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Scoping & Set Up

Identifying policy challenges and opportunities for future risk reduction

- Impact case guided by future risk lens (urban planning + hazards), and inclusion and equity lens (gender and other relevant intersectional issues)

- City Programme

1

Future Visioning

Co-producing good future cities from different viewpoints

- Gender-sensitive approach through disaggregation
- Identify challenges and power imbalances during facilitation
- Look out for differential preferences in outputs that could stem from gender

- Aspirational storylines
- Aspired urban assets
- Draft land use plans
- Priority policy themes

2

Visioning Scenarios

Detailing urban visions and making them realistic and compatible with future trends

- Scope regulations and trends with gender lens. Identify information worth discussing
- Discuss in workshop (equity check) gender-sensitive or relevant information - e.g., design, actions in bundle, exposure

- Compliant land use plans
- DRR measures/actions in Policy Bundles
- Future exposure data

3

Computational Modelling & Impact Metrics

Modelling multihazards. Quantifying infrastructural & social impacts

- Disaggregate impact metrics whenever feasible
- Highlight opportunities for the discussion of non-quantifiable impacts related to gender inequalities

- Computed impact metrics (visible through TC Webapp)

4

Risk Agreement & Learning

Understanding risk components, assessing choices made, and improving decisions

- Display and discuss disaggregated impact information (related to gender) during Risk Reveal stage
- Propose discussion on non-quantifiable impacts so that subjective outcomes of decision making are also explored

- Assessment with suggested modifications to Visioning Scenario components
- Test of new options (iteration)

5

Institutionalisation

Pursuing social and institutional impact on the basis of TCDSE learning

- Highlight in report key measures and actions that reduce risk from the perspective of objective metrics - connecting stages 3, 4 and 5
- Connect gender-based aspirations (objective and subjective) to policy challenges and opportunities - connecting stages 0, 1, 2 and 5

Bespoke Action Plan

0

Scoping & Set Up

Identifying policy challenges and opportunities for future risk reduction



Key Output:

City Programme

Guiding questions for gender-sensitive approach:

The first stage of Tomorrow's Cities' engagement consist of delving into a specific urban development context and identifying a potential case study for impact - usually an urban area prone to expansion, regeneration or major changes in a city. In such stage, not only urban growth and overall exposure and vulnerability to hazards should be assessed. Understanding urban inequalities (in the present and potential ones in the future) is also key. The questions below aim to surface gender-related challenges from the onset. Yet, it is encouraged that all these questions are reframed in an inclusive way, that is, encompassing other intersectional inequality aspects related to income, race and ethnicity, (dis)ability, etc.

- **Inclusion in decision making:** Considering your existing urban planning and decision making environment, how would you evaluate women's inclusion in decision making? Is there any evidence (reports, policy documents, research outputs) pointing to advances and/or challenges when it comes to empowering women in such context? Highlighting lack of evidence and data is also relevant at this stage.
- **Equity in risk and benefits distribution:** The literature on disaster risk reduction by and large shows that women and girls are disproportionately impacted by disasters. Do you have any knowledge on how this plays out in the chosen area of impact (or surrounding areas)? Collect context-specific data and evidence for discussion whenever possible.

1

Future Visioning

Co-producing good future cities from different viewpoints



Key Outputs:

- Aspirational storylines
- Aspired urban assets
- Draft land use plans
- Priority policy themes

Guiding questions for gender-sensitive approach:

Future Visioning consists of gathering different social and institutional stakeholders to discuss desirable futures. Stakeholders are disaggregated on the basis of contextual inequalities and power imbalances seen in the present and foreseen in the future. Whilst gender is a necessary part of the disaggregation logic (which might impact outputs), other inequalities should be integrated into pre-, during, and post- workshop assessments.

Pre-workshop stage

- **Policy and Risk context:** Did gender issues emerge somehow during the city scoping stage, either framed as a challenge related to disaster risk reduction or in relation to past initiatives and existing policy opportunities?
 - If so, try to build on the available materials and provide connections between context and aspirations. If not, provide an initial scoping to check how policy frameworks and DRR-relevant projects have approached gender, showing the overall importance of the topic at the local and national levels.
- **Group disaggregation for workshops:** How is gender approached for the selection of workshop participants (those who will produce Visioning Scenarios)?
 - Please provide a brief explanation of your rationale and the importance of gender for the shaping of groups. For instance, your team may have decided to have a specific women's group or overall gender balance in all groups. If you claim that all groups were gender balanced, you should be able to support this claim.

Workshop Delivery Stage

- **Facilitation and management of power imbalances:** Were there any power imbalances or challenges during the workshop and overall interactions that you would attribute to structural or contextual gender inequalities? Please make a critical assessment of the dynamics your encountered on the ground.
 - Your reflections should take into account, for example, conflicts in visions (within or across groups) that could be somehow attributed to gender, or difficulties in making participants of a certain identity or background to speak up or being confident.
- **Addressing challenges:** If any gender-related power imbalances were identified, how do you intend to adress those issue moving forward, ensuring equitable and meaningful participation?
 - Please reflect on potential changes in the arrangement of the groups (e.g., changing slightly the internal composition), in the facilitation strategy, or through additional sensitisation meetings or focus group discussions.

Post-Workshop Analysis

- **Gender and the content of visions:** Did you observe contrasts in the visions (within or across groups) that could be attributed to gender-based perceptions or imbalances? Please flag any Future Visioning outputs (storylines, assets, visioning statement, land use plans, actions in the policy bundles) that evidence differences or particularities in visions that could relate to gender, and provide a critical comparative assessment of these outputs in relation to others within this city (or across city depending on context).
 - If you had a women's group or a group where the majority of participants were women, lookout for statements or preferences that were explicitly framed from a gender lens (e.g., "a city in 2050 safer for women") or that could implicitly contain preferences that stem from gender roles in society (e.g., focus on care services, safety or water provision).
 - It is critical that these preferences and differences are document so, whatever is not directly reflected in the digitied plans and further modelling work, can be later recalled in the impact discussions (stage 5).

2

Visioning Scenarios

Detailing visions and making them realistic and compatible with future trends



Key Outputs:

- Compliant land use plans
- DRR measures/actions in Policy Bundles
- Future exposure data

Guiding questions for gender-sensitive approach:

If gender was a significant issue observed during the initial stages, the questions below should aim to surface these issues even further, particularly during the Validation Workshop. Documenting preferences or conflicts that are relevant locally but cannot be embedded into the TCDSE (due to technical or methodological incompatibilities) is also crucial at this stage.

Land Use Planning (spatial/infrastructural regulatory focus)

- **Identifying gender-relevant regulations or potential equity red flags:** Are there any gender-oriented or relevant spatial and land use planning regulations?
 - This stage consists of, not only digitising the draft land use plans produced during Future Visioning workshops, but also making them somewhat compliant with regulations, so visions are realistic. Some of these regulations will be equity oriented - e.g., making sure that there is an equal distribution of services and infrastructure - but not necessarily incorporated with a gender-sensitive eye. This is therefore an opportunity to either flag regulations that could be relevant from a perspective of gender (e.g., rules and design guidance that are safety oriented) or participants' choices that could be meaningful or problematic.
 - For instance, the distribution of green or recreational spaces across neighbourhoods does not guarantee that these will be evenly used by both women and men. In some contexts, women might feel or be actively excluded from some spaces, or feel the need to have reserved areas for gathering.
 - Because these are participants' visions, you should not bias the conversation or insert design elements in arbitrary ways. Yet, making note of these aspects might be useful, so they are shared and injected gently through the facilitation of the Validation Workshop.

Policy Bundles (non-spatial regulatory focus)

- **Non-infrastructural or soft measures to promote gender equity:** Are there any gender-oriented solutions - related to existing policies, programs, regulations or instruments at different levels, including international frameworks - that could be identified and discussed in the Validation Workshop to enrich existing Visioning Scenarios from this perspective?
 - To avoid biasing conversations, these opportunities should be tied to conversations that were surface during Future Visioning Workshops.
 - For example, cash transfers, capacity building or loans programs often focus on women due to the higher vulnerability of these groups in a given context or due to evidence that women tend to distribute better resources in cases of emergency.
 - Depending on participants' chosen actions for the policy bundles, the pre-workshop assessment could problematise the universalistic or targeted nature of such actions.
 - Important: ultimately, participants should be able to produce a narrative on why these measures/actions benefit the future city and inhabitants in the event of hazards.

Future Exposure Data Generation

- **Flagging gender-relevant trends:** Are there any relevant trends from a gender perspective?
 - This might be a change of demographics (which could inform the choice of infrastructural assets or facilities) or the persistence of certain patterns (e.g., low education attainment amongst women). These trends might affect impact metrics, so could be flagged and discussed in the Validation Workshop. The above discussion on DRR-measures, for example, could be informed by some of this data.

3

Computational Modelling & Impact Metrics

Modelling multihazards. Quantifying infrastructural & social impacts



Key Output:

- Computed Impact Metrics

Guiding questions for gender-sensitive approach:

This stage consists of simulating future hazards (such as floods, landslides, earthquakes) onto each Visioning Scenario and quantifying the impacts that result from these events. Results are visualised through Tomorrow's Cities Webapp and could support the understanding of the distribution of risk depending on assumptions and projections about demographics and urban dynamics (where certain groups will live, work and use public assets or facilities).

Impact Metrics Generation

- **Disaggregating impact metrics: What is the feasibility and usefulness of disaggregating key metrics from a perspective of gender?**
 - Cities should consider that this might entail alterations to the code (particularly if other intersectional aspects are incorporated) and therefore increase the amount of time for the analysis
 - Issues related to the visualisation of the metrics should also be considered
 - It is important to highlight key assumptions (about demographic changes and urban behaviours) that will affect certain metrics. Some of them might be communicated in workshops.
 - Consider highlighting aspects that the team could not calculate (expectations related to more subjective impacts) but that could be flagged to social science teams for further discussions.

4

Risk Agreement & Learning

Understanding risk components, assessing choices, improving decisions



Key Outputs:

- Assessment with suggested modifications to Visioning Scenario components
- Test of new options (optional iteration)

Guiding questions for gender-sensitive approach:

This stage entails the assessment of the Visioning Scenarios produced in stage 2 based of the impact metrics produced in stage 3. If metrics are disaggregated, a deeper equity discussion is possible, in which participants discuss modifications to their initial plans and policy bundles for an overall and equity-oriented risk reduction.

Tutorial

- **Exercising the interpretation of disaggregated metrics:** Given the aspirations and expectations raised in stages 1 and 2, how would the visualisation of disaggregated metrics support a deeper and more equity-oriented understanding of risk?
 - The tutorial is focused on mastering the tools of Tomorrow's Cities Webapp. Yet this stage could also be useful to create some interest on equity, particularly when relevant issues have been raised in beforehand.

Risk Reveal

- **Identification and improvement of areas impacted by hazards through equity lens: *Impact for whom?***
 - The key objective of the risk reveal stage is to make participants aware of high risk areas, conscious of the drivers of risk (in the context of each group's Visioning Scenario) and capable of providing suggestions (spatial and non-spatial changes) to technically improve the performance of their future city against hazards. Yet that analysis could be further oriented by equity.
 - By discussing patterns such as the connections between social vulnerability and exposure (i.e. low-income groups - including women - usually driven to hazard-susceptible lands due to housing market pressures) social vulnerability and physical vulnerability (i.e., women usually connected to care and household activities and therefore facing difficulties to evacuate fragile buildings during hazards), groups can start to determine potential changes to Visioning Scenarios that respond to the effects of hazards in a more holistic and humanistic way.
 - Whenever the nuances between these connections cannot be purely evidenced through disaggregated impact metrics, additional data or evidence can be shown to animate discussions.

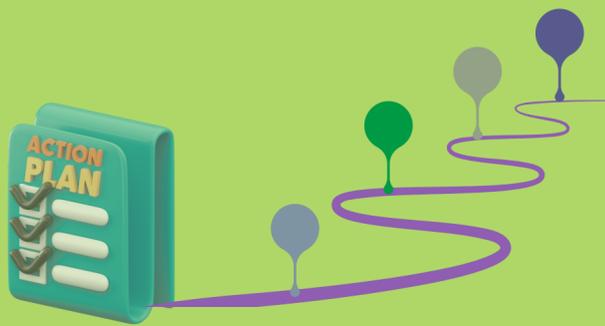
Social Learning

- **Integrating objective and subjective risk assessments:** How to connected proposed modifications to Visioning Scenarios with aspirations and subjective experiences of risk?
 - At this stage the conversation on future risk reduction expands, as participants start to reflect on how to apply their learning in relation to the real context at hand. Often implementation challenges are discussed at this stage. Yet, if particular equity issues have surfaced in previous activities and through previous outputs, participants could be instigated to think beyond implementation.
 - For instance, when desires for more safe-oriented urban planning has been manifested by women's groups in the stage of Future Visioning and Visioning Scenario, the proposed modifications elaborated at this stage could be coupled with other subjective assessments of risk. An example is the introduction of green or recreational spaces (instead of residential areas) in hazard prone lands for the reduction of exposure. How could the design or regulation of such spaces further benefit women and girls? These are details which come from an objective learning of risk but could be improved through a more subjective and holistic understanding of the topic.

5

Institutionalisation

Pursuing social and institutional impact on the basis of TCDSE learning



Key Output:

- Bespoke Action Plan

Guiding questions for gender-sensitive approach:

At this stage it is important to connect all threads built throughout the process. Potential opportunities are suggested below and framed as questions:

Scoping (0)

- Did the understanding of gender (and overall equity) challenges and opportunities changed or improved since the scoping stage? What new learning emerge which could inform decision making?

Future Visioning (1) and Visioning Scenarios (2)

- What are the key policy areas (e.g., housing, livelihoods, culture, etc) that emerged as a priority across different disaggregated groups? How could the action plan and impact pathways value those priorities? Are they sufficiently informed by gender and other equity issues? Who would be the appropriate actors to activate so that risk is reduced through those policy areas?

Computational Modelling and Impact Metrics (3) and Risk Agreement and Learning (4)

- Are there any relevant data gaps and opportunities that emerged from the modelling stage and that could support a more equity-oriented approach to risk reduction? Note that often available data is not detailed or disaggregated enough. Is there a clear hazard or specific hazard or event scenarios that could be relevant from a gender perspective (and therefore could be the object of further exploration in future projects)? Are there specific metrics that seem relevant from a gender perspective and therefore could be prioritised in a gender-sensitive risk plan?