

Aushandlung von Gesundheit im Kontext mega-urbaner Wasserkrisen. Das Beispiel Chennai

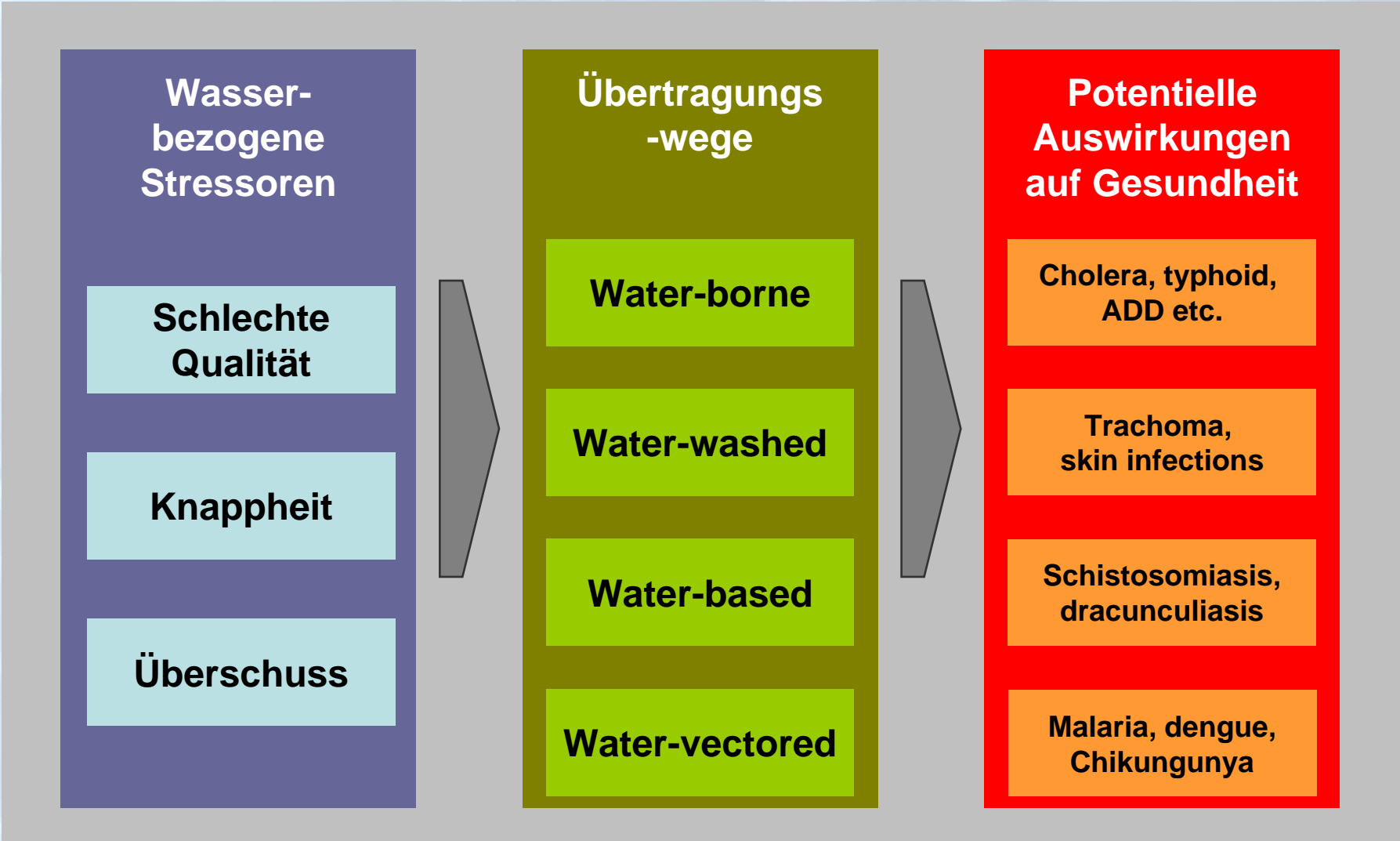
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Warum Wasser und Gesundheit?

WASSER TÖTET

Wasserbezogene Stressoren und die Auswirkungen auf die Gesundheit



Chennai – Eine indische Megastadt



- 4. größte städtische Agglomeration Indiens
- Hauptstadt Tamil Nadus
- Bevölkerung:
 - City: 4.2 Mio.
 - Chennai Metropolitan Area: → 7.5 Mio.
- Mega-City mit fragmentierter Entwicklung

Wasserbezogene Stressoren in Chennai

- Nordostmonsun bestimmend für das Niederschlagsmuster
- Zyklone verursachen schwere Überschwemmungen
- Ausbruch wasserbezogener Krankheiten



Foto: Sayler 2005

Wasserbezogene Stressoren in Chennai

„In the future there will be two ways of dying in Chennai:
Either you have no water, or you drink it“
(Geflügeltes Wort in Chennai; in Nestle 2003: 66)

- Strukturelle Wasserkanppheit
- Hohe Variabilität des Monsuns; Periodische Dürrephasen
- Niedrigste pro Kopf Wasserverfügbarkeit (lpcd) unter allen Metropolen Indiens



Foto: Nestle 2003

Wasserbezogene Stressoren in Chennai

Gemeldete Cholerafälle und Niederschläge in Chennai Corporation Jan 2002 – Dez 2004

THE HINDU

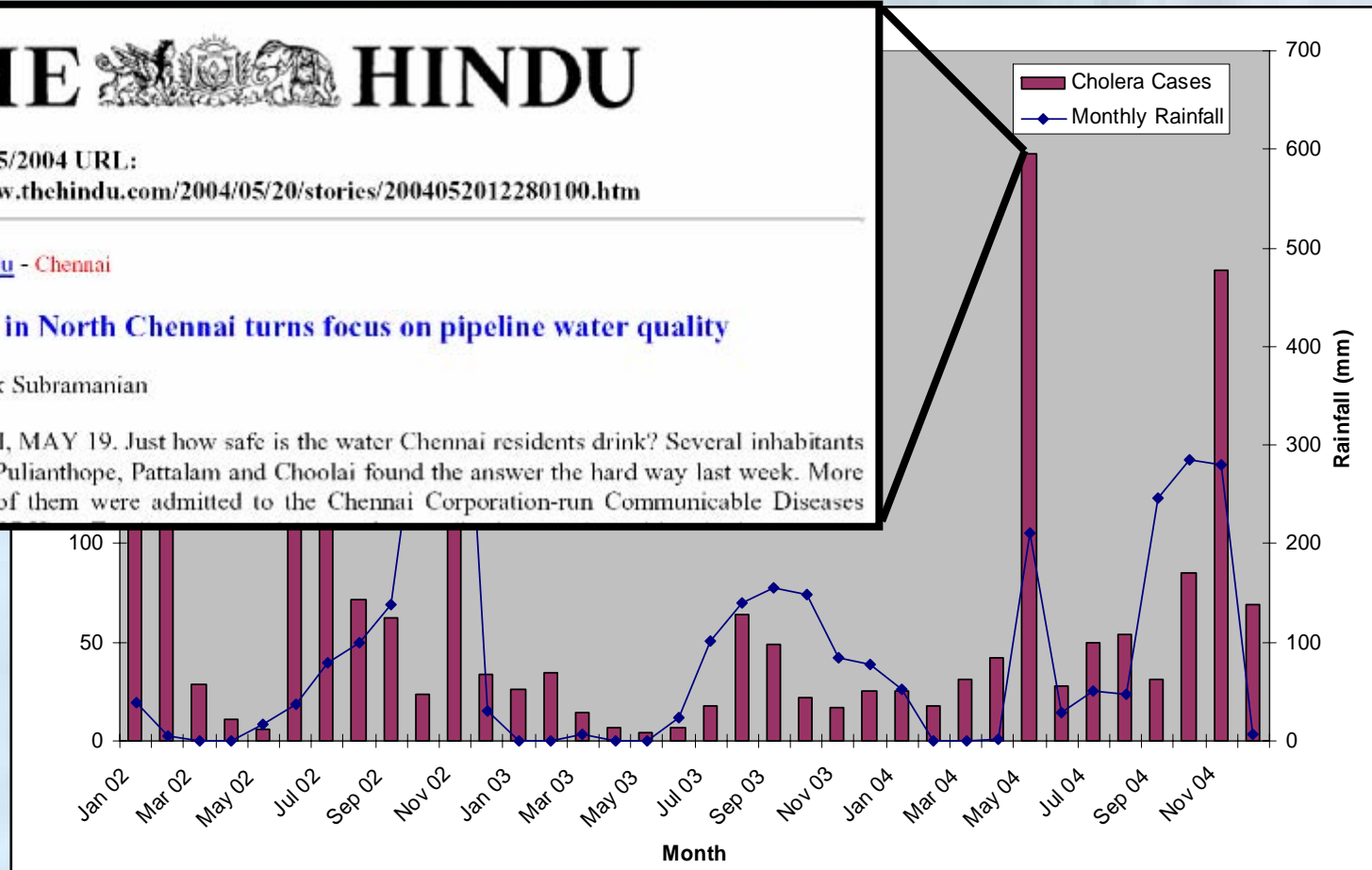
Date: 20/05/2004 URL: <http://www.thehindu.com/2004/05/20/stories/2004052012280100.htm>

[Tamil Nadu - Chennai](#)

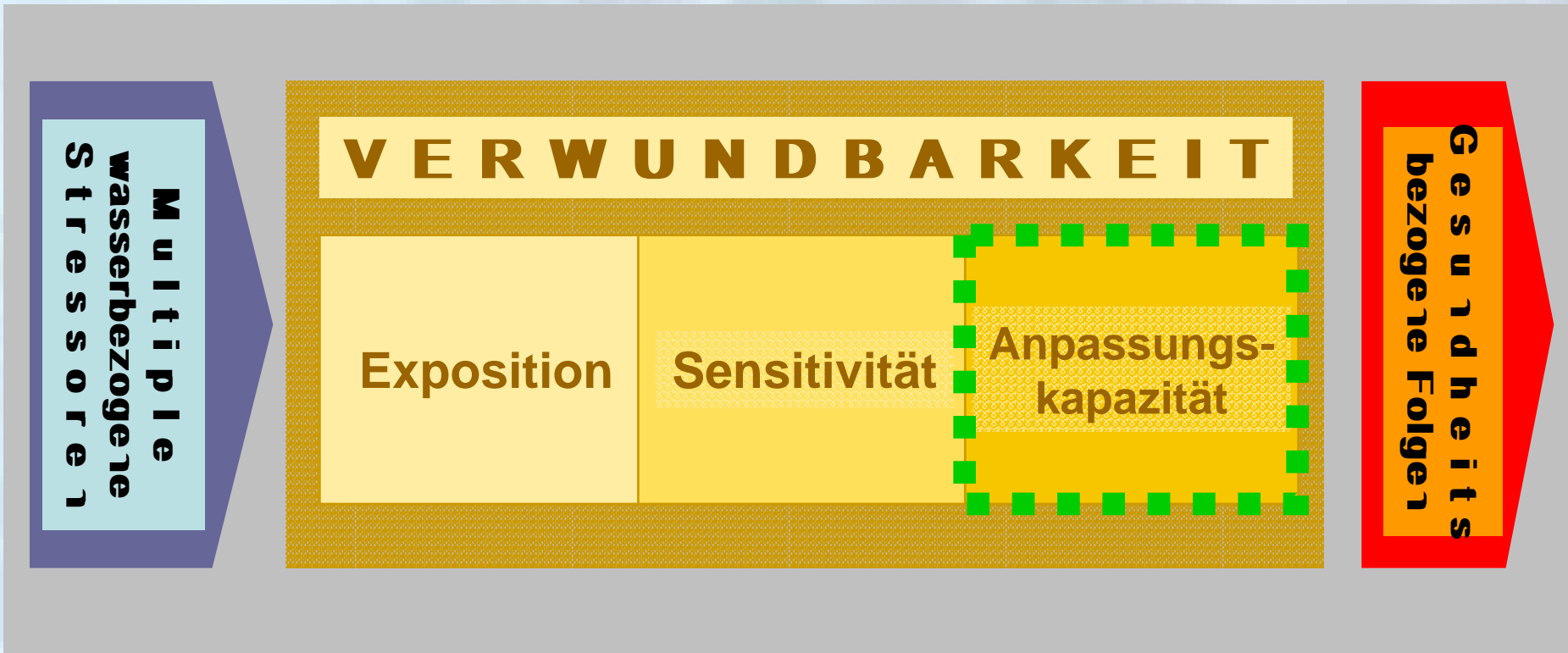
Cholera in North Chennai turns focus on pipeline water quality

By Karthik Subramanian

CHENNAI, MAY 19. Just how safe is the water Chennai residents drink? Several inhabitants of Otteri, Pulianthope, Pattalam and Choolai found the answer the hard way last week. More than 300 of them were admitted to the Chennai Corporation-run Communicable Diseases



Soziale Verwundbarkeit gegenüber wasserbezogenen Gesundheitsrisiken

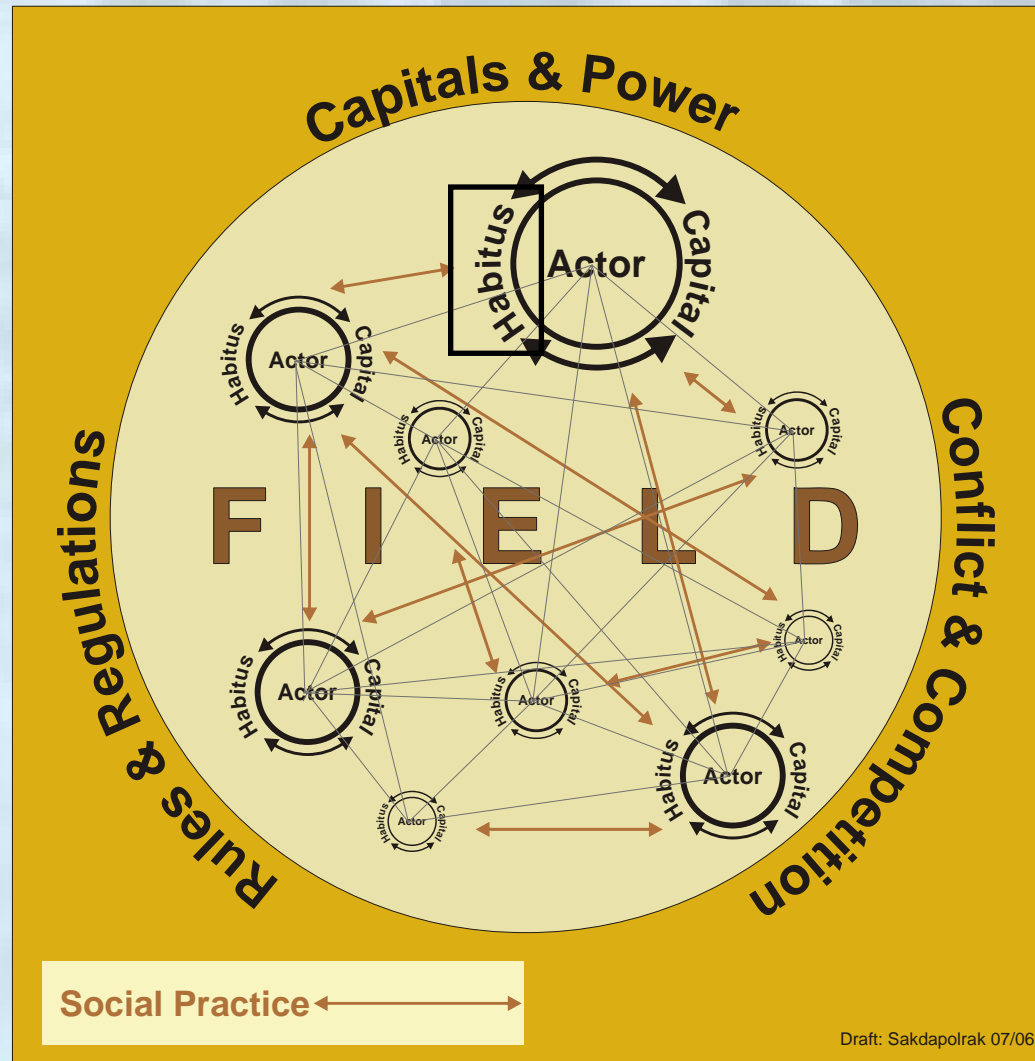


Hin zu einer Theorie der sozialen Verwundbarkeit

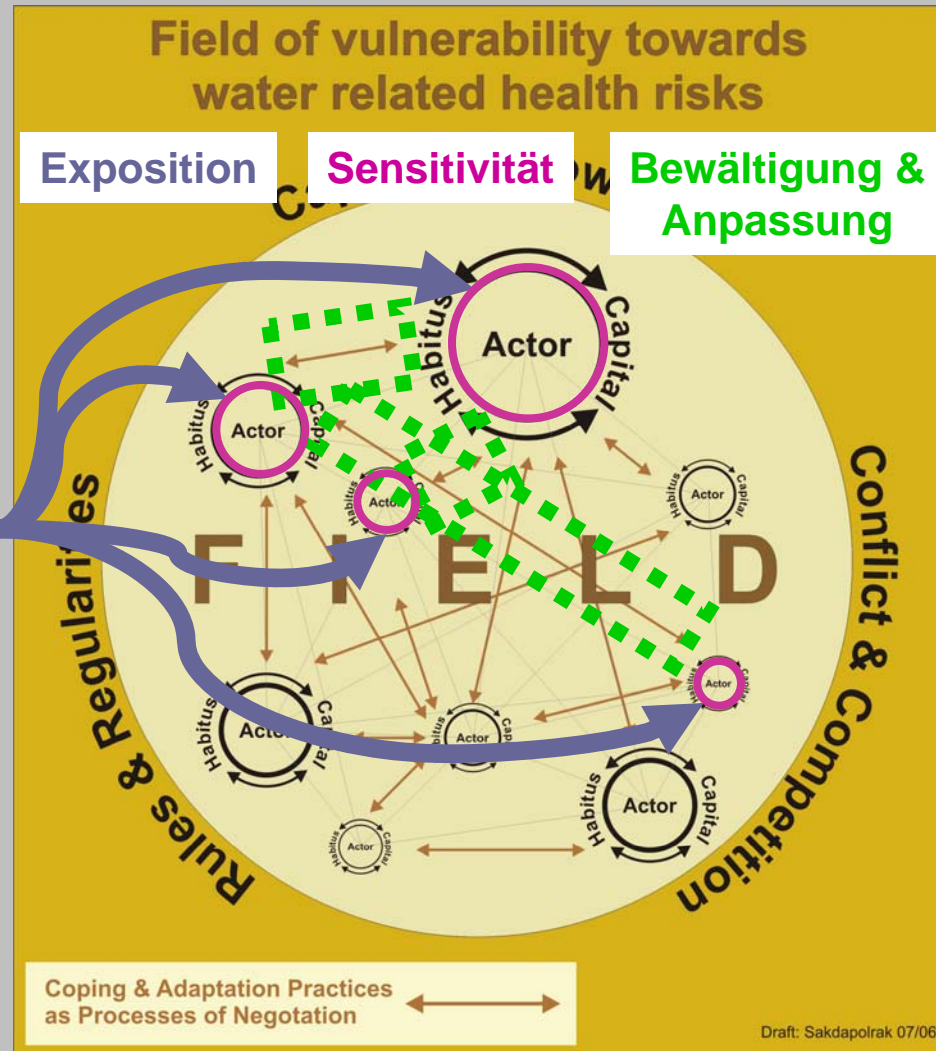
Bohle, Downing & Watts (1994: 39):

„Vulnerability is a multi-layered and multidimensional social space defined by the determinate political, economic, and institutional capabilities of people in specific places and specific times. In this sense, a theory of vulnerability should be capable of mapping the historically and socially specific realms of choice and constraint [...] which determine risk exposure, coping capacity and recovery potential.“

Bourdieu's Auffassung der Gesellschaft



Feld der sozialen Verwundbarkeit



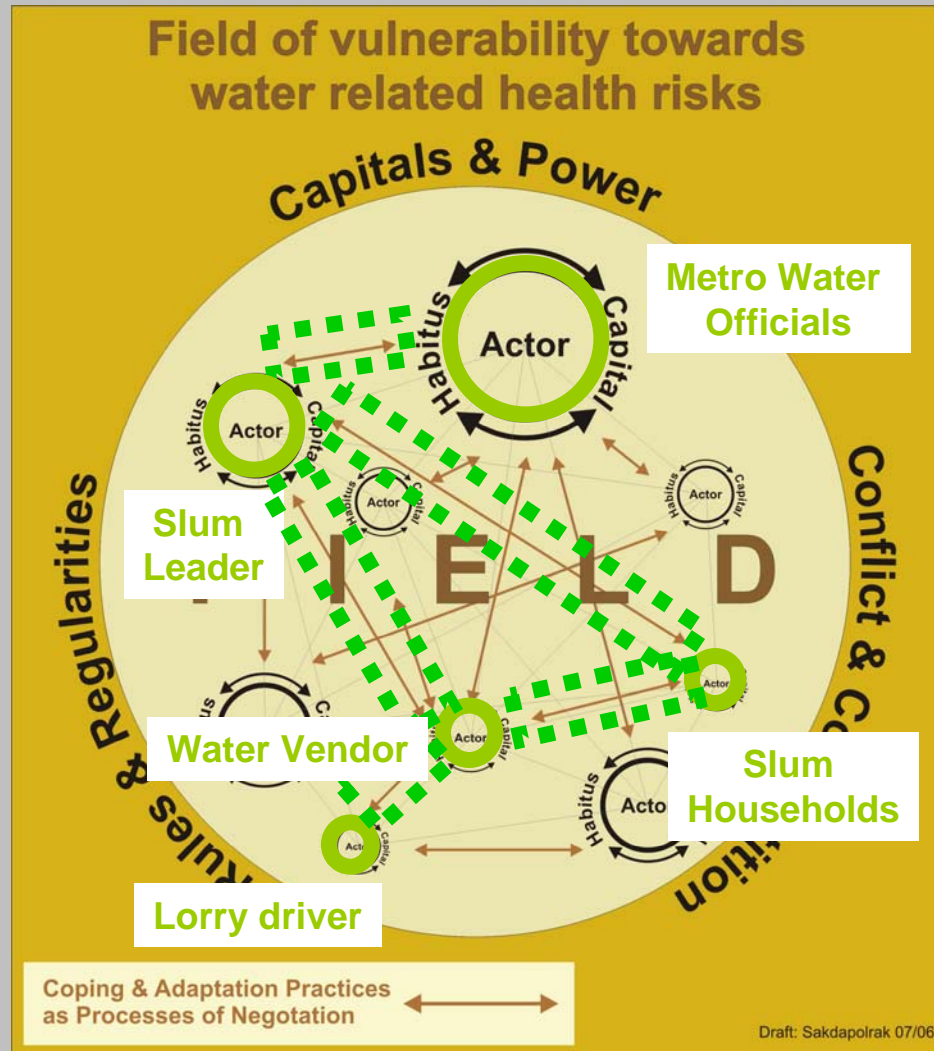
Zugang zu Wasser in New Colony

„Ein duales System“



Ausgehandelter Zugang zu Wasser

Multiple
wasserbezogene
Stressoren



Gesundheits-
bezogene
Folgen

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Patrick Sakdapolrak

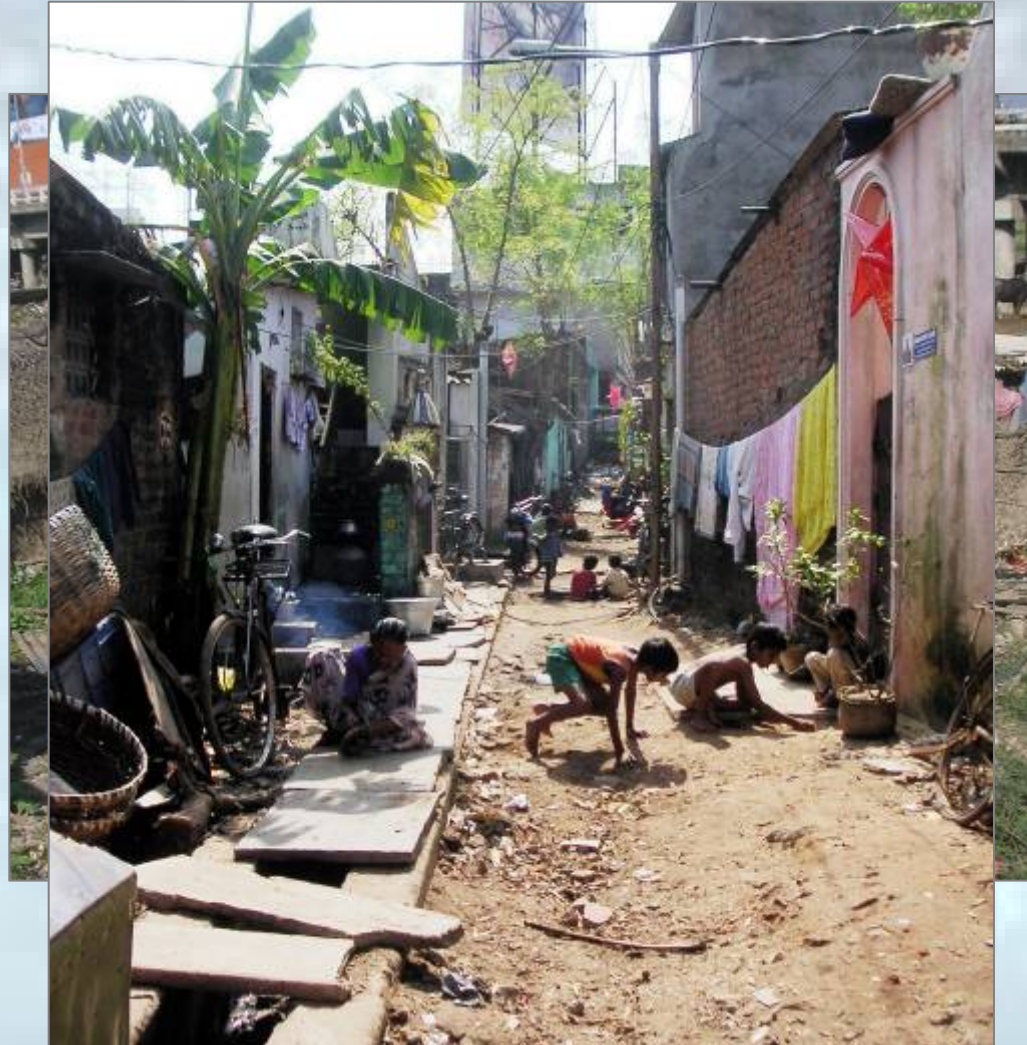
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Study Area: New Colony

- $\frac{1}{4}$ of the of the population living in slums (Census 2001)
- New Colony: a so-called “objectionable” and “undeveloped”

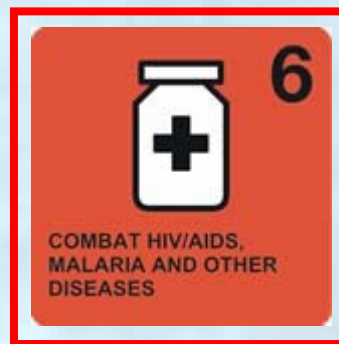


vulnerability literature	treatment of		
	risk	response	outcome
poverty dynamics	0	0	++
asset-based approaches	0	++	0
sustainable livelihoods	+	++	0
food security	+	+	++
disaster management	+	+	++
environmental	++	0	++
sociology/ anthropology	0	++	+
health/ nutrition	0	0	++

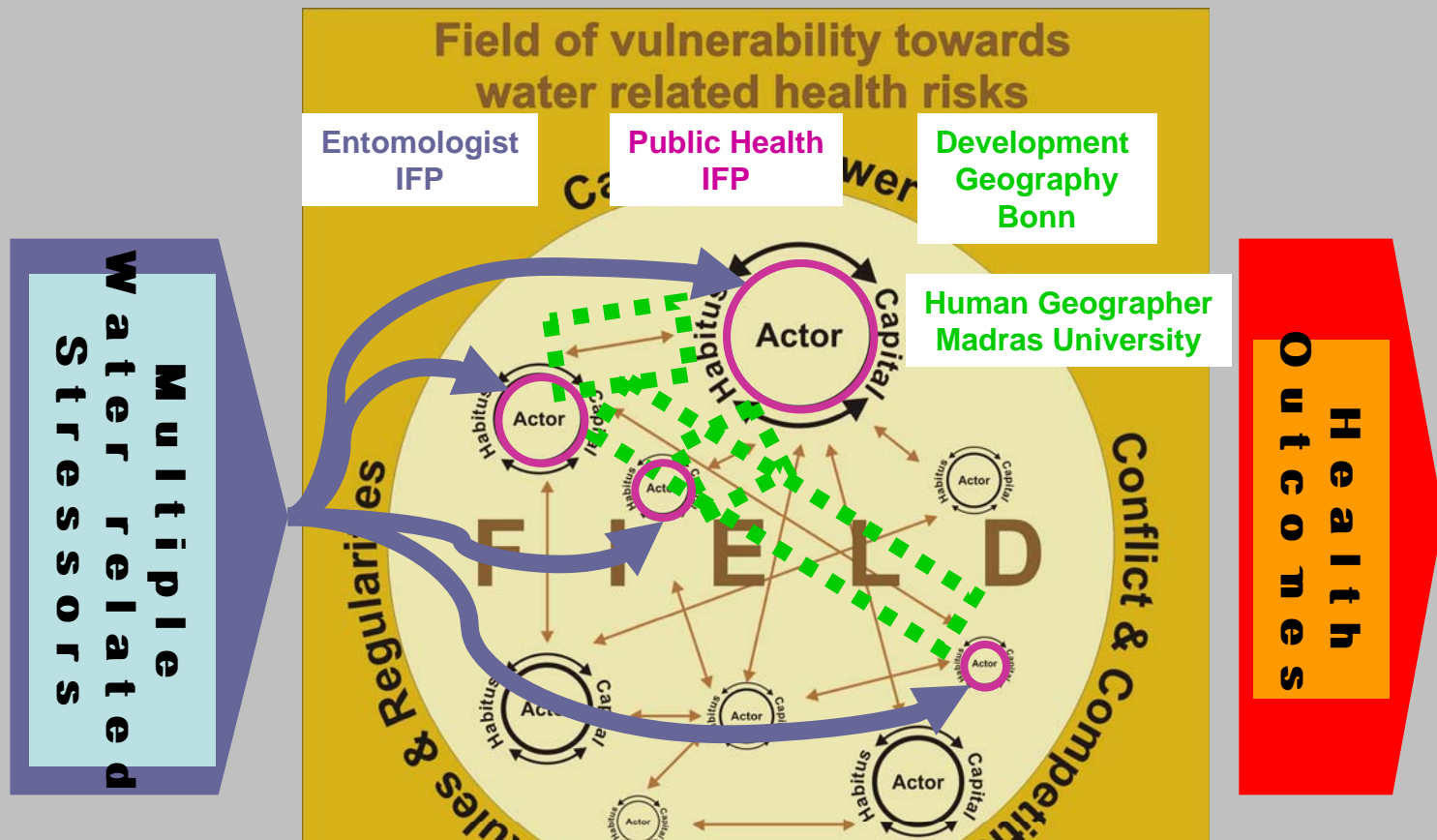
► **Vulnerability:** *how the literature treats risk, response and outcomes*

Health and Development

Millenium Development Goals



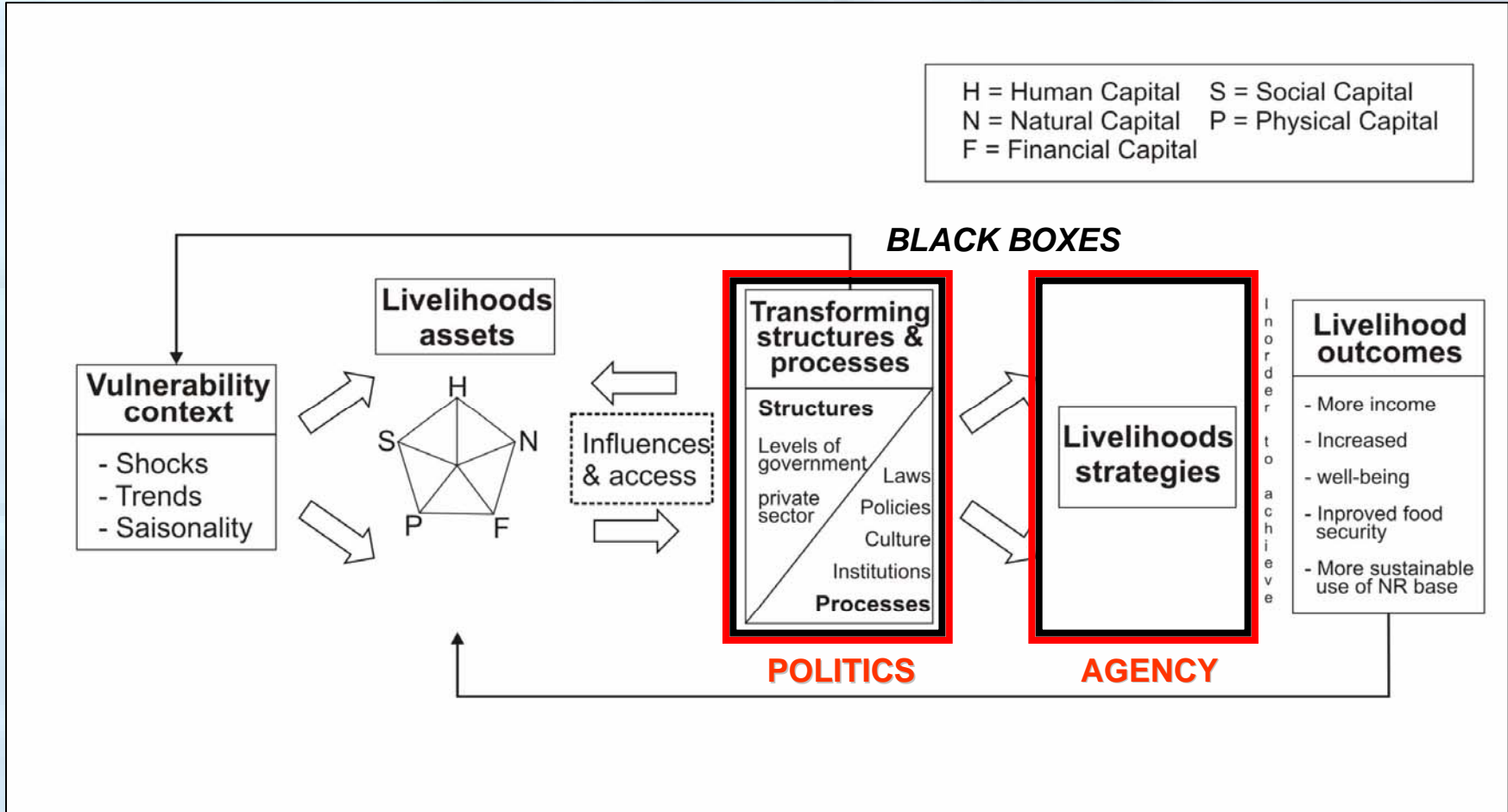
Towards an integrated health vulnerability framework



Need for an integrated and multi-disciplinary approach to decipher the complexity of social vulnerability

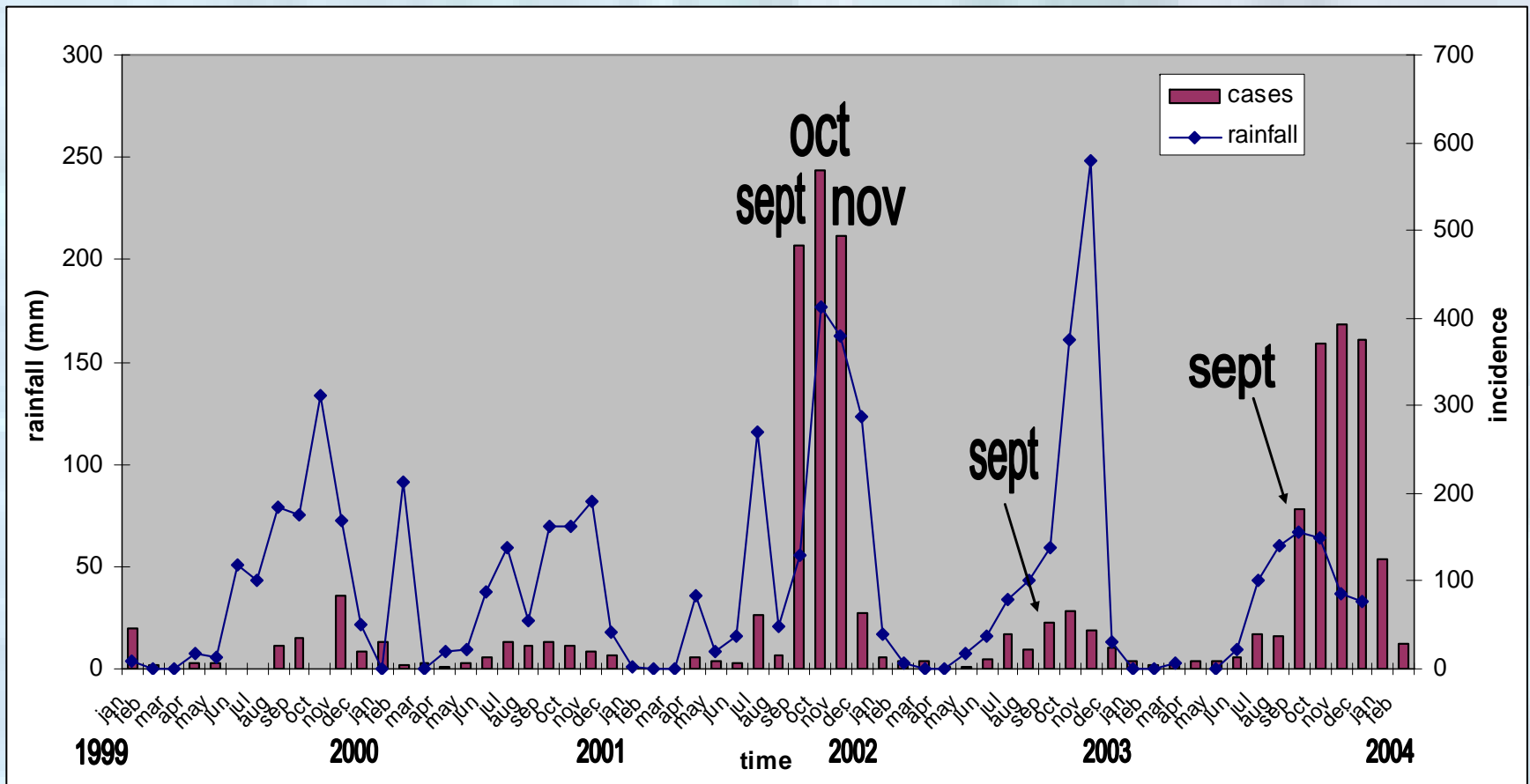
Livelihood Approach

H = Human Capital S = Social Capital
 N = Natural Capital P = Physical Capital
 F = Financial Capital



Water vectored diseases in Chennai

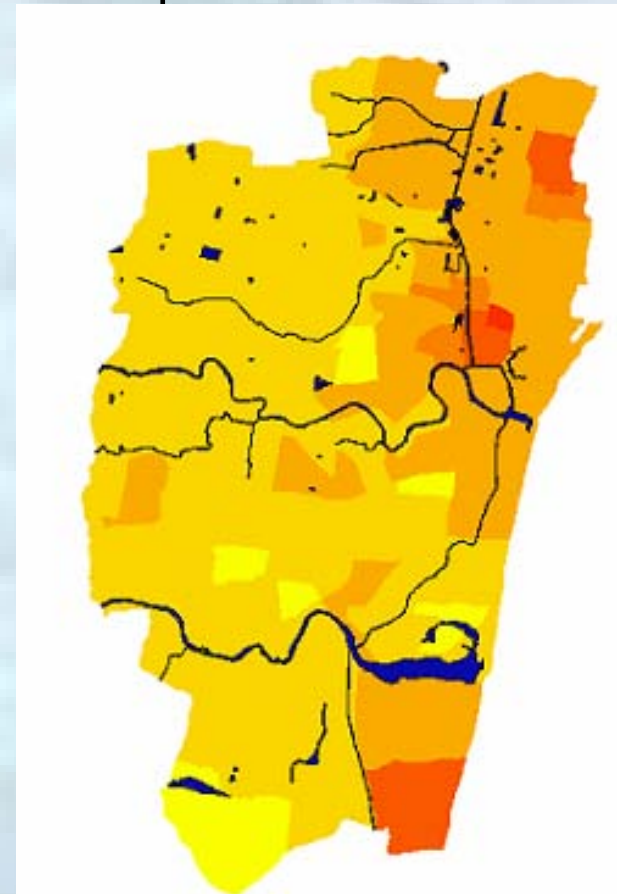
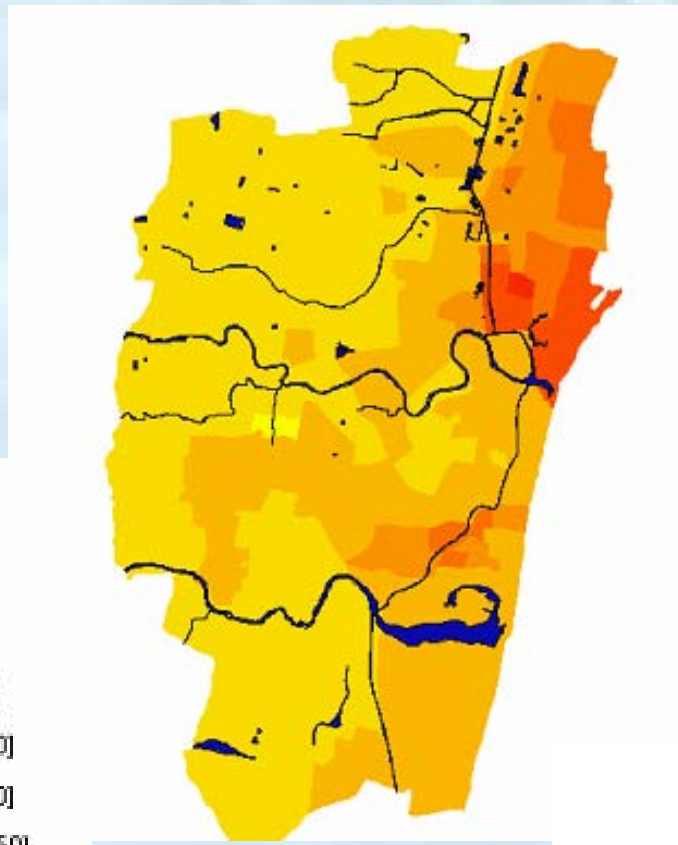
Reported Dengue cases and rainfall within
Chennai Corporation Jan 1999 – Feb 2004



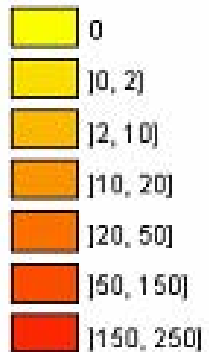
Malaria in Chennai

Annual parasite index (API)
pro Ward - 1995

Annual parasite index (API)
pro Ward - 2004



classes:



Living in New Colony

Problem-Listing

- Unsecure residential status
- Income insecurity
- Food insecurity
- Poor water supply
- Poor Sanitation
- No paved footpath
- No street lighting
- Waste problem

Accomplished on 16/01/06
Jonnu, 28, 6. Standard, Moslem

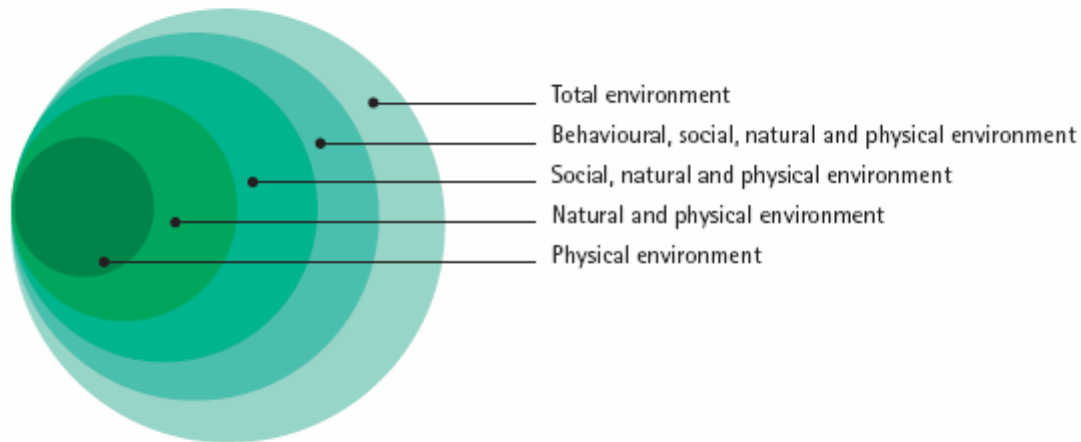


Foto: Sakdapotrak

Water: A matter of Life and Death

- 26% of global diseases are related to environmental factors; approx. $\frac{1}{4}$ are related to water
- More than 2.2 million people die each year from diseases associated with poor water and sanitation conditions
- 6,000 children die every day from diseases that can be prevented by improved water and sanitation

FIGURE 1 DEFINITION OF THE ENVIRONMENT ^a



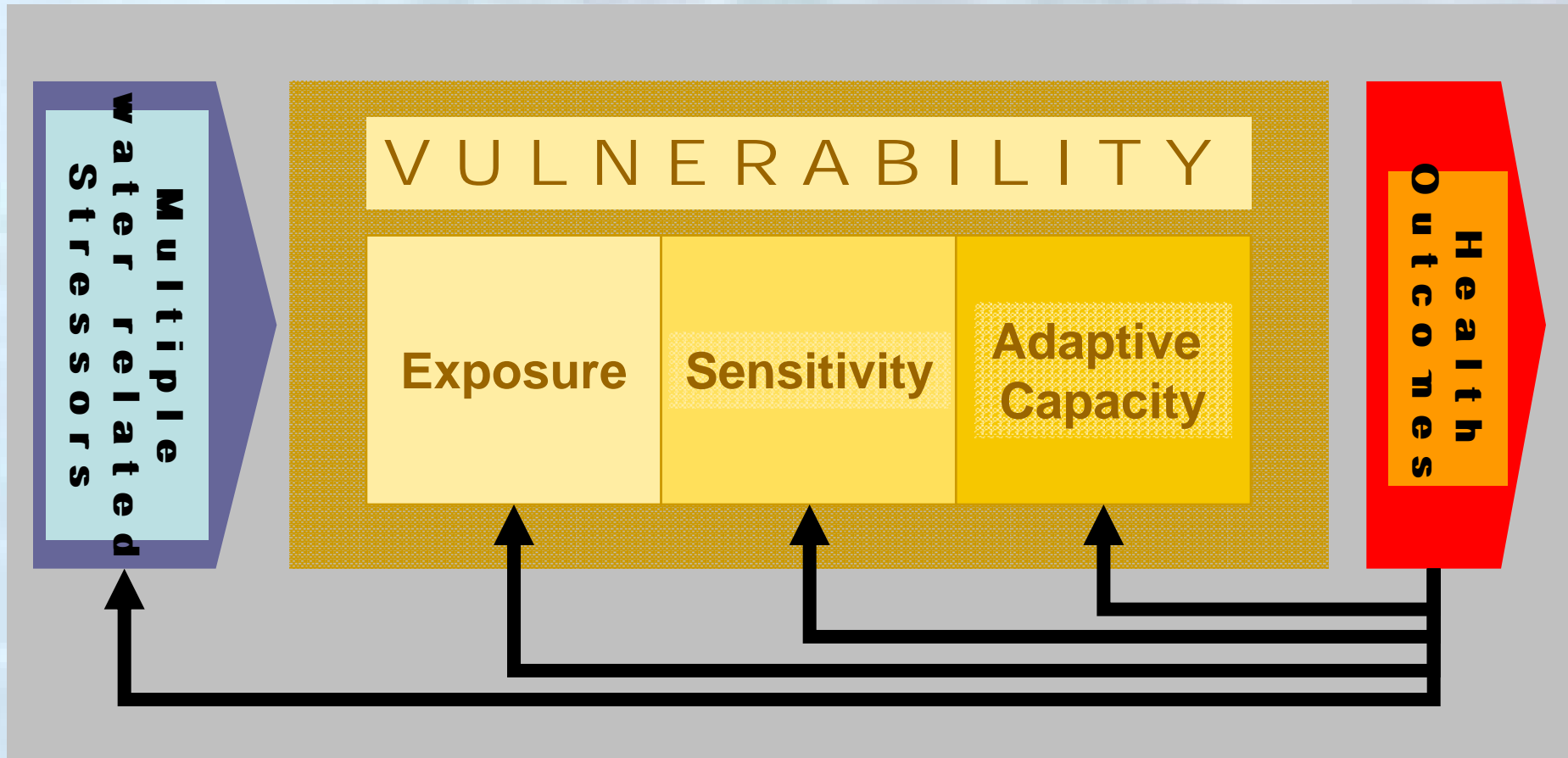
^a (Adapted from Smith, Corvalán and Kjellström, 1999)

"All that which is external to the human host. Can be divided into physical, biological, social, cultural, etc., any or all of which can influence health status of populations ...".

Species of Capital

- Economic Capital
- Cultural Capital
- Social Capital
- Symbolic Capital

Social vulnerability toward water related health risks



Warum Gesundheit?

- Gesundheit als zentraler Aspekt der menschlichen Sicherheit (Commission on Human Security 2003) and Entwicklung (MDGs).
- Gesundheit als Indikator für die Verfassung der sozialen und natürlichen Umwelt (McMichael 2003).
- Gesundheit als „the ultimate cross-cutting issue“ (Krafft et al. 2002).
- Wasser tötet.