



# PATH TO CLIMATE RESILIENCY

CASE STUDIES OF CITIES IN THE PHILIPPINES



**UN HABITAT**  
FOR A BETTER URBAN FUTURE

Supported by:



Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety



INTERNATIONAL  
CLIMATE  
INITIATIVE

based on a decision of the German Bundestag



# PATH TO CLIMATE RESILIENCY: Case Studies of Cities in the Philippines

Angeles | Cagayan De Oro | Legazpi | Ormoc | Tagum





# FOREWORD

Five stories of how cities innovatively crafted resilient urban plans and designs to strengthen their resilience – inspiring journeys from identifying challenges to creating solutions.

The cities of Angeles, Cagayan de Oro, Legazpi, Ormoc and Tagum faced similar issues that cities across the globe grapple with: frequent flooding, stronger typhoons, accelerated sea-level rise, and increasing temperature compounded by challenges brought by urbanization. We congratulate these five cities for strategically designing projects using an integrated adaptation approach towards city-wide resilience and sustainable urban development.

With the guidance and expertise of the Department of Human Settlements and Urban Development and the Climate Change Commission, cities were able to level up from the usual practice of urban planning that focuses mainly on land use, physical design and infrastructure to a risk-based urban systems process that optimizes nature-based solutions.

The Building Climate Resiliency through Urban Plans Designs supported these processes, with funding support from the

International Climate Initiative of the German government. Since 2008, IKI-BMU has funded over 800 climate and biodiversity projects in more than 60 developing and emerging countries around the globe, including UN-Habitat Philippines. This project has built on the continuing journey of our partner cities in finding solutions to the ever evolving challenges and opportunities brought by climate change and its complex interface with urbanization, pandemics and rapidly shifting political economy at all levels.

We hope that these case studies will inspire other cities and towns to take action towards implementing more transformative climate adaptation actions. By learning from each other and with our collective effort, we can transform our cities and communities as we plan and design for resilience and gradually build better urban environments that improve the lives of every Filipino.

Together with these five cities, and the rest of the cities and communities around the world, we remain committed to make cities and human settlements safe, inclusive, resilient, and sustainable.



**CHRISTOPHER ROLLO**  
Country Programme Manager  
UN-Habitat Philippines





## ABOUT BCRUPD

Building Climate Resiliency Through Urban Plans and Designs (BCRUPD) is a German government-funded project being implemented by the United Nations Human Settlements Program (UN-Habitat) in partnership with the Department of Human Settlements and Urban Development (DHSUD), and other

It aims to support the Philippine government in improving policies, regulations, and capacities to adapt to climate change through the promotion of climate-responsive sustainable urban development

to enhance national and subnational government representatives' institutional capacities to guide and manage urban growth towards suitable areas and design the same incorporating resilience principles

ERH TVEGXMGIW 8LI TVSNIGX WYTTPIQIRXW I\MWXMRK TPERRMRK KYM TSPMG] MRTYXW GETEGMX] HIZIPSTQIRX ERH HIQSRWXVEXMSR EGXM

## ABOUT THE PUBLICATION

Under the BCRUPD project, innovative approaches on climate-resilient urban plans and designs were

8LIMV I\TIVMIRGIW WLS[GEWIH LS[ GMXMIW GER TVITEVI JSV VIGSZIV J climate change, considering balanced economic and ecological sustainability in the face of rapid YVFERM^EXMSR +MZIR XLI ¼ZI GMXMIW... HMJJIVIRX IGSW]WXIQW XLI] LS[ TVSGIWWIW ERH WGLIQIW GER FI GSRXI\XYEPM^IH ERH ETTPMIH

8LMW TYFPMGEXMSR GETXYVIW XLI I\TIVMIRGIW SJ XLI ¼ZI GMXMIW SR HMWGYWWMRK XLIMV GPMQEXI ERH YVFER TVS¼PI GPMQEXI GLERKI ZY used urban plans and designs to address these challenges, and their prospective climate resiliency TVSNIGXW 8LIMV I\TIVMIRGIW MPPYWXVEXI LS[ GMXMIW [MXL WGMIRG WSPYXMSRW GER XLVMZI • ERH RSX QIVIP] WYVZMZI • MR XLI JEGI SJ



# TABLE OF CONTENTS

ANGELES CITY	2
ANGELES CITY IN THE FACE OF CLIMATE CHANGE	10
THE CITY ADAPTATION STRATEGY: MÁKAYÁMANG ÁNGELES	19
THE PILOT DEMONSTRATION PROJECT: AQUIPARK: THE ABACAN PANGULU PHASE 1 PROJECT	26
CAGAYAN DE ORO CITY	33
CDO'S PURSUIT TO BUILD RESILIENCE THROUGH UPD	40
THRIVING—AND NOT MERELY SURVING—IN THE FACE OF CLIMATE CHANGE	47
LEGAZPI CITY	49
ENHANCING THE CITY'S CLIMATE ADAPTATION STRATEGY	57
ADDRESSING FLOODING AND LAHAR THROUGH UPD	59
USING URBAN PLANS AND DESIGNS TO ADDRESS URBAN HEAT STRESS	60
LEGAZPI'S PLANS TO LOWER GREENHOUSE GAS EMISSIONS	62
USING URBAN PLANNING AND DESIGN TO ADAPT TO SEA-LEVEL RISE	63
ORMOC CITY	69
ORMOC CITY IN THE FACE OF CLIMATE CHANGE	73
BUILDING RESILIENCE THROUGH URBAN PLANS AND DESIGNS	75
TAGUM CITY: TAGUMPAY CITYWALK	91
TAGUM CITY IN THE FACE OF CLIMATE CHANGE	94
TAGUM'S PURSUIT TO BUILD RESILIENCE THROUGH URBAN PLANS AND DESIGN	97
THRIVING—AND NOT MERELY SURVING—IN THE FACE OF CLIMATE CHANGE	103



预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_31560](https://www.yunbaogao.cn/report/index/report?reportId=5_31560)

