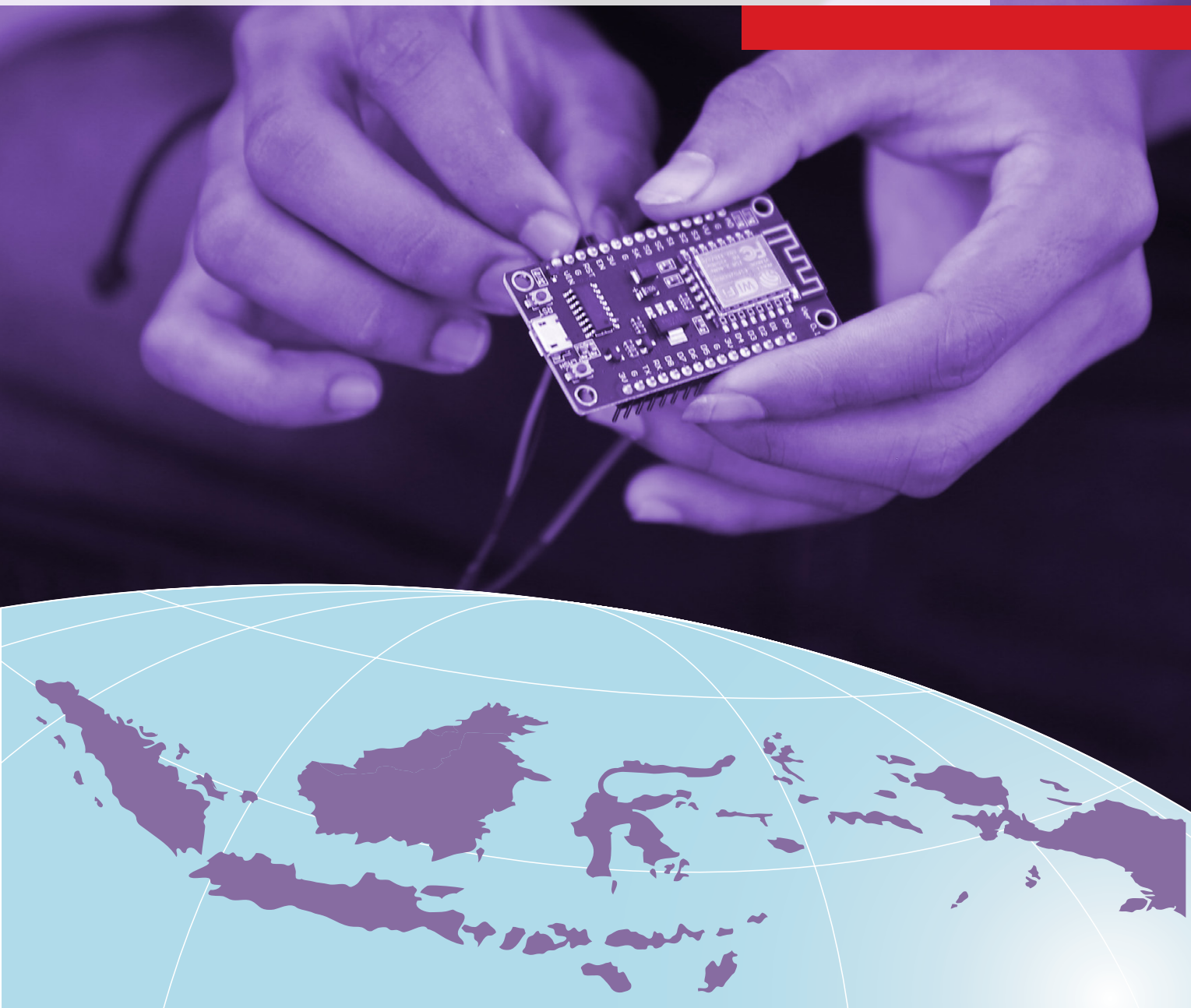


# Digital Transformation: Greater Connectivity for a Better, Greener Future

Annual Report 2024 | GIZ Indonesia and ASEAN







## Greater Connectivity for a Better, Greener Future

Indonesia's digital transformation is accelerating, driven by the rapid adoption of digital services, a dynamic start-up ecosystem, and strong government initiatives. With its growing digital economy, Indonesia has the potential to bridge socio-economic gaps, but also faces challenges related to inclusivity, environmental sustainability, and regulatory frameworks.

German Development Cooperation supports Indonesia in achieving a just digital transition by promoting policies and initiatives which ensure equitable access to technology and digital skills. Programmes focus on digital literacy, inclusion of marginalised communities, and fostering responsible AI and data governance.

A key aspect of this cooperation is digital green innovation, aligning digitalisation with climate goals. By supporting smart infrastructure, sustainable digital businesses, and responsible resource use, Germany and Indonesia work together to integrate sustainability into digital growth.

Through multi-stakeholder partnerships, knowledge exchange, and pilot projects, German support contributes to Indonesia's vision of a fair, green, and inclusive digital economy, ensuring no one is left behind in the country's digital future.

## 2024 Highlights

- **Greentech Entrepreneurs Network (GEN):** GIZ set up the programme with the Ministry of National Development Planning (Bappenas) and Endeavour Indonesia. It supports growth of the green technology sector through: providing knowledge and networking, opening opportunities for clients, collaboration and funding, and providing exposure.
- **Digital hub network guidelines:** Created by GIZ with Bappenas and Hi Incubator to give insights and recommendations for decision-making in the early stages of building a digital hub network in Indonesia. There are also five service modules: the SME Innovation Incubator Programme, digital literacy training, networking events, demo and showcase, and digital sandbox.
- **AI policy makers training handbook:** A compilation of the lessons learned while delivering the programme, and created by FAIR Forward: Artificial Intelligence for All, a GIZ supported project, with Bappenas and Harapura Impact. Training for policy makers was held prior to launching the handbook in mid 2024.
- **Launching datasets of three regional languages:** Open language data helps local AI innovators develop technologies supporting regional language needs, but publicly available data on regional languages is limited. FAIR Forward, with Bappenas and Prosa.AI, developed open regional language data for the use of natural language processing (NLP) technology in support of sustainable development.
- **Green Techmakers programme:** Created to develop the skills and networks of green technology start-ups to meet the growing demand for sustainable technology solutions. It targets areas such as the circular economy, natural resource management, and clean energy transitions. In cooperation with Bappenas, Kopernik and FabLab, it held a hybrid knowledge sharing session, online and onsite technical training for green technology start-ups, and a focus group discussion.
- **Digital and green start-up ecosystem building:** We took nine innovative start-ups with 10 delegates to gain international exposure in Berlin, Germany, in partnership with Bappenas. They attended the International Digital Dialogue Conference, hosted by the German Federal Ministry for Digital and Transport (BMDV) in the framework of the Digital Dialogue, and the Asia Berlin Summit 2024, showcasing their products and delivering five-minute pitches. Four GEN start-ups and two from Green Techmakers also received exposure at the International Digital Dialogue Conferences and AsiaBerlin Summit in Berlin.
- **Digital Dialogues on policy and strategy:** Throughout 2024, the Digital Dialogues, initiated by BMDV, held a series of exchanges with the Ministry of Communications and Digital Affairs, to establish a platform for sharing international frameworks for digital transformation, strengthen international partnerships in digital policy, foster collaboration, and ensure digital transformation benefits all stakeholders. The series of dialogues strengthened digital cooperation between Germany and Indonesia in digital strategy and development. Key topics included data protection, 5G implementation, cross-border data transfers, and the AI EU Act. These discussions brought together German and European Commission (EU) policymakers, the telecom industry, Indonesian think tanks, and associations, offering diverse perspectives to advance German-Indonesian digital development. So far, this platform has engaged 84 stakeholders from Germany and Indonesia.
- **International Digital Dialogue Conference:** As part of international cooperation and bilateral coordination, the BMDV held the International Digital Dialogues Conference (IDDC) with partner countries and stakeholders in Berlin. The highlight was the signing of the 2025-2026 Digital Dialogues work plan between Indonesia and Germany by Meutya Hafid, the Minister for Communications and Digital Affairs, and Volker Wissing, Minister of Digital Affairs and Transport.



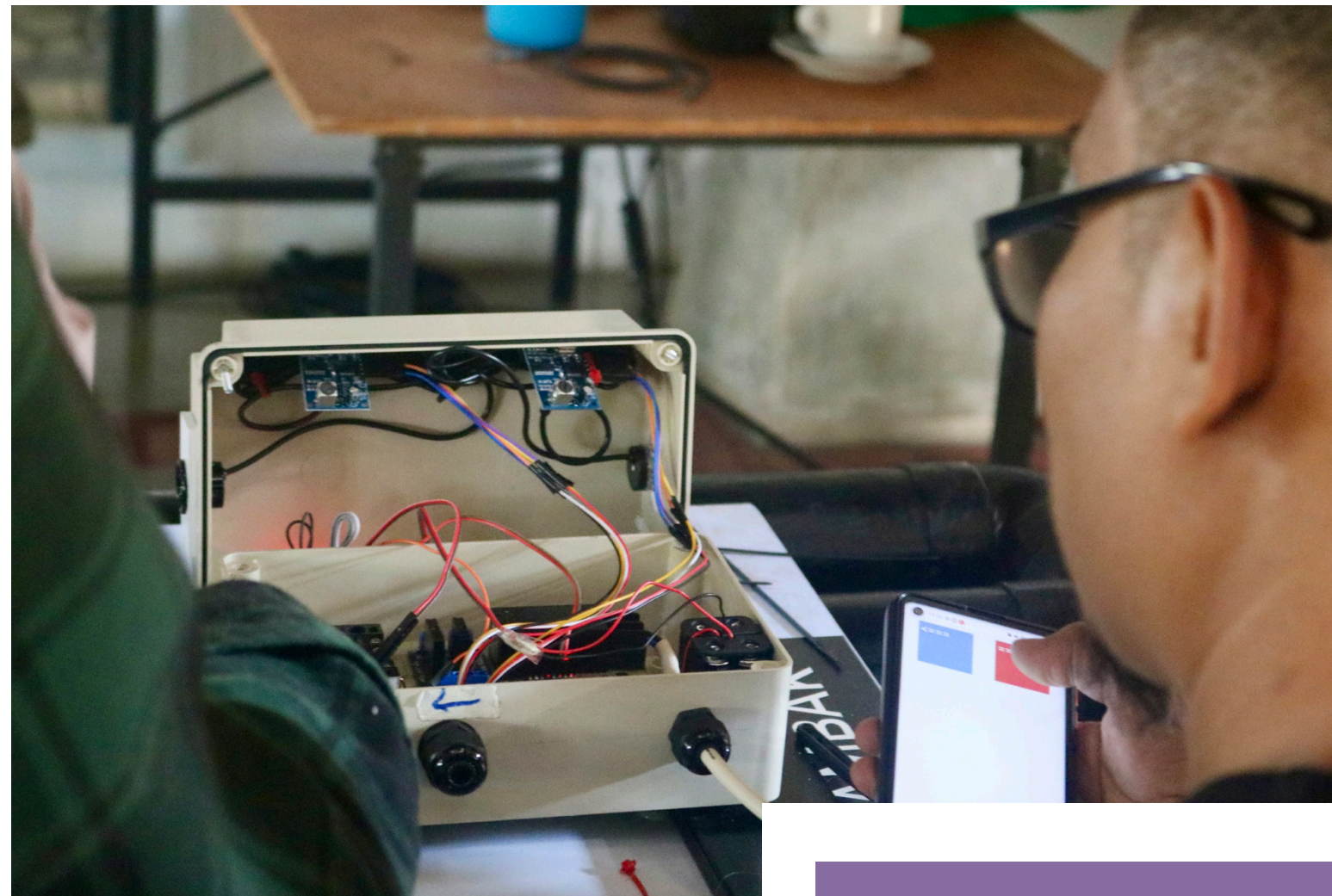
## Achievements in 2024

**25** knowledge products developed. Digital Innovation Hub study, Ethical AI Policy Handbook and Digital Green Transformation policy paper, press releases, published articles and videos

**163** digital ecosystem stakeholders and thought leaders engaged. Start-ups, ecosystem builders, SMEs and corporates, financial institutions and venture capitalists

**863** multipliers (39.5% female) informed on digital policy issues through focus group discussions, workshops, capacity-building sessions, and business matching events

**9** multi-stakeholder dialogues on digital policy issues and the local digital ecosystem



### What They Say

Andianto Haryoko, Coordinator of ICT Ecosystem and Utilisation for Directorate of Electricity, Telecommunication, and Informatics, Bappenas



"G to G [government-to-government] cooperation between Indonesia and Germany under DTC [Digital Transformation Centre] and Make-IT Indonesia Project implemented by Bappenas and GIZ had a positive outcome and impact for the digital transformation national programme, along with increasing awareness among stakeholders – government and local government, university and R&D [research and development] centre, private company/state-owned company, community, digital entrepreneur, people. This output [is] also [used as] input or recommendations for preparing Indonesia's Mid-Term Development Planning Year 2025-2029. I hope that both the Indonesian and Germany governments continue cooperation and partnership in digital transformation further."

### What They Say

Roikhanatun Nafi'ah, CEO of Crustea



"Joining the GEN Accelerator programme has been a transformative journey for Crustea. The mentorship, network, and resources provided have been instrumental in scaling our impact in the aquaculture sector. Through this programme, we secured a strategic partnership with GIZ, enabling us to implement renewable energy solutions and share their benefits with shrimp farmers. This collaboration not only drives sustainability but also enhances efficiency and productivity in aquaculture. We are excited to continue pushing the boundaries of innovation for a greener, more resilient industry."

### Impact Story

BIOPS Agrotekno Indo: Green Entrepreneurs Network, Green Techmakers, Asia-Berlin Summit 2024



BIOPS Agrotekno Indonesia is a start-up that has actively participated in our programmes – the GEN Program, Green Techmakers, and the Berlin delegation trip – which played a crucial role in accelerating its growth, expanding its network, and refining its technical expertise.

These initiatives connected BIOPS with a broad range of start-up communities, facilitating partnerships with key players such as Skillio, Ecoxyztem, and ReservoAIR. Gaining access to essential funding opportunities from platforms like GSMA, P4G, and Temasek Trust has also been instrumental in supporting BIOPS' development.

The technical mentorship provided through Green Techmakers has strengthened BIOPS' product development capabilities, particularly in integrating machine learning into prototype designs. These experiences have reinforced its position in Indonesia's Greentech ecosystem and paved the way for impactful collaborations – such as a partnership with Lokatani, another start-up from our programmes – to develop an irrigation system for ginger cultivation.

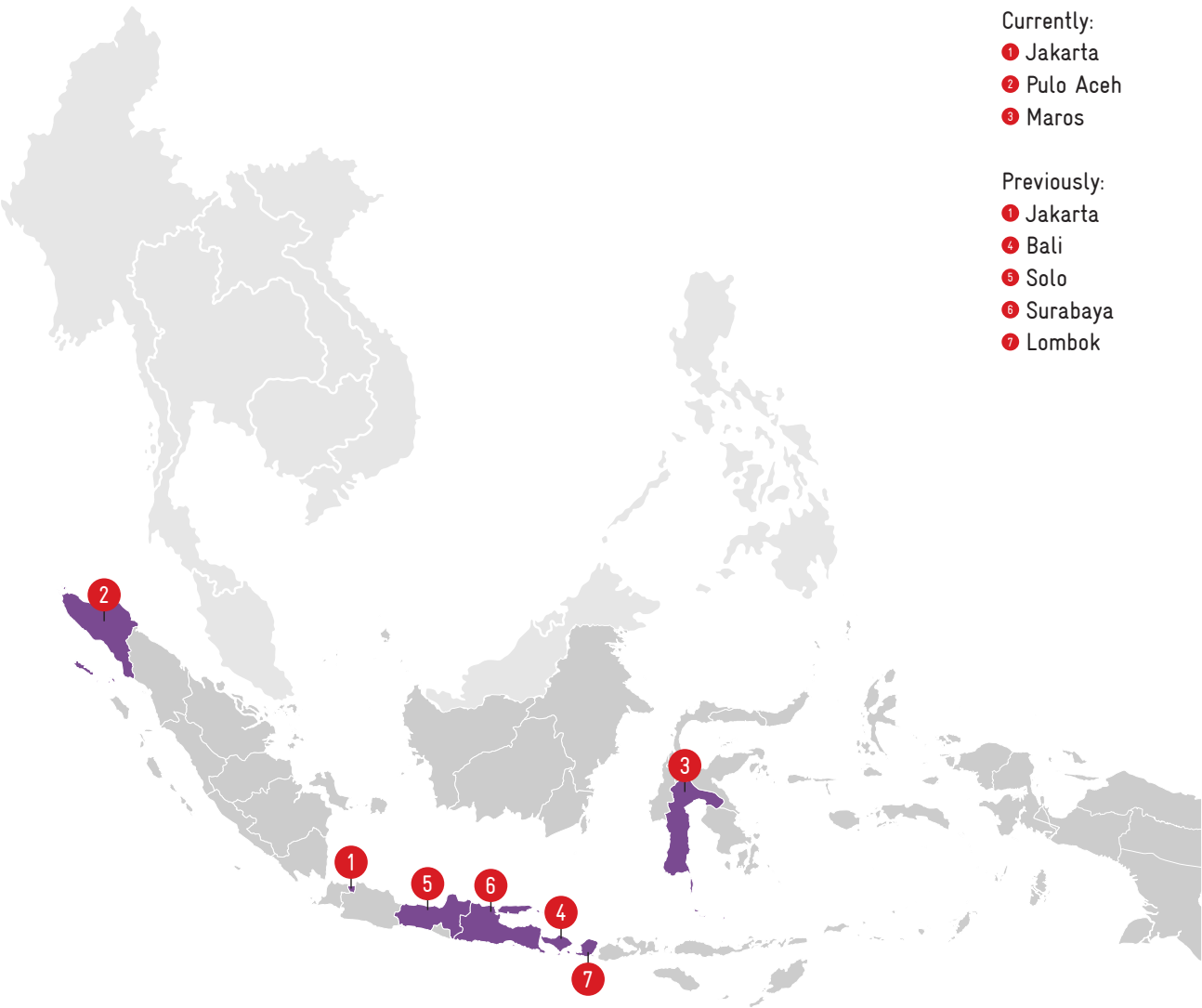
The programmes provided BIOPS with critical networking opportunities, exposure to diverse start-up ecosystems, and access to mentorship from industry experts. Collaborations with organisations such as GIZ have allowed BIOPS to implement real-world solutions, including automated irrigation systems which improve efficiency and productivity for farmers in areas such as Kaledupa Island, in Southeast Sulawesi.

Through these combined efforts, BIOPS Agrotekno continues to bridge the gap between technology and tradition, driving sustainable agricultural development across Indonesia.



# Digital Transformation in 2024 | At a Glance

## Work Areas



## Our Commissioning Parties and Clients in 2024

Our work on a bilateral, regional and global level in the area of Digital Transformation was implemented on behalf of the following commissioning parties jointly with our Indonesian government partners:



## Achieving the SDGs: Digital Transformation

We are committed to support our partners in achieving the Sustainable Development Goals. Our work contributes to the following SDGs:



## GIZ Indonesia and ASEAN Annual Reports 2024

Read more about our work in 2024 in the following reports:

	Introduction to GIZ Indonesia and ASEAN Annual Report		Urban Development
	ASEAN		Digital Transformation
	Energy Transition		Green Jobs and Vocational Education and Training
	Resilient Nature		

## Contact Us

Thomas Foerch   Cooperation Area Lead thomas.foerch@giz.de	Daniel Schroeder   Digital Transformation Lead daniel.schroeder1@giz.de
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Registered offices  
Bonn and Eschborn, Germany

GIZ Office Indonesia  
Menara BCA, 46th Floor  
Jl. MH Thamrin No. 1  
Jakarta 10310 – Indonesia

T +62-21-2358 7111  
F +62-21-2358 7110  
E giz-indonesien@giz.de  
I www.giz.de/en

Responsible:  
Hans-Ludwig Bruns

Content Contributors:  
GIZ Digital Transformation Team

Editorial Team:  
Mira Zakaria  
Paul Goddard

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Deutsche Gesellschaft für  
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Registered offices  
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GIZ Office Indonesia  
Menara BCA, 46th floor  
Jl. M.H. Thamrin No. 1  
Jakarta 10310, Indonesia

T +62 21 2358 7111  
F +62 21 2358 7110