SDG Investor Maps in APAC

November 2021
What are the SDG Investor Maps?

- **Identifies investment themes** that have significant potential to advance the SDGs that are aligned to government policies and national development needs
- **Evidence based solutions for tackling the impact of COVID-19**
- Insights on **private sector partnership** opportunities and new funding streams that governments seek
- A unique service to government development efforts with UNDP driving the dialogue on **innovative finance-facilitation**
- A platform for building **private and finance sector networks**
- Opportunity to **leverage UNDP's network** to bring together International Financial Institutions (IFIs), UN and policy makers to boost collaboration
- Provides Insights on new **funding streams** and opportunities for blended finance initiatives
SDG Investor Maps’ methodology helps identify investment potential in SDG aligned opportunities.

Methodology

From national economic and social development priorities...

Define the national priority starting point

- Distil and compare national development needs and national policy priorities to identify sectors where there is demonstrable political/financial commitment to stimulate development & investment

Identify priority subsectors to focus on

- Prioritize subsectors where there is development need & policy/investment momentum

Identify priority subregions to focus on

- Identify the subregions where there is both high development need within each subsector, and strong political/financial momentum to spur potential subsector growth

Derive specific Investment Opportunity Areas

- Highlight impactful business models within priority subsectors and subregions where new capital can facilitate scale, and identify potential ‘white spaces’ where new business models are most needed

Note: a more detailed 8-step methodology within this 4-level funnel has been developed, including secondary research as well as interviews and consultations with investors, companies, governments and a range of other relevant stakeholders

The entire process is heavily consultative bringing together a wide range of public and private sector stakeholders
SDG Investor Maps in the APAC - A panoramic view.
### Emerging trends from the region: SDG-aligned Sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>Sub-sectors</th>
<th>Relevant SDGs [direct]</th>
<th>Relevance to APAC</th>
</tr>
</thead>
</table>
| **Food & Beverage [Agriculture]**| • Processed Food  
• Food retailers and distributors  
• Agricultural products  
• Meat, Poultry and Dairy products | SDG 2 [High degree of influence on other SDGs]                                      | 8 of 9 countries in the APAC have these as priority sectors                      |
| **Healthcare**                  | • Bio-technology & pharmaceuticals  
• Healthcare delivery  
• Medical equipment & supplies   | SDG 3 [High degree of influence on other SDGs]^*                                     |                                                                                  |
| **Education**                   | • Formal Education  
• Education Technology  
• Education Financing            | SDG 4 [High degree of influence on other SDGs]                                      |                                                                                  |
| **Infrastructure**              | • Real Estate [Climate resilient and Affordable Housing]  
• Waste management  
• Water Utilities and Services   |                                                                                     |                                                                                  |
| **Renewable Energy & Alternative Resources** | • Solar technology and project developers  
• Water technology and project developers | [High degree of influence on other SDGs]                                             | 7 of 9 countries in the APAC prioritizes this sector                              |
| **Financials**                  | • Consumer Finance  
• Insurance                                           | Underpinning various SDGs                                                          |                                                                                  |

Technology/digitalization & Gender and marginalization are underpinning themes.
These sectors will continue to be important even in the context of the ongoing pandemic. However, new sub-areas are emerging within each sector to meet the changing needs.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Key Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>Technology adoption / digitization</td>
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<td></td>
<td>Industrialization / employment generation</td>
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<td></td>
<td>Inclusion</td>
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<td>Environmental Sustainability</td>
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<tr>
<td></td>
<td>Infrastructure development</td>
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<tr>
<td></td>
<td>Health care delivery</td>
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<td>Remote treatment</td>
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<td>Prevention and diagnostics, Vaccines</td>
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<td></td>
<td>Food processing units</td>
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<td></td>
<td>Marketplaces for agricultural products</td>
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<td>Agri-waste processing</td>
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<td>Digital platforms connecting farmers to</td>
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<tr>
<td></td>
<td>marketplaces</td>
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<td></td>
<td>Sustainable Agri practices; waste to energy</td>
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<tr>
<td></td>
<td>products</td>
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<tr>
<td></td>
<td>Environmentally Sustainable</td>
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<tr>
<td></td>
<td>Industrial training</td>
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<tr>
<td></td>
<td>Skills development for women, teacher training</td>
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<td></td>
<td>Waste treatment</td>
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<td>Waste to energy</td>
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<td>Toilet infrastructure</td>
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<td>Energy efficiency</td>
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<td></td>
<td>Solar / Wind / Hydro/ blended</td>
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<tr>
<td></td>
<td>Modernising industries, especially MSMEs</td>
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<td></td>
<td>Micro lending</td>
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<td>Payments</td>
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<td>Low-collateral credit</td>
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<td></td>
<td>Social protection products</td>
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<tr>
<td></td>
<td>Use of technology for last-mile connectivity</td>
</tr>
<tr>
<td></td>
<td>Deployment of green technology solutions</td>
</tr>
</tbody>
</table>

- Technology adoption / digitization
- Industrialization / employment generation
- Inclusion
- Environmental Sustainability
- Infrastructure development

COVID-19 impact mentioned in expert consultations:

- Healthcare
- Food and Beverage / Agriculture
- Education / Skills Development
- Infrastructure (Water and Sanitation)
- Renewable Energy
- Finance
- Technology and Communications

- Technologies to harness, store and distribute renewable energy
- Use of data for resource optimisation
- Agri-tech to enhance productivity
- Remote skilling / EdTech Reskilling for digital economy
- Fintech / digital channels for financial services
- Telemedicine / remote treatment. Prevention and diagnostics, Vaccines
- Food processing units Marketplaces for agricultural products; Agri-waste processing
- Industrial training
- Industrialization, especially MSMEs
- Micro lending Payments
- Use of technology for last-mile connectivity
- Modernising industries, especially MSMEs
- Rural healthcare delivery Low-cost healthcare
- Digital platforms connecting farmers to marketplaces
- Skills development centers
- Waste treatment Waste to energy
- Water and solid treatment Toilet infrastructure
- Energy efficiency
- Solar / Wind / Hydro/ blended
- Micro lending Payments
- Low-collateral credit Social protection products
- Deployment of green technology solutions
How do we shortlist Investment Opportunities Areas (IOAs)?

1. Test emerging themes to determine if they meet the following criteria:
   - Alignment to development needs and policy priorities
   - Potential for private sector participations
   - Examples of scalable models
   - Identified roadblocks to scale

2. Seek expert advice to rank emerging themes based on their ability to meet development needs and private sector interest.

3. Shortlist IOAs based on their commercial viability in addition to their ability to help countries meet their SDG commitments for 2030.
IOAs are underpinned by 20 actionable data points spanning business and impact considerations.
INDIA: SAMPLE INVESTMENT OPPORTUNITY AREA

Low-cost hospital satellite centres/care units beyond urban areas.

Business Model: Technology-enabled, asset-light, scalable satellite centres or small care units to serve under-penetrated lower-tier cities and villages by providing quality healthcare services that are accessible and affordable.

Development need
- India has 1 hospital bed per 879 people - only a third of the global average.
- A large section of the population travels more than 100 km to access basic healthcare.

Expected development outcomes
- Contribute to access to quality and affordable healthcare
- Job creation in healthcare sector
- Reduction in inequalities

Stakeholders impacted
- Direct: Patients in areas where public healthcare system does not provide adequate coverage.
- Indirect: Providing treatment options to Indians to reduce the strain on an underfunded public health network

Economic considerations
- The hospital industry is expected to reach USD 132 bn by 2023
- Returns for hospital chains are expected to be between 5-15%
- It is likely to take at least 3-5 years for a greenfield project to break-even

Enabling factors
- GOI announced USD 30.5 billion outlay for the healthcare sector in budget 2021-22, an increase by 137% over previous FY.
- 100% FDI is allowed under the automatic route for greenfield and brownfield project investments

Investment Timeframe
- It takes at least 3-5 years for a greenfield project to break even, even in urban areas
- Therefore, the break-even period is expected to be longer (5 years or more) in regions where the business model is needed the most.

Risk Factors
- Execution Risk: The unit economics are not proven for new businesses and this may affect breadth of impact
- Stakeholder participation / external risk: The model will be most impactful with efforts to ensure universal health coverage by the Government otherwise the impact may be limited to those who can already afford private healthcare services

IMP Classification
C: Contribute to Solutions given that this business model yields an important and intended outcome that can improve the access and quality of healthcare across cohorts
The global SDG Investor Platform brings market intelligence and impact measurement tools to the desktop for foreign and domestic investors.
1. We will continue to build a critical mass of SDG Investor Maps for the region over next year;

2. The process will allow us to highlight areas for policy intervention and where innovative financing mechanisms are best suited to push the SDG goals;

3. Organize events designed to attract investor interest inviting them to apply the market intelligence to develop SDG enabling investment thesis;

4. Host the maps on the global SDG Investor Platform that currently hosts maps for 17 other countries;

5. Contribute to the building of an ecosystem that recognizes the business value in SDGs and a sustainable world for the people and the planet.
Annexes
<table>
<thead>
<tr>
<th>Sector</th>
<th>Relevant SDGs [direct]</th>
<th>Indonesia</th>
<th>Thailand</th>
<th>Vietnam</th>
<th>Cambodia</th>
<th>Sri Lanka</th>
<th>Bangladesh</th>
<th>Pakistan</th>
<th>India</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; Beverage [Agriculture]</td>
<td>SDG 2 [High degree of influence on other SDGs]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Healthcare</td>
<td>SDG 3 [High degree of influence on other SDGs]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Education</td>
<td>SDG 4 [High degree of influence on other SDGs]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Infrastructure [Affordable Housing, Waste, Water Utilities]</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Renewable Energy &amp; Alternative Resources</td>
<td>[High degree of influence on other SDGs]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Financials</td>
<td>Underpinning various SDGs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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</tbody>
</table>
# SASB’s Sustainable Industry Classification System (SICS)

## Consumer Goods
- Apparel, Accessories & Footwear
- Appliance Manufacturing
- Building Products & Furnishings
- E-Commerce
- Household & Personal Products
- Multiline and Specialty
- Retailers & Distributors
- Toys & Sporting Goods

## Food & Beverages
- Agricultural Products
- Alcoholic Beverages
- Food Retailers & Distributors
- Meat, Poultry & Dairy
- Non-Alcoholic Beverages
- Processed Foods
- Restaurants
- Tobacco

## Resource Transformation
- Aerospace & Defense
- Chemicals
- Containers & Packaging
- Electrical & Electronic Equipment
- Industrial Machinery & Goods

## Extractives & Minerals Processing
- Coal Operations
- Construction Materials
- Iron & Steel Producers
- Metals & Mining
- Oil & Gas - Exploration & Production
- Oil & Gas - Midstream
- Oil & Gas - Refining & Marketing
- Oil & Gas – Services

## Health Care
- Biotechnology & Pharmaceuticals
- Drug Retailers
- Health Care Delivery
- Health Care Distributors
- Managed Care
- Medical Equipment & Supplies

## Services
- Advertising & Marketing
- Casinos & Gaming
- Hotels & Lodging
- Leisure Facilities
- Media & Entertainment
- Professional & Commercial Services

## Financials
- Asset Management & Custody Activities
- Commercial Banks
- Consumer Finance
- Insurance
- Investment Banking & Brokerage
- Mortgage Finance
- Security & Commodity Exchanges

## Infrastructure
- Electric Utilities & Power Generators
- Engineering & Construction Services
- Gas Utilities & Distributors
- Home Builders
- Real Estate
- Real Estate Services
- Waste Management
- Water Utilities & Services

## Technology & Communications
- Electronic Manufacturing Services & Original Design Manufacturing
- Hardware
- Internet Media & Services
- Semiconductors
- Software & IT Services
- Telecommunication Services

## Renewable Resources & Alternative Energy
- Biofuels
- Forestry Management
- Fuel Cells & Industrial Batteries
- Pulp & Paper Products
- Solar Technology & Project Developers
- Wind Technology & Project Developers
- Electric Vehicle

## Transportation
- Air Freight & Logistics
- Airlines
- Auto Parts
- Automobiles
- Car Rental & Leasing
- Cruise Lines
- Marine Transportation
- Rail Transportation
- Road Transportation

## Education / Skills Development
- Education Financing
- Education Technology
- Formal Education

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Note: 1. We have added sectors and sub-sectors which were not covered under SASB classification.

### Renewable Energy: Sector alignment with development needs and policy priorities:

**Market size:** Indonesia aims to make renewable energy contribute at least 23% of the total energy mix by 2025. The country also commits to decrease GHG emissions by 29% by 2030.

**Development Need:** According to Institute for Energy Economics and Financial Analysis (IEEFA) estimates, only 24 MW of solar, including solar rooftop units, are currently installed and dispatchable to the grid in 2019.

**Direct stakeholders:** According to International Renewable Energy Agency (2017) 1.1 million households in remote areas of Indonesia lack adequate access to electricity.

**Skilled workforce supporting the sector:** RE related industries generate a total of 4.6 million jobs in Indonesia.

<table>
<thead>
<tr>
<th>Sub-Sector</th>
<th>Emerging Themes</th>
<th>Identified IOAs</th>
<th>Obstacles to scale, if any</th>
<th>Examples of commercially viable businesses models</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar Technology and project developers</td>
<td>Solar energy-based energy solutions</td>
<td>Solar PV system / Rooftop Solar for specific use: industrial, housing, office, school, road</td>
<td>Not scalable since the capacity to generate electricity is only viable in eastern (low population levels; not well explored) or certain coastal Indonesian areas</td>
<td><img src="#" alt="XURYA" />, <img src="#" alt="PACE" />, <img src="#" alt="VENA ENERGY" /></td>
</tr>
<tr>
<td></td>
<td>Solar energy-based equipment</td>
<td>Manufacturing and selling of Solar Street Lights, Solar Water Pumping System, etc.</td>
<td></td>
<td><img src="#" alt="JSKY" /></td>
</tr>
<tr>
<td>Wind technology and project developers</td>
<td>Wind energy-based energy solutions</td>
<td>Wind farm electric power plant</td>
<td></td>
<td><img src="#" alt="UPC Renewables" />, <img src="#" alt="PACE" />, <img src="#" alt="VENA ENERGY" /></td>
</tr>
<tr>
<td>Others</td>
<td>Hybrid power projects</td>
<td>Smart-Grid Pilot Project using Hybrid Generation System – Solar-Wind Hybrid, Solar-Diesel Hybrid, Wind-Diesel Hybrid</td>
<td></td>
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</tbody>
</table>
## Renewable Energy: Sector alignment with development needs and policy priorities:

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<tbody>
<tr>
<td>Hydro energy-based energy solutions</td>
<td>Mini hydro, micro hydro (1-10 MW), hydro plants of more than 10 MW</td>
<td>High costs related to land; Social and environmental issues pertaining to operating in conservation areas</td>
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<tr>
<td>Biomass</td>
<td>Energy generation using waste from palm-oil plantation, pineapple farms, etc.</td>
<td>Model is not as scalable and concentrated in areas close to farmlands.</td>
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<tr>
<td>Energy-efficiency</td>
<td>Energy Storage systems</td>
<td>More public policy initiative required to promote private investment</td>
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<td></td>
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<tr>
<td>Manufacturing and trading of efficient energy management solutions / equipment</td>
<td>More public policy initiative required to promote private investment</td>
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</tr>
<tr>
<td>Green Transport</td>
<td>Manufacturing and Trading of Electric Vehicles</td>
<td>Existing investment in fossil fuel-based vehicle businesses discourages private investment towards electric vehicle manufacturing / trading</td>
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</tr>
</tbody>
</table>