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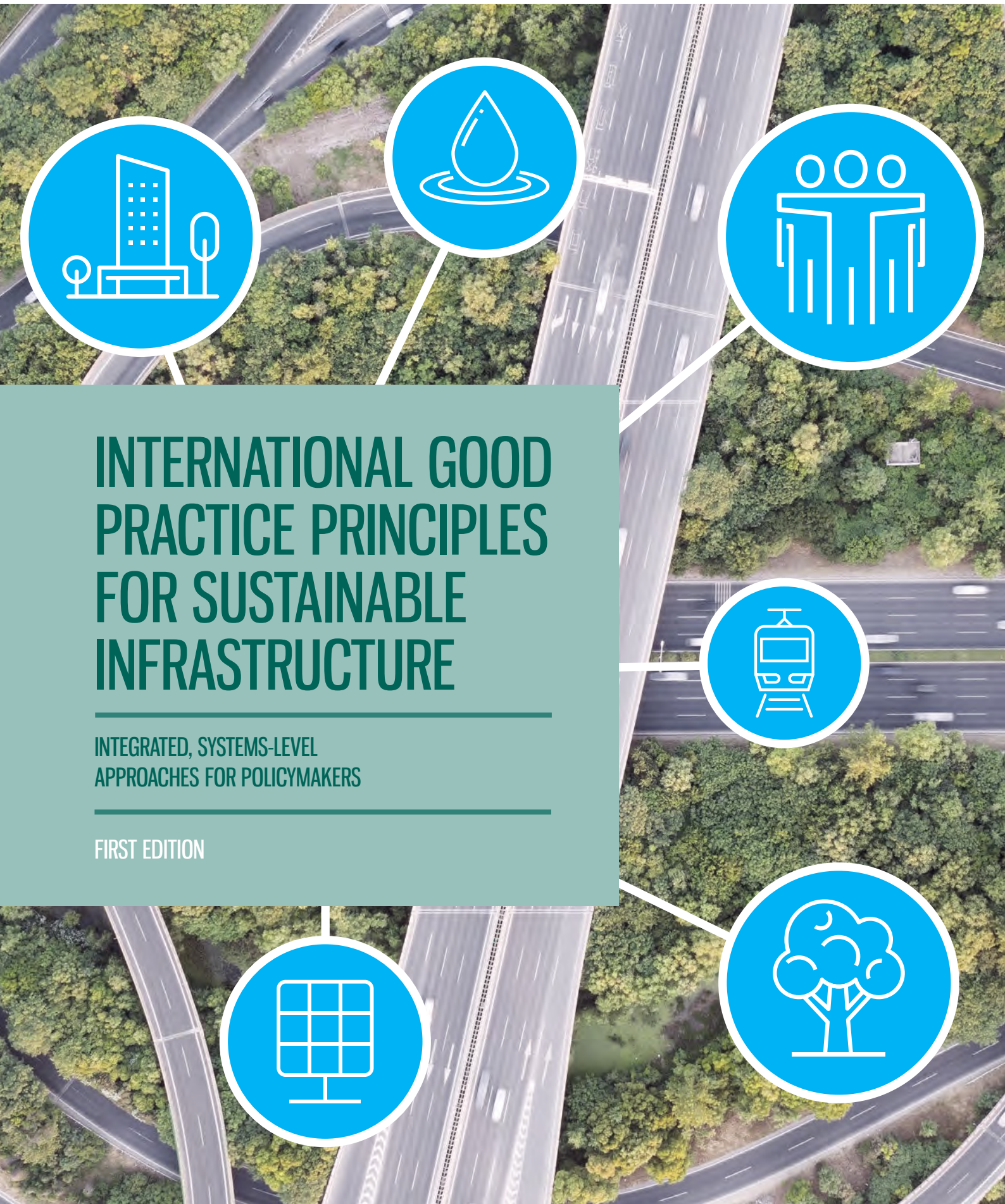

INTERNATIONAL GOOD PRACTICE PRINCIPLES FOR SUSTAINABLE INFRASTRUCTURE

INTEGRATED, SYSTEMS-LEVEL APPROACHES FOR POLICYMAKERS

FIRST EDITION

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FOREWORD

Infrastructure systems deliver essential services like drinking water, sanitation, agriculture and industry and electricity – allowing our economies to function. However, our current infrastructure causes unsustainable patterns of natural resource use that drive climate change, nature and biodiversity loss, and pollution and waste. To defeat these three planetary crises and deliver on the 2030 Agenda, we urgently need to rethink our infrastructure systems. This is precisely what the UN Environment Assembly in 2019 asked UNEP to do and with this report UNEP presents a pathway towards this rethink.

The lifespan of infrastructure assets is often measured in decades, while infrastructure footprint is measured in centuries. This, therefore, tends to lock in any impacts – positive and negative – for the longer term. Much work has been done to promote sustainability at the individual infrastructure investment level, and pursuit of long-term sustainability at the project level must of course continue. At the same time, however, it is critical to also consider the bigger and broader questions, namely how different infrastructure systems fit together, and how the built environment is a component of the natural systems that support life on earth.

To this end, this document and its accompanying case studies provide a framework for integrated approaches to sustainable infrastructure. The report presents ten good practice principles, from backing resource efficiency and circularity to fiscal innovation to comprehensive lifecycle assessments of sustainability. Alongside the empirical examples, the principles offer a way for policymakers to address the environmental, social and economic aspects of sustainability related to infrastructure. Moving away from siloed planning, linear economies and “hard” assets, the solutions rationalize balanced, pro-nature, low-carbon solutions that reflect public preferences and cutting-edge innovations.

The world is presented with the opportunity to put the ten principles into practice. The majority of infrastructure that will exist in 2050 has not yet been built. It will take trillions of dollars of investment per year to build it, and this infrastructure will mainly be built in developing countries. And with a good number of the national COVID-19 related stimulus packages taking an infrastructure focus to boost economic recovery through job creation and demand stimulus, an even greater opportunity is presented to get these investments right.

I thank Member States and other stakeholders for their valuable role in shaping the two documents. Now is the time for Member States to take the next step in implementing the ten principles, which will only translate into positive outcomes if integrated into institutions, policies and laws at the national and sub-national levels. I encourage cooperation among all actors in the infrastructure system to adopt and promote the principles, drawing on the country case studies as inspiration and I hope that the publication will provide a practical foundation for sustainable infrastructure that best serves the needs of people and planet.

Inger Andersen,
Executive Director,
United Nations Environment Programme

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ABBREVIATIONS

TERM	DEFINITION
ACECC	Asian Civil Engineering Coordinating Council
ADB	Asian Development Bank
ASCE	American Society of Civil Engineers
CEA	Cumulative Effects Assessment
CHINCA	Chinese International Contractors Association
CIFF	Children's Investment Fund Foundation
CURE	Centre for Urban and Regional Excellence
EC	European Commission
EIA	Environmental Impact Assessment
EIB	European Investment Bank
FIDIC	International Federation of Consulting Engineers
FoE	Friends of the Earth
FOEN	Swiss Federal Office for the Environment
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIB	Global Infrastructure Basel
GIF	Global Infrastructure Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GtCO2	Gigatons carbon dioxide
ICE	Institution of Civil Engineers
IDB	Inter-American Development Bank