facilities and equipment.
3. Allocation for spare parts, maintenance, and equipment replacement.

b. Non-Physical :

Implementation of a human resource capacity building program and technical assistance to the Local Government (*Pemerintah Daerah*), as well as a Behavioral Change Campaign program for the communities in Malang Regency.

2. Through a Foreign Grant Value of USD 21,500,000

a. Physical:

1. Development of waste management facilities and/or infrastructure in the project locations as well as the improvement of existing facilities (TPS3R & TPST): The number of facilities (Unit and Tonnage) and/or infrastructure units acquired and/or built and/or improved that support the implementation of the circular economy, especially plastic circularity.

2. Provision of waste sorting, collection, and transportation facilities at the project locations: The number of facilities acquired (Unit and Tonnage).
- b. Non-Physical:
1. Strengthening governance (institutional, regulatory, funding/financing, and stakeholders participation) of the Local Government (*Pemerintah Daerah*), including capacity building for regulators and operators: The number of cities/districts with governance support.
  2. Improvement of waste collection services: The number of citizens registered and receiving collection services and regularly paying the retribution fee as well as sorting waste at the source (annual percentage target).
  3. Implementation of a circular economy-based waste management pilot project.
  4. Preparation of a study/assessment such as for the project implementation learning outcomes.
- b. Outcome
1. Number of people served by the improved SWM services (gender-disaggregated).
  2. Waste properly collected to the treatment facility.
  3. Waste properly treated in the improved SWM facility (TPST).
  4. Waste properly disposed in residual landfills.
  5. Number of Local Governments with Improved Waste Management Ladder (WML) or IKPS (*Indeks Kinerja Pengelolaan Sampah*).

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
Alliance to End Plastic Waste (AEPW) through Asian Infrastructure Investment Bank (AIIB)	40,000	0	40,000
<b>Total</b>	<b>40,000</b>	<b>0</b>	<b>40,000</b>

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)					Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
6,084	13,162	12,402	6,583	1,767	<b>40,000</b>

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
Support (Additional Financing) for Solid Waste Management for Sustainable Urban Development Project (SWM-SUD)	40,000	0	40,000
<b>Total</b>	<b>40,000</b>	<b>0</b>	<b>40,000</b>

1. **Project Title** : **Support for Feasibility Studies and Development of Projects of the Green Infrastructure Initiative (GII)**
  2. **Executing Agency** : Directorate general of Human Settlements, Ministry of Public Works
  3. **Implementing Agency** : Directorate general of Human Settlements, Ministry of Public Works
  4. **Duration** : 20 months – Water Supply Sector (2026-2028)  
36 months – Sanitation Sector (2026-2029)
  5. **Location** : **Water Supply Sector:** Gunung Kidul Regency, Malang Regency, Bora Regency, Magelang City, East Java Province (Mojokerto Regency, Lamongan Regency, and Gresik Regency - coverage of the Mojolagres Regional SPAM), The Greater Solo Area (Surakata City, Klaten Regency and Wonogiri Regency).  
**Circular Economy and Solid waste Management Sector** : Regencies/Cities identified as potential locations for the Solid Waste Infrastructure for Sustainability and Environment activities.
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## 6. Background and Justification

The Green Infrastructure Initiative (GII) is a cooperation program between Indonesia and Germany. The GII aims to provide financing for the preparation and implementation of infrastructure projects, focusing on the water supply, and circular economy (solid waste management). The grant will be used to prepare or update feasibility studies, safeguard documents, detailed engineering designs, and land acquisition plans, as well as capacity building, institutional setting and strengthening, and community empowerment, ensuring that drinking water and solid waste management proposals meet national requirements.

## 7. Scope of Work

- a. Water Supply Sector:
  - 1) Component 1: Preparation and Updating of Technical Planning Documents;
  - 2) Component 2: Limited Procurement Activities for reducing Non-Revenue Water (NRW).
- b. Circular Economy and Solid waste Management Sector:

- 1) Component 1: Circular Economy and Solid waste Management Consultant for preparation and updating technical documents;
- 2) Component 2: Secondary Services to improve end to end solid waste management system from technical, governance, financing, and community empowerment.

## 8. Priority

Strengthening the state's defence and security system and encouraging national independence through self-sufficiency in food, energy, and water, the Sharia economy, the digital economy, the green economy, and the blue economy.

## 9. Output and Outcome

### a. Output

- 1) Comprehensive and up-to-date technical planning documents required for submitting the Green Infrastructure Initiative (GII) projects for Water Supply and Solid Waste Management to be listed in the Green Book/DRPPLN, including but not limited to:
  - Feasibility Study (FS);
  - Detailed Engineering Design (DED);
  - Environmental Documents/safeguard;
  - Procurement Documents; and
  - The Land Acquisition and Resettlement Action Plan (LARAP).
- 2) Non-Revenue Water (NRW) supporting equipment for local water utilities (regional drinking water companies/BUMD *Air Minum*);
- 3) Feasibility and sustainability support to improve institutional, governance and community empowerment;
- 4) Completed scoping of priority programs and projects eligible for foreign funding under the RPJMN 2025–2029, with a primary focus in the Circular Economy.

### b. Outcome

- 1) The proposed activities under the Green Infrastructure Initiative (GII) for the development of water supply, and solid waste management are ready for implementation and eligible for foreign loan financing;
- 2) Improved efficiency in drinking water distribution networks for local water utilities (BUMD *Air Minum*) as program beneficiaries;

- 3) Feasibility assessments and sustainability end to end solid waste management for priority programs and projects under the 2025–2029 RPJMN—particularly in the Circular Economy and Solid Waste Management are completed, enabling the Executing Agency to submit these initiatives for inclusion in the Green Book (DRPPLN) and advance them toward full project readiness.

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
KfW	15,116.28	0	15,116.28
<b>Total</b>	<b>15,116.28</b>	<b>0</b>	<b>15,116.28</b>

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)					Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
0	2,000	3,000	5,000	5,116.28	<b>15,116.28</b>

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
Component Water Supply Consultant	6,323.05	0	6,323.05
Component Circular Economy and Sanitation Consultant	7,340.86	0	7,340.86
Component Secondary Service Consultant	1,452.35	0	1,452.35
<b>Total</b>	<b>15,116.28</b>	<b>0</b>	<b>15,116.28</b>

1. **Project Title** : Semarang Urban Flood Resilience Project
  2. **Executing Agency** : Directorate General of Water Resources, Ministry of Public Works
  3. **Implementing Agency** : Directorate General of Water Resources (River Basin Organization for Pemali Juana)
  4. **Duration** : 24 months (2026-2028)
  5. **Location** : Semarang City, Central Java Province
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## 6. Background and Justification

The Semarang Urban Flood Resilience Project serves as a strategic effort to enhance infrastructure resilience against climate change and reduce the risk and frequency of flooding caused by rainfall and sea-level rise. The project forms part of the National Framework Urban Flood Resilience Project (NUFReP), specifically under the component of technology transfer and institutional capacity strengthening. The grant facility is delivered through the Developing Resilient Infrastructure through Value Engineering (DRIVE) scheme, based on the MoU on Financial Cooperation between the Government of the Netherlands and the Government of Indonesia. The project also represents a follow-up to the “MoU on Water” cooperation between the two governments.

This initiative is an integral part of the National Medium-Term Development Plan (RPJMN) 2025–2029, particularly contributing to National Priority 2, which emphasizes strengthening national defense and advancing self-reliance in food, energy, water, and key economic sectors, including through water self-sufficiency; National Priority 6, which focuses on village-driven and bottom-up development to promote economic growth, equity, and poverty reduction; and National Priority 8, which highlights fostering harmony with nature and culture, as well as strengthening interfaith tolerance to build a just and prosperous society.

## 7. Scope of Work

- a. Pump Installation;
- b. Construction of Urban Drainage Channels.

## 8. Priority

- a. Enhancing the National Defense and Security System and Promoting National Independence through Self-Sufficiency in Food, Energy, Water, Sharia Economy, Digital Economy, Green Economy, and Blue Economy.

- b. Developing from Villages and the Grassroots for Economic Growth, Economic Equity, and Poverty Eradication.
- c. Strengthening Harmonious Coexistence with Nature and Culture, as well as Enhancing Interfaith Tolerance to Achieve a Just and Prosperous Society.

**9. Output and Outcome**

- a. Output
  - 1) Installation of Pumps for Urban Flood Control;
  - 2) Construction of Integrated Urban Drainage Channels.
- b. Outcome
  - 1) Increased resilience of flood control infrastructure against climate change;
  - 2) Reduced flood flow that occurs in the urban area of Semarang City.

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
Netherland Government	24,840	0	24,840
<b>Total</b>	<b>24,840</b>	<b>0</b>	<b>24,840</b>

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)		Total
1 <sup>st</sup>	2 <sup>nd</sup>	
12,420	12,420	<b>24,840</b>

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
1. Construction of flood drainage channels and installation of the Kartini pumping station	24,840	0	24,840
2. Construction of lateral channels			
<b>Total</b>	<b>24,840</b>	<b>0</b>	<b>24,840</b>

**Ministry of Higher Education, Science,  
and Technology /**  
*Kementerian Pendidikan Tinggi, Sains, dan  
Teknologi*

1. **Project Title** : **Development of High-Performance Pilot Solar Cells and Energy Storage Batteries Based on Emerging Technologies**
  2. **Executing Agency** : Directorate General of Research and Development ,Ministry of Higher Education, Science and Technology
  3. **Implementing Agency** : Institut Teknologi Bandung (ITB)
  4. **Duration** : 36 months (2026-2028)
  5. **Location** : West Java Province (ITB)
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## 6. **Background and Justification**

Indonesia faces significant challenges in meeting its growing energy demands due to rapid economic and population growth. Dependence on fossil fuels and greenhouse gas emissions have become serious issues, making the transition to renewable energy a strategic step. Perovskite-based photovoltaic (PV) technology and tandem perovskite-Si offer an efficient and cost-effective solution for harnessing solar energy, which is abundant in Indonesia. This technology can reduce energy imports, enhance domestic research capacity, and create new economic opportunities in the renewable energy sector. Energy storage is a major challenge in ensuring a stable supply of renewable energy. Lithium-ion batteries have great potential for storing solar energy to be used at night or during bad weather. Indonesia possesses large nickel reserves, a key material in battery production, but its domestic processing capacity remains limited. Therefore, research and development of locally produced PV technology and batteries are crucial for national energy security and carbon emission reduction. The increasing use of batteries, especially for electric vehicles (EVs), is driving the growth of the lithium-ion battery market. Many countries are investing in battery technology, including recycling, to manage waste efficiently. As a leading nickel producer, Indonesia has a significant opportunity to develop its battery industry but still lacks integrated research and manufacturing facilities. A proposed collaboration between ITB, UI, UGM, and so on aims to establish a comprehensive research center to support material development, battery recycling technology, and industrial growth, strengthening the value chain while fostering economic growth and job creation.

## 7. **Scope of Work**

- a. Development of perovskite solar cells;
- b. Development of an Energy Storage Research Center in the form of Batteries.

**8. Priority**

Strengthening human resource development (HRD), science, technology, education, health, sports achievement, gender equality, and strengthening the role of women, youth, and people with disabilities.

**9. Output and Outcome**

a. Output

- 1) Development of perovskite modules with efficiency >20% and tandem perovskite-Si>26%;
- 2) Pilot-scale prototype ready for industrial production;
- 3) Implementing of roll-to-roll technology for mass manufacturing of solar cells;
- 4) Establishment of pilot scale solar cell production facilities;
- 5) Establishment of a research center for energy storage: Batteries, which will involve the development of a bench-scale battery technology ecosystem by 2027.

b. Outcome

- 1) Increase in PV technology in Indonesia;
- 2) Reduction in dependence on imported PV technology;
- 3) Contribution to the national renewable energy mix target;
- 4) Establishment of a bench-scale battery research and production facility by October 2027.

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
ADB	5,000	0	5,000
<b>Total</b>	<b>5,000</b>	<b>0</b>	<b>5,000</b>

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)			Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
3,302.09	1,028.39	669.52	<b>5,000</b>

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
Perovskite Solar Cell Development Team	2,444.14	0	2,444.14
Battery Research Center Team	2,555.86	0	2,555.86
<b>Total</b>	<b>5,000.00</b>	<b>0</b>	<b>5,000.00</b>

**Ministry of Environment/Environmental  
Protection Agency/  
*Kementerian Lingkungan Hidup/Badan  
Pengendalian Lingkungan Hidup***

1. **Project Title** : "Plastik Sulit": Accelerating Circular Economy for Difficult Plastics in Indonesia
  2. **Executing Agency** : Deputy of Solid Waste, Hazardous Waste and Hazardous Substances, Ministry of Environment (MOE)/Environmental Protection Agency
  3. **Implementing Agency** : Deputy of Solid Waste, Hazardous Waste and Hazardous Substances Management
  4. **Duration** : 48 months (2026-2029)
  5. **Location** : Nationwide with piloting at sub-national levels
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## 6. Background and Justification

PET (PETE) is the most widely and easily recycled type of plastic as it can cheaply and easily be formed into other products (e.g., fiber, bottles, containers, etc.). HOPE, LOPE, and PP are recyclable, but are often not recycled or problematic to recycle due to their lower economic value, inefficient collection and segregation or a lack of recycling facilities. This means that a minimum of 54% ( or 174 million tons per year) of plastics globally operate on a linear economy and are lost to the environment and economy each year.

A circular economy redefines current production and consumption patterns in a way where business and growth support positive economic, social and environmental benefits throughout supply chains, business models, and life cycles (e.g., from the choice of raw materials, design of products/services, to recycling and end-of-life).

For plastic never to become waste, it must either be avoided completely or become a valuable material used in items where necessary, in small amounts with the longest possible projected lifespan. In a circular economy, the plastic materials used remain as a valuable commodity even at its end-of-life, and can seamlessly integrate back into the manufacturing of new plastic items in place of virgin plastic.

Many household essentials (e.g., food, personal and home care products) are packaged in laminated plastic sachets. These small quantities are more financially accessible to consumers who cannot afford bigger quantities. Similarly, the geographies that contribute most to plastic pollution are rural locations and small-to medium-sized cities. These areas represent 60% of Indonesia's population, and 72% of plastic pollution. The archipelagic nature of the country further exacerbates the problem; creating logistical infrastructure to reach small and/or isolated islands is challenging and costly.

Government agencies, non governmental organisations, private sector companies, universities and civil society organizations are all working on initiatives to prevent

and clean up plastic pollution across Indonesia. However, projections show that without more ambitious action, plastic pollution in Indonesia will grow by 30% from 2017 to 2025- from an estimated baseline ocean leakage of 620,000 tons/year in 2017 (~10% of plastic waste generation) to 790,000 tons/year in 2025.

ADB is preparing the proposed regional GEF-7 Regional MSP 'Promoting Resource Efficiency and Circularity to Reduce Plastic Pollution for Asia and the Pacific' - which has already started with ADB technical assistance co-funding. For Indonesia, the regional MSP support will focus on development of an action plan for Cirebon (tentatively) that looks at the entire system, including institutional arrangements and capacity building needs; policy and regulations to promote circular economy; infrastructure and technology needs; local business and community behaviours, trends and triggers; roles, responsibilities and actors; implementation and financing plans and mechanisms. Activities proposed would include separation of wet and dry waste at the household level creating favourable conditions for further processing/use of plastics and organic waste; small business and community behaviour change campaigns; innovative PPP contracting of micro-enterprises to support the new system; small business and livelihood development support; and partnerships with local reprocessing/recycling companies. The work under the regional MSP and ADB co-funded activities (including the Liveable Cities) will be closely synchronized with the current proposed national GEF project for Indonesia. The proposed GEF project builds on the significant analysis done to date supported by GPAP/NPAP (as described above) and takes forward NPAP Action Roadmap recommendations for implementation in close collaboration and coordination with NPAP and the Government. The proposed GEF project will take a holistic approach to supporting Indonesia's plastic pollution reduction efforts, but in order to serve as a catalyst in facilitating the transition to a circular plastics economy, focuses more on the NPAP System Change Scenarios A and B: Reduce or substitute plastic and Redesign plastic products and packaging.

## **7. Scope of Work**

- a. Support the functional circular plastics economy integrated at city level and enabled at national level;
- b. Facilitate the Circular Plastic Economy Tested at City Level Through Circular Business Hub;
- c. Enhancing Circular Economy Knowledge, Technologies, and Innovations Promoted and Shared, including empowering Waste Bank management system.

## 8. Priority

National Priority 2: Enhancing the National Defence and Security System and Promoting National Independence through Self-Sufficiency in Food, Energy, Water, Sharia Economy, Digital Economy, Green Economy, and Blue Economy.

## 9. Output and Outcome

### a. Output:

- 1) Market Analysis of Plastic Value Chains Completed;
- 2) Governance Mechanisms to Support Circular Plastics Economy Developed;
- 3) NPAP Financing Roadmap Implementation Supported, with Business Cases, Micro-Financing Roadmap, and Financing Mechanisms to Achieve Indonesia's Plastic Pollution Reduction Targets Developed;
- 4) Collaborative Forums for Catalytic Action Established;
- 5) Circular Market for Commercially Problematic Plastics Identified and Piloted;
- 6) Circular Business Hub Established and Operated;
- 7) Behaviour Change and Capacity Development Programs Designed and Implemented;
- 8) Multi-Stakeholder Capacity Building, Training, and Skills Development on Circular Plastics Economy Conducted;
- 9) Innovation and Technology Events to Share New and Emerging Solutions Convened;
- 10) Knowledge Products to Support Decision Making, Solutions, and Collaboration Developed and Disseminated;
- 11) Project monitoring and evaluation conducted.

### b. Outcome

- 1) Functional circular plastics economy integrated at city level and enabled at national level;
- 2) Circular Plastic Economy Tested at City Level Through Circular Business Hub;
- 3) Circular Economy Knowledge, Technologies, and Innovations Promoted and Shared, including empowering Waste Bank management system.

**10. Indicative Funding Source**

Indicative Source	Funding (US \$ 000)		
	Grant	Local	Total
ADB	5,847.25	0	5,847.25
<b>Total</b>	<b>5,847.25</b>	<b>0</b>	<b>5,847.25</b>

**11. Disbursement Plan**

Disbursement Plan (US \$ 000)				Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	
733.809	1,478.788	1,739.394	1,895.259	<b>5,847.25</b>

**12. Project Activity Cost**

Activities	Funding (US \$ 000)		
	Grant	Local	Total
Component 1 – Governance & EPR (Reuse roadmap, EPR regulations, national data integration)	1,754.175	0	1,754.175
Component 2 – Cities & Technology (Circular Hub, digitization, plastic-free cities)	2,923.625	0	2,923.625
Component 3 – Knowledge & Capacity (Training, public campaign, M&E and toolkits)	1,169.450	0	1,169.450
<b>Total</b>	<b>5,847.250</b>	<b>0</b>	<b>5,847.250</b>



**Ministry of National Development Planning/  
National Development Planning Agency**