

Indonesia

Climate Tech Landscape Research Brief
Country Snapshot





Climate Tech Investment Network (CTIN) provides investment syndication support services to local angel investment networks through a deal-flow centric platform to catalyze early-stage capital into climate tech startups in South and Southeast Asia.

This Research brief was made in collaboration with



Our Ecosystem Partners



invest2innovate



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1 | COUNTRY OVERVIEW

High Level Economic Stats

GDP:

\$1.058 Tr
(2020)

(Source: World Bank)

GDP per Capita:

\$3869.588
(2020)

(Source: World Bank)

Capital Controls:

- Bilateral Investment and Taxation treaties: With **28 out of 190 countries** (in-force) (Source: US Department of State)
- World Bank Ease of Doing Business Ranking: **73 out of 190 countries**
- Indonesia is a top 20 economy in the world. Today there is growing ease of doing business and better regulations for foreign investors. The Indonesian government has announced a draft presidential regulation, under which foreign investment in local tech start-ups within special economic zones (SEZs) does not have to meet the minimum capital requirement of Rp10 billion (\$710,111)ⁱ, a minimum standard applied to other types of foreign investment. Further, there are more opportunities for foreign investors to co-invest with local investors, who can help navigate through the myriad regulationsⁱⁱ.
- In 2019, Indonesia ranked the second-biggest digital economy in Southeast Asia following Singapore, and is predicted to reach USD 124 billion in 2025, that will catapult it into the top-spot in the region.ⁱⁱⁱ There is no detailed/ specific policy to date, though, to support angel investing in the country yet.

Inflation, consumer prices:

1.921% (2020) (Source: World Bank)

Sovereign Risk:

Baa2 (Source: Moody's)

BBB (Source: S&P)

FDI Inflows (BoP, current in US\$):

2.233% of GDP (2019) (Source: World Bank)

Foreign Exchange Resilience (against US\$):

5.39% CAGR over 10 years

Geographic and Demographic Stats

Population:



275 million
(Source: CIA World Factbook)

Youth% (15-24 years):



16.76%
(Source: CIA World Factbook)

Major Cities/Hubs:



Jakarta (capital), Bekasi, Surabaya, Bandung, Tangerang, Medan
(Source: CIA World Factbook)

Youth Unemployment (15-24 years):



13.5%, Ranking, 105 out of 190
(Source: CIA World Factbook)

Languages Spoken:



Bahasa Indonesia (official, modified Malay), English, Dutch, local dialects (majority Javanese)

(Source: CIA World Factbook)

Population completed tertiary education (25+ years):



9.994% (2019)
(Source: World Bank)

2 | Overview of Climate Change in Indonesia

Introduction

While the ND-GAIN Country Index, suggests a reduction in overall national-level climate vulnerability in Indonesia, there is high variation in the potential impacts of climate change at the regional and local levels. Climate change is likely to have impacts on agricultural production, food security, water availability, disaster risk management, urban development (particularly in the coastal zones), and health and nutrition, with implications for poverty and inequality. Without well planned adaptation and disaster risk reduction efforts at these levels, the poorest and most marginalized communities are likely to experience significant loss and damage as a result of climate change impacts.^{iv}

Indonesia has targets for 29% (unconditional) and 41% (conditional) reduction in GHG emissions against a 'business-as-usual' (BAU) scenario with land restoration of 2 million ha and degraded land rehabilitation of 12 million ha by 2030.^v

High Level Climate Change Stats



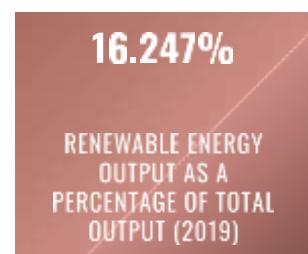
(Source: GermanWatch)



(Source: GermanWatch)



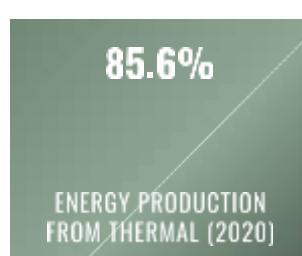
(Source: GermanWatch)



(Source: World Bank)



(Source: Climate Watch)



(Source: World Bank)



(Source: Climate Watch)



(Source: Climate Watch)

3 | Climate change and startup policy overview

Key Climate Change, Startups and Investment related Policies & Regulations

Climate Change Policies & Government Initiatives

2007	2011	2014	2016	2017	2018
First National Strategy on Climate Change by Ministry of Environment	National Action Plan on GHG Emissions Reduction and GHG Inventory	National Energy Policy	Ratified Paris Agreement; Nationally Determined Communication	Third National Communication on NDCs; National Energy Plan	Second Biennial Update Report on NDCs

Startup/ Investment Policies & Government Initiatives

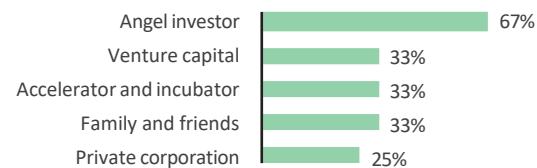
2017	2019	2020	2021
1,000 Start-up Movement launched to fund (through private sector investments) 1,000 startups with USD 10 billion by 2020. Within, 3.5 years 525 digital startups funded.	"1001 Digital Start-up Movement with greater emphasis on incubation support	"Omnibus law," a sweeping legislation that made changes to 70+ labor, tax and other key laws, and opened up nearly all of Indonesia's industries to foreign investment	Draft presidential regulation that sets the minimum investment at 10 billion rupiah (\$710,000) for foreign investors. However, the minimum investment rules will not apply to foreign money pumped into tech-startups in Indonesian Special Economic Zones

4 | Startup Investment Overview

Note: Due to lack of granular data focused on Climate-tech innovations alone, the deal information in this section is focused on Impact (that includes Social and Environmental innovations and investments)

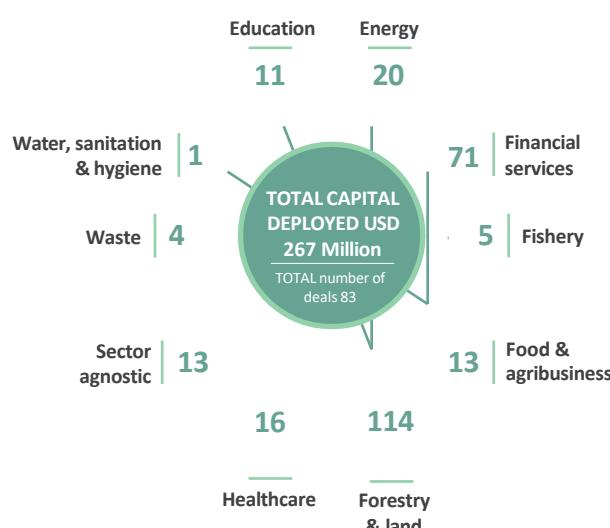
SOURCE OF INVESTMENT

Note: Here, we have showcased proportion of startups (37) that have raised funding from different sources within 2 years of graduating from a program with an Entrepreneur Support/ Startup Assistance Organization



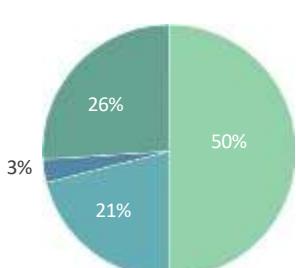
INVESTMENT BY SECTOR

Impact Investors (Capital in US \$Mn) (2013-2020)



Tech Based Startups – 22%. Women led startups – 19%

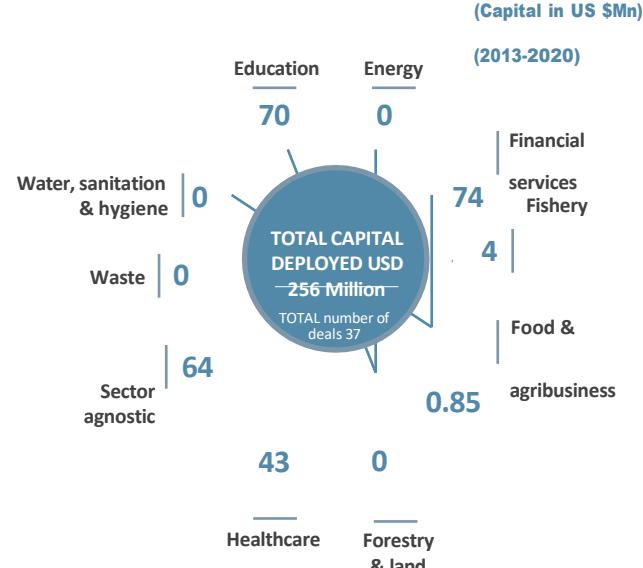
INVESTMENT BY STAGE



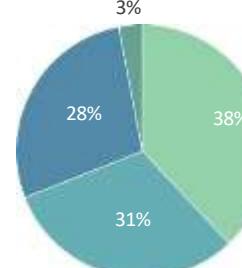
Impact Investors (Capital in US \$Mn) (2013-2020)

- Seed
- Series A
- Series B & C
- Mature & Others

Mainstream Investors with Impact Focus (Capital in US \$Mn) (2013-2020)



Tech Based Startups – 89%. Women led startups – 21%



Mainstream Investors with Impact Focus (Capital in US \$Mn) (2013-2020)

- Seed
- Series A
- Series B & C
- Mature & Others

5 | Key Climate Stakeholders

Note: This section contains information on key Impact (Social and Environmental) focused stakeholders in Indonesia

Key Investors

Investor	Classification	Sectoral Focus
Garden Impact	Impact Investor	Agriculture, Clean Energy and Environment, Consumer Services & Products, Education Technology, Health Care, Water and Sanitation.
Patamar Capital	Impact Investor	Impact
C4D Partners	Impact Investor	Agnostic
Aavishkaar	Impact Investor	Food & Agriculture, Financial Inclusion, Financial Services
Root Capital	Impact Investor	Agriculture & Food
East Ventures	VC	Agnostic
Alpha JWC Ventures	VC	Technology with special focus on financial technology and consumer
AC Ventures	VC	Technology
Skystar Ventures	VC	Agnostic
500 Startups	VC	Agnostic
Sovereign's Capital	VC	Healthcare, human performance (e.g. wearables), education, technology
AGNIN	Angel Network	Agnostic

Key ESOs with an Impact interest

Name	Type/ Classification
Ashoka	Hybrid
Endeavor	Hybrid (with Investing)
Instellar	Hybrid
Kinara Indonesia	Hybrid (with Investing)
Social Innovation Acceleration Program (SIAP)	Incubator
Digitaraya	Accelerator
New Energy Nexus	Hybrid (with Investing)
Greenhouse	Co-Working Space
Impact Hub Jakarta	Co-Working Space
BLOCK71 Jakarta	Co-Working Space
COCOWORK (EV Hive)	Co-Working Space

Key Corporates with an Impact/ Entrepreneurship interest

Name	Details
DBS	Through its foundation, early player DBS Bank provides various forms of support for social entrepreneurship; from co-organizing and supporting several initiatives (e.g., DBS-NUS Social Venture Challenge), to distributing grants, to publishing social enterprise handbook.
Principal	Principal just launched Principal Philanthropy Social Impact Bond Fund, the first ever philanthropy mutual fund in Indonesia in mid-2019. This financial product can be accessed by the public, to invest in a mutual fund while donating to selected not-for-profit organizations.
Astra	Its holding company, foundation, and corporate VC have been supporting SMEs and entrepreneurs. It provides strategic investment, holds competitions (e.g. Astra Startup Challenge supported by Ministry of Cooperatives and SMEs), and provides in-kind support via its foundation.
Salim Group (Indofood)	Although it is not specifically focusing on social enterprises, Salim Group has been supporting startups through its initiative of Innovation Factory in partnership with NUS Singapore to manage Block71 (an ecosystem builder and co-working space) and established SKALA (an accelerator)
Telkom	Whatever it did it through its VC arms (e.g., Indigo), its subsidiary (Telkomsel) or events (Next Dev), Telkom has allocated efforts in supporting social enterprises in Indonesia.
Telkomsel	Since 2015, the leading cellular operator has been organizing several annual startup competitions. The NextDev 2018 is the latest. In the 2018 batch, the company scouted for local tech startups that were addressing social issues in Indonesia.

Startup Profiles

Company	Year Set-Up	Sector	Sub-Sector	Sub-segment
	2018	Climate Change	Clean Energy	Renewable Energy Generation (Electricity)



Xurya is an Indonesian renewable energy start-up, pioneering the zero upfront cost method of switching to solar.

Business Model: A pioneer in the solar lease business that gives Indonesian businesses and households a chance to contribute positively towards climate change while saving money.

Innovation: To roof owners, Xurya provides services that include feasibility studies, granting access to cheap green financing to switch to solar power, to equipment/vendor sourcing, construction/permit management as well as maintenance. To EPC contractors, Xurya is a long-term partner, providing a pipeline of projects and helping shorten their sales cycle through zero upfront costs, thereby giving immediate savings to this customer class.

Last Funding Round: Seed Round (Undisclosed), in July, 2021

Investors: Schneider Electric and New Energy Nexus

Company	Year Set-Up	Sector	Sub-Sector	Sub-segment
	2014	Circular Economy	Waste to Value	Waste Management (Plastics & Non-Plastics)



Waste4change is shifting the waste management ecosystem towards a more responsible, collaborative, and technology-based waste management system that supports the implementation of circular economy.

Business Model: Waste4Change provides waste management services to both Companies and Individuals to manage and recycle waste. For companies, the services also include - Waste Collection Services, Extended Producer Responsibility, Research, Community Development and Training.

Innovation: Waste4Change's fundamental approach is from a Circular Economy perspective and it looks to manage and recycle both organic waste and dry waste streams. It helps clients segregate waste at source, collects the waste, as well as provides custom composting tools and waste bins. Its products also include Black Soldier Fly (that consumes organic matter) products that can be used as feed for pets/ farm animals. For dry waste, the company provides in house recycling options, including services like waste credits, digital EPR etc.

Last Funding Round: Undisclosed in Dec, 2019

Investors: Agaeti Ventures, East Ventures and others.

Recent Deals

Start-up	Sub Segment	Detail	Funding Round	Year	Investor
Daur	Waste Management (Plastics)	DAUR is a waste collection initiative that is implementing technologies and IoT solutions to facilitate realizing a clean and sustainable environment.	Seed	2020	Gayo Capital
Jala Tech	Food, Agriculture, Forestry and Land Use	JALA provides solutions to help shrimp farmers to understand the farm condition better in real-time so as to take preventive actions if needed. With IoT and machine learning technology, JALA helps farmers maximize farm efficiency.	Seed	2020	500 Startups, Conservation International Ventures
Eden Farms	Food, Agriculture, Forestry and Land Use	Eden Farm works with local producers across Indonesia to provide all kind of food ingredients needed for culinary businesses. The company gives farmers more income and demand forecast to maintain production consistency	Seed	2021	Investible, Corin Capital, Clark Landry(Angel), AC Ventures

Local Angel Investor Quotes

David Soukhasing

Managing Director of Angel Investor Network Indonesia (ANGIN)

"The challenges of impact businesses are quite varied and not an apple-to-apple comparison with other types of businesses. For example, the green energy sector has its own characteristics and stakeholder profiles that cannot be compared with other types of startups. Therefore, we'd say we can't measure green energy startups using the same success metrics we usually have for a typical startup. This will bring another context to the problems faced by green energy startups, including finding the right investors and support systems who understand their sector well"

6 | Key Takeaways

1 Growing ease of doing business and government support for investments in local tech startups

Indonesia is expected to be the 5th largest economy by 2024 and today there is growing ease of doing business and better regulations for foreign investors to support tech-startups. The Indonesian government has announced a draft presidential regulation, under which foreign investment in local tech startups within special economic zones (SEZs) does not have to meet the minimum capital requirement of Rp10 billion (\$710,111)^{vi}, a minimum standard applied to other types of foreign investment

2 Loss due to climate change is high, therefore warranting more climate focused innovations and solutions

The country has an overall Climate Risk Index that's significantly lower than other South East Asia countries like Philippines and Vietnam. However, this Index is skewed due to the significantly high GDP of the country and this reflects in the Ranking on "Loss in million dollars" for the country being significantly high and comparable to other SEA economies of interest here. A clear need exists to support and scale mitigation and adaptation innovations and solutions.

3 Strong climate focused policies need to be backed up by innovations that can clean up a broader range of sectors

Government support and vision towards climate change response and climate action is visible through focused targets on Renewable Energy, GHG emissions reductions and Forest Cover area expansion. However, with the country's new coal capacity plans, support and scale-up of innovations that can decarbonize more sectors will be critical to meet climate goals.

4 Keen intent from the government to build a more robust ecosystem to create more successful startups

Recent regulations and policies to support startups and investments, indicate the intent Indonesia has in creating an even better ecosystem to create successful startups and unicorns, despite the country having the highest number of unicorns after Singapore in the SEA region. The recent changes to 70+ labor, tax and other key laws, and opening up of nearly all of Indonesia's industries to foreign investment, including benefits for foreign investors are welcome steps

5 The growing impact focused ecosystem can be leveraged for dedicated early-stage climate tech support and investment

A large and growing Impact focused community in Indonesia with both local and foreign ecosystem players is a positive indicator on the interest in this sector. More Climate-tech focused early-stage investors, entrepreneur support/ startup assistance organizations are needed though to support and scale innovations that can clean-up a broader range of sectors.

Endnotes

(All data as accessed as 13th September 2021)

- i. <https://www.pinsentmasons.com/out-law/news/indonesia-to-loosen-foreign-investment-rules-for-local-start-ups>
- ii. <https://blog.mekar.id/en/investing-in-indonesia-10-benefits-and-challenges-with-a-spotlight-on-impact-investing/>
- iii. <https://ggi.org/toward-the-future-of-climate-technology-and-entrepreneurship-in-indonesia/>
- iv. <https://www.adb.org/sites/default/files/publication/700411/climate-risk-country-profile-indonesia.pdf>
- v. <https://www.climatewatchdata.org/countries/IDN>
- vi. <https://www.pinsentmasons.com/out-law/news/indonesia-to-loosen-foreign-investment-rules-for-local-start-ups>