

Development pathways as a lens to understand maladaptation and maldevelopment

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Why maladaptation and maldevelopment?

Introduction and gap

- ❖ The developing world is yet to shake off the legacy of past developmental trajectories, which continue to shape current vulnerabilities.
- ❖ Review of 70 adaptation projects (Singh et al. 2016) - climate change projects are limited in their adaptation potential.
- ❖ Terminology of adaptation and maladaptation is insufficient to critique the implications of previous development decisions, especially in the face of climate change.
- ❖ Conceptual contradiction: Actions not conceptualised as adaptation can't be called maladaptation but **development trajectories shape maladaptation.**
- ❖ Maladaptation has remained *"elusively defined and sparingly used, and therefore difficult to apply"* (Juhola et al. 2016:135).



"literature is replete with advice to avoid maladaptation, but it is less clear what is precisely included as "maladaptation" (Nobel et al. 2014:28)

Maladaptation

Existing definitions

- ❖ Barnett and O'Neill (2010):
 - ❖ *"action taken ostensibly to avoid or reduce vulnerability to climate change that impacts adversely on, or increases the vulnerability of other systems, sectors or social groups"* (p.10)
 - ❖ 5 types: increasing GHG emissions, disproportionately burdening most vulnerable, high opportunity costs, reducing incentives to adapt, and path dependency
- ❖ Juhola et al. (2016)
 - ❖ Has to be understood in context of "adaptation as an intentional action"
 - ❖ *"a result of an intentional adaptation policy or measure directly increasing vulnerability for the targeted and/or external actor(s), and/or eroding preconditions for sustainable development by indirectly increasing society's vulnerability"* (p.139)
 - ❖ Three maladaptive outcomes: Shifting vulnerability, rebounding vulnerability, eroding sustainable development
- ❖ Noble et al. 2014
 - ❖ *Any changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli; an adaptation that does not succeed in reducing vulnerability but increases it instead.*

Maldevelopment

Conceptual ideas

◆ Definitions

- ◆ Goulet (2006) - Maldevelopment is **bad development**.
- ◆ Gasper (2012:1006) "...judged against a set of principles that have become accepted in the international system over the past two generations, including **promotion of well-being and respect for equity, empowerment, and sustainability**."
- ◆ Hessel (2009) makes clear links with sustainability "*Patterns of maldevelopment—unsustainable human production, consumption, and reproduction—threaten to undermine human development and the prospects for sustainable living.*" (p.1) and "*Sustainability ethics, when put into practice, embody a positive alternative to destructive economic maldevelopment and consumption.*" (p.4)
- ◆ Conceptual linkages with sustainability (Hessel 2009; Gasper 2012) and wellbeing (St.Clair, 2014; Drydyk, 2013; Gasper, 2012).

Development pathways as a lens

Conceptual ideas

- ❖ Pathways approach (Leach et al. 2010) is a useful conceptual frame to understand and explain past and current instances of policies and practices that shape current actions.
- ❖ CCA and path dependencies: "*adaptation is essentially about 'persistence through change', which raises the questions of what persists and what changes*" (Rickards and Howden 2012:242).
- ❖ Most adaptation in India is an extension of development work (Singh et al., 2016)
- ❖ We are critiquing maldevelopment as a trajectory that is eroding the *potential* for sustainable development and adaptation.

Urban development and lakes in Bangalore

- ❖ **Lakes as reservoirs:** lake network conceived as interconnected system to support growing settlement
- ❖ **Integral to the city:** acquired cultural significance, ecosystem regulating functions
- ❖ **Rapid urbanization:** population growth 40% (2001-2011), concretization, expansion from 226 km² to 696 km², incorporating seven towns and >100 villages.
- ❖ **Sites of elite activism and protectionism:** citizen activism for aesthetics/recreation/CSR, not as a network of water bodies for multiple uses by all social groups.
- ❖ **Current state:** urban floods, chronic water scarce, unsustainable reliance on water sources beyond the city.

Photo essay by Sumetee Pahwa Gajjar:

<http://www.thenatureofcities.com/2016/02/25/life-and-water-at-rachenahalli-lake/>



Input-intensive agriculture

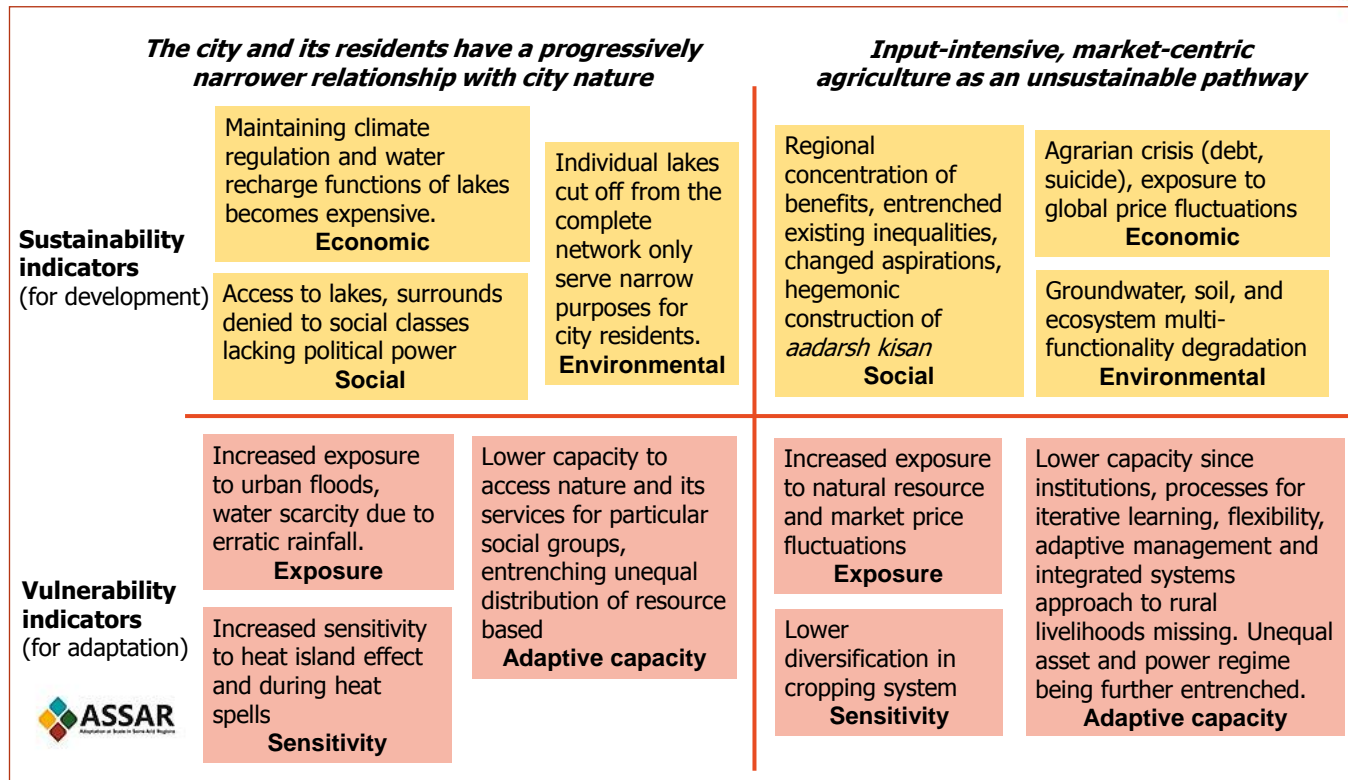
An example from rural India

- ❖ Post-independence: land redistribution, initially pro-farmer
- ❖ 1960s-1980s: Green Revolution (GR)
 - ❖ Input-heavy, ecologically extractive, mechanised agriculture that was at odds with dryland farming practices and ecological limits.
 - ❖ Focussed on addressing food security, not factoring in CC concerns.
 - ❖ Landholders in resource-rich regions benefitted most (Bardhan 1970)
- ❖ 1990s: Market liberalization, predatory commercialization of the countryside (Sainath 2007)
- ❖ 2000s: Climate change discourse takes over
 - ❖ International pressure and emerging science on CC impacts drive mainstreaming adaptation in national policies.
 - ❖ 'climate smart agriculture' vs. investment in large irrigation projects, technology-based solutions, no market reforms



http://www.huffingtonpost.in/chandni-singh-/what-farmers-really-need-1_b_8299824.html

(Mal)adaptation implications



Conclusion

Are the two cases examples of maladaptation?

- ❖ The cases are descriptions of development trajectories that were never articulated as adaptation but are locking the system into a pathway that will exacerbate vulnerabilities and lock out certain adaptation options.
- ❖ Development and adaptation action have to be assessed across spatial and temporal scales to test maladaptive outcomes.
- ❖ **Locked in vulnerability:** Certain development decisions lock in vulnerability, close down the response space (options available), and increase opportunity costs.
- ❖ Literature: need to distinguish between maladaptation and failed/unsuccessful policy implementation (Juhola et al. 2016)
- ❖ But failed policies (or even successful ones) have adaptation repercussions and lock systems into trajectories of *potential maladaptation*.

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