Is Disaster Risk *Creation* more significant than risk reduction?

Natural Hazards Workshop 2025

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A full Version of this is available on the Natural Hazards Center from a presentation in 2023

https://ibs.colorado.edu/event/ibs-visiting-scholar-terry-cannon/

and at this QR code

Abstract of the full presentation

In disaster research it is almost universally accepted that disasters are ‘socially constructed’. This means that explanations of disasters related to natural hazards no longer relate to god/s or Nature as causal factors (although much mainstream DRR activity fails to acknowledge that most of the world’s population retains religious explanations).

However, because organizations focus (in research and practice) on disaster risk reduction (DRR) the processes of disaster creation tend to be forgotten. DRR actions assume that an intervention – often relatively small – can overcome the much more significant processes of how social construction operates under various systems of power. It is assumed that DRR reduces vulnerability and/ or mitigates hazards without discussing the causal processes (which our work can rarely influence). Our research is supposedly ‘taken up’ by governments and relevant institutions and used to inform DRR policy. Donors, NGOs and other actors supposedly engage in activities that reduce disaster risk.

How valid are these comforting assumptions? I argue that government and the private sector are much more likely to create disasters than to reduce them. Disaster Risk Creation (DRC) is much more significant than the efforts of academics and organizations to reduce disasters. I argue that a great deal more honesty is needed in how academia relates to the problems of disaster creation. If what is required to achieve safety involves major changes to the systems that create risk, then it is our duty to say that what a DRR project can achieve is of little significance,and may actually make matters worse.

The talk examines the concept of Damage to Cure Ratio (D:C). This assesses the difference between the funding that is supposed to reduce disaster impacts (the ‘cure’) and compares it with the resources that make vulnerability worse and expose more people to natural hazards (the ‘damage’). I argue that this concept deserves much more research and suggest some examples where it appears that the ratio is of the order 1000:1. In other words in some areas a thousand times more resources are spent to make disasters and climate change worse than to make them better. In this context it is obviously vital that disaster research takes stock of what it can and cannot achieve and develops ways to advocate for a more realistic approach that stops pretending that we are making a significant difference.

Even in areas of apparent success (e.g. with cyclone warnings and evacuations in Bangladesh and parts of east India), the impressive reductions in mortality are hiding the appalling consequences for poverty and hardship for the tens of thousands who now survive, who live in systems of power that do little to protect their assets and livelihoods and enable them to recover even to pre-cyclone conditions (let alone some wishful thinking about ‘building back better’). The talk ends with two examples of disaster risks being created as we watch in Dhaka, where exactly the opposite is happening than what is needed to avoid floods and earthquake disasters.

Need to focus on prevention and preparedness

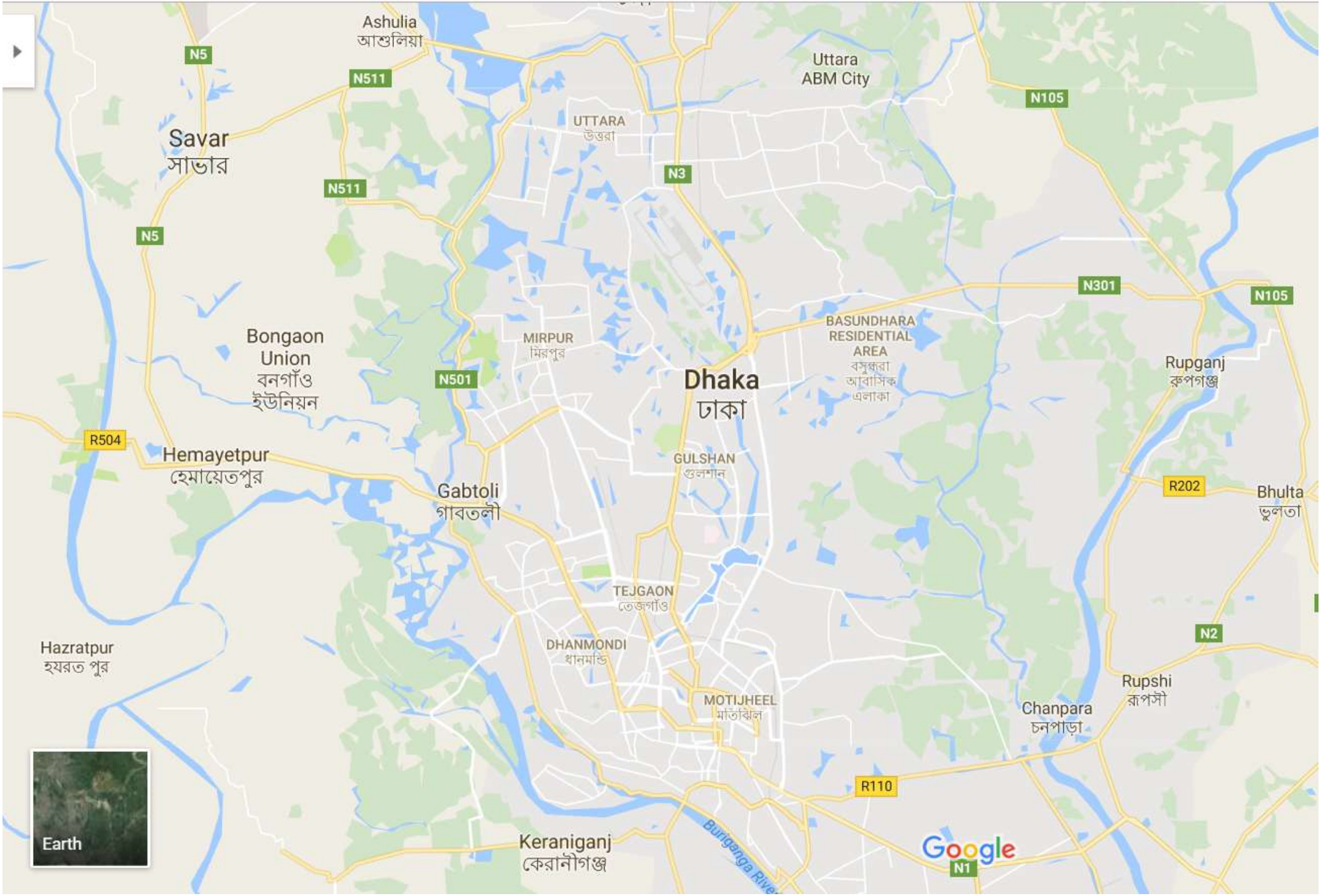
If a problem (e.g. disasters, climate change, poverty, ill-health, malnutrition) is caused, permitted or ignored by a system of power then how can that problem be reduced without a significant change to that system of power?

Case study of DRC – Dhaka: flood & earthquake disasters being *created*

12 million - 20 million people? About one third live in slums

1. Flooding from rain (with waterlogging afterwards) is made worse by
• Subsidence (natural and extraction of drinking water)
• Encroachment on wetlands and lakes, reducing their storage capacity

2. Earthquake disaster in the making
- little observation of building codes
- Quality of construction methods and materials suspect
- Corruption is normal
- Understanding is limited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Sk Hasan Ali/Shutterstock
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This 2010 photo, taken from a high-rise near US embassy in Dhaka, shows how encroachers grabbed Gulshan Lake.

Photo: SK Enamul

https://www.thedailystar.net/news-detail-128471

Some real estate companies are advertising their properties as being earthquake resistance (see below). Whether they have actually been properly designed, constructed and inspected is important.

3 Bath | Bed & Bath | Uttara Dhaka

Quantum Dil-Zafar Villa Address : Plot-15, Road-14, Sector-11, Uttara, Dhaka. 3 Bed, 3 Bath, Drawing, Dining, F.Living, Kitchen, Servant Bath & 4 Verandas. Each floor single unit. Apt.size 1611 sft. All structural design are based on 7.5 unit Richter scale earthquake complied. Price : 6,500/- BDT. Contact : House -8/A, Road -2/B, Sector -11, Uttara, Dhaka-1230, Bangladesh. Land Phone : (8802) 8915802, 8958206, 7912620, 7912625, 8991084, 8991085. ...

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Quantum Properties Ltd.

888 999 | 09678 888 | Bath 4 | Bath

Quantum Meher. Address : Plot-43, Road-13, Sector-11, Uttara, Dhaka. 3 Bed, 3 Bath, Drawing, Dining, F.Living, Kitchen, Servant Bath & 4 Verandas. Each floor single unit. All structural design are based on 7.5 unit Richter scale earthquake complied. Contact : House -8/A, Road -2/B, Sector -11, Uttara, Dhaka-1230, Bangladesh. Land Phone : (8802) 8915802, 8958206, 7912620, 7912625, 8991084, 8991085. IP Phone : (+88) 09678-888-999 Mobile : +880-1...

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Unit Apt | 5 Unit | Bangladesh Land

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Real Estate

Dhaka 1230 | Uttara Dhaka | Dhaka W

Quantum Janna Address : Plot-09, Road-03, Sector-11, Uttara, Dhaka. 3 Bed,3 Bath, Drawing, Dining, F.Living, Kitchen, Servant bed, Servant Bath & 4 Verandas. Each floor single unit. All structural design are based on 7.5 unit Richter scale earthquake complied. Contact : House -8/A, Road -2/B, Sector -11, Uttara, Dhaka-1230, Bangladesh. Land Phone : (8802) 8915802, 8958206, 7912620, 7912625, 8991084, 8991085. IP Phone : (+88) 09678-888-999 Mobile :...

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Building codes and regulations for disaster resilience in Bangladesh: the case of Dhaka

Iftekhar Ahmed, Md Humayun Kabir 2021

- Those involved in construction activities are in most cases not aware of the [Building Codes];
- Landowners were reluctant to follow regulations and codes to avoid extra cost;
- Construction workers were not interested in compliance as there were no incentives.

“Dhaka’s building construction in the past mostly took place without the application of building codes and construction was often designed and built by masons. In the FGDs, the masons and contractors/sub-contractors stated that they had never heard about the BNBC and its importance for disaster resilience; they constructed buildings based on the drawings provided and instructions of the site engineers. They also reported that in most cases smallscale private landowners constructed buildings in consultation with contractors/subcontractors rather than using skilled professionals to avoid extra costs and are generally unaware of the disaster risks.” p.548