



Tomorrow's Cities Engagement Programme for NEW CITIES

[Module 0]



September 2023



Tomorrow's Cities (TC) is the UK Research and Innovation (UKRI) Global Challenges Research Fund (GCRF) Urban Disaster Risk Hub - a global interdisciplinary research hub. The hub aims to support the delivery of the United Nation's Sustainable Development Goals and priorities 1 to 3 of the Sendai Framework for Disaster Risk Reduction (DRR) 2015-2030.

It is a fully-functioning, fully funded consortium of communities, government organizations, researchers and risk professionals at local, national and global level formed to reinforce disaster risk governance. It undertakes integrated, multi-scale and multi-disciplinary research to better understand natural multi-hazard risks and their drivers.

“Our mission is to reduce disaster risk for the poor in tomorrow's cities”



Figure 1: Image Representing Tomorrow's Cities Mission



Introduction

UN Habitat estimate that by 2050, 2 billion more people will live in urban centres worldwide, 95% in the global south. This historically unprecedented urban expansion will produce a commensurate increase in disaster risk. Almost 1 billion of the world urban population will be exposed to devastating earthquakes and hundreds of millions will see increasing threats from floods and landslides that are amplified by accelerating climate change. Current urbanisation has the potential to condemn hundreds of millions to a future dominated by repeated disasters. Through inclusive and risk sensitive urban planning, new urban development can move past existing inequalities and disaster risk in the built environment. Including marginalised groups in planning for equitable access to the basic needs and risk reducing infrastructure can help to break cycles of exclusion, hazard exposure, vulnerability and loss. This makes planning for future urban development more accountable and resilient for all.

The challenge is enormous, but so is the opportunity!

With a clear focus on reducing risk in communities that are yet to be built, we can avail of a one-off, time-limited opportunity to optimise yet unbuilt cities for inclusive disaster risk reduction. The next decades provide a unique window for action. Tomorrow's Cities provides the tools to allow cities to consider the risk consequences of today's decisions on tomorrow's disaster risk before we commit to policy change and construction. These tools help authorities and other stakeholders rethink decision-making processes leading to, evidence-based, low-risk decisions today that will change the future for millions.

Floods and earthquakes are results of natural processes; disasters are the result of human choices.

Tomorrow's Cities has worked with local teams in four 'learning cities' (Quito, Istanbul, Kathmandu and Nairobi) to develop the Tomorrow's Cities Decision Support Environment (TCDSE): a flexible framework to support inclusive and evidence-based decision making, leading to a low-disaster-risk and more equitable urban development. The TCDSE aims to facilitate multi-sectoral, people centred, evidence based, transparent and accountable decision-making. Acknowledging the systemic nature of the causes of disasters, Tomorrow's Cities advocates for and facilitates inclusive, multi-sectoral engagement of scientists, engineers, politicians, economists, private sector groups and, critically, representatives of the urban citizens who will live in the cities we will help to plan. We defend that urban development plans made today, will either brighten or blight the lives of citizens for centuries. The infographic below illustrates the main stages of the TCDSE:



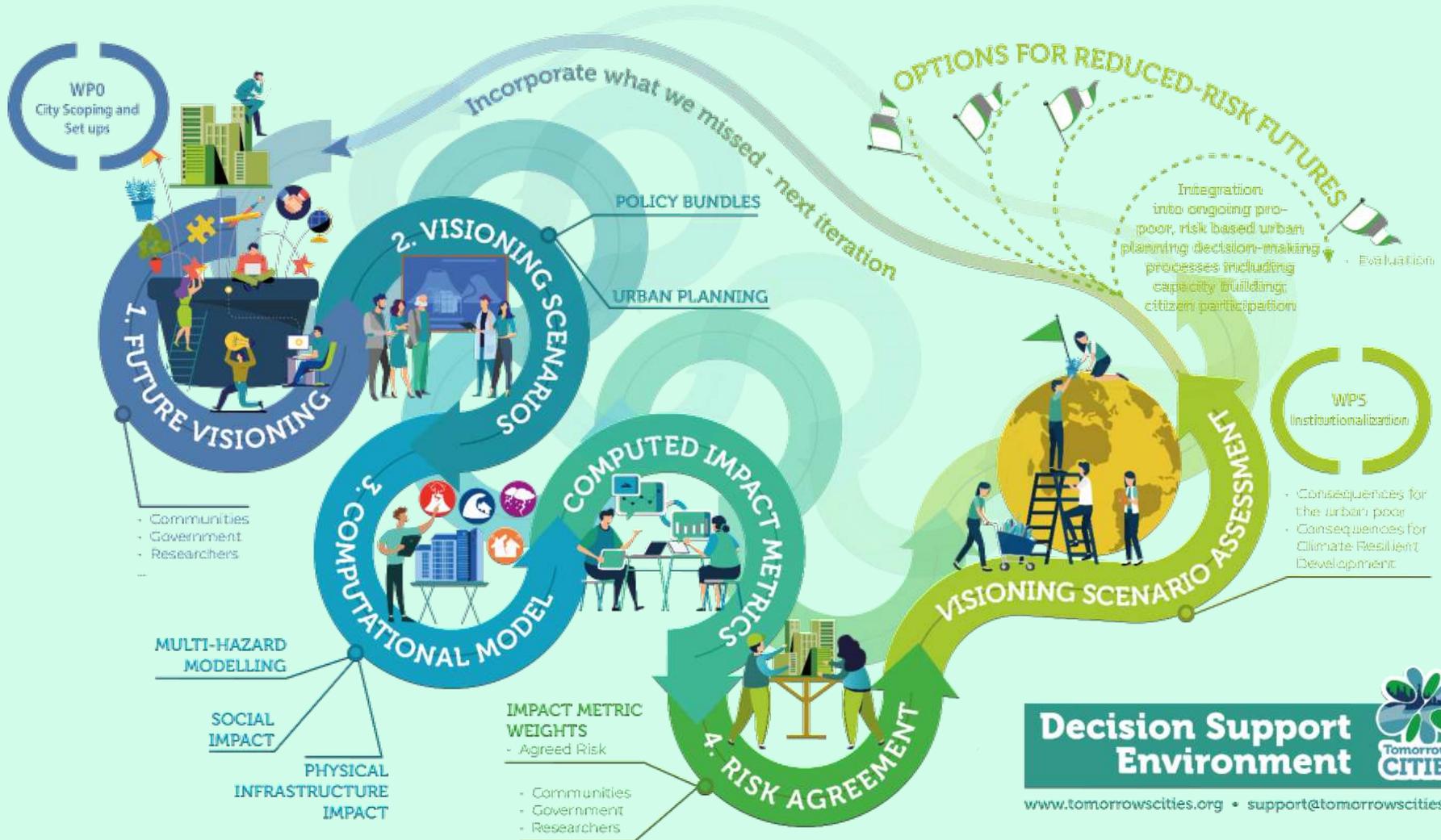


Figure 2: Tomorrow's Cities Decision Support Environment (TCDE)



- **Future Visioning (Stage 1)** encompasses a series of participatory engagements that explore desired urban futures with different city stakeholders, incorporating expectations for land uses and critical urban assets, as well as expected policies to tackle the negative impacts of future natural hazards.
- **Visioning Scenarios (Stage 2)** render these desired futures into detailed virtual representations that make Future Visions more realistic and connected to data-driven trends. Expected land uses are adjusted to meet planning standards and a modelling of future exposure is incorporated. The latter means forecasting who the future urban residents will be, and where they will live and work. Further, Visioning Scenarios include a detailed refinement of policies discussed during Future Visioning workshops.

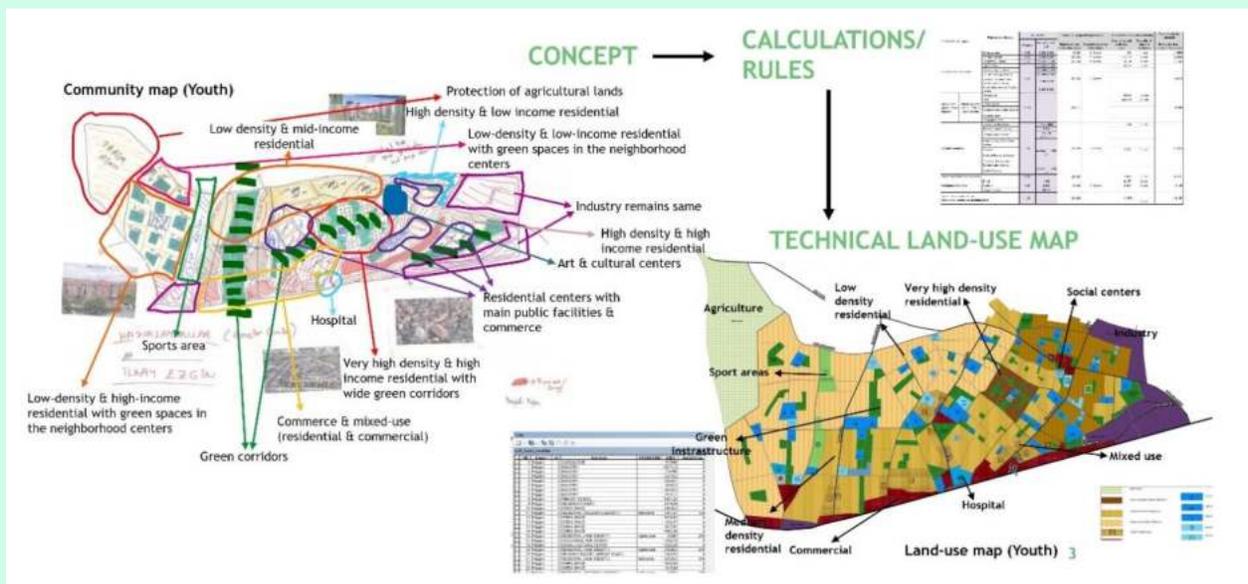


Figure 3: Translation of Future Visions into Visioning Scenarios (Land Use Plan component)

- **Computational Model & Computed Impact Metrics (Stage 3)** subjects Visioning Scenarios to earthquake, flood and landslide events. This leads to an understanding of the consequences of the decisions made during future visioning and scenario building before a brick is laid. Maps of damage states combined with different impact metrics (number of casualties, of displaced households, etc) enable a clear visualisation of the spatial distribution of impact and help diagnose risk drivers back through complex causal chains in urban decision-making.



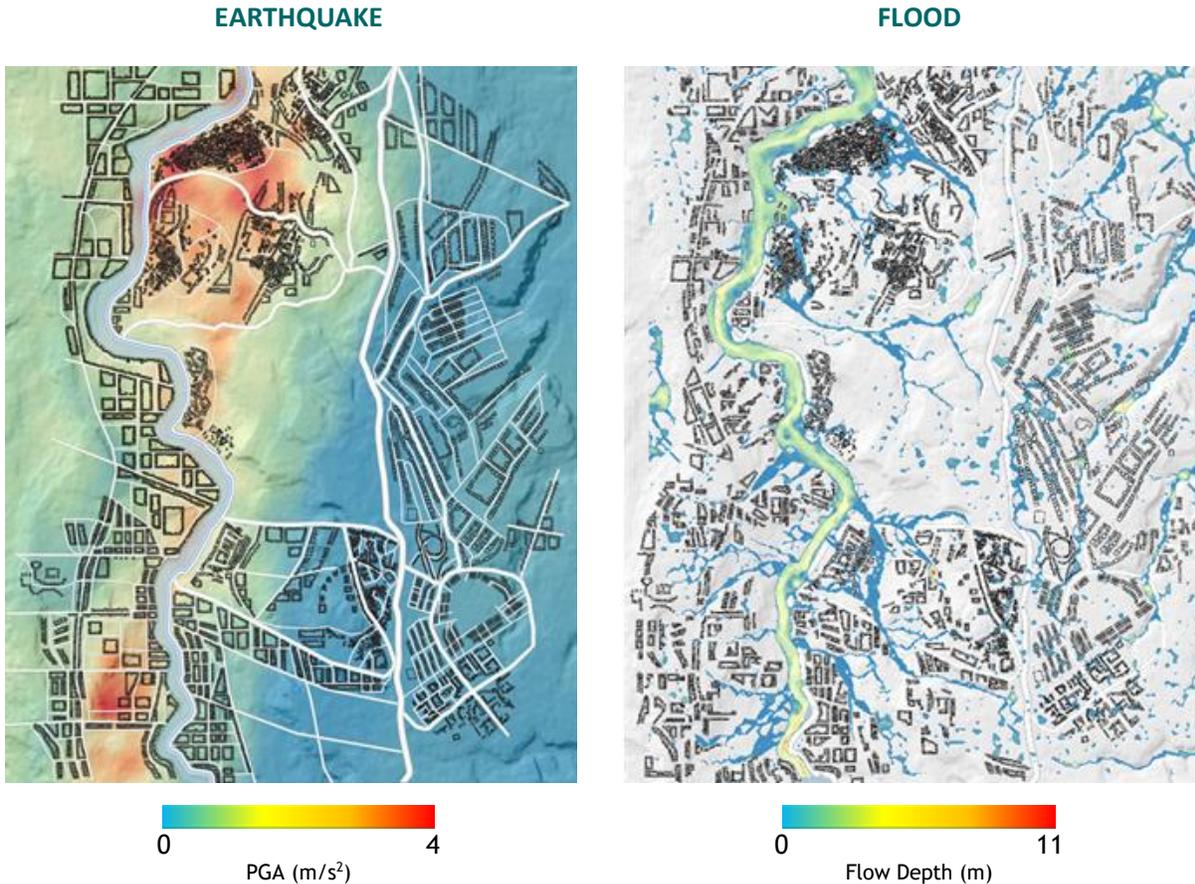


Figure 4: Illustration of earthquake and flood hazard modelling

- **Risk Agreement and Learning** (Stage 4) opens up a collective definition of risk that accounts for the objective impact of hazards and the subjective priorities of key community and institutional groups that engaged with the TCDSE. Using digital tools, stakeholders unpack the consequences of spatial and policy decisions and how they increase or decrease disaster risk. They also assess the equity of the distribution of risk across space and the impacts of planning decisions on poor and disadvantaged communities in the event of natural hazard events, earthquakes, landslides or floods. Critical learning about risk, which results from our decisions, leads to an opportunity to modify our plans based on clear understanding of the risk they imply.
- **Iteration** (Stages 1 to 4 repeated) is one of the key innovations of the TCDSE. Having developed a vision, translated this into a detailed visioning scenario and exposed its risk consequences, stakeholders now revisit problematic aspects of their vision that have led to the risk uncovered by this analysis. The city team then repeat Stage 1, modifying some aspects of the future vision. These modifications then lead to changes in the visioning scenarios. The new visioning scenarios are now exposed to the same hazard events and the impacts metrics are recalculated. This leads to both a refined understanding of critical decisions leading to risk, and to discussions about how to transfer that learning into the actual decision environment of cities. This helps to promote policy uptake by institutions. The process can be repeated as often as required so that these new insights into decisions and their consequences lead to safer development planning and better decision making.

Note: Each TCDSE stage is sometimes referred to as 'Work Package' (WP) for research and administrative purposes.





Figure 5: Understanding the impacts from different land use options and policies, Tomorrow's Cities Exhibition in Istanbul, Turkey





Decision Support for Iterative Risk Reduction in Urban Planning

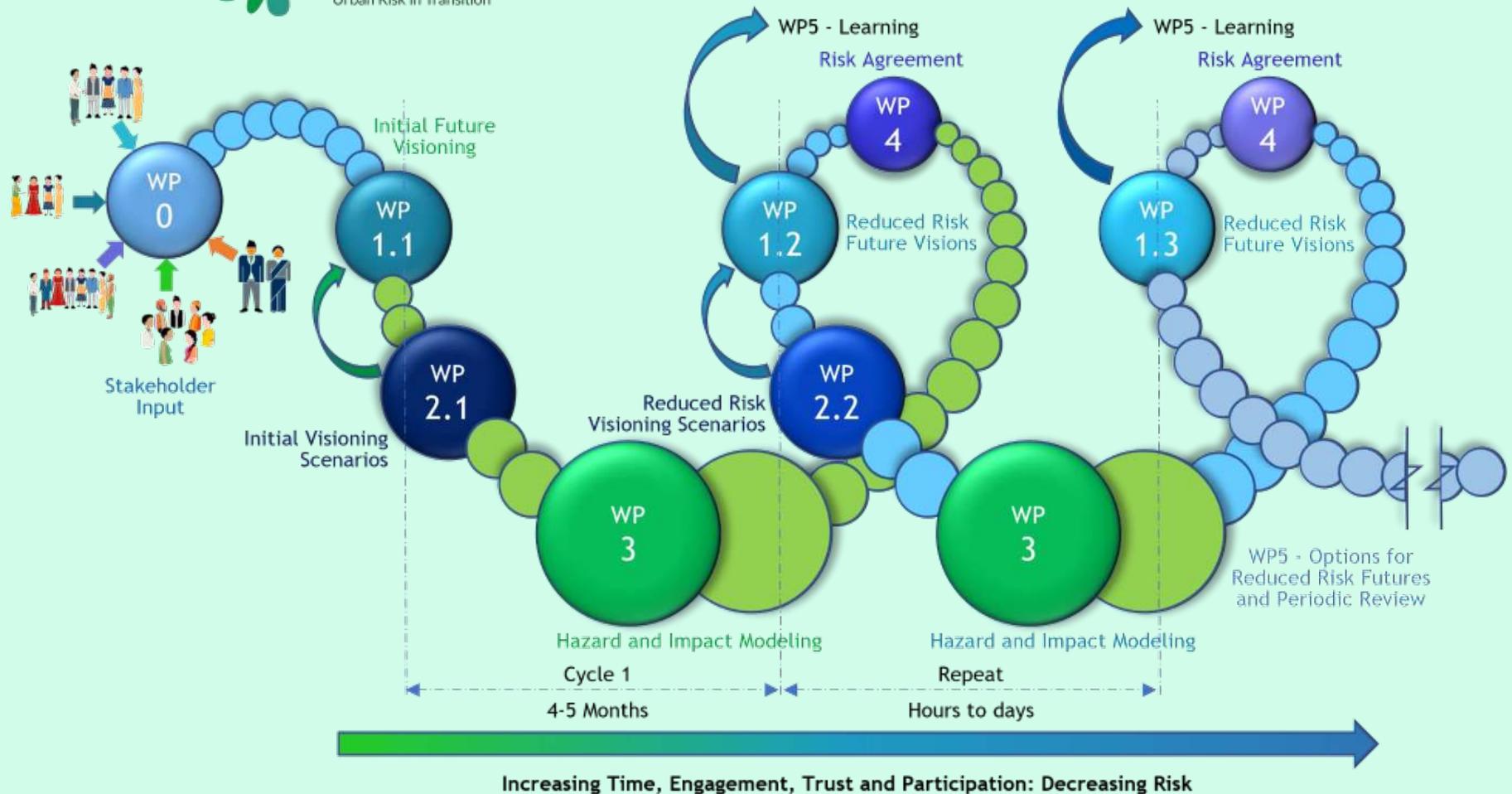


Figure 6: The concept of 'iteration': Cycle 1 involves a complete run through the TCDSE (stages 1 - 4) and takes some 4-5 months. The following cycles entail risk-lowering modifications to the original plans and policies after learning from the consequences of those decisions. Each new cycle should be shorter and implemented in hours to days. Modifications can be repeated as required.



- **Institutionalisation** (Stage 5) happens once stakeholders have learned enough from the process of iteration. Cities could take concrete lessons and outputs from the TCDSE (e.g., actual plans and policy ideas) and the very tools and processes of Tomorrow's Cities into their institutional environments for a process of pro-poor risk reduction that is meaningful and long-lasting.



Figure 7: Local and National Authorities from Nepal discussing learnings from the TCDSE and ways forward (February 2023)

The entire process gives communities and decision makers a **transparent and accountable understanding of the disaster risk consequences of their decision-making**. The TCDSE allow multi-sector teams to examine the origins of the risk in terms of the decision-making process.

Across this process, community and city actors come together to provide insight and expertise and jointly consider the **policy and practical priorities** to transition urban planning and development towards inclusive risk reduction. What changes in spatial planning could reduce the forecast risk? What policy options could support these changes? How appropriate are existing operational groups or policy partnerships to enable these changes? Is this process really inclusive of those people most at risk? Are the intended positive outcomes equitably distributed?

Engagement with Tomorrow's Cities provides:

- A tested work programme to facilitate evidence-based decision making for low-risk and equitable urban futures.
- A linked and carefully structured Capacity Strengthening Programme to build understanding and fill capacity gaps so that ownership of the TCDSE passes to the city teams.
- A fully funded package for city team, including support from our international team of experts, to help guide national, municipal and community actors through the programme, building capacity and commitment in local communities, municipalities and universities.

- Membership of the growing Tomorrow's Cities Foundation - a global community of practice comprising city governments, community leaders, global agencies and universities - to share lessons and gain peer support as part of continuous learning on how best to reduce risk in future urban development.

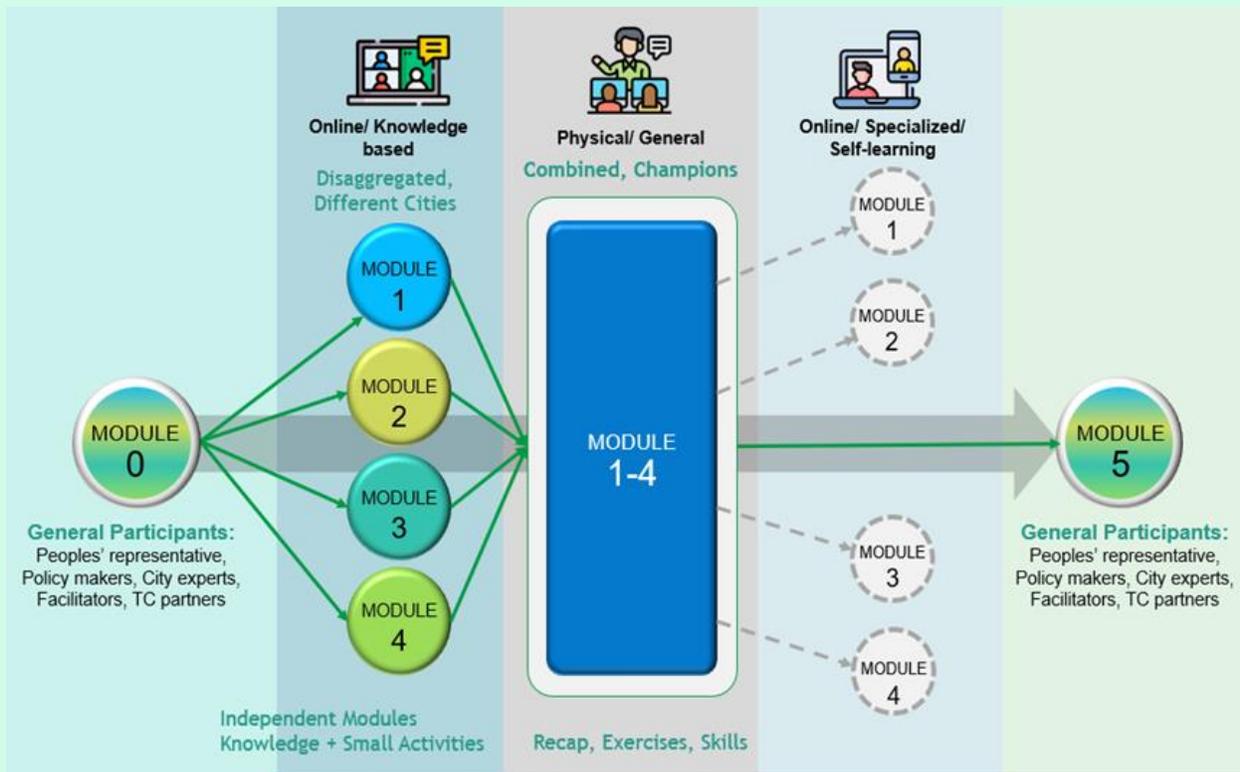


Figure 8: Structure of TCDSE Capacity Strengthening Course - A key part of engaging with Tomorrow's Cities

When the engagement with Tomorrow's Cities formally ends, city teams will have at least:

- An action plan to continue the implementation of the TCDSE throughout the completion of the development project being supported.
- A co-produced process to replicate the TCDSE, with appropriate local context adaptations, in any other development project.
- A trained team of local professionals, with appropriate support from the local university, capable of delivering the TCDSE in such other development projects.

1. Building the foundations of the TCDSE

The Introduction above briefly described the concept of the TCDSE and outlined how it can be implemented in cities. Yet before the beginning the five stages described, it is necessary to build the foundations for an effective partnership between the Tomorrow's Cities 'International' Team (a multi-institutional group comprised of interdisciplinary technical, and operational members) and 'Local' Team (a city-based team comprised of the City Delivery Team and a Senior Leadership Team). The remainder of this document explains this preparatory process - usually called 'Work Package 0' (WPO) or 'Stage 0' within the administrative and research environments of Tomorrow's Cities. Work Package 0 is a preparatory stage aimed at familiarisation with the TCDSE framework, team and commitment building, and preliminary data collection. It also involves a series of interactions that strive for a bespoke (context-adapted) version of the TCDSE in each city. This preparatory phase encompasses a module of the Tomorrow's Cities Capacity Strengthening Program referred to as 'Module 0'.

1.1 Before WPO: City Selection and Pre-Engagement Stage

In 2023, after an inception period (2019- 2022) that involved working with four 'learning cities' (Quito, Istanbul, Nairobi and Kathmandu), Tomorrow's Cities began a consistent and full implementation of the TCDSE in four new contexts: Nablus (Palestine), Dar es Salaam (Tanzania) and Cox's Bazar and Chittagong (Bangladesh). Whilst diverse and unique, these contexts were selected for being connected by a few threads that speak with the Tomorrow's Cities approach and philosophy. That is, they all have:

- **A multihazard environment** entailing significant challenges for future urban populations.
- **An urban development project or initiative** that the TCDSE can help to catalyse, inform and orient through its risk-informed approach.
- **Concerns with social inclusion in decision making and equitable urban development** for risk reduction (that is, a pro-poor lens for looking at urban challenges towards the future).
- **A progressive political and institutional environment where there is openness to new alliances, knowledge exchanges and partnerships**, particularly with groups that represent poor and marginalised communities.
- **A strong commitment to lead the activities required for the TCDSE** and ensure its impact, legacy and continuity after the funded stages of the project.

During initial engagement with the Senior Management Team (SMT) at the 'pre-engagement research stage', it was identified that your city meets all of these criteria and, now, is engaged in Tomorrow's Cities Module 0.

Once a match is identified between the broad expectations and requirements of Tomorrow's Cities, and those of the main local partners, it is necessary to 'fine tune' the engagement. Module 0 is this fine tuning and during this stage the core points (multi-hazard context, future urban development opportunities, inclusion and equity concerns, political openness and team commitment) are discussed and unpacked, leading to a bespoke ambition for the TCDSE in a particular place. This is crafted in a collaborative way through an engagement called 'Module 0' (an interactive part of 'Work Package 0' or 'Stage 0'). Such engagement



Figure 9: Pre-Engagement of Tomorrow's Cities in Kohhana, Kathmandu- Nepal

consists of a series of interactive sessions aimed at forging a solid two-way commitment to the processes that enable the beginning of the TCDSE in each city. The infographic below summarises the timeline of M0 sessions.

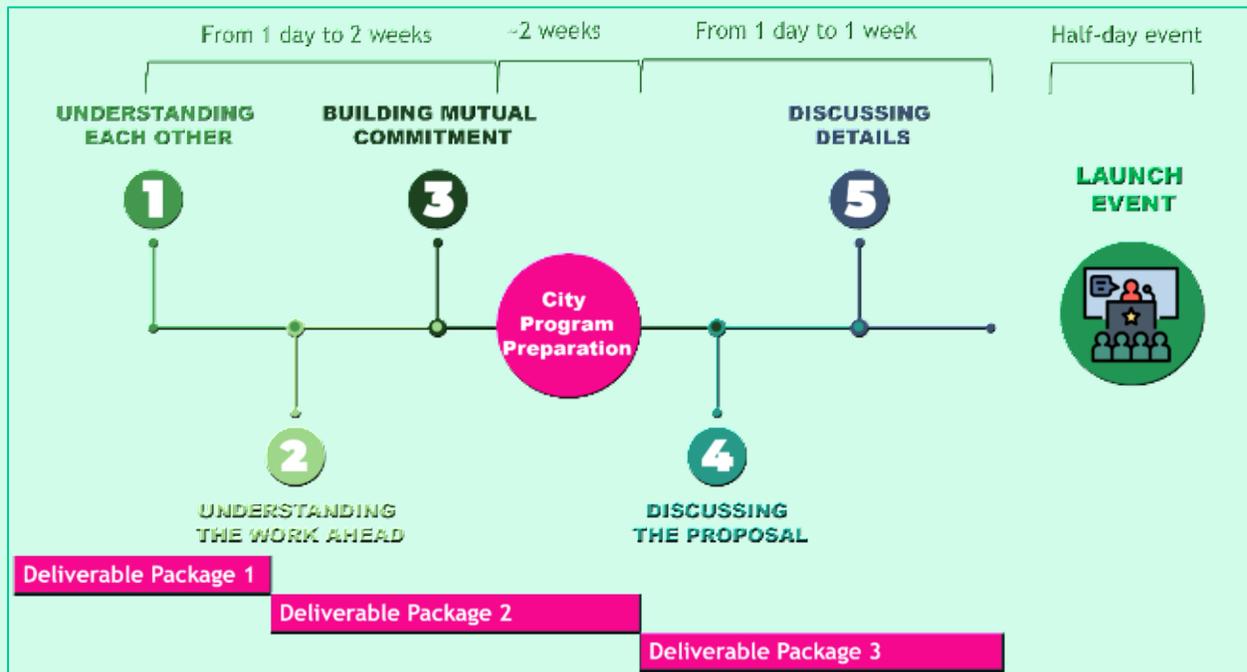


Figure 10: Engagement structure leading to Tomorrow's Cities launch event in a new city

Important: Please note that the timeframe of M0 can vary according to the needs and interests of each city. Each session does not last more than two hours and, whilst each session is distinct, there is the option to combine sessions so they are delivered in immediate succession. Exact dates and times should be discussed with the Tomorrow's Cities team in advance. Also, note that the City Program should be delivered before Session 4, which requires some preparation time.

Summary Timetable for Module 0:

Session Title	Estimate Duration	Attendees	Date & Time tbd
1. Understanding Each Other	90 min	SMT & SLT (with selected deputies whenever relevant)	
2. Understanding the Work Ahead	120 min	Essential: CDT & PWG Desired: SMT & SLT	
3. Building Mutual Commitment	120 min	Essential: CDT & PWG Desired: SMT & SLT	
City Program Preparation - approximately 2 weeks (recommended)			
4. Discussing the City Program	90 min	Essential: SMT & SLT Desired: CDT & PWG	
5. Discussing Program Details	90 min	Essential: SMT & SLT (other participants to be selectively invited)	
Launch Event - approximately 2 weeks after Session 5 (recommended)			

Understanding the main personnel structure:

Tomorrow's Cities Team

Tomorrow's Cities "Senior Management Team (SMT)": This is the highest decision-making level within the hub.

Tomorrow's Cities "Programme Working Group" (PWG): Comprises Leaders of the different technical stages of the TCDSE and project managers, as well as Capacity Strengthening, Communications and MEL (Monitoring, Evaluation and Learning) representatives.

Tomorrow's Cities "International Research Team" (IRT): Comprises of 20+ technical, research and operational support personnel deployed to work on the city program from around the world.

Local City Team

The city's *"Senior Leadership Team (SLT)"*: brings the authority and legitimacy to the work of the TCDSE. The SLT:

1. Provides the authority for action that is required if the outcomes of the TCDSE are to be implemented to facilitate low-risk urban planning in the City.
2. Must include senior members of the local municipality or Development Authority who have responsibility for a well-defined urban planning project.
3. Includes senior members of the main partner and local academic institution who are able to make decisions on behalf of the institution and connect the TCDSE to its formal administrative processes.
4. SLT members (points 1 and 2 above) will generally not be involved in the day to day work of delivering the TCDSE process but should each be accompanied by a deputy who will be responsible for the delivery and who will report directly to them. It is likely that one or more of these deputies will be appointed as the City Coordinator/s.
5. Will ideally include representatives of community groups who will be involved in the TCDSE process.
6. Representatives of appropriate private sector agencies who will be directly responsible for planning and construction could be represented though are not strictly necessary at this stage.

"City Coordinator(s)": normally selected from the deputies to the SLT described in 3 above, will:

1. Be the overall point(s) of contact working across different TCDSE stages.
2. Be responsible for the liaison between the TCDSE program and the SLT.
3. Work with the SLT to will appoint the City Delivery Team (see below).
4. Report progress both to the weekly Tomorrow's Cities progress meetings and regularly report to the SLT.
5. Manage the City budget in conjunction with the Tomorrow's Cities project manager and finance director.

"City Delivery Team (CDT)": are the main delivery group for the city. The CDT will:

1. Comprise representatives of the Development Authority, the local academic institution, local community groups and representative of the local private sector agencies as appropriate.
2. Be responsible for the delivery of the TCDSE in the city.
3. Work closely with the Tomorrow's Cities International PWG (see below).
4. In consultation with and under the authority of the SLT, the CDT will have access to the project budget to support their work.

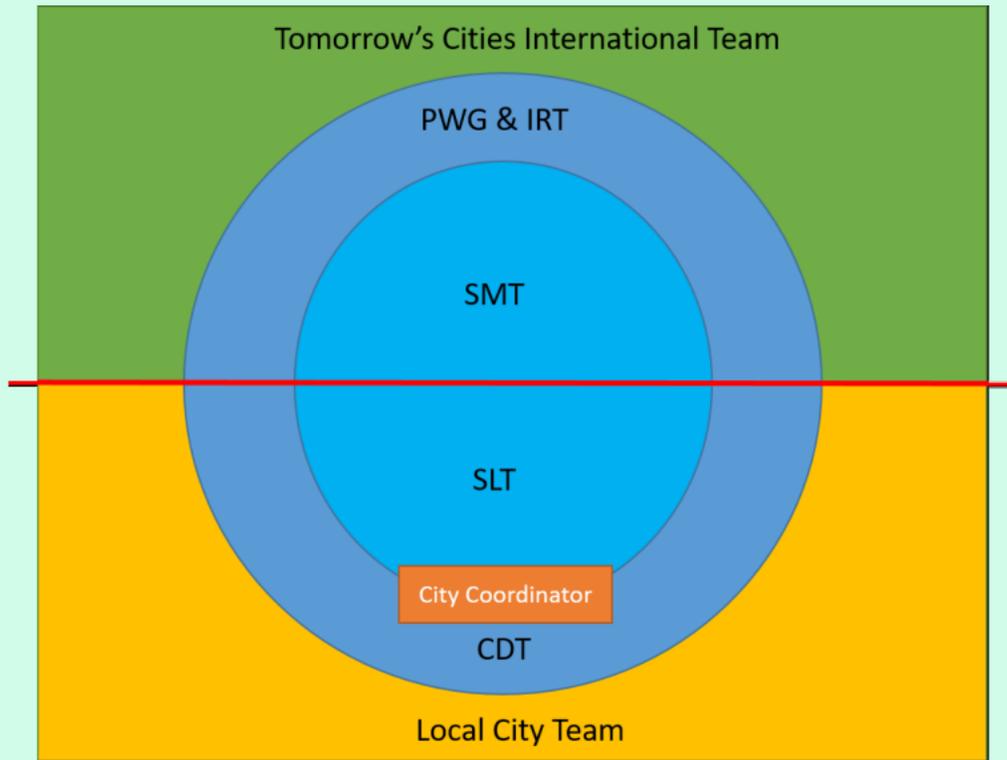


Figure 11: The structure of the TCDSE collaboration between: The International research teams led by the Tomorrow's Cities Senior Management Team (SMT) and deploying a wide range of international researchers under the direct Hub Programme Working Group (PWG), who lead each of the Stages of the TCDSE; and the local city team, who derive authority from the city Senior Leadership Team (SLT, senior academics and leaders of the local Development Authority), and the City Delivery Team (CDT) local professionals, academics and community leaders who will deliver the programme locally. See text above for more information.

2. Module 0: Course Breakdown

Preparation for Session 1

(Part of Deliverable Package 1 - see Figure 10)

The first session of Module 0 clarifies the Tomorrow's Cities mission and offer, and begins to explain some key elements of the TCDSE. It is aimed at the City *Senior Leadership Team (SLT)* and its deputies. The session develops a shared understanding of the process between the Tomorrow's Cities SMT and the local leadership team. It also provides a clear link between the leaders of the *City Delivery Team (CDT)* and the authority with which they will shape the evidence base for future decision making. Such shared understanding is critical to link the TCDSE process with different local authority and urban structures - including research/academic groups, municipal and development authorities, and community groups, among others.

A. Senior Leadership Team List

Prior to Session 1, the city team should appoint its *Senior Leadership Team* - and *deputies* - as suggested in the table below. The table also highlights the need for a mixed group that should include the public sector, private sector and civil society (e.g., advocacy or community groups). Whilst the municipal and academic members and deputies are essential for Session 1, the entire list should be completed as soon as possible for an inclusive TCDSE kick-start.

Senior Leadership Team – Template 1

Representing group	Suggested person(s) Name	Notes
Senior Municipal/ Development Authority		
• Assigned Deputy		
Senior Academic		
• Assigned Deputy		
Others Important Partners*		
National Agency Representative		
Community Representative		
Private sector Representative		

*These are not essential for Session 1 given the early stages of the engagement but should be included as soon as possible in the process. Community Representatives are particularly important to ensure an inclusive TCDSE development.

B. Presentation by City team

Session 1 will begin with a presentation by the Tomorrow's Cities SMT followed by an open discussion to clarify the main elements of the TCDSE.

This will be followed by a presentation about the city context by the local team. It is envisaged that this will be delivered by one or more of the deputies who will compose the City Delivery Team. However, it is very important that the main authorities present at Session 1 are aware of the content of the presentation in advance and approve its content.

The M0 Sessions do not treat the city team as passive recipients of the knowledge of the international team. The process must encourage the city team to take ownership of the TCDSE process, building a deep understanding of the entire workflow and the confidence in the process to enable them to deploy the TCDSE in the city after the initial intensive engagement with the TC international team ends. This surfacing of local experience and context begins in Session 1.

For the first Session of Module 0, the city team should deliver a presentation of approximately 20 min (4-5 min per topic) that addresses four main themes: (a) Multihazard Context, (b) Urban Context and Development Trends, (c) Social Context, and (d) Overall Expectations for the Engagement with Tomorrow's Cities. This should stimulate collective thinking on issues relevant to risk sensitive urban planning within a particular context.

These topics are framed below as prompts and questions that can be used to structure a presentation, ideally delivered through power point.

Multihazard Context

- Describe your multi-hazard environment. Please provide maps, figures and data that help us to understand better how the local team perceive the challenge.
 - Nb: We generally work in contexts menaced by at least two hazards from earthquakes, floods and landslides. We also consider urban fire risk and expect to integrate expertise on urban planning to protect citizens from climate change induced extreme heat events.

Urban Context and Development Trends

- Tell us about your urban context and development trends. For instance:
 - What are the projections for urban growth and other urban-related sociodemographic trends?
 - Help the Tomorrow's Cities team understand the specific development project that will be supported in this project. Describe the planning process or development master plan. Provide maps, plans for significant macro-infrastructure development, and planned demographic change, as well as any other progress in large scale planning. Have planners considered the multi-hazard environment in the target development area? How does the current planning process respond to the multi-hazard environment?
 - Have the urban poor been included in the framing the urban planning? How were their perspectives incorporated?
 - Have significant patterns of informality or inequality surfaced in the planning process? How will informal development be accommodated in the expanding city? Describe any specific processes which attempt to mitigate informality in the area.
 - Are there significant challenges to be flagged - e.g., limited space, encroachment of environmentally sensitive areas, etc?

Social Context

- Describe in broad brushes your social environment.
 - What does your city - and adjacent, yet to be developed areas - look like from a social perspective? Provide sociodemographic data, future projections (if available), and notions of sociocultural diversity (gender, race/ethnicity, age, religion, disability, etc) whenever possible.
 - What are the main social trends for the future? Do you expect any demographics to grow or decrease given urbanisation and development trends? What are the main social challenges you face?

Overall expectations for this engagement

- What is your motivation for engaging with the TCDSE process? Given your knowledge of the project, its scope and tools, what do you expect to gain from implementing the TCDSE?

Session 1: Understanding Each Other

Objectives

1. Whilst Tomorrow's Cities SMT will have had initial contact with the local team and worked through some of these issues informally, Session 1 is the first official engagement with Tomorrow's Cities. It is useful both for the socialisation of international and local teams' representatives, and for the documentation of materials and expectations that later will be consolidated in the City Proposal and the Memorandum of Understanding (MoU).
2. Session 1 ensures that SMT and SLT have a similar understanding of the scope and key concepts of Tomorrow's Cities, and agree on the matching between the philosophy and core elements of the project and the expectations of the city team.
3. Finally, Session 1 confirms the role of the city coordinators whose authority is delegated from the academic and municipal heads.

Structure

Session 1 - Understanding Each Other	90 min	Means of Communication
1.1 Tomorrow's Cities Offer and Requirements	30 min	Presentation elaborated by SMT
1.2 Agreeing key concepts	15 min	Discussion facilitated by Tomorrow's Cities team
1.3 Understanding the City	20 min	Presentation delivered by city's SLT (explained in the previous page).
1.4 Clarifying issues arising	15 min	Discussion facilitated by City SLT
1.5 Wrap up and Next steps	10 min	Reflections on the city presentation led by SMT

Attendees

As mentioned in the summary table, only the presence of SMT and SLT - including the appointed deputies - is essential. NB. Shared understanding of the overarching objectives and methods of the TCDSE is critical for success. We understand that senior members of the local development authority will not be able to oversee the detail of the work, however, their authority and oversight is critical if the project is not to become an academic exercise. **Session 1 cannot go ahead without both the authority figures and their deputies who will do the day-to-day work.**

In subsequent session where the senior authorities are not in attendance, the appointed **city coordinators will be required to report on progress.**

There can be no surprises later in the process.

Preparation for Session 2

(Part of Deliverable Package 1 - see Figure 10)

Following Session 1, the Senior Leadership Team and Deputies will deliver a tentative list for the *City Delivery Team* - highlighting the *City Coordinator* - as per the template below. It is important that this list has been discussed in advance, as the participants will be the essential attendees of Session 2. The attendance of SLT in Session 2 is desirable but not essential. City Coordinators should report on progress regularly, including with regard to the development of discussions in this Session.

City Delivery Team – Template 2

Name	Representation in City Environment	Professional or Academic Background	Assigned Work Package
[Add Name and Surname]	[if representing academia, public sector, private sector, etc]	[discipline - e.g., social sciences, urban planning, physical sciences, etc]	Which Stage of the TCDSE seems more aligned with this person's profile?

Notes on the membership of the City Delivery Team

Things to consider when reflecting about - and assembling - your City Delivery Team list. This will help you later in the drafting of the City Program, which happens after Session 3.

How interdisciplinary and committed is your local research team?

While it is not necessary to have the complete local research team ready during the M0 course, the more established the local team, the higher the chances of success. Can you demonstrate commitment of local social scientists, urban planners and physical scientists including hazard modellers and engineers? Precise expertise on the TCDSE methods is not necessary and the Tomorrow's Cities programme includes a programme that will help to strengthen local capacities. Still, a strong interdisciplinary local team will do better. What experience do you have? Tomorrow's Cities is concerned with *the future, so engagement of early career researchers is particularly welcome.*

How connected are you to different local stakeholders?

Support from a range of local stakeholders will be particularly important, although the process can go ahead while formal linkages are being developed. Who are the critical stakeholder groups relevant for this work (from public and private sectors, academia, and from civil society)? Can you obtain letters of support that evidence some understanding of the commitment required to proceed with the TCDSE? The TC international team can help, perhaps providing templates to evidence appropriate commitment. Whilst private sector representatives might not be directly part of your team, try to include appropriate candidates who might be responsible or powerful within the urban development project that the TCDSE is going to support or inform.

How open and receptive are local stakeholders to an involvement with the TCDSE?

What other evidence can you supply illustrating that the city authorities and community groups are likely to be receptive to the TCDSE?

Session 2: Understanding the Work Ahead

Session 2 aims to explain in some detail the workflow and methods of the TCDSE, its stages and supporting components (i.e., capacity strengthening course, MEL and Comms).

Objectives

To ensure that members of the City Delivery Team will:

1. Understand the detail of the main TCDSE stages.
2. Understand the workflow and data requirements.
3. Appreciate the importance of data management protocols and agreed data storage and sharing arrangements.
4. Evaluate the membership of the local team and identify any gaps.
5. Agree the key responsibilities. In particular, the group will have confirmed the City Coordinators, key staff responsible for delivery of the TCDSE stages, a communications coordinator, and a MEL coordinator.

Structure

Session 2 - Understanding the Work Ahead	120 min	Means of Communication
2.1 Tomorrow's Cities Decision Support Environment	50 min (with breaks)	Presentation elaborated by Tomorrow's Cities Programme Working Group (PWG)
2.2 Comments & Questions (could be distributed throughout the presentation above)	10 min	Panel discussion facilitated by Tomorrow's Cities PWG
2.3 Capacity Strengthening course, and MEL and Comms strategies	45 min	Presentation elaborated by Tomorrow's Cities PWG
2.4 Comments & Questions	15 min	Panel discussion facilitated by Tomorrow's Cities PWG

Attendees

At this point, a preliminary personnel list (particularly the City Delivery Team) should be established, and these are the essential attendees for this session. The CDT will be socialising with Tomorrow's Cities Programme Working Group (e.g., Work Package leads), and the presence of some SLT and SMT members is desired although not essential.



Preparation for Session 3

(Deliverable Package 2 - see Figure 10)

This second presentation - delivered in Session 3 of Module 0 - delves deeper into the institutional challenges and opportunities (connected to urban development planning for disaster risk reduction) that the TCDSE will be supporting. It will be essential for the preparation of the next deliverables, particularly the City Proposal and MoU. We expect the local team to have been determined in advance of session 3, so the City Delivery Team can lead this presentation with the support of the city's Senior Leadership team.

At this point we expect a longer presentation (approximately 40 min, approximately 7 min per topic) that recalls some points from the first one (multihazard, urban and social context), but now with more focus on institutional challenges and the desired urban development planning initiative that the TCDSE will be connected to. Here are a few prompts and questions that can support your thinking:

Institutional Context

- What does your institutional environment look like?
 - 'Vertical' governance: Explain briefly how urban planning decisions are made from the more local to the highest level of government.
 - 'Horizontal' governance: What are the main sectors, authorities, and departments relevant for disaster risk reduction and management (including those such as housing, environment, civil defence, etc)?
 - Are there any challenges (e.g., communication, cooperation, data, capacity, finance, etc) you would like to flag? How do they shape your capacity to reduce risk in the future?
 - Whenever possible, provide a diagram or infographic enabling the team to understand how your urban and peri-urban governance environment works.

Past involvement in disaster risk reduction projects

- What research and development projects have focused on disaster risk reduction in this region in the past? What access do your team have to their results?
 - While this is not strictly necessary (we must be inclusive of less researched contexts), it is critical that we do not disregard previous knowledge advancements or double efforts.

Present Disaster Risk Reduction Agenda

- How important is disaster risk reduction in the local political agenda at the moment?
 - What are some of the key policies aimed at disaster risk reduction? Are any of these specifically aimed at reducing risk in urban development? Whenever possible and relevant, try to evidence local and national commitment to urban disaster risk reduction?

Future Development Projects and Initiatives

- Does the city have, or are you working on a development master plan, urban resilience plan or large scale, project-based development?
 - Tomorrow's Cities must support a specific development project. Describe an appropriate project in your city. Who are the main stakeholders associated with this project? Are they interested in engaging with the TCDSE? Tomorrow's Cities will be keen to help you explain the TCDSE and the commitment that will be required from potential stakeholders.
 - Please note that this item has a different objective from the "Urban Context and Development Trends" presented in Session 1. Whilst Session 1 wanted to look at general trends (e.g., informality, growth, verticalization), here we want to identify concrete initiatives to be catalysed.



Participatory Planning and Inclusion

- Do existing or upcoming urban development projects and initiatives require civil society and community participation? How inclusive is your urban governance environment in general? What are the challenges?
 - Provide examples and evidence to illustrate your argument.
 - Tomorrow's Cities works to support initiatives that are aimed at inclusion and equity (pro-poor disaster risk reduction), but also aims to expand spaces for more meaningful engagements with stakeholders. In this sense, identifying existence of participatory planning but also challenges in this area is of interest to our team.

Session 3: Building Mutual Commitment

Objectives

This session delves deeper into the local context, particularly from an institutional perspective. Aspects from the first session will be recalled, but the conversation will mostly focus on the urban development initiative or project that the TCDSE will be supporting or catalysing.

One objective here is to identify more clearly the challenges and opportunities that can be tackled through a risk-informed urban development approached that is informed by the procedures, tools and outputs of Tomorrow's Cities.

Another objective is to start solidifying a mutual commitment that draws on a mutual understanding of opportunities and challenges related to the work ahead.

Please note that instead of being led by Tomorrow's Cities, sessions now depart from and focus on reflections from the local city teams - either SLT or CDT.

Structure

Session 3 - Building Mutual Commitment	110 min	Means of Communication
3.1 Urban Development Opportunities leading to the adoption of TCDSE	40 min	Presentation elaborated by SLT or CDT (explained in previous page - in "Preparation for Session 3").
3.2 Comments & Questions	30 min	Panel discussion facilitated by Tomorrow's Cities team
3.3 Wrap up and reflection on next steps	40 min	Presentation by SMT flagging the City Engagement Document and next steps, including Deliverable Package 2.

Attendees

It is expected that the similar attendees from Session 2 are also present in Session 3, although it is strongly recommended that a few representatives from SMT and SLT are present beyond the CDT and PWG.



Preparation for Session 4

i. Finalised Personnel List

Before Session 4 the city team should have a finalised version of its personnel list. The template below shows a more comprehensive version compared to the previous pages; it includes both the members of the Senior Leadership Team and Deputies, and the City Delivery Team and City Coordinators. In sum, all the local team should be pointed, including academic partners, public sector (municipal - and national whenever possible), community and advocacy representatives, and private sector. For the City Delivery Team, you should also indicate the Work Package (TCDSE stage) each person is primarily connected to.

Personnel List – Template 3

Name	Role in Tomorrow's Cities	Representation in City Environment	Professional or Academic Background	Assigned Work Package
[add name and surname]	[if SLT, CDT, City Coordinator, other]	[if municipal authority, community leadership, academic, etc]	[e.g. social sciences, physical sciences, engineering, urban planning, etc]	[only for CDT]

Important: Make sure to deliver your Personnel List along with the presentations provided for Sessions 1 and 3. The summary of these products compose Deliverable Package 1.

ii. City Program Document

This is the core of Deliverable Package 2, which should be delivered in two formats:

- a) A written Word or PDF document, using the below template as a guidance, and
- b) A supporting presentation of approximately 40 min with the core elements of the presentation highlighted, specially:
 - Desired outputs and outcomes;
 - Proposition of case study site with supporting information;
 - Institutional critique: challenges (communication, relationships, data and knowledge) to be overcome through Tomorrow's Cities engagement; and
 - Legacy Vehicle which will continue the work of Tomorrow's Cities).

You will note that the template is largely similar to the points requested for your early presentations, although we expect some new reflections and additional points based on the interactions that happened during Module 0. You are free to enrich your proposal so long as it does not fall far out of the scope of Tomorrow's Cities.



About the team	Guidance
Proposing Institution	Identify the leading institution (if a university, municipal dept, etc)
Institutional Leader	Identify the institutional lead (individual - ideally a key member of SLT)
City Coordinator	Drawing on the personnel list, indicate who the main point of contact of the City Delivery Team will be.
Proposed Start Date	When is the ideal start, that is, the proposed date for the launch event? Please consider that the 2023/2024 stage of Tomorrow's Cities entails an engagement of up to 6 months (all TCDSE including reiterations) that must be completed by April 2024.
Local Advisor (if known/relevant)	An independent party (without any conflicts of interest and minimum bias) with appropriate capabilities and knowledge who can advise on the work.
Local Research Team	Please reflect here on how robust your team is from a research and academic perspective. Make sure you consider interdisciplinarity (physical sciences, engineering, social sciences and urban planning). Identify gaps in your personnel list if there are any. (<200 words)
Public sector involvement	Please reflect in this section on how strong your ties with the public sector are, and if involvement will happen directly (e.g., through inclusion in SLT and CDT) or indirectly (e.g., through participatory TCDSE engagements and other interactions). Also, make sure you make distinctions between technicians civil servants from the public sector, and authorities (e.g., development authority, department head) with decision-making power at the local or national level.
Civil Society Involvement	Please reflect in this section on how strong your ties with civil society (and community-based groups) are, if you have previously worked with the identified groups, and if involvement will happen directly or indirectly. If you do not have civil society representatives or community mobilisers in SLT or CDT, you should build a strategy to foster inclusion through this engagement.
Comprehensive stakeholder engagement	Based on the items above, provide evidence (in form of direct partnership in the proposal, letters of support, match-funding etc) that all relevant city level stakeholders are engaged. It is anticipated that the stakeholder group would involve appropriate local, national authorities, and community groups and might include private sector or civil society organisations. (<300 words)

About the context	Guidance
City Name	State clearly the name of the city, including notes on its wider urban and local governance environment.
Case Study Area and Adjacent Lands	Make sure to highlight the preliminary area where you anticipate that the TCDSE is going to operate. Make sure to include supporting maps and images that clarify administrative, geographical and other boundaries.
Multi-hazard context	Describe the multihazard context. Given the current expertise in Tomorrow's Cities, this should include at least two of earthquakes, floods and gravitational flows. Fires could also be included (<300 words + appropriate maps and tables).
Urban Context and Development Trends	Describe the urban context, including relevant trends such as urban and population growth, informality, or migration flows.
Social Context	In broad brushes, reflect on (and provide evidence about) the social composition of your city and area of interest, ideally with reflections about potential changes towards the future.



Framing the proposal	Guidance
Institutional context	Explain in broad brushes how decisions are made in your city - both vertically (different levels of governance) and horizontally (different sectors, actors and agencies). Who are the key authorities to flag? Where to get the data that will be used in this project? Are there community-based organisations who are not in government but that could be particularly engaged for better disaster risk reduction governance? Flag any perceived challenges related to relationships, knowledge and capacity, data, etc.
Past DRR work	What previous work has been done on risk reduction in the city with particular emphasis on risk emerging through urban planning. (<500 words + key maps and figures)
Present DRR agenda	Is the city already actively working to reduce disaster risk - is there an existing policy framework and one or more agency to work with? Is there 'city readiness' to adopt the TCDSE? Please elaborate. (<300 words)
Future Development Project or Initiative	Please describe a suitable specific development project or initiative that can be supported by the TCDSE framework. (<300 words + appropriate maps and tables).
Participatory Planning & Inclusion	Discuss your institutional and urban planning environment when it comes to participation and inclusion. Are there instruments to include diverse groups (particularly marginalised ones) in decision making? What are the challenges? How could the TCDSE be of help?
Equitable Risk Reduction	What does 'pro-poor disaster risk reduction' mean in your context? What are the opportunities in the urban development initiative you flagged to reduce risk in an equitable way? What would be the challenges for an equitable introduction of the TCDSE?
Communication Strategy	Communications is not a possible extra in Tomorrow's Cities but is a critical part of the way to success. Who are the key actors you need to engage with from a communication perspective? What is your strategy to do so? How can Tomorrow's Cities platforms support that, and what additional measures are needed to fulfil your communication needs?
Budget Allocation	To be defined as per the guidance of Tomorrow's Cities SMT.
Summary	Desired outputs and outcomes of the engagement with Tomorrow's Cities
Legacy Vehicle	Which agency or group will be responsible for continuing the work of Tomorrow's Cities after the international team leaves and the city becomes part of the Foundation?



Session 4: Discussing the City Program

Objective

After the break, this Session will be dedicated at exploring the core elements of the City Proposal (part of Deliverable Package 2), to be delivered in advance by the city teams. The basis for such discussion will be a presentation led by the CDT or SLT, where priority components will be flagged. From Tomorrow's cities side, it is important that you highlight at least:

- Desired outputs and outcomes;
- Intended case study information (a more focused look at the area to be worked through the TCDSE);
- Institutional critique (challenges to be overcome, including issues of participatory planning, whenever possible); and
- Legacy Vehicle.

Structure

Session 4 - Discussing the Proposal	90 min	Means of Communication
4.1 Core Points of City Proposal	40 min	Presentation by SLT or CDT flagging core points that require discussion with the team
4.2 Comments and Questions	30 min	Panel Discussion facilitated by Tomorrow's Cities team
4.3 Wrap Up and Next Steps	20 min	Tomorrow's Cities SMT chair wraps up discussion by raising key action points for the group to move forward, including those related to the MoU and Data Requirements Checklist (Deliverable Package 3)

Attendees

It is expected that the similar attendees from Session 2 are also present in Session 3, although it is strongly recommended that a few representatives from SMT and SLT are present beyond the CDT and PWG.



Session 5: Final modification and outline of Memorandum of Understanding

Objective

This final Session is more flexible and aims to tackle any unresolved issues for the City Proposal and other arrangements towards the Launch Event. It might be a more open or intimate session depending on the developments on the previous encounters. For instance, Tomorrow's Cities SMT might want to discuss details such as budget which will entail a more intimate meeting.

Structure (tentative - to be shaped according to context)

Session 5 - Discussing Details	90 min	Means of Communication
5.1 City Presentation with further details (Whatever was flagged as missing or unclear)	40 min	Presentation by cities (if specific details were asked) - or a flexible discussion based on the past Session.
5.2 Reaction, discussion	30 min	Further discussion in panel mode
5.3 Final reflections (key aspects to be revised in Proposal and incorporated into MoU)	20 min	Panel discussion facilitated by Tomorrow's Cities team

Attendees

SLT and SMT with the potential inclusion of deputies from CDT and PWG if/when relevant.

Preparations for Launch Event

(Deliverable Package 3 - see Figure 10)

At this point the city teams should be ready to revise the main previous deliverables and consolidate the work towards the Tomorrow's Cities launch event. This will kick-off the TCDSE and the six-months engagement it entails. Between Session 5 and the launch event, three main items must be delivered.

i. Revised Personnel List and City Proposal

This should happen only if additional issues were flagged in Sessions 4 and 5.

ii. Draft Memorandum of Understanding (MoU)

Tomorrow's Cities will provide a template, and there should be flexibility to include some of the priorities and concerns raised during these interactions. In broad brushes, the MoU will include:

- Mutual priorities and concerns;
- Agreed roles and responsibilities for the work ahead and legacy;
- Data sharing provisions;
- Engagement of critical stakeholders in the TCDSE process; and
- A "Certificate of collaboration" or "Letter of partnership" with the lead community/advocacy groups - when these are not already formally signing the MoU.

The MoU should be assigned during the launch event, at which stage International and Local teams will be working together to reduce risk in for future urban residents.

iii. Data Requirements Checklist

By the date of the Launch Event your City Delivery Team should have revised the Checklist below (see next page) to create a roadmap to data collection. Data gaps and scarcity are expected but should be clearly highlighted so the team creates a strategy to deal with such challenges.



WP1 - Social and Spatial data for Future Visioning Workshops			
Description	Format	Available?	Where to find? who to contact?
'Critical stakeholder map' with disaggregated social and institutional groups: Initial Proposal of stakeholder disaggregation based on processed evidence gathered during the Social and Institutional Mapping (3.1) and Contextual Analysis (3.3).	Drawing or table		
'Baseline maps', including layers with: <ul style="list-style-type: none"> • A clear demarcation of the extent and limits of the case study area • Topography • Existing housing • Existing critical infrastructure (schools, hospitals, etc) • Existing road networks • Major public spaces and cultural assets (e.g., public spaces, sports fields, monuments, temples, etc) • Major environmental assets (e.g., river, forests) 	GIS (all maps should be at the same scale, which follows the extent of the case study area).		
'Susceptibility' or hazard maps: <ul style="list-style-type: none"> • Areas/ands susceptible to earthquakes • Areas/ands susceptible to landslides • Floodplains 	Same as above		
Additional spatial information such as: <ul style="list-style-type: none"> • Property/land ownership (e.g., land pooling map in the case of Rapti) • Existing future plans (e.g., Master Plans) in a compatible scale 	Ideally GIS, but could be in other formats		
Policy Scoping, including: <ul style="list-style-type: none"> • Any framework or instrument that mentions disaster risk reduction and management - policies, codes, acts, or other regulations. • Policies, acts and regulations that significantly impact housing in that area (e.g., social housing policy or regeneration schemes) • Policies, acts and regulations that significantly impact social vulnerability in that area (e.g., social assistance schemes, cash transfer policies, rent subsidies, etc). 	Excel Spreadsheet - template available with WP leads		



WP2 - Information and Datasets for Visioning Scenario Development			
Description	Format	Available?	Where to find? Who to contact?
Housing data	GIS		
Lifeline networked infrastructure (water, sewage, natural gas)	GIS		
Transportation infrastructure	GIS		
Critical services and facilities (e.g., schools, hospitals, fire brigades, police stations etc.)	GIS		
Cultural & historical assets (e.g., worship sites, sacred areas, preserved monuments).	GIS		
Industrial facilities	GIS		
Socio-demographic information (e.g., population, household structure, employment ratio, education attainment status)	GIS, Tabular		
Land use / land cover	GIS		
Natural hazards	GIS		
Satellite imagery (e.g., images from previous years showing the development directions - urban expansion - of the area and other trends such as informality)	GIS		
Natural environment (e.g., topographical characteristics, natural datasets, climate, geological characteristics, hydrological characteristics)	GIS		
Urban development trends (e.g., most recent urban development patterns, current urban plans, economic outlook, trends such as privatisation or related to informality, socio-economic trends, population projections).	Written Report (complements the Contextual Analysis (3.3).		
Urban development drivers (e.g., previous interventions (political, social, technological) that influenced urban context)	Written Report (complements the Contextual Analysis (3.3).		



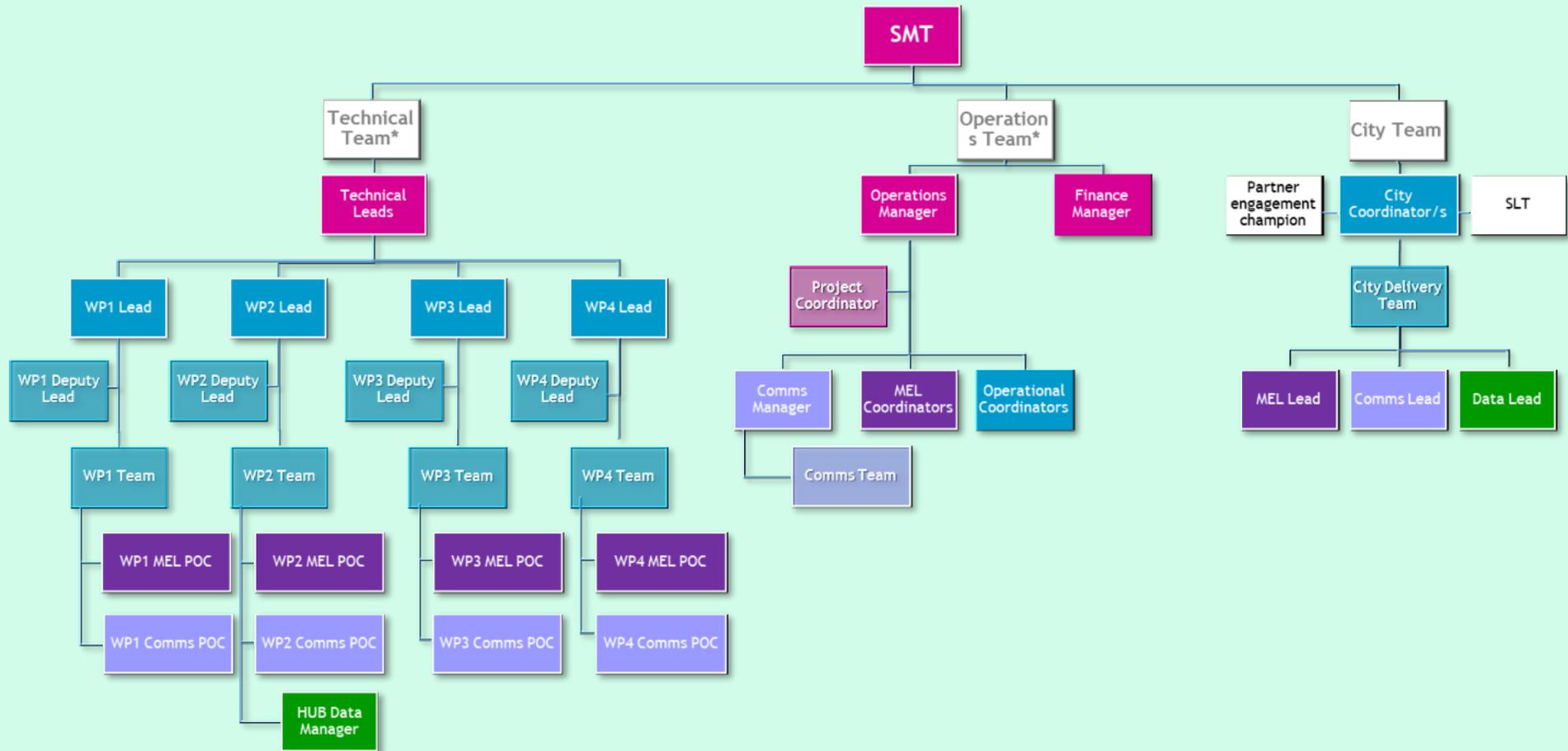
WP3 - Data for Computational Modelling and Impact Metrics production			
Description	Format	Available?	Where to find? Who to contact?
Multi-hazard Modelling			
Topographic information (e.g., Digital Elevation Model)	GIS		
Land use / land cover information including vegetation	GIS		
Soil information (e.g., soil maps, borehole logs, hydraulic conductivity test data)	GIS, Reports, papers, database		
Existing susceptibility and/or hazard maps	GIS		
Existing susceptibility and/or hazard models	Reports, papers, database		
Inventory of previous hazard events and associated back analyses (floods, landslides, debris flow, earthquakes). Nb: when scientific sources are not available, social media accounts or other types of community observation could be used to complement the analysis.	GIS, written, Reports, papers, slope stability model,		
Observed hydro-met data (daily/subdaily rainfall and discharge timeseries) and associated relationships (e.g., intensity-duration-frequency, return periods)	Timeseries, Graph, Reports, papers		
Any past studies on Global Circulation Model (GCM) selection, General Precipitation Model (GPM)	Reports, papers		
National Climate Change Adaptation guidelines	Reports		
Seismicity information (e.g., active fault, seismic hazard maps, earthquake catalogues)	GIS map, Database, Report, papers		
Geophysical survey data (existing H/V, ERT, MASW, reflection/refraction surveys, PS logging, downhole surveys)	Report/papers		
Physical Infrastructure Impact Modelling			
Structures and infrastructure of interest	List		
Information on (and trends in) structure and infrastructure types (taxonomy)	GIS Maps, Summary of relevant statistics		
Context-specific vulnerability models/available documentation/papers	List		



WP3 - Data for Computational Modelling and Impact Metrics production			
Description	Format	Available?	Where to find? Who to contact?
Past fire incidents and associated reports	GIS map, reports		
Weather data over the past year			
Computed Impact Metrics			
Information on priority for broad categories of possible impact metrics of interest	List		
Social Impact Modelling			
Individual vulnerability information (e.g., related to demography, economy, wealth, education, and social capital)	csv, spreadsheets, databases/GIS, word documents		
Household vulnerability information (e.g., related to family/dependency, infrastructure ownership, access to services, health, food security)	csv, spreadsheets, databases/GIS, word documents		
Catchment area vulnerability information (e.g., related to nutrition, mortality, tenure, economy/wealth, politics)	csv, spreadsheets, databases/GIS, word documents		
Disaster loss (impact) information (e.g., casualties, displacement, loss of education, impact on wellbeing in past hazard events)	csv, spreadsheets, databases/GIS, word documents		



Tomorrow's Cities Organizational Structure



* The Technical Team and Operations Team together make up the Programme Working Group





UK Research
and Innovation



Tomorrow's Cities is the UKRI GCRF Urban Disaster Risk Hub

"Tomorrow's Cities" is the UKRI GCRF Urban Disaster Risk Hub-one of twelve global interdisciplinary research hubs funded by an UK Research and Innovation Collective Fund Award

www.tomorrowscities.org

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