



**ASIAN INFRASTRUCTURE  
INVESTMENT BANK**

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**Sovereign-backed Financing**

**Approval Project Document**

**P000945 Indonesia: RSAB Harapan Kita Building Construction Project and Area Arrangement of  
3 Berlian Hospitals**

## Currency Equivalents

As on July 31, 2025

Currency Unit – Euro (EUR)

USD1.00 = EUR0.8742

## Fiscal Year

January 1 – December 31

## Abbreviations

|                    |  |
|--------------------|--|
| ACM                | Asbestos-Containing Materials  |
| AIIB               | Asian Infrastructure Investment Bank   |
| BAPPENAS           | <i>Badan Perencanaan Pembangunan Nasional</i> (National Development Planning Agency) |
| BLU                | <i>Badan Layanan Umum</i> (Public Service Agency)                                    |
| BPK                | <i>Badan Pemeriksa Keuangan</i> (Audit Board of Indonesia)                           |
| CESMP              | Construction Environmental and Social Management Plan                                |
| CMC                | Construction Management Consultant   |
| DALYs              | Disability-Adjusted Life Years   |
| EIRR               | Economic Internal Rate of Return   |
| ENPV               | Economic Net Present Value   |
| ES                 | Environmental and Social   |
| ESF                | Environmental and Social Framework   |
| ESIA               | Environmental and Social Impact Assessment   |
| ESMP               | Environmental and Social Management Plan   |
| FM                 | Financial Management   |
| GAP                | Gender Action Plan   |
| Gol                | Government of Indonesia  |
| GRM                | Grievance Redress Mechanism  |
| IT                 | Information Technology   |
| JKN                | <i>Jaminan Kesehatan Nasional</i> (national health insurance system)                 |
| MDB                | Multilateral Development Bank  |
| MoF                | Ministry of Finance  |
| MoH                | Ministry of Health   |
| OHS                | Occupational Health and Safety   |
| Perpres            | <i>Peraturan Presiden</i> (President Regulation)                                     |
| PIU                | Project Implementing Unit  |
| PMU                | Project Management Unit  |
| PPM                | Project-affected People's Mechanism  |
| RAP                | Resettlement Action Plan   |
| RSAB Harapan Kita  | <i>Rumah Sakit Anak Bunda Harapan Kita</i> (Mother and Child Hospital)               |
| RSJPD Harapan Kita | <i>Rumah Sakit Jantung dan Pembuluh Darah Harapan Kita</i> (Cardiovascular Hospital) |
| RS Kanker Dharmais | <i>Rumah Sakit Kanker Dharmais</i> (Dharmais Cancer Hospital)                        |

|      |                               |
|------|-------------------------------|
| SEP  | Stakeholder Engagement Plan   |
| SOP  | Standard Operating Procedures |
| SSP  | Shared Socioeconomic Pathways |
| WWTP | Wastewater Treatment Plant    |

## Table of Contents

|   |    |
|---|----|
| 1. Context .....                                    | 6  |
| 2. Rationale .....                                  | 6  |
| 3. Project Description .....                        | 10 |
| 4. Project Assessment .....                         | 13 |
| A. Technical Assessment .....                       | 13 |
| B. Operational Sustainability .....                 | 15 |
| C. Economic and Financial Analysis .....            | 16 |
| D. Fiduciary and Governance .....                   | 17 |
| E. Environmental and Social .....                   | 19 |
| F. Climate Change Mitigation and Adaptation .....   | 25 |
| G. Gender Aspects .....                             | 26 |
| H. Risks and Mitigations .....                      | 28 |
| Annex 1: Results Monitoring Framework .....         | 33 |
| Annex 2: Economic Analysis .....                    | 37 |
| Annex 3. Paris Agreement Alignment Assessment ..... | 43 |
| Annex 4: Country Credit Fact Sheet .....            | 47 |

## 1. Executive Summary

1.1. The RSAB Harapan Kita Building Construction Project and Area Arrangement of 3 Berlian Hospitals (Project) will expand access to high-quality healthcare for maternal, neonatal, and child patients, alongside cardiovascular and cancer care. AIIB's loan investment of EUR197.923 million with a 11-year final maturity, on standard sovereign-backed variable spread terms will support reconstructing RSAB Harapan Kita and equipping the hospitals with advanced medical technology, the Project will nearly double capacity (from 271 to 550 beds) and introduce services previously unavailable in Indonesia. This ensures timely, life-saving interventions for mothers and children, directly reducing preventable morbidity and mortality.

1.2. The Project will establish a digitally connected and environmentally sustainable healthcare hub. Physical and IT integration across the three hospitals will enable coordinated referrals and multidisciplinary case management, while digitalization through electronic medical records, AI-enabled tools, and telehealth services will extend access to underserved populations. Green building design, renewable energy, and climate-resilient construction will ensure long-term operational sustainability in line with Indonesia's climate adaptation goals.

1.3. Beyond infrastructure, the Project invests in human capital through training programs for doctors, nurses, midwives, and hospital managers, strengthening Indonesia's pool of specialized professionals. It will also create new jobs and stimulate local businesses in medical supplies, services, and hospitality. As a national referral hub, the hospital complex will serve as a center for education, training, and medical research, enhancing both health outcomes and economic inclusion.

1.4. The initiative aligns with Indonesia's Vision 2045 and national health priorities under the Long-Term Development Plan, directly supporting the "Health for All" mission. For AIIB, this marks its first standalone sovereign-backed financing in Indonesia's health sector, diversifying its portfolio and demonstrating leadership in green and technology-enabled healthcare infrastructure. By applying high ESG standards and fostering institutional capacity, AIIB's engagement will ensure the project's resilience and lasting impact, positioning the Bank as a trusted partner in advancing Indonesia's healthcare transformation.

|   |   |   |                         |
|---|---|---|-------------------------|
| <b>Project No. and Name</b>                     | P000945 RSAB Harapan Kita Building Construction Project and Area Arrangement of 3 Berlian Hospitals (Project)   |   |                         |
| <b>AIIB Member</b>                              | Indonesia   |   |                         |
| <b>Borrower</b>                                 | Republic of Indonesia   |   |                         |
| <b>Guarantor</b>                                | Not Applicable  |   |                         |
| <b>Project Implementation Entity</b>            | Ministry of Health, Indonesia   |   |                         |
| <b>Proposed Amount of AIIB Financing (EURm)</b> | EUR197.923  | <b>Instrument type (Instrument subtype)</b>   | Loan (Direct Sovereign) |
|   |   | <b>Currency of financing requested</b>        | Euro                    |
| <b>Sector (Subsector)</b>                       | Health Infrastructure (N/A)   | <b>E&amp;S Category and Comments (if any)</b> | B                       |
| <b>Project Objective</b>                        | The objective of this project is to improve the accessibility and quality of healthcare services at three national referral hospitals in Jakarta, with a specific focus on maternal and child health, cardiovascular diseases (CVD), and cancer care.   |   |                         |
| <b>Project Description</b>                      | <p>The Project encompasses the reconstruction of the Rumah Sakit Anak Bunda Harapan Kita (Mother and Child Hospital) (RSAB Harapan Kita), provision of medical equipment at participating hospitals specifically for mother and child and cardiovascular services, and improvements to the connectivity and integration among RSAB Harapan Kita, Rumah Sakit Jantung dan Pembuluh Darah Harapan Kita (Cardiovascular Hospital) (RSJPD Harapan Kita), and Rumah Sakit Kanker Dharmais (Dharmais Cancer Hospital) (RS Kanker Dharmais).</p> <p>The Project will increase the total bed capacity of RSAB Harapan Kita from 271 to 550 beds, provide specialized medical equipment, and integrate (physically, digitally and operationally) the three hospitals into an integrated healthcare complex to enhance service coordination and overall patient care. The Project centers on two transformative pillars: (i) digitalization, through the development of robust IT infrastructure to support electronic medical records, AI-enabled tools, and telehealth services; and (ii) green and resilience, by integrating energy-efficient systems, climate-resilient design including seismic response, and sustainable operational practices. Together, these components aim to modernize hospital operations, enhance service delivery, and ensure long-term environmental and system resilience.</p> |   |                         |

|                              |  |  |                |
|------------------------------|--|--|----------------|
|                              | <p><b>Key Project Components:</b></p> <p>i. <b>Component A: Infrastructure (Civil Works).</b> This component focuses on the reconstruction of the RSAB Harapan Kita building and its supporting infrastructure at the existing site, covering a total construction area of approximately 141,688 square meters. The civil works under supporting infrastructure will also include features on advance waste management system i.e. expansion of the wastewater treatment plant and temporary hazardous waste storage area.</p> <p>ii. <b>Component B: Procurement of Medical and Non-medical equipment and Furniture.</b> This component supports the enhancement of hospital service capacity through the procurement and installation of advanced diagnostic, therapeutic, and support equipment specifically for mother and child and cardiovascular services.</p> <p>iii. <b>Component C: IT system development (including consultancy services).</b> This component aims to enhance hospital IT capacity to support the delivery of more effective and integrated healthcare services.</p> <p>iv. <b>Component D: Human Capital Development.</b> This component focuses on strengthening the institutional capacity of healthcare and non-healthcare personnel to ensure the effective operation of the upgraded facilities.</p> <p>v. <b>Component E: Project Management.</b> This component ensures effective planning, execution, and monitoring of the Project.</p> |  |                |
| <b>Implementation Period</b> | <p>Start Date:<br/>January 01, 2026</p> <p>End Date:<br/>December 31, 2029</p>   | <b>Expected Loan Closing Date</b>                      | March 31, 2031 |
| <b>Co-financing type</b>     | Standalone   | <b>Following other Financier's E&amp;S Policy?</b>     | No             |
| <b>Lead financier</b>        | Not Applicable   | <b>Following other Financier's Procurement Policy?</b> | No             |
| <b>Financing Plan</b>        | <p>AIIB – EUR197.923 million</p> <p>Government of Indonesia (GoI) – EUR22.112 million</p>  |  |                |
| <b>Policy Assurance</b>      | <p>The Vice President, Policy and Strategy, confirms an overall assurance that the proposed Bank Financing complies with the applicable Bank operational policies.</p>   |  |                |

| <b>Risk</b>   |  |
|---|--|
| <b>Key Risks</b>  | <b>Mitigation Measures</b>   |
| Currency fluctuations impacting project cost and disbursement   | <ul style="list-style-type: none"> <li>▪ Utilize the direct payment method for foreign currency-denominated transactions to reduce exposure to exchange rate volatility.</li> <li>▪ Apply conservative foreign exchange (Fx) assumptions in Project cost estimation.</li> <li>▪ Ensure government commitment to provide contingency budget support in case of significant currency appreciation.</li> </ul>  |
| Delayed payments and risk of ineligible expenditures due to weak financial controls and unclear processes | <ul style="list-style-type: none"> <li>▪ Develop and implement a clear Standard Operating Procedure (SOP) outlining the full payment workflow, including submission, verification, and approval stages.</li> <li>▪ Introduce a mandatory checklist of required supporting documents to standardize and streamline payment requests.</li> <li>▪ Apply a layered approval mechanism to strengthen internal controls and reduce the risk of ineligible expenditures.</li> </ul> |
| Insufficient or delayed budget allocation in the State Budget (DIPA)                                      | <ul style="list-style-type: none"> <li>▪ Align budget preparation with the Project's implementation timeline to avoid funding gaps.</li> <li>▪ Maintain close coordination with relevant units within the Ministry of Finance (MoF) to ensure timely budget issuance and revisions when necessary.</li> </ul>  |
| Network downtime and loss of access to core IT systems during implementation or operations                | <ul style="list-style-type: none"> <li>▪ Develop and implement a clear SOP for temporary manual operations to ensure service continuity during system outages.</li> <li>▪ Ensure robust IT planning, including selection of scalable and reliable systems tailored to healthcare operations.</li> <li>▪ Strengthen cybersecurity protocols and adopt effective IT governance to minimize system vulnerabilities and ensure rapid response to outages.</li> </ul>             |
| Structural vulnerability of buildings to climate shocks such as earthquakes and floods                    | <ul style="list-style-type: none"> <li>▪ Integrate climate-resilient structural design standards into project planning, specifically addressing seismic and flood risks.</li> <li>▪ Ensure selection of contractors with demonstrated experience in implementing structural resilience measures in health infrastructure.</li> </ul>   |
| <b>Economic Capital (ECap) Consumption</b>  | 22.67USDm<br>10.01%  |

| <b>Strategic Alignment</b>                      |  |   |                        |  |
|---|--|---|------------------------|--|
| <b>Alignment with AIB's thematic priorities</b> |  | Green infrastructure; Technology-enabled Infrastructure |                        |  |
| <b>Alignment with AIB's strategies</b>          |  | Digital Infrastructure Sector Strategy; Health Strategy |                        |  |
| <b>Key Outcomes</b>                             | <b>Indicator</b>   | <b>Unit of measure</b>                                  | <b>Baseline (Year)</b> | <b>Target (Year)</b>   |
| N/A   | Infrastructure (Civil Works) Completion Progress   | Percentage  | 0 (2024)               | 100 (2030)   |
| N/A   | RSAB Harapan Kita to achieve green building certification (National UTAMA Standard) Milestone: Green Building Design certification achieved (2026)         | Not applicable  | - (2024)               | Green building certification awarded (UTAMA standard) (2030) |
| N/A   | Shared patient registry and health data exchange platform established and operational across RSAB Harapan Kita, RSJPD Harapan Kita, and RS Kanker Dharmais | Yes/No  | No (2024)              | Yes (2030)   |

| <b>Other Key Financing Requirements</b>               |  |
|---|--|
| <b>Conditions of Effectiveness</b>                    | <ol style="list-style-type: none"> <li>1. The Borrower, through the Project Executing Agency, shall submit an updated Resettlement Action Plan in form and substance satisfactory to the Bank;</li> <li>2. The Borrower, through the Project Executing Agency, shall have adopted a Project Operations Manual, in a form and substance satisfactory to the Bank; and</li> <li>3. The Borrower, through the Project Executing Agency, shall have ensured that the PMU and the PIUs are duly established and staffed, including environmental and social focal points, to such extent as the Bank finds satisfactory.</li> </ol> |
| <b>Key Conditions for 1<sup>st</sup> Disbursement</b> | <ol style="list-style-type: none"> <li>1. The Bank has received payment in full of the Front-end Fee;</li> <li>2. the Project's first AWPB has been finalized by the Borrower through the Project Executing Agency in form and substance satisfactory to the Bank; and<br/>1.1</li> <li>3. Detailed Procurement Plan, in form and substance acceptable to the Bank, has been approved by the Borrower through the Project Executing Agency.</li> </ol>   |
| <b>Key Covenants</b>                                  | <ol style="list-style-type: none"> <li>1. The Borrower, through the MoH, ensures that the collection, use and processing (including transfer to third parties) of any data collected under the Project will be done in accordance with the Borrower's relevant laws and regulations and ensuring legitimate, appropriate and proportional treatment of such data.</li> </ol>   |

|  |   |
|--|---|
|  | 2. The Borrower, through the Project Management Unit (PMU), shall ensure that data collection, data security and network security, the use of drones, datacenter licensing, and any regulatory approvals required for any activities under the Project will be handled in accordance with the Borrower's relevant laws and regulations. |
|--|---|

|                                 |   |
|---------------------------------|---|
| <b>President</b>                | Liqun Jin   |
| <b>Chief Investment Officer</b> | Kim-See Lim   |
| <b>Director General</b>         | Rajat Misra   |
| <b>Project Team Leader</b>      | Deni Fauzi, Senior Investment Officer   |
| <b>Back-up Team Leader</b>      | Mohd Sharib Khan  |
| <b>Project Team Members</b>     | Kezia Paladina, Alternate Counsel<br>Julija Kuklyte Polycarp, Climate Specialist<br>David Hartcher, CTL<br>Edith Zheng, Economist<br>Ebrima Ceesay, Project Counsel<br>Jaya Ketaren, SFD - Environment Specialist<br>Nurul Mutmainnah, SFD - Financial Management Specialist<br>Rizal Rivai, SFD - Procurement Specialist<br>Monyrath Nuth, SFD - Social Development Specialist<br>Mohamed Elsayed, Team Member<br>Shashank Jayakumar, IT System Development Consultant<br>Xianfu Lu, Climate Adaptation Consultant |

## 2. Context

2.1. **Country and Macroeconomic Overview:** Indonesia is an upper middle-income country with a Gross Domestic Product per capita of around USD4,900 and a population of 277 million. Its economic resilience is rooted in over two decades of prudent macroeconomic management, contributing to robust growth, poverty reduction, and increased inclusion. In 2023, Indonesia's economy grew by 5.0 percent, driven by resilient private consumption and investment. The positive outlook continued for 2024, with an estimated growth rate of 5.0 percent, supported by strong public consumption and investment, offsetting weaker net exports due to external headwinds. The medium-term economic outlook is positive, projecting a robust growth rate of 5.1 percent in 2025, supported by fiscal expansion. The government's Vision of Golden Indonesia 2045 aims to lift growth to 6-7 percent, focusing on connectivity and public investment. Inflation is expected to stabilize around the midpoint of its updated target range.

2.2. **Sector Overview:** Human capital development is a core pillar of Indonesia's Vision 2045, which targets inclusive and sustainable economic growth. "Health for All" is identified as a national mission under the Government's Long-Term Development Plan (*Rencana Pembangunan Jangka Panjang Nasional/ 2025–2045*), reflecting sustained development prioritization of the health sector. Since 2000, key health indicators have improved significantly, with life expectancy at birth steadily rising from 66 years in 2000 to 71 years in 2023<sup>1</sup>. Nonetheless, Indonesia continues to lag behind regional peers at similar income levels. Communicable disease burdens have declined, while non-communicable diseases have become the leading causes of morbidity and mortality.<sup>2</sup> Maternal and neonatal mortality indicators have improved but remain significantly higher than neighboring economies in Southeast Asia.<sup>3</sup>

2.3. Indonesia's healthcare system operates at three levels—primary, secondary, and tertiary—with a referral-based service delivery model. Expanding healthcare infrastructure has been a consistent priority under the Ministry of Health's five-year strategic plans (*Rencana Strategis*). Nationally, over 10,000 primary health centers (*Pusat Kesehatan Masyarakat*) provide first-line care, while the hospital network has grown to include more than 3,000 facilities, strengthening access to secondary and tertiary services.

2.4. **Addressing Key Development Challenges:** Project Contributions. Healthcare service delivery in Indonesia needs improvement in line with changing disease patterns and to meet optimum service and quality standards. The key development challenges targeted under the Project are:

- i. High disease burden of maternal and neonatal disorders hampering the development of the human capital required for sustained economic growth.
- ii. Inadequate secondary and tertiary care capacity, driven by shortage of trained workforce and critical infrastructure key to high-quality specialized healthcare.

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<sup>1</sup> World Bank data, accessible at: <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=ID>

<sup>2</sup> Non-communicable diseases accounted for over 70 percent of deaths in Indonesia pre-COVID; even in 2021, at the height of the pandemic, they remained responsible for over 50 percent of total deaths (WHO Data).

<sup>3</sup> Maternal mortality ratio declined from 474 deaths per 100,000 live births in 2000 to 140 in 2023, yet it remains the highest in Southeast Asia. Neonatal mortality rate fell from 23 deaths per 1,000 live births to 11 over the same period but remains higher than in neighboring ASEAN economies (WHO Data).

- iii. Fragmented referral system and limited frontline capacity to provide timely critical care, resulting in avoidable complications and delayed access to appropriate care.
- iv. Underutilization of digital health solutions constraining integration across care levels, remote clinical support to frontline facilities, and system efficiency—particularly across geographically dispersed regions.

2.5. This Project reinforces ongoing government efforts by expanding the capacity of national referral hospitals specializing in high-burden disease areas. It supports the government's strategic goal to build an integrated, efficient, and high-performing healthcare system capable of addressing the rising demand for high-quality specialized care.

2.6. The Project aims to enhance the availability and access to high-quality maternal and child healthcare by constructing a new, modern, green, highly specialized hospital *Rumah Sakit Anak Bunda Harapan Kita* (Mother and Child Hospital) (RSAB Harapan Kita), upgrading equipment and integrating the three hospitals—RSAB Harapan Kita, *Rumah Sakit Jantung dan Pembuluh Darah Harapan Kita* (Cardiovascular Hospital) (RSJPD Harapan Kita), and *Rumah Sakit Kanker Dharmais* (Dharmais Cancer Hospital) (RS Kanker Dharmais). The new RSAB Harapan Kita will be equipped to provide an advanced package of maternal and neonatal services not previously available in Indonesia. Capacity building programs will prepare the medical staff for providing these advanced services and assume expanded clinical privileges. All three hospitals are public institutions directly owned and managed by the Ministry of Health (MoH). Serving as tertiary care centers and national referral hospitals, they provide highly specialized medical services with the most advanced expertise nationwide.

2.7. The integrated hospital complex will be a key tertiary care hub within Government of Indonesia's (GoI) referral network. The Project will enhance the hospitals' ability to manage high-complexity referrals by expanding service capacity, improve readiness for advanced services, and facilitate cross-hospital referrals and care coordination allowing for multidisciplinary case management. This will improve the overall responsiveness of the referral system. The hospital complex will also serve as an education and training center for medical professionals, including specialized doctors, general practitioners, nurses, midwives, and other healthcare workers. It will also function as a hub for healthcare research and innovation.

### 3. Rationale

3.1. **Project Objective.** To enhance the availability, accessibility, and healthcare quality at three national referral hospitals specializing in maternal and child health, cardiovascular diseases, and cancer care.

3.2. **Expected Beneficiaries.** The Project is expected to benefit over 82 million people across Jakarta, Banten, West Java, and Lampung provinces by providing improved access to specialized, high-quality healthcare. Additionally, the Project will strengthen specialist doctor training and healthcare operations management within national referral hospitals and their supported network facilities. The local workforce will benefit from new job opportunities, encompassing medical and non-medical roles, created by the Project. Local businesses in industries such as medical supplies, food services, and hospitality, will also be direct beneficiary of the Project.

3.3. **Expected Results.** The Project, by reconstructing the existing and outdated mother and child hospital, is anticipated to enhance availability and access to modern, high-quality healthcare significantly. It will also equip the hospitals with specialized medical equipment and provide consolidated support services to optimize operational efficiency. Furthermore, the Project will establish robust infrastructure and digital connectivity to integrate the three hospitals seamlessly, enabling effective cross-referral services and more efficient resource utilization. This will ensure streamlined patient management, multidisciplinary care coordination, and improved service delivery. The implementation of the Project will also stimulate local businesses and support the capacity and employability of the local workforce.

3.4. **Results Monitoring Framework (RMF).** RMF provides a basis for tracking the Project's Development Objectives, namely improving the availability, accessibility, and quality of specialized healthcare services. The Project Objective Indicators captured expanded inpatient and outpatient capacity, improved acceptance rate of referred patients, and attainment of internationally recognized hospital quality standards. Intermediate Results Indicators monitor the delivery of key Project inputs—including progress in civil works, medical equipment procurement, progress in achieving the green building certification, piloting of telemedicine and teleconsultation services, and workforce training. The indicators aim to evaluate the Project's impact on service capacity and readiness and institutional performance. A list of the indicators is provided in Annex 1.

3.5. **Strategic Fit for Asian Infrastructure Investment Bank (AIIB).** The Project aligns closely with AIIB's thematic priorities of Green Infrastructure and Technology-Enabled Infrastructure, and its broader strategic frameworks.

3.6. The construction and infrastructure upgrades under the Project will adhere to a green healthcare facilities model, incorporating climate change mitigation and adaptation measures into the overall Project design. The Project will adopt the Indonesian Ministerial Regulation on Green Building Certification (*Bangunan Gedung Hijau*) as the applicable standard, with the objective of achieving the highest "UTAMA" rating by meeting at least 80 percent of the prescribed sustainability criteria. The building design will prioritize energy efficiency measures (including LED lighting, efficient HVAC systems, and integration of renewable energy sources), water conservation (such as rainwater harvesting systems and increased provision of green

spaces to enhance water absorption), and sustainable waste management practices (including segregation, recycling and appropriate disposal of medical waste). The upgraded medical equipment procured under the Project will also be more energy efficient. In addition, the hospital infrastructure will be designed to enhance service capacity during climate-related extreme events, enabling the facilities to better respond to diverse climate risks, including climate-sensitive health risks such as vector-borne diseases and extreme weather events.

**3.7. Technology-Enabled Infrastructure.** A central feature of the Project is the introduction of digital infrastructure to support the digitalization of hospital operations and facilitate the adoption of advanced technologies. Project investments will focus on establishing a robust Information Technology (IT) infrastructure that enables the implementation of Electronic Medical Records, supports the integration of Artificial Intelligence applications, and enhances telehealth capabilities. The Project aims to create a seamless digital ecosystem that interconnects hospitals, improves accessibility to healthcare services, and optimizes service delivery.

**3.8. Alignment with AIIB's Health Strategy.** The Project is consistent with AIIB's Health Strategy<sup>4</sup>, as it directly addresses Strategic Priority Two: Enhancing Infrastructure for the Health Services Value Chain. By upgrading outdated facilities and service capacity, the Project will strengthen maternal and child health services and improve the accessibility and quality of tertiary services and foster the national Mother and Child Healthcare network. The Project also aligns with Strategic Priority Five: Improving Health through Technology-based Solutions. The adoption of advanced medical equipment and high-tech devices will enhance diagnostic and treatment capabilities, leading to improved clinical outcomes while elevating both operational efficiency and patient experience.

**3.9. Alignment with AIIB's Digital Infrastructure Strategy.** The Project also aligns with AIIB's Digital Infrastructure Strategy<sup>5</sup> by investing in hard and soft digital systems to accelerate digital transformation. This includes an integrated patient registry system, including patient journey and enhancing telehealth services that improve operational efficiency and ensure inclusiveness. Enhanced digital connectivity will support populations in remote and rural areas to access specialized healthcare services, bridging the urban-rural divide.

**3.10. Alignment with AIIB's Gender Action Plan.** The Project aligns closely with AIIB's Gender Action Plan by expanding access to quality maternal, neonatal, and reproductive healthcare—areas critical to reducing preventable deaths and addressing gender-based health disparities. Telemedicine infrastructure will be expanded to support remote consultations and follow-up care, helping overcome mobility, financial, and geographic barriers that often limit women's access to tertiary care, especially those balancing childcare or living in remote underserved areas. In addition, it promotes gender equity in the health workforce through capacity-building programs that strengthen the clinical competencies of female healthcare workers and enable advancement into specialized and leadership roles.

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<sup>4</sup> AIIB's Health Sector Strategy. [https://www.aiib.org/en/policies-strategies/operational-policies/health-strategy/.content/\\_download/AIIB-Health-Strategy-web-publication.pdf](https://www.aiib.org/en/policies-strategies/operational-policies/health-strategy/.content/_download/AIIB-Health-Strategy-web-publication.pdf)

<sup>5</sup> AIIB's Digital Infrastructure Strategy. [https://www.aiib.org/en/policies-strategies/operational-policies/digital-infrastructure-strategy/.content/\\_download/AIIB-Digital-Strategy.pdf](https://www.aiib.org/en/policies-strategies/operational-policies/digital-infrastructure-strategy/.content/_download/AIIB-Digital-Strategy.pdf)

3.11. **Alignment with Sustainable Development Goals:** The Project supports Sustainable Development Goal 3, which aims to Ensure healthy lives and promote well-being for all ages<sup>6</sup>. It particularly contributes to targets 3.1 and 3.2 aiming to reduce maternal and child mortality rates. The Project also advances target 3.7 by expanding access to quality reproductive healthcare services, including care for high-risk pregnancies and postnatal conditions. In addition, it supports target 3.8 by upgrading hospital capacity to accommodate a higher volume of referrals requiring specialized services.

3.12. **Commitment to Social Sustainability and Inclusiveness:** The Project demonstrates AIIB's commitment to social sustainability and inclusiveness by addressing critical health disparities disproportionately affecting women and low-income populations. The services provided by the Project hospitals will operate under Indonesia's national insurance system (*Jaminan Kesehatan Nasional, JKN*)<sup>7</sup>, ensuring affordability and accessibility for low-income households. This will help bridge socio-economic disparities and improve health outcomes for vulnerable groups.

3.13. **Paris Agreement Alignment and Climate Finance.** The Project aligns with the mitigation and adaptation goals of the Paris Climate Agreement, consistent with AIIB's Methodology for Assessing the alignment of AIIB's Investment Operations with the Paris Agreement for direct lending operations<sup>8</sup>. In line with the joint Multilateral Development Bank (MDB) methodologies and relevant guidance, it is estimated that USD 188.59 million (83.29 percent) is accounted as climate finance, including USD 169.79 million (75 percent) as mitigation finance, and USD 18.8 million as adaptation finance (8.3 percent) of AIIB finance as adaptation finance, which leads to adaptation and mitigation dual benefits. More details are provided in Annex 3.

3.14. **Value Addition by AIIB.** Beyond financing, AIIB's involvement will add significant value to the Project by applying high environmental, social, and governance standards (which refer to the frameworks, principles, and guidelines that define how projects should be managed, ensuring accountability, transparency, efficiency, and compliance with regulations). The Project will incorporate measures to enhance resilience against climate change impacts and natural disasters, ensuring the long-term sustainability and reliability of the infrastructure.

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<sup>6</sup> SDG 3 has key sub-targets focusing on specific health outcomes and access to care, and the following are particularly relevant to the Project: SDG 3.1 targets reducing global maternal mortality; SDG 3.2 aims to end preventable deaths of newborns and children under five; SDG 3.7 focuses on ensuring universal access to sexual and reproductive health services; SDG 3.8 seeks to achieve universal health coverage, providing access to quality, affordable healthcare for all.

<sup>7</sup> The JKN system is considered one of the largest single-payer Universal Health Coverage (UHC) programs worldwide, providing health insurance to over 95 percent of the population. Aiming to control rising Out-Of-Pocket health expenditure and enhance health equity, JKN launched in 2014 and integrated pre-existing health insurance systems into a single national system. The system relies on a 3-tier referral model to regulate patient flow and control costs. Patients must first seek care at primary healthcare facilities before referral to higher-level hospitals. Financing is structured through a mix of payroll contributions from formal sector employees, government subsidies for low-income populations, and premium payments from informal sector workers. Financial sustainability fragmented digital referral systems, uneven provider distribution, and long waiting time for specialized services have been key challenges facing the system. To address these challenges, the Ministry of Health has embarked on a 6-pillar health system transformation plan, including the transformation of referral services with focus on enhancing equity and quality.

<sup>8</sup> Methodology for assessing AIIB Investment Operations Alignment with the Paris Agreement. [https://www.aiib.org/en/about-aiib/who-we-are/partnership/\\_download/Methodology-for-Assessing-the-Alignment-of-AIIB-Investment-Operations-with-the-Paris-Agreement.pdf](https://www.aiib.org/en/about-aiib/who-we-are/partnership/_download/Methodology-for-Assessing-the-Alignment-of-AIIB-Investment-Operations-with-the-Paris-Agreement.pdf)

3.15. Two of the three hospitals receiving the majority of the Project's investment, RSAB Harapan Kita and RSJPD Harapan Kita, have limited prior experience working with MDBs. Therefore, AIIB's participation will be critical in building their institutional capacity, particularly in Financial Management (FM) and procurement practices, aligning them with international best practices.

3.16. AIIB is also leveraging its global expertise by collaborating with leading providers of modern healthcare and international IT experts. This will enhance the integration and operational efficiency of the hospital complex, particularly in areas such as digital transformation and enhancement of telehealth. Through its strategic contributions, AIIB's support will help the Project achieve its goals and create a lasting impact, strengthening Indonesia's healthcare system.

3.17. **Value Addition to AIIB.** The Project represents a significant milestone as AIIB's first standalone Sovereign-Backed Financing project in health sector in Indonesia. This marks an important step in AIIB's efforts to diversify its portfolio into newer sectors, such as healthcare, and provides an opportunity to strengthen institutional capacity and expertise in processing standalone projects.

3.18. The Project also provides an opportunity for AIIB to establish and strengthen strategic relationships with key government counterparts in Indonesia. These relationships are critical given Indonesia's substantial development pipeline, which includes USD2 billion in healthcare projects outlined in the Ministry of Health's Five-Year Development Plan (2025 – 2029). Successful implementation of the Project will demonstrate AIIB's value as a trusted development partner and position the Bank to play an increasingly prominent role in supporting the country's healthcare infrastructure development.

3.19. **Lessons Learned.** AIIB has approved 13 Sovereign-Backed Financing (SBF) projects in Indonesia, including three in the healthcare sector, which are co-financed with other MDBs. These collaborations provide a strong foundation for the design and implementation of this Project, which will be the first stand-alone health SBF in Indonesia. The Project is informed by lessons learned from these MDB-funded initiatives, including Indonesia: Modernization of the Health System Project (AIIB project - P000787), led by the World Bank with AIIB participation. These experiences highlight the importance of robust project preparation, integration of modern healthcare technologies, and alignment with national healthcare priorities. Lessons are also drawn from Istanbul Seismic Mitigation and Emergency Preparedness (AIIB project – P000705), which had a component on reducing the risk of future earthquake damages to critical public facilities, including hospitals to save lives and ensure their continued operation.

## 4. Project Description

### 4.1 Project Components.

- i. Component A: Infrastructure (Civil Works). This component focuses on the reconstruction of the RSAB Harapan Kita building and its supporting infrastructure at the existing site, covering a total construction area of approximately 141,688 square meters. The civil works under supporting infrastructure will also include features on advance waste management system i.e. expansion of the wastewater treatment plant and temporary hazardous waste storage area.
- ii. Component B: Procurement of Medical and Non-medical equipment and Furniture. This component supports the enhancement of hospital service capacity through the procurement and installation of advanced diagnostic, therapeutic, and support equipment specifically for mother and child and cardiovascular services.
- iii. Component C: IT system development (including consultancy services). This component aims to enhance hospital IT capacity to support the delivery of more effective and integrated healthcare services.
- iv. Component D: Human Capital Development. This component focuses on strengthening the institutional capacity of healthcare and non-healthcare personnel to ensure the effective operation of the upgraded facilities.
- v. Component E: Project Management. This component ensures effective planning, execution, and monitoring of the Project.

4.2 **Cost and Financing Plan.** Table 1 provides the details of the Project cost components and financing plan.

**Table 1.** Project Cost and Financing Plan

| Project Cost Component  | AiIB Financing (EUR) | Gol Financing (EUR) | Total Financing (EUR) |
|---|----------------------|---------------------|-----------------------|
| Infrastructure, Equipment and Furniture, IT System Development, Human Capital Investment and Project Management, Cost Grand Total | 197,923,000          | 22,112,000          | 220,035,000           |

4.3 **Implementation Arrangements and Readiness.** The implementation of the Project will be supported by a multi-tiered governance and management structure, comprising a Steering Committee, a Technical Committee under the MoH, a Project Management Unit (PMU), and three Project Implementation Units (PIU).

### 4.4 Procurement, FM, and Environmental and Social (ES) arrangements:

- i. **Procurement.**

- a. **Procurement Policy.** The procurement of Goods, Works, Non-consulting Services, and Consulting Services under the Project will follow the Bank's Procurement Policy (revision June 26, 2024) and the Bank's Directive on Procurement Instructions for Recipients (July 26, 2024).
  - b. **Project Delivery Strategy.** The Final Draft of the Project Delivery Strategy, including the Procurement Plan (PP), was discussed during the Appraisal and will be updated and finalized, as necessary, for agreement and No-Objection from the Bank.
- ii. **Financial Management:** The two PIUs will be headed by the President Director of RSAB Harapan Kita and the President Director of RSJPD Harapan Kita. Both PIUs will report directly to the PMU regarding budget, financial reporting, and audit issues. RSAB Harapan Kita and RSJPD Harapan Kita are Public Service Agencies (*Badan Layanan Umum/BLU*), and their budgets are incorporated into the Gol's central budget. The PMU at the MoH will hire a FM consultant to ensure the Project's alignment with AIB FM requirements during implementation. Additionally, since the majority of loan proceeds will be utilized by RSAB Harapan Kita, a dedicated FM consultant will be hired under this specific PIU to support FM-related matters.
  - iii. **ES.** The PMU will oversee the management of ES risks and impacts associated with the Project, while the PIUs will be supervising the implementation of the ES mitigation measures and monitoring plan. One ES focal point will be assigned at the PMU once the Project is under implementation, while one environmental focal point and one social focal point at the PIU level. The ES focal points at the PIU level will be supported by one environmental expert and one social expert, hired by the Construction Management Consultant (CMC) for ES management. An additional resettlement consultant may be required to support the Project in the implementation of the Abbreviated Resettlement Action Plan in case PMU/PIU does not have the required capacity.
  - iv. **Implementation Schedule.** The major construction activities under the Project are expected to run from Jan. 1, 2026, to Dec. 31, 2029, with the Loan closing date anticipated on March 31, 2031. The Loan closing is proposed to be one year and six months after major construction is completed to account the time RSAB Harapan Kita will take to achieve green building and Joint Commission International (JCI) certification, which are important criteria for assessing successful implementation.
  - v. **Implementation readiness**
    - a. The MoH has substantial experience in implementing healthcare infrastructure projects, including those supported by MDBs. To ensure smooth execution, the MoH has prepared a detailed Readiness Criteria Document, which has been reviewed and accepted by *Badan Perencanaan Pembangunan Nasional* (BAPPENAS), indicating robust Project preparation. The MoH has been in close consultation with the BAPPENAS Health Sector Directorate to ensure that the Readiness Criteria Document is fully aligned with the Gol's National Development Plan. In parallel, the MoH has engaged with the Multilateral Directorate of BAPPENAS to ensure that all administrative requirements are met in compliance with national regulations, while

maintaining close coordination with AIIB to ensure full adherence to AIIB guidelines and procedural requirements.

- b. The master layout plan has been approved by the Minister of Health, and the Project has limited land acquisition requirements, which again indicate solid implementation readiness. The provincial government has also provided a letter of support regarding the land involved, demonstrating strong local support for the Project.
  - c. The Project is included in BAPPENAS's Green Book, which underscores the Gol's commitment and readiness to prioritize and implement the Project effectively.
  - d. To expedite Project implementation, advanced procurement actions are being taken for key design consulting services. AIIB is working closely with government counterparts to ensure that all necessary steps are undertaken in accordance with applicable guidelines, while safeguarding the Bank from any undue risk associated with such advanced actions. As part of the ongoing progress, the Ministry has secured clearance from the *Lembaga Kebijakan Pengadaan Barang-Jasa Pemerintah* (National Public Procurement Agency) to initiate advance procurement for three consulting services under the Project: The Detailed Engineering Design Consultant, the CMC, and the Equipment Consultant.
- vi. **Monitoring and Evaluation.** To ensure effective oversight, accountability, and continuous improvement, the Project's monitoring and evaluation will be done by the Gol and AIIB. At Gol level, the PMU Head will lead Project monitoring, assess progress, and provide strategic recommendations to address challenges. A dedicated Project Director will support the PMU Head, ensuring comprehensive and timely supervision. AIIB will conduct periodic evaluations aligned with its applicable ES, Financial Management, and Procurement Policies, ensuring compliance with international standards and best practices. AIIB will also use the Results Monitoring Framework (RMF), which will assess Project performance, tracking progress toward Project objectives. Key performance indicators will measure outcomes such as improved healthcare access, enhanced service quality, and strengthened institutional capacity.

## 5. Project Assessment

### A. Technical Assessment

5.1. **Project Location.** The Project will be located in Jakarta, at Letjen S. Parman St No. Kav. 84-86, RT.4/RW.9, South Bambu City, Palmerah, West Jakarta City, Jakarta 11420, Indonesia. The site's geographic coordinates are latitude: -6.187 N and longitude: 106.797 E. This central location within Jakarta ensures accessibility and connectivity, positioning the hospitals participating in the Project as key facilities in the national referral network.

5.2. **Project Design.** Figure 5 below depicts the proposed new layout of the integrated healthcare complex, which the Minister of Health has approved. Based on the approved master layout, a qualified and experienced design consultancy firm engaged with the supervision of AIIB will carry out the detailed engineering design after the Project approval.

**Figure 5.** Project Layout (existing and new) within the Integrated Healthcare Complex



5.3. As a national level hospital, it will serve as a central hub for maternal and child health services and education, this building needs to embody a vision that not only establishes it as a healthcare center but also sets an example as a green building. This vision extends beyond the hospital's internal operations to contribute positively to the environment of Jakarta. The design incorporates green building principles, prioritizing energy efficiency, particularly in electricity usage for lighting and ventilation. The open podium design enhances ventilation, benefiting both the hospital's microenvironment and the surrounding area. The strategically placed gardens between buildings improve air quality, contribute to the city's green spaces, and provide a shared resource for the public. The integration of solar panels supplements electricity generation, powering lighting, water pumps, air conditioning, and other facilities. The building design presents a comprehensive overview of advanced technologies and methodologies employed to mitigate seismic risk and minimize the impact of earthquakes on structures and infrastructure. By leveraging these innovative solutions, structures can enhance their resilience and reduce potential damage.

5.4. Below are the details of the infrastructure under the Project.

- i. A (RSAB Harapan Kita - main building) – This will be a new building constructed replacing the outdated main building and will serve as the core facility for tertiary care services at the Mother and Child Hospital.
- ii. B (RSAB Harapan Kita – Polyclinic and Dormitory) – A newly constructed polyclinic building to support outpatient and tertiary care services at the Mother and Child Hospital and a dormitory to house staff and trainees.
- iii. C (Training Center and Dormitory) – A newly constructed facility which will house a training center for healthcare professionals, complemented by a dormitory to house trainees.
- iv. D (Hotel) - A newly constructed hotel to accommodate attendants of patients.
- v. E (Utilities and Services) - A newly constructed building to house essential support facilities, including laundry services, a kitchen, a funeral home, and parking facilities.
- vi. F (Powerhouse) – A newly constructed powerhouse with higher capacity and an efficient design to ensure an uninterrupted and sustainable energy supply for the entire complex.
- vii. G1, G2, and G3 (Subsequent Development): This includes infrastructure **outside the current Project scope**, which forms part of the MoH's future expansion plans and proposes to include staff accommodation, primary clinic, and general hospital facilities.
- viii. H (Existing RSJPD Harapan Kita hospital) - An existing facility within the hospital complex where new equipment will be provided and incorporated into the overall design to ensure integration and enhancement of services.
- ix. I (Existing RS Kanker Dharmais hospital) - An existing facility within the hospital complex, incorporated into the overall design to ensure integration and continuity of services.
- x. 1 (Pedestrian Skybridge): A newly constructed pedestrian skybridge under the Project connects RSAB Harapan Kita with the nearest bus stop, ensuring public transport access and connectivity.
- xi. 2 (Pedestrian and Trade Activities Skybridge): A newly constructed pedestrian and trade activities skybridge under the Project, connecting RSJPD Harapan Kita and RSAB Harapan Kita, will provide relocation space for displaced food vendors.
- xii. 3 (Emergency Skybridge) - A newly constructed skybridge to be used for the emergency transfer of patients.
- xiii. 4 (Green Space) – A newly constructed green space to contribute towards making the hospital complex a climate-friendly building.
- xiv. 5 (Parking) - A newly constructed higher-capacity car park building.

5.5. **Construction Phasing and Timelines.** The Project implementation will be carried out in five phases, such that existing operations are not interrupted, and newly constructed facilities are put into operation once they are completed. The detailed design will take one year, and construction will be done in the following three years.

5.6. **IT System Development.** This Project investment is in line with the Ministry of Health's IT strategy, access to health services that are accessible, available, and guarantee the confidentiality of personal data. The Project's investment in IT system development is targeted to support the digitalization of hospital operations and enable the adoption of cutting-edge medical technologies. Hospitals will use a data warehouse as a centralized repository to collect and store data regarding patients' journeys from each hospital and serve as a platform for querying or accessing data and updating the underlying databases across all three hospitals. Figure 6 depicts the patients' journey and the single registry arrangement.

5.7. **Cybersecurity and Risk Management.** The relocation of the data center, implementation of integrated data systems, and ongoing construction may lead to temporary service disruptions; to mitigate this, manual fallback procedures will be prepared. To ensure minimal downtime, the new data center will match the existing one in functionality, including pre-installed backup systems and automated failover during migration. Given the sensitivity of medical data, robust cybersecurity measures will be implemented—such as encrypted access, advanced firewalls, and real-time threat detection systems—aligned with regulatory requirements and industry best practices. Targeted training will also be held for the PMU, PIU, and hospital staff to increase awareness and vigilance on data privacy, confidentiality, and cybersecurity protocols. A third-party IT audit is currently underway, and its findings will inform the final design; the audit report will be shared with AIIB. Loan proceeds will support the attainment of internationally recognized certifications, including ISO 27001 for organizational information security, and technical certifications such as CompTIA Security+, CEH (Certified Ethical Hacker), and CISM (Certified Information Security Manager).

## **B. Operational Sustainability**

5.8. The three hospitals included in the Project are existing facilities managed by the MoH as part of Indonesia's vertical hospital system. As national tertiary and referral hospitals, they operate under the supervision of the Directorate-General of Advanced Health, with their Boards of Directors directly reporting to this office. The hospitals are also regularly monitored under the oversight of the Minister of Health, ensuring strong governance and accountability.

- (i) **Financial.** The three hospitals are run through a well-functioning Board, with the Director Finance overseeing financial sustainability. The hospitals earn income from various sources with the majority comes from the provision of health services with further support from transfer from government budget. In addition, as a public service agency - BLU, the hospital can allocate budgets for the maintenance of their buildings, medical equipment, and IT systems. The buildings and equipment procured by the Project will later be included in its annual maintenance routines to ensure the reliable operation of the hospitals.

- (ii) **ES.** The AIIB ESP applies to the Project, requiring the preparation of a site specific Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP) (including a gender action plan and a stakeholder engagement plan), and a Resettlement Action Plan (RAP) to manage environmental and social risks and impacts through the Project phases. The RSAB Harapan Kita currently operates two units responsible for managing environmental, health and safety, and a legal department that oversees social aspects. The hospital operation applies Standard Operating Procedures (SOP) for the management of medical wastes (both hazardous and non-hazardous), emergency situations (such as fire protection, earthquakes, and building evacuation), labor management (including hiring, remuneration, and benefits), and an SOP for the transfer of hospital operations, which includes a dedicated team, step-by-step guidance, and a checklist for transferring patients, medical staff, and equipment to a new building. These SOP have been assessed as being aligned with AIIB ESP and good international practices, as well as government requirements, which will be updated as needed during the detailed design phase of Project implementation. The ESMP, RAP, dedicated hospital units, and SOP contribute to the operational sustainability of ES management.
- (iii) **Institutional capacity:** The RSAB Harapan Kita operates under the BLU system, which grants public hospitals greater financial, operational, and management flexibility, aiming to improve efficiency and service quality. The system allows BLU hospitals to use their revenues directly for operation and maintenance costs, reducing bureaucratic delays and improving responsiveness. They also have the autonomy to develop business plans and contract necessary staff, including specialists, to provide highly specialized and technologically advanced services. The hospitals are required to submit the annual performance achievement report, Minimum Service Standards, including clinical, managerial, and customer satisfaction indicators. In addition, BLU hospitals submit annual financial reports that are subject to review by internal the MoH and external auditors.
- (iv) BLU hospitals are under direct oversight of the MoH's Directorate General of Advanced Health, which provides policy guidance and ensures alignment with national health strategies and objectives. Each hospital is governed by a Supervisory Board, typically composed of representatives from the MoH, Ministry of Finance, independent experts, and community representatives. Hospital directors are accountable to both the Board and the Ministry for achieving service targets, financial sustainability, and compliance with BLU regulations.
- (v) The BLU system's institutional arrangement supports effective asset utilization, enables timely maintenance, and allows re-investment of revenues to preserve service quality and operational performance. The combination of management and financial autonomy and structured oversight strengthen the hospital's institutional capacity to sustain the benefits of capital investments and infrastructure upgrades.

### C. Economic and Financial Analysis

5.9. The economic analysis (Annex 2) conducted specifically included investments directed to upgrade the RSAB Harapan Kita.<sup>9</sup> The costs include the Project investment funds to be disbursed by AIIB according to the planned schedule, converted to economic price. The costs also include the operating costs triggered by the Project, including maintenance, staffing, and training. The benefits included monetized benefits to two categories of beneficiaries: direct and indirect. Among the direct beneficiaries of hospital services, two distinct groups are identified: 1) new patients accessing services due to the expanded capacity created by the Project – representing the incremental benefit of the Project; and 2) existing patients who would have accessed hospital services regardless of the Project but are expected to experience improved outcomes – reflecting the non-incremental benefits. On the other hand, the indirect beneficiaries will benefit from strengthening the Mother and Child network.

5.10. The analysis was carried out over the 2025-2045 period, with an economic discount rate of six percent. To estimate the Project's impact on health outcomes, the analysis identified the Project beneficiaries as women and children under five. The Project catchment area is defined as Jakarta, West Java, Lampung, and Banten for direct beneficiaries. To avoid double-counting of estimated benefits, indirect beneficiaries are identified as those residing outside the Project catchment area.

5.11. The analysis was also conducted on three impact scenarios: high-, moderate-, and low-impact scenarios, which are tied to the assumptions used in the model.

5.12. The results from the cost and benefit analysis show that under all scenarios, the Economic Internal Rate of Return (EIRR) exceeds the economic discount rate used, confirming the Project's viability. Under the high-impact scenario, the Project yields an Economic Net Present Value (ENPV) of USD407 million and an EIRR of 23 percent. While the low impact scenario shows an ENPV of USD51 million and an EIRR of nine percent.

5.13. The financial analysis focused on assessing the financial sustainability of the RSAB Harapan Kita operations. The hospital earns income from various sources with the majority coming from health services which includes cash and credit card payments from patients and proceeds from corporate- and government-run insurance. The hospital is further supported by the government budget to make sure that hospital operations remain financially sustainable. Based on historical financial statements and financial projections prepared, it appears that the hospital is able to cover its operational costs with the income it generates and has a surplus year on year.

#### **D. Fiduciary and Governance**

5.14. **Procurement:** The national procurement regulatory framework allows the use of the Bank's Procurement Policy; therefore, the Bank's Procurement Policy (revision June 26, 2024) and the Bank's Directive on Procurement Instructions for Recipients (July 26, 2024) will apply

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<sup>9</sup> The economic analysis focused on benefits that could be reliably quantified and directly attributed to the expansion of RSAB Harapan Kita. While the RSJPD Harapan Kita equipment financed under the Project is expected to support ongoing clinical operations and improve service quality, its incremental impact is more diffuse and not readily isolatable for cost-benefit analysis purposes. These investments nonetheless contribute to broader objectives related to high-quality and technology-enabled healthcare.

to this Project. The capacity of all three procuring units, along with their procurement consultants, is also adequate in successfully carrying out the procurement under the Project.

5.15. **Financial Management:** The full FM assessment was conducted through on-site reviews and discussions with the MoH, the hospitals involved (RSAB Harapan Kita and RSJPD Harapan Kita), and relevant agencies such as the Ministry of Finance's Loan and Grant division and the National Audit Board (*Badan Pengawas Keuangan/BPK*). Based on the review of the FM environment of all respective units, the FM risk is rated as Medium. This rating is due to the fact that the two hospitals do not have any prior experience in implementing projects financed by MDBs. While the MoH has experience carrying out foreign-funded projects with other MDB, this Project will be the first one with the AIIB. Therefore, it is crucial that the Bank provides hands-on support through training and coaching from the early stages of the Project to ensure that adequate FM arrangements are in place. Budget preparation and submission delays are common in investment projects in Indonesia, which can lead to implementation delays. The completed assessment concludes that the existing FM arrangements are adequate to implement the Project. The assessment and efforts to strengthen FM areas, including internal control and audit arrangements, have been agreed upon and confirmed with Gol, as follows:

5.16. **Budgeting:** As the participating hospitals are all government entities, the Project will follow the government budgeting system. Each PIU will prepare its budget document and submit it to the Ministry of Finance (MoF) at least three months before each implementation year. The budget submitted to the MoF should be per the Annual Work Plan and Budgeting and approved by the Bank for all proposed detailed expenditures. The PMU will consolidate all planned expenditures for the year from each PIU under all sources of financing (including the Gol's budget) and finalize the plan into the Annual Work Plan and Budgeting before submission to the Bank.

5.17. **Internal Control:** The PMU and PIUs will follow the Government Internal Control System applicable to the public sector. In addition to the government procedures, the respective hospitals will follow their standard operational procedures for internal control. The most payment activities will take place at the Directorate-General of Advanced Health, RSAB Harapan Kita, and RSJPD Harapan Kita. Each PIU will have its payment verification team, procedures, and system. Based on the initial discussion, PIU RSAB Harapan Kita will pay for most expenditure types (e.g., construction works, medical equipment, inventory, and capacity building).

5.18. Meanwhile, the MoH will manage most consulting services, especially overall Project support and implementation. RSJPD Harapan Kita will handle payment for the portion of the loan relating to purchasing medical equipment for RSJPD Harapan Kita. The payment verification process will rely on government systems, which include the SAKTI<sup>10</sup>, application for transaction recording and monitoring purposes. Under the MoH, the payments, including the verification process, will be managed by the Central Working Group (*Satuan Kerja*)<sup>11</sup> and supported by the department's verification team, before approval by the commitment-making

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<sup>10</sup> The Agency Level Financial Application System (SAKTI) is an application used as a means for work units to support the implementation of SPAN to carry out financial management which includes the planning stages to budget accountability.

<sup>11</sup> *Satuan Kerja* in the context of an Indonesian ministry refers to a Working Unit within the government structure responsible for implementing specific programs, projects, or budget allocations. These work units operate under the ministry's jurisdiction and manage government-funded activities at various levels.

officer and payment order treasurer. Once approved, the document will be forwarded to the cash office of the MoF/Treasury office for payment from the Designated Account to the respective supplier/contractor's bank account. For RSAB Harapan Kita, the payment verification process will go through a series of reviews from procurement, budget, implementation, and treasury units before the payment order can be released and forwarded to the MoF cash office. To enhance internal controls, the internal audit departments of the PMU and PIUs, specifically the Inspectorate General of the MoH and the *Satuan Pengawas Internal* (SPI) teams within each hospital will conduct internal audit reviews at least twice during the Project lifecycle, and the reports, including the follow-up on findings, will be submitted to the Bank.

5.19. **Accounting and Financial Reporting:** The PMU and PIUs will maintain separate accounting records for all payment and remittance orders on a cash basis, following government accounting standards. All financial transactions are recorded in the government accounting system and included in government accountability reports. The original records are maintained in the file for auditing purposes. The PMU will prepare a set of consolidated financial reports (Interim Financial Reports) for the AIIB loan, which must be submitted to the Bank no later than 45 days after the end of each quarter.

5.20. **Audit Arrangements:** The Project will be audited annually by the National Audit Board of Indonesia - BPK. The audit reports, which include audited annual financial statements and management letters, will be presented in English and submitted to the Bank no later than six months after the end of the fiscal year. To ensure that BPK carries out the audit, the Bank will need to send a letter to the MoF requesting the same before the audit year. In addition to the Project audit report, the respective hospitals will share their entity's audit report with the Bank for reference.

5.21. **Disbursements:** The Project will primarily utilize two disbursement methods: direct payment and advances to a DA from all available methods. Direct payments will be prioritized for expenditures exceeding USD200,000. For routine expenditures, including payments to consultants and suppliers for smaller medical equipment packages, and operational costs of the PMU and PIUs, advances to the DA are encouraged. To support advance requests, the Project must submit a six-month cash forecast and report expenditures related to previously submitted withdrawal applications. The PMU under the MoH, supported by an FM consultant, will be responsible for DA reconciliations and expenditure consolidation from the PIUs. The withdrawal application will be forwarded from the MoH to the Directorate General of Treasury at the MoF for review and approval before final submission to the Bank.

5.22. Regarding the flow of the funds of the loan, the process will follow the existing government arrangements, wherein the MoH, PMU, and each PIU will have access to the DA once the loan is fully registered and the DA is opened. Once funds have been transferred from AIIB to the DA and a remittance order has been issued by the local cash office of the MoF, payments will be made directly from the DA to the contractors/service providers.

## **E. Environmental and Social**

5.23. **Environmental and Social Policy and Categorization:** The Project applies the AIIB ESP, which includes the Environmental and Social Exclusion List, Environmental and Social

Standard 1: Environmental and Social Assessment and Management, and ESS 2: Land Acquisition and Involuntary Resettlement. The Project does not trigger ESS 3: Indigenous Peoples, as there are no Indigenous Peoples within the Project area. The Project has been assigned a Category B classification due to its ES risks and impacts, which are site-specific, temporary, reversible, and not unprecedented, and can be effectively mitigated through incorporating ES considerations in the Project's engineering design and integrating best industry practices into the ES mitigation measures.

5.24. **Environmental and Social Instruments:** The MoH prepared the following ES instruments for the Project, which were disclosed on May 15, 2025 on the MoH's website, <https://kemkes.go.id/id/layanan/resettlement-action-plan-rap> and <https://kemkes.go.id/id/layanan/environmental-and-social-impact-assessment-esia--environmental-and-social-management-plan-esmp>. These ES instruments will be updated during the detailed design phase to reflect the final design requirements of the new hospital building.

- i. ESIA, incorporating environmental and social impact assessments, a Gender Action Plan (GAP), a Stakeholder Engagement Plan (SEP), and an ESMP.
- ii. RAP, documenting the ongoing process of relocation of 41 affected street vendors, reviewing the gaps between the ongoing process and local legislation and AIIB's requirements, and proposing an action plan to address the gaps to ensure that the outcome of the resettlement process is materially consistent with AIIB's ESS2 requirements and objectives.

5.25. **Environmental Aspects:** The key environmental risks and impacts identified in the ESIA include:

- i. Dust and fugitive emissions generated during demolition and construction activities may affect air quality in and around the Project site.
- ii. Noise and vibration from construction and demolition works could temporarily disrupt hospital operations and nearby communities. Noise levels are expected to increase during construction (85-100 dBA), primarily due to piling works and operation of machinery and heavy equipment.
- iii. Waste handling, disposal and discharge during demolition, construction, and operation. Waste management encompasses the disposal of demolition debris, inert construction waste (such as scrap concrete, wood, and metal), and potentially hazardous materials, including solvent-based paints and other chemical-based construction components. Additionally, healthcare solid waste and wastewater generated from hospital operations is expected to double following construction, due to the expanded bed capacity of the new RSAB Harapan Kita building.
- iv. Asbestos-Containing Materials (ACM) may be present in certain parts of the old RSAB Harapan Kita buildings planned to be demolished. Potential ACM was identified in the ceiling and roofing of some of the buildings.

5.26. The ESIA has established the environmental baseline conditions for ambient air, noise, vibration, and water quality within the Project's area of influence, which will serve as a reference for monitoring the environmental quality during demolition and construction activities. The baseline also includes information on the current hospitals' waste management practices which are in accordance with the Gol's medical waste regulations. The three hospitals currently operate individual Wastewater Treatment Plants (WWTP) and temporary hazardous waste storage areas. Licensed third-party waste management companies are contracted to collect and dispose of hazardous medical waste, including sludge from the WWTP. Approximately 95 SOP are in place, covering various ES aspects of hospital operations. These SOP include protocols for waste segregation, collection, and disposal; wastewater treatment and effluent quality; medical/hazardous waste handling and disposal; fire protection and response; earthquake response; emergency evacuation; hydrant use; bomb threat response; gas explosion prevention; and the management of chemical, dust, noise, and vibration hazards. The engineering design adopts a phased approach for transferring hospital operations by sequencing the construction of new ones and demolition of old buildings to minimize disruptions to hospital operations, ensuring proper medical waste management, and reducing safety risks to patients, visitors, and hospital staff, as hospital operations will continue throughout Project implementation. The SOP comply with national regulations and good practices and will be updated during the detailed design phase to align with the final design and operational requirements of the new RSAB building.

5.27. The ESMP outlines a comprehensive set of mitigation measures and a monitoring plan to address the environmental risks and impacts during demolition and construction activities, and operation of new hospital buildings. Consultations with nearby communities will continue throughout Project implementation and the hospital's existing grievance mechanism will remain active to track and address concerns, taking into consideration the needs of patients and feedback from communities. The ESMP also includes estimated budgets and institutional arrangements for ESMP implementation. Key mitigation measures include:

- i. Installing construction barriers, exhaust fans, misting water sprays, dust suppression techniques, and regular maintenance of vehicles, machinery and equipment to reduce noise, fugitive dust and emissions.
- ii. Scheduling demolition and construction activities during periods of lower patients' activity and avoiding night-time civil works, selecting low-vibration equipment such as hydraulic pressing or screw piling, and regular maintenance of heavy equipment, to reduce noise and vibrations, and routine noise monitoring. After construction, noise levels are anticipated to return to current baseline of approximately 55 dBA.
- iii. An initial site access and traffic management plan is developed which will be finalized during the detailed design phase to align with the final design and operational requirements of the new RSAB building. The traffic management plan covers both construction and operation phases.
- iv. Non-hazardous construction waste will be disposed of at designated sites outside the hospital premises in accordance with local authority guidelines. Hazardous construction waste will be collected and transported by a licensed third-party company to an approved disposal facility.

- v. A Standard Operating Procedure for safe ACM removal and disposal prior to the demolition of old RSAB Harapan Kita buildings, which will be operational through an existing contract with a licensed third-party hazardous waste management company.
- vi. Ongoing hospital waste management includes the systematic disposal of non-hazardous waste at designated municipal sites. Medical and hazardous wastes, including WWTP sludge will continue to be collected and disposed of by licensed third-party service providers, ensuring compliance with environmental and health regulations. The licenses of vendors were verified as valid through 2028, with renewals required every five years. The vendor provides comprehensive hazardous waste management services, including laboratory testing of medical waste to ensure proper classification, collection, and disposal; transportation of waste using specialized and licensed vehicles and sealed containers; licensed treatment, storage and disposal facilities; training of personnel in hazardous waste handling and emergency response; and regulated system inspections in accordance with ISO 9001 and ISO 14000 standards. Wastewater is treated at the designated WWTP, and the RSAB Harapan Kita will continue to regularly monitor and record the quality of WWTP effluent discharged into the Grogol River.
- vii. The capacity of the wastewater treatment plant and temporary hazardous waste storage areas will be expanded and financed by the Project to accommodate and treat the increased volume of waste of the new hospital building. Relevant SOP will be updated as required.

5.28. **Social Aspects:** The Project is expected to provide significant social benefits, including enhanced hospital infrastructure and equipment, improved healthcare services, and job creation for local communities during the construction and operational phases. These improvements will benefit medical staff, patients, and the broader community. However, the Project may also generate certain social risks and impacts, which will be addressed through specific mitigation measures.

5.29. **Labor Influx and Gender-Based Violence:** The presence of construction workers in the Project area may lead to risks such as gender-based violence or social tensions. Mitigation measures, including a code of conduct for workers and community awareness programs, will be implemented to address these risks.

- i. Inclusion of Vulnerable Groups and Women: There is a potential risk of excluding vulnerable groups and women from accessing the improved hospital services or participating in consultations.
- ii. As part of the ESIA, gender and social assessment have identified barriers to accessing healthcare and propose inclusive measures. Consultations with women's groups and female medical staff will ensure that the hospital designs and medical equipment align with their specific needs and priorities.

5.30. **Occupational and Community Health and Safety, Labor and Employment Conditions:** The Project will comply with Indonesia's labor laws and AIIB's Environmental and Social Framework (ESF). Indonesia's national labor laws are broadly aligned with International Labor

Organization conventions, ensuring adherence to international labor standards on labor and employment conditions for Project workers including contractors.

5.31. Key Occupational Health and Safety risks identified in the ESIA include:

- i. Construction hazards: Working at heights, falls, slips, trips, electrical hazards, noise, dust, and fire risks.
- ii. Demolition-specific risks: Structural instability and related safety concerns.

5.32. Public safety risks include noise, dust, pollution, and potential exposure to communicable diseases during demolition, construction, with simultaneous hospital operations, including health and safety-related risks during transfer of patients and medical equipment from the old hospital building to the new building. These risks may affect the hospital staff, patients, and nearby communities, along with concerns related to traffic disruptions and pedestrian safety.

5.33. The ESMP outlines detailed measures to mitigate and manage labor risks including child labor, forced labor, and risks related to labor and working conditions in a manner that is consistent with Indonesian labor law. The ESMP also covers the management of occupational and community health and safety risks, which includes a specific demolition procedure, including demolition team arrangement, responsibilities and detailed demolition execution phases and steps, recycling and reusing demolition material, to support sustainable demolition works; hospital transfer team arrangement, sequencing and procedure; clear segregation of demolition and construction zones and assignment of zone marshals to patrol high risk areas; construction workers' safety trainings, inductions, toolbox meetings, installing safety signage, provisions for Personal Protective Equipment and traffic planning arrangements involving consultations with the local road authority and nearby communities. A CMC, supported by ES and health and safety experts, will be engaged by the Project to support supervision of ES management during construction.

5.34. In addition to the mitigation measures outlined in the ESMP, contractors will be required to develop and implement a Construction Environmental and Social Management Plan (CESMP) tailored to the specific risks of the Project as outlined in ESIA/ESMP. The CESMP will be prepared by the contractor during procurement of construction works and refer to the ESMP. The CESMP will include, as minimum:

- i. Contractor responsibilities for Occupational Health and Safety (OHS) measures.
- ii. Regular toolbox talks and safety meetings to raise awareness and reinforce safety protocols.
- iii. Provision of Personal Protective Equipment for all construction workers.
- iv. OHS induction and safety training, particularly on high-risk activities such as working at heights, electrical and mechanical works, and demolition processes.

- v. Hygiene and sanitation requirements for the provision of temporary accommodation for workers, when applicable.
- vi. Procedures for mitigating noise, fugitive dust, vibration, and water contamination/runoff, collecting and disposing of construction waste.
- vii. Ambient air, noise, vibration, and water quality monitoring, sampling, and lab testing program.

5.35. **Stakeholder Engagement, Consultation, and Information Disclosure:** ESIA has a dedicated section focusing on stakeholder engagement. The ESIA has identified relevant stakeholders, including Project beneficiaries, affected persons, and others interested in the Project, such as government agencies and hospital staff. A SEP, included within the ESIA, has assessed stakeholder interests and concerns and outlined a strategy for engaging and consulting with them inclusively and effectively. The SEP will ensure that all stakeholder groups, particularly vulnerable populations, are meaningfully engaged as early as possible during the Project's development process through regular consultations and accessible communication channels, with a view to foster transparency and trust.

5.36. Regarding information disclosure, the ESIA and the RAP have been disclosed in English, with an executive summary provided in Indonesia language, ensuring accessibility for local stakeholders. These documents have been published on the MoH's website on May 15, 2025.

5.37. **Project Grievance Redress Mechanism (GRM):** As part of the Project's ESIA and RAP, a GRM has been developed at the Project level. The GRM has been built upon the existing mechanisms already operational at the hospital level, ensuring alignment with AIIB's ESF and the Project's specific needs. Information about the GRM has been published in the Project area to address concerns related to:

- i. Land acquisition and resettlement impacts, including economic displacement.
- ii. Other ES risks include community health and safety issues arising from construction activities.

5.38. In addition, a separate worker-specific GRM will be established to address concerns and complaints from construction and hospital workers, particularly those related to:

- i. OHS risks.
- ii. Labor and working conditions, including any grievances about wages, working hours, or workplace conduct.

5.39. **Bank's Project-Affected People's Mechanism:** The Bank's Policy on the Project-affected People's Mechanism (PPM)<sup>12</sup> applies to this Project. AIIB has established a PPM to provide an independent and impartial review process for submissions from project-affected

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<sup>12</sup> The Project-affected People's Mechanism. (<https://www.aiib.org/en/about-aiib/who-we-are/project-affected-peoples-mechanism/how-we-assist-you/index.html>)

individuals or communities who believe they have been, or are likely to be, adversely affected by AIIB's failure to implement its ESF. The PPM is a complementary mechanism for addressing concerns that cannot be satisfactorily resolved through the project-level GRM or the Bank's Management processes. It ensures that project-affected people have an additional avenue for their grievances to be heard and reviewed fairly, independently, and transparently.

5.40. Detailed information about the PPM, including submission procedures, is available on AIIB's official website under Policy on the Project-affected People's Mechanism – Operational Policies and Directives

#### 5.41. **Proposed Follow-Up / Monitoring and Supervision Arrangements:**

- i. The PMU will be responsible for maintaining all Project progress and monitoring records received from the PIUs and submitting regular Project progress reports to AIIB in accordance with the agreed reporting schedule. The AIIB team will conduct regular supervision missions to the Project site to monitor the ES performance of the Project.
- ii. The PMU will need to provide evidence to AIIB that affected street vendors have been compensated in line with AIIB ESP prior to starting construction of the plaza.

## **F. Climate Change Mitigation and Adaptation**

5.42. **Climate Change:** Indonesia has a tropical climate characterized by high rainfall in low-lying areas and cooler temperatures in mountainous regions. The wet season occurs from November to April, while the dry season spans from May to October. Temperatures show minimal seasonal variation, averaging 23°C in mountainous areas and 28°C in coastal regions.

5.49. Indonesia is ranked in the top third of countries in terms of climate risk, with high exposure to all types of flooding, and extreme heat. The intensity of these hazards is expected to grow as the climate changes. Without effective adaptation, population exposure will also rise. For example, the population exposed to an extreme river flood could grow by 1.4 million by 2035–2044<sup>13</sup>.

5.43. In terms of climate mitigation, the Project is classified as automatically aligned, with proposed activities related to the hospital construction as well as other components falling under the universally aligned list under the category of "buildings and public installations". The hospital will follow a green healthcare facilities model by incorporating energy-efficient designs, sustainable building materials, and resource-efficient technologies aimed at minimizing carbon emissions. RSAB Harapan Kita is expected to achieve the highest "UTAMA" certification under Indonesia's Green Building Certification framework.

5.44. In terms of climate adaptation, the Project has been assessed as high risk due to the hospital's exposure to specific climate hazards. A detailed climate vulnerability assessment has been conducted, identifying key risks such as extreme heat, flooding, and other climate-related threats. These risks have been addressed through targeted improvements in the Project design. Specific adaptation measures include the incorporation of flood mitigation features such as rainwater retention systems, extreme heat reduction through enhanced natural ventilation and

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<sup>13</sup> Indonesia climate risk profile, ADB, WB, 2021

expanded green spaces/shading, and water conservation measures to improve resilience to drought conditions, among others.

5.45. In response to climate-related challenges, the Project will integrate a number of adaptation measures to mitigate risks associated with flooding, extreme heat and associated droughts. Structural reinforcements around buildings, improved drainage systems, rainwater retention and nature-based solutions will address the risks of flooding and extreme heat. The hospitals will achieve green building certification by incorporating green building design, including introduction of energy-efficient systems, renewable energy solutions such as solar panels to reduce reliance on conventional power sources. Medical equipment purchased will follow the latest standards applicable and ensure energy efficiency requirements.

5.46. **Earthquakes.** For earthquake risks, the seismic standards for Indonesia will be followed as part of the Project design, and will include measures such as constructing the hospital buildings using earthquake-resistant materials calculation and techniques, implementation of earthquake early warning systems and establishment of reliable communication channels, as well as developing and communicating a clear evacuation and emergency response plan for hospital staff and patients, and conducting regular earthquake drills. Post-construction inspections of structures will be conducted to meet updated earthquake safety standards. Regular inspections will be scheduled every 5 years to follow the national regulation.

5.47. **Land Subsidence.** Land subsidence in Jakarta is occurring due to uncontrolled groundwater extraction. However, this phenomenon is typically limited to certain depths of the soil surface or the level of the hard soil layer from which water is being pumped out. In the foundation design analysis, settlement calculations for single and group piles have been taken into account to anticipate potential subsidence. Furthermore, the implementation of the Blue Building concept will enable the collection of a significant portion of rainwater through a water harvesting system, thereby reducing reliance on deep well groundwater extraction. Consequently, the entire hospital complex will contribute to mitigating land subsidence by reducing and slowing down surface subsidence, which in turn will also decrease the risk of floodwater accumulation.

## **G. Gender Aspects**

5.48. **Gender Aspects:** While women constitute most of the workforce in the health sector in Indonesia, they remain underrepresented in leadership and management roles. However, in the three hospitals where the Project is being implemented, together with the MoH, a strong commitment to promoting gender equality and women's economic empowerment is evident, with women leading the Board of Directors and holding key positions among health professionals.

5.49. A rapid gender assessment has been conducted to better understand the specific needs, priorities, and challenges faced by women, including vulnerable groups, in accessing hospital services. This assessment has identified barriers and bottlenecks that limit equitable access and participation, resulting in the development of a GAP. The GAP includes the following actions to promote gender equality: (i) provision of employment opportunities, strengthening women's participation in the consultation and decision-making process; (ii) enhancing access to health

services by women and vulnerable groups; and (iii) commitment to monitoring and evaluation through regular reporting and disaggregating data.

5.50. Gender equality considerations will also be embedded in managing social risks and impacts, including OHS, community health and safety, land acquisition, and resettlement. The targeted social assessment and stakeholder engagement in the ESIA will further identify key gender-related issues and propose tailored measures to address the specific needs of women and other vulnerable groups.

## H. Risks and Mitigations

**Table 3: Summary of Risks and Mitigating Measures**

| Risk Description   | Assessment (H/M/L) | Mitigation Measures   | Responsible Parties | Monitoring timelines   |
|--|--------------------|---|---------------------|--|
| <b>Program/Project Preparation Risks</b>   |                    |   |                     |  |
| <b>Project designs</b>   |                    |   |                     |  |
| <ul style="list-style-type: none"> <li>Engineering design not aligned with medical service requirements</li> </ul> | Medium             | <ul style="list-style-type: none"> <li>Synchronize engineering designs with all relevant medical divisions to ensure functional compatibility during the pre-DED and the DED process.</li> <li>Regularly update and cross-check technical specifications with finalized medical equipment requirements to avoid design conflicts or later revisions.</li> </ul>   | PMU and PIUs        | <ul style="list-style-type: none"> <li>Project approval to completion of DED.</li> </ul>   |
| <ul style="list-style-type: none"> <li>Delays in permits for buildings over eight stories</li> </ul>               | Medium             | <ul style="list-style-type: none"> <li>Initiate early and proactive coordination with the Ministry of Public Works.</li> <li>Prepare and submit all required technical documents in accordance with prevailing regulations to expedite review and approval.</li> </ul>  | PMU and PIUs        | <ul style="list-style-type: none"> <li>Project approval to start of the construction.</li> </ul>   |
| <ul style="list-style-type: none"> <li>Key personnel turnover</li> </ul>   | Medium             | <ul style="list-style-type: none"> <li>Maintain a structured project documentation system to preserve institutional memory and ensure continuity (Good Corporate Governance principles).</li> <li>Appoint successors with relevant technical and managerial qualifications.</li> <li>Develop a comprehensive Project Operational Manual to guide project implementation and onboarding of new personnel.</li> </ul> | PMU and PIUs        | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul>  |
| <b>Program/Project Implementation Risks</b>  |                    |   |                     |  |
| <b>Implementation capacity, sector policy and health system context</b>  |                    |   |                     |  |
| <ul style="list-style-type: none"> <li>Limited understanding of MDB policies</li> </ul>                            | Medium             | <ul style="list-style-type: none"> <li>Conduct structured start-up workshops for implementing agencies.</li> <li>Provide periodic refresher sessions on MDB policies to ensure compliance and institutional learning throughout project implementation.</li> </ul>  | PMU, PIUs and AIIB  | <ul style="list-style-type: none"> <li>Project orientation workshop at after Project approval and then refresher workshops on annual basis including monitoring and evaluation.</li> </ul> |

| Risk Description  | Assessment (H/M/L) | Mitigation Measures  | Responsible Parties   | Monitoring timelines  |
|---|--------------------|--|---|---|
| <ul style="list-style-type: none"> <li>Reduction of JKN (National Health Insurance) service coverage impacting RSAB Harapan Kita</li> </ul> | Low                | <ul style="list-style-type: none"> <li>Engage proactively with BPJS (JKN management) and the MoH using evidence-based advocacy.</li> <li>Leverage clinical outcome data and cost-effectiveness analyses to support continued inclusion of RSAB Harapan Kita services in the JKN benefits package.</li> </ul>                     | <ul style="list-style-type: none"> <li>The MoH</li> </ul>               | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul>                         |
| <ul style="list-style-type: none"> <li>Limited availability and retention of specialized medical workforce</li> </ul>                       | Low                | <ul style="list-style-type: none"> <li>Enhance in-house capacity through structured training programs.</li> <li>Establish collaboration with academic institutions for talent pipeline development.</li> <li>Offer competitive incentives and career development plans to retain specialized staff.</li> </ul>                   | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul>          | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul>                         |
| <ul style="list-style-type: none"> <li>Low adoption and public acceptance of telemedicine and teleconsultation</li> </ul>                   | Low                | <ul style="list-style-type: none"> <li>Launch pilot telemedicine programs across project sites with built-in patient feedback loops.</li> <li>Ensure platforms are user-friendly and accessible.</li> <li>Implement public education and awareness campaigns in coordination with healthcare network partners.</li> </ul>        | <ul style="list-style-type: none"> <li>PMU, PIUs and the MoH</li> </ul> | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul>                         |
| <b>Climate Mitigation and Adaptation Risks</b>  |                    |  |   |   |
| <ul style="list-style-type: none"> <li>Structural vulnerability of buildings to climate shocks such as earthquakes and floods</li> </ul>    | High               | <ul style="list-style-type: none"> <li>Integrate climate-resilient structural design standards into project planning, specifically addressing seismic and flood risks.</li> <li>Ensure selection of contractors with demonstrated experience in implementing structural resilience measures in health infrastructure.</li> </ul> | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul>          | <ul style="list-style-type: none"> <li>Project approval to start of the construction.</li> </ul>                          |
| <ul style="list-style-type: none"> <li>High-magnitude climate disruptions affecting long-term project sustainability</li> </ul>             | Medium             | <ul style="list-style-type: none"> <li>Develop and institutionalize disaster risk management protocols and SOP for emergency preparedness.</li> <li>Introduce early warning and climate monitoring systems as part of a broader disaster anticipation and adaptation framework.</li> </ul>                                       | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul>          | <ul style="list-style-type: none"> <li>Project approval to completion of DED and to work as a living document.</li> </ul> |
| <ul style="list-style-type: none"> <li>Failure to achieve targeted green building certification</li> </ul>                                  | Medium             | <ul style="list-style-type: none"> <li>Select contractors with proven experience in green building construction and certification processes.</li> <li>Monitor adherence to green building guidelines throughout project implementation, ensuring compliance</li> </ul>   | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul>          | <ul style="list-style-type: none"> <li>From start of DED and by end of Project implementation.</li> </ul>                 |

| Risk Description  | Assessment (H/M/L) | Mitigation Measures   | Responsible Parties  | Monitoring timelines   |
|---|--------------------|---|--|--|
|   |                    | with certification standards from the outset.   |  |  |
| <b>Financial Management Risks</b>   |                    |   |  |  |
| <ul style="list-style-type: none"> <li>Delayed payments and risk of ineligible expenditures due to weak financial controls and unclear processes</li> </ul> | High               | <ul style="list-style-type: none"> <li>Develop and implement a clear SOP outlining the full payment workflow, including submission, verification, and approval stages.</li> <li>Introduce a mandatory checklist of required supporting documents to standardize and streamline payment requests.</li> <li>Apply a layered approval mechanism to strengthen internal controls and reduce the risk of ineligible expenditures.</li> </ul> | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul> | <ul style="list-style-type: none"> <li>From Project orientation workshop after Project approval and then to throughout Project implementation (five years).</li> </ul> |
| <ul style="list-style-type: none"> <li>Insufficient or delayed budget allocation in the State Budget (DIPA)</li> </ul>                                      | High               | <ul style="list-style-type: none"> <li>Align budget preparation with the Project's implementation timeline to avoid funding gaps.</li> <li>Maintain close coordination with relevant units within the MoF to ensure timely budget issuance and revisions when necessary.</li> </ul>   | <ul style="list-style-type: none"> <li>The MoH</li> </ul>      | <ul style="list-style-type: none"> <li>Before Project loan agreement signing and to be monitored for any revisions.</li> </ul>   |
| <ul style="list-style-type: none"> <li>Currency fluctuations impacting project cost and disbursement</li> </ul>   | High               | <ul style="list-style-type: none"> <li>Utilize the direct payment method for foreign currency-denominated transactions to reduce exposure to exchange rate volatility.</li> <li>Apply conservative foreign exchange (Fx) assumptions in Project cost estimation.</li> <li>Ensure government commitment to provide contingency budget support in case of significant currency appreciation.</li> </ul>                                   | <ul style="list-style-type: none"> <li>PMU</li> </ul>          | <ul style="list-style-type: none"> <li>From Project loan effectiveness to Project implementation period.</li> </ul>  |
| <ul style="list-style-type: none"> <li>Geopolitical tensions affecting currency stability and fiscal outlook</li> </ul>                                     | Low                | <ul style="list-style-type: none"> <li>Continued government prioritization of health sector expenditure reduces fiscal risk to the Project.</li> <li>Project team to monitor macroeconomic and geopolitical developments in coordination with the government, enabling timely mitigation if risks escalate.</li> </ul>  | <ul style="list-style-type: none"> <li>The MoH</li> </ul>      | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul>  |
| <b>Procurement Risk</b>   |                    |   |  |  |
| <ul style="list-style-type: none"> <li>Delays in procurement processes affecting timely</li> </ul>  | Medium             | <ul style="list-style-type: none"> <li>Recruit experienced procurement experts under the PMU to support and oversee procurement activities in accordance with AIIB guidelines.</li> </ul>   | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul> | <ul style="list-style-type: none"> <li>Throughout Project implementation (five</li> </ul>  |

| Risk Description   | Assessment (H/M/L) | Mitigation Measures  | Responsible Parties | Monitoring timelines  |
|--|--------------------|--|---------------------|---|
| implementation   |                    | <ul style="list-style-type: none"> <li>▪ Finalize and adopt a Project Operations Manual agreed with AIIB to streamline procurement procedures and clarify roles and responsibilities.</li> <li>▪ Initiate advance procurement actions for critical consultancy packages to mitigate startup delays.</li> <li>▪ Organize regular capacity-building sessions and procurement training for PMU and PIU staff to ensure consistent application of procurement rules and procedures.</li> </ul> |                     | years).   |
| <b>IT-Related Risks</b>  |                    |  |                     |   |
| <ul style="list-style-type: none"> <li>▪ Network downtime and loss of access to core IT systems during implementation or operations</li> </ul>     | High               | <ul style="list-style-type: none"> <li>▪ Develop and implement a clear SOP for temporary manual operations to ensure service continuity during system outages.</li> <li>▪ Ensure robust IT planning, including selection of scalable and reliable systems tailored to healthcare operations.</li> <li>▪ Strengthen cybersecurity protocols and adopt effective IT governance to minimize system vulnerabilities and ensure rapid response to outages.</li> </ul>                           | PMU and PIUs        | <ul style="list-style-type: none"> <li>▪ Throughout Project implementation (five years).</li> </ul> |
| <ul style="list-style-type: none"> <li>▪ Breach of personal and medical data (including patient journey data)</li> </ul>                           | Medium             | <ul style="list-style-type: none"> <li>▪ Conduct targeted training for PMU, PIU, and hospital staff on data privacy, confidentiality, and cybersecurity protocols.</li> <li>▪ Procure and implement secure, compliant systems with built-in data protection features.</li> <li>▪ Maintain ongoing monitoring and improvement of cybersecurity measures and access controls to safeguard sensitive health information.</li> </ul>   | PMU and PIUs        | <ul style="list-style-type: none"> <li>▪ Throughout Project implementation (five years).</li> </ul> |
| <b>Environmental and Social (ES) Risks</b>   |                    |  |                     |   |
| <ul style="list-style-type: none"> <li>▪ Construction-related risks impacting worker and public health, safety, and traffic circulation</li> </ul> | Medium             | <ul style="list-style-type: none"> <li>▪ Prepare and implement a comprehensive ESMP, including a traffic management plan and protocols for asbestos removal and hospital transfers.</li> <li>▪ Require contractors to prepare and implement a CESMP aligned with the overall ESMP.</li> <li>▪ Conduct regular monitoring and reporting on ESMP and CESMP</li> </ul>  | PMU and PIUs        | <ul style="list-style-type: none"> <li>▪ Throughout the construction period.</li> </ul>             |

| <b>Risk Description</b>  | <b>Assessment (H/M/L)</b> | <b>Mitigation Measures</b>  | <b>Responsible Parties</b>                                     | <b>Monitoring timelines</b>   |
|--|---------------------------|---|--|---|
|  |                           | implementation to ensure compliance.  |  |   |
| <ul style="list-style-type: none"> <li>Inadequate compensation or livelihood restoration for project-affected persons due to involuntary resettlement</li> </ul> | Medium                    | <ul style="list-style-type: none"> <li>Develop and implement a RAP in line with AIIB's Environmental and Social Policy.</li> </ul>  | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul> | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul> |
| <ul style="list-style-type: none"> <li>Increased healthcare waste and wastewater leading to potential health and environmental risks</li> </ul>                  | Medium                    | <ul style="list-style-type: none"> <li>Integrate capacity expansion for temporary healthcare waste storage and on-site wastewater treatment in the engineering design.</li> <li>Monitor waste generation and treatment performance during project operations.</li> </ul>            | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul> | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul> |
| <ul style="list-style-type: none"> <li>Inadequate access or poor design of facilities for women, persons with disabilities, and the elderly</li> </ul>           | Low                       | <ul style="list-style-type: none"> <li>Ensure inclusive infrastructure design by incorporating features that provide privacy, safety, and accessibility for all users regardless of gender, age, or physical ability.</li> </ul>  | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul> | <ul style="list-style-type: none"> <li>Project approval to completion of DED.</li> </ul>          |
| <ul style="list-style-type: none"> <li>Misperceptions or resistance from local communities regarding Project impacts</li> </ul>                                  | Medium                    | <ul style="list-style-type: none"> <li>Conduct early and ongoing community engagement through structured socialization sessions.</li> <li>Facilitate focus group discussions (FGDs) with local communities and authorities to address concerns and build public support.</li> </ul> | <ul style="list-style-type: none"> <li>PMU and PIUs</li> </ul> | <ul style="list-style-type: none"> <li>Throughout Project implementation (five years).</li> </ul> |

### Annex 1: Results Monitoring Framework

| Project Objective                    |   | To enhance the <u>availability, accessibility and quality of healthcare services</u> at three national referral hospitals specializing in maternal and child health, cardiovascular diseases, and cancer care. |                          |      |        |        |         |            |  |                    |           |
|--------------------------------------|---|--|--------------------------|------|--------|--------|---------|------------|--|--------------------|-----------|
| Indicator Name                       | Unit  | Base-line  | Cumulative Target Values |      |        |        |         | End Target | Data source  | Responsibility     | Frequency |
|                                      |   | 2024   | 2026                     | 2027 | 2028   | 2029   | 2030    |            |  |                    |           |
| <b>Project Objective Indicators:</b> |   |  |                          |      |        |        |         |            |  |                    |           |
| 1                                    | Number of people directly benefiting from improved health services  |  |                          |      |        |        |         |            |  |                    | Annually  |
| 1.1                                  | RSAB Harapan Kita: Number of patients benefitting from inpatient and outpatient services  | Number   | 197,108                  | -    | -      | -      | 248,339 | 442,160    | Quarterly and Annual Reports, Publication Format via hospital website ( <a href="http://www.rsabhk.co.id">www.rsabhk.co.id</a> ) | RSAB Harapan Kita  | Annually  |
| 1.2                                  | RSJPD Harapan Kita: Number of patients receiving diagnostic or therapeutic services provided using Project-financed medical equipment (projections based on | Number   | 0                        | 0    | 46,240 | 56,335 | 66,935  | 78,002     | Quarterly and Annual Reports, Publication Format via hospital website ( <a href="https://pjhk.go.id/">https://pjhk.go.id/</a> )  | RSJPD Harapan Kita | Annually  |

|   |  |                |         |     |     |     |     |        |   |                   |          |  |
|---|--|----------------|---------|-----|-----|-----|-----|--------|---|-------------------|----------|--|
|   | current service utilization patterns)  |                |         |     |     |     |     |        |   |                   |          |  |
| 2                                       | Admission acceptance of patients referred for inpatient services at RSAB Harapan Kita                  | Percentage     | 48.2%   | -   | -   | -   | 70% | 80%    | SPGDT Monthly Report to Director and the MoH  | RSAB Harapan Kita | Annually |  |
| 3                                       | Decrease waiting queue for specialized doctor appointments for outpatient clinics at RSAB Harapan Kita | Number of Week | 8 weeks | -   | -   | -   | -   | 1 week | Quarterly Report to Director and the MoH      | RSAB Harapan Kita | Annually |  |
| 4                                       | Hospital (RSAB Harapan Kita) obtains international quality accreditation (e.g., JCI or equivalent)     | Yes/No         | No      |     |     |     |     | Yes    | Report to the MoH                             | RSAB Harapan Kita | Annually |  |
| <b>Intermediate Results Indicators:</b> |  |                |         |     |     |     |     |        |   |                   |          |  |
| 5                                       | Infrastructure (Civil Works) Completion Progress   | Percentage     | 0%      | 15% | 50% | 75% | 90% | 100%   | Monthly, Quarterly and Annual Hospital Report | RSAB Harapan Kita | Annually |  |

|   |  |                  |    |  |     |     |     |   |   |   |          |
|---|--|------------------|----|--|-----|-----|-----|---|---|---|----------|
| 6 | RSAB Harapan Kita to achieve green building certification (National UTAMA Standard)<br>Milestone: Green Building Design certification achieved (2026)      | Milestone status | -  | Green Building Design certification achieved | -   | -   | -   | Green building certification awarded (UTAMA standard) | Monthly, Quarterly and Annual Hospital Report   | RSAB Harapan Kita   | Annually |
| 7 | Shared patient registry and health data exchange platform established and operational across RSAB Harapan Kita, RSJPD Harapan Kita, and RS Kanker Dharmais | Yes/No           | No | No   | No  | No  | No  | Yes   | Monthly, Quarterly and Annual Hospital Report   | RSAB Harapan Kita, RSJPD Harapan Kita, RS Kanker Dharmais | Annually |
| 8 | Medical equipment procurement completion (RSAB Harapan Kita and RSJPD Harapan Kita equipment)  | Percentage       | 0% | 24%  | 30% | 56% | 82% | 100%  | Medical equipment procurement completion report | RSAB Harapan Kita, RSJPD Harapan Kita                     | Annually |
| 9 | Number of network health facilities (secondary hospitals and health centers)   | Number           | 0  | 0  | 0   | 0   | 10  | 20  | Report to the MoH                               | RSAB Harapan Kita, RSJPD Harapan Kita                     | Annually |

|    |  |        |   |     |       |       |       |       |  |                   |          |
|----|--|--------|---|-----|-------|-------|-------|-------|--|-------------------|----------|
|    | in remote sites piloting telemedicine consultations with RSAB Harapan Kita   |        |   |     |       |       |       |       |  |                   |          |
| 10 | Number of hospital staff who complete clinical competency improvement programs financed by the Project - disaggregated by gender | Number | 0 | 553 | 1,274 | 1,835 | 1,910 | 1,910 | Hospital Training Report & Hospital clinical privileges record | RSAB Harapan Kita | Annually |

**Notes:**

- Construction works are planned to be completed by 2028 for the inpatient services building and by 2029 for the outpatient clinics.
- **Indicator (1.1):** Measures the number of patients benefiting from upgraded inpatient and outpatient services at RSAB Harapan Kita. For ease of reporting, this indicator excludes utilization increases at RSJPD Harapan Kita and RS Kanker Dharmais, even if attributable to service integration or improved physical connectivity. Progress is projected to materialize after the construction works are completed.
- **Indicator (1.2):** Captures the number of patients receiving diagnostic or therapeutic services delivered using project-financed medical equipment. To enable straightforward tracking, only standalone services (catheterization laboratory, CT, MRI) with clearly attributable utilization data are included. Progress is projected to materialize in 2027 after equipment procurement is completed in 2026.
- **Indicator (2):** Measures the proportion of referred patients accepted for admission to regular inpatient services at RSAB Harapan Kita.
- **Indicator (3):** Tracks the maximum waiting time for outpatient appointments across all specialized clinics at RSAB Harapan Kita. For the baseline year, the longest queue is at the rehabilitation clinic.
- **Indicators (5):** Will be monitored against the respective sub-Project implementation schedules.
- **Indicator (10):** Clinical competency improvement programs financed under the Project will include workshops by visiting experts, proctorship, observership, and virtual training modules.

## **Annex 2: Economic Analysis**<sup>14</sup>

1. **Project rationale.** The rationale for strengthening maternal and child healthcare in Indonesia is well-founded. Neonatal disorders were among the top five causes of mortality and morbidity (measured in Disability-Adjusted Life Years (DALYs)) in 2021. Maternal and neonatal mortality indicators remain significantly higher than the Southeast Asia average. Preterm birth, eclampsia, delivery complications (such as prolonged labor), and insufficient postnatal care are among the leading causes of maternal and neonatal mortality in Indonesia. This is exacerbated by a nationwide shortage of specialist doctors, particularly in pediatrics and critical care. A persistently high maternal and neonatal disease burden poses a serious threat to Indonesia's long-term economic growth by eroding human capital and increasing the burden of future health expenditures. The Project supports government strategies to strengthen the Mother and Child Healthcare Network, referral systems, and hospital-based specialist doctor training. It also promotes integration among the three tertiary hospitals in the 3-diamond medical complex, improving both operational efficiency and patient experience.

2. **Scope of the Project.** The Project supports government investments to improve the availability, accessibility, and quality of specialized services by upgrading the national referral hospital, RSAB Harapan Kita. First, the Project will double RSAB Harapan Kita's inpatient and outpatient capacity through reconstruction and expansion of hospital buildings and establishing telemedicine and telehealth services. Moreover, the Project will also improve the quality of healthcare services through enhancement in clinical efficacy by upgrading medical equipment, supplying non-medical equipment such as a clinical skills laboratory. Second, the hospital layout will be reconfigured to improve public access to the emergency department and to enhance physical connectivity with the adjacent cancer and cardiovascular hospitals. Third, the Project will leverage improved connectivity to support integration across the three hospitals, particularly in IT systems, a shared medical data platform, and support services. Fourth, it will build medical and managerial workforce capacity in hospital operations, evidence-based medicine, patient-centered care, and clinical and public health research, as well as collaboration with other hospitals to further strengthen referral networks for patient care.

3. **Rationale for public provision of the Project.** The public provision of Project activities is justified by the positive externalities that arise through three primary channels. First, improved health outcomes in early life lead to enhanced academic performance and educational attainment. Health and education are core components of human capital, which drives long-term productivity. Second, improved maternal health positively affects female educational and labor force participation outcomes, thereby increasing productivity and reducing reliance on social protection systems. Third, investments in health research and clinical knowledge generate public goods, as these benefits are non-rivalrous and non-excludable.

#### **4. Specifications of the analysis**

- a. The economic analysis follows a cost-benefit framework comparing a "with Project" scenario against a "without Project" baseline. The analysis uses a 15-year operational horizon (2030–2045) and applies a 6 percent social discount rate to all future costs

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<sup>14</sup> For economic analysis this section specifically addresses the investments directed to upgrade RSAB Harapan Kita. The benefits attributable to the RSJPD Harapan Kita equipment provided under the Project are excluded from this analysis. The financial analysis is also performed for RSAB Harapan Kita where majority of Project investment are targeted.

and benefits.<sup>15</sup> Project costs include capital investments financed by AIIB, phased over the Project implementation period (2026–2029), and incremental operating costs beginning in 2030, covering staffing, maintenance, and training. Benefits are expressed in economic terms and derived from improved health outcomes and increased service utilization. The Project costs have been converted to economic price by removing 11 percent Value-Added Tax (VAT) from the financial costs. See Table 1 for the summary of assumptions used in the model.

Table 1. Assumptions for CBA model

| Description                   | Assumptions            |
|-------------------------------|------------------------|
| Project construction year     | 2025 – 2030            |
| Project life span             | 15 years (2030 – 2045) |
| Social discount rate          | 6%                     |
| Clinical efficacy improvement |                        |
| Low                           | 20%                    |
| Moderate                      | 30%                    |
| High                          | 40%                    |
| Public Health Gains           |                        |
| Low                           | 0.01                   |
| Moderate                      | 0.03                   |
| High                          | 0.05                   |

- b. The Project catchment area is defined as Jakarta, West Java, Banten, and Lampung, with a total population of 82 million, including approximately 6.6 million children under five and 40.3 million women—identified as the Project target group (approximately 47 million potential Project beneficiaries). These groups were selected based on the alignment between hospital services and the gender and age distribution of DALYs attributable to maternal and neonatal disorders, which are predominantly concentrated among children under five. This also reflects the growing body of evidence emphasizing the centrality of early childhood and maternal health to long-term human capital development. The analysis distinguishes between two categories of beneficiaries, direct and indirect. Among the direct beneficiaries of hospital services, two distinct groups are identified: (i) new patients accessing services due to the expanded capacity created by the Project – representing the incremental benefit of the Project; and (ii) existing patients who would have accessed hospital services regardless of the Project but are expected to experience improved outcomes – reflecting the non-incremental benefits.
- c. For new patients, the benefits are proxied through their willingness to pay, estimated using the average user fees for inpatient and outpatient services. This reflects the revealed preference approach and captures the economic value of accessing previously unavailable or inaccessible specialized care. This approach results in a very conservative estimate considering that many reports have found evidence of significant

<sup>15</sup> The use of a 6% discount rate is appropriate given the nature of this operation as a social infrastructure project in Indonesia, which delivers long-term health and human capital benefits, many of which are not easily quantifiable. This rate is also consistent with the standard practice for evaluating social sector projects in Indonesia and across similar emerging market contexts, ensuring comparability with other development finance operations in the region.

gap between treatment fees set by the governments and the true treatment costs in Indonesia.<sup>16, 17</sup> For existing patients, the benefit is quantified based on health outcome improvements, calculated as averted DALYs resulting from improvements in clinical efficacy due to the hospital upgrade. Drawing on expert judgment and Project team estimates, the model applies a conservative assumption that upgraded clinical services will avert 30 percent of the disease burden attributable to maternal and neonatal conditions among treated patients under the moderate-impact scenario, with 20 percent and 40 percent assumed under low- and high-impact scenarios, respectively.<sup>18</sup> Each DALY averted is monetized using Indonesia's latest GNI per capita in constant terms.<sup>19</sup>

- d. The model further includes indirect beneficiaries, representing the broader population (outside the Project catchment area) that will benefit from strengthening the Mother and Child network through telemedicine and telehealth services, network-wide mentorship and proctorship, and clinical training visits. For this group, the Project drew on assumptions from Indonesia's Strengthening Indonesia's Healthcare Referral Network Project, which estimated an average gain of 0.1 productive life years per beneficiary per year. As the Project focuses solely on upgrading the national referral hospital—one component of the broader referral system—more conservative assumptions were applied. The analysis assumes average gains of 0.05 years per person under the high-impact scenario, 0.03 under the moderate-impact scenario, and 0.01 under the low-impact scenario.

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<sup>16</sup> Suryanegara, et al. (2023). A comparison between the Indonesian Case Base Groups (INA-SBGs) Tariffs and the actual cost of breast cancer radiotherapy in Indonesia: A Hospital-Based Retrospective Study.

<sup>17</sup> Satibi, S., Andayani, T. M., Endarti, D., Suwantara, I. P. T., & Agustini, N. P. D. (2019). Comparison of Real Cost Versus the Indonesian Case Base Groups (INA-CBGs) Tariff Rates Among Patients of High- Incidence Cancers Under the National Health Insurance Scheme. *Asian Pacific journal of cancer prevention : APJCP*, 20(1), 117–122.

<sup>17</sup> Based on discussions with stakeholders and literatures including Rusmawatiningtyas, D., et. al. (2024) and Harzif, et. al. (2024).

<sup>18</sup> Based on discussions with stakeholders and literatures including Rusmawatiningtyas, D., et. al. (2024) and Harzif, et. al. (2024).

<sup>19</sup> Based on Global Burden Disease data for Indonesia, 85 percent of maternal and neonatal DALYs are attributable to Years of Life Lost (YLLs) – i.e., premature mortality – rather than Years Lived with Disabilities (YLDs). This reflects Indonesia's relatively high neonatal mortality rate and the dominance of neonatal disorders in the maternal and child health burden. Given that the majority of the DALY burden stems from mortality, using GNI per capita to monetize DALYs is a conservative and widely accepted approach that aligns with standard global health economic valuation practices, especially when the DALYs are primarily mortality-driven.

5. **Summary of the cost-benefit analysis.** The analysis was carried out over the 2025-2045 period, with an economic discount rate of 6 percent and the Project's benefits starting to materialize after the completion of construction in 2030. Table 2 summarizes the results across the three impact scenarios. Under the high-impact scenario, the Project yields an ENPV of USD407 million and an EIRR of 23 percent. While the low impact scenario shows an ENPV of USD51 million and an EIRR of 9 percent. In all cases, the EIRR exceeds the discount rate, confirming the Project's economic viability. Table 3 presents the annual flow of benefits and costs under the moderate low-impact scenario.

Table 2. Summary of CBA Results by Impact Scenario

| <b>Impact scenario</b> | <b>High</b>    | <b>Moderate</b> | <b>Low</b>    |
|------------------------|----------------|-----------------|---------------|
| EIRR                   | 23%            | 17%             | 9%            |
| ENPV                   | USD407 million | USD229 million  | USD51 million |
| B/C                    | 2.63           | 1.8             | 1.61          |

Table 3. Annual Flow of Benefit and Costs of the Project at Moderate Low-Impact Scenario

|      | Direct Beneficiaries |                 | Indirect Beneficiaries | Project Cost |            |
|------|----------------------|-----------------|------------------------|--------------|------------|
|      | Incremental          | Non-incremental |                        | Capital      | O&M        |
| 2026 | -                    | -               | -                      | 10,303,333   | 515,167    |
| 2027 | -                    | -               | -                      | 60,124,467   | 3,521,390  |
| 2028 | 4,105,428            | -               | -                      | 97,624,647   | 8,402,622  |
| 2029 | 9,302,172            | -               | -                      | 58,362,553   | 11,320,750 |
| 2030 | 32,266,033           | 11,294,619      | 27,142,031             | -            | 11,886,788 |
| 2031 | 23,529,807           | 11,294,619      | 27,359,167             | -            | 12,481,127 |
| 2032 | 24,489,961           | 11,294,619      | 27,578,041             | -            | 13,105,183 |
| 2033 | 25,466,686           | 11,294,619      | 27,798,665             | -            | 13,760,442 |
| 2034 | 26,459,980           | 11,294,619      | 28,021,054             | -            | 14,448,464 |
| 2035 | 27,469,845           | 11,294,619      | 28,245,223             | -            | 15,170,888 |
| 2036 | 28,496,280           | 11,294,619      | 28,471,184             | -            | 15,929,432 |
| 2037 | 29,539,285           | 11,294,619      | 28,698,954             | -            | 16,725,904 |
| 2038 | 30,598,861           | 11,294,619      | 28,928,546             | -            | 17,562,199 |
| 2039 | 31,675,006           | 11,294,619      | 29,159,974             | -            | 18,440,309 |
| 2040 | 32,767,722           | 11,294,619      | 29,393,254             | -            | 19,362,324 |
| 2041 | 33,877,008           | 11,294,619      | 29,628,400             | -            | 20,330,441 |
| 2042 | 35,002,864           | 11,294,619      | 29,865,427             | -            | 21,346,963 |
| 2043 | 36,145,290           | 11,294,619      | 30,104,350             | -            | 22,414,311 |
| 2044 | 37,304,287           | 11,294,619      | 30,345,185             | -            | 23,535,026 |
| 2045 | 38,479,854           | 11,294,619      | 30,587,947             | -            | 24,711,777 |

  

|      | Direct Beneficiaries |                 | Indirect Beneficiaries | Project Cost |            |
|------|----------------------|-----------------|------------------------|--------------|------------|
|      | Incremental          | Non-incremental |                        | Capital      | O&M        |
| 2025 | -                    | -               | -                      | 6,888,809    | -          |
| 2026 | -                    | -               | -                      | 43,967,374   | 2,198,369  |
| 2027 | -                    | -               | -                      | 47,280,552   | 4,562,396  |
| 2028 | 2,873,799            | -               | -                      | 64,551,103   | 7,789,951  |
| 2029 | 6,511,520            | -               | -                      | 43,835,749   | 9,981,739  |
| 2030 | 22,586,223           | 9,035,695       | 9,047,344              | 11,933,143   | 10,480,826 |
| 2031 | 23,529,807           | 9,035,695       | 9,119,722              | -            | 11,004,867 |
| 2032 | 24,489,961           | 9,035,695       | 9,192,680              | -            | 11,555,110 |
| 2033 | 25,466,686           | 9,035,695       | 9,266,222              | -            | 12,132,866 |
| 2034 | 26,459,980           | 9,035,695       | 9,340,351              | -            | 12,739,509 |
| 2035 | 27,469,845           | 9,035,695       | 9,415,074              | -            | 13,376,485 |
| 2036 | 28,496,280           | 9,035,695       | 9,490,395              | -            | 14,045,309 |
| 2037 | 29,539,285           | 9,035,695       | 9,566,318              | -            | 14,747,574 |
| 2038 | 30,598,861           | 9,035,695       | 9,642,849              | -            | 15,484,953 |
| 2039 | 31,675,006           | 9,035,695       | 9,719,991              | -            | 16,259,201 |
| 2040 | 32,767,722           | 9,035,695       | 9,797,751              | -            | 17,072,161 |
| 2041 | 33,877,008           | 9,035,695       | 9,876,133              | -            | 17,925,769 |
| 2042 | 35,002,864           | 9,035,695       | 9,955,142              | -            | 18,822,057 |
| 2043 | 36,145,290           | 9,035,695       | 10,034,783             | -            | 19,763,160 |
| 2044 | 37,304,287           | 9,035,695       | 10,115,062             | -            | 20,751,318 |
| 2045 | 38,479,854           | 9,035,695       | 10,195,982             | -            | 21,788,884 |

6. **Sensitivity analysis**

- a. A sensitivity analysis was conducted to assess the potential impact of increased medical equipment costs, in light of recent geopolitical tensions. Table 4 presents the EIRR under three impact scenarios—high, moderate, and low—corresponding to a 10 percent, 30 percent, and 50 percent increase in medical equipment costs, respectively.

Table 4. EIRR

| <i>Increase in medical equipment cost</i> | Impact Scenario |          |     |
|---|-----------------|----------|-----|
|   | High            | Moderate | Low |
| 0%  | 23%             | 17%      | 9%  |
| 10%                                       | 22%             | 16%      | 8%  |
| 30%                                       | 21%             | 15%      | 8%  |
| 50%                                       | 20%             | 14%      | 7%  |

- b. The results show that under all impact scenarios both the high and moderate impact scenarios, the Project remains economically viable even with a 50 percent cost increase, yielding EIRR of 7 percent at the worst scenario, remaining above the assumed 6 percent discount rate, 18 percent and 13 percent. However, in the low impact scenario, a 50 percent increase in equipment costs would reduce the EIRR to 5 percent, falling below the assumed 6 percent discount rate, indicating the Project would still be economically justified in that case.
- c. Other benefits of the Project not included in the analysis include health benefits for adult males from the cardiovascular equipment upgrades, savings in operational savings to offer healthcare services to the same number of increased patients, and time savings of the patients due to digitalization, better healthcare network system, patient’s improved experience and satisfaction form the healthcare facilities.

### **Annex 3. Paris Agreement Alignment Assessment**

1. **The Project is aligned with the goals of the Paris Agreement on both mitigation and adaptation.** The Project is automatically aligned with BB1 as it will include a number of climate mitigation measures aimed at reducing the GHG emissions of hospitals. The Project addresses climate mitigation across various components by focusing on reducing GHG emissions and enhancing resource efficiency. All the Project's activities fall under the universally aligned list for BB1 (mitigation). For Project's alignment with adaptation, an initial climate risk screening was undertaken which indicates in high exposure of the Project to several climate risks, and a detailed climate vulnerability assessment has been undertaken to understand the key climate risks for the Project components and necessary adaptation measures have been introduced.

2. **Alignment against mitigation goals of Paris Agreement (BB1).** The Project's activities are on the universally aligned list of the Joint MDB Methodological Principles for Assessment of Paris Agreement Alignment of New Operations and AIIB Methodology for Assessing the Alignment of AIIB Investment Operations with the Paris Agreement 20. Most of Project's components fall under the "Buildings and public installations" sector, under the healthcare buildings eligible activity type, some elements of Project also fall under the sector for "Generation of renewable energy" and "Information and communication technology and digital technologies" sector. Specific climate mitigation measures to be included in the Project design which contributes to climate mitigation action are energy-efficient building design (energy-efficient materials, insulation), installation of renewable energy systems, energy-efficient HVAC systems: advanced heating, ventilation, LED lighting, and others. The medical equipment to be purchased for the hospitals will also result in energy efficiency savings as it will include requirements to meet the relevant energy efficiency standards applicable to medical equipment. Furthermore, the Project will incorporate the use of nature-based solutions, such as green roofs and vertical gardens to improve ventilation, reduce heat island effects, and promote biodiversity. The landscaping around the hospital will include native plant species that require minimal water and are resilient to Jakarta's climate. These plants will help manage urban heat and improve air quality around the hospital.

3. **Alignment with the adaptation and climate resilience goals of the Paris agreement (BB2).**

a. **Step 1: Establishing the climate risk and vulnerability context**

- i. The Project area is mostly flat, and the surrounding region is dominated by lowlands. Jakarta is prone to flooding, especially during the rainy season. There are 13 rivers that flow through and divide the city of Jakarta. Four of them — Moonkervart River, Angke River, Baru barat River and Pesanggrahan River — pass through West Jakarta. Jakarta has a tropical monsoon climate, with hot and humid conditions throughout the year, and an annual rainy season that lasts from November to April. The city is also vulnerable to earthquakes and seismic activity due to its location on the Pacific Ring of Fire.
- ii. Climate data analysis was done using hydrological data from meteorological station on Jakarta using daily rainfall historical data (1866-2015). The data shows

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<sup>20</sup> Joint MDB Methodological Principles for Assessment of Paris Agreement Alignment of New operations. ([aiib.org/en/news-events/news/2023/pdf/MDB-PA-DL-Principles\\_final\\_14.06.2023.pdf](https://aiib.org/en/news-events/news/2023/pdf/MDB-PA-DL-Principles_final_14.06.2023.pdf)), and [Methodology for assessing AIIB Investment Operations Alignment with the Paris Agreement](#)

a trend of increasingly frequent annual extreme rainfall events, with a 2-3 percent increase in probability compared to the climate conditions of 100 years ago. Below tables provide summary of the key climate hazards, sensitivity and exposure to climate risks of the hospital locations.

**Table 1: Sensitivity of hospital to various climate and non-climate hazards**

| Hazard                                 | Sensitivity of Hospitals | Potential Impact on Hospitals  |
|--|--------------------------|--|
| Flooding (incl. extreme precipitation) | High                     | Damage to infrastructure, contamination risks, business interruption |
| Heat stress + heat wave                | Medium-High              | Increased cooling demand, patient vulnerability                      |
| Earthquake (non-climate)               | Medium-High              | Structural damage, pipe leakage, equipment malfunction               |

**Table 2: current and future exposure to various climate hazards**

| Hazard                                | Current Exposure | Projected Future Exposure   | Notes  |
|---------------------------------------|------------------|---|--|
| <b>Fluvial &amp; Pluvial Flooding</b> | Moderate         | Remains Moderate (All Shared Socioeconomic Pathways/SSP)                | Jakarta's high land subsidence may worsen flooding, but this is not yet included in climate projections.   |
| <b>Heatwaves</b>                      | Moderate         | High to Very High (All SSP)   | Extreme increase in heatwaves projected; SSP5-8.5 scenario leads to extreme exposure by the century's end. |
| <b>Heat Stress</b>                    | Very High        | Remains Very High (SSP1-2.6, SSP2-4.5), Increases to Extreme (SSP5-8.5) | Already at very high levels; significant worsening only in the most severe climate scenario.               |
| <b>Drought</b>                        | Moderate         | High to Very High (All SSP)   | Climate models project a significant to extreme increase in drought conditions by 2050.                    |

- b. **Step 2: Identifying and integrating adaptation and climate resilience measures.** In response to climate-related challenges, the Project will integrate resilience strategies to mitigate risks associated with flooding, extreme heat and associated droughts. These include structural as well as nature-based solutions. Resilience measures considered include structural reinforcements, improved drainage systems, rainwater retention system, retention ponds and other measures listed in table 3. The hospital will install a rainwater harvesting system to collect rainwater, which will be used for irrigation, cooling towers, and other non-drinking purposes. Water Treatment and Recycling: A wastewater treatment system will be implemented to treat and recycle hospital wastewater, which can then be reused for non-potable purposes like landscaping irrigation. The Table below provides a list of applicable adaptation measures.

**Table 3: Climate adaptation measures**

| No. | Climate Change Hazard           | Possible Risks  | Current Embedded Measures in Preliminary Design | Additional Adaptation Measure to be added  |
|-----|---------------------------------|---|---|--|
| 1   | Flooding (Pluvial/Fluvial)      | Flooding of hospital access points, structural damage, service disruption | Elevated site planning and drainage systems     | <ul style="list-style-type: none"> <li>- Permeable pavements</li> <li>- Green infrastructure (bioswales, rain gardens)</li> <li>- Backflow preventers</li> <li>- Retention ponds and rainwater harvesting systems</li> <li>- Install physical flood protection measures</li> <li>- Identify flood entry points, expected flood depth, and potential impact on critical equipment and move equipment, if needed</li> <li>- Establish a flood warning system using government weather forecasts</li> </ul> |
| 2   | Extreme Heat & Temperature Rise | Heat stress for workers/patients, higher cooling costs                    | Use of natural ventilation and basic shading    | <ul style="list-style-type: none"> <li>- Green roofs/walls</li> <li>- Reflective building materials</li> <li>- Public information campaigns on heat-related health risks</li> <li>- Ensure air conditioning in high-risk patient wards, with adequate capacity and backup power for heatwave conditions</li> </ul>   |
| 3   | Draughts                        | Groundwater stress  | Wastewater treatment system                     | <ul style="list-style-type: none"> <li>- The system is designed to fully meet the water capacity needs of the hospital therefore reducing the reliance of the groundwater</li> </ul>   |

- c. **Step 3: Assessing the potential inconsistency with broader climate resilience priorities.** National Action Plan on Climate Change Adaptation (*Rencana Aksi Nasional-Adaptasi Perubahan Iklim*) of Indonesia lists health and infrastructure as key priority sectors. Indonesia’s Enhanced NDC (2022) explicitly prioritizes climate adaptation across sectors, including health. It emphasizes strengthening resilience of infrastructure and services in response to climate risks such as floods, sea level rise, and extreme heat—all of which affect healthcare facilities, which are considered in the Project. The National Disaster Management Plan encourages climate-resilient infrastructure buildings, including hospitals and promotes emergency preparedness and structural safety in hazard-prone regions. The table below provides further detailed breakdown of policy alignment:

**Table 4: List of policy documents and their alignment**

| <b>Policy Document type</b>                | <b>Indonesia’s Climate Adaptation Policy</b>   | <b>3 Diamon Hospital Building concept</b>                    | <b>Alignment</b>                             |
|--|--|--|--|
| <b>Disaster Risk Reduction</b>             | BNPB’s disaster risk maps and building codes   | Structural integrity of hospital in hazard zones             | Risk-informed site selection and retrofiting |
| <b>Climate-Resilient Health Facilities</b> | National Action Plan on Climate Change Adaptation ( <i>Rencana Aksi Nasional-Adaptasi Perubahan Iklim</i> ) health sector strategy | Continuity of care and health services in event of emergency | Emergency plans in place                     |
| <b>Spatial Planning</b>                    | Climate-informed regional planning mandates  | Safe hospital siting, access routes                          | Integrated into Project design               |

## **Annex 4: Country Credit Fact Sheet**

### **Recent Economic Developments**

1. Indonesia is an upper middle-income country with a GDP per capita of around USD4,900 and a population of 277 million. Its economic resilience is rooted in over two decades of prudent macroeconomic management, contributing to robust growth, poverty reduction, and increased inclusion. In 2023, Indonesia's economy grew by 5.0 percent, driven by resilient private consumption and investment. The positive outlook continued for 2024, with an estimated growth rate of 5.0 percent, supported by strong public consumption and investment, offsetting weaker net exports.

2. In 2023, inflation was successfully brought under control after a sharp rise in 2022. Core inflation dropped to 1.7 percent and headline inflation to 2.8 percent by December, both within Bank Indonesia's target range of 2-4 percent. Inflation in 2024 remained within the target range of 1.5 to 3.5 percent, with headline and core inflation at 1.6 percent and 2.3 percent. As recent pressures from food and tobacco due to El Nino have eased, inflation expectations remain well-anchored.

3. Fiscal deficit improved slightly, from 2.3 percent of GDP in 2022 to 1.9 percent in 2023, supported by the first primary surplus in nearly a decade. The good performance reflected strong revenues, thanks to the new tax reform bill, higher VAT collection, and trade-related taxes, boosted by higher global commodity prices.<sup>21</sup> The expansionary policy stance is expected to widen the deficit back to 2.3 percent of GDP in 2024. Public debt in 2024 is estimated at 40.2 percent of GDP, stable and well below the fiscal ceiling of 60 percent.

4. Current account shifted from a surplus of 1 percent of GDP in 2022 to a narrow deficit of 0.1 percent in 2023, driven by lower commodity prices and weaker growth in major trading partners. The deficit is estimated to have widened moderately in 2024 as commodity prices remain subdued. The external debt has been stable, at around 30 percent of GDP.

| <b>Economic Indicators</b>                       | <b>2022</b> | <b>2023</b> | <b>2024*</b> | <b>2025*</b> | <b>2026*</b> | <b>2027*</b> |
|--|-------------|-------------|--------------|--------------|--------------|--------------|
| Real GDP growth (% change)                       | 5.3         | 5.0         | 5.0          | 4.7          | 4.7          | 4.9          |
| CPI inflation (average, % change)                | 4.1         | 3.7         | 2.3          | 1.7          | 2.5          | 2.5          |
| General government fiscal balance                | -2.3        | -1.9        | -2.3         | -2.6         | -2.6         | -2.5         |
| General government gross debt                    | 40.1        | 39.6        | 40.2         | 41.0         | 41.0         | 41.0         |
| Public gross financing needs                     | 4.4         | 4.5         | 5.3          | 5.9          | 5.5          | 5.2          |
| Current account balance                          | 1.0         | -0.1        | -0.6         | -1.5         | -1.6         | -1.4         |
| External debt                                    | 30.1        | 29.8        | 29.4         | 28.3         | 27.5         | 26.6         |
| Gross external financing need                    | 3.5         | 5.0         | 5.8          | 6.1          | 6.2          | 6.2          |
| Gross international reserves (Months of imports) | 6.2         | 6.1         | 5.5          | 5.2          | 5.1          | 5.2          |
| Exchange rate (IDR/USD, e.o.p.)                  | 15,565      | 15,395      | 16,090       | 16,850       |              |              |

Note: \* denotes projections; in percent of GDP, unless indicated otherwise. Data Source: IMF WEO April 2025; IMF Article IV report No.24/270; FX rates from Refinitiv as of April 23<sup>rd</sup>, 2025.

### **Economic Outlook and Risks**

<sup>21</sup> The tax reform included measures such as the increase in VAT rate, a new upper-income tax bracket, the cancellation of corporate income tax reduction, and another round of tax amnesty program.

5. Real GDP growth is projected to moderate to 4.7 percent in 2025 and 2026 following a downward revision amid heightened global uncertainty, including unprecedented trade shocks and rising protectionism. This slowdown presents a challenge to the government's 2045 Golden Vision, which aims to lift medium-term growth to 6-7 percent. Growth is expected to remain driven primarily by resilient domestic demand, supported by increased social spending, while external demand weakens. Headline inflation is projected to remain at around 2.0-2.5 percent, supported by improvements in agricultural productivity and efforts to reduce logistics and distribution costs.<sup>22</sup>

6. The fiscal stance is expected to remain pro-growth, reflecting the new administration's priorities, including the free nutritious meal program, school infrastructure upgrades, and enhanced food security measures. This is expected to moderately widen the fiscal deficit to 2.6 percent of GDP in 2025 and 2026, still below the statutory ceiling of 3 percent, as some efficiency measures to reduce expenditures are put in place. Public debt is projected to stabilize around 41 percent of GDP. Gross public financing needs are manageable.

7. Current account deficit is expected to widen slightly, to around 1.5 percent of GDP in 2025 and 2026, as resilient domestic demand fuels import growth while exports are dampened by weaker global demand and escalating trade tensions. Geopolitical uncertainties may further disrupt global supply chains and increase trade costs. External debt and external financing needs are expected to remain sustainable.

8. Indonesia has a good track record of prudent economic management, as reflected in generally low fiscal deficits, stable inflation and an investment grade rating. Moody's affirmed the rating at Baa2 in March 2025. S&P affirmed its rating at BBB with a stable outlook in July 2024. Fitch affirmed the rating at BBB with a stable outlook in March 2025.

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<sup>22</sup> Asian Development Bank. *Asian Development Outlook April 2025*. Manila: Asian Development Bank, 2025.