

Indonesia Health Systems
Strengthening Project
(IHSS)
SIHREN-SOPHI-InPULS

Core Project Design and Procurement Principles

International Vendor Conferences



Presentation Overview

- 1. Project Financing Scheme
- 2. Key Objective of the Event
- 3. Governing Procurement Rules and Regulations
- 4. Key Aspects of the Project Procurement
- 5. Proposed Procurement and Contracting Mechanism
- 6. Key Aspects of Proposed Contract Terms and Conditions
- 7. Technical Assistance to GoI (MOH) and Procurement Oversight
- 8. ANNEX Equipment Lists and Procurement Packaging SIHREN, SOPHI, InPULS









1. Project Financing Scheme





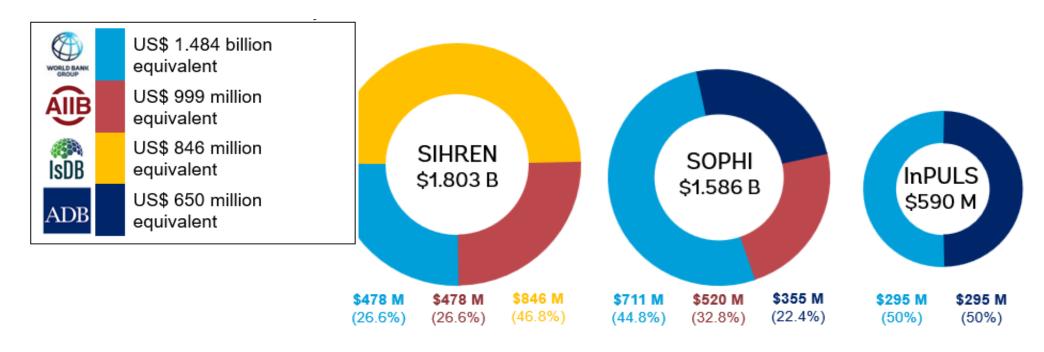






Project Financing Scheme

TOTAL INVESTMENT (LOAN AMOUNT): US\$ 3.979 billion equivalent



Projects from the four Multilateral Development Banks (MDBs) have been approved by MDB Boards and signed by Government of Indonesia











2. Key Objective of the Event











Key objective of the event:

Gather market feedback to support procurement design that can help the Ministry of Health (MOH) to deliver a sustainable medical and laboratory equipment supply across Indonesia and provide operational solutions to known challenges











What are the specific market to be analyzed?

Manufacturers, Suppliers, Distributors, Principles and other relevant stakeholders in the medical equipment sector under the following categories:

- Medical equipment for cardiac, stroke, cancer, uronephrology, NICU/PICU for maternal and child health, equipment for primary care services, and laboratory equipment at different levels of the health system

who can support MOH to increase the availability of functional equipment in the public health facilities across Indonesia:

Hospitals

- 20 Paripurna (National)
- 49 Utama (Province)
- Ca. 492 Madya (District/City)

Public Health Facilities

- Ca. 10,338 *Puskesmas*
- Ca. 50,543 Pustu/Poskesdes
- 300,000 Posyandu Cadres

Public Health Laboratory

- Ca. 231 Tier-2 labs
- Ca. 38 Tier-3 labs
- 14 Tier-4 and 2 Tier-5 labs











Market sounding and engagement approach:

- Arrange multiple vendor conference events starting from September 2023
 - In-person/online participation, including Focus Group Discussions on specific topics, allowing for maximum participation and transparency
- Seek vendor feedback through questionnaires ahead of each vendor conference
- Open FAQ form in a formal dedicated website

<u>Important:</u> All formal communication is routed through MoH's dedicated public website: https://lpse.kemkes.go.id/eproc4/pengumuman/9454047











Recorded Feedback through Questionnaire

First questionnaire:	164 responses (136 local/ 28 international vendors), among which:
	46 are Original Equipment Manufacturers (OEM), and 121 distributors/sales agent
Second questionnaire:	211 responses, of which
	41 OEMs, and
	170 principles/distributors/sales agent
Third questionnaire:	78 responses, of which
· ·	9 OEMs, and
	68 principles/distributors/sales agents



3. Governing Procurement Rules and Regulations under the Project











Indonesia Health System Strengthening (HSS) Project

SIHREN

Co-Financing (WB and AIIB)
Parallel financing (IsDB)

SOPHI

Co-Financing (WB, AIIB and ADB)

InPULS

Co-Financing (WB and ADB)

Co-Financing

The World Bank Procurement Regulations for IPF Borrowers.

Parallel Financing

IsDB Guidelines for the Procurement of Goods, Work and Related Services











Procurement Plan (PP)

Include Information on:

- Packaging Arrangement (Single or Multiple Lot)
- Bidding Schedule (SPN/Award)
- Procurement Method (RFB) and Market Approach
- MDB Review Requirement

Published on:

- MoH's public website
- MDBs' external website

PP will be updated during project implementation as needed, at least annually











Publication of Procurement Opportunities

Specific Procurement Notice (SPN)

Required for each open competitive procurement (international and national open)

For open international competitive procurement - SPN shall published in

- (a) United Nations Development Business (UNDB) online, and
- (b) the MDBs' external website; and the MOH's website

MDBs's external website:

- www.worldbank.org/projects
- www.aiib.org/en/projects/details/2023/proposed/Indonesia-Modernization-of-the-Health-System.html
- www.adb.org/projects/tenders
- https://www.isdb.org/project-procurement/tenders
- UNDB-online: www.devbusiness.com

MOH's website:

https://lpse.kemkes.go.id/eproc4/pengumuman/9454047











Standard Procurement and Contract Documents

For International Open Competitive Method:

• MDBs' Standard Procurement Documents (SPDs), which are available at:

www.worldbank.org/procurement/standarddocuments

https://www.isdb.org/project-procurement/documents

For National Open Competitive Procurement Method:

 Gol's Model Procurement Documents (MDP) – as modified and acceptable by MDBs may be used.









Procurement – Procurement Methods and Market Approach

For international open competitive,

☐ Request for Bids, single stage, two envelopes is the most frequent method

For national open competitive,

■ When market is appropriate and as agreed in the procurement plan, National Open Competitive Procurement method and e-purchasing method (using national eprocurement system: SPSE and e-catalogue may be used)









BIDDERS ELIGIBILITY

- Eligible bidders from all countries
 - Continue to meet requirements in ITB 4 of SPD
- ☐ A firm or individual under sanctioned pursuant to MDBs' Anti-Corruption Guidelines is ineligible to participate in procurement process.



Key Evaluation and Qualification Criteria

Financial capacity:

Average Annual Turn Over (2 x cost estimates of each lot (contract)/contract period) for the last 3 years

Bidders' specific experience:

- has experience in supplying <u>similar</u> equipment with specific minimum quantity specified in the BD in any of year within the last seven (7) years
- Manufacturer's authorization is required

If the bidder is a manufacturer (OEM):

- Has manufactured goods of similar nature and complexity for at least 4 years
- Annual production capacity of goods of similar nature and complexity for each of the last 4 years prior to the bid submission deadline is at least 50% of the quantities specified under each lot











Important Provisions in the Evaluation of Bids under International Open Competitive Procurement

- Rated Criteria shall be used to evaluate specified non-mandatory, non-price attributes of Bids/Proposals
 - ✓ Including quality, risks/mitigations, opportunities, sustainability, and other technical aspects.

Useful information on rated criteria maybe found in the following link:

https://projects.worldbank.org/en/projects-operations/products-and-services/brief/rated-criteria

- Margin of Domestic Preference may also be used in the evaluation process
 - Annex VI World Bank Procurement Regulations for IPF Borrowers
 - ITB 37.1 and Section III Evaluation Qualification Criteria SPD.











Margin of Domestic Preference

- When **open international competitive procurement** is used to procure Goods, a margin of domestic preference may be provided in evaluation for the following:
 - Goods manufactured in the Borrower's country (Group A and Group B), compared with Goods manufactured abroad (Group C);
 - If as a result of this comparison a Bid from Group A or Group B is the Most Advantageous, it shall be selected for the award;
 - o If as a result of the preceding comparison, a Bid from Group C is the Most Advantageous Bid, it will be added to the evaluated price of goods an amount equal to 15% (fifteen percent) of the respective CIP Bid price for goods to be imported and already imported goods. If as a result of further comparison, the Bid from Group A or Goup B is the Most Advantageous, it shall be selected for award. If not, the Most Advantageous Bid from Group C shall be selected.
- ➤ If applicable, the use of domestic preference including evaluation criteria is set forth in the bidding documents.











Margin of Domestic Preference – Grouping (Based on Country of Origin)

Group A DOMESTIC PRODUCT

Labor, raw materials, and components > 30 % EXW price

Production facility has been engaged in manufacturing or assembling at least since the date of Bid submission.

Group B
DOMESTIC PRODUCT

All Other Goods (Equipment)

Manufactured in INDONESIA

Group C IMPORTED

Already Imported

Will be Imported

ILUSTRATION: ONLY FOR BID COMPARISON



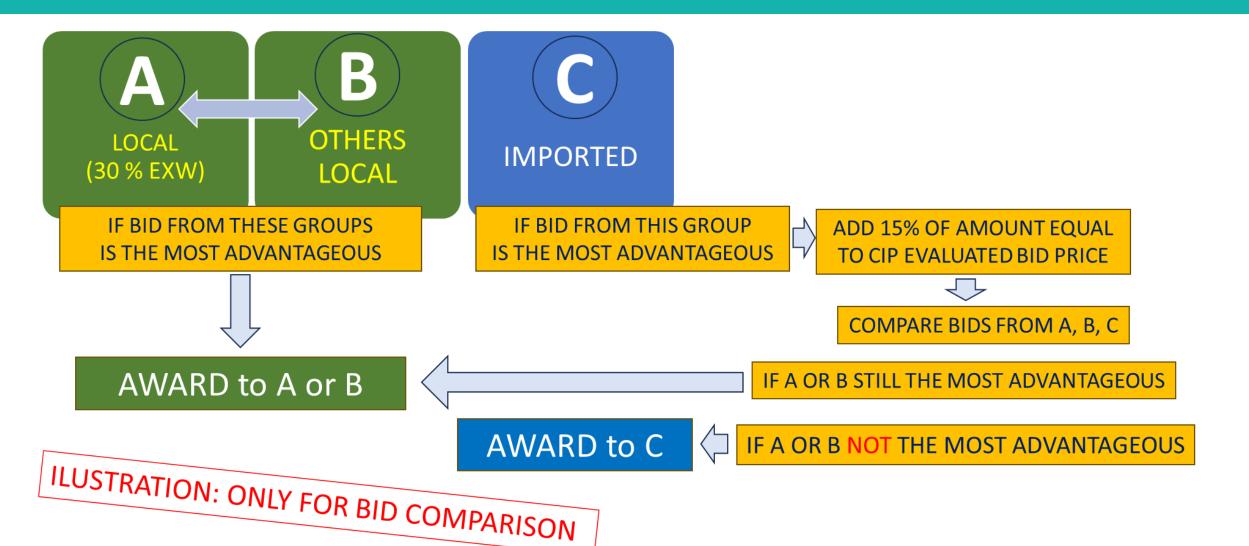








Margin of Domestic Preference – Bid Comparision













Procurement – Key Bidding Process Provisions

☐ Pre-bid meeting conducted circa two weeks after SPN publication **Bidders** may seek clarification on bidding documents until 15 business days before bid submission deadline ☐ Alternative bids for the same lot will not be considered **Bid securing declaration** is required ☐ Quantity variation: Contracts to allow variation of up to 10% quantity increase or decrease (may change by type of equipment) ☐ Currency of bids: Foreign currency (up to maximum three currency) and/or local currency











4. Key Aspects of the Project Procurement (Also Summarized based on the Vendor Responses)











Procurement – Objectives & Principles

- Market sounding and analysis resulted in following objectives for procurement:
 - **Timely completion** Optimized packaging matching facility readiness
 - Maximizing functionality and uptime of procured equipment
 - **Sustainability** of investment
 - Building of domestic capacity
 - Ensure selection criteria based on a balanced combination of technical and price criteria
- ☐ For timeliness, procurement is carried out in batches starting January 2024
- For very large or high-value packages, geographic lots are created
- ☐ Contracts will be awarded to a **single winner per lot**
- 72% of respondents were comfortable with flat pricing (no adjustments)











Weighting system in Bid Evaluation (a sample of Cathlab)

A weighting system is used to evaluate technical and financial parts of the bid by lot.
Mandatory and rated criteria apply for the technical bid:
 Strict mandatory technical specifications ensure sound technological base prior to weighting- full compliance needed for each bid
 Rated criteria are different from mandatory criteria, are separately indicated and these go over and above the mandatory criteria. These are non-mandatory.
 a ratio of 30% Technical (calculated for rated criteria only) versus 70% Financial is proposed This share is likely to be similar for complex technologies, though can be differentiated to some extent for different types of equipment on a market evidence basis
 About 71% of respondents have experience with rated criteria 58% of respondents indicated the proposed split is workable
te: Low-tech medical equipment, such as most SOPHI and lower-tier InPULS equipment, are expected to have a gher weighting for financial











Weighting system in Bid Evaluation (a sample of Cathlab)

Rated criteria category

Criteria whereby the bidder has specific attributes that are beyond mandatory requirements in terms of:

Physical equipment specifications, including technical performance and physical specifications

Mechanical & Electrical (M&E) Requirements

IT Requirements

Al and Telemedicine Requirements

Criteria whereby the bidder goes beyond minimum requirements in relation to operational support (training, provision of consumables, etc.) in terms of after-Sales Maintenance & Service Requirements

Weights for rated criteria are determined based on the importance of each requirement to the physical performance of the equipment or the after-sales service provisions











Joint Ventures Requirements

- ☐ While not compulsory, formation of a **Joint Venture (JV) is allowed**, with a **maximum of 2 members** with a change to a maximum of 3 members is possible
 - This maximum of 2 is acceptable to 65% of respondents
- ☐ Power of Attorney will be signed by company leader from each member of the JV
- Lead Partner must meet minimum forty percent (40%) of the total AATO requirement while each partner must meet minimum twenty five percent (25%) of total AATO
 - This balance is acceptable to 74% of respondents
- ☐ No need for JV to be registered as a new entity in Indonesia or elsewhere, proof of JV suffices
- ☐ All members of JV shall be **jointly and severally liable for the execution of the entire** contract











5. Proposed Procurement and Contracting Mechanism (a sample of Cathlab)











Procurement – Staggered Delivery & Facility Readiness

- ☐ Equipment is delivered on an annual staggered basis over a period of up to 4 years to facilities
- ☐ Applying a fourfold set of **readiness criteria** to ensure health facilities are prepared to receive and sustainably operate and maintain the devices:
 - A. Prior availability of equipment in the facility
 - B. Human resource capacity
 - C. Infrastructure and utility access
 - D. Adherence to local and national regulations on medical waste
- ☐ Data will be included in **ASPAK** with **verification** for District Health Office and counter-verification from Inspectorate General, updated at least every 6 months











Total Cost of Ownership (TOC) Approach

☐ Upfront pricing for multi-staged delivery

includes

- transportation, installation, repairs and maintenance
- operational skills transfer to health workers, benefiting public health sector
- Linking payments to functionality of equipment
- Includes, where relevant, consumables, software upgrades, and accessories and their replenishment
- ☐ Commitment to maintenance and repairs over five years (where applicable)

Consisting of

2 years of uptime-based payments

followed by

- 3 years of extended warranty, including comprehensive service package and consumables and upgrades as relevant
- upfront quotation for the cost of comprehensive maintenance and repair service contract for the 6th year, which will be financially evaluated for the expected total cost for years 6-10, inclusive of comprehensive annual preventive maintenance and repair services











Payment terms

For low-tech or small equipment (equipment that does not require uptime-based O&M arrangements from the vendor):

• payment is completed upon delivery and acceptance though warranty provisions still apply where applicable

For large, complex, high-tech or expensive equipment (equipment that requires uptime-based O&M arrangements, including upfront pricing for consumables, maintenance beyond the contract period, committed availability of accessories and/or upgrades):

- payment follows certain milestones (cath labs used as example below, percentage share at each milestone may vary by equipment)
 - **1.** Advance Payment: 10% of Contract Price within 30 days of contract signing
 - **2. Shipment**: 25% of the Contract Price
 - **3.** Acceptance: 15% of the Contract Price within 30 days of acceptance certificate for the respective delivery
 - **4. Uptime performance-linked payment**: 12.5% per half year of the Contract Price adjusted for any penalty for delayed repair or excessive downtime over four half-year periods









Promotion of Spatial Equity in the Health Sector

	roject, by design, addresses the need for equipment in areas that are currently disadvantaged ared to the locations where the subnational governments (SNGs) had already invested adequately
	'staggered delivery' approaches gives additional time to disadvantaged facilities to meet readiness without missing out
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6. Proposed Key Aspects of Contract Terms and Conditions











Guarantees

At contract initiation:

☐ A **Performance Security** of 10% of the Contract (reduced after acceptance of the Goods and completion of all services in equal value)

to cover:

- the comprehensive repair and maintenance/warranty for 2 years
- including extended repairs/maintenance/ warranty for another 3 years beyond full payment for that equipment.

At the time of final payment:

☐ a Bank Guarantee of 5% of Contract Price

to cover:

■ the remaining years of repair/maintenance/warranty for equipment that is still within the warranty period, up to 3 years











Liquidated Damages/Penalty

In the delivery Phase (including related services)

A liquidated damages

- will be applied in terms of **delays in delivery** of 1/1,000 per day
- maximum liquidated damages for commissioning: capped at 10%

In the O&M Phase

A penalty

- will be applied due to delays in repair or delayed maintenance of 0.1% of the equipment value per day after 5 days from the notification
- will be increased to 0.3% of the equipment value per day from the 16th day
- maximum penalty in the O&M phase: capped at 25% of total contract value.











7. Technical Assistance to GoI (MOH) and Procurement Oversight











Technical Assistance to Government & Probity Assurance

☐ Hands-on Expanded Implementation Support (HEIS)

Hiring of technical assistance firms such as Emergency Care Research Institute (ECRI) by MDBs
 to provide direct technical and procurement support to MoH in preparation of market analysis, best practices in tech specs, Vendor Conferences, and share knowledge/international examples on procurement approach

☐ Probity Assurance

- To underpin principles of fairness, transparency and equitable knowledge for all interested parties and stakeholders
 - ✓ Government: State Development Audit Agency (Badan Pemeriksa Keuangan Pemerintah/BPKP)
 - ✓ External independent probity assurance provider (EY)

has been engaged to ensure transparency and integrity in procurement











8. Timeline











Procurement and Contracting Arrangement (Milestone)

INDICATIVE PROCUREMENT TIMELINE

Bidding Announcement (SPN) + min 30 business days Bid Submission /Opening + 98 calendar days Notification of Contract Award within 28 calendar days Sign Contract + 180 Hari Kalender 1st Delivery, Installation Contract and Acceptance Completion + 5 Tahun

A sample for Cathlab



ANNEX – Equipment Lists











Equipment List – SIHREN (WB-AIIB)

Electrical Beds with Scale	3D Ablation System					
Cathlab Single Plane & Bi Plane	Intra-aortic Ballon Pump (IABP)					
Automated Peritoneal Dialysis	Rotablator (Cardiac)					
Continuous Renal Replacement Therapy (CRRT), Neonate	Fractional Flow Reserve (OCT and IVUS compatible)					
Video Flexible Bronchoscopy (Portable Handheld)	Invasive Hemodynamic Monitor					
High Flow Oxygen Delivery Unit (NICU/PICU)	Optical Coherence Tomography (OCT)					
Infant Incubator (NICU)	Intravascular Ultrasound (IVUS)					
Infant Incubator with Radiant Warmer (NICU)	Portable Blood Gas Analyzer (NICU)					
Transport Infant Incubator	Point-of-Care Bilirubinometer					
Thromboelastogram (TEG)	ND:Yag Ablation Laser for TTTS (OBGYN)					
Analyzers, Laboratory, Molecular Assay, Infectious Microorganism	Laser Holmium (Ho:YAG Laser urology)					
Spectrometers, Mass, Laboratory	Auditory Function Screening Devices - Brain Evoked Response Auditory (Neonate)					
MRI 1.5T	Auditory Function Screening Devices - Otoacoustic (Neonate)					











Equipment List – SIHREN (WB-AIIB)

High speed drill power system	C-arm				
Neurosurgery microscope	Digital Mobile X-Ray				
Neonatal Electroencephalography (EEG) (NICU)	Anaesthesia Unit				
Portable Respiratory Monitor (Capnography + Oximetry)	Nitric Oxide Delivery Unit				
Pulse Co-Oximeter (Neonate)	Heart Lung Bypass Unit				
Ophthalmic Diode Laser (810nm)	ECMO Set				
Ophthalmoscope Indirect	ECMO Set (NICU)				
Vein Finder	Radiofrequency Therapy System (Puncture Generator) (NICU)				
Neonate Invasive Patient Monitor (NICU)	ESWL (Lithotripter)				
Invasive Blood Pressure Monitor (Paeds & Neonate)	Continuous Positive Airway Pressure (CPAP), Transport				
Cardiotocography (CTG)/Fetal Monitor	High Frequency Ventilator (NICU)				
Neonate Patient Monitor (NICU)	Blanket Warmer (Forced Air)				
Transcutaneous Non-Invasive Blood Gas Monitor	Near Infrared Spectroscopy (NIRS) NICU/Cerebral Oximeter				











Equipment List – SIHREN (WB-AIIB)

3D Ultrasound (OBGYN)	Warming/Cooling Units, Patient, Circulating-Liquid (Pad)
4D Ultrasound (OBGYN)	Warming/Cooling Units, Patient, Circulating-Liquid (Blanket)
Itrasound Doppler (Nephro)	Ultrasonic Cardiac Output Monitor
Echocardiography	
Portable Echocardiography (Neonate)	
4D Portable Echocardiography (Neonate)	
Non-invasive Ventilator (Adult & Paeds)	
Non-invasive Ventilator (Neonate)	
Ventilator (Adult & Paeds)	
Ventilator (Neonate – NICU)	
Transport Ventilator (Adult & Paeds)	
Transport Ventilator (Neonate – NICU)	











Equipment List – SIHREN (IsDB – using IsDB procurement regulation through parallel financing)

CT Scan Minimal 128 Slice
CT Scan Minimal 64 Slice
Brachytherapy
CT-Simulator
Cyclotron
Cytotoxic Drugs Safety Cabinet
IHK Set
Linac
Mammography
PET-CT Scan
SPECT











Equipment List – SOPHI (WB-AIIB-ADB)

Adult Resuscitator	Analytical Balance		
Infant T Piece Resuscitator	Binocular Microscope (Lab)		
Infant T Piece Resuscitator with PEEP	Graduated Pipette (Vol 1 cc)		
Neonatal Resuscitator	Hygro-thermometer		
Adult Scale	Micropipette 5-50, 100-200, 500-1000 ul		
Body Height Measurement	Microhematocrit Centrifuge		
Digital Infant Weighing Scale	Photometer		
Defibrillator	Rotator Plate		
Automated hemoglobin system/hematology analyzer	Bassinet (Infant)		
Chemistry Analyzer, Centrifugal (for Clinical Use)	Infant Incubator		
Urine analyzer (Semi-automated)	Infant Radiant Warmer		
Neonatal Straight Blade Laryngoscopes	Rigid Laryngoscopes		











Equipment List - SOPHI (WB-AIIB-ADB)

Dental Chair (Complete System)	Cryosurgical Unit and Accessories			
Dental Light Curing Unit	Electrocautery Unit			
Ultrasonic Scaler (Dental)	Mayo Table or Instrument Table			
Nebulizer	Vacuum Extractor, Obstetrics			
Oxygen Tank 1 Metercube & Regulator	Adult Stethoscope			
Oxygen Tank 6 Metercube & Regulator	Paediatric Stethoscope			
Spirometer/Diagnostic Spirometer	Neonatal Duplex Stethoscope			
Patient Beds	Fetal Stethoscope/Fetoscope			
Laboratory Point-Of-Care (POC)	Lancet Pen			
Pulse Oximeter	Ophthalmoscope			
Stretcher (Emergency)	Otoscope			
Wheelchair	Thermometer			











Equipment List – SOPHI (WB-AIIB-ADB)

Binocular Loupe	X-Ray Film Viewer
Examination Light, Stand Alone	Tensimeter
Head Lamp	Electrocardiograph (ECG)
Pen Light	Table/Chair Equipment
Portable Aspirators (Infant)	Examination Table (Clinic)
Refrigerator	Gynae Examination Table/Chair
Refrigerator (Vaccine)	Infantometer
Vaccine Carrier/Coolbox	
Infusion Pump	
Syringe Pump	
High Pressure Steam Sterilizer (Autoclave	
Ultrasound Doppler (Fetal)	











Biocontainment Centrifuge	Automatic Device for Multi Channel Pipette Calibration					
Centrifuge	Micropipette (0-2 mikron, 1-10 mikron, 10-100 mikron, 20-200 mikron, 100-1000 mikron) + Carousel					
Centrifuge (250ml)	Micropipette Set 10, 100, 200, 1000					
Centrifuge (8-hole)	Multichannel Pipette (1-10 mikron, 10-100 mikron, 20-200 mikron, 100-1000 mikron - 8 row)					
Electric Centrifuge	Pipette Dispenser					
Microcentrifuge (Non-refrigerated)	Laboratory Incubator					
Mini-centrifuge (Spindown)	Laboratory Incubator (CO2)					
Plate Centrifuge	Laboratory Incubator (Portable)					
Microcentrifuge (Refrigerated)	Laboratory Microwave					
Refrigerated Centrifuge (Highspeed - 14,000 rpm)	Laboratory Oven					
Refrigerated Centrifuge (Low speed)	Dry Autoclave (Chemical)					
Refrigerated Centrifuge (Ultra highspeed - 90,000 rpm)	Flammable Liquid Storage Cabinet					











Fume Hood	Monitoring system for biorepository			
Laminar Air Flow	Sonicator Chamber			
Wet Autoclave (Steam)	Vortex Mixer			
Analytical Balance	Waterbath			
Electrophoresis gel detector	Conventional PCR			
Electrophoresis Set	Digital PCR			
Freeze dryer for Cryopreservation	Portable PCR (Loop Mediated Isothermal Amplification)			
Hotplate + magnetic stirrer	RT-PCR			
Laboratory water distiller	Automated Urine Analyzer			
lyophilization Set	Urine Analyzer			
Microbiology air sampler	Chemistry Analyzer			
Microwave Digestion System	HbA1C Analyzer (Hemoglobin Analyzer)			











Hematology Analyzer	Flow Cytometer				
Microbiology Analyzer (Identification and Drug Sensitivity Test /DST)	Gas Chromatography Mass Spectrometry (GCMS)				
Molecular Assay Analyzer (Rapid Molecular Test) (TCM 8 Modul)	High Performance Liquid Chromatography (HPLC)				
Molecular Assay Analyzer (Rapid Molecular Test) (TCM TB XDR 10 Color)	ID-AST automated (Bacterial Identification and sensitivity test)				
Mycobacteriology Analyzer for Tuberculosis	ID-AST semi-automated (Bacterial Identification and sensitivity test)				
Atomic Absorption Spectrophotometry (AAS, Flame & Graphite Furnace)	Inductively Coupled Plasma Mass Spectrometry (ICP-MS)				
Automated Blood Culture System	Inductively Coupled Plasma Optical Emission Spectroscopy (ICP OES)				
Automatic Extractor (To isolate RNA and DNA from sample)	Liquid chromatography-tandem mass spectrometry (LC-MS/MS) Detector				
Chemi Luminescence Immuno Assay (CLIA)	Next Generation Sequencer (NGS) Long Read Sequencer				
ELISA Set (ELISA Reader, ELISA Washer)	Next Generation Sequencing (NGS)				
Endotoxin Measuring Instruments	Oligosynthesizer				
Enzyme Immuno Assay (EIA)	Pyrolysis Gas Chromatography-Mass Spectrometry (Pyrolysis-GC-MS)				











Sanger Sequencer	Staining Rack and Tray			
Spectrofluorometers	Thermocouple (Temperature Calibrator)			
Ultraviolet-visible Spectrophotometer	Freezer -20 Celsius			
Biosafety Cabinet (Class 2A)	Freezer -20 Celsius with rack system			
Colony counter	Freezer -80 Celsius			
Colony counter (Automated)	Reagent Refrigerator			
Cool Box for Sample	Showcase Refrigerator			
Dehumidifier	Specimen Refrigerator			
Hygrothermometer Calibrator	Mercury Analyzer			
Nephelometer	Binocular Microscope			
Rotator Plate	Dark Field Microscope			
Shaker Plate	Fluorescence Microscope			
Inverted Microscope	Stereo Microscope			











ANNEX – Procurement Planning Packaging











No	Activity	Procurement Category	Component (SIHREN)	Review Type	Proc. Method	Market Approach	Estimated total amount (USD)
1	Procurement of Electrical Beds with Scale (28 units)	Goods	2	Post	RFB (1S 1E)	National Open/RFQ/e- purchasing	226,243.17
2	Procurement of Cathlab Single Plane & Bi Plane (401 units)	Goods	2	Prior	RFB (1S 2E)	International Open	497,365,417.00
	Lot 1: Procurement of Single Plane Cathlabs for delivery to West Indonesia (149 units)	Goods					182,082,176.00
	Lot 2: Procurement of Single Plane Cathlabs for delivery to Central Indonesia (72 units)	Goods					87,986,018.00
	Lot 3: Procurement of Single Plane Cathlabs for delivery to East Indonesia (174 units)	Goods					212,632,877.00
	Lot 4: Procurement of Biplane Cathlabs for delivery across Indonesia (6 units)	Goods					14,664,336.00
3	Procurement of Dialysis Equipment (16 units)	Goods	2	Post	RFB (1S 1E)	National Open	581,642.56
	Lot 1: Procurement of Automated Peritoneal Dialysis (12 units)	Goods					242,764.80
	Lot 2: Procurement of Continuous Renal Replacement Therapy (CRRT), Neonate (4 units)	Goods					338,877.76
4	Procurement of Video Flexible Bronchoscopy (Portable Handheld) (3 units)	Goods	2	Post	RFB (1S 1E)	National Open	862,463.23
5	Procurement of High Flow Equipment (80 units)	Goods	2	Post	RFB (1S 1E)	National Open	1,700,561.11
	Lot 1: Procurement of High Flow Oxygen Delivery Unit (NICU) (39 units)	Goods					830,565.12
	Lot 2: Procurement of High Flow Oxygen Delivery Unit (PICU) (41 units)	Goods					869,995.99
6	Procurement of Infant Warmers Equipment (851 units)	Goods	2	Prior	RFB (1S 2E)	International Open	28,673,343.16
	Lot 1: Procurement of Infant Warmers Equipment for delivery to West Indonesia (324 units) Infant Incubator (NICU) (310 units) Infant Incubator with Radiant Warmer (NICU) (12 units) Transport Infant Incubator (2 units)	Goods					10,968,568.65











10	Procurement of Portable Blood Gas Analyzer (NICU) (415 units)	Goods	2 KEMENTERIAN KESEHATAN	Prior	(1S 1F)	National Open ASIAN INFRASTRUCTURE	8,38 <mark>8,5</mark> 87.86
	Lot 2: Procurement of Spectrometers, Mass, Laboratory (5 units)	Goods			RFB		1,852,080.25
	Lot 1: Procurement of Analyzers, Laboratory, Molecular Assay, Infectious Microorganism (13 units)	Goods					779,029.33
9	Procurement of Laboratory Major Analyzer Equipment (18 units)	Goods	2	Prior	RFB (1S 1E)	National	2,631,109.59
8	Procurement of Thromboelastogram (TEG) (13 units)	Goods	2	Post	RFB (1S 1E)	National Open/RFQ/e- purchasing	404,121.47
	Lot 7: Procurement of Intravascular Ultrasound (IVUS) (8 units)	Goods					1,395,200.00
	Lot 6: Procurement of Optical Coherence Tomography (OCT) (8 units)	Goods					1,424,800.00
	Lot 5: Procurement of Invasive Hemodynamic Monitor (19 units)	Goods					996,258.67
	Lot 4: Procurement of Fractional Flow Reserve (OCT and IVUS compatible) (26 units)	Goods					3,627,520.00
	Lot 3: Procurement of Rotablator (Cardiac) (26 units)	Goods					1,160,806.40
	Lot 2: Procurement of Intra-aortic Ballon Pump (IABP) (11 units)	Goods					1,534,720.00
	Lot 1: Procurement of 3D Ablation System (3 units)	Goods					334,848.00
7	Procurement of Invasive Cardiology Equipment (101 units)	Goods	2	Prior	RFB (1S 2E)	International Open	10,474,153.07
	Lot 3: Procurement of Infant Warmers Equipment for delivery to East Indonesia (371 units) - Infant Incubator (NICU) (362 units) - Infant Incubator with Radiant Warmer (NICU) (8 units) - Transport Infant Incubator (1 unit)	Goods					12,131,133.03
	Lot 2: Procurement of Infant Warmers Equipment for delivery to Central Indonesia (156 units) - Infant Incubator (NICU) (146 units) - Infant Incubator with Radiant Warmer (NICU) (10 units)	Goods					5,573,641.48

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	Lot 1: Procurement of Portable Blood Gas Analyzer (NICU) for delivery West Indonesia (157 units)	Goods					3,173,513.96
	Lot 2: Procurement of Portable Blood Gas Analyzer (NICU) for delivery to Central Indonesia (75 units)	Goods					1,516,009.85
	Lot 3: Procurement of Portable Blood Gas Analyzer (NICU) for delivery to East Indonesia (183 units)	Goods					3,699,064.04
11	Procurement of Point-of-Care Bilirubinometer (537 units)	Goods	2	Prior	RFB (1S 1E)	National Open	2,297,584.47
	Lot 1: Procurement of Point-of-Care Bilirubinometer, Blood Sample for delivery to West Indonesia (200 units)	Goods					855,711.16
	Lot 2: Procurement of Point-of-Care Bilirubinometer, Blood Sample for delivery to Central Indonesia (102 units)	Goods					436,412.69
	Lot 3: Procurement of Point-of-Care Bilirubinometer, Blood Sample for delivery to East Indonesia (235 units)	Goods					1,005,460.62
12	Procurement of Laser Bundle (17 units)	Goods	2	Prior	RFB (1S 1E)	National Open	3,209,180.86
	Lot 1: Procurement of Laser Holmium (Ho:YAG Laser urology) (13 units)	Goods					2,730,000.00
	Lot 2: Procurement of ND:Yag Ablation Laser for TTTS (OBGYN) (4 units)	Goods					479,180.86
13	Procurement of MRI 1.5T (11 units)	Goods	2	Prior	RFB (1S 2E)	International Open	19,797,888
14	Procurement of Neonatal Equipment (35 units)	Goods	2	Post	RFB (1S 1E)	National Open	502,314.73
	Lot 1: Procurement of Auditory Function Screening Devices - Brain Evoked Response Auditory (Neonate) (4 units)	Goods					194,598.15
	Lot 2: Procurement of Auditory Function Screening Devices - Otoacoustic (Neonate) (31 units)	Goods					307,716.59
15	Procurement of Neuro Equipment (45 units)	Goods	2	Prior	RFB (1S 1E)	National Open	8,989,981.84
	Lot 1: Procurement of High speed drill power system (for neurosurgery) (16 units)	Goods					1,116,160.00
	Lot 2: Procurement of Neurosurgery microscope (12 units)	Goods					6,720,000.00
	Lot 3: Procurement of Neonatal Electroencephalography (EEG) (NICU) (17 units)	Goods					1,153,821.84

16	Procurement of Oximetry Equipment (580 units)	Goods	2	Prior	RFB (1S 1E)	National Open	2,657,766.74
	Lot 1: Procurement of Portable Respiratory Monitor (Capnography + Oximetry) (42 units)	Goods					471,912.00
	Lot 2: Procurement of Pulse Co-Oximeter (Neonate) for delivery to West Indonesia (200 units)	Goods					812,585.40
	Lot 3: Procurement Pulse Co-Oximeter (Neonate) for delivery to Central Indonesia (102 units)	Goods					414,418.56
	Lot 4: Procurement Pulse Co-Oximeter (Neonate) for delivery to East Indonesia (236 units)	Goods					958,850.78
17	Procurement of Ophthalmic Diode Laser (810nm) (7 units)	Goods	2	Post	RFB (1S 1E)	National Open	617,550.93
18	Procurement of Patient Diagnostic Equipment (19 units)	Goods	2	Post	RFB (1S 1E)	National Open/RFQ/e- purchasing	113,523.97
	Lot 1: Procurement of Ophthalmoscope Indirect (14 units)	Goods					96,133.72
	Lot 2: Procurement of Vein Finder (5 units)	Goods					17,390.26
19	Procurement of Patient Monitoring Invasive Equipment (71 units)	Goods	2	Post	RFB (1S 1E)	National Open	949,277.21
	Lot 1: Procurement of Neonate Invasive Patient Monitor (NICU) (40 units)	Goods					693,845.47
	Lot 2: Procurement of Invasive Blood Pressure Monitor (Paeds & Neonate) (31 units)	Goods					255,431.73
20	Procurement of Patient Monitoring Non-Invasive Equipment (443 units)	Goods	2	Prior	RFB (1S 1E)	National Open	3,954,083.23
	Lot 1: Procurement of Cardiotocography (CTG)/Fetal Monitor (34 units)	Goods					295,431.89
	Lot 2: Procurement of Neonate Patient Monitor (NICU) for delivery to West Indonesia (155 units)	Goods					1,386,530.46
	Lot 3: Procurement of Neonate Patient Monitor (NICU) for delivery to Central Indonesia (73 units)	Goods					653,011.12
	Lot 4: Procurement of Neonate Patient Monitor (NICU) for delivery to East Indonesia (181 units)	Goods	VEMENTEDIANI	/200			1,619,109.76











21	Procurement of Transcutaneous Non-Invasive Blood Gas Monitor (5 units)	Goods	2	Post	RFB (1S 1E)	National Open/RFQ/e- purchasing	159,176.67
22	Procurement of Radiography Equipment (7 units)	Goods	2	Post	RFB (1S 1E)	National Open	1,520,100.53
	Lot 1: Procurement of C-arm (6 units)	Goods					1,255,680.00
	Lot 2: Procurement of Digital Mobile X-Ray (1 unit)	Goods					264,420.53
23	Procurement of Respiratory/ Anaesthesia Equipment (22 units)	Goods	2	Prior	RFB (1S 1E)	National Open	2,669,664.01
	Lot 1: Procurement of Anaesthesia Unit (Paeds) (5 units)	Goods					526,981.28
	Lot 2: Procurement of Nitric Oxide Delivery Unit (17 units)	Goods					2,142,682.73
24	Procurement of Surgery Equipment (79 units)	Goods	2	Prior	RFB (1S 2E)	International Open	20,475,514.62
	Lot 1: Procurement of Heart Lung Bypass Unit (18 units)	Goods					5,022,720.00
	Lot 2: Procurement of ECMO Set (36 units)	Goods					9,609,748.20
	Lot 3: Procurement of ECMO Set (NICU) (2 units)	Goods					586,085.49
	Lot 4: Procurement of Radiofrequency Therapy System (Puncture Generator) (NICU) (12 units)	Goods					652,800.93
	Lot 5: Procurement of ESWL (Lithotripter) (11 units)	Goods					4,604,160.00
25	Procurement of Ultrasound Equipment (876 units)	Goods	2	Prior	RFB (1S 2E)	International Open	75,159,589.31
	Lot 1: Procurement of Ultrasound Equipment for delivery to West Indonesia (349 units) - 3D Ultrasound (OBGYN) (3 units) - 4D Ultrasound (OBGYN) (1 unit) - Ultrasound Doppler (Nephro) (100 units) - Echocardiography (86 units) - Portable Echocardiography (Neonate) (155 units) - 4D Portable Echocardiography (Neonate) (4 units)	Goods					30,230,669.54











	- 4D Portable Echocardiography (Neonate) (3 units)						11,199,325.35
	Lot 3: Procurement of Ultrasound Equipment for delivery to East Indonesia (389 units) - 3D Ultrasound (OBGYN) (3 units) - Ultrasound Doppler (Nephro) (93 units) - Echocardiography (107 units) - Portable Echocardiography (Neonate) (181 units) - 4D Portable Echocardiography (Neonate) (5 units)	Goods					33,729,594.41
26	Procurement of CPAP Equipment (538 units)	Goods	2	Post	RFB (1S 1E)	National Open	1,941,553.32
	Lot 1: Procurement of Continuous Positive Airway Pressure (CPAP), Transport for delivery to West Indonesia (200 units)	Goods					721,767.04
	Lot 2: Procurement of Continuous Positive Airway Pressure (CPAP), Transport for delivery to Central Indonesia (102 units)	Goods					368,101.19
	Lot 3: Procurement of Continuous Positive Airway Pressure (CPAP), Transport for delivery to East Indonesia (236 units)	Goods					851,685.10
27	Procurement of Ventilator Equipment (1987 units)	Goods	2	Prior	RFB (1S 2E)	International Open	79,582,416.81
	Lot 1: Procurement of High Frequency Ventilator (NICU) (32 units)	Goods					3,878,367.57
	Lot 2: Procurement of Ventilators for delivery to West Indonesia (732 units) Non-invasive Ventilator (Adult & Paeds) (209 units) Non-invasive Ventilator (Neonate) (155 units) Ventilator (Adult & Paeds) (205 units) Ventilator (Neonate – NICU) (155 units) Transport Ventilator (Adult & Paeds) (1 unit) Transport Ventilator (Neonate – NICU) (7 units)	Goods					28,432,076.62

30	Procurement of Ultrasonic Cardiac Output Monitor (40 units)	Goods	2 KEMENTERIAN S	Post	RFB (1S 1E)	National Open	1,558,058.67
29	Procurement of Near Infrared Spectroscopy (NIRS) NICU/Cerebral Oximeter (40 units)	Goods	2	Post	RFB (1S 1E)	National Open	1,970,772.83
	Lot 5: Procurement of Warming/Cooling Units, Patient, Circulating-Liquid (Blanket) (17 units)	Goods					514,758.61
	Lot 4: Procurement of Warming/Cooling Units, Patient, Circulating-Liquid (Pad) (33 units)	Goods					1,112,364.00
	Lot 3: Procurement of Blanket Warmer (Forced Air) for delivery to East Indonesia (241 units)	Goods					1,160,225.10
	Lot 2: Procurement of Blanket Warmer (Forced Air) for delivery to Central Indonesia (106 units)	Goods					510,306.48
	Lot 1: Procurement of Blanket Warmer (Forced Air) for delivery to West Indonesia (206 units)	Goods					991,727.68
28	Procurement of Warming/ Cooling Equipment (603 units)	Goods	2	Prior	RFB (1S 1E)	National Open	4,289,381.87
	Lot 4: Procurement of Ventilator for delivery to East Indonesia (862 units) - Non-invasive Ventilator (Adult & Paeds) (253 units) - Non-invasive Ventilator (Neonate) (181 units) - Ventilator (Adult & Paeds) (239 units) - Ventilator (Neonate – NICU) (184 units) - Transport Ventilator (Neonate – NICU) (5 units)	Goods					33,263,278.12
	Lot 3: Procurement of Ventilator for delivery to Central Indonesia (361 units) - Non-invasive Ventilator (Adult & Paeds) (107 units) - Non-invasive Ventilator (Neonate) (73 units) - Ventilator (Adult & Paeds) (103 units) - Ventilator (Neonate – NICU) (75 units) - Transport Ventilator (Neonate – NICU) (3 units)	Goods					14,008,694.49

No	Activity	Procurement Category	Component (SOPHI)	Review Type	Proc. Method	Market Approach	Estimated total amount (USD)
1	Procurement of Resuscitator (26,608 units)	Goods	1	Prior	RFB (1S 1E)	National Open	11,142,178.90
	Lot 1: Adult Resuscitator (10,686 units)						425,409.66
	Lot 2: Infant T Piece Resuscitator (4,074 units)						97,327.86
	Lot 3: Infant T Piece Resuscitator with PEEP (3,875 units)						10,302,036.25
	Lot 4: Neonatal Resuscitator (7,973 units)						317,405.13
2	Procurement of Scale (83,690 units)	Goods	1	Prior	RFB (1S 1E)	National Open	15,843,262.26
	Lot 1: Adult Scale (30,684 units)						4,570,688.64
	Lot 2: Body Height Measurement (28,512 units)						7,627,621.48
	Lot 3: Digital Infant Weighing Scale (24,494 units)						3,644,952.14
3	Procurement of Laboratory General Equipment (35,174 units)	Goods	1	Prior	RFB (1S 2E)	International Open	19,217,005.07
	Lot 1: Analytical Balance (4,163 units)						4,433,844.78
	Lot 2: Binocular Microscope (Lab) (1,994 units)						2,529,468.76
	Lot 3: Graduated Pipette (Vol 1 cc) (13,616 units)						172,923.20
	Lot 4: Hygro-thermometer (4,023 units)						87,138.18
	Lot 5: Micropipette 5-50, 100-200, 500-1000 ul (2,803 units)						192,033.53
	Lot 6: Microhematocrit Centrifuge (2,902 units)						6,968,041.62
	Lot 7: Photometer (2,850 units)						1,457,490.00
	Lot 8: Rotator Plate (2,923 units)		KEMENTERIAN KESEHATAN	IsDB 🙉		ASIAN INFRASTRUCTURE	3,376 <mark>,0</mark> 65.00

4	Procurement of Defibrillator (4,113 units)	Goods	1	Prior	RFB (1S 1E)	National Open	7,352,069.76
5	Procurement of Laboratory Major Analyzer (7,525 units)	Goods	1	Prior	RFB (1S 2E)	International Open	87,684,046.50
	Lot 1: Automated hemoglobin system/hematology analyzer (2,219 units)						19,832,534.40
	Lot 2: Chemistry Analyzer, Centrifugal (for Clinical Use) (2,263 units)						63,364,000.00
	Lot 3: Urine analyzer (Semi-automated) (3,043 units)						4,487,512.10
6	Procurement of Infant Warmers (12,507 units)	Goods	1	Prior	RFB (1S 2E)	International Open	63,515,300.77
	Lot 1: Bassinet (Infant) (6,115 units)						1,452,862.85
	Lot 2: Infant Incubator (3,373 units)						47,222,000.00
	Lot 3: Infant Radiant Warmer (3,019 units)						14,840,437.92
7	Procurement of Dental Equipment (8,572 units)	Goods	1	Prior	RFB (1S 2E)	International Open	16,823,922.37
	Lot 1: Dental Chair (Complete System) (2,060 units)						15,467,015.60
	Lot 2: Dental Light Curing Unit (3,231 units)						552,307.14
	Lot 3: Ultrasonic Scaler (Dental) (3,281 units)						804,599.63
8	Procurement of Surgery Equipment (47,066 units)	Goods	1	Prior	RFB (1S 2E)	International Open	53,751,632.23
	Lot 1: Cryosurgical Unit and Accessories (5,398 units)						32,565,414.27
	Lot 2: Electrocautery Unit (5,166 units)						5,262,862.50
	Lot 3: Mayo Table or Instrument Table (29,327 units)						12,122,608.72
	Lot 4: Vacuum Extractor, Obstetrics (7,175 units)						3,800,746.74











9	Procurement of Respiratory /Anaesthesia Bundle (20,044 units)	Goods	1	Prior	RFB (1S 2E)	International Open	23,112,690.49
	Lot 1: Nebulizer (2,939 units)						174,811.72
	Lot 2: Oxygen Tank 1 Metercube & Regulator (11,977 units)						1,070,504.26
	Lot 3: Oxygen Tank 6 Metercube & Regulator (785 units)						324,487.60
	Lot 4: Spirometer/Diagnostic Spirometer (4,343 units)						21,542,886.91
10	Procurement of Patient Diagnostic (547,184 units)	Goods	1	Prior	RFB (1S 1E)	National Open	12,460,672.32
	Lot 1: Adult Stethoscope (34,193 units)						2,776,471.60
	Lot 2: Paediatric Stethoscope (11,517 units)						112,686.46
	Lot 3: Neonatal Duplex Stethoscope (13,547 units)						47,512.41
	Lot 4: Fetal Stethoscope/Fetoscope (3,422 units)						970,913.49
	Lot 5: Lancet Pen (5,772 units)						441,256.76
	Lot 6: Ophthalmoscope (3,724 units)						777,796.25
	Lot 7: Otoscope (9,625 units)						1,442,273.91
	Lot 8: Thermometer (465,384 units)						5,891,761.44
11	Procurement of Laryngoscope (14,839 units)	Goods	1	Prior	RFB (1S 1E)	National Open	6,917,423.95
	Lot 1: Neonatal Straight Blade Laryngoscopes (7,737 units)						4,669,356.87
	Lot 2: Rigid Laryngoscopes (7,102 units)						2,248,067.08
12	Procurement of Patient Beds (2,923 units)	Goods	1	Post	RFB (1S 1E)	National Open	1,643,252.14
13	Procurement of Laboratory Point-Of-Care (POC) (42,390 units)	Goods	1	Post	RFB (1S 1E)	National Open	1,609,972.20











14	Procurement of General Patient Care (86,355 units)	Goods	1	Prior	RFB (1S 1E)	National Open	11,809,050.49
	Lot 1: Binocular Loupe (3,760 units)						327,850.19
	Lot 2: Examination Light, Stand Alone (29,057 units)						5,410,413.40
	Lot 3: Head Lamp (6,301 units)						1,135,629.23
	Lot 4: Pen Light (36,884 units)						307,366.67
	Lot 5: Portable Aspirators (Infant) (10,353 units)						4,627,791.00
15	Procurement of Pulse Oximeter (9,006 units)	Goods	1	Post	RFB (1S 1E)	National Open	560,803.62
16	Procurement of Cold Chain Equipment (19,983 units)	Goods	1	Prior	RFB (1S 1E)	National Open	11,803,229.34
	Lot 1: Refrigerator (7,343 units)						2,595,750.50
	Lot 2: Refrigerator (Vaccine) (1,524 units)						6,400,800.00
	Lot 3: Vaccine Carrier/Coolbox (11,116 units)						2,806,678.84
17	Procurement of Stretcher (6,446 units)	Goods	1	Prior	RFB (1S 1E)	National Open	5,157,529.08
	Lot 1: Stretcher (Emergency) (3,498 units)						4,528,720.68
	Lot 2: Wheelchair (2,948 units)						628,808.40
18	Procurement of Infusion Pump (8,489 units)	Goods	1	Prior	RFB (1S 2E)	International Open	13,046,888.92
	Lot 1: Infusion Pump (4,310 units)						6,899,663.50
	Lot 2: Syringe Pump (4,179 units)						6,147,225.42
19	Procurement Of High Pressure Steam Sterilizer (Autoclave) (13,940 units)	Goods	1	Post	RFB (1S 1E)	National Open	697,000.00
20	Procurement of Ultrasound Doppler (Fetal) (24,684 units)	Goods	1	Prior	RFB (1S-1F)	National Open	4,550,064.22

21	Procurement of X-Ray Film Viewer (3,984 units)	Goods	1	Post	RFB (1S 1E)	National Open	697,200.00
22	Procurement of Tensimeter (449,698 units)	Goods	1	Prior	RFB (1S 2E)	International Open	39,523,957.22
23	Procurement of Electrocardiograph (ECG) (2,493 units)	Goods	1	Prior	RFB (1S 1E)	National Open	7,444,796.04
24	Procurement of Table/Chair Equipment (26,601 units)	Goods	1	Prior	RFB (1S 2E)	International Open	13,752,838.74
	Lot 1: Examination Table (Clinic) (14,899 units)						4,771,553.74
	Lot 2: Gynae Examination Table/Chair (11,702 units)						8,981,285.00
25	Procurement of Infantometer (10,949 units)	Goods	1	Post	RFB (1S 1E)	National Open	1,590,999.19











No	Activity	Procurement Category	Component (InPULS)	Review Type	Proc. Method	Market Approach	Estimated total amount (USD)
1	Procurement of Centrifuges – Non-Refrigerated Centrifuges (835 units) - Biocontainment Centrifuge (225 units) - Centrifuge (64 units) - Centrifuge (250ml) (1 unit) - Centrifuge (8-hole) (1 unit) - Electric Centrifuge (18 units) - Microcentrifuge (Non-refrigerated) (359 units) - Mini-centrifuge (Spindown) (166 units) - Plate Centrifuge (1 unit)	Goods	3	Prior	RFB (1S 1E)	National Open	2,996,751.18
2	Procurement of Centrifuges – Refrigerated Centrifuges (196 units) - Microcentrifuge (Refrigerated) (8 units) - Refrigerated Centrifuge (Highspeed - 14,000 rpm) (15 units) - Refrigerated Centrifuge (Low speed) (171 units) - Refrigerated Centrifuge (Ultra highspeed - 90,000 rpm) (2 units)	Goods	3	Post	RFB (1S 1E)	National Open	1,778,398.83
3	Procurement of Pipettes (1,411 units) Automatic Device for Multi Channel Pipette Calibration (22 units) Micropipette (0-2 mikron, 1-10 mikron, 10-100 mikron, 20-200 mikron, 100-1000 mikron) + Carousel (158 units) Micropipette Set 10, 100, 200, 1000 (739 units) Multichannel Pipette (1-10 mikron, 10-100 mikron, 20-200 mikron, 100-1000 mikron - 8 row) (35 units) Pipette Dispenser (457 units)	Goods	3	Prior	RFB (1S 1E)	National Open	3,686,610.01
4	Procurement of Laboratory Warming Devices (784 units)	Goods	3	Prior	RFB (1S 1E)	National Open	8,866,806.67
	Lot 1: Procurement of Laboratory Incubators - Laboratory Incubator (410 units) - Laboratory Incubator (Portable) (10 units) - Laboratory Incubator CO2 (33 units)						6,046,010.67
	Lot 2: Procurement of Laboratory Ovens Laboratory Microwave (8 units) Laboratory Oven (323 units)		KEMENTERIAN ISDB		AIIB	ASIAN INFRASTRUCTURE	2,820,796.00

5	Procurement of Laboratory General Bundle I (895 units)	Goods	3	Prior	RFB (1S 1E)	National Open	6,356,795.60
	Lot 1: Dry Autoclave (Chemical) (166 units)						1,979,870.93
	Lot 2: Flammable Liquid Storage Cabinet (448 units)						1,612,800.00
	Lot 3: Fume Hood (128 units)						1,792,000.00
	Lot 4: Laminar Air Flow (18 units)						378,000.00
	Lot 5: Wet Autoclave (Steam) (135 units)						594,124.67
6	Procurement of Laboratory General Bundle II (1,466 units)	Goods	3	Prior	RFB (1S 2E)	International Open	16,649,486.63
	Lot 1: Analytical Balance (173 units)						1,534,510.00
	Lot 2: Procurement of Electrophoresis - Electrophoresis gel detector (7 units) - Electrophoresis Set (8 units)						205,251.34
	Lot 3: Freeze dryer for Cryopreservation (1 unit)						12,947.40
	Lot 4: Hotplate + magnetic stirrer (168 units)						252,000.00
	Lot 5: Laboratory water distiller (200 units)						123,333.33
	Lot 6: lyophilization Set (2 units)						14,336.00
	Lot 7: Microbiology air sampler (19 units)						258,443.89
	Lot 8: Microwave Digestion System (1 unit)						72,000.00
	Lot 9: Monitoring system for biorepository (50 units)						10,416,666.67
	Lot 10: Sonicator Chamber (1 unit)						3,000.00











	Lot 11: Vortex Mixer (314 units)						774,638.00
	Lot 12: Waterbath (522 units)						2,982,360.00
7	Procurement of Laboratory Major Analyzers I (166 units)	Goods	3	Prior	RFB (1S 2E)	International Open	12,656,561.40
	Lot 1: Conventional PCR (13 units)						1,214,460.00
	Lot 2: Digital PCR (12 units)						2,627,464.81
	Lot 3: Portable PCR (Loop Mediated Isothermal Amplification) (8 units)						490,666.67
	Lot 4: RT-PCR (133 units)						8,323,969.92
8	Procurement of Laboratory Major Analyzers II (553 units)	Goods	3	Prior	RFB (1S 2E)	International Open	10,381,604.89
	Lot 1: Procurement of Urine Analyzer - Automated Urine Analyzer (13 units) - Urine Analyzer (88 units)						407,533.52
	Lot 2: Chemistry Analyzer (92 units)						2,822,460.04
	Lot 3: HbA1C Analyzer (Hemoglobin Analyzer) (195 units)						277,056.00
	Lot 4: Hematology Analyzer (125 units)						5,714,750.00
	Lot 5: Microbiology Analyzer (Identification and Drug Sensitivity Test /DST) (13 units)						86,666.67
	Lot 6: Procurement of Molecular Assay Analyzer (Rapid Molecular Test) (16 units) - Molecular Assay Analyzer (Rapid Molecular Test) (TCM 8						1,071,066.66
	Lot 7: Mycobacteriology Analyzer for Tuberculosis (11 units)						2,072.00











9	Procurement of Laboratory Major Analyzer III (879 units)	Goods	3	Prior	RFB (1S 2E)	International Open	105,086,822.91
	Lot 1: Atomic Absorption Spectrophotometry (AAS, Flame & Graphite Furnace) (176 units)						11,235,407.04
	Lot 2: Automated Blood Culture System (10 units)						228,866.67
	Lot 3: Automatic Extractor (To isolate RNA and DNA from sample) (167 units)						7,014,000.00
	Lot 4: Chemi Luminescence Immuno Assay (CLIA) (10 units)						277,333.30
	Lot 5: ELISA Set (ELISA Reader, ELISA Washer) (214 units)						7,490,000.00
	Lot 6: Endotoxin Measuring Instruments (6 units)						166,172.99
	Lot 7: Enzyme Immuno Assay (EIA) (1 unit)						21,120.00
	Lot 8: Flow Cytometer (8 units)						1,449,280.00
	Lot 9: Gas Chromatography Mass Spectrometry (GCMS) (26 units)						4,284,098.00
	Lot 10: High Performance Liquid Chromatography (HPLC) (32 units)						4,480,000.00
	Lot 11: Procurement of ID-AST Bacterial Identification and sensitivity test) (15 units) — ID-AST automated (Bacterial Identification and sensitivity test) (1 unit) — ID-AST semi-automated (Bacterial Identification and sensitivity test) (14 units)						2,400,000.00
	Lot 12: Inductively Coupled Plasma Mass Spectrometry (ICP-MS) (12 units)						3,929,196.00
	Lot 13: Inductively Coupled Plasma Optical Emission Spectroscopy (ICP OES) (7 units)						1,353,333.33
	Lot 14: Liquid chromatography-tandem mass spectrometry (LC-MS/MS) Detector (2 units)		WEARINTEDIAN I -				680,800.00













	Lot 15: Next Generation Sequencer (NGS) Long Read Sequencer (9 units)						13,986,000.00
	Lot 16: Next Generation Sequencing (NGS) (31 units)						43,400,000.00
	Lot 17: Oligosynthesizer (1 unit)						-
	Lot 18: Pyrolysis Gas Chromatography-Mass Spectrometry (Pyrolysis-GC-MS) (1 unit)						258,680.00
	Lot 19: Sanger Sequencer (2 units)						842,002.25
	Lot 20: Spectrofluorometers (13 units)						1,026,133.33
	Lot 21: Ultraviolet-visible Spectrophotometer (136 units)						564,400.00
10	Procurement of Laboratory Misc. (1,967 units)	Goods	3	Prior	RFB (1S 2E)	International Open	10,012,980.99
	Lot 1: Biosafety Cabinet (Class 2A) (253 units)						5,313,000.00
	Lot 2: Procurement of Colony Counter (343 units) - Colony counter (323 units) - Colony counter (Automated) (20 units)						842,649.67
	Lot 3: Cool Box for Sample (11 units)						880.00
	Lot 4: Dehumidifier (476 units)						3,214,923.35
	Lot 5: Hygrothermometer Calibrator (22 units)						307.50
	Lot 6: Nephelometer (26 units)						128,440.00
	Lot 7: Rotator Plate (177 units) Lot 8: Shaker Plate (2 units)						495,600.00
	Lot 9: Staining Rack and Tray (187 units)						12,466.67
	Lot 10: Thermocouple (Temperature Calibrator) (13 units)						4,713.80











11	Procurement of Cold Chain Equipment (1,024 units)	Goods	3	Prior	RFB (1S 1E)	National Open	5,721,518.57
	Lot 1 Procurement of Laboratory Freezers (393 units) - Freezer -20 Celsius (284 units) - Freezer -20 Celsius with Rack System (54 units) - Freezer -80 Celsius (55 units)						4,318,260.00
	Lot 2 Procurement of Laboratory Refrigerators (631) Reagent Refrigerator (123 units) Showcase Refrigerator (300 units) Specimen Refrigerator (208 units)						1,403,258.57
12	Procurement of Mercury Analyzer (27 units)	Goods	3	Post	RFB (1S 1E)	National Open/Request for Quotation/e- purchasing	302,940.00
13	Procurement of Microscopes (879 units)	Goods	3	Post	RFB (1S 1E)	National Open	3,037,504.14
	Lot 1: Binocular Microscope (592 units)						1,872,275.20
	Lot 2: Dark Field Microscope (13 units)						225,333.33
	Lot 3: Fluorescence Microscope (11 units)						286,000.00
	Lot 4: Inverted Microscope (2 units)						9,847.08
	Lot 5: Stereo Microscope (261 units)						644,048.52











