

Factsheet Climate Technology Transfer Indonesia

This factsheet provides relevant information and analysis for the current and future cooperation activities on technology transfer with Indonesia. The factsheet presents an overview of general country information, the national climate policy framework, identified technology needs in TNAs and NDCs, relevant initiatives for cooperation on technology transfer and in-country contacts.



1 General country information

This section provides general country information on political stability and cooperation, human development and transparency, as well as economic conditions and development. All indicators are further explained in the Glossary at the end of the factsheet.

| | | |
|-------------------------------------|---------------------------------|--|
| Political stability and cooperation | Existing cooperation agreements | <ul style="list-style-type: none"> • Political partnership between Germany and Indonesia, intensifying in recent years with multiple mutual state visits (www.auswaertiges-amt.de). • The Jakarta Declaration is the framework for the bilateral relationship, which was adopted by the two heads of governments in 2011 (www.ag-friedensforschung.de) • Double Taxation Avoidance Agreement between the Germany and Indonesia (signed in 1990, aseanbriefing.com) • Global Development Partners of the German Federal Ministry for Economic Cooperation and Development focusing on development cooperation in key emerging economies (www.bmz.de) |
| | Embargos | None |




| | | |
|--|--|--|
| | <i>Trade conflicts</i> | None |
| | <i>Country Risk Rating</i> | Country profile – Indonesia (www.eulerhermes.com) |
| | <i>Credit rating</i> | Moody's – Indonesia (www.moodys.com), registration is required to access information Fitch Ratings – Indonesia (www.fitchratings.com) |
| | <i>Worldwide Governance Indicators (World Bank)</i> | Political Stability and Absence of Violence/Terrorism Percentile rank in 2016: 33 (of 100) Rule of Law: Percentile rank in 2016: 39.15 (of 100) (http://info.worldbank.org) |
| | <i>Reise- und Sicherheitshinweise des Auswärtigen Amts</i> | Reise- und Sicherheitshinweise des Auswärtigen Amts (www.auswaertiges-amt.de , in German only) |

| | | |
|---|--|---|
| Human development and transparency | <i>Corruption Perceptions Index (Transparency International)</i> | Overall in 2017: Rank 98 out of 180 countries (Score 37) (www.transparency.de) |
| | <i>Human Development Index (UNDP)</i> | Overall in 2015: Rank 113 out of 188 countries (Index: 0.689) Country Profile – Indonesia (http://hdr.undp.org/) |
| | <i>Global Climate Risk Index (Germanwatch)</i> | Overall in 2018: Rank 37 out of 181 (CRI Score: 46.17) (https://germanwatch.org) |

| | | |
|--|--|---|
| Economic conditions and development | <i>Global Competitiveness Index (World Economic Forum)</i> | Overall in 2017-2018: Rank 36 out of 137 countries Country profile (Download: www3.weforum.org , page 148) |
| | <i>Ease of doing business (World Bank)</i> | Overall in 2017: Rank 72 out of 190 countries Country profile – Indonesia (www.doingbusiness.org) |
| | <i>iXPOS Länderprofil</i> | iXPOS Länderprofil - Indonesia (www.ixpos.de , in German only) |
| | <i>GTAI Wirtschaftsdaten</i> | Country Profile <ul style="list-style-type: none"> Wirtschaftsdaten (www.gtai.de , all documents only available in German) |
| | <i>Global Innovation Index (WIPO)</i> | Overall in 2018: Rank 85 out of 127 countries (Score 29.80/100) (www.wipo.int) In-depth economy report (select Indonesia in drop-down menu) |

2 General climate policy framework

This section provides an overview of Indonesia's national climate policy framework as well as sectoral policies and targets. **For further questions on the national climate framework or specific sectoral policies please contact the NDE Germany.** Additional information on national climate policies can also be found under the provided weblinks at the end of the section.

| Overarching climate policy framework | | |
|--|---|---|
| <p><i>Submission of National Determined Contribution (NDC)</i></p> |  | <p>Indonesia's NDC submitted on the 6th of November 2016 (Download: www.unfccc.int)</p> <p><u>Sectoral scope</u></p> <p>Indonesia's NDC covers following sectors:</p> <ul style="list-style-type: none"> • Energy • Agriculture • Land use, land-use change and forestry (LULUCF) • Waste • Industrial processing and product use <p><u>Emission reduction target</u></p> <ul style="list-style-type: none"> • Unconditional: Indonesia has voluntarily committed to reduce 26% of its greenhouse gases against a business-as-usual scenario by the year 2020 and 29% by the year 2030 • Conditional: Indonesia has committed to reduce greenhouse gas emission by 41 % reduction by the year 2030 pending on sufficient international support |
| <p><i>National Plan on Climate Change</i></p> |  | <ul style="list-style-type: none"> • National Action Plan Addressing Climate Change (introduced in 2007, Download: www.thereddesk.org) outlines action taken by the Indonesian government against climate change, focussing on the key sectors energy, land use and forestry. • National Action Plan to reduce GHG emissions (Presidential Decree 61/2011) specifies intended emission reduction measures. It focuses on five different sectors, i.e., forestry and peat-land, waste, energy, agriculture, and industry (overview provided at www.unfccc.int). • The Indonesia Climate Change Sectoral Roadmap (ICCSR) covers the period from 2010 to 2029 providing input to four 5-Year Medium Term Development Plans in the sectors forestry, energy, industry, agriculture, transportation, coastal area, water, waste and health (adaptation-undp.org). |
| <p><i>Inter-ministerial committee on climate change</i></p> |  | <p>National Council on Climate Change was established in 2008 and can advise and oversee the drafting and implementation policies related to adaptation, mitigation, transfer-of-technology, funding, post-Kyoto 2012, and forestry and land use conversion.</p> |

| Electricity and heat | | | | | |
|--|-----------------|---|-----------------|---|-----------------|
| Sectoral plan(s) | ✓ ¹ | Renewable energy target(s) | ✓ ¹ | Energy efficiency target(s) | ✓ ² |
| Industrial processes and product use | | | | | |
| Sectoral plan(s) | ✓ ³ | Support of EE in industrial production | ✓ ⁴ | Minimum energy performance and equipment standard(s) | ✓ ⁵ |
| Buildings | | | | | |
| Sectoral plan(s) | ✓ ⁶ | Building codes and standard(s) | ✓ ⁷ | Minimum energy performance standard(s) for appliances | ✓ ⁸ |
| Transport | | | | | |
| Sectoral plan(s) | ✗ | Minimum emissions performance standard(s) | ✓ ⁹ | Biofuel target(s) | ✓ ¹⁰ |
| Agriculture and forestry | | | | | |
| Sectoral plan(s) | ✓ ¹¹ | Incentive(s) to reduce deforestation | ✓ ¹² | Incentive(s) to reduce emissions from agriculture | ✓ ¹³ |
| Adaptation | | | | | |
| Submission of National Adaptation Programmes of Action (NAPAs) | ✗ | | | | |

¹ National Energy Policy (www.iea.org),

² Energy Conservation law (www.fao.org)

³ National Master Plan for Energy Conservation (www.iea.org)

⁴ Law on Investment No. 25/2007 (www.indonesia-investment.com)

⁵ Energy Management Regulation (Minister of Energy and Mineral Resources, No. 14/2012) (www.iea.org)

⁶ Buildings Law No. 28/2002 (www.iea.org)

⁷ Standar Nasional Indonesia/SNI (www.gbpn.org)

⁸ National Energy Efficiency Standard for Buildings (www.iea.org)

⁹ Euro 2 Standard (www.transportpolicy.net)

¹⁰ Scheme on development of biofuels (<https://www.transportpolicy.net>)

¹¹ Presidential Decree No. 62/2013 (Download: <http://theredddesk.org>)

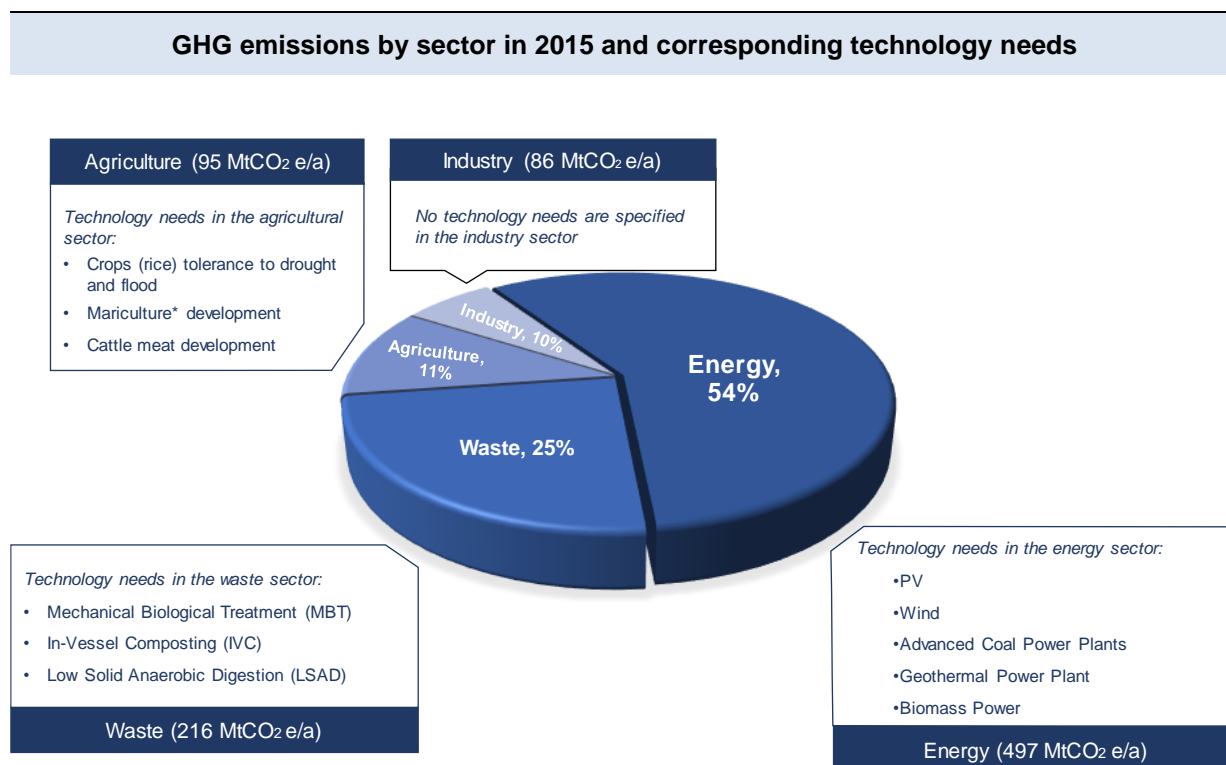
¹² Overview in Climate Policy Database (Download: climatepolicydatabase.org)

¹³ Overview in Climate Policy Database (Download: climatepolicydatabase.org)

| Relevant links on climate policies | |
|--|---|
| <i>Climatescope</i> | Country Profile - Indonesia (www.global-climatescope.org) Energy Policies – Indonesia |
| <i>REEGLE Policy Profile</i> | Country Profile - Indonesia (www.reegle.info) |
| <i>Climate Policy Database</i> | Country Profile - Indonesia (http://climatepolicydatabase.org) |
| <i>ICAP Carbon Action on emissions trading schemes (ETS)</i> | Emissions trading schemes worldwide (option to select Indonesia) |
| <i>CAIT WRI</i> | Country Profile - Indonesia (http://cait.wri.org/) |
| <i>LSE Global Climate Legislation Study</i> | Country Profile – Indonesia (http://www.lse.ac.uk) |
| <i>Renewable energy policies</i> | Country Profile – Indonesia in IEA/IRENA Joint Policies and Measures database (www.iea.org) |
| <i>Energy efficiency policies</i> | Country Profile –Indonesia in IEA Energy Efficiency Database (http://www.iea.org) |
| <i>Energy efficiency in buildings sector</i> | Country Profile – Indonesia in IEA BEEP database (www.iea.org) |
| <i>Renewable energy targets, shares in electricity generation and policies</i> | REN21 Renewables 2017 Global Status Report |
| <i>Fuel efficiency standards</i> | Country Profile – Indonesia in Transport Policy Database (www.transportpolicy.net/) |

3 Technology needs

This section overviews identified technology needs in Indonesia's Nationally Determined Contribution (NDCs) and Technology Needs Assessment (TNAs). Moreover, it summarizes the activities under the Clean Development Mechanism (CDM).



* Mariculture is an activity in which aquatic organisms (both plants and animals) are cultured in a confined environment in the aquatic medium that may be completely marine or mixed to various degrees with freshwater in the brackish water areas (based on FAO definition)

Source: Guetschow et al. 2016, Indonesia's TNA 2012

| | |
|--|--|
| Technology needs specified in NDC | Indonesia does not specify concrete technology needs in its NDC (submitted on 6 th of November 2016, Download: www.unfccc.int), but only a more general need for technology development and transfer and technical cooperation. |
| Technology Needs Assessment (TNA) | <p>Indonesia's Technology Needs Assessment (TNA) for adaptation technologies (submitted in June 2012, Download: http://unfccc.int) identifies the following priority sectors and technology needs for adaptation:</p> <p><u>Agriculture</u></p> <ul style="list-style-type: none"> Crops (rice) tolerance to drought and flood Mariculture development Cattle meat development <p><u>Water resource</u></p> <ul style="list-style-type: none"> Rain water harvesting technology Domestic waste water recycling technology Modelling for water resources projection <p><u>Coastal vulnerability</u></p> <ul style="list-style-type: none"> Seawall and revetment Beach reclamation technology Groyne technology |

| | |
|--|--|
| | <p>Indonesia’s Technology Needs Assessment for mitigation technologies (submitted in June 2012, Download: http://unfccc.int) identifies the following priority sectors and technology needs for mitigation:</p> <p><u>Forestry Sector</u></p> <ul style="list-style-type: none"> • Measurement and monitoring for reducing emission • Peat re-mapping • Water Management <p><u>Energy</u></p> <ul style="list-style-type: none"> • PV • Wind Power • Advanced Coal Power Plant <p><u>Waste Sector</u></p> <ul style="list-style-type: none"> • Mechanical Biological Treatment (MBT) • In-Vessel Composting (IVC) • Low Solid Anaerobic Digestion (LSAD) |
| <p>Activities under the Clean Development Mechanism (CDM)</p> | <p>Total of 147 projects registered under the CDM (as of July 2018, www.cdmpipeline.org)</p> <ul style="list-style-type: none"> • Methane avoidance (70 projects) • Hydro (19 projects) • Biomass energy (15 projects) • Geothermal (14 projects) • Landfill gas (10 projects) • Others (19 projects) <p>Total of 10 Programmes of Activities (PoA) registered under the CDM (as of August 2017; https://cdm.unfccc.int)</p> |

4 Ongoing and future initiatives and bilateral / multilateral financing programmes

This section provides an overview of relevant initiatives for cooperation on technology transfer.

| | | |
|---|---|---|
| Initiatives by German ministries, institutions and the private sector | Technology relevant initiatives by the German government | <ul style="list-style-type: none"> • Export initiative for environmental technologies by the Germany Ministry for the Environment¹⁴ (www.bmub.bund.de) • Export initiative for energy solutions by the Germany Ministry of Economic Affairs and Energy (www.german-energy-solutions.de), including: <ul style="list-style-type: none"> ▪ Several initiatives directly targeting Indonesia ▪ Export initiative for energy efficiency technologies by the Germany Ministry of Economic Affairs and Energy ▪ Export initiative for renewable energies by the Germany Ministry of Economic Affairs and Energy • Export initiative for environmental technologies by the Germany Ministry of Economic Affairs and Energy (www.bmwi.de) |
| | KfW | <ul style="list-style-type: none"> • DEG Representative Office Bangkok covering Indonesia, Bangladesh, Cambodia and Laos (www.deginvest.de) • IPEX Representative Office in Singapore covering The Association of Southeast Asian Nations (ASEAN), including Indonesia (www.kfw-ipex-bank.de) • KfW Entwicklungsbank Office in Indonesia with overview of funding activities in Indonesia (www.kfw-entwicklungsbank.de) |
| | GIZ | <ul style="list-style-type: none"> • Overview of project activities in Indonesia (www.giz.de) |
| | Private sector initiatives | <ul style="list-style-type: none"> • Asia-Pacific Committee of German Business (APA, www.asien-pazifik-ausschuss.de) • 16th Asia-Pacific Conference of German business (forthcoming in November 2018 in Jakarta) organised by German Ministry for Economic Affairs and Energy, German Chambers of Commerce Abroad (AHK) and Asia-Pacific Committee of German Business (APA). Biennial conference hosted in different Asian countries (www.asiapacificconference.com). |

¹⁴ The Germany Ministry for the Environment furthermore operates a [BMUB services point](#) for question on the export of environmental technologies and CDM projects.

| | | |
|------------------------------|--|---|
| Initiatives under the UNFCCC | <p>Technical assistance projects under the CTCN</p> | <p>There are 2 technical assistance projects completed by Indonesia and supported under CTCN (no active projects listed):</p> <ul style="list-style-type: none"> Hydrodynamic modelling for flood reduction and climate resilient infrastructure development pathways in Jakarta (submitted in February 2015; completed, www.ctc-n.org/) The Development of Anaerobic Digester Technology for Palm Oil EFB Waste in Indonesia (submitted in February 2015, completed www.ctc-n.org) <p>Overview of all technical assistance projects actively supported by the CTCN</p> <p>Overview of all in-active technical assistance projects (with 3 inactive requests by Indonesia as of August 2018)</p> <ul style="list-style-type: none"> Development of Ocean Current Watershed Management (TNA completed before submission in February 2015, www.ctc-n.org) Development of Integrated Carbon Measurements Methodology on Peatlands in Indonesia (TNA was completed before submission in February 2015, www.ctc-n.org) Developing the Ciliwung Watershed Management (TNA was completed before submission in February 2015, www.ctc-n.org) |
| | <p>UNFCCC TT Clear</p> | <p><i>No projects in the fields of mitigation or adaptation in Indonesia are currently listed on the UNFCCC TT Clear webpage.</i></p> <p>(Overview of all supported projects, projects can be filtered by region and mitigation/adaptation)</p> |
| | <p>Project proposals in TNAs</p> | <p>Project ideas for mitigation and adaptation in Indonesia's TNA (submitted in June 2012, Download: http://unfccc.int) identified the following six project ideas in the field of mitigation (see p. 169 ff for detailed project information):</p> <p><u>Forestry and peat</u></p> <ul style="list-style-type: none"> National Capacity Building on Unified Peat Re-Mapping Technology National Capacity Building on Technology for Carbon measurement and monitoring <p><u>Energy</u></p> <ul style="list-style-type: none"> Capacity building testing laboratory Solar Electric Generation Systems (PLTS) Manufacturing capacity laboratory cell PV <p><u>Regenerative Burner Combustion System (RBSC) Technology</u></p> <ul style="list-style-type: none"> Training Design and control room RBCs <p><u>Waste</u></p> <ul style="list-style-type: none"> make the Mechanical Biological Treatment (MBT) plant at a typology of cities |

| | | |
|--|--|--|
| | Green Climate Fund (GCF) | There are no projects supported by the Green Climate Fund in Indonesia Overview of GCF project portfolio |
| | Global Environment Facility (GEF) | Overview of all GEF supported project activities in Indonesia (www.thegef.org) |
| | UNFCCC NAMA Registry | There are two projects which are seeking for support for implementation by UNFCCC NAMA Facility: <ul style="list-style-type: none"> • Sustainable Urban Transport Initiative (www.unfccc.int) • Smart Street Lighting Initiative (www.unfccc.int) Overview of all NAMAs registered for Indonesia |

| | | |
|--|--|--|
| Other international initiatives | Cooperation projects between the EU and Indonesia | Overview of all cooperation projects between the European Union and Indonesia (Overview of projects can be filtered by theme) |
| | NAMA Facility | There is one NAMA project supported in Indonesia by the NAMA Facility as of July 2018 <ul style="list-style-type: none"> • Indonesia Sustainable Urban Transport Program Indonesia (SUTRI NAMA) (http://www.nama-facility.org/) (Overview of NAMA Facility project portfolio) |
| | Japanese Joint Crediting Mechanism (JCM) | Overview of recent JCM related developments in Indonesia (www.mmechanisms.org) |

5 Contact links to relevant institutions in Indonesia

This section provides contact links for relevant institutions in Indonesia.

| | |
|--|--|
| National Designated Entity (NDE) | www.ctc-n.org (There is no active website of the NDE, as of August 2018) Managed by the <i>Ministry of Natural Resources and Environment</i> |
| Designated National Authorities (DNA) | https://cdm.unfccc.int (option to search for DNA Indonesia) Managed by the <i>Ministry of Environment and Forestry</i> |
| UNFCCC Focal Point | http://unfccc.int Managed by the <i>Ministry of Environment and Forestry</i> |
| Germany embassy | www.auswaertiges-amt.de |
| GIZ | www.giz.de |
| KfW Entwicklungsbank | www.kfw-entwicklungsbank.de |
| DEG | www.deginvest.de |
| KfW IPEX-Bank | www.kfw-ipex-bank.de |
| AHK | www.ahk.de |
| Jerin | http://www.jerin.id/ Portal about German activities in Indonesia |

Glossary

| Indicator | Organisation | Explanation |
|--|--|--|
| Worldwide Governance Indicators | <i>World Bank</i> | <p>The Worldwide Governance Indicators (WGI) project reports aggregate and individual governance indicators for over 200 countries and territories over the period 1996–2015, for six dimensions of governance:</p> <ul style="list-style-type: none"> • Voice and Accountability • Political Stability and Absence of Violence • Government Effectiveness • Regulatory Quality • Rule of Law • Control of Corruption <p>The WGI ranks countries from 0 to 100, with higher values corresponding to better outcomes.</p> |
| Corruption Perceptions Index | <i>Transparency International</i> | <p>The Corruption Perceptions Index (CPI) annually ranks countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys. The CPI currently ranks 168 countries on a scale from 100 (very clean) to 0 (highly corrupt).</p> |
| Human Development Index | <i>United Nations Development Programme (UNDP)</i> | <p>Human Development Index (HDI) is a composite statistic of life expectancy, education, and per capita income indicators, which are used to rank countries into four tiers of human development. A country scores higher HDI when the lifespan is higher, the education level is higher, and the GDP per capita is higher. Countries with the top rank are the most competitive and countries with the bottom – the least.</p> |
| Global Climate Risk Index | <i>Germanwatch</i> | <p>The Global Climate Risk Index analyses to what extent countries have been affected by the impacts of weather-related loss events (storms, floods, heat waves etc.). The countries ranking highest are the ones most impacted and should see the CRI as a warning sign that they are at risk for either frequent events or rare, but extraordinary catastrophes.</p> |
| Global Competitiveness Index | <i>World Economic Forum</i> | <p>The Global Competitiveness Report assesses the competitiveness landscape of economies, providing insight into the drivers of their productivity and prosperity. The report series is one of the most comprehensive assessments of national competitiveness worldwide.</p> |
| Ease of doing business | <i>World Bank</i> | <p>The index ranks economies on their ease of doing business, from 1 to 190. Higher rankings (a low numerical value) indicate better, usually simpler, regulations for businesses and stronger protections of property rights.</p> |
| Global Innovation Index | <i>World Intellectual Property Organization (WIPO)</i> | <p>The Global Innovation Index (GII) is an annual ranking of countries by their capacity for, and success in, innovation. The ranking is based on both subjective and objective data derived from several sources. GII uses a score in a scale from 0 to 100.</p> |

Please contact us at

NDE Germany Coordinating Office
E-Mail: info@nde-germany.de
Phone: +49 6174 969 47-0, or -22

Published by

NDE Germany Coordinating Office
c/o HEAT GmbH
Seilerbahnweg 14
61462 Königstein, Germany

The tasks of the German NDE are overseen by the Federal Ministry for Economic Affairs and Energy (BMWi)



info@nde-germany.de

www.nde-germany.de

www.facebook.com/NDE_Germany

www.twitter.com/NDE_Germany

www.linkedin.com/company/nde-germany

Status: August 2018