Mainstreaming climate adaptation into urban planning and governance

Associate Prof. Christine Wamsler, LUCSUS/CSR
3 key messages
1. **Local level**: Mainstreaming requires the consideration and combination of 4 types of measures to reduce climate risk.

2. **Institutionalization**: Different mainstreaming strategies have to be combined – at the local, institutional and inter-institutional level.

3. **Synergy creation**: To support progress, it is possible to build on experience with mainstreaming other cross-cutting issues.

Source: Wamsler and Pauleit 2016
Adaptation mainstreaming – What?

Refers to the inclusion of climate adaptation considerations in sector policy and practice. Aim: to reduce climate risk.

Two main origins

1. Risk reduction mainstreaming (since ≈2005), which builds on experience in other cross-cutting domains (HIV/Aids, gender).

2. Environmental policy integration (EPI), more specifically climate policy mainstreaming (since ≈1997), including adaptation considerations (≈2012).

Source: Wamsler and Pauleit 2016
Adaptation mainstreaming – Why?

Although nature-based solutions to climate adaptation are widely advocated, they have so far not been implemented systematically.

It remains unclear how local authorities can best mainstream/integrate this new approach into their work. (IPCC 2014)

How can climate adaptation be systematically mainstreamed into urban planning and governance?
Aim: To reduce climate risk at the local level. ⇒ 4 types of measures

Source: Wamsler 2014
1st measure: Hazard reduction & avoidance

To reduce or avoid hazard exposure.

Source: Wamsler 2014
To reduce or avoid hazard exposure.

Source: Wamsler 2014
2nd measure: Vulnerability reduction

To reduce location-specific vulnerability (sensitivity).

Source: Wamsler 2014
To ensure effective response as soon as hazards strike.

3rd measure: Preparedness for response

Source: Wamsler 2014
4th measure: Preparedness for recovery

To ensure effective recovery after hazard impacts.

Source: Wamsler 2014
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Source: Adapted from Wamsler 2014
3rd measure: Preparedness for response

To ensure effective response as soon as hazards strike.

Source: Adapted from Wamsler 2014
To ensure effective recovery after hazard impacts.

⇒ Nature-based solutions?

Source: Adapted from Wamsler 2014
Hazard reduction & avoidance: Examples
Vulnerability reduction: Examples
Preparedness for response: Examples
Preparedness for recovery: Examples
Sustainable change will, however, remain elusive as long as our understanding of mainstreaming remains naïve. Organisations themselves need to change, rather than simply ‘mainstreaming’ change in selected on-the-ground measures. (Wamsler and Pauleit 2016)

Adaptation mainstreaming – Local level

Local resilience depends on the level of inclusiveness and flexibility of the combined set of adaptation measures employed rather than the effectiveness of a single measure. (Wamsler and Brink 2014)
Mainstreaming strategies

Inter-institutional level
(STRATEGY VI)

FOCUS:
• Other actors
⇒ Cooperate in creating a multilevel governance system (including citizens).
⇒ Drive improved education & science-policy integration.

Institutional level
(STRATEGIES III-V)

FOCUS:
• Implementing organisation
⇒ Institutionalize adaptation
⇒ Integration = standard procedure (incl. its monitoring and learning).
⇒ Ensure orgs’ own functioning.

Local level
(STRATEGIES I-II)

FOCUS:
• Citizens/ settlement
⇒ Local adaptation.

Source: Adapted from Wamsler 2014, 2015
Mainstreaming in general sector work & related professions

Mainstreaming at local level

STRATEGIES I-II

Measures

STRATEGY VI

inter-organisational

STRATEGIES III-IV

managerial & intra-organisational

STRATEGY V

regulatory

Mainstreaming at institutional level (implementing body)

Bottom-up Strategies 1-5, horizontal
Mainstreaming at local level

STRATEGIES I-II

Source: Adapted from Wamsler 2014
Mainstreaming at institutional level
(implementing org)

Mainstreaming at local level

STRATEGIES I-II
Internal organization and cooperation

STRATEGIES III-IV

STRATEGY V
Policies and regulations

Source: Adapted from Wamsler 2014
Mainstreaming in general sector work & related professions

Mainstreaming at institutional level
(implementing org)

STRATEGIES III-IV
Internal organization and cooperation

STRATEGY V
Policies and regulations

STRATEGY VI
External cooperation

Source: Adapted from Wamsler 2014
Mainstreaming in general sector work & related professions

Mainstreaming at institutional level
(Implementing org)

STRATEGIES I-II
Internal organisation and cooperation

Bottom-up
Horizontal mainstreaming

STRATEGIES III-IV

STRATEGY V
Policies and regulations

STRATEGY VI
External cooperation

Source: Adapted from Wamsler 2014
Operational guideline: Step 1

**Local level** (operational measures)

1. On-the-ground measures

**Institutional level** (strategic measures)

2. Overall planning strategy and vision
3. Stand-alone adaptation strategy
4. Formal planning framework and instruments
5. Informal planning framework and instruments
6. Internal organizational structure and cooperation (incl. monitoring/learning)
7. Personnel and financial assets

**Inter-institutional level** (strategic measures)

8. Cooperation and networking with external actors

Source: Wamsler 2015
Rapid assessment

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
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<tr>
<td>...</td>
<td>...</td>
<td>Benchmark: Holistic approach, systematic integration</td>
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In-depth assessment

- **Risk approach**: 4 types of measures & related synergy creation.
- **Hazard approach**: Multi-hazard.
- **Planning approach**: Physical, social, economic & environmental aspects.

Source: Wamsler 2015
1. Lack of systematic mainstreaming of nature-based solutions

We deal with the issue of adaptation in a very broad or general sense. The differentiation between constructive and other types of adaptation measures [e.g., nature-based solutions] is, for instance, not yet a topic. ... We have a smörgasbord of ideas, we still don’t have an overview. This will come with further conceptualization...

Source: Wamsler 2015
2. Fragmented climate policy mainstreaming

 тогда Progress: Adaptation mainstreaming can be supported by organizations’ experience in mainstreaming climate change mitigation.

I am not sure who is responsible for climate change mitigation... and its mainstreaming. It is dealt with separately [from adaptation mainstreaming].

Source: Wamsler 2015
3 key messages

1. **Local level**: 4 types of measures to reduce climate risk.

2. **Institutionalization**: Mainstreaming strategies at different levels.

3. **Synergy creation**: Integrated vs. fragmented mainstreaming.

Source: Wamsler and Pauleit 2016
Thanks for your attention!

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