

THEMATIC SERIES

UnSettlement: Urban displacement in the 21st century

This thematic series explores the scale, nature and dynamics of internal displacement in towns and cities across the world



ASSESSING URBAN DISASTER DISPLACEMENT RISK

ACKNOWLEDGEMENTS

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of IDMC and do not necessarily reflect the views of the European Union.

This report is produced as part of the [Pacific Response to Disaster Displacement](#) (PRDD) project. With funding from the European Union, the Internal Displacement Monitoring Centre (IDMC) is collaborating with the International Organization for Migration (IOM) and the Platform on Disaster Displacement (PDD) to generate new evidence to help governments better understand, plan for, prevent and respond to disaster displacement in the Pacific region. The project will contribute to better policy responses and disaster planning, as well as new and improved operational tools.



Funded by the
European Union

Lead author: Scott Lloyd

Editor: Jeremy Lennard

Layout: Gregory van der Donk

Cover image: Panama city skyline, April 2020. UNDP/Grey Díaz

**TOWARD LOCAL ASSESSMENTS
OF URBAN DISASTER
DISPLACEMENT RISK**

TABLE OF CONTENTS

| Summary	5
| Introduction	6
| Urban disaster displacement risk	7
|| Slow-onset events and displacement	7
|| Urban disaster displacement risk	7
|| Displacement toward urban areas	8
|| Uneven distribution of disaster displacement risk	9
|| The impacts of disaster displacement	9
|| The need for local assessments of urban disaster displacement risk	10
| A framework for assessment	11
| Conclusion	30
| Annex	31
| Notes.	47

SUMMARY

Displacement risk associated with disasters and climate change is concentrated in cities and expected to increase in the coming years. Therefore, determining a hazard-prone city's displacement risk profile is key to sustainable development, effective humanitarian response and long-term prevention of displacement. This report highlights why and how risk assessments need to become an integral part of urban planning, and presents an original tool that allows local authorities to assess disaster displacement risk in their urban area. The tool identifies

drivers and triggers of displacement as well as vulnerable areas and urban populations at higher risk of displacement. It assesses data availability, urban governance, disaster risk management capacity and initiatives to mitigate displacement and ensure durable solutions for those affected. In addition, promising practices of urban planning strategies from around the world are highlighted as examples which can be adapted to different risk profiles.

INTRODUCTION

Many of the main risks associated with disasters and climate change are concentrated in cities.¹ They tend to affect people who are already vulnerable, aggravating inequalities and triggering internal displacement. Understanding the uneven distribution of these risks in urban areas is essential to make cities inclusive, safe and sustainable.

This report introduces an assessment tool to determine an urban areas' risk profile for disaster displacement. It is intended as a first step in better understanding the factors at play and is applicable to all urban situations. It should enable practitioners, including national and

local governments, urban authorities, aid providers and development agencies, to make a rapid assessment of disaster displacement risk in their focus areas in order to better inform their interventions.

The report focuses on the potential of urban planning strategies to establish enabling environments in which citizens participate in managing disaster displacement risk. It presents promising practices from different cities around the world to highlight how such forms of engagement contribute to whole-of-society approaches to urban resilience.²

URBAN DISASTER DISPLACEMENT RISK

Sudden and slow-onset disasters triggered 24.9 million new internal displacements worldwide in 2019.³ Weather-related hazards, including storms, floods, wildfires, landslides, drought and extreme temperatures, accounted for around 95 per cent of the total. Changes in the incidence of extreme events linked with climate change will amplify the risk of such displacement, particularly for vulnerable urban populations.⁴

Sudden-onset hazards include floods, storms, earthquakes, wildfires, landslides, earthquakes and tsunamis. People may be displaced when the impact of a hazard itself or the disaster that unfolds in its wake puts them in direct physical danger. They may also be displaced if their homes are rendered uninhabitable or they lose their livelihoods or access to basic services.⁵ Sudden-onset hazards displace millions of people every year and often result in prolonged displacement, which increases the vulnerability of those affected.⁶

SLOW-ONSET EVENTS AND DISPLACEMENT

Slow-onset events, such as sea level rise, drought, desertification and climate change may interact with and aggravate sudden-onset hazards. As part of a recent taskforce on displacement established by the Conference of the Parties (COP), IDMC has identified four main ways in which slow-onset events contribute to displacement:⁷

1. They reduce ecosystem services, including the availability of resources that humans need to survive. This has the potential to seriously disrupt people's livelihoods and compromise their ability to adapt to change, which in turn increases the risk of displacement. Drought, for example, may reduce the food supply, pushing up prices and increasing food insecurity.

2. Slow-onset events sometimes become a disaster as result of sudden-onset hazards, for example when sea level rise triggers flooding or prolonged temperature increases lead to a heatwave. The impacts of many slow-onset events are experienced as sudden-onset hazards.
3. Slow-onset events erode communities' capacity to withstand the impacts of future hazards. This is particularly true when livelihoods are not restored after a disaster, which leaves households vulnerable. The same applies to urban and ecological systems.
4. Slow-onset events often aggravate economic, social, cultural or political factors. These become increasingly difficult to disentangle from one another, and may culminate in humanitarian crises that trigger both internal and cross-border displacement.

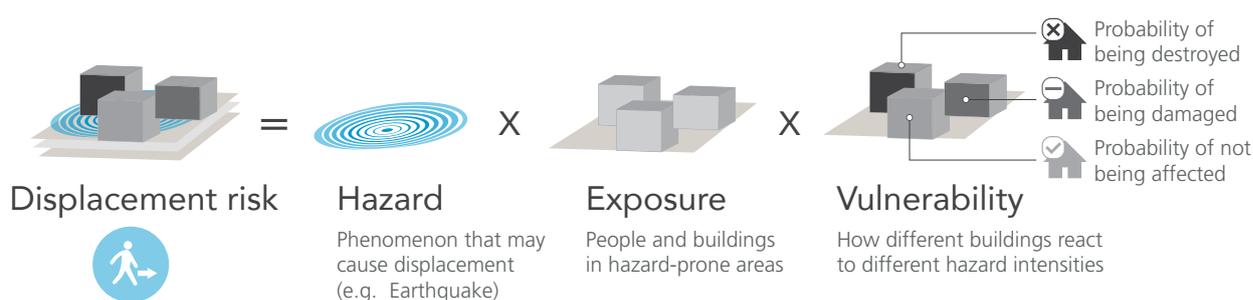
URBAN DISASTER DISPLACEMENT RISK

Disaster displacement is the result of a relationship between the type and intensity of a hazard, and people's exposure and vulnerability to it.⁸ It happens when people exposed to a hazard lack the resilience to withstand its impacts (Box 1).⁹ The risk of disaster displacement is illustrated in Figure 1.

Understanding this relationship is the first step toward planning processes that reduce the risk of disaster displacement and mitigate its impacts.¹⁰

Most future disaster displacement is expected to take place in urban settings.¹¹ This is the result of people's increasing concentration in towns and cities driven by migration, urbanisation and natural growth.

FIGURE 1: The risk of disaster displacement.



This is particularly the case in developing countries, where rapid and unplanned urbanisation drives displacement risk that many cities are ill-equipped to mitigate.¹²

Many major and expanding cities are located in hazard-prone areas such as seismic zones, coasts, deltas and estuaries, and climate change is increasing the frequency and intensity of weather-related hazards.¹³

Disasters also have the potential to collapse urban systems, markets and supply chains, with short and long-term implications for cities' residents and economies.¹⁴

DISPLACEMENT TOWARD URBAN AREAS

Internal displacement toward urban areas represents a significant challenge, particularly for towns and cities with weak institutions that struggle to deliver basic services to their growing populations.¹⁵

Displaced newcomers often live in marginalised settlements, where housing rarely complies with planning and building regulations, and overcrowded living conditions and lack of basic services heightens their exposure to risk. Shortfalls in urban service provision often combine with or are the result of infrastructure gaps, which may also contribute to segregation, tensions, conflict and disaster risk.¹⁶

Cities, however, still offer distinct advantages over camps when it comes to hosting displaced people and this fact increasingly informs humanitarian policy and programming. The UN Refugee Agency (UNHCR)'s policy on urban refugees, which it adopted in 2009, formalised a major shift in approaches to displacement. The policy is intended to ensure that cities are recognised as legitimate places for refugees to reside and exercise their rights, and that they maximise the protection space available to refugees and the humanitarian organisations that support them.¹⁷ This acknowledges that the diversity of urban systems makes them better able to meet displaced people's needs.

BOX 1: A rights-based approach to urban resilience

Progressive approaches to urban resilience focus on residents' rights.¹⁸ They argue that returning to pre-disaster conditions may still neglect the basic needs of marginalised populations in high-risk areas. As such, they extend the scope of resilience measures beyond ensuring urban systems and infrastructure are able to "bounce back" after a disaster to embrace the transformative potential of inclusive development and address structural issues that heighten displacement risk.

A recent Habitat III policy paper puts the "right to the city" forward as a new foundation for urban development. It advocates an approach that seeks to address the major challenges of rapid urbanisation, poverty, social exclusion and environmental risk. Such an approach has been applied in many cities by creating opportunities to use common urban resources and services in keeping with the principles of sustainability, democracy, equity and social justice.¹⁹

Evidence from all regions of the world shows that much displacement to urban areas should be considered permanent, and that the preferred solution for many internally displaced people (IDPs) in towns and cities is local integration rather than return to their area of origin.²⁰ This makes displacement a major urban planning issue.

More research is needed, particularly on the degree to which under-regulated environments provide fair and open access to economic and education opportunities and healthcare, particularly in low and middle-income countries. A better understanding is also needed of how unplanned population increases affect urban systems' capacities and the effect this has on opportunities for IDPs to integrate locally, be socially mobile and exercise their rights.

UNEVEN DISTRIBUTION OF DISASTER DISPLACEMENT RISK

The increasing demand for affordable urban land and services, coupled with inefficient and costly land registration systems, has resulted in ad hoc development. This might be described as a process of "popular urbanisation" in which individuals and communities produce, appropriate and transform an urban area.²¹

The concentration of such settlements in densely populated inner-city or peri-urban areas with limited protection led to the emergence of informal settlements that are home to highly vulnerable communities, particularly in developing countries.²²

Many IDPs end up in informal settlements where they are vulnerable to eviction and abuse from landlords.²³ This may lead to secondary displacement and a downward spiral of poverty and vulnerability.²⁴

Socially created vulnerability and the concentration of people in areas exposed to hazards have a large impact on displacement risk.²⁵ This means the risk, and the human and economic impacts when a disaster strikes, are not evenly spread across urban populations. Poverty, ethnicity, age, family composition, education, skills and disabilities all influence people's level of risk and vulnerability.²⁶ These influences are heightened through factors

such as housing quality, location and access to basic services and social networks.²⁷

THE IMPACTS OF DISASTER DISPLACEMENT

The impacts of disaster displacement similarly vary. These variables affect IDPs' ability to negotiate solutions across all phases of displacement.

There is an established body of evidence on the detrimental impact of disaster displacement on people's livelihoods in both the immediate and long-term, including the loss of income and assets and reduced productivity.²⁸ Studies on lost productivity have also started to shed light on the broader effects on local and national economies.

IDPs unable to find decent work have little choice but to resort to other less secure and sometimes dangerous income-generating activities.²⁹ In some cases, displaced children are obliged to earn an income, which impedes their education and future employment prospects.³⁰

Informal settlements tend to be less safe than other urban areas, and health services are often poor at best. Many also have little or no access to safe water and sanitation, which increases the risk of disease. Large influxes of IDPs into already overcrowded areas only aggravate such conditions and increase risks for themselves and their hosts. The mental health implications of displacement are also widely acknowledged, but tend to be overlooked.³¹

Disaster displacement all too often leads to unmet needs and human rights abuses. It may also aggravate gender-based violence and other pre-existing discrimination and inequalities.³² Women, children, youth, older people, those with disabilities and other vulnerable groups are particularly at risk.

IDPs' political engagement is also often compromised, particularly for women, who already tend to be marginalised from political decision-making that affects their livelihoods.

The impacts of disaster displacement in cities are complex and have far-reaching effects on many aspects of IDPs' lives and those of their host communities. Repercussions

may continue to be felt long after a disaster strikes. Effective measures are required not only address to these impacts, but also to prevent displacement from happening in the first place.

THE NEED FOR LOCAL ASSESSMENTS OF URBAN DISASTER DISPLACEMENT RISK

Beyond hazard intensity, urban disaster risk is largely determined by the way cities are planned, developed and built. This makes it vital that urban planning and disaster risk reduction processes be integrated.³³

Urbanisation trends in recent decades have fundamentally challenged the conventional view of cities as bound and static settlements.³⁴ Current approaches understand them rather as places of constant socio-spatial transformation, driven by processes of migration, exchange and climate change that extend far beyond their administrative boundaries.

The characteristics of urbanisation, however, vary widely across countries and regions, resulting in urban structures and systems that are particular to each city. It is vital to understand these differences and shape urban planning processes accordingly. Current approaches focus on the role of local governments in climate adaptation. They view local assessments as the bedrock of successful adaptive planning and embrace the need to integrate adaptation into local investments, policies and regulatory frameworks.³⁵

The same is true of addressing displacement risk. Many of the most effective measures to reduce people's exposure and vulnerability are planned and executed at the municipal level.

The following section provides a step-by-step guide to assessing local disaster displacement risk in urban areas. It is illustrated with the example of an imaginary urban area, Pacific City, and accompanied by other examples of promising practices from around the world. A blank template of the assessment is available as an annex.

A FRAMEWORK FOR ASSESSMENT

The first step in establishing a comprehensive urban displacement mitigation strategy is to assess the risk and challenges that an urban area faces. This means determining its exposure and vulnerability to hazards, and its capacity for mitigation, protection and recovery. It also means assessing the extent to which its citizens are able to strengthen their own resilience.

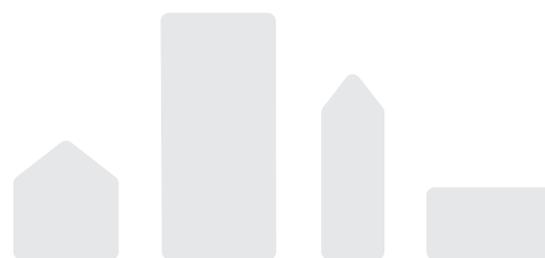
Understanding the city's underlying social and economic inequalities is essential in identifying who is most likely to be displaced by a disaster in the first place, and to reduce the likelihood of IDPs being displaced more than once or for long periods of time.

The method presented here draws on existing tools for assessing the local governance of displacement risk and resilience in urban areas. These include profiling assessment formats established by the UN Office for Disaster Risk Reduction (UNDRR)'s Ten Essentials toolkit for making cities more resilient, and analysis tools from UN Habitat's planning for climate change toolkit.

The following pages present a set of questions to determine an urban area's disaster displacement risk profile. A map-based exercise is also included. This is important to understand the locations, scale and characteristics of risk areas, and their relationships with the rest of the urban area. It is also helpful to understand how these risk areas have previously influenced displacement and to assess how future infrastructure development and settlement trends might respond to this.

The questions are grouped according to the main topics that need to be covered to assess displacement risk. They are accompanied by "reference tools" from various agencies to guide further analysis and research, and "supporting tools", the instruments or data sources required to complete the questions. The assessment should ideally be undertaken by a multi-disciplinary team familiar with the designated areas of study and able to draw on the range of spatial and statistical data required.

0 Urban profile



Name of urban area	<i>Pacific City</i>
Population	<i>83,540</i>
Urban land area	<i>19.6 km²</i>
Population density	<i>4,262 per km²</i>
2030 population estimate	<i>111,540</i>
National urban population growth rate ^A	<i>2.1%</i>
Estimated informal settlement population	<i>33,416 - 40%</i>
Estimated number of households	<i>17,500</i>
Greater area population	<i>105,749</i>
Greater urban land area	<i>27.3km²</i>
Greater area population density	<i>3,873 per km²</i>
Annual municipal budget (\$)	<i>\$34.2 million</i>
Relevant urban planning frameworks	<i>National development plan 2010-2025, Urban Resilience and Climate Action Plan 2015, Climate Change and Disaster Displacement Policy 2012, Spatial Development Framework 2015</i>
No. of disasters that triggered displacement nationally over the past 10 years ^B	<i>15</i>
No. of new disaster displacements nationally over the past year ^B	<i>1,440</i>
National average annual displacement for sudden-onset disasters ^B	<i>5,337</i>



Supporting data sources

^A World Bank global urbanisation profiles³⁶

^B IDMC Global Displacement Risk Model³⁷

1 Identifying displacement triggers and drivers



This section is intended to identify the triggers and drivers of displacement and the effects of hazards on the physical urban environment.

1A List disasters that have previously affected the urban area

List the main disasters the urban area has faced.

Disaster	Date of last known events	Potential future risk
 Floods	<i>2019, 2018</i>	<i>Main river flooding and general flash flooding</i>
 Local storms	<i>February 2020</i>	<i>Seasonal</i>
 Cyclones and tropical depressions	<i>2017 (1), 2015 (1)</i>	<i>Seasonal</i>
 Earthquakes	<i>July 2010, October 1999</i>	<i>Unknown</i>
 Tsunamis	<i>October 1999</i>	<i>Unknown</i>

1A List disasters that have previously affected the urban area cont'd

 Wildfires	-	-
 Volcanic eruptions	11.05.2019	Unknown
 Extreme temperatures	-	-
 Landslides	September 2018	Greater displacement risk predicted based on forecasts of increasing precipitation
 Drought	1999-2000	Unknown
 Sea level rise	Local rise of 3.2mm a year recorded between 2006 and 2015	13 cm rise forecast by 2030

1A List disasters that have previously affected the urban area cont'd

Which previous hazards triggered displacement?	Date of event	Area effected	Number of displacements
<i>Cyclone 1</i>	<i>2017</i>	<i>Settlements A, C, M</i>	<i>1,132</i>
<i>Cyclone 2</i>	<i>2015</i>	<i>Settlements A, C</i>	<i>223</i>
<i>Flash flooding</i>	<i>2019</i>	<i>Settlement A</i>	<i>87</i>
<i>Flash flooding</i>	<i>2018</i>	<i>Settlement A, B</i>	<i>34</i>
<i>Storm surge</i>	<i>2020</i>	<i>Settlement T</i>	<i>112</i>



Reference tools

UN Habitat weather and climate change summary³⁸
IDMC's global risk model³⁹

1B Map hazards

This section requires an urban base map including major geophysical characteristics, ecosystems and infrastructure. Such maps can be sourced from official planning documentation or open spatial datasets. The following information should then be inputted:

Where and at what scale have hazards mostly occurred?

Whole city for cyclones; coastal regions - settlements A, B and G - for seasonal storm surges and tsunamis.

Given indications of future risk, where will hazards most likely occur?

Flash flooding in settlements A and B; storm surges in settlements T.



Reference tools

UN Habitat hazard mapping⁴⁰

Supporting tools

Open spatial datasets⁴¹

1C Map the places most exposed to hazards

With the base map, identify assets most affected by the hazards previously identified. These will include critical infrastructure - electricity, water, transport and waste disposal - major ecosystems, buildings and housing. Use this information to answer the following questions:

Which areas are hazards likely to affect directly because of their exposure?

Riverine floods: settlements D, F and expanding settlement H; storm surges: settlements A, B, F and G.

Which areas are likely to be affected indirectly by hazards because of infrastructure exposure?

Subsistence farms on customary land in settlement F by flash flooding; access to safe water in settlements D, F and C by flash flooding; road access between settlement G and city centre and industrial area by storm surges.

Which districts in the urban area are most densely populated?

Settlement A on the eastern edge of the city centre and inner-city settlements E and D.



Reference tools

UN Habitat climate exposure mapping⁴²

1D Map areas that are highly vulnerable to hazards

Answer the following questions:

Which areas' socio-demographic characteristics make them particularly vulnerable to hazards?

The informal settlements on the outskirts of the city, central pockets of informal housing such as settlements A and F, and more recent subdivisions of settlements H and G. The southern area of settlement E is also highly vulnerable, according to study N.

What are the general characteristics of the informal settlements in the urban area? Answers should cover their age, population density and building materials

The quality of housing and infrastructure across the greater metropolitan area is variable and difficult to assess. Building standards are largely unenforced and self-regulated. As of 2017 much of the city's housing stock was highly vulnerable to climate-related and geophysical hazards. Only 5.6 per cent was deemed to be well-engineered.



Reference tools

UN Habitat socio-demographic sensitivity assessment

UN Habitat sensitive places mapping

1E Identify projected growth and development areas

This includes informal settlement growth, planned urban development and settlement expansion areas. The following questions should be answered:

Which settlements are expected to expand in the short, medium and long-term?

New subdivisions of settlement A and peri-urban areas to the north and north-east of settlements G and F.

Where will development, both planned and approved, take place?

Urban expansion is planned for the west to north-west municipal boundary, bordered by the planned airport extension and highway extension. A number of other road extensions are planned along the west coast and peninsula.



Supporting tools

Local spatial development frameworks, masterplan or similar
Approved and pending development plans
Historical satellite imagery analysis⁴³

2 Institutional Assessment



The section looks at the mandate and capacities of the institutions and agencies responsible for addressing disaster displacement at the local level.

2A Assess urban governance and planning

This covers the extent to which an enabling environment is established by good planning and governance practices. The following questions should be answered:

Is there reliable spatial data for the city area and surrounding region?

Most spatial data is outdated, including administrative boundaries. The databases hosted by the Federal Land Department and the city's municipal council are not interoperable, and public access to databases is difficult.

Which policies and programmes cover basic housing, land and property rights and protection?

The main legal framework governing housing and property is the country's 1981 constitution, which enshrines the right to basic services and adequate housing. A number of landmark cases have secured this right. The 1982 Land Reform Act and the 2013 Customary Land Governance Act envisage protection against eviction from customary land.

To what extent is inclusive and participative planning facilitated?

There are a number of barriers to public participation in decision-making about development planning. Community-level structures and traditional knowledge are not well integrated into the governance and institutional frameworks, but they are considered the strongest aspect of the city's adaptive capacity.

Are there good practices to address poverty?

There is a general lack of pro-poor initiatives in the city.

Do these practices consider disaster and displacement risk?

There are no specific practices that address these issues, but the urban resilience and climate action plan outlines a number of programmes that may address urban poverty and displacement associated with climate change. These include preparing and implementing a local planning scheme for development control and zoning that incorporates climate-change impacts, particularly flood risk; ensuring that climate change is accounted for in informal settlement upgrade strategies; developing a city-wide map of hazard zones to inform the local planning scheme; developing a policy for the relocation of at-risk households based on intensive consultation with affected communities and other stakeholders; and strengthening the engagement of wards and communities in local resilience planning.

Are there programmes or initiatives that offer access to secure and affordable land, housing and services?

Not as such, but the urban resilience and climate action plan includes provision for expanding the informal settlement upgrade programme, which includes prioritising the avoidance of high-risk areas and expanding land formalisation to improve tenure security.

The National Housing Council (NHC) is a statutory organisation whose function is to provide houses for sale or lease at a minimum cost in accordance with government housing policy.

Are there fit-for-purpose building regulations and incremental development plans?

These are under development. The development plan recommends the use of incremental development and strategies to secure the built environment against sudden climate events. There are, however, no programmes intended to meet these objectives.



Supporting tools

- Global Land Tool Network (GLTN) social tenure domain model⁴⁴
- UN Habitat good urban governance tool⁴⁵
- UN Habitat stakeholder mapping tool⁴⁶

BOX 2: Promising practices in localising resilience

The emergence of collaborative urban planning methods has established participation as a key principle to ensure that local stakeholders' priorities and interests are reflected, and that the city benefits from the natural dynamic of local processes, knowledge and norms.⁴⁷ The same approach has been applied to disaster risk reduction, whereby traditional top-down measures are complemented by collaborative and community-driven resilience initiatives. Such partnerships recognise communities as active agents with knowledge, experience and capacities to bring to problem solving.⁴⁸

[Participatory risk assessments](#) (PRAs) in Talad Kao, Thailand, draw on community knowledge to address local risk factors and the impacts of flooding. Assessments are conducted by local authorities and communities, who organise mixed groups of representatives to develop risk maps. These identify safe areas and the location of community resources such as loud speakers, evacuation centres and meeting points. The assessments also gather community experiences from previous floods and perceptions of flood risk. The results are compiled and presented as community risk profiles and hazard maps, and identify priorities in flood mitigation schemes.

The [Coalition Building in Cities Program](#), organised by the Red Cross in Luganville, Vanuatu, is a community based training and networking program aimed to build risk awareness amongst urban stakeholders and vulnerable urban communities. The program worked with existing civic processes, bringing together community representatives with stakeholders from the business community, universities, and community organizations in dedicated workshops on climate adaptation strategies. This collaborative process helped participants see the interconnectedness of urban systems and to better understand responsibilities, capacities and the need to work together. The trainings included first aid, water, sanitation and hygiene, disaster risk reduction planning and served to increase community awareness of vulnerabilities, risks and options to exercise their own capacities to respond.

2B Assess institutional disaster planning capacity

This section looks at the agencies responsible for managing disaster displacement risk. The following questions should be answered:

Which institutions and agencies are involved in relocation and climate change adaptation, and how? How are they connected to the community?

The National Resilience Office (NRO) has the authority to relocate communities under disaster conditions or a state of emergency. The Ministry of Climate Change Adaptation (MCCA) has prepared a national policy on climate change and disaster displacement, which includes sections on addressing the planning, implementation and evaluation of community relocations.

How are the institutions and agencies active in displacement management or climate change adaptation coordinated?

NRO runs a shared information platform for disaster management. This allows the institutions and agencies involved in responses to establish a quick and common understanding of disaster situations. It also facilitates the sharing of information on disaster prevention, which it presents in a format that is easy to use.

The following table can be used to enter this information:

<p>Lead agency on climate change adaptation</p>	<p><i>NRO is a government department under MCCA. It is responsible for coordinating responses to emergencies and disasters across Vanuatu.</i></p>
<p>Institutions or agencies responsible for disaster displacement risk</p>	
<p>Government staff trained in hazard early warning, disaster preparedness and recovery</p>	<p><i>Around 15</i></p>
<p>Disaster preparedness and response budget</p>	<p><i>\$800,000 a year</i></p>
<p>NGOs, civil society and community groups that address disaster and displacement risk</p>	<p><i>NGO 1, Human Rights Coalition</i></p>

2B Assess institutional disaster planning capacity cont'd



Reference tools

World Bank Institutional Snapshot⁴⁹

UN Habitat rapid institutional assessment questionnaire⁵⁰

BOX 3: Promising practices in information sharing

Digital networking and communication technologies are enabling the efficient capture and distribution of vital data on urban disasters. Not only do they provide timely information to support the management of disaster displacement risk, they also serve as a platform for sharing the data collection process. This allows local and real-time data from communities engaged in monitoring and assessing disaster risk at the neighbourhood level to contribute to overall risk management strategies.

[PetaBencana.id](#) harnesses the use of social media during emergencies to gather, sort and display confirmed hazard information in real time. The Indonesian NGO Yayasan Peta Bencana developed the platform in collaboration with USAID as an emergency response and disaster management tool for megacities in south and south-east Asia. It uses customised software to triangulate data from social and digital media and produce essential information for residents, communities and government agencies. It creates accurate, real-time data on disaster events which is made available to the public and first responders, replacing expensive and time-consuming data processing systems.

The [Local Flood Early Warning System](#) in the Philippines is a community-based flood prediction initiative. It is a collaboration between researchers at the National Institute of Geological Sciences at University of the Philippines and the residents of the community of Banaba on a floodplain outside Manila. The university trained residents to monitor and collect information on rainfall, river levels and the rate of river rise. The data is shared with upstream populations who also monitor river metrics. The university uses the data to produce computer-generated flood models and send accurate and timely alerts to Banaba residents if the

2C Identify displacement mitigation initiatives

These may involve making vulnerable settlements more resilient or facilitating relocation to avoid reactive displacement. The following questions should be answered:

Are there any initiatives in place that contribute to addressing disaster displacement?

The Country Preparedness Package (CPP) is a joint initiative of the federal government and the Pacific Humanitarian Team (PHT). It is intended to improve preparedness and collaboration among national and international stakeholders involved in disaster responses.

What has been done to mainstream risk reduction activities, including prevention and preparedness?

A national cluster system led by NRO enables the government and humanitarian agencies to develop and implement disaster preparedness activities. Community groups and the private sector also take part in the system, which has introduced a national disaster preparedness training programme for municipal employees, community groups and children in early-years education. It has also helped to improve communication and responses during disasters.

What plans are in place to make housing or land available for the evacuation or relocation of vulnerable communities?

There have been no relocation projects in Pacific City, but the federal government has relocated peri-urban village X because of seawater flooding. Negotiations are ongoing over the inclusion of land to the north of settlement F in a government plan for possible relocation and other adaptation measures.

What planning instruments are in place to anticipate and address urban expansion in risk areas?

The spatial development framework contains strategies that will guide the development of greater Pacific City over the next 20 years. It addresses land zoning, land use and development, infrastructure expansion and conservation. It also includes development guidelines based on disaster mitigation plans, including flood plain revitalisation and the densification of inner-city areas.



Reference tools

UNDP the checklist on law and disaster risk reduction⁵¹

BOX 4: Promising practice in displacement mitigation plans

Current resilience planning shifts its focus to the community level and embraces formal planning strategies that establish “enabling environments” in which community groups and local authorities take control of planning decisions and investments. The underlying principle is that risk is everyone’s business.

The [Low-Income Community Housing Support Project](#) in Bangladesh is intended to improve housing and living conditions in low-income and vulnerable urban settlements. A World Bank initiative in collaboration with the country’s National Housing Authority, the project has developed alternative building standards to meet safety and disaster risk mitigation requirements within the constraints of high-density, low-income urban

communities. The new standards help to ensure safety for participating households and raise community awareness about mitigating disaster risks associated with cyclones and floods.

The [Samoa City Development Strategy](#) is based on participatory urban planning strategies that integrate environmental, human rights and social justice principles with traditional local governance. The broader Urban Planning and Development Programme also adheres to international conventions that address indigenous rights, human rights, social justice and participatory governance. The strategy was designed with community inputs from a number of public forums used to address risk mitigation and development issues. It presents adaptive land-use planning to reduce disaster risk through “planned retreat”, protection and accommodation strategies.

2D Assess disaster risk management capacities

This section assesses strategic plans for responding to disasters and minimising the severity of displacement. The following questions should be answered:

Is there a lead agency that coordinates disaster management activities?

The Federal Meteorology Department (FMD), which is part of MCCA, is the country's main risk-monitoring agency. It is responsible for coordinating preparation and emergency and disaster responses nationwide, including greater Pacific City.

Are there any shortcomings in policies or programmes that need to be addressed?

Few if any disaster displacement risk projects have been implemented, and national-level resilience planning tends not to reflect local needs. These include access to land suitable for sustainable habitation, budget allocations for informal settlement upgrades and land administration systems coordinated across agencies and enforced through formal and customary urban governance. There is also little data collection and profiling of neighbourhoods in disaster-risk areas.

Does the lead agency have sufficient financial, technical and human resources?

No. As of December 2019 only 57 per cent of the requested budget for 2019 had been secured.

Is there a disaster response system, and is it comprehensive?

The National Disaster Management Office and PHT established CPP to develop and manage the country's response system. This includes collaboration between national and international responders, building the response capacity of local disaster and climate change committees, and supporting local emergency shelters.

Is the system regularly tested and updated?

The system is assessed monthly, and the assessment results are made public. Emergency drills take place several times a year as part of the national training programme on disaster preparedness.

Where are the emergency shelters located, what is their capacity and how well are they equipped?

Location	Description
A	Capacity for 250 people, with 400 shelter tool kits, food stocks and water, sanitation and hygiene (WASH) facilities. Run by volunteers
B	Capacity for 250 people, with 400 shelter tool kits, food stocks and WASH facilities. Run by volunteers.
C	Capacity for 100 people, with 400 shelter tool kits, food stocks and WASH facilities. Run by volunteers.
D	Capacity for 100 people, with 400 shelter tool kits, food stocks and WASH facilities. Run by volunteers.
E	Capacity for 50 people, with 200 shelter tool kits and WASH facilities
F	Capacity for 50 people, with 200 shelter tool kits and WASH facilities
G	Capacity for 50 people, with 200 shelter tool kits and WASH facilities
H	Capacity for 50 people, with 200 shelter tool kits and WASH facilities
I	Capacity for 50 people, with 200 shelter tool kits and WASH facilities
J	Capacity for 50 people, with 200 shelter tool kits and WASH facilities



Reference tools

UNDRR Toolkit for planning relocations to protect people from disasters and environmental change⁵²
 IASC Operational Guidelines on the protection of people in natural disasters⁵³

BOX 5: Promising practice in disaster management

Disaster response strategies are essential to mitigate the damaging effects of disasters and prolonged displacement. They include managing the severity of displacement through timely and coordinated support, and ensuring that basic services are provided and civil rights upheld throughout the recovery.

The [Odisha Disaster Recovery Project](#) in India is an infrastructure improvement project designed to increase the capacity of the state and communities to deal with future disasters. It focuses on both community and individual infrastructure, and includes a network of 450 cyclone shelters with dedicated community maintenance committees trained in rescue and relief. It also identifies and allocates open spaces as disaster response areas.

[Rescue 161](#) is an initiative set up by the disaster coordination council of Marikina city, which is part of metropolitan Manila, to provide a 24-hour disaster response unit and emergency medical services. The city's residents are able to contact the Rescue 161 team by phone or social media, or via calls routed from the national emergency services hotline. They can also sign up for notifications. The Rescue 161 team collaborates with other government departments to determine at-risk areas and identify needs not only in terms of disaster response, but also infrastructure repair in areas prone to flooding.

2E Assess strategies and initiatives for durable solutions to disaster displacement

The following questions should be answered:

Are there plans or procedures in place or in development to facilitate building back better after disasters?

Pacific City's climate change and disaster displacement policy (CCDDP) is a comprehensive document that sets out standards and procedures for the achievement of durable solutions. They include procedures to assess disaster impacts, consult communities on the recovery of land and property, and participatory development plans to encourage holistic recovery.

Are there any statutory procedures to address any harm IDPs may suffer, including in terms of housing, land and property?

Support to IDPs is mentioned in various documents but does not specify how to address harm they may suffer in terms of housing, land and property.

Are there measures to facilitate IDPs' return, local integration or settlement elsewhere?

CCDDP calls for IDPs' sustainable return and reintegration in their places of origin; their sustainable local integration in areas where they have taken refuge, which may include informal settlements; or their settlement or planned relocation and sustainable integration elsewhere in the country. Particular measures to achieve this are not discussed in the document.

Are there programmes to ensure IDPs' participation in the planning and implementation of durable solutions?

CCDDP's guiding principles state that decision-making should be based on IDPs' voluntary and informed choices, and that community participation should determine how return, local integration, settlement elsewhere and planned relocation take place. No particular programme has been set up to ensure this, however.



Reference tools

UNDP Risk-informed Development: From Crisis to Resilience⁵⁴

BOX 6: Promising practice in consultations on durable solutions in the Philippines

There has been a gradual shift in disaster recovery thinking in recent years toward people-centred approaches that “build back better”. These go beyond infrastructure and systems to address what is better for people’s lives more holistically.⁵⁵ A recent World Bank publication emphasises that people should be at the centre of the reconstruction process and should have preferential right to make the decisions that will affect their lives.⁵⁶ An number of promising examples have emerged that demonstrate how this can be achieved.

CARE Philippines responded to the devastation wrought by typhoon Haiyan/Yolanda in November 2013 with [extensive shelter and livelihoods programmes](#). Under a self-recovery approach, almost 16,000 families received cash, materials, tools and technical assistance. The integrated response programme was intended to make significant improvements on pre-typhoon houses. CARE’s approach allowed flexibility and choice in housing types and provided learning opportunities on build-back-safer techniques. Families had to invest their own time and resources, but they recognised that their homes, once finished, were tailored to their circumstances and needs.

[Community relocation in Iloilo](#): A landslide submerged a large part of the low-lying coastal city of Iloilo in 2008, killing 25 people and affecting more than 260,000. To reduce the risk of further disasters, the local government worked with the Iloilo City Urban Poor Network to relocate communities to less exposed areas. Besides ensuring they were not moved more than a few kilometres from the original site, the relocation was preceded by a range of preparatory activities including a survey of its potential impacts, consultations and awareness raising. Because of the limited resources of many of the affected households, compensation and support were also provided, including microfinancing, skills development and the recapitalisation of local businesses to help residents re-establish their livelihoods or develop new ones. This multi-stakeholder partnership moved beyond disaster response toward effective strategies for sustainable solutions.

CONCLUSION

This report emphasises the importance of local assessments as the first step toward designing effective and tailored programmes to manage disaster and displacement risk. The assessment tool presented here is intended for local stakeholders to determine the nature of current risks and a customised disaster displacement risk profile. It covers the main themes of urban displacement and suggests areas for further discussion, research and development.

The next step would be to involve exposed and vulnerable communities themselves in data collection, risk assessment and analysis. This would aid understanding of people's perceptions of risk, their previous experiences of disasters and their coping mechanisms. Such

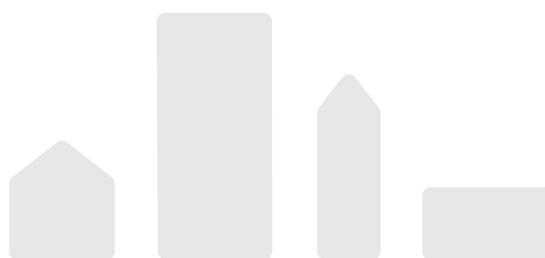
an approach should follow the principles of disaster resilience set out in the Sendai Framework for Disaster Risk Reduction, which advocates holistic risk management at all levels.⁵⁷

This would tie in with urban planning and resilience strategies which shift away from approaches that focus on urban systems to a more rights-based way of working. These offer more effective pathways toward whole-of-society resilience and have proven particularly effective in under-resourced cities with large numbers of marginalised and vulnerable people. They also provide new opportunities for local engagement on sustainable urban development.

ANNEX



0 Urban profile



Name of urban area	.....
Population	.....
Urban land area	.....
Population density	.....
2030 population estimate	.....
National urban population growth rate ^A	.....
Estimated informal settlement population	.....
Estimated number of households	.....
Greater area population	.....
Greater urban land area	.....
Greater area population density	.....
Annual municipal budget (\$)	.....
Relevant urban planning frameworks	.....
No. of disasters that triggered displacement nationally over the past 10 years ^B	.....
No. of new disaster displacements nationally over the past year ^B	.....
National average annual displacement for sudden-onset disasters ^B	.....



Supporting data sources

^A World Bank global urbanisation profiles⁵⁸

^B IDMC Global Displacement Risk Model⁵⁹

1 Identifying displacement triggers and drivers



This section is intended to identify the triggers and drivers of displacement and the effects of hazards on the physical urban environment.

1A List disasters that have previously affected the urban area

List the main disasters the urban area has faced.

Disaster	Date of last known events	Potential future risk
 Floods	-----/-----/----- -----/-----/----- -----/-----/----- -----/-----/----- -----/-----/-----	----- ----- ----- ----- -----
 Local storms	-----/-----/----- -----/-----/----- -----/-----/----- -----/-----/----- -----/-----/-----	----- ----- ----- ----- -----
 Cyclones and tropical depressions	-----/-----/----- -----/-----/----- -----/-----/----- -----/-----/----- -----/-----/-----	----- ----- ----- ----- -----
 Earthquakes	-----/-----/----- -----/-----/----- -----/-----/----- -----/-----/----- -----/-----/-----	----- ----- ----- ----- -----
 Tsunamis	-----/-----/----- -----/-----/----- -----/-----/----- -----/-----/----- -----/-----/-----	----- ----- ----- ----- -----

1A List disasters that have previously affected the urban area cont'd

 Wildfires	/---/---/ /---/---/ /---/---/ /---/---/ /---/---/	----- ----- ----- ----- -----
 Volcanic eruptions	/---/---/ /---/---/ /---/---/ /---/---/ /---/---/	----- ----- ----- ----- -----
 Extreme temperatures	/---/---/ /---/---/ /---/---/ /---/---/ /---/---/	----- ----- ----- ----- -----
 Landslides	/---/---/ /---/---/ /---/---/ /---/---/ /---/---/	----- ----- ----- ----- -----
 Drought	/---/---/ /---/---/ /---/---/ /---/---/ /---/---/	----- ----- ----- ----- -----
 Sea level rise	/---/---/ /---/---/ /---/---/ /---/---/ /---/---/	----- ----- ----- ----- -----

1A List disasters that have previously affected the urban area cont'd

Which previous hazards triggered displacement?	Date of event	Area effected	Number of displacements
-----	---/---/---	-----	-----
-----	---/---/---	-----	-----
-----	---/---/---	-----	-----
-----	---/---/---	-----	-----
-----	---/---/---	-----	-----

 **Reference tools**
 UN Habitat weather and climate change summary⁶⁰
 IDMC's global risk model⁶¹

1B Map hazards

This section requires an urban base map including major geophysical characteristics, ecosystems and infrastructure. Such maps can be sourced from official planning documentation or open spatial datasets. The following information should then be inputted:

Where and at what scale have hazards mostly occurred?

Given indications of future risk, where will hazards most likely occur?

 **Reference tools**
 UN Habitat hazard mapping⁶²

Supporting tools
 Open spatial datasets⁶³

1C Map the places most exposed to hazards

With the base map, identify assets most affected by the hazards previously identified. These will include critical infrastructure - electricity, water, transport and waste disposal - major ecosystems, buildings and housing. Use this information to answer the following questions:

Which areas are hazards likely to affect directly because of their exposure?

Which areas are likely to be affected indirectly by hazards because of infrastructure exposure?

Which districts in the urban area are most densely populated?



Reference tools

UN Habitat climate exposure mapping⁶⁴

1D Map areas that are highly vulnerable to hazards

Answer the following questions:

Which areas' socio-demographic characteristics make them particularly vulnerable to hazards?

What are the general characteristics of the informal settlements in the urban area? Answers should cover their age, population density and building materials



Reference tools

- UN Habitat socio-demographic sensitivity assessment
- UN Habitat sensitive places mapping

1E Identify projected growth and development areas

This includes informal settlement growth, planned urban development and settlement expansion areas. The following questions should be answered:

Which settlements are expected to expand in the short, medium and long-term?

Where will development, both planned and approved, take place?



Supporting tools

Local spatial development frameworks, masterplan or similar
Approved and pending development plans
Historical satellite imagery analysis⁶⁵

2 Institutional Assessment



The section looks at the mandate and capacities of the institutions and agencies responsible for addressing disaster displacement at the local level.

2A Assess urban governance and planning

This covers the extent to which an enabling environment is established by good planning and governance practices. The following questions should be answered:

Is there reliable spatial data for the city area and surrounding region?

.....

.....

.....

.....

Which policies and programmes cover basic housing, land and property rights and protection?

.....

.....

.....

.....

To what extent is inclusive and participative planning facilitated?

.....

.....

.....

.....

Are there good practices to address poverty?

Do these practices consider disaster and displacement risk?

Are there programmes or initiatives that offer access to secure and affordable land, housing and services?

Are there fit-for-purpose building regulations and incremental development plans?



Supporting tools

- Global Land Tool Network (GLTN) social tenure domain model⁶⁶
- UN Habitat good urban governance tool⁶⁷
- UN Habitat stakeholder mapping tool⁶⁸

2B Assess institutional disaster planning capacity

This section looks at the agencies responsible for managing disaster displacement risk. The following questions should be answered:

Which institutions and agencies are involved in relocation and climate change adaptation, and how? How are they connected to the community?

How are the institutions and agencies active in displacement management or climate change adaptation coordinated?

The following table can be used to enter this information:

Lead agency on climate change adaptation	<hr/> <hr/> <hr/> <hr/> <hr/>
Institutions or agencies responsible for disaster displacement risk	<hr/> <hr/> <hr/> <hr/> <hr/>
Government staff trained in hazard early warning, disaster preparedness and recovery	<hr/> <hr/> <hr/> <hr/> <hr/>

2B Assess institutional disaster planning capacity cont'd

<p>Disaster preparedness and response budget</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>NGOs, civil society and community groups that address disaster and displacement risk</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

 **Reference tools**
World Bank Institutional Snapshot⁶⁹
UN Habitat rapid institutional assessment questionnaire⁷⁰

2C Identify displacement mitigation initiatives

These may involve making vulnerable settlements more resilient or facilitating relocation to avoid reactive displacement. The following questions should be answered:

Are there any initiatives in place that contribute to addressing disaster displacement?

What has been done to mainstream risk reduction activities, including prevention and preparedness?

2C Identify displacement mitigation initiatives cont'd

What plans are in place to make housing or land available for the evacuation or relocation of vulnerable communities?

What planning instruments are in place to anticipate and address urban expansion in risk areas?



Reference tools

UNDP's checklist on law and disaster risk reduction⁷¹

2D Assess disaster risk management capacities

This section assesses strategic plans for responding to disasters and minimising the severity of displacement. The following questions should be answered:

Is there a lead agency that coordinates disaster management activities?

Are there any shortcomings in policies or programmes that need to be addressed?

Does the lead agency have sufficient financial, technical and human resources?

Is there a disaster response system, and is it comprehensive?

Is the system regularly tested and updated?

Are there any statutory procedures to address any harm IDPs may suffer, including in terms of housing, land and property?

Are there measures to facilitate IDPs' return, local integration or settlement elsewhere?

Are there programmes to ensure IDPs' participation in the planning and implementation of durable solutions?



Reference tools

UNDP Risk-informed Development: From Crisis to Resilience⁷⁴

NOTES

- 1 Revi, A., D.E. Satterthwaite, F. Aragón-Durand, J. Corfee-Morlot, R.B.R. Kiunsi, M. Pelling, D.C. Roberts, and W. Solecki, 2014, "[Urban areas. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects](#)", January 2014.
- 2 UN Habitat, «Habitat III Issue Papers 15 – Urban Resilience», May 2015.
- 3 IDMC, "[Global Report on Internal Displacement 2020](#)", May 2020.
- 4 Intergovernmental Panel on Climate Change, "[AR5 Synthesis Report: Climate Change 2014](#)", 2014.
- 5 IDMC, "[Global Disaster Displacement Risk: A baseline For Future Work](#)", October 2017.
- 6 IDMC, [Disaster Displacement, a global review 2008 - 2018](#), May 2019.
- 7 UNFCCC, "[Task Force on Displacement](#)", September 2018.
- 8 IDMC, [Disaster Displacement, a global review 2008 - 2018](#), May 2019.
- 9 UNISDR, "[Sendai Framework for Disaster Risk Reduction 2015 - 2030](#)", 2015.
- 10 IDMC, "[Disaster-related Displacement Risk: Measuring the Risk and Addressing its Drivers](#)", March 2015.
- 11 IDMC, "[Global Report on Internal Displacement 2019](#)", May 2019.
- 12 Hallegatte, S., Corfee-Morlot, J. "[Understanding climate change impacts, vulnerability and adaptation at city scale: an introduction. Climatic Change](#), 2011.
- 13 IDMC, "[Global Report on Internal Displacement 2019](#)", May 2019.
- 14 Ibid
- 15 Ibid
- 16 GRID 2019, IDMC, 2019.
- 17 UNHCR, "[UNHCR Policy on Refugee Protection and Solutions in Urban Areas](#)", September 2009.
- 18 Gina Ziervogel, et al, [Inserting rights and justice into urban resilience: a focus on everyday risk](#), 2017.
- 19 Habitat III, "[The Right To The City And Cities For All](#)", 2016.
- 20 IDMC, "[UnSettlement: Urban displacement in the 21st century](#)", IDMC, February 2018
- 21 C. Schmid et al, "[Towards a New Vocabulary of Urbanisation Processes: A Comparative Approach](#)", November 2017.
- 22 IPCC, "[Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation](#)", 2012.
- 23 IDMC, "[Global Report on Internal Displacement 2019](#)", May 2019.
- 24 C. Moser, D. Satterthwaite, "[Towards Pro-Poor Adaptation to Climate Change in the Urban Centres of Low and Middle Income Countries](#)", January 2008.
- 25 UNISDR, "[Global Assessment Report on Disaster Risk Reduction 2013](#)", 2013.
- 26 Oxford College, [Study on Impacts and Costs of Forced Displacement](#), 2011
- 27 Moser & Satterthwaite, "[Towards Pro-Poor Adaptation to Climate Change in the Urban Centres of Low and Middle Income Countries](#)", 2008.
- 28 The Intergovernmental Panel on Climate Change, [Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation](#), 2012
- 29 IDMC, "[The ripple effect: economic impacts of internal displacement](#)", 2018
- 30 Ibid
- 31 Ibid
- 32 K. Peters, E. Lovell, "[Reducing the risk of protracted and multiple disaster displacements in Asia-Pacific](#)", 2020.
- 33 A. March, J. Leon, "[Urban planning for disaster risk reduction: Establishing 2nd wave criteria](#)", 2013.
- 34 N. Brenner, C. Schmid, "[The 'Urban Age' in Question](#)", 2014.
- 35 Revi, A., D.E. Satterthwaite, F. Aragón-Durand, J. Corfee-Morlot, R.B.R. Kiunsi, M. Pelling, D.C. Roberts, and W. Solecki, 2014, "[Urban areas. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects](#)", January 2014.
- 36 World Bank, "[Global Urbanization Profiles](#)"
- 37 IDMC, "[Global Displacement Risk Model](#)"
- 38 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)", 2014.
- 39 IDMC, "[Global Displacement Risk Model](#)"
- 40 Ibid
- 41 [Open Street Map / Satellittes.pro](#)
- 42 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)": exposure mapping, 2014.
- 43 [Openmaptiles / Satellittes.pro](#)
- 44 GLTN, "[Social tenure domain model](#)"
- 45 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)": Good Urban Governance Tool, 2014.
- 46 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)": Stakeholder Mapping Tool, 2014.
- 47 J. E. Innes, D. E. Booher, "[Public Participation in Planning: New Strategies for the 21st Century](#)", 2004; Gina Ziervogel, et al, [Inserting rights and justice into urban resilience: a focus on everyday risk](#), 2017
- 48 The World Bank, "[Community-Led Partnerships For Resilience](#)", March 2015
- 49 E. Dickson, et al., "[Urban Risk Assessments: Understanding Disaster and Climate Risk in Cities](#)", 2012
- 50 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)", 2014.
- 51 UNDP, "[The Checklist on Law and Disaster Risk Reduction](#)", December 2015.
- 52 UNDRR, "[Toolkit for Planning Relocations to Protect People from Disasters and Environmental Change](#)", July 2017.
- 53 The Brookings, "[IASAC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters](#)", January 2011.
- 54 UNDP, "[Risk-informed Development: From Crisis to Resilience](#)", May 2019.
- 55 E. Maly, "[Rethinking "Build Back Better" in housing reconstruction: A proposal for "People Centered Housing Recovery"](#)", February 2017.
- 56 World Bank, "[Safer Homes, Stronger Communities](#)", 2010.
- 57 UNISDR, "[Sendai Framework for Disaster Risk Reduction 2015 - 2030](#)", 2015.
- 58 World Bank, "[Global Urbanization Profiles](#)"
- 59 IDMC, "[Global Displacement Risk Model](#)"
- 60 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)", 2014.

- 61 IDMC, "[Global Displacement Risk Model](#)"
- 62 Ibid
- 63 [Open Street Map / Satellittes.pro](#)
- 64 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)": exposure mapping, 2014.
- 65 [Openmaptiles / Satellittes.pro](#)
- 66 GLTN, "[Social tenure domain model](#)"
- 67 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)": Good Urban Governance Tool, 2014.
- 68 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)": Stakeholder Mapping Tool, 2014.
- 69 E. Dickson, et al., "[Urban Risk Assessments: Understanding Disaster and Climate Risk in Cities](#)", 2012
- 70 UN Habitat, "[Planning for climate change: Guide - A strategic, values-based approach for urban planners](#)", 2014.
- 71 UNDP, "[The Checklist on Law and Disaster Risk Reduction](#)", December 2015.
- 72 UNDRR, "[Toolkit for Planning Relocations to Protect People from Disasters and Environmental Change](#)", July 2017.
- 73 The Brookings, "[IASAC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters](#)", January 2011.
- 74 UNDP, "[Risk-informed Development: From Crisis to Resilience](#)", May 2019.



Every day, people flee conflict and disasters and become displaced inside their own countries. IDMC provides data and analysis and supports partners to identify and implement solutions to internal displacement.

The Internal Displacement Monitoring Centre
3 rue de Varembe, 1202 Geneva, Switzerland
+41 22 552 3600 | info@idmc.ch

 www.internal-displacement.org
 www.facebook.com/InternalDisplacement
 www.twitter.com/IDMC_Geneva