

Who retreats? who reclaims? emerging policy, practice, & environmental justice in global south megacities.



Portland State
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ARTICLE

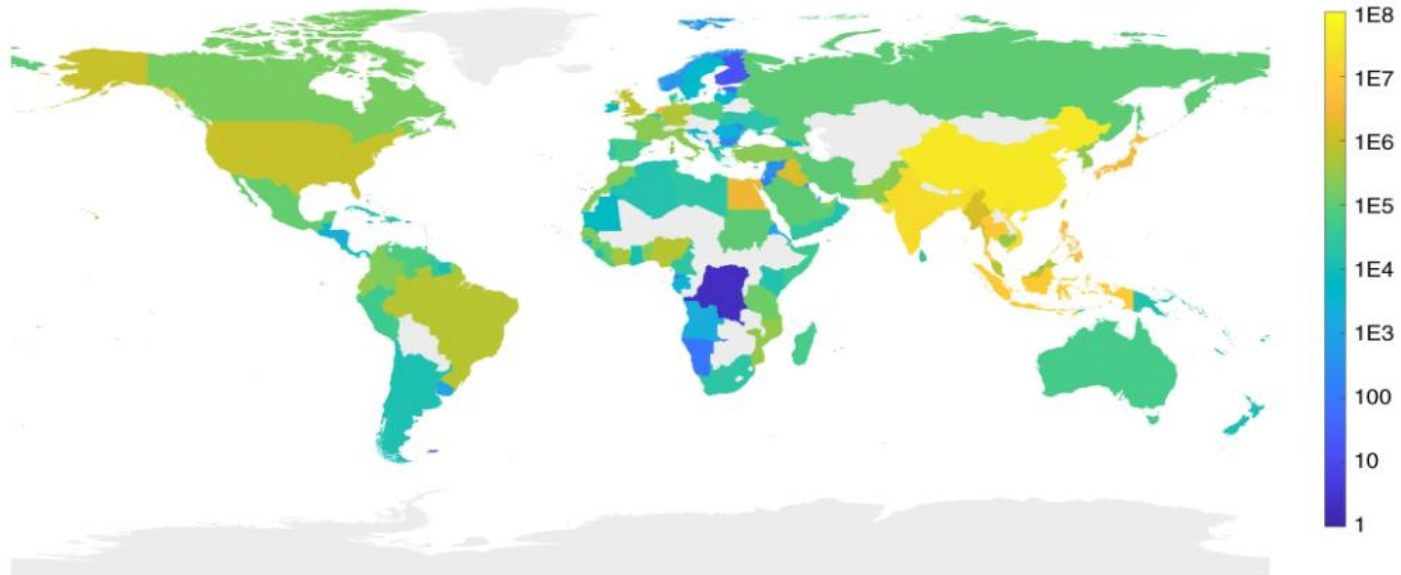
<https://doi.org/10.1038/s41467-019-12808-z>

OPEN

New elevation data triple estimates of global vulnerability to sea-level rise and coastal flooding

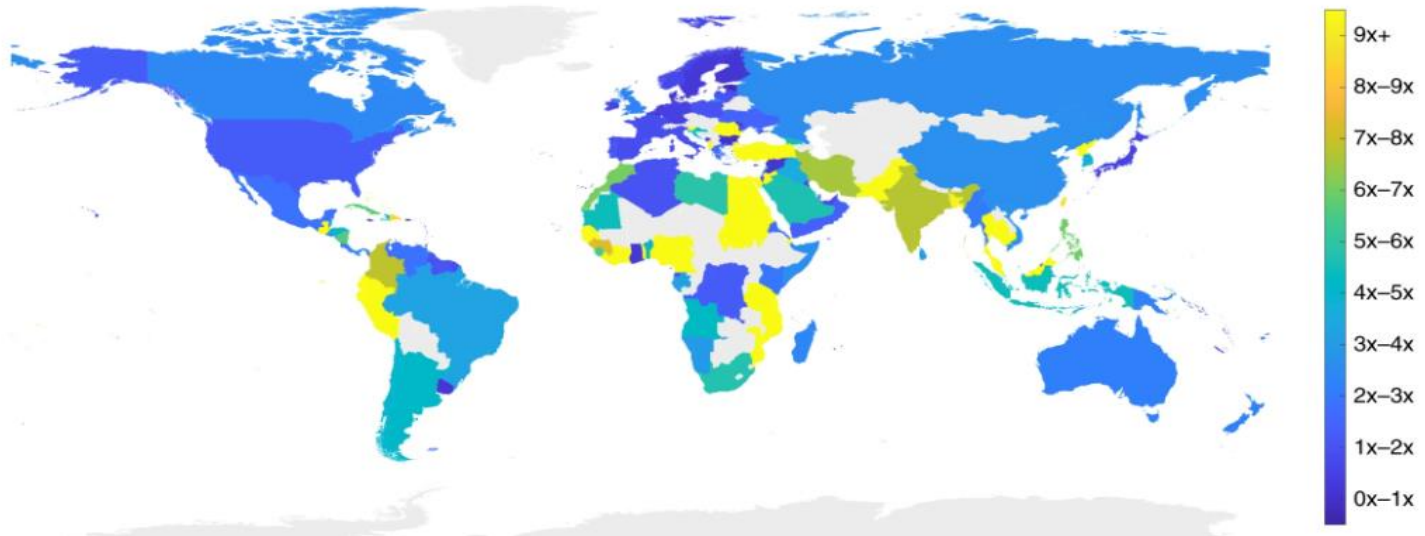
Scott A. Kulp^{1*} & Benjamin H. Strauss ¹

No of people on land exposure by 2050



b

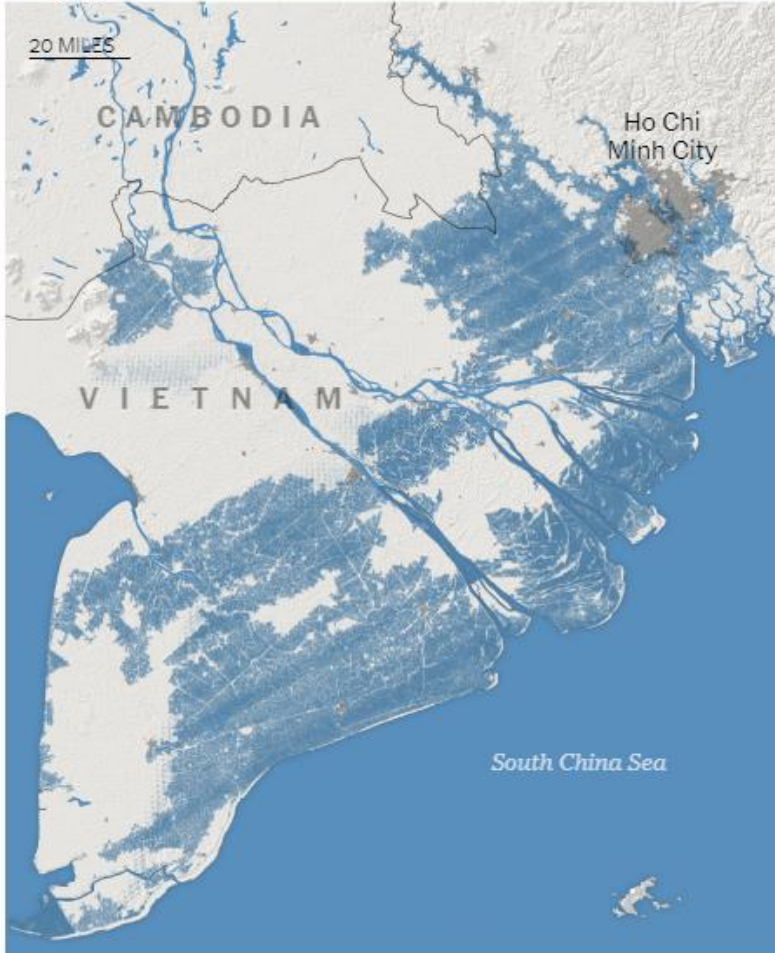
Relative increase in estimated exposure between CoastalDEM and SRTM



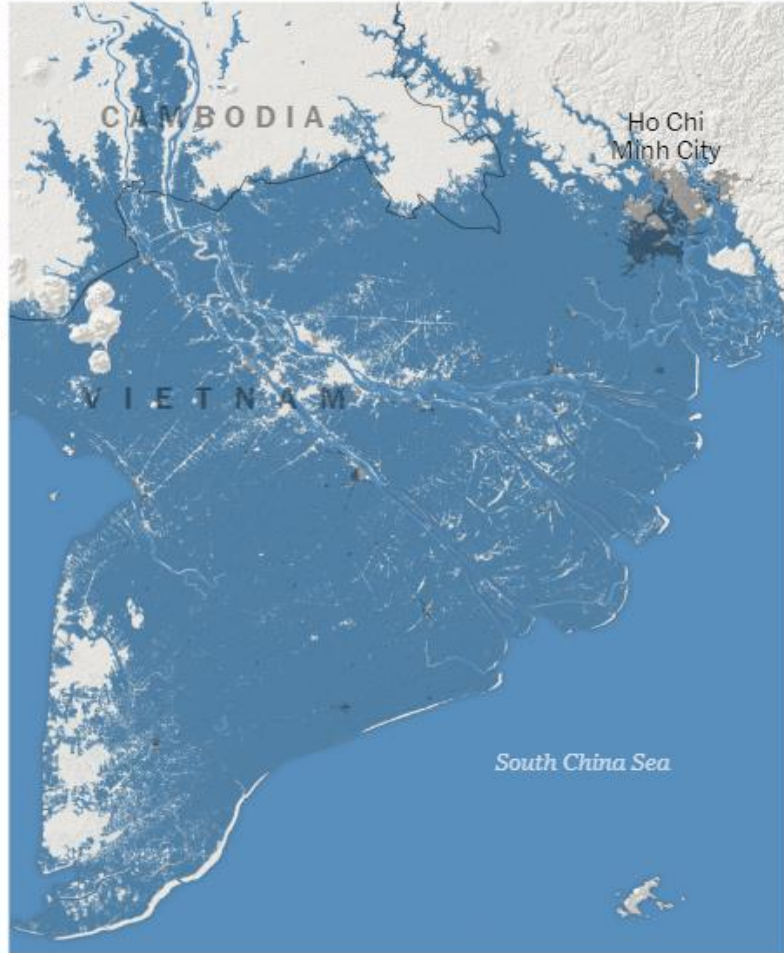
Ho Chi Minh City

■ Land underwater at high tide ■ Populated area

Old projection for 2050



New projection for 2050

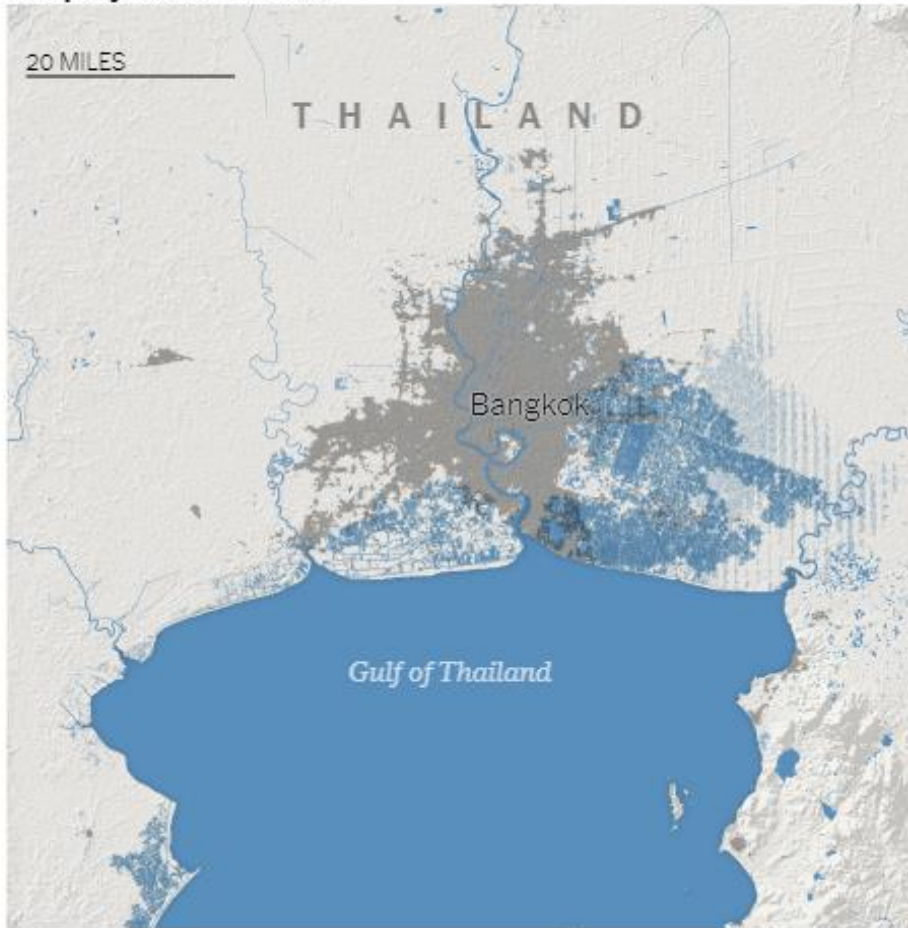


Southern Vietnam could all but disappear.

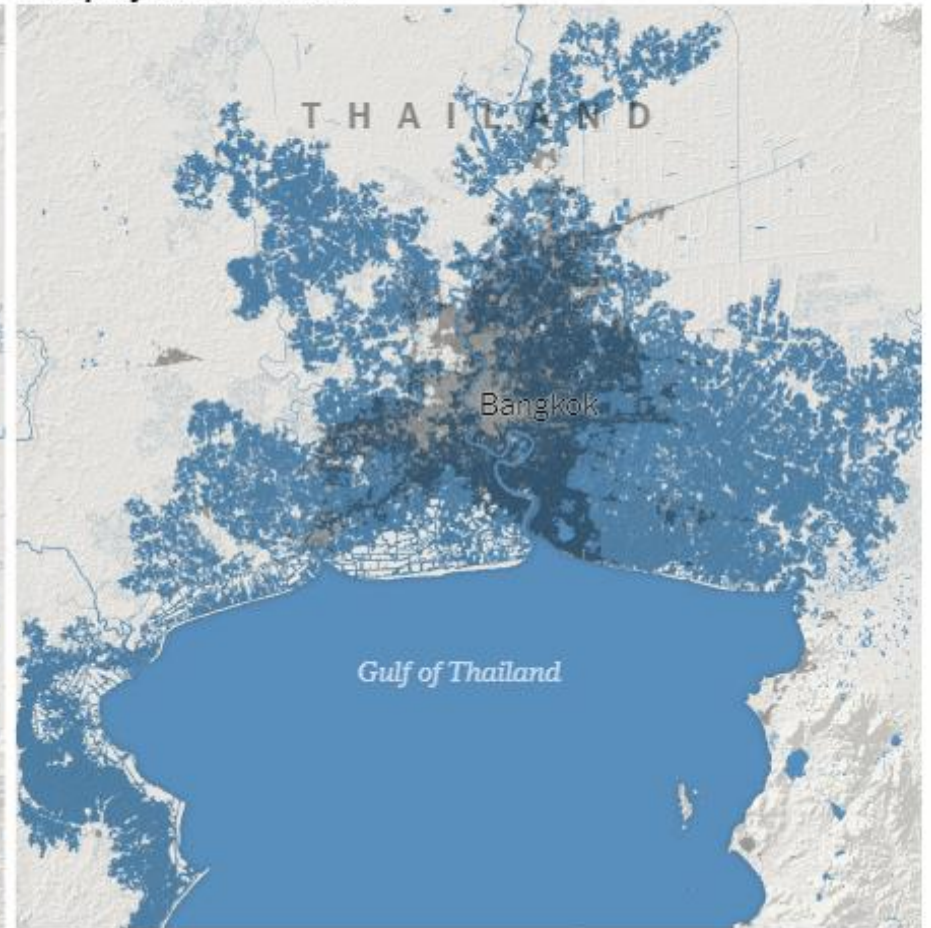
Bangkok

■ Land underwater at high tide ■ Populated area

Old projection for 2050



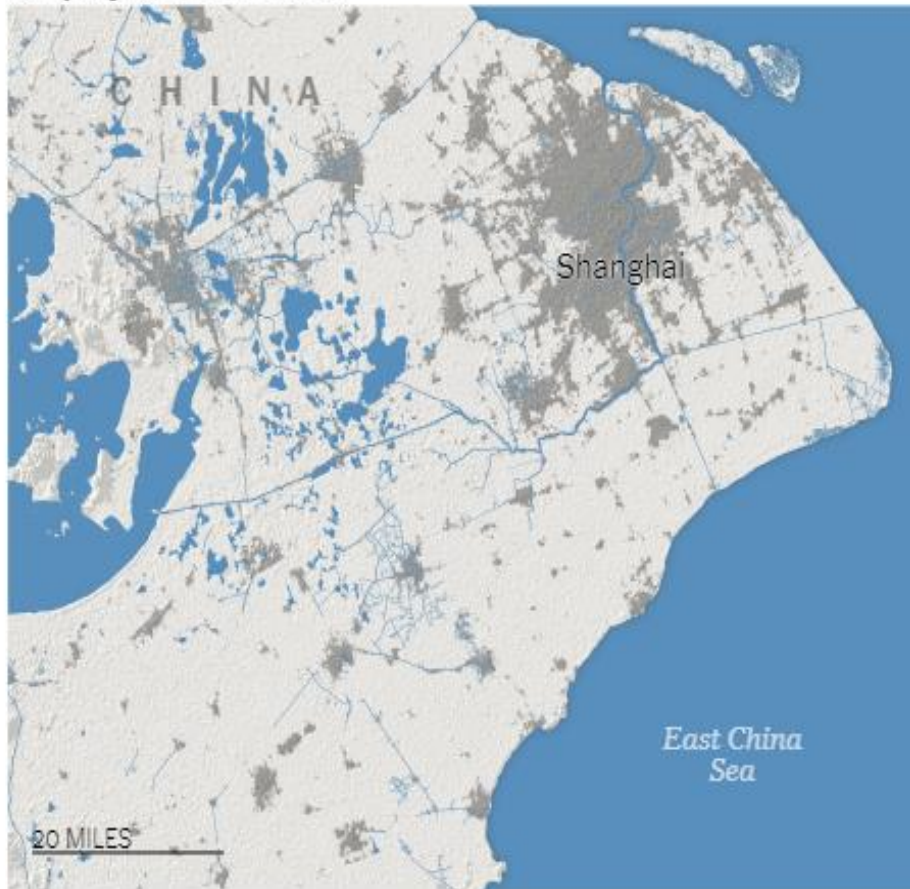
New projection for 2050



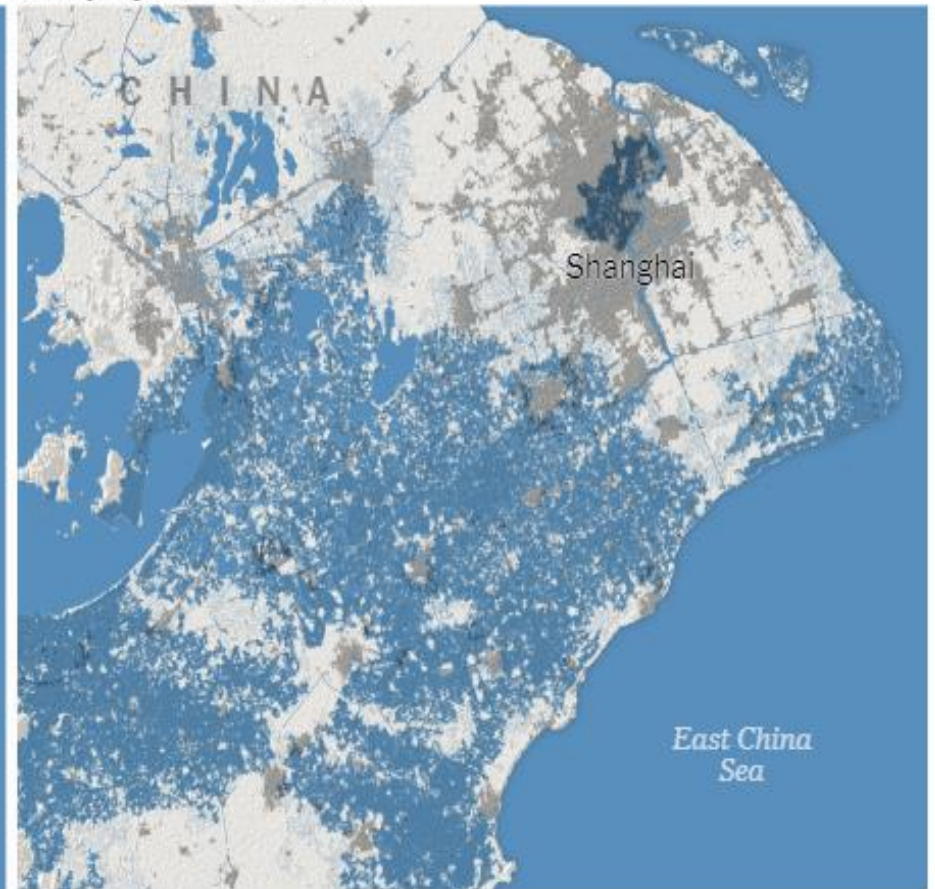
Shanghai

■ Land underwater at high tide ■ Populated area

Old projection for 2050



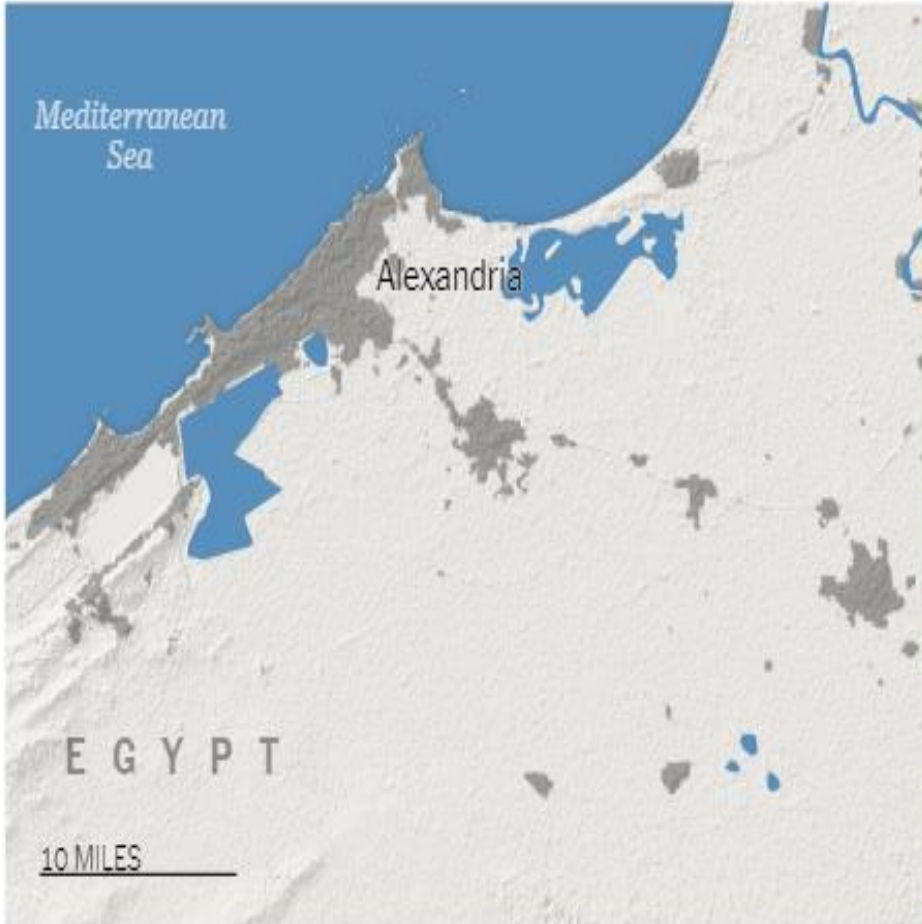
New projection for 2050



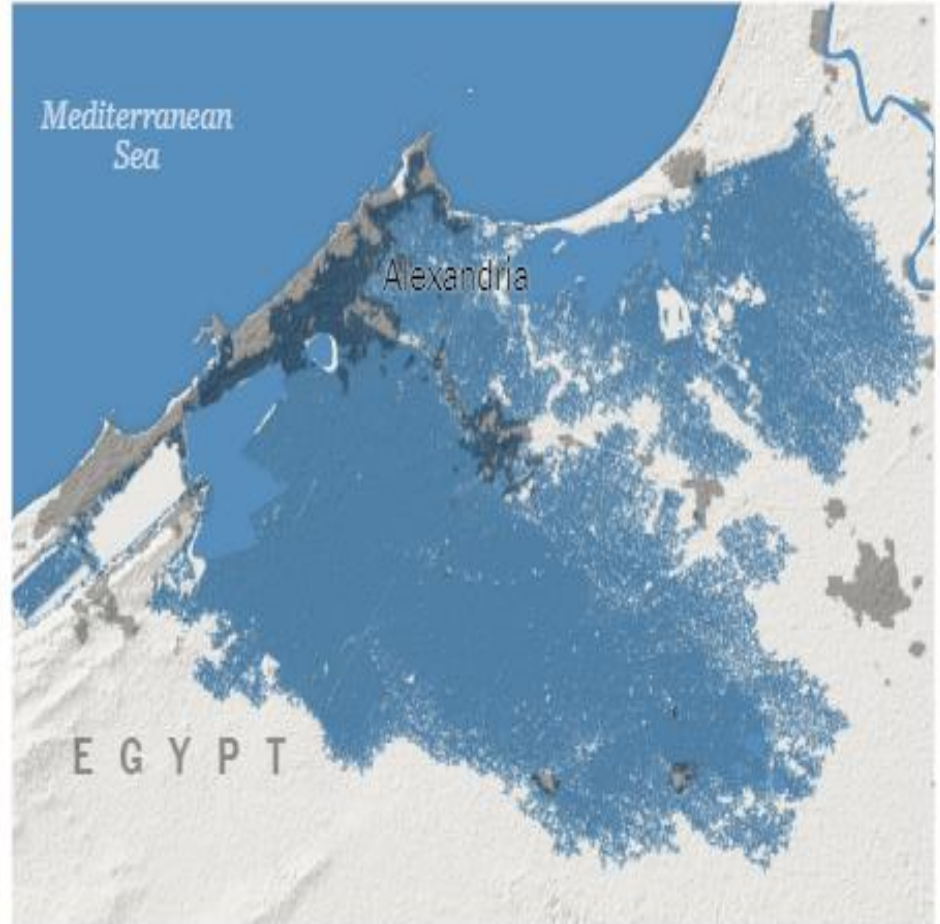
Alexandria

■ Land underwater at high tide ■ Populated area

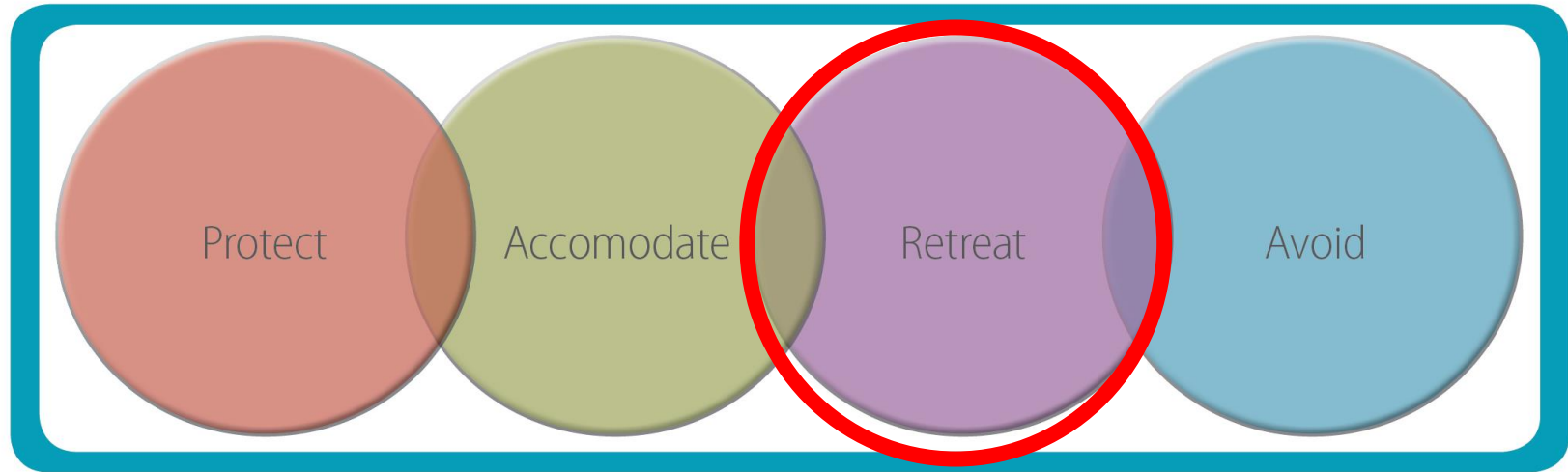
Old projection for 2050



New projection for 2050

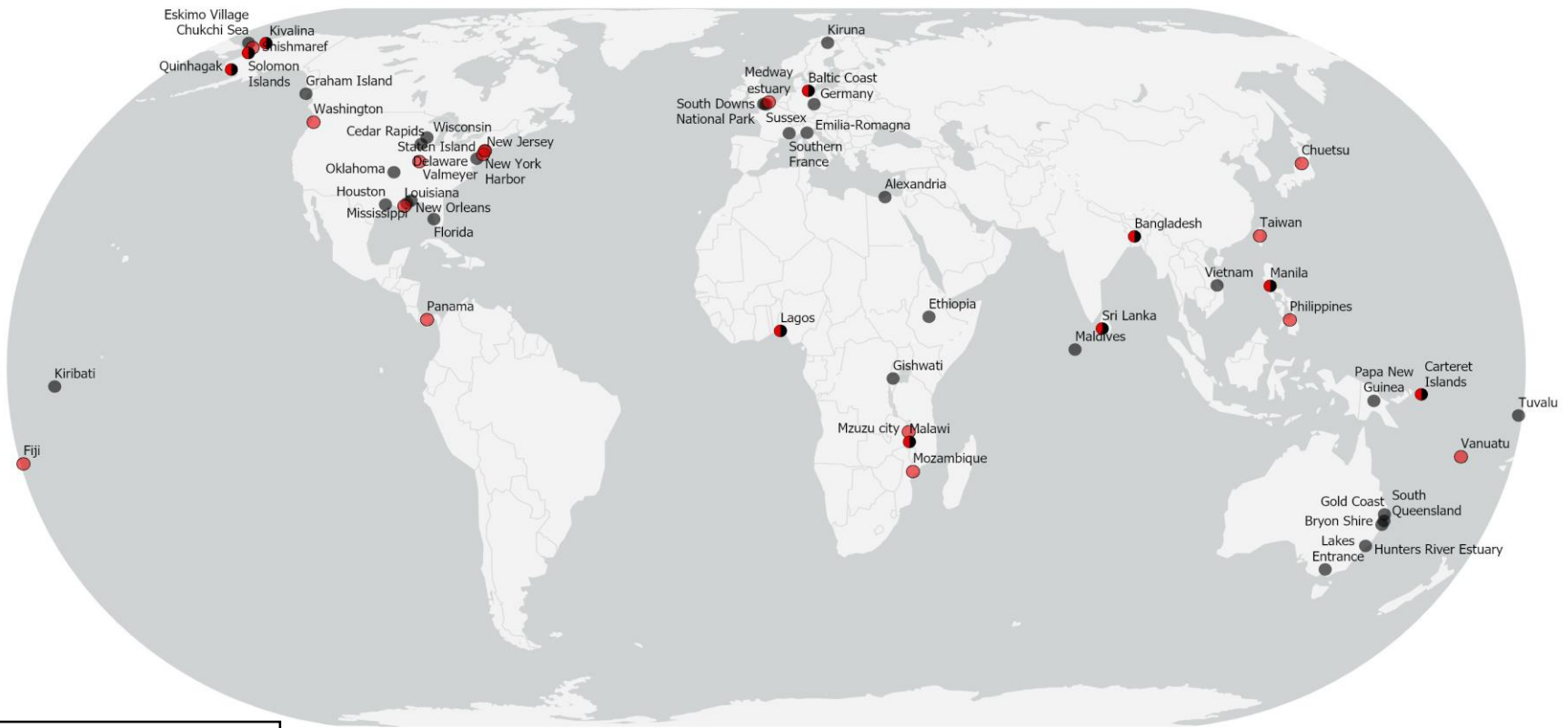


Should cities retreat?






When and How?

Global map of retreat locations



Legend

-  Reactionary
-  Anticipatory
-  Combined A& R

Case study sites

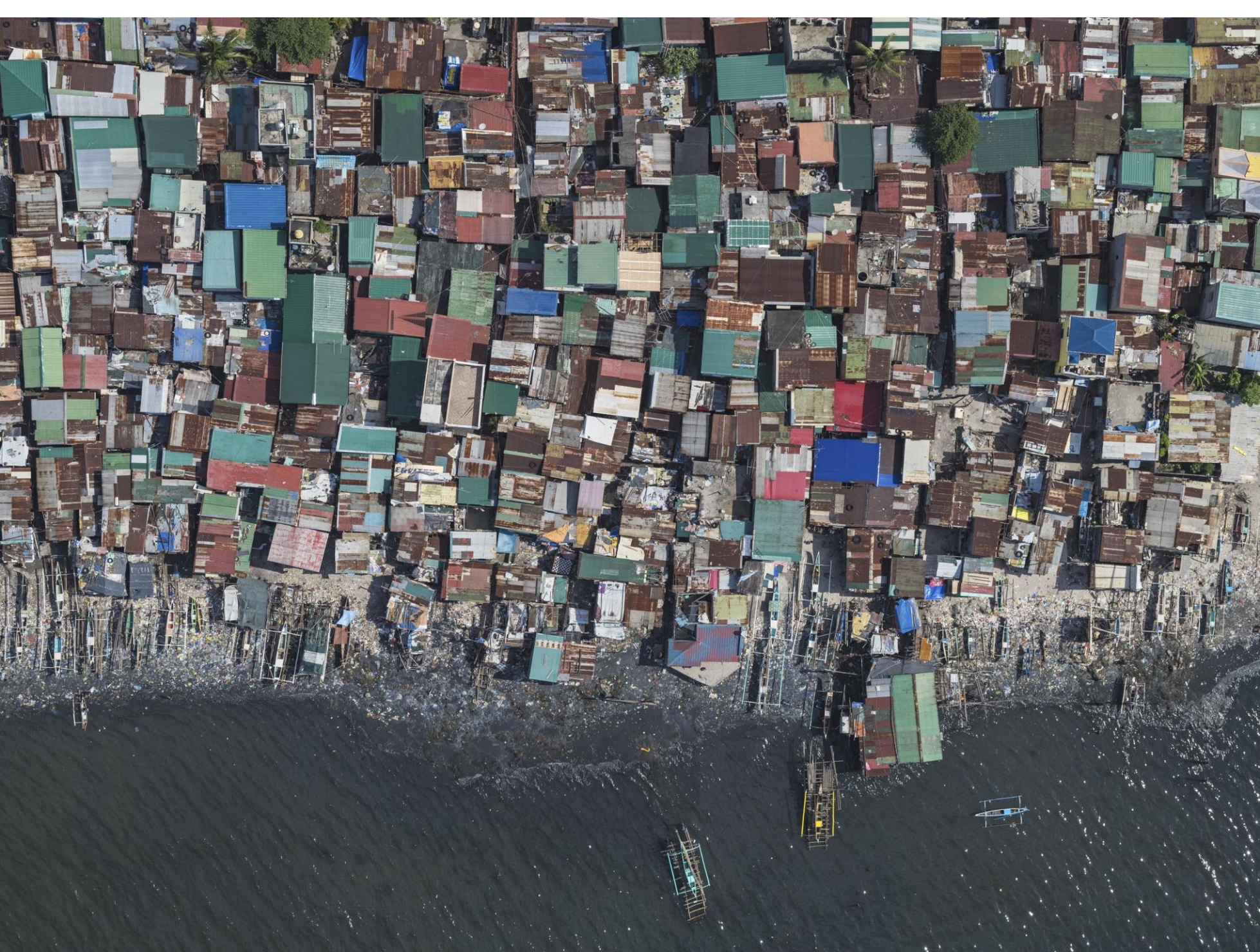


Photo credit: Bernhard Lang

Makoko

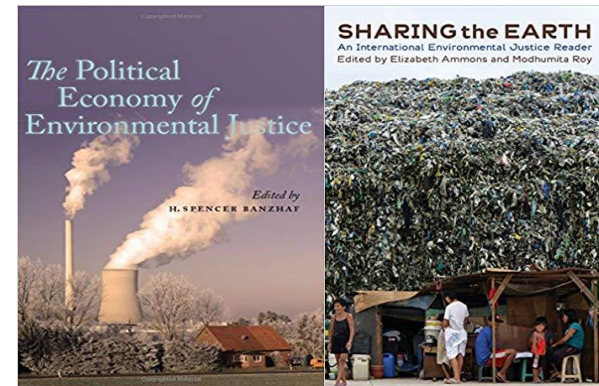


Photo credit: Michael Kimmelman



Environmental justice & managed retreat

- **Environmental Justice:** The **fair treatment** and **meaningful involvement** of all people with respect to the environmental policies and laws
- Managed retreat & EJ
 - Risk avoidance and access to resource
 - Procedural justice (*ex ante*)
 - Distributive justice (*ex post*)
 - **Cultural and livelihood losses**
 - **Marginalisation & facilitation**
 - **Redistribution of risk**



Research Questions

1. When cities adopt or refuse retreat policies, whose interests does it serve?
2. Who has the power or resources (political, legal, and economic) to influence retreat plans or to mitigate future risk?
3. Who retreats - voluntarily or forced, and under what circumstances?
4. Who manages retreat?
5. And what happens to the land/coast after people retreat?

How does geography intersect with class, socio-economic conditions, and value systems, to shape people's ability and willingness to retreat or adapt *in-situ*?

Method & Data Analysis

Policy analysis

Expert
interviews

Focus group
discussions

Field
Observation



Findings

Managed retreat in CCA Policy

City	Year	Title	Retreat/ relocation
LAGOS	2012	The Lagos State Climate Change Adaptation Strategy	✓
LAGOS	2012	The Lagos State Climate Change Policy	✓
M-MANILA	2009	The Climate Change Act of 2009 / Act 10174	—
M-MANILA	2011	Disaster Risk Reduction Management Act	—
QUEZON CITY	2017-2027	Quezon City Local Climate Change Action Plan	✓

Managed retreat in policy: Lagos

- **Policy 'in tent'**: no discrimination on the basis of class, geographic area, industry or valuation lens.
- Recommends relocation of communities, transportation, energy infrastructure, and industries
- Recommends: the establishment of buffer zones



Managed retreat practice: Lagos

- Target of retreat: the urban poor
- Constructed as a **'risk to the city'**
- 7 days ultimatum to retreat; no consultation

Kuramo eviction, 2012

Agony of Kuramo Beach community

POSTED ON THURSDAY, AUGUST 23RD, 2012



•Photo: Demolition at the beach , Photos: Kunle Ajayi

Otodo Gbame eviction, 2017



Photo: Reuters



Photo: Reuters



Photo: Sahara reporters

Retreat and Risk Redistribution

A group of former Otodo Gbame residents now living in Makoko.



Photo credit: Tim McDonnell for NPR

Eko Atlantic city



Project status: **construction phase**



Orange Island



Project status: **construction phase**

Gracefield Island



Project status: **construction phase**



Source: Nigeria construction journal

Managed retreat practice: Lagos

- SRL downplayed for wealthy enclaves
- Utopian development seen as a **source of resilience**

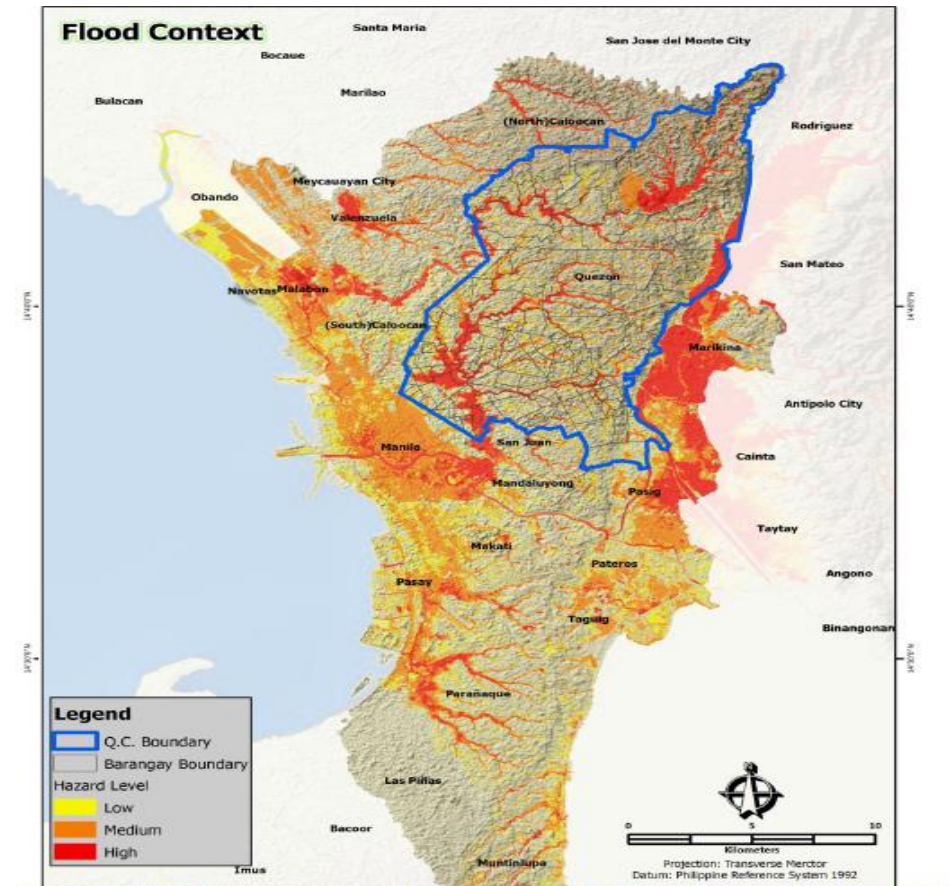
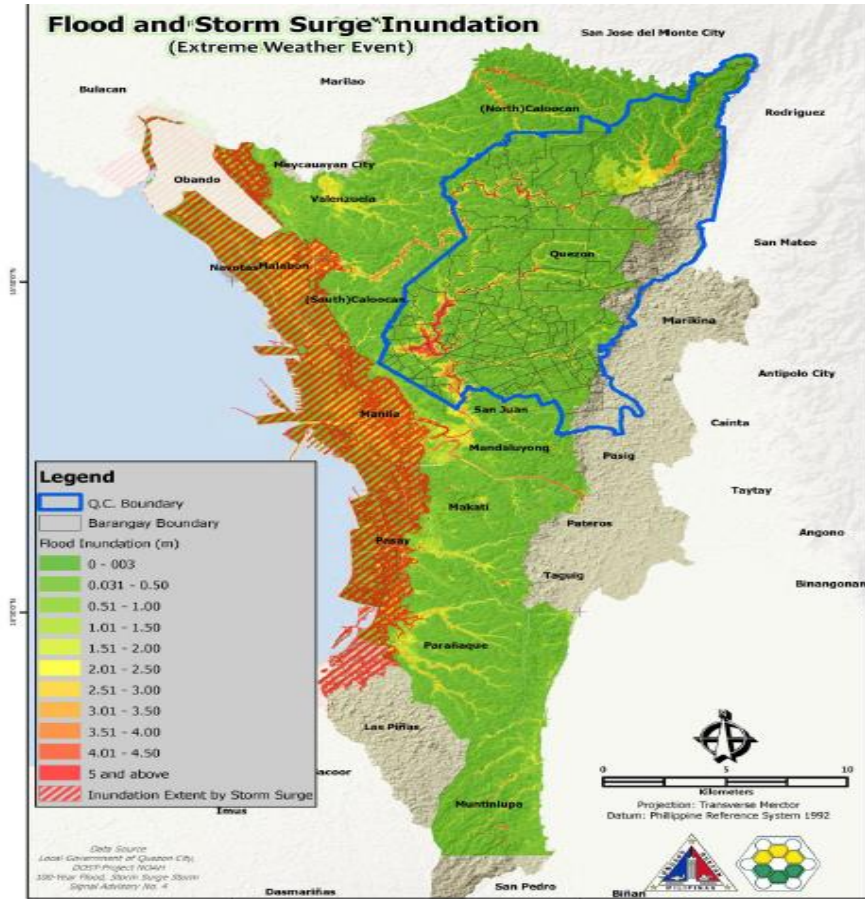
Sea level rise is not considered an imminent danger for Lagos. The construction of the EAC and other islands is a welcome development. it will boost economic growth in the City.
City expert, March 2016

Double standard

Retreat for the poor, reclamation for the rich

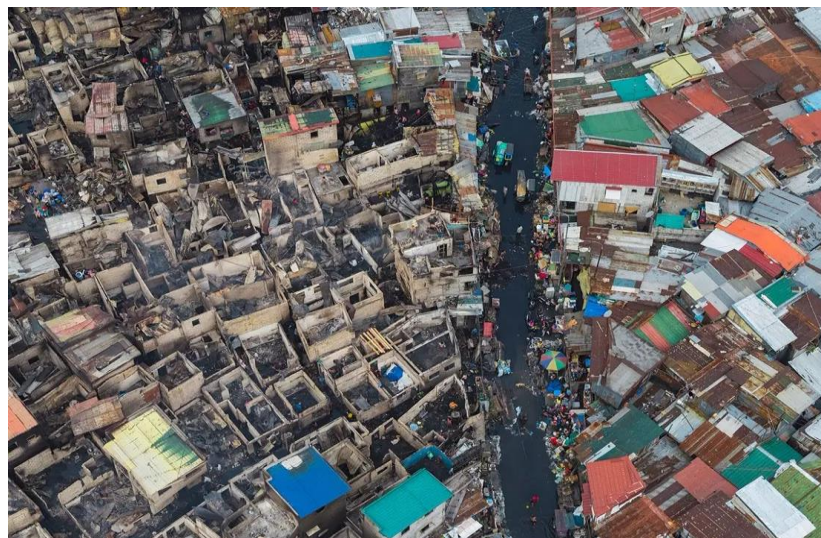
Manila

Manila: flood and storm inundation maps



Managed retreat practice: Manila

- Target of retreat: **the urban poor**
- Provision of social housing
- Mortgage-pathway to homeownership



Resettlement site: Bulacan

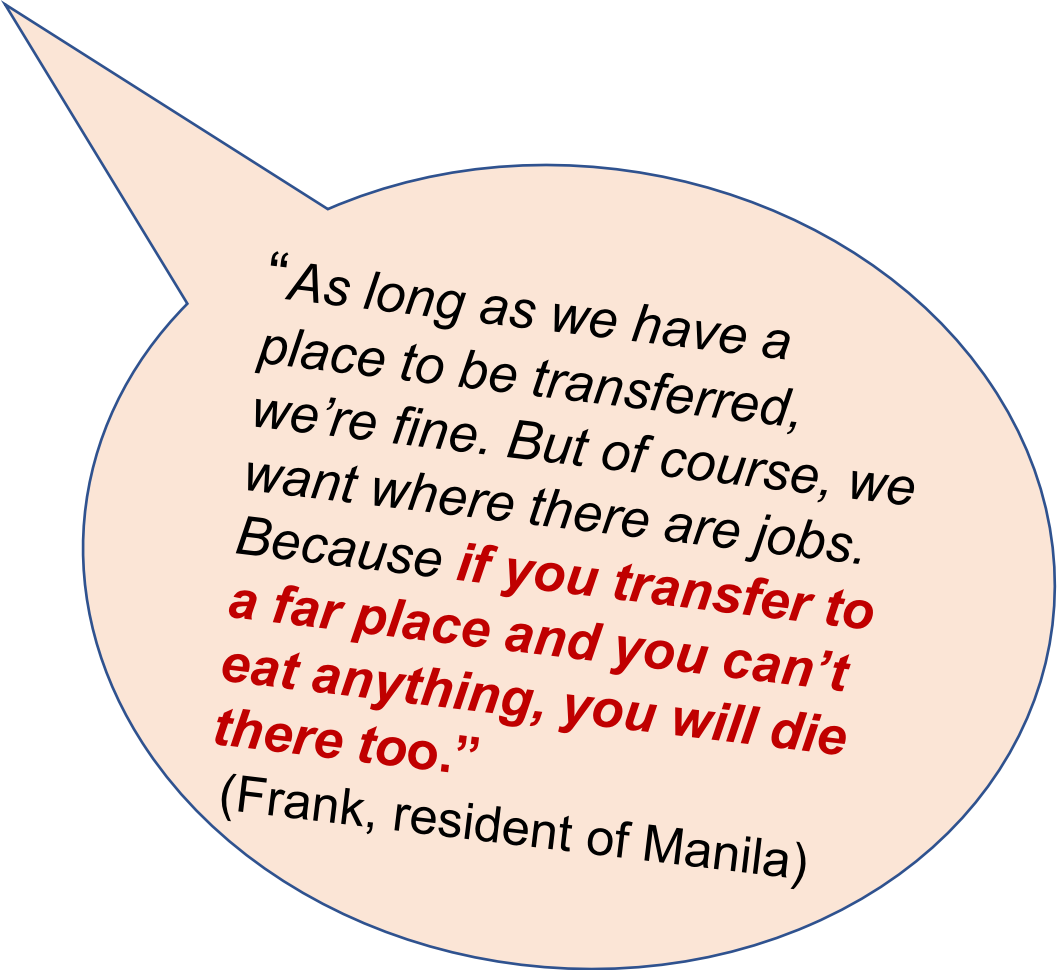


Photo: Bulatlat

Barriers to Retreat: Manila

Cycle of retreat and return

- The lack of livelihood opportunities in resettlement site



*“As long as we have a place to be transferred, we’re fine. But of course, we want where there are jobs. Because **if you transfer to a far place and you can’t eat anything, you will die there too.**”*

(Frank, resident of Manila)

Barriers to Retreat: Manila

- Lack of social services as a disaster

“The relocation site are incomplete and far from people’s employment? How about economic, transportation and schooling needs of their children? That for me is a disaster, because there are no social services.”

(Esther, City expert, Quezon city)

Managed retreat practice: Manila

Retreat: **Government offices** to New Clark City



Project status: **construction phase**

Managed retreat in practice: Manila

PHILIPPINES

Estrada approves building 3 islands at Manila Bay for new commercial district

The city government says the reclamation project, dubbed Horizon Manila, is expected to generate 'hundreds of thousands of jobs' and billions of pesos in revenues

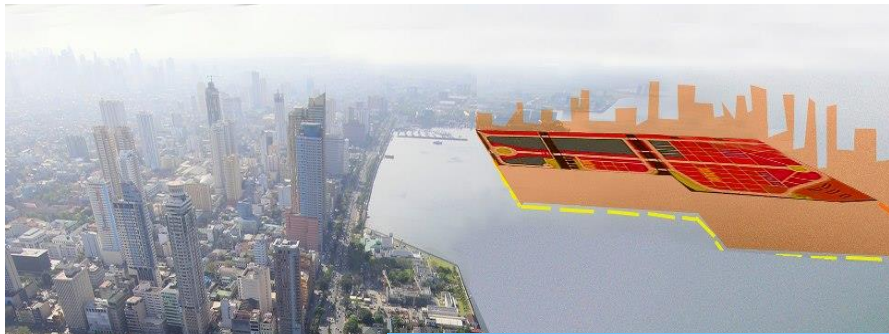




The New Manila Bay City of Pearl, World's Biggest 'Smart City' to Rise in Philippines

Photo credit: Indesignlive

Solar City



RECLAMATION PROJECTS IN MANILA BAY

LEGEND:

BASED ON PRE-CONSTRUCTION DOCUMENTS:

NAVOTAS RECLAMATION PROJECT

PLAN BASED ON MOA BETWEEN PASAY & MANILA:

PASAY / SM 360 RECLAMATION PROJECT

PASAY HARBOUR 265 RECLAMATION PROJECT

MCCRRP NORTH SECTOR RECLAMATION - SOUTH PARCEL / MANILA SOLAR CITY (MGDC)

BASED ON MLA CITY REVISED CONFIGURATION:

MANILA WATERFRONT CITY RECLAMATION

HORIZON MANILA RECLAMATION (JBROS)

NEW MANILA / UAA KINMING RECLAMATION

PLAN BASED ON PRELIMINARY DATA:

MCCRRP NORTH SECTOR RECLAMATION - NORTH PARCEL (ASSERCO)

BRADY'S SMART HARBOR MANILA

BASECO RECLAMATION PROJECT

MANILA HARBOR CENTER 50 HAS.

PARAÑAQUE 300 RECLAMATION (SMPHI)

NOTES:

Filled – Approved Projects

Outline – Proposed Projects

BASED ON SUBMITTED DOCUMENTS

SANGLEY POINT INTERNATIONAL AIRPORT (PROVINCE)

S-ISLAND RECLAMATION BY CENTURY PEAK (PROVINCE)

844 RECLAMATION BY CAVITEX HOLDINGS INC. (PROVINCE)

PP. NO. 88 FOR PHILIPPINE NAVY RECLAMATION

PROPOSED DREDGING AREA BY PHIL. NAVY

LAS PIÑAS – PARAÑAQUE COASTAL BAY PROJECT (ALLTECH)

420 HECTARES RECLAMATION PROJECT (BACODR)

Map from the Philippine Reclamation Authority

MILLION

1

Expected new jobs to be created during the construction of the New Manila International Airport along Manila Bay in Bulacan.



ESTIMATED NEW JOBS

500,000

Generated by Solar City, one of the reclamation projects in Manila Bay



CITIES

17

Metro Manila, Cavite and Central Luzon provinces that drain their waters into the bay



RECLAMATION

43

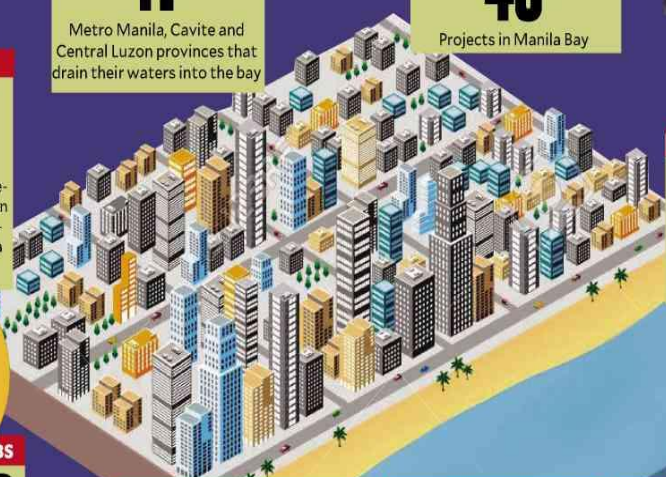
Projects in Manila Bay



INFORMAL SETTLERS

11,600

Living in the vicinity of Manila Bay



KILOMETERS

190

Length of the bay's coastline

HECTARES

194,400

Area of Manila Bay

HECTARES

32,000

Total estimated area covered by the reclamation projects in the Bay



Utopian imaginaries as a barrier to retreat and just transformation

- Create path dependency
- More adaptation dollars in the future

When completed, the Solar City, with its gleaming skyscrapers and world-class amenities, would be **crucial to arresting the rapid deterioration and decay of an old city like Manila**

Mayor of Manila



A new city will fix the old city

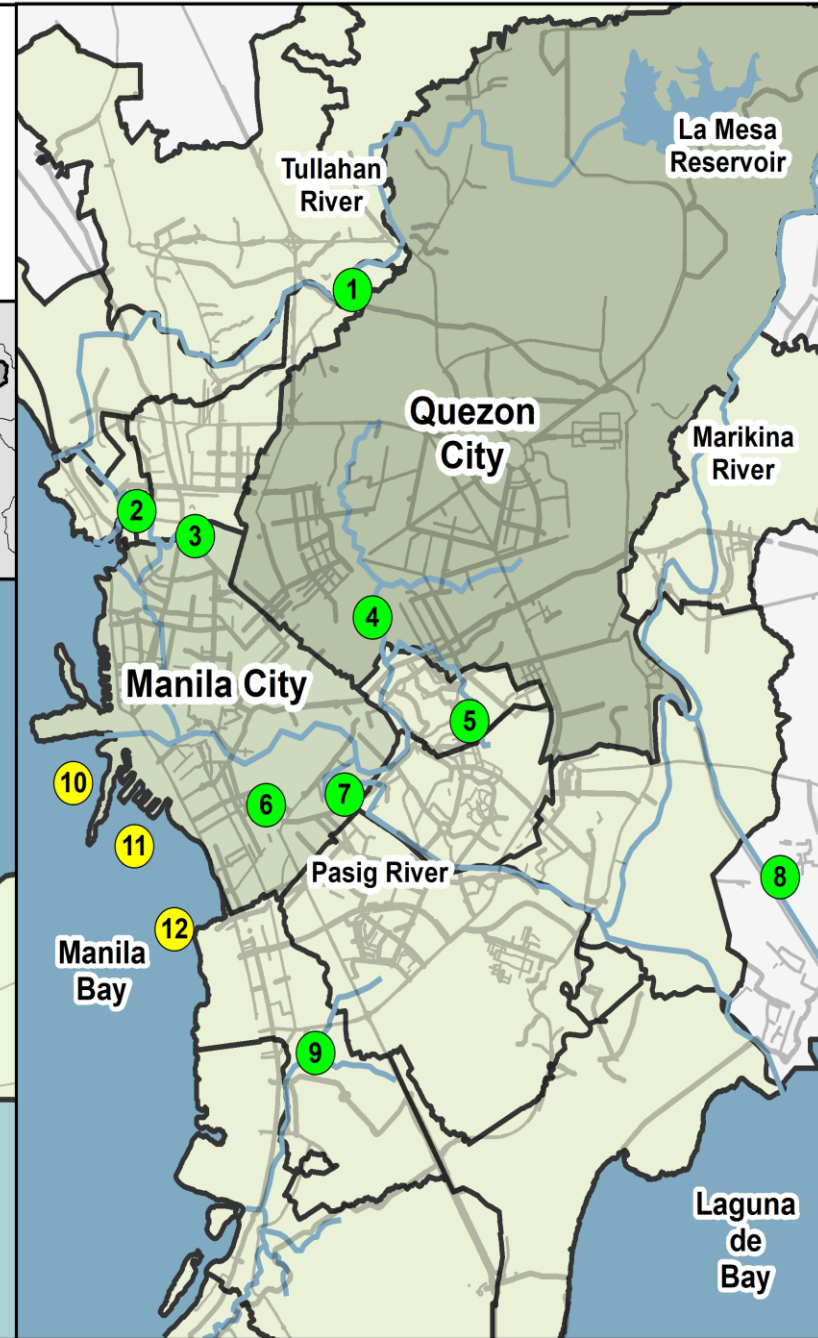
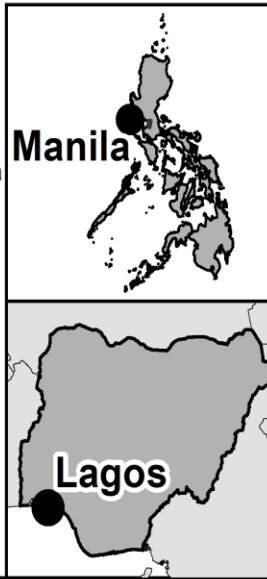
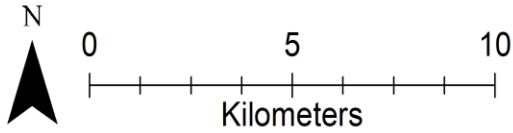
- Planned Retreat
- New Urban Development
- Forced Retreat

Lagos

- 1 Makoko
- 2 Kuramo Beach
- 3 Badia East
- 4 Badia West
- 5 Ilubirin
- 6 Otodo Gbame
- 7 Diamond Island
- 8 Orange Island
- 9 Gracefield Island
- 10 Eko Atlantic City

Manila

- 1 Tullahan River
- 2 Estero de Maypajo
- 3 Sunog Apog
- 4 San Juan River
- 5 Pinaglabanan
- 6 Estero de Paco
- 9 Estero Tripa de Gallina
- 10 Manggahan Floodway
- 11 Maricaban Creek
- 12 City of Pearl
- 13 Horizon Manila
- 14 Solar City



**Climatic uncertainties and reclamation
create a trust deficit on managed retreat**

Conclusion

- Retreat and coastal reclamation are simultaneously happening
- The reconfiguration of waterfront areas is shifting the regimes of rights and opportunities available to different groups
- Who is marginalized through retreat and who is facilitated through investment in “resilience infrastructure”?
- What is required to ensure an environmentally and socially just approach to retreat?

Thank you

**Questions or Comments:
Contact Jola Ajibade at jajibade@pdx.edu**



This research was supported by PSU
(Faculty Development Fund).

Many thanks to research assistants: Arla Fontamilas, Mary David, and study participants in Metro Manila and Lagos; community leaders.