



**Sovereign-Backed Financing**

**Project Document**

**P000787 Indonesia: Modernization of the Health System**

**Currency Equivalents**  
(As at date, Oct. 31, 2023)

Currency Unit – Indonesian Rupiah (IDR)  
IDR1.00 = USD0.000063  
USD1.00 = IDR15,854  
USD1.00 = EUR0.9377

**Borrower’s Fiscal year**  
January 1 – December 31

**Abbreviations**

ACS	acute coronary syndrome	LTS-LCCR	Long-Term Low Carbon and Climate Resilience Strategy
ADB	Asian Development Bank	MDB	Multilateral Development Bank
AIIB	Asian Infrastructure Investment Bank	MoH	Ministry of Health
ASPAK	Aplikasi Sarana Prasarana Alat Kesehatan	NCD	non-communicable disease
Bappenas	Ministry of National Development Planning	NIE	Nomor Ijin Edar
cath lab	catheterization laboratory	OHS	occupational health and safety
COVID-19	Coronavirus disease	OOP	out-of-pocket
CPMU	Central Project Management Unit	PMU	Project Management Unit
EIRR	economic internal rate of return	POM	Project Operations Manual
ENDC	Enhanced Nationally Determined Contribution	Posyandu	mobile clinics (Pos Pelayanan Terpadu)
ES	environmental and social	PP	Procurement Plan
ESCP	Environmental and Social Commitment Plan	PPM	Project-affected People’s Mechanism
ESF	Environmental and Social Framework	PPP	Policy on Prohibited Practices
ESP	Environmental and Social Policy	PPSD	Project Procurement Strategy for Development
ESMF	Environmental and Social Management Framework	PT	Project Team
ESSs	Environmental and Social Standards	Puskesmas	community health clinics (Pusat Kesehatan Masyarakat)
EUR	Euro	Pustu	auxiliary health posts (Puskesmas)
GDP	Gross Domestic Product	RENSTRA	Rencana Strategis Kementerian Kesehatan Tahun

Gol	Government of Indonesia	RPJMN	Rencana Pembangunan Jangka Menengah Nasional
GRM	Grievance Redress Mechanism	RPJPN	Rencana Pembangunan Jangka Panjang Nasional
HTA	Health Transformation Agenda	SC	Steering Committee
HRH	Human Resources for Health	SEP	Stakeholder Engagement Plan
IDR	Indonesian Rupiah	TCO	Total Cost of Ownership
IEC	International Electrotechnical Commission	ToR	Term of Reference
IsDB	Islamic Development Bank	USD	US Dollar
ISO	International Organization for Standardization	VfM	Value for Money
JKN	Indonesian National Health Insurance System (Jaminan Kesehatan Nasional or JKN)	WB	World Bank

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## 1. Summary Sheet

Project No.	P000787-IDN
Project Name	Modernization of the Health System
AIIB Member	Republic of Indonesia
Borrower	Republic of Indonesia
Project Implementing Entity	The Ministry of Health
Sector	Health Infrastructure
Sub-sector	NA
Project Objective	To increase the availability of functional equipment in public health facilities and improve the utilization of public health services across Indonesia.
Project Description	The Project comprises three components to close the medical equipment gaps nationwide: (i) a primary care component at the three levels of primary care facilities; (ii) a referral network component at the three levels of hospital care; and (iii) a public health laboratory component in Indonesia.
Implementation Period	Start Date: Jan.1, 2024 End Date: Dec. 31, 2028
Expected Loan Closing Date	June 30, 2029
Cost and Financing Plan	Project Cost: EUR3,731 million  <u>Financing Plan:</u> AIIB: EUR936 million WB (Lead Cofinancier): EUR1,392 million IsDB (Parallel Cofinancier): EUR793 million ADB: EUR610 million
Size and Terms of AIIB Loan	EUR936 million.  Final maturity of 16.5 years, including a grace period of 7 years, with level repayments at AIIB's standard interest rate for sovereign-backed variable spread loans.
Environmental and Social Category	WB's Category "Moderate" (equivalent to AIIB's Category B under AIIB's Environment and Social Policy (ESP)).
Risk (Low/Medium/High)	Medium
Conditions of Effectiveness	(i) WB's financing agreement has been executed, and all conditions to its effectiveness (apart from the effectiveness of AIIB's loan agreement) have been met, and (ii) the Colenders' Agreement has been executed on behalf of AIIB and WB, and all conditions precedent to its effectiveness (except for the effectiveness of AIIB's loan agreement) have been satisfied.
Key Covenants	<ul style="list-style-type: none"> <li>Ensure that the Project is carried out in accordance with the Environmental and Social Commitment Plan.</li> <li>All goods, works, consulting services and non-consulting services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the applicable requirements set forth or</li> </ul>

	referred to in Co-financier's Procurement Regulations.
Retroactive Financing (Loan % and dates)	NA
Policy Assurance	The Vice President, Policy and Strategy, confirms an overall assurance that AIIB is in compliance with the policies applicable to the Project.
Economic Capital Consumption	EUR107.5 million (13.66%)
Project Approval (Board/President)	Board of Directors
President	Jin Liqun
Vice President	Urjit Patel
Director General	Hun Kim
Team Leader	Zhaojing Mu, Senior Operations Management Officer
Team Members	Askar Mulkubayev, Investment Associate David Hartcher, Senior Finance Officer Kezia Paladina, Associate Counsel Nurul Mutmainnah, Financial Management Associate Odil Akbarov, Social Development Specialist Rizal Rivai, Procurement Consultant

## 2. Project Description

### A. Context

1. **Country Context.** Spanning 5,100 km from west to east, with a population of over 273 million people, Indonesia is the largest and most populous archipelagic nation in the world. Since 2000, Indonesia has achieved impressive economic growth. In the past two decades, Indonesia's Gross Domestic Product (GDP) grew by an average of 5.4 percent per year, allowing the country to briefly graduate to an upper-middle income country status in 2019. However, due to the effects of the Coronavirus disease (COVID-19) pandemic, Indonesia was reclassified as a lower-middle-income country in 2021. Driven by rising coal and palm oil prices coupled with economic revitalization following COVID-19, Indonesia experienced a robust economic resurgence in 2022.

2. Indonesia undertook a process of decentralization in the 1990s. Although granting wide-ranging autonomy to Indonesia's subnational governments, decentralization has also led to significantly varied administrative and fiscal capacities of subnational governments. As a result, there are often substantial discrepancies between the policies, standards, and protocols developed at the national level and the subsequent implementation at the subnational level. At the same time, wealthier regions generally possess a higher capacity to rapidly implement centrally introduced policies, compared to lower-income regions in the East. Against this backdrop, it has been difficult for the Government of Indonesia (GoI) to achieve economic growth equitably across the nation.

3. **Sector Context.** The GoI has significantly improved health indicators, such as life expectancy, under-five mortality, infant mortality, etc. However, Indonesia is in the midst of a demographic shift along with social and economic transitions. These macro-transitions have led to an epidemiological change characterized by an increase in non-communicable diseases (NCDs), such as stroke, heart disease, and cancer. The rise of NCDs alongside the ongoing infectious disease issues, as well as enduring challenges related to maternal and child health, and the dual issues of undernutrition and overnutrition, are placing a compounded strain on the country's health system. The health system needs to re-orient towards the emerging demographic and epidemiologic transitions while addressing the issues of geographic disparities.

4. Indonesia faces key gaps in women's and men's health endowments. On the Global Gender Gap Index Ranking, Indonesia scores 0.97 on its Health and Survival Index, which puts it 77<sup>th</sup> on global rankings, above the regional average of 0.95. However, at 173 deaths per 100,000 live births, Indonesia's maternal mortality ratio remains significantly higher than the average for the East Asia and Pacific region of 77 deaths per 100,000 live births. Likewise, it compares unfavorably in life expectancy and infant, under-five, and neonatal mortality, pointing to an urgent need for improved mother and child health services. The low availability, quality, and utilization of essential health services for women and men respectively is a key driver of late diagnoses and poor outcomes.

5. Indonesia has implemented a three-level healthcare system consisting of primary, secondary, and tertiary levels, which also provides a referral mechanism

between the different tiers. As a result of the government's efforts to improve the health infrastructure, the primary healthcare networks have grown to encompass around 10,000 community health clinics (Pusat Kesehatan Masyarakat or Puskesmas), in addition to more than 3,000 hospitals. The rapid expansion of hospitals and other health centers in Indonesia has intensified the demand for medical equipment. Such equipment serves as a pillar to and is an integral component of the modern health system, facilitating comprehensive healthcare, including preventive, diagnostic, and treatment care. The Indonesian health system needs to be improved by incorporating a broader range of medical equipment for essential care in Puskesmas as well as advanced medical equipment for high-quality services in the referral system.

6. Led by the Ministry of National Development Planning (Bappenas), Indonesia is currently following a 20-year development plan, Rencana Pembangunan Jangka Panjang Nasional (RPJPN), spanning from 2005 to 2025. It is detailed into five-year medium-term development plans, i.e., Rencana Pembangunan Jangka Menengah Nasional (RPJMN), with different priorities at each development stage. The current RPJMN IV (2020-2024) is the last phase of the 20-year plan, aiming to further bolster Indonesia's economy by enhancing the country's human capital and competitiveness in the global market. In line with the RPJPN, Indonesia has a 2005-2024 health strategy. The Ministry of Health (MoH) has formulated its own five-year strategic plan called Rencana Strategis Kementerian Kesehatan Tahun (RENSTRA) containing the vision, mission, strategic goals and objectives, development programs, and activities. The current iteration, RENSTRA 2020-2024 places a strong focus on health transformation through strengthening the provision of medical equipment. So far, progress has been slower than expected, hindered by factors such as geographic disparities, a decentralized health system, and underfinancing with a total health expenditure of around three percent of the GDP.

## **B. Project Overview**

7. **Project Objective.** To increase the availability of functional equipment in public health facilities and improve the utilization of public health services across Indonesia.

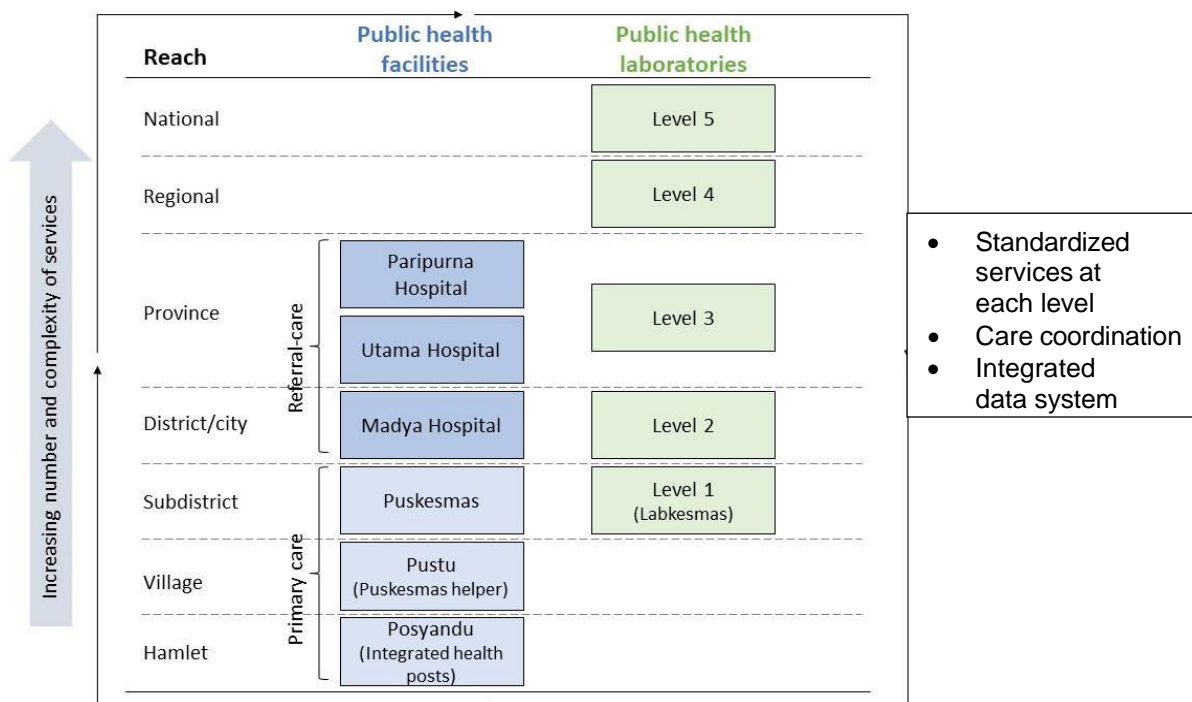
8. **Project Description.** Health has been set as a priority in Indonesia's national development agenda. The Gol is committed to implementing the health system transformation under the RPJMN for 2020-2024 in line with the vision to create healthy, productive, and independent people. Accordingly, the MoH has been implementing the Health Transformation Agenda (HTA) (2021-2024) to provide equitable and high-quality care and to cope with emerging health shocks that require surge capacity and a performant referral system, in response to the pressing gaps in the Indonesian public health system, which proved to be inadequate during the COVID-19 pandemic. The HTA has six pillars, (i) primary care transformation; (ii) secondary care transformation; (iii) health resilience transformation; (iv) health financing and system transformation; (v) health workforce transformation; and (vi) health technology transformation. The approach to public health has been towards methods of prevention and promotion to improve the quality of life and productivity of the Indonesian public. Essential to this approach is the integration and standardization of all levels of the Indonesian public health and surveillance systems.



9. The COVID-19 pandemic not only exposed, but also exacerbated significant shortcomings and spatial and socioeconomic inequities in Indonesia’s public health system, which need to be urgently and comprehensively addressed. To further optimize the HTA and ensure an equitable improvement in health service delivery across Indonesia, a nationwide in-depth needs analysis was completed by the MoH in 2022, covering all 514 district/city health offices including 532 hospitals, 9,821 Puskesmas, 419 pharmacies, 411 doctor practices, 402 midwife practices, 403 independent laboratories, and 417 clinics. This analysis identified two major gaps preventing the Indonesian health system from delivering quality services: insufficient availability of health equipment for carrying out necessary services, and a shortage of Human Resources for Health (HRH) that are fully trained to deliver standardized, quality care and operate necessary equipment. To close the gap in healthcare equipment at these facilities, a total of nearly USD4 billion will be required for equipment delivery.

10. To this end, the Project is designed with three components (Figure 1) to close the identified equipment gaps, comprising: (i) a primary care component at the three levels of primary care facilities in Indonesia: mobile clinics (Pos Pelayanan Terpadu or Posyandu), auxiliary health posts (Puskesmas Pembantu or Pustu), and Puskesmas, including the Tier-1 public health laboratories in the Puskesmas (i.e. subdistrict level); (ii) a referral network component at the three levels of hospital care in Indonesia: Madya (basic level of accreditation by the MoH), Utama (mid-level of accreditation by the MoH), and Paripurna (high level of accreditation by the MoH) hospitals; and (iii) a public health laboratory component at Tiers 2, 3, 4, and 5 laboratory facilities in Indonesia. AIIB’s loan will finance the first two items, i.e., primary care and referral network components.

**Figure 1: Project Structure of Public Health Facilities and Laboratories**



11. On gender, the Project seeks to address persistent gaps around access to reproductive health services in Indonesia, which have contributed to a high Maternal Mortality Ratio. Conditions such as anemia, hypertension, and gestational diabetes are

identifiable and treatable in pregnant women through routine screenings but are highly associated with maternal mortality and morbidity if left untreated. However, many health facilities lack the equipment necessary to carry out these screenings. The Project will seek to address this gap by procuring equipment needed to screen for high-risk pregnancies. Further detail on the gender gap assessment and gender entry points is captured in Annex 6.

12. **Expected Results.** The Project with an unprecedented one-time investment in medical equipment will accelerate the transformation of the public healthcare system into a modernized network with upgraded equipment to deliver quality health and laboratory services nationwide equitably and reduce the gaps of access in the vast archipelago. The nationwide focus, with especially targeting rural and remote areas, also ensures that persisting geographic gaps in health service quality and health outcomes can be eliminated, in line with the HTA objective to provide equitable and high-quality medical care.

13. The anticipated key result involves outfitting health facilities with a fully installed set of equipment as per the benchmarks set under the HTA. The intermediate results and indicators, such as timely delivery of key equipment types and a management system to track equipment performance, etc., have been concluded and are presented in Annex 1 as agreed with Gol counterparts.

14. **Expected Beneficiaries.** The Project is a nationwide effort to offer upgraded quality health services to the widely dispersed population of 273 million including the underserved communities across the entire archipelago. The primary beneficiaries are all Indonesians, while targeted beneficiaries include 43 percent of the populations living in remote areas, as the enhanced accessibility not only enables individuals in remote areas to receive timely medical care but also fosters an equitable distribution of healthcare resources through the health insurance schemes, ensuring that quality care is available to all. The upgraded health equipment and services available to primary healthcare facilities and referral hospitals will facilitate easier access by communities for early detection and timely intervention for leading fatal diseases in Indonesia, including cancer, heart, and stroke. Lower-income families in poorer and less accessible communities will be major beneficiaries under the Project with their easier access to improved identification, intervention, and preventive medical services contributing to an overall higher level of community healthcare coverage in the country.

15. The Project also makes a sizeable contribution to gender equality by addressing critical gender gaps in the area of maternal health services, namely low levels and quality of high-risk pregnancy screening and high adolescent anemia rates by equipping primary care facilities with the requisite medical equipment to identify high-risk pregnancies and anemia. Gender gaps and barriers also remain around the detection and treatment of cancer, with low outcomes in both men and women. Procuring cancer screening equipment through the Islamic Development Bank (IsDB) parallel loan to fill these gaps is an essential part of the Project. Closing gaps in women's endowments in health will contribute to reduced female mortality, improved maternal and child health, and nutrition, as well as better child development outcomes.

16. The gender indicators include, for instance, the percentage of adolescent girls tested for anemia in the target facilities. In addition, gender disaggregation will be done to monitor gender inclusiveness under the Project, including (i) the number of annual outpatient visits, disaggregated by gender; and (ii) the percentage of under-5 children, receiving growth monitoring and promotion services.

### **C. Rationale**

17. **Alignment with Country Priorities.** The decentralized system in Indonesia stimulated economic growth by empowering the autonomous local governments to regulate, plan, and budget with local responsibility and ownership. However, it also fragmented the health system with the disconnect between the MoH and local health authorities. In particular, preventive and promotive programs are often neglected by the local authorities, often under the belief that funding for these initiatives should come from the central budget. Health promotion aimed at raising awareness and facilitating early detection becomes more relevant as the prevalence of NCDs increases. Commitment to preventive and promotive efforts can also avoid future health financing burdens from the potential long-term curative care. Therefore, the primary health centers, which serve as the first line of community healthcare should be further strengthened to prioritize preventive and promotive interventions. The Project will provide the necessary equipment upgrades and supplies in the primary health centers and strengthen the connection to the medical laboratories to improve early screening and detection capacities.

18. The Project will introduce more sophisticated equipment into the referral system to address the major challenges posed by leading NCDs. Taking cardiovascular disease as an example, the healthcare infrastructure in Indonesia is weak, the number of cardiologists is low, and access to quality and timely medical care is still a big challenge. According to the Indonesia Basic Health Research General Statistics, acute coronary syndrome (ACS) numbers are increasing dramatically in all provinces of Indonesia, with up to a 90 percent increase in prevalence expected within 10 years. The number will remain high, as one-third of the population will be aged over 45 in the next 10 years, resulting in a higher prevalence of ACS. ACS is a life-threatening NCD, and its effective treatment depends upon the catheterization laboratory (cath lab), as evidenced by reduced mortality and morbidity in patients receiving this treatment. There are over 300 cath labs in Indonesia, which is far below the British Cardiac Society Guidelines recommended ratio of one cath lab per 400,000 population. There are also area inequalities across the country with densities of cath labs ranging from 0 in West Papua and Maluku to 4.46 in Jakarta. The disparities in cardiovascular care within primary and secondary healthcare, particularly in rural and remote areas, lead to insufficient capacity to accommodate the increased rate of ACS in Indonesia. Consequently, most of these patients are concentrated in urban secondary care or tertiary hospitals, causing long waiting lists. The Project will double the number of cath labs to significantly improve accessibility and equality across the country. As a systemic approach, the accessible and affordable cardiovascular care at Puskesmas will be strengthened by adding ambulatory electrocardiography and standardized laboratory checks.

19. Realizing the complexity of the health challenges in Indonesia and the urgent need to promptly respond to such issues and support the HTA in RENSTRA 2020-2024

through strengthening the provision of medical equipment, the Project was prioritized and included in the 2023 revision by Bappenas of the medium-term list of projects to be funded by foreign/external loans for the 2020-2024 period, widely known as the Blue Book. Moreover, the project components focusing on primary care centers, hospitals, and public health laboratories are also included in Bappenas' 2023 List of Foreign Loan Priority Plans, widely known as the Green Book.

20. **Strategic fit for AIIB.** The Project aligns with three thematic priorities under the Corporate Strategy and two sector strategies.

21. **Thematic Priority Alignment.** Due to the demographic and epidemiological transitions, Indonesia is experiencing the double disease burdens of communicable diseases and NCDs. Stroke has become the leading cause of death in Indonesia, followed by ischemic heart disease, and diabetes. The Project strongly aligns with AIIB's thematic priority on technology-enabled infrastructure. Medical equipment, often undervalued, represents an integral facet of healthcare infrastructure. Just as buildings and clinics stand as cornerstones of the health system, these modern apparatuses, with life spans of up to 20 years, play an indispensable role in health service delivery. Their value is underscored by their consistent operational use and their pivotal position within healthcare establishments. The Project will introduce modern technologies to further streamline the diagnostic process and enable early detection and intervention of the leading fatal diseases. The wider adoption of innovative medical technology supported by capacity building and effective implementation efforts will contribute to the improvement of population health.

22. On green infrastructure, the energy efficiency of the equipment in line with Energy Star efficiency standards and the International Electrotechnical Commission (IEC) energy efficiency standards for medical equipment will be included in the equipment specifications. Adopting the best available energy efficiency technology that matches or even surpasses country-appropriate technology benchmarks in performance, will ensure full alignment with Criteria 9.5 of the Multilateral Development Bank (MDB) Mitigation Finance Methodology, as well as with Indonesia's 2022 Enhanced Nationally Determined Contribution (ENDC) and the Long-Term Low Carbon and Climate Resilience Strategy (LTS-LCCR) 2050 with a vision to achieve net-zero emission by 2060 or sooner.

23. **Sector Strategy Alignment.** The Project will significantly improve the operational efficiency of existing health infrastructures in urban settings in Indonesia by enhancing healthcare delivery, thus contributing to the resilient, accessible, and thriving objectives of the Sustainable Cities Strategy. The Project is aligned with the Digital Infrastructure Strategy given that it supports the adoption of digital technologies, such as digital diagnostic devices to increase the efficiency of the health delivery system. By addressing gender gaps in health endowments, the Project also aligns with Corporate Strategy commitment to enhance gender equality in Asia.

24. **Paris Agreement Alignment.** The Project is aligned with both the Paris Mitigation goals (BB1) and Paris Adaptation goals (BB2). The Project aligns with Indonesia's 2022 ENDC and the LTS-LCCR 2050. This will be achieved by ensuring robust energy efficiency and disaster resilience of the equipment, according to strict

Energy Star- and IEC energy efficiency standards. The Project seeks to reduce the potential health-related losses in alignment with Indonesia's National Adaptation Plan's health sector infrastructure and technology objectives to ensure increased health facility capacity and improved data and information systems, and to ensure Paris Agreement Alignment.

25. **BB1.** All the activities financed under this operation are related to the medical equipment deployment for health facilities in Indonesia. None of the equipment proposed to be procured will be powered by fossil fuels, but by electric alternatives and thus are considered universally aligned under the category of human health and social work activities. In addition, the Project not only minimizes the risk of additional greenhouse gas emissions stemming from the health sector through the provision of equipment to public health and laboratory facilities following IEC and Energy Star energy efficiency standards in line with ENDC and LTS-LCCR objectives. Thus, the operation is not at a material risk of having a negative impact on Indonesia's low-GHG-emissions development pathway and is considered aligned.

26. **BB2.** The Project procures equipment with technical specifications tailored to the Indonesian context, including its climatic conditions, that is set to strengthen the capacity of Indonesia's health system to diagnose and treat an important set of climate-related conditions. Moreover, while the Project does not fund civil works, the infrastructure facility readiness criterion requires facilities to meet validated Gol infrastructure standards prior to the delivery and installation of equipment, which addresses the moderate risks identified through the Project's Climate and Disaster Risk Screening and removes the need for storage prior to equipment installation. Moreover, the introduction of telemedicine specifications in the equipment allows continuous service delivery during climate shocks, with facilities better equipped to meet new disease patterns. Thus, risks from climate hazards have been reduced to an acceptable level and the operation is considered aligned.

27. **Value addition by AIIB.** AIIB's loan proceeds will focus on primary healthcare to improve accessibility to low-income groups. AIIB's investment in the referral system will also strengthen health systems, bring in efficiencies in procurement, and enable long-term effective management of high-value medical equipment to enable quality healthcare. AIIB co-led the Project with the World Bank (WB) and other participating MDBs in conducting the medical equipment market analysis, given AIIB's strengths in market intelligence, such as med-tech and its price benchmarks in other geographies, gained through non-sovereign operations in medical products. AIIB's focus on project financing will also add complementary value to project preparation and implementation, as other cofinanciers' health portfolios have been mostly policy-based financing or result-based financing in Indonesia. Lastly, AIIB will also bring value in coordination and harmonization. AIIB has substantial cofinancing operations with WB and the Asian Development Bank (ADB), and a Memorandum of Understanding with IsDB. The good relationships will enable a harmonized approach to process and implement the Project at an unprecedented scale in a smooth and efficient way.

28. The main activity of the Project is the deployment of modern medical equipment, with explicit attention to the cross-cutting themes of gender, digital technology, and climate change. AIIB adopts global procurement, which allows the Bank to provide the

country with the best options for world-class equipment. Another activity of the Project is capacity building, as the strengthening of capacities, and training programs in less developed regions will be critical to ensuring health inequities are addressed. AIIB will share and exchange med-tech knowledge, especially the market practices on volume-based procurement through various joint workshops and roadshows, in addition to in-service training and knowledge programs.

29. **Value addition to AIIB.** The Project, which aims to strengthen the supply-side readiness of Indonesia's health system, will generate positive economic impacts both nationally and subregionally because of the close linkages with Indonesia's leadership in the areas of pandemic preparedness. The laboratory strengthening component will improve testing, detection, and prevention of new or reemerging pathogens thus enabling early detection and control of potential pandemics which can be shared with neighboring countries. Considering the unprecedented scale, the Project will also provide AIIB with a compelling example of an investment in public goods that generate strong positive externalities, e.g., boosting productivity and adding to economic output at the national and regional levels. Furthermore, as highlighted by the World Health Organization, NCDs have become a growing concern for many members due to changing lifestyles, aging populations, urbanization, and other factors. The experience of improving the early detection, diagnosis, and treatment equipment and skills will also be applicable to other countries.

30. In addition, during Project implementation, in partnering with the private sector for equipment operation and maintenance, AIIB will attempt to further leverage both the sovereign and nonsovereign operations to support the establishment of medical products cluster and support joint ventures or foreign investors to invest in the localization of medical equipment and devices in Indonesia. This will broaden and deepen AIIB's future operations in other productive sectors. Lastly, the Project is an important complement to the existing COVID-19 loans to Indonesia, diversifying the sector exposure.

31. **Lessons learnt.** At the sector level, an important lesson learned is how to align the national and local levels of priorities in health to deliver an integrated health system in a decentralized ecosystem, especially in terms of planning responsibility. The COVID-19 emergency loans provided opportunities to look into the health systems in Indonesia. Indonesia is well known for its decentralized system, with the responsibilities for the provision and management of public health services falling under the local governments. There is often an uneven allocation of health resources among provinces. The pandemic further exacerbated significant inequities in Indonesia's public health system. To address the lessons learned through the pandemic response, including the shortage of equipment in primary healthcare centers and limited laboratory services, it is important for public healthcare centers and laboratories to have the appropriate equipment, facilities, and HRH with the competent skillsets to detect disease and risk factors accurately and in a timely manner. In this context, the MoH has carried out a comprehensive gap assessment and developed a detailed plan to deliver the necessary equipment and HRH to provide a standardized service for every level of the laboratory system.

32. At the project level, one important lesson from previous medical equipment project design is lacking the concept of Total Cost of Ownership (TCO), which counts

the total cost of equipment during the complete equipment life cycle. Considering only the purchase price and delivery cost in medical equipment purchase decisions will not maximize Value for Money (VfM). Comparison of the TCO of different equipment types, models or ownership models is critical for value-based procurement decision-making. VfM is ensured when medical equipment with a lower TCO is ranked higher over equipment that offers a lower initial purchase price but has a high TCO over the equipment's lifetime. Central planners need to account for indirect costs related to installation, operation, maintenance, and disposal. Relying on TCO in the central planning of medical equipment procurement will ensure reliable access to functional medical equipment and patient benefits. These considerations improve the sustainable use of medical equipment, enhance the budgeting process, and strengthen the life cycle planning for installation, maintenance, and safe disposal of the equipment at the end.

#### **D. Components**

33. The Project aligns with the MoH's HTA and focuses on the equipment and related services components for public primary healthcare, referral hospitals, and the health laboratory. The Blue Book and Green Book components have the same breakdown into a public primary care, referral hospital, and health laboratory component, as reflected in the issued Daftar Kegiatan (letter No. B-971/D.8/PD.01/11/2023) by Bappenas, dated Nov. 3, 2023

34. **Component A** SOPHI (Strengthening of Primary Healthcare in Indonesia). Procurement, installation, operation, and maintenance of equipment for promotive, preventive, and curative care to primary care facilities across Indonesia. This component seeks to increase public access to quality primary health services throughout Indonesia, through (i) Supporting the transformation of primary care and health resilience systems through the transformation in the field of public health laboratories (labkesmas); (ii) Increasing the equity and quality of primary health services throughout Indonesia; (iii) Strengthening the detection capacity of laboratory systems at the puskesmas level (labkesmas Tier 1) to improve Indonesia's Pandemic Preparedness and Response and NCDs; and (iv) Other strategic objectives include sectoral, regional, beneficiary, and linkages with other programs.

35. **Component B** SIHREN (Strengthening Indonesia's Healthcare Referral Network). Procurement, installation, operation, and maintenance of equipment for NCDs to referral hospital facilities across Indonesia. This component seeks to (i) strengthen the health referral service system in Indonesia physically and service capacity by providing quality and equitable access to health in all districts/cities and provinces in Indonesia, including in dealing with health emergencies and pandemics, and (ii) Reducing the number of cancer, heart disease, Stroke, Urology, Maternal and Child Health in Indonesia.

36. **Component C** InPULS (Indonesia Public Laboratory System Strengthening). Procurement, installation, operation, and maintenance of energy-efficient equipment. This component seeks to fulfill the equipment needs of labkesmas Tier 2-5 and increase the ability of employees to operate laboratory equipment so that they can support the strengthening of labkesmas in carrying out 14 functions according to the World Health

Organization standards in the context of disease prevention and control as well as improving public health efforts.

37. The AIIB loan will support Component A SOPHI and Component B SIHREN in cofinancing with WB, IsDB (in parallel), and ADB. The Project financing plan is shown in Table 1. Explicit counterpart funding is not envisaged by the project, however, Gol will provide in-kind contributions, such as infrastructure site readiness works (electricity, water, etc.), medical staff, and staff for project implementation units. The in-kind contribution will be ensured through the Gol's annual fiscal budgeting and site readiness will be monitored to match the equipment delivery plan.

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

Item	Project Cost (EUR million)	Financing (EUR million)			
		AIIB	WB	IsDB	ADB
Component A SOPHI	1,488	487	667	0	334
Component B SIHREN	1,691	449	449	793	0
Component C InPULS	552	0	276	0	276
Grand Total	3,731	936	1,392	793	610

## E. Implementation Arrangements

38. **Implementation period.** January 2024 to December 2028.

39. **Implementation readiness.** The implementing agency of the Project is the MoH, which has been applauded for its successful response to the COVID-19 pandemic and has a proven track record of successful implementation of several large foreign loans. MDBs' joint scoping mission, preparation mission, and appraisal mission were conducted from May 29 to June 13, from Aug. 21-25, and from Oct. 2-6, 2023, respectively, with participants from all four cofinanciers and the Gol counterparts. All parties agreed on the Project preparation timeline and harmonization approach. The detailed arrangements are explained below.

- (i) **Policy and institutional arrangements.** The MoH will head a high-level Steering Committee (SC) to guide the Project implementation. Other SC members will include the Minister of Finance, Bappenas, the MoH management, and the participating MDBs. The SC will provide overall strategic guidance, discuss progress, and solve challenges the Project faces in any key area during implementation, meeting at least once every six months. The broad scope of work and composition of the SC will be agreed upon at Appraisal.
- (ii) **Project implementation plans and project operations manual (POM).** The Project involves extensive coordination at the central and local levels for efficient and timely procurement, distribution, and management of equipment. To achieve a harmonized and unified MDB approach, and significantly reduce coordination time and cost for the Ministry, an MoH- MDB Secretariat has been established, which will be continued throughout implementation. This Secretariat will:
  - a. Serve as the single, joint interface between the MoH and MDBs, where MDBs can provide updates to the MoH on their internal progress and collaboration, including through joint workshops and missions, with



particular focus on preparation and procurement, safeguards, fiduciary, and apex-level requirements.

- b. Serve as the single, joint interface between the MoH and MDBs, where the MoH can provide updates to and guide MDBs on Project preparation and implementation.
- c. Act as the dedicated communication platform for MDBs to raise and resolve queries to ensure a coordinated approach with the MoH.
- d. To mitigate implementation risks, MDBs are committed to supporting GoI in capacity building for project management and implementation. The agreed project management setup will include a Central Project Management Unit (CPMU) and Central Procurement Unit under the Secretary-General, MoH.
- e. An SC, consisting of all relevant ministries, MDBs, and subnational authorities, will oversee and advise on Project implementation.
- f. Each Project component – SIHREN, SOPHI, and InPULS – will have a separate Project Management Unit (PMU), supported by an MoH-staffed technical working group for day-to-day activities. MDBs will provide TA to the relevant MoH Directorates-General. As part of project preparation, a draft POM, which describes implementation arrangements in detail, has been developed by MoH with WB's support by the Project negotiations.
- g. To overcome the disconnection with local health authorities, both CPMU and PMU will establish working-level relations with all regions involved in the project.

The PMU for SIHREN will be led by the Directorate General of Health Services (Pelayanan Kesehatan or Yankes), while the PMUs for SOPHI and InPULS will be led by at Directorate Generals of Public Health (Kesehatan Masyarakat or Kesmas). The CPMU will therefore integrate the relevant Directorates-Generals within the MoH to ensure steady progress to achieve the Project objective, while three PMUs will ensure close collaboration and coordination among other units.

A detailed Project implementation arrangement is being agreed for overall responsibility and accountability of the Project. All the arrangements will be further elaborated in the POM to fully cover the implementation and accountability.

- (iii) **Procurement arrangements.** In accordance with AIIB's agreement with the WB, the components jointly co-financed with the WB (i.e., SOPHI and SIHREN) will be procured in accordance with the WB Procurement Policy in Investment Project Financing (November 2017), WB Procurement Regulations for Investment Project Financing Borrowers (September 2023), the provisions stipulated in the Loan Agreement and the provisions of the Procurement Plan (PP).

The indicative procurement information for AIIB-financed components includes:

SOPHI: The procurement under this Component will cover medical devices for Puskesmas, Pustu, and Posyandu in all provinces and districts/cities in Indonesia, and is expected to be based on the following sets:

- a. Puskesmas: Elderly Health Set; Dental Set; Immunization Set; Child Health Set; Maternal and Neonatal Health Set; Laboratory Set; Inpatient Set; General Set; Pharmaceutical Set; Emergency Set, etc.
- b. Pustu: Screening kit and essential kit (blood pressure, thermometer, and waist circumference)
- c. Posyandu: essential kit (Blood pressure, thermometer, and waist

circumference)

SIHREN: The procurement under this Component will cover medical equipment to referral hospitals in 22 Technical Implementation Unit (Unit Pelaksana Teknis, UPT) vertical hospitals owned and operated by the central government, 49 Regional Public Hospitals (Rumah Sakit Umum Daerah, RUSD) owned and operated by provincial governments, 490 District Public Hospitals owned and operated by districts/cities governments. The equipment will be for the following disease group categories:

- a. Cardiac: Cardiac Ablation 3D, Echocardiography, Fractional flow reserve, Rotablator, Surgery set, etc.
- b. Cardiac/Stroke: Cath lab, Magnetic Resonance Imaging, etc.
- c. Stroke: Highspeed surgical driller, Neurosurgery Microscope, etc.
- d. Urology: C-Arm, Holmium Laser, Basic endourology set, Pediatric endourology set, etc.

The WB Project Procurement Strategy for Development (PPSD) and PP were received, reflecting the market response from the vendor conference conducted on Sep. 29, 2023. The PPSD and PP will be updated annually, or as needed during Project implementation to reflect the Project needs, improvements in institutional capacity, and adjustments in procurement risk. The PP will also be published on the website of the United Nations Development Business and on the Bank's project website.

The procurement method and market approach are determined based on:

- a. Market analysis (i.e., market structure, supplier specialism, and cost competitiveness);
- b. Market engagement strategy (including pre-market engagement);
- c. Procurement risk analysis (including complexity and criticality of the procurement and whole-life cost analysis). As per WB's policy, starting from Sep. 1, 2023, for all open international competitive procurement method, it is mandatory to use of Rated Criteria as the default evaluation approach by considering economy, social and/or environmental aspects and this should be reflected in PPSD.

Based on the medical equipment inventory identification above, it is observed that medical devices and equipment intersect with all three components of the Project. Many types of equipment are commonly used among the SOPHI, SIHREN, and InPULS components. Therefore, the procurement packaging arrangement is grouped on the basis of one or more of the followings: a. type/set of equipment, b. type of facility level, c. geographical considerations, and/or d. type of suppliers/manufacturers, using the standard technical specifications as determined by the MoH. Such centrally grouped procurement packages would deliver considerable cost savings to the GoI as this would offer considerable volume discounts and economies of scale. The procurement Contract will include the supply and delivery of the required goods/equipment, as well as the maintenance and operational costs, and specify uptime targets. This will ensure avoiding equipment downtime and poor operation.

Accordingly, the amount of the contract package will be large (ranging from around USD200,000 up to USD493 million per single procurement package), and the procurement will be following the international open competitive tender as the default method. There will be high-value contracts (above USD50 million) for procurement of large medical equipment under the project such as cath lab, echocardiography set endourology, CT Bundle, Radiography Bundle, Radiation

Oncology, Immunohistochemistry Set, etc. Low-value goods and equipment contract packages below USD10 million may be procured following the Government of Indonesia's Procurement Regulations set out to follow Presidential Regulation (Perpres) No. 16/2018 as amended No. 12/2021, acceptable to the Bank, and the harmonized bidding documents, acceptable to the Bank, will be used.

Procurement will be done on lot basis, and in batches based on the readiness of the particular procurement lots. Advance procurement actions will be carried out in 2023 to the extent possible for the first batch of procurement, which will consist of several lots of equipment under SIHREN. It is expected that the last batch of procurement will be done in Q1/2024. The contracts will be implemented and delivered in several stages during the project implementation based on the readiness of the facilities. A fourfold set of facility readiness criteria was confirmed to determine whether facilities are eligible to receive, operate, and maintain the allocated equipment:

- a. Confirmation of the need for equipment based on current equipment availability and gaps that need to be validated on the ground;
- b. Infrastructure and utility (electricity, water, and internet connectivity, where applicable) availability/adequacy, which will be funded under the government budget allocation and spending;
- c. HRH availability; and
- d. Adequate waste management mechanisms and capacity in place at the facilities. MoH confirmed an enhanced version of the existing ASPAK (Aplikasi Sarana Prasarana Alat Kesehatan – 'E-report application for building, infrastructure, and equipment') system will be the main data source for the regular recording of these readiness criteria, at least once every six (6) months. The enhancement of ASPAK for this purpose, under the responsibility of the Directorate General of Health Services, which includes the development of an offline feature for areas with intermittent internet access, was agreed to be completed by December 2023, which will allow to refine the readiness criteria prior to the signing of the first batch of vendor contracts and monitor readiness throughout the implementation phase.

The bidding process will utilize the Two Envelope System, where suppliers' bid proposals are submitted with the technical and pricing components separated. The first envelope containing the technical proposal will be reviewed by the technical team to assess suppliers' capacity to deliver the required product or service. If the technical proposal meets the requirements, the pricing proposal will be evaluated by a separate team to recommend a supplier for the project.

40. **Monitoring and Evaluation.** Although the MoH has experience in managing asset transfers for its vertical health facilities, the larger scale of this Project will require a more systematic approach. Firstly, the responsibility for delivery and installation of the equipment will be incorporated as conditions of the procurement contract. This will demand strong management and monitoring capacity of the MoH, with monitoring mechanisms to be set up at subnational levels too. In addition, the Project will include indicators in its results framework to ensure the functionality of the equipment during Project implementation, per the Central Government's regulations on asset transfers. This will be particularly important to ensure continued maintenance following the Project implementation period.

41. **AIB's Implementation Support.** Based on the preliminary medical equipment inventory study conducted by AIB, it is observed that medical devices and equipment

to be procured by the MoH are crosscutting the three components of the Project. Many types of equipment are commonly used among the SOPHI, SIHREN, and InPULS components, ranging from beds, lights, anthropometric kits, thermometers, photometers, and personal protective equipment to more expensive items such as refrigerators, freezers, and specialized biomedical equipment such as Doppler ultrasound. Centralized procurement under the Project is thereby projected to deliver considerable cost savings to GoI as this will offer considerable volume discounts and economies of scale.

42. A comprehensive market analysis has been conducted jointly by the MoH, AIIB, and WB, followed by vendor conferences to be arranged by the MoH. The first vendor conference took place on Sep. 29, 2023. This forms the core part of PPSD and subsequent PP to inform fit-for-purpose procurement arrangements and market approaches that will deliver the best VfM and support the Project Objective achievement. The second vendor conference with a tender briefing took place on Nov. 7, 2023. AIIB shared med-tech knowledge through various joint market analysis. The main focus of market analysis is the supply-side study: major players for each piece of equipment, their production capacities, indicative pricing for equipment items, general terms of procurement agreements, technical specifications of equipment, infrastructure requirements for the site to properly install and run the equipment, etc. The indicative equipment list is in Annex 2.

### 3. Project Assessment

#### A. Technical

43. **Project Design.** The centralized procurement of the standardized medical equipment, coupled with its distribution and installation based on the facility readiness, risk exacerbating disparities in the accessibility of essential health services between prosperous and underdeveloped regions due to delayed fulfillment of the facility readiness criteria and subsequent untimely delivery of medical equipment. A key mitigation factor here is the single-phased procurement for each group package, addressing the needs across Indonesia. This approach provides leeway for facilities, especially in rural and remote areas, that may require longer preparation time to meet facility readiness criteria. Drawing from other comparable projects and good international industrial practices, the following mitigation measures are proposed: (i) the large volumes of procured equipment will be bundled into a few, comprehensively packaged lots and sourced from a single vendor, in order to commit vendors to a four-year maintenance period, (ii) the cost of maintenance and operational skills transfer from the vendor to health workers upon installation of the equipment at the facility will be included in the vendor contract, and (iii) the bidding documents will specify the required minimum uptime share and maximum period for repairs for each equipment type by region, thereby committing vendors to certain maintenance and skills transfer objectives in order to receive payments from the Project.

44. **Operational sustainability.** Considering the unprecedented scale of the project for the health sector, there are valid apprehensions about the MoH's implementation capability, particularly in managing the large-volume procurement of medical equipment. The MoH has requested support from MDBs using the Direct Project Financing modality to rely on MDBs' policies and standards protecting large-scale procurement from

possible mishandling. Also, the MoH has accumulated substantial experience in and has a track record of managing foreign loans. MDBs will further enhance the implementation and management capacity through technical assistance and analytical/operational work for capacity strengthening.

45. The assurance of operational sustainability of this suppliers-driven operation is reinforced by Indonesia's stringent vendor registration process, the Nomor Izin Edar (NIE), which ensures comprehensive vendor records, mandates post-market surveillance of responsibilities for vendors/manufacturers, and facilitates the enforcement of stipulated requirements. A complete program of post-market surveillance includes (i) distribution record: for complete and rapid removal of devices in case of problems; (ii) recall procedures: in case of device recall, the procedures are in place and can be implemented; (iii) mandatory reporting: reporting of any adverse events of devices in use; and (iv) complaint handling: procedures and records of reported problems relating to safety or performance. The international quality system standards for medical devices, issued by the International Organization for Standardization (ISO) (ISO13485:1996 and ISO13488: 1996), will allow a belt and braces approach to cover the methods, facilities, and controls used by the manufacturer in the design, manufacture, packaging, labeling, storage, installation, servicing and post-market handling of medical devices. Through this, quality system requirements with the standards of a wide range of specifications for products, processes, and services can influence all phases of the medical device life span.

46. One important aspect of procurement contracts will be the provision of training for medical staff by vendors to ensure sufficient operational sustainability. This will be recorded and monitored in the enhanced centralized information system, ASPAK. The ASPAK will allow monitoring in real-time the functionality of equipment, and timely training, with facilities reporting downtime, and alerting vendors to the need for repairs and/or maintenance. This downtime will be compared to contractually agreed maximum downtime periods (differentiated by device type and geography), and vendors will be penalized for exceeding downtime agreements through reduced payment under the operation and maintenance arrangements. In addition, to ensure smooth and uninterrupted work of proposed medical equipment, MoH will inspect sites and check site readiness criteria, including utility access and infrastructure bandwidth, to accommodate equipment to be procured.

## **B. Economic Analysis**

47. **Economic Analysis.** Expanding access to a core set of integrated interventions for maternal and child health through the provision of needed equipment to primary health centers will generate economic and health benefits valued at 1.8 to 3.3 times greater than the costs of the interventions. The hospital component will make hospitals more accessible, effective, and streamlined, thus leading to improved health outcomes in the population (decreases in mortality and morbidity). Gains from improved health outcomes are in turn expected to ameliorate and build stronger human capital in the country, which is a key driver of economic growth. Expanding access to laboratories and standardizing services will improve public health status, especially by facilitating early disease detection before its progression to a severe stage. A detailed economic analysis of the Project – with conservative estimates – produces a net present value of USD4.5

billion and a benefit-cost ratio of 2.5, meaning that for each USD1 investment through the Project, a return of USD2.5 is expected. The estimation of economic benefits does not account for other indirect benefits from additional local sourcing and employment opportunities from this project, as well as from pandemic prevention and readiness, gains from prevention and early detection of diseases, allocative efficiency gains in the health system, technical efficiency gains in the health system. These results are based on very conservative assumptions and likely underestimate the total project benefits.

48. A benefit-to-cost analysis was conducted to ascertain if the expected benefits from the planned investment outweigh the costs and if the project (both for its SOPHI and SIHREN components) is economically viable. The top-down approach was adopted for this analysis due to the large number and high variety of planned medical equipment and the population diseases. A bottom-up approach would require a substantially higher number of assumptions, for instance, to account for a non-linear connection between better diagnostics and better treatment (e.g., better diagnostics can actually decrease the utilization rate of some equipment), that in the end would not necessarily lead to a more accurate and sound assessment of project’s economic benefits. Other MDBs collectively agreed to adopt the same top-down approach for economic analysis.

49. The economic internal rate of return (EIRR) is estimated to be 17 percent for SIHREN and 22 percent for SOPHI, over the ten years of benefits horizon. This is several times higher than the applied social discount rate of six percent, indicating that the Project is expected to create substantial additional economic value for the country. More detailed methodology and calculations are provided in Annex 3.

50. Sensitivity analysis (Table 2) was conducted to assess the robustness of the project’s economic indicators and its sensitivity to an increase in costs and a decrease in benefits. Even in the case of a 20 percent reduction in benefits, the benefit-cost ratio is expected to be a solid value of 2.0. In terms of EIRR, the lowest number is 12 percent in scenario (3) the EIRR of SIHREN, which is still twice higher than the hurdle rate of six percent; it may be considered a strong result for sensitivity analysis.

**Table 2: Sensitivity Analysis**

<b>Sensitivity scenario</b>	<b>Benefit-Cost ratio</b>	<b>SIHREN EIRR</b>	<b>SOPHI EIRR</b>
(1) Base case	2.5	17%	22%
(2) 10% increase in costs	2.3	15%	19%
(3) 20% increase in costs	2.1	12%	17%
(4) 10% reduction in benefits	2.3	16%	19%
(5) 20% reduction in benefits	2.0	15%	16%

51. The main assumptions of the analysis include:

- (i) The applied discount rate for economic benefits and cost is six percent, which is in line with the Indonesia 10-year Sovereign Eurobond yield at the time of the analysis. WB follows the same approach in choosing a social discount rate of six percent for the economic analysis. It is in line with the empirical estimation of the social discount rate for Indonesia recommended by the ADB

paper<sup>1</sup>.

- (ii) The time horizon of expected benefits is 10 years, which is conservative with an average useful life of the medical equipment of approximately ~11 years. For the first years of project implementation, expected benefits are to be proportional to the accumulated disbursement of project financing.
- (iii) The population growth of Indonesia is assumed to be at a 0.7 percent rate per annum.
- (iv) Medical equipment maintenance costs beyond the project period and within the benefits horizon are assumed to be three to five percent of equipment cost.

### **C. Fiduciary and Governance**

52. **Procurement.** WB Procurement Policy in Investment Project Financing (November 2017), and WB Procurement Regulations for Investment Project Financing Borrowers (September 2023) are determined to be consistent with AIIB Core Procurement Principles and Procurement Standards of AIIB's Procurement Policy (November 2022). Accordingly, the abovementioned WB Procurement Policy and Regulations shall apply to this Project. In accordance with AIIB's agreement with the WB, the WB will take the lead in conducting the procurement review and oversight.

53. WB accepts the National Open Competitive Procurement, which shall be those of the Tender methods as set forth in the Borrower's Presidential Regulation No.16/2018 dated March 16, 2018, as amended No.12/2021 provided that such arrangements continue to meet the following conditions:

- (i) The procurement is open to eligible firms from any country. There shall not be any restriction to bidders' participation including mandatory requirement to form a joint venture;
- (ii) Any gaps between National Procurement Procedures and the Bank's Procurement Regulations will be addressed and incorporated in the harmonized bidding documents acceptable by the Bank.

54. MoH understands that the mandatory requirement of local content is not aligned with the MDBs' core procurement principles and, therefore, cannot be included in the bidding documents. The bidding documents could grant a margin of preference in evaluating bids in open international competitive procurement to bids offering certain goods manufactured in Indonesia when compared to bids offering such goods manufactured elsewhere (Domestic Preference). In addition, some economic aspects in this industry could be considered as part of sustainable procurement. The use of Domestic Preference, economic consideration of sustainable procurement, and the market approach will be determined in the PP.

55. The project relies on transparent, competitive, and cost-effective procurement processes that leverage economies of scale to ensure maximum VfM and economic sustainability. The use of bulk procurement and the inclusion of maintenance services in equipment purchase contracts will help to reduce procurement costs and maximize

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<sup>1</sup> 2007 ADB paper 'Theory and Practice in the Choice of Social Discount Rate for Cost-benefit Analysis: A Survey'.

VfM. By purchasing equipment in very large volumes, significant economies of scale are expected. By bundling the provision of maintenance services, the risk of equipment downtime is minimized, also in remote areas that have been disadvantaged in the health sector. By considering the cost of supplies, consumables, and (software) updates in closed systems, such as laboratory equipment, the effort is to reduce the risk of cost escalation.

56. **MoH Procurement Capacity.** The MoH will be the executing and implementing agency for this Project. The procurement process will be carried out centrally by the MoH Working Unit (Satker) and the Bureau of Procurement (under the Secretariat General of MoH). Based on PPSD, the residual procurement risk is substantial (i.e., Medium in AIIB term). MoH has limited resources and lacks sufficient staff with experience to support this large additional workload and to conduct international competitive procurement, which is anticipated to be the bulk of procurement under the project. Even though the Bureau of Procurement, MoH (staffed with limited resources) has experience in carrying out a large number of packages/contracts under the national budget, it does not have experience in carrying out the procurement process according to the WB Procurement Regulations. The MoH has limited experience in conducting international open competitive procurement of large value activities. For this purpose, the following mitigation is applied:

- (i) A consulting firm was hired under WB's Hands-on Expanded Implementation Support to support MoH during project preparation and project implementation. This could mitigate MoH's immediate technical and procurement capacity constraints and expedite the advance procurement as well as improve the quality and effectiveness of the Recipient's procurement processes through knowledge transfer.
- (ii) A Project Management Consultant will also be hired (under WB financing), including the Procurement Expert who is familiar with procurement under MDB projects, to support the project implementation.
- (iii) MoH will engage the Inspectorate General, MoH, and/or the internal auditor of the Office of the President Indonesia (Badan Pengawasan Keuangan Pembangunan, BPKP) to conduct the probity audit during the procurement process. For this purpose, there will be a Probity Assurance Advisor (international consultant), which will be hired by WB to support MoH and/or the internal auditor of the Office of the President Indonesia.

57. As required under MoH Regulation No.62/2017, all medical devices shall be required to obtain a Distribution Registration Number (Nomor Ijin Edar, NIE). The NIE requirement shall not restrict bidder participation in the bidding process. MoH has agreed that successful bidders shall be given an opportunity to arrange NIE (as appropriate) prior to contract signing on an accelerated timeline, envisaged to be shorter than one month.

58. The following measures are also taken to minimize procurement risks:

- (i) Two rounds of vendor conferences have been arranged to ensure the technical specification and procurement arrangements would attract qualified bidders and to ensure that bidders will propose the most updated equipment in the market.
- (ii) Since one of the readiness criteria is the availability of infrastructure and utility (electricity, water, and internet connectivity, where applicable), which



will be funded under the government budget allocation and spending, accordingly, MoH has coordinated with Bappenas to ensure that such government budget allocation is done on a timely manner and that it can be spent to support the availability of infrastructure and utility as required.

59. The initial PPSD and PP documents covering activities for the first 18 months of project implementation are available. The PPSD and PP will be updated annually, or as needed during Project implementation to reflect the Project needs, improvements in institutional capacity, and adjustments in procurement risk. The PP will also be published on the website of the United Nations Development Business and on the Bank's website.

60. **Financial Management.** The financial management assessment has been conducted to assess the adequacy of the financial management systems of the MoH. The MoH has successfully implemented MDB loans and accumulated experience in fiduciary requirements and processing procedures from previous and ongoing projects. The CPMU and PMUs will be established with sufficient certified staff, including a qualified commitment-making officer, payment verification officer, and assets management staff who will be responsible for providing updates on data management systems and the central government assets registry. CPMU and PMUs will be responsible for performing robust payment verification and assisting interim unaudited financial reports and annual financial report preparation. The financial management consultant will be hired to support CPMU and PMUs to support specific financial management tasks. The performance audits should be carried out by the Inspectorate General, MoH, during the mid-term and end of the project to assess the functionality of purchased medical equipment. It was also confirmed that the annual audit for the project will be conducted by the Indonesian Audit Board (Badan Pemeriksa Keuangan, or BPK) and only one audit will be conducted for the project. The POM for all MDBs including the Financial Management section is being prepared to accommodate harmonized arrangements and requirements.

61. **Disbursements.** Two disbursement methods have been identified, namely, (i) Direct Payments and (ii) Advance. Direct Payment method is expected to be used to accommodate payments to vendors for the procurement of medical and laboratory equipment, which will be the major activities of the Project. Advance will be used for expenditures including training, project management, consultancy services, etc. As agreed with WB, AIIB will use direct payment only. WB will finance the soft components such as CPMU and PMUs for the Project.

62. **Governance and Anti-corruption.** AIIB is committed to preventing fraud and corruption in the projects it finances and may exercise its remedies under the Loan Agreement if the Loan proceeds to involve any Prohibited Practices, as defined under AIIB's Policy on Prohibited Practices (PPP). WB's Anti-Corruption Guidelines and AIIB's PPP will apply to the Project activities financed under the Loan. AIIB will rely on WB's investigative services and reserves the right to investigate, directly or indirectly, any alleged Prohibited Practices relating to the Project and to require the Borrower to take necessary measures to address issues in a timely manner, and as appropriate.

#### **D. Environmental and Social**

63. **Environmental and Social Policy (including Standards).** The loan will be cofinanced with WB and the Project's environmental and social (ES) risks and impacts have been assessed in accordance with WB's Environmental and Social Framework (ESF). To provide for a harmonized approach to addressing ES aspects of the Project, and as permitted by AIIB's ESP, WB's ESF will apply to the Project. AIIB has reviewed WB's ESF and is satisfied that (i) WB's ESF is consistent with AIIB's Articles of Agreement and materially consistent with the provisions of AIIB's ESP including the Environmental and Social Exclusion List, and (ii) the monitoring procedures in place are appropriate for the Project.

64. **Categorization and ES Instruments.** WB has categorized the Project's ES risk rating as 'moderate', which is equivalent to Category B under AIIB's ESP. The Environmental and Social Management Framework (ESMF) has been prepared based on the ES assessment of the Project and is aligned with the WB's ESF, as well as Indonesian legal requirements for environmental and social risk management. The ESMF will serve as an ES instrument and operational tool during project implementation to avoid, minimize, reduce, and mitigate the ES impacts and risks, and enhance potential development outcomes of the Project. In addition to the ESMF, a Stakeholder Engagement Plan (SEP) has been prepared to define a program for stakeholder engagement, including public information disclosure and meaningful consultation throughout the entire project cycle. An Environmental and Social Commitment Plan (ESCP) has been prepared to provide for the timely implementation of mitigation measures, monitoring and reporting, and capacity enhancement of the implementing agency. The ESCP includes a timeline for implementing required instruments such as the SEP and ESMF including the Environmental and Social Code of Practice, Waste Management Procedure, Social Impact Assessment, Code of Conduct for contractor and worker, Grievance Redress Mechanism (GRM), etc.

65. **Environmental Aspects.** The Project is expected to bring substantial advancements to the national healthcare sector, enhancing access to medical services and laboratories across Indonesia. While the Project is anticipated to bring mostly positive outcomes, there are low magnitude, reversible, and site-specific environmental risks that might arise during the installation and operation of medical equipment, leading to hazardous and non-hazardous waste generation, and occupational safety concerns for healthcare workers and the community. The Project interventions are expected to increase the volume of medical and other types of waste, energy consumption, quantities of chemical and hazardous substances to be managed, and occupational health and safety (OHS) risks, such as chemical exposure, noise, electrical safety, and infection control. The ESMF includes an Environmental and Social Management Process with a set of mitigation measures to address the impacts caused by the investments proposed under the Project. It lists ineligible activities for Project funding to avoid activities with significant, complex, irreversible, and/or unprecedented adverse environmental or social impacts. Each PMU will perform eligibility screening for the project activities under their respective components. To effectively address the above-indicated risks, extensive training and competency development for healthcare workers will be provided. This will be supported in parallel by both the GoI and the Project. The MoH's capacity to manage the ES implications has been assessed and a capacity-

building plan is included in the ESMF and ESCP. The ESMF provides guidance on waste management and the preparation of readiness criteria, explores various avenues for continuous training, capacity building, and maintenance, and supports the preparation of the ES Code of Practice for minor rehabilitation activities supported by the government for equipment installation. The Project will support operation and maintenance training for specialized equipment through supplier-extended liability contracts.

66. **Climate Change.** Indonesia is extremely vulnerable to the impacts of climate change, with significant impacts on the economy, lives, and livelihoods of its population, and in particular vulnerable communities in rural, remote parts of the country. Natural hazards and extreme events, set to worsen in frequency and severity due to climate change, pose particularly significant threats to population health and challenge Indonesia's health system. For instance, flooding causes deaths from drowning and extensive indirect health effects, including impacts on food production, water provision, ecosystem disruption, infectious disease outbreaks, and vector distribution. Changing temperature and rainfall patterns are moreover projected to significantly increase climate-sensitive vector-borne diseases, such as dengue and malaria, and water-borne diseases, such as cholera and diarrhea. These trends will create a significant demand for healthcare, both at the primary care level for essential frontline clinical and preventative services where Puskesmas and Posyandu need to be strengthened, especially in times of crisis faced with peak demand, as well as in hospitals if patients are referred for specialist care.

67. On climate adaptation, given the climate-vulnerable context of Indonesia, the resilience of the equipment is a key consideration. Climate adaptation finance will be 6.80 percent of the loan amount. The equipment will be installed at the facilities with robust resilience in the face of climate shocks or natural hazards. On climate mitigation, the relevant Energy Star efficiency standards and the IEC energy efficiency standards for medical equipment will be applied and included in the equipment specifications. Moreover, where possible, innovations in digital health and telemedicine will be leveraged in priority areas such as tele-emergency services and tele-ultrasound. This will bridge important human resource capacity constraints and cut costs and waiting times in health service delivery for Gol and patients alike. Aligned with Criteria 9.5 of the joint Climate Mitigation Finance Methodology and in collaboration and harmonization with all participating MDBs, climate mitigation finance will be 60.77 percent of the loan amount for the energy efficiency equipment.

68. **Social Aspects.** By design, the Project is envisaged to generate positive outcomes through health system strengthening and improved equity of health services, through addressing issues of unequal distribution, poor maintenance of medical equipment, and low capacity of health workers to operate the equipment. These will be major contributors to lifting the constrained capacity of Indonesia's health public system in delivering health services to the country, especially to rural and remote communities. Overall, the Project has no adverse social impact or significant risk. The Project focuses on the procurement and installation of equipment within existing public health facilities and does not involve the construction of new premises, thus land acquisition is not expected. For the construction of new laboratories funded by the Government budget, the Project will require MoH to conduct land due diligence per the ESMF and confirm: (i)

the availability of land certificate or other recognized land ownership evidence designated for healthcare facilities or laboratories; and (ii) land plot ready to be built (clean and clear). Social risks are limited and may involve health and safety risks to primary supply workers during the distribution, installation, and maintenance of the equipment that will be conducted nationwide, and to Project beneficiaries (e.g., HRH, patient) due to potential operational failure of the new medical equipment. To manage the issue, the Project design has already considered this through inclusion in the contract with equipment suppliers their responsibility to provide capacity building or training to HRH in operations and maintenance of new equipment. Risks of social exclusion issues are not expected, as the Project design and its goal emphasize expanding access to essential health services, including to underserved areas.

69. **Indigenous Peoples.** No groups or communities qualifying as Indigenous Peoples under the ESF will be adversely affected by the Project, as the Project activities focus on provisions of new medical equipment. However, since the Project will work at a national level and ethnic groups possessing the four characteristics listed in ESF are present in the country, the provisions consistent with ESF concerning the engagement of all vulnerable and disadvantaged groups including Indigenous Peoples in a culturally appropriate manner have been included in the SEP.

70. **Gender Aspects.** The Project represents a sizeable contribution to gender equality by : (i) improving women’s endowments through investment in health, education, and social protection, and (ii) ensuring the availability and operation of essential health equipment nationwide including closing remaining gaps in maternal mortality and improving women’s access to health services, while emerging issues addressed include tackling the increase in NCDs and men’s health issues including the health impacts stemming from smoking and alcohol and substance abuse.

71. This Project aims to close this gender gap by ensuring the procurement of equipment for emergency obstetric care, tele-enabled to support triage and information flow and cooperation between health facilities as needed. This telemedicine component is particularly important when a patient needs specialist supervision in rural and remote areas with limited HRH available.

72. By closing gender gaps in health endowments, the Project will also contribute to closing broader gender gaps in Indonesian society and economy. Studies show that investments in women’s health correlate with improved overall population health as well as economic productivity. Reducing complications from pregnancy and delivery has positive implications for women’s labor force participation, productivity, earnings, family income, and economic well-being. Improved maternal health is also associated with better child health, with positive implications for birth weight, neonatal survival, cognitive development, child behavior, school performance, and adult health and productivity. Improving men’s health also correlates with strengthened economic productivity.

73. **Occupational Health and Safety, Labor, and Employment Conditions.** As the Project only involves procurement, installation, operation, and maintenance of new medical equipment, the Project activities only involve minor labor risk. Labor risks may include OHS issues at low levels of the primary supply workers in the distribution, installation, operation, and maintenance of the new medical equipment. OHS issues are

key risks associated with the Project. Risks are related to chemical exposure, noise, electrical safety, and infection control, among others. Each healthcare facility will need to prioritize OHS measures, including training, risk assessments, and adherence to regulations and guidelines. To effectively address these risks, it will be crucial to provide extensive training and competency development for healthcare workers. This will be supported in parallel by the GoI and under the Project. The GoI will support the hiring and general training related to OHS and maintenance, while the Project will support operation and maintenance training for specialized equipment through supplier-extended liability contracts.

74. **Stakeholder Engagement, Consultation and Information Disclosure.** A SEP has been prepared by the MoH to provide guidance and to build and maintain, over time, an inclusive process with the Project's stakeholders, in particular, the local beneficiaries and other interested parties across the Project cycle. The SEP includes requirements to engage with stakeholders throughout the Project life cycle and as early as possible in the Project development process and in a timeframe that enables meaningful consultations on Project design, in which the nature, scope, and frequency of stakeholder engagement are proportionate to the nature and scale of the Project and its potential risks and impacts. The SEP outlines general principles, information on previous engagement activities with relevant stakeholders during the Project identification and preparation, stakeholder identification including vulnerable communities, and a collaborative strategy as well as the engagement process. The SEP, ESCP and ESMF have been reviewed with key stakeholders as part of the consultations during the Project preparation process, with the recommendations incorporated in the ES documents. The documents have been disclosed on the MoH and AIIB websites<sup>2, 3</sup>. AIIB has also included a link to those ES documents on its website.

75. **Project Grievance Redress Mechanism.** A GRM, as part of the SEP, has been established by the Project to enable stakeholders to lodge grievances or feedback on the Project. The GRM will be proportionate to the risks and potential impacts of the Project and will be accessible and inclusive. GRM specific to contracted workers involved directly or indirectly in Project activities will be provided to address grievances related to labor and working conditions. The information of established GRM and the WB's independent accountability mechanism both in English and local language will need to be disclosed in a timely and appropriate manner.

76. **Independent Accountability Mechanism.** As noted above, the WB's ESF will apply to this Project. The WB's independent accountability mechanism, the Inspection Panel, which reviews WB's compliance with its policies and procedures, will handle complaints relating to WB's compliance with its ESF under the Project. In accordance with AIIB's Policy on the Project-affected People's Mechanism (PPM), submissions made to the PPM regarding such complaints under the Project will not be eligible for consideration by the PPM. Information on the WB's Inspection Panel is available at <http://www.inspectionpanel.org>.

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<sup>2</sup> : [Konsultasi Publik SIHREN, SOPHI, InPULS | s.Link Kemenkes RI : \(kemkes.go.id\)](#).

<sup>3</sup> [Indonesia Modernization of the Health System - Projects - AIIB](#).

77. **Monitoring and Supervision Arrangements.** The MoH will be responsible for the overall coordination, supervision, and monitoring of the Project’s ES aspects. AIIB staff will monitor the implementation of ES documentation and conduct regular site visits as part of the joint MDBs’ review missions.

**E. Risks and Mitigation Measures**

78. In alignment with WB, the AIIB assigns medium to the overall risk rating to the Project, as summarized in Table 3. Given this is a procurement-heavy project, a detailed procurement risk assessment has been carried out and presented in Table 4 with the mitigation measures. The residual procurement risk is assessed as medium after the comprehensive mitigation measures.

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

<b>Risk Description</b>	<b>Assessment (H/M/L)</b>	<b>Mitigation Measures</b>
Political and Governance risk	M	The scheduled election in early 2024 poses a risk in terms of a shift in the priority given to the health sector. The current Project design that facilitates early decisions and depends on single-phase procurement and staggered delivery will minimize the implementation risk. In addition, the infrastructure gaps confirmed during the outbreak of the pandemic built a strong national consensus to strengthen the healthcare system regardless of political positions.
Technical Design of Project	M	<ol style="list-style-type: none"> <li>1. The PP will envisage phased delivery and installation of equipment to facilities that are validated for successful acceptance of procured equipment. To avoid delays, breaks and inefficient logistics, CPMU will coordinate early with local governments and logistical hubs to streamline and de-risk deliveries of equipment.</li> <li>2. To prevent poor performance of vendors in delivery, installation, and maintenance, vendors will receive conditional payments on a quarterly and biannual basis for up to four years upon installment of the equipment and the bidding document will specify the required minimum uptime share and maximum periods for repairs for each region depending on the logistical accessibility and the equipment type.</li> </ol>
Fiduciary risks	H	<ol style="list-style-type: none"> <li>1. While the sheer size and volume of procurement to be completed in a relatively short period bring the risks of missing the original goal of cost-savings and timely installment and operation of the equipment, the market research demonstrated the cost-efficiency of the single-phase procurement strategy and the multi-year, the staggered</li> </ol>

		<p>delivery contract will ensure sufficient flexibility to adjust the delivery of the procured equipment as per the readiness of the sites and changing demand.</p> <p>2. MDBs have conducted a fiduciary risk assessment, and mitigation measures (annual audit, improvements of management information systems for reporting, etc.) will be implemented as loan covenants.</p>
Corruption and fraud risks	M	Corruption and fraud risks are limited in this Project, because of a) centralized procurement under the direct payment method that excludes the involvement of local authorities in this process; b) information and control systems to track equipment (ASPAK), as well as financial management and audit procedures to identify and manage fraud risks.
ES risks	M	Activities and investments under the Project do not have significant direct ES impacts, as the Project does not envisage any land acquisition, involuntary resettlement, or heavy civil works. On the contrary, the Project may encourage an increase in the utilization of health services with positive environmental implications such as the safe handling of medical waste. The MoH will appoint ES Focal Points responsible for the coordination of the Project components in overall ES management oversight during the Project implementation.

**Table 4: Procurement Risks and Mitigation Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
Gov prepares procurement per its own rules	<ul style="list-style-type: none"> <li>• POM will consist of a procurement chapter to clarify that procurement will follow the WB's Procurement Regulations as specified in the Loan Agreement.</li> </ul>
Delays in the procurement process due to capacity constraints (weak procurement capacity, lack of experience in WB's Procurement Regulations, constraints of staffing resources for procurement and contract management)	<ul style="list-style-type: none"> <li>• Recruitment of Project Management Consultant which includes the procurement expert or hire a qualified Individual procurement specialist with prior experience in MDBs' funded projects to support procurement implementation.</li> <li>• MDBs' prior and post review, regular implementation support missions, hands-on operational/fiduciary advice and guidance.</li> </ul>
Low procurement readiness to conduct advance procurement under the Project	<ul style="list-style-type: none"> <li>• Enhancement of procurement readiness by mobilizing resources to prepare Terms of reference (ToRs) of critical consultancy services, specifications/draft bidding documents of key goods packages, and training on procurement procedures before Project effectiveness.</li> </ul>
Improper packaging plan, inappropriate technical requirements/design, and low levels of interest from	<ul style="list-style-type: none"> <li>• PPSD (to be updated from time to time) to work out appropriate procurement packaging arrangements, detailed and realistic procurement schedules, and contract management plans.</li> </ul>

<p>market attracted, which may result in bidding failure or low quality of procured goods, and low VfM of concerned procurement activities as well as readiness at districts level to receive the equipment</p>	<ul style="list-style-type: none"> <li>• Well-prepared technical specifications/ToRs based on market survey and engagement activities.</li> <li>• Market engagement/vendor conferences to obtain feedback from potential suppliers/vendors.</li> <li>• Engaging procurement firm to support MoH in carrying out market analysis, developing technical specifications, procurement arrangement, and drafting bidding documents.</li> </ul>
<p>Uncertainty over the capacities of procurement committee members and the PMU</p>	<ul style="list-style-type: none"> <li>• Competent and experienced staff will be assigned. Procurement consultants hired by PMU to support in terms of procurement activities under the Project. MDBs will provide procurement training as well as hands-on support during Project implementation.</li> </ul>



## Annex 1: Results Monitoring Framework

<b>Project Objective:</b>	To increase the availability of functional equipment in public health facilities and improve the utilization of public health services across Indonesia.								
Indicator Name	Unit of measure	Base-line Data Year	Cumulative Target Values				End Target	Frequency	Responsibility
			YR1	YR2	YR3	YR4			
<b>Project Objective Indicators:</b>									
1. Percentage increase above baseline in annual outpatient visits, disaggregated by gender	%	0	1	2	6	12	20	Annual	MoH
2. Percentage increase above baseline in annual lab investigations, disaggregated by gender	%	0	1	2	6	12	20	Annual	MoH
3. Percentage of Puskesmas for which equipment meets 80 percent of minimum requirements	%	6.6	25	40	60	80	90	Annual	MoH
4. Number of districts in Indonesia with at least 1 Madya-level referral hospital for KJSU*	Number	1	20	80	180	350	514	Annual	MoH
5. A digital equipment uptime monitoring and reporting system to monitor the medical equipment performance has been established and under operation	Y/N	N	Y	Y	Y	Y	Y	Annual	MoH

<b>Project Objective:</b>	To increase the availability of functional equipment in public health facilities and improve the utilization of public health services across Indonesia.								
Indicator Name	Unit of measure	Base-line Data Year	Cumulative Target Values				End Target	Frequency	Responsibility
			YR1	YR2	YR3	YR4			
<b>Intermediate Results Indicators: SOPHI</b>									
1. Percentage increase above baseline in anemia detection tests, disaggregated by gender, in Puskesmas, Pustu, and Posyandu	%	45.8	48	50	53	55	60	Annual	MoH
2. Percentage of under-5 children, receiving growth monitoring services, disaggregated by gender	%	80	82	84	86	90	90	Annual	MoH
3. Percentage of Pustu/Poskesdes within the scope of this project for which equipment meets minimum requirements	%	13	25	40	55	70	80	Annual	MoH
<b>Intermediate Results Indicators: SIHREN</b>									
1. Share of target public hospitals under the project for which key energy-efficient equipment types have been procured, delivered, installed, and human resources in facilities have received operational training	%	0	10	20	40	65	90	Annual	MoH

<b>Project Objective:</b>	To increase the availability of functional equipment in public health facilities and improve the utilization of public health services across Indonesia.								
Indicator Name	Unit of measure	Base-line Data Year	Cumulative Target Values				End Target	Frequency	Responsibility
			YR1	YR2	YR3	YR4			
<b>Intermediate Results Indicators: InPULS**</b>									
1. Share of target public laboratories under the project for which key energy efficient equipment types was procured, delivered, installed, and human resources in facilities received operational training	%	0	10	20	40	60	80	Annual	MoH
2. Percentage of facilities in which Diabetes Mellitus tests are regularly reported	%	0	10	20	40	60	80	Annual	MoH

\*KJSU is 'Kanker, Jantung, Stroke, dan Uro-Nefrologi' in Indonesian, which means 'the Cancer, Heart, Stroke and Uro-Nephrology'.

\*\* This is to present the project with a whole picture, though AIIB is not financing this component.

## **Annex 2: Detailed Project Description**

1. The project is designed to address the longstanding bottleneck of the non-availability of functional medical equipment in Indonesia's public health facilities. The implementation period is envisaged as 2024-2028. All procurement to be completed by the end of the first project year at the end of 2024. This is aimed to mitigate any risk of remote regions, and ultimately citizens, especially in rural, remote communities, missing out, ensuring significant equity in the Project and the closing of spatial and socioeconomic gaps in health service availability, accessibility, and quality. To support facilities in remote areas to meet the readiness criteria, designated project management staff will be providing hands-on guidance to these lagging districts in planning for and implementing activities to meet the criteria. A single-phase procurement is expected to be attractive for vendors, and thereby bring more competitive pricing by combining locations with varying levels of geographical challenges, as compared to a scenario where the needs of remote regions would need to be bid out as a separate procurement.
2. Facilities and communities in lagging areas will thus be primary beneficiaries of the Project, as structural and persistent gaps in health service delivery readiness beyond the provision of equipment and its sustainable maintenance and operation – also incorporating human resource capacity, utility access, and infrastructure readiness – will be closed. GoI has already allocated the necessary funds to ensure this human resource and infrastructure readiness for facilities across Indonesia. Centralized procurement under the Project is projected to deliver considerable cost savings to GoI as this will offer considerable economies of scale and increase the appetite for vendors to serve remote areas especially for operations and maintenance services bundled within the contracts.
3. Advance procurement modalities are being pursued in parallel to the project preparation process. The centralized procurement at the central Government level not only helps achieve economies of scale but also allows to tackle the anticipated challenges around the maintenance and operation of the equipment. Large volumes of procured equipment, packaged into lots whereby a single equipment type is sourced from the same vendor, allows scale and feasibility to commit vendors to its maintenance and repairs over a period of four years while ensuring the transfer of operational skills training to health workers. The cost of maintenance and operational skills transfer by the vendor to health workers upon installation of the equipment at the facility will be included in the bidding documents and be part and parcel of the contract. While procurement will be centralized and completed by the end of 2024, payments will be made to vendors only on a half-yearly basis over four years, starting with the first payment upon installation of the equipment. Periodical payments will be linked to timely maintenance and under the conditionality of specific uptime targets. The bidding documents will specify the service level agreements, including the required minimum uptime share and maximum turnaround time for repairs for each equipment type, with differentiation by region recognizing that the geography of Indonesia might require some differentiation in the turnaround time for remote areas of the country.
4. As the Project will conduct centralized procurement, vendors will commit to ensuring a minimum uptime both in urban parts of Indonesia, as well as in rural parts of the country where this will be vital to ensure the closing of health service delivery gaps. As such, the Project aims to keep equipment in a functional status by ensuring continuous maintenance over the project period and fostering a culture of strong vendor presence and domestic engineering capacity for maintenance and repairs of sophisticated equipment in Indonesia.
5. A market study is conducted to inform the top players, equipment models, and prices. The latest production capacity of the major players for heavy equipment has been studied as below and confirmed as sufficient. All results will be further verified during the vendor conference.

**Table A2.1. Medical Equipment List (Indicative AIIB Financed Components)**

**SIHREN**

<b>Device Type</b>
3D cardiac mapping and ablation system
Cardiac ultrasound scanner (Echocardiography)
Fractional Flow Reserve (FFR) System
Intra-Aortic Balloon Pump (IABP)
Heart-Lung Machine (HLM)
IVUS (Intravascular Ultrasound) and OCT (Optical Coherence Tomography) (IVUS/OCT)
Rotablator (or equivalent)
Extra Corporeal Membrane Oxygenation system (ECMO)
Cardiac angiography system (Cathlab)
High-speed drill
MRI 1.5T
Automated Peritoneal Dialysis (APD)
C-ARM
External Shock Wave Lithotripter (ESWL)
Doppler Ultrasound 3D & 4D
Laser Holmium
Neurosurgery microscope
Nitric Oxide Delivery Unit
Invasive Hemodynamic Monitor
Thromboelastogram

**SOPHI**

<b>Level of Care</b>	<b>Device Type</b>
Puskesmas	Emergency Procedure Set
	Dental Set
	Immunization Set
	Pediatric Set
	Maternal Health Set
	Lab Set
	Inpatient Set

	General Set
	Pharmacy Set
	Maternal-neonatal Emergency Set
	IUD Set
	Geriatric and NCD set/ Posbindu PTM
	DLP Set
	School Dental Health Unit
Pustu	General examination set
	Immunization Set
	Lab Set
Posyandu	<ol style="list-style-type: none"> <li>1. Blood pressure measurement device (digital sphygmomanometer)</li> <li>2. Forehead digital thermometer</li> <li>3. Waist circumference measurement device</li> </ol>

### Annex 3: Economic Analysis

1. The Project is expected to improve healthcare access and quality across Indonesia and lead to better health outcomes with reduced spatial and socioeconomic disparities. The project presents significant population health benefits that are likely to drive improved human capital and economic growth, including:

- (i) Benefits associated with strengthened primary health care systems: In low-income to middle-income countries, an expanding body of evidence shows the cost-effectiveness of strengthening primary health care systems, including through the procurement of appropriate equipment. A 2018 analysis classified 198 (91 percent) of 218 essential Universal Health Coverage interventions as primary health care and another report estimated that up to 75 percent of the projected health gains from the Sustainable Development Goals could be achieved through strengthened primary health care. Expanding access to a core set of integrated interventions for maternal and child health (narrower than primary health care), including through the provision of needed equipment to primary health centers, is calculated to generate economic and health benefits valued at 2.3 to 2.8 times more than the costs of the interventions.
- (ii) Benefits associated with strengthened laboratory systems: Expanding access to laboratories and standardizing services will improve public health status, especially by increasing the early detection of a disease before it becomes serious. Effective and timely testing through a multi-tier public laboratory system integrated with primary care offers the potential of substantial savings by enabling rapid delivery of results and reducing facility costs. The benefits of a more comprehensive and accessible lab system can also be seen by considering the impact on quality of care and patient outcomes, as well as the impact on resource utilization. By making lab testing more accessible and efficient, the management of both communicable and NCDs will improve, leading in turn to reduced mortality and morbidity for Indonesians. Providing equipment to new and existing *Labkesmas* and providing the necessary HRH through domestic funds to operate *Labkesmas*, will increase access and quality of care for Indonesians and will render the health system more patient-centered. This will translate to a more efficient detection and control of emerging and re-emerging infectious diseases and to a better management of NCDs, which drive most of the disease burden in Indonesia. Gains from improved health outcomes are, in turn, expected to ameliorate and build stronger human capital in the country. Furthermore, proposed activities related to the strengthening of the detection capacity of *Labkesmas* to increase Indonesia's Pandemic prevention, preparedness, and response will ensure that pathogens causing avoidable mortality and illness are detected early on, especially those with pandemic potential, and that people, the health system, and the economy are better protected against emerging pandemics.
- (iii) Benefits associated with strengthened hospital systems: Access to timely care, and particularly timely hospital care, is essential for the management of complex diseases, especially costly conditions. Timely hospital care requires systems and equipment in place that minimize wait times and abate barriers to accessing care. Waiting times are a key performance indicator for many healthcare systems, used to encourage improved performance in healthcare institutions with the aim of delivering high-quality care without unnecessary delay. Many patients who wait a long time for their surgery, such as the 4-12 months for cardiovascular patients in Indonesia, are more likely to report problems, which have been associated with reduced quality of life. Prolonged

pain, discomfort, anxiety, and disability are initial consequences for waiting patients. The hospital component would make hospitals more accessible, effective, and streamlined, thus leading to improved health outcomes in the population (decreases in mortality and morbidity). Gains from improved health outcomes are in turn expected to ameliorate and build stronger human capital in the country – a key driver of economic growth.

- (iv) SOPHI: The number of direct beneficiaries from the improved access and quality of primary healthcare was defined by adjusting total potential beneficiaries by the average primary healthcare utilization rate in Indonesia among lower-educated population groups – 26.7 percent, based on BPJS (Social health insurance provider) data. To further make this estimate more conservative, only the lower 5 percent statistical bound of such direct beneficiaries was accounted for to calculate gains in productive life years and economic benefits of the project.
- (v) SOPHI: for total gained productive life years calculation it was assumed that each direct beneficiary of Primary Health Care improvement on average will gain 0.25 years of productive life from a strengthened primary care system. This assumption is consistent with WB's experience in similar projects in Primary Healthcare and based on the Y2022 paper 'Lancet Global Health Commission on financing primary health care: putting people at the center'.
- (vi) SIHREN: adjusting all potential beneficiaries for utilization rate of referral hospitals (5.5 percent), the number of direct beneficiaries of SIHREN is estimated at 1.6 million of people across the country. This assumption is based on the findings of the paper by Laksono et al (2023) that revealed that Indonesia's national average hospital utilization in 2018 was 5.5 percent in the country.
- (vii) SIHREN: for total gained productive life years calculation it was assumed that each direct beneficiary in average will gain 0.1 years of productive life from a strengthened referral healthcare system. This assumption is consistent with WB's experience in similar health projects that targeted health improvement in better treatment of cancers, cardiovascular diseases, diabetes and kidney diseases, which is the primary source of economic benefits for SIHREN in the economic assessment.

2. A detailed economic analysis of the Project – valuing economic benefits (gained productive life years) as well as financial benefits (such as gains from lab test fees) with conservative estimates – produces a net present value of USD4.5 billion and a benefit-cost ratio of 2.5. Considering the present value of project costs (estimated at USD3,647,591,558), and the present value of expected benefits (estimated at USD8,195,104,758), the net present value of the Project is expected to be USD4,547,513,200. The positive net present value indicates that project benefits outweigh project costs, making this a sound investment. The benefit-cost ratio resulting from the analysis is estimated at 2.5 meaning that for each USD1 of investment through the Project, a return of USD2.5 is expected (Table A3.1). These results are based on very conservative assumptions and likely underestimate the total project benefits. They also fail to account for positive spillovers that will arise from gains due to improved technical and allocative efficiency.

3. The Project will contribute to improved technical and allocative efficiency in the delivery of service in the health sector. Firstly, by providing key services at the lowest appropriate level of the health system, primary health care can decrease the need for unnecessary hospital admissions, reduce potentially preventable readmissions, and limit inappropriate use of emergency departments - thus improving the allocative efficiency of the health system. The



proposed primary care-focused component will therefore contribute to saving healthcare costs related to disease treatment by focusing on cost-effective preventive and curative measures, and to saving the socioeconomic burden that is related to the extra care needed for potentially preventable diseases. Furthermore, as the institutional capacity of primary health care centers is strengthened and the availability and quality of key inputs are improved, more facilities will be pushed to the production function frontier and will therefore deliver better services at a given cost - an improvement in technical efficiency. Furthermore, increasing the capacity and efficiency of lab testing also yields efficiency gains for the health sector. In terms of allocative efficiency, more prompt lab testing linked to primary care would divert funds from more costly testing at higher levels of care and would reduce unnecessary referrals and wait times for diagnosis. Furthermore, easier access to lab testing would make the process of care shorter and more efficient. Lastly, given resource constraints, improving the efficiency of hospital systems and referral systems has the potential to improve the quality of NCDs management and other illnesses, and generate significant financial savings. This is especially the case as numerous referral interventions, such as injuries or diagnostic procedures, could be provided at a much lower cost if efficient referral systems were in place to direct patients to more appropriate facilities.

4. The Project is also expected to promote equity in access to healthcare services and reduce the financial burden on poor households. Evidence shows that strong primary care is correlated with a more equitable distribution of health services: a finding that holds true in both cross-national and within-national studies.<sup>1,2</sup> The component that strengthens the primary care system is expected to redirect resources from expensive hospital care to relatively inexpensive basic primary care, as well as to reduce spending on higher levels of care, along with out-of-pocket (OOP) payments, which are predominately incurred by disadvantaged population groups. Additionally, increased availability of *Labkesmas* would improve accessibility for poor households and reduce indirect OOP spending on health such as those related to travel costs. Evidence lastly also indicates that patients in lower socioeconomic categories report worse outcomes in quality-of-life parameters when faced with long wait times for hospital referrals or when they are assigned to long surgical queues.<sup>3</sup> Higher marginal benefits are therefore expected for the poor and vulnerable from strengthening hospital systems to ensure supply side readiness and accommodate increased demand.

5. The Project is an investment in a public good that generates strong positive externalities at the national and global level. A public good, in the economic sense, are services and functions that are both non-rival and non-exclusive, generating strong positive externalities. The Project, which aims to strengthen the supply side readiness of Indonesia's health system, will lead to positive economic externalities at the country and global level because of the close linkages with Indonesia's leadership in the areas of One Health and Pandemic Preparedness and Response. The laboratory strengthening component would, for example, improve testing, detection, and prevention of new or reemerging pathogens thus enabling early-detection and control of potential pandemics. Benefits gained from such systems have been shown to significantly outweigh initial investment costs.

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<sup>1</sup> World Health Organization (WHO). (2018b). *Building the economic case for primary health care: a scoping review*. Available at: <https://www.who.int/publications/i/item/WHO-HIS-SDS-2018.48>

<sup>2</sup> BENOTTI, Emily, HIRSCHHORN, Lisa, SUGIYARSO, Saraswati, and AHMAD, Jet. (2021). "Indonesia: Puskesmas and the Road to Equity and Access". *Primary Health Care Performance Initiative*. Available at: <https://www.improvingphc.org/indonesia-organisation-services>

<sup>3</sup> SUTHERLAND, Jason Murray, CRUMP, Trafford R., CHAN, Angie, et al. (2016). "Health of patients on the waiting list: opportunity to improve health in Canada?". *Health Policy*, 120(7), pp. 749-57. Available at: <https://www.sciencedirect.com/science/article/pii/S0168851016301105?via%3Dihub>

**Table A3.1. Economic Benefits Detailed Calculation**

Year	Under project period					Beyond project period				
	Y1	Y2	Y3	Y4	Y5	Y6*	Y7	Y8	Y9	Y10
<b>Projected costs</b>										
Estimated SOPHI costs	\$(10,687,332)	\$(294,970,350)	\$(288,557,951)	\$(288,557,951)	\$(275,733,154)	\$(314,763,288)	\$(207,889,973)	\$(47,580,000)	\$(47,580,000)	\$(47,580,000)
Estimated InPULS costs	\$(3,975,748)	\$(109,730,636)	\$(107,345,187)	\$(107,345,187)	\$(102,574,290)	\$(128,893,740)	\$(89,136,263)	\$(29,500,048)	\$(29,500,048)	\$(29,500,048)
Estimated SIHREN costs	\$(12,142,857)	\$(335,142,857)	\$(327,857,143)	\$(327,857,143)	\$(313,285,714)	\$(393,671,429)	\$(272,242,857)	\$(90,100,000)	\$(90,100,000)	\$(90,100,000)
Total estimated costs for the project	\$(26,805,936)	\$(739,843,844)	\$(723,760,282)	\$(723,760,282)	\$(691,593,158)	\$(837,328,457)	\$(569,269,093)	\$(167,180,048)	\$(167,180,048)	\$(167,180,048)
<b>Projected benefits</b>										
Estimated SOPHI benefits	\$4,607,974	\$132,710,561	\$259,802,733	\$388,667,692	\$513,638,000	\$636,521,628	\$713,051,186	\$718,042,544	\$723,068,842	\$728,130,324
Estimated InPULS benefits	\$2,585,805	\$74,471,715	\$145,790,621	\$218,104,343	\$288,232,546	\$357,189,790	\$400,135,034	\$402,935,980	\$405,756,531	\$408,596,827
Estimated SIHREN benefits	\$4,460,355	\$128,459,110	\$251,479,818	\$376,216,521	\$497,183,341	\$616,130,327	\$690,208,222	\$695,039,679	\$699,904,957	\$704,804,292
Total estimated benefit from the project	\$11,654,134	\$335,641,386	\$657,073,172	\$982,988,555	\$1,299,053,888	\$1,609,841,745	\$1,803,394,442	\$1,816,018,203	\$1,828,730,330	\$1,841,531,443

\*From year 6, the estimated OM cost will be from the government budget and the OM services extended by suppliers.

Net projected cash flow	<b>\$(15,151,802)</b>	<b>\$(404,202,457)</b>	<b>\$(66,687,110)</b>	<b>\$259,228,274</b>	<b>\$607,460,730</b>	<b>\$772,513,288</b>	<b>\$1,234,125,349</b>	<b>\$1,648,838,155</b>	<b>\$1,661,550,282</b>	<b>\$1,674,351,395</b>
Discount rate	<b>6%</b>									
Net Present Value of the Project	<b>\$4,547,513,200</b>									
Benefit-Cost Ratio (US\$ gained for every dollar invested)	<b>2.5</b>									

## Annex 4: Member and Sector Context

1. Indonesia has undertaken a process of government decentralization since the 1990s. Although granting wide-ranging autonomy to Indonesia's subnational governments, decentralization has also led to diffuse governance and significantly varied administrative and fiscal capacities of subnational governments. Geographic challenges further contribute to considerable inequalities in wealth, service availability and accessibility, as well as infrastructure across the country. Spanning 5,100 km from west to east and with a population of over 273 million people, Indonesia is the largest and most populous archipelagic nation in the world.

2. Against this backdrop, it has been difficult for Gol to achieve economic growth equitably across the nation. Although wealth inequality predictably exists between urban and rural areas, it is also heavily centralized in the west of Indonesia, especially on the islands of Java, Sumatra, Southern Borneo and Bali. There is a nearly 14-fold difference in the 2022 GDP per capita of the wealthiest province (the Special Capital Region of Jakarta, with a GDP per capita of approximately USD20,000), and the poorest province (East Nusa Tenggara, approximately USD1,400 per capita).<sup>1</sup>

3. A decentralized government provides challenges in the implementation of health policies produced by the central government. Health financing is also decentralized with more than two-thirds of the total public expenditures on health occurring at the subnational level. At the Central Government level, the MoH, manages only about one-third of the total public spending.<sup>2</sup> The bulk of district revenue comes from intergovernmental transfers from central to district-level budgets. However, most of these transfers, for example, the *Dana Bagi Hasil* (Revenue Sharing Fund), *Dana Alokasi Umum* (General Allocation Fund, DAU), and central grants which are mainly for salaries, are unconditional, so budget allocation to the health sector is at the discretion of local governments. Investments in health infrastructure therefore vary widely between regions, leading to disparities in infrastructure and access to quality healthcare.

4. Implementation of a national health insurance system has achieved groundbreaking improvements in healthcare access, but the system is burdened by rising healthcare costs and the quality-of-care needs strengthening. Launched in 2014, the Indonesian national health insurance system (*Jaminan Kesehatan Nasional* or JKN) covered nearly 90.3 percent of the Indonesian population in 2023.<sup>3</sup> Gol has mandated that all Indonesians must be part of JKN and pay monthly premiums towards the insurance system. JKN members can receive primary to referral-level care at all public health facilities and several private care facilities that have opted into the JKN system. Prior to COVID-19, utilization rates under the program steadily increased annually since the program's launch from only 92 million visits in 2014 to over 276 million visits in 2019.<sup>4</sup> Studies have found that JKN has improved access to healthcare, especially among lower-

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<sup>1</sup> Central Bureau of Statistics, 2023.

<sup>2</sup> LIMASALLE, Paulina, SOEWONDO Prastuti, TRIHONO, et al. (2022). "Subnational Governments' Autonomy vs. Capacity: The Need for Stronger Management Systems for Health Financing in Indonesia". *ThinkWell*. Available at: <https://thinkwell.global/wp-content/uploads/2022/04/Indonesia-Case-Study-April-2022.pdf>

<sup>3</sup> Social Security Administrator for Health of the Republic of Indonesia, 2023.

<sup>4</sup> Social Security Administrator for Health of the Republic of Indonesia (BPJS). (2022). *Laporan Pengelolaan Program dan Keuangan BPJS Kesehatan Tahun 2021 (Auditan) (BPJS Kesehatan Program and Financial Management Report 2021 (Audited))*. Available at: [https://www.bpjsketenagakerjaan.go.id/assets/uploads/laporan\\_keuangan/Laporan\\_Keuangan\\_dan\\_Laporan\\_Pengelolaan\\_Program\\_BPJS\\_Ketenagakerjaan\\_2022.pdf](https://www.bpjsketenagakerjaan.go.id/assets/uploads/laporan_keuangan/Laporan_Keuangan_dan_Laporan_Pengelolaan_Program_BPJS_Ketenagakerjaan_2022.pdf)

income individuals, by reducing OOP costs incurred by patients. Notably, lower-income households in the eastern part of Indonesia experienced the most cost-savings.<sup>5</sup>

5. However, the quality and efficiency of care delivered needs strengthening, as many public health facilities are under-equipped and under-staffed. Long waiting times for treatment are a key hurdle to receiving quality care. On average, patients who need surgery face an average wait time of between two to four weeks. This leads many JKN members to choose to forego or delay treatment (leading to worse health outcomes) or choose to receive treatment outside the JKN system. The latter forces members to pay OOP costs, eroding income and savings.<sup>6</sup>

6. In an effort to increase access to health services, MoH has mandated that each subdistrict should have at least one community health clinic, called Puskesmas, that meets minimum clinical standards for service-readiness.<sup>7</sup> Of the 171 out of 7,230 subdistricts that do not have at least one service-ready Puskesmas, 90 percent are in two eastern provinces: Papua and West Papua.<sup>8</sup> Low access to quality primary care is particularly concerning for the double burden of disease that Indonesia faces. Primary care is the frontline of the healthcare system, particularly in more remote regions where they are often the only level of health facility available. They play an indispensable role in the prevention, detection, and management of both infectious diseases and NCDs. The disparity in access to quality care contributes to widely varied life expectancies across provinces. In 2019, the difference in life expectancy for males between the highest-ranked (Bali) and lowest-ranked (Papua) provinces was 9.9 years. For females, the difference in life expectancy between the highest-ranked (North Kalimantan) and lowest-ranked (North Maluku) provinces was 13.7 years.<sup>9</sup>

7. For referral-level care, to improve the referral system efficiency, MoH introduced a 3-tier system for hospital accreditation, emphasizing different levels of achievement based on a comprehensive evaluation of various aspects of hospital operations, including infrastructure, facilities, medical equipment, human resources, patient care, infection control, and management systems standards. This is because equitable access to referral-level care is particularly important to manage the rise in burden of NCDs, yet there is widespread lack of access to referral-level hospital services, especially in remote and rural areas of Indonesia. The tiers are Paripurna, Utama, and Madya accreditation. Paripurna accreditation signifies that a hospital has met all the requirements and criteria set by the MoH's standard for accreditation. It demonstrates that the hospital has demonstrated excellence in meeting the established standards and provides a high level of quality and safety in its healthcare services. Utama accreditation represents the highest level of accreditation below Paripurna accreditation. It signifies that a hospital has achieved a high level of compliance with the accreditation standards and provides a good level of quality and safety in its healthcare services. Madya accreditation represents a significant level of compliance with the accreditation standards. It signifies that a hospital has met the requirements and criteria

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<sup>5</sup> MAULANA, Nirwan, SOEWONDO, Prastuti, ADANI, Nadhila, et al. (2022). *How Jaminan Kesehatan Nasional (JKN) coverage influences out-of-pocket (OOP) payments by vulnerable populations in Indonesia*. PLOS Global Public Health, 2(7). Available at: <https://journals.plos.org/globalpublichealth/article?id=10.1371/journal.pgph.0000203>

<sup>6</sup> Prakarsa Welfare Solutions for Better Societies. (2022). *Healthcare costs leave Indonesians out-of-pocket*. Available at: <https://theprakarsa.org/healthcare-costs-leave-indonesians-out-of-pocket%EF%BF%BC/#:~:text=Indonesia's%20OOP%20expenditure%20is%20far,maximum%20of%2020%20per%20cent.>

<sup>7</sup> A puskesmas is considered service ready when it is fully staffed and equipped to deliver a standardized list of essential health services.

<sup>8</sup> MoH, 2022b.

<sup>9</sup> Institute for Health Metrics and Evaluation, 2019.

set by the MoH's standard for accreditation, demonstrating a satisfactory level of quality and safety in its healthcare services.

8. MoH has initiated a HTA (2021 to 2024) in the wake of the COVID-19 pandemic. The HTA establishes a public health system structure that integrates and standardizes all levels of public health facilities and laboratories. This means creating a cohesive framework where different levels of public health facilities, including primary health centers, district hospitals, and specialized hospitals, work together in a coordinated manner. The Agenda emphasizes the importance of collaboration, information sharing, and resource allocation among these facilities to optimize the delivery of public health services. Additionally, the Agenda places significant emphasis on standardization. It aims to ensure that all public health facilities and laboratories adhere to common guidelines, protocols, and quality standards. By standardizing practices, procedures, and services across the public health system, the Agenda seeks to improve the consistency and quality of healthcare delivery, as well as enhance the overall efficiency and effectiveness of the system. This is an essential step in the Agenda to ensure the same quality and coverage of services across all facilities in Indonesia.

## Annex 5: Sovereign Credit Fact Sheet

### Recent Economic Developments

1. Indonesia is a lower middle-income country with a GDP per capita of around USD4,357 and a population of 273 million. The economy has been recovering from the COVID-19 pandemic, with real GDP accelerated to 5.3 percent in 2022. The recovery was helped by increased commodity prices (palm oil, coal) and a sharp acceleration of private consumption following the lifting of mobility restrictions. Thanks to prudent economic management and favorable terms-of-trade developments, Indonesia has relatively weathered the recent global turbulences.

2. Inflation increased from 1.6 percent in 2021 to 4.2 percent in 2022 and peaked at 6.0 percent in September 2022, mainly driven by the rise in global commodity and energy prices. The increasing inflation, together with capital outflows following the global monetary tightening, prompted Bank Indonesia to raise its policy rate in the second half of 2022 by a cumulative 225 basis points to 5.75 percent and announced various measures to limit price increases, to counteract the pressures on prices, inflation expectations, and the currency.

3. Fiscal deficit has narrowed from a high of 6.1 percent of GDP during the pandemic in 2020 to 2.3 percent in 2022, thus successfully returning within the 3.0 percent of GDP deficit ceiling. The good performance reflected strong revenues—thanks to the new tax reform bill and higher VAT and trade-related taxes, boosted by higher global commodity prices.<sup>10</sup> On the spending side, pandemic support measures have been gradually phased out as the economy recovered, though it was partially offset by the rising energy subsidy bill.

4. Current account further improved, to a surplus of 1.0 percent of GDP in 2022, thanks to the commodity windfall. In addition, robust global demand, post-pandemic, contributed to the increase in non-commodity exports, sufficient to offset the higher import due to the higher domestic demand.

Economic Indicators	2019	2020	2021	2022	2023*	2024*
Real GDP growth (% change)	5.0	-2.1	3.7	5.3	5.0	5.1
CPI inflation (average, % change)	2.8	2.0	1.6	4.2	4.4	3.0
Current account balance	-2.7	-0.4	0.3	1.0	-0.3	-0.7
General government fiscal balance	-2.2	-6.1	-4.6	-2.4	-2.6	-2.5
General government gross debt	30.6	39.7	41.1	40.1	39.3	39.0
Public gross financing needs	4.1	9.4	6.6	4.6	5.2	5.4
External debt	36.1	39.2	34.9	30.1	29.0	27.8
Gross external financing need	8.1	6.4	5.2	5.3	5.1	5.3
Gross international reserves (USD billion)	129.2	135.9	144.9	137.2	142.5	152.5
Exchange rate (LCU/USD, e.o.p.)	13,831.5	14,034.5	14,197.7	15,652.3	15,231.5	..

Note: \* denotes projections; in percent of GDP, unless indicated otherwise

Source: IMF Article IV report No.23/221; IMF WEO April 2023; FX rates from Bank Indonesia, end-of-period (e.o.p.).

### Economic Outlook and Risks

5. Looking ahead, the economy is expected to decelerate slightly in 2023, to a still-strong 5.0 percent, due to the global economic slowdown and the generally tighter policy environment. Growth is expected to be driven by continued consumer spending improvements, solid export

<sup>10</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.

performance, and stronger private investment, thanks to structural reforms. On the other hand, weaker global demand and rapid global monetary tightening are the main downside risks to growth and may lead to softer exports, lower foreign investments, and capital outflows. Inflation is estimated to return to BI's two to four percent target in 2024.

6. Current account is expected to turn into a small deficit in 2023 and 2024, reflecting higher imports due to high domestic demand and moderating commodity prices. As a result, external financing needs are likely to increase slightly but are expected to be sustainable given the adequate level of reserves.

8. Fiscal deficit expected to remain below the 3.0 percent ceiling. Revenues are projected to remain strong due to the carry-on effects of recent tax reforms. Gross public financing needs are manageable and projected to decline further.

9. Indonesia's public debt, as well as its external debt, remains sustainable. Public debt is projected to decline further and stabilize at around 39 percent of GDP in 2023 and 2024. External debt is also expected to fall further to 29.0 percent in 2023, thanks to improvements in the external balance. However, debt is sensitive to global financial conditions due to the relatively large share of foreign portfolio investment in external financing.

10. Indonesia has a good track record of prudent economic management, as reflected in generally low fiscal deficits and generally stable inflation. In April 2022, S&P revised Indonesia's outlook from 'negative' to 'stable' and affirmed its rating at 'BBB,' citing the improvement in the external position, progress toward fiscal consolidation, and continued economic recovery for two years. Moody's and Fitch affirmed the rating at Baa2/BBB, respectively, with a stable outlook.

## Annex 6: Gender Entry Point

1. Indonesia has made significant strides in improving gender equality outcomes over the past two decades, however, Indonesia's maternal mortality ratio (MMR) remains high. On the 2022 Global Gender Gap Index Ranking, Indonesia scores 0.97 on its Health and Survival Index, above the regional average of 0.95. Yet the nation's MMR at 173 deaths per 100,000 live births is far greater than the East Asia Pacific average of 69 deaths per 100,000 live births. A study conducted in East Java found that the most common causes of maternal mortality were (pre-)eclampsia (30.1 percent) and hemorrhage (24.7 percent). The majority of these cases are preventable through high-pregnancy screening conducted during ANC visits. For example, hypertension is a key risk factor for both pre-eclampsia/eclampsia and hemorrhage and is detectable and treatable through routine antenatal care (ANC). Additionally, ultrasounds can detect physical abnormalities in the pregnancy that could lead to high-risk births. High adolescent anemia rates also play a role in high MMR, as the effects on health carry over into adulthood and pregnancy.
2. Low quality of ANC is a key determinant of maternal mortality, with many facilities ill-equipped to conduct high-risk pregnancy screens. GoI has guidelines that recommend that all pregnant mothers complete six ANC visits. Included in these ANC visits are screenings that help identify high-risk pregnancies, characterized by the presence of one or more of the following conditions: 1) obesity or underweight/malnourished; 2) hypertension; 3) anemia; 4) sexually transmitted diseases; 5) gestational diabetes; and 6) physical abnormalities in the reproductive area or in the fetus. Despite 88 percent of women completing four ANC visits across Indonesia in 2021, maternal health services provided are often poor quality with many health facilities ill-equipped to adequately detect high-risk pregnancies for referral care and closer monitoring. Considering these findings, the Project will finance the procurement of medical and laboratory equipment to strengthen the service delivery of high-risk pregnancy screenings.
3. The Project aims to address critical gender gaps in the area of maternal health services, namely low levels and quality of high-risk pregnancy screening and high adolescent anemia rates by equipping primary care facilities with the requisite medical equipment to identify high-risk pregnancies and anemia. The following indicator in the Project's results monitoring framework will be used to monitor the progress in closing the identified gender gaps during project implementation: Percentage of adolescent girls tested for anemia in the target facilities (disaggregated by gender, in Puskesmas and Pustu) (Percentage). In addition, gender disaggregation will be done to also monitor gender inclusiveness under the Project: (1) Number of annual outpatient visits, disaggregated by gender (Number), (2) Percentage of under-5 children, receiving growth monitoring and promotion (GMP) services, disaggregated by gender (Percentage).