

Climate Change, Social Stress and Violent Conflict

Nothing new in the Middle East? – Putting CC into context

everybody loves climate change

the power of discourse

CC is a new discursive topic & a dangerous temptation, a blank sheet & projection screen for almost all interests, approaches, intentions:

CC can be employed for **everything & its exact opposite**:

-technical, managerial and political problems, water policies, ...climate!

-technical agendas: domestic vs. agricultural supply, **desalination** (& energy hikes), **conservation** (& energy savings), wiser water use or **supply increases**, nature protection, ...

-policies: **sharing/securitizing** and politicizing/de-politicizing water, supply/**demand management**, cooperative/unilateral approaches, **hydro-justice/ hydro-apartheid**

→ Question not only: “**which interests served?**”,
but also: “**how should the discourse be re-shaped?**”

1. how real is CC already?

a new hydrological reality?

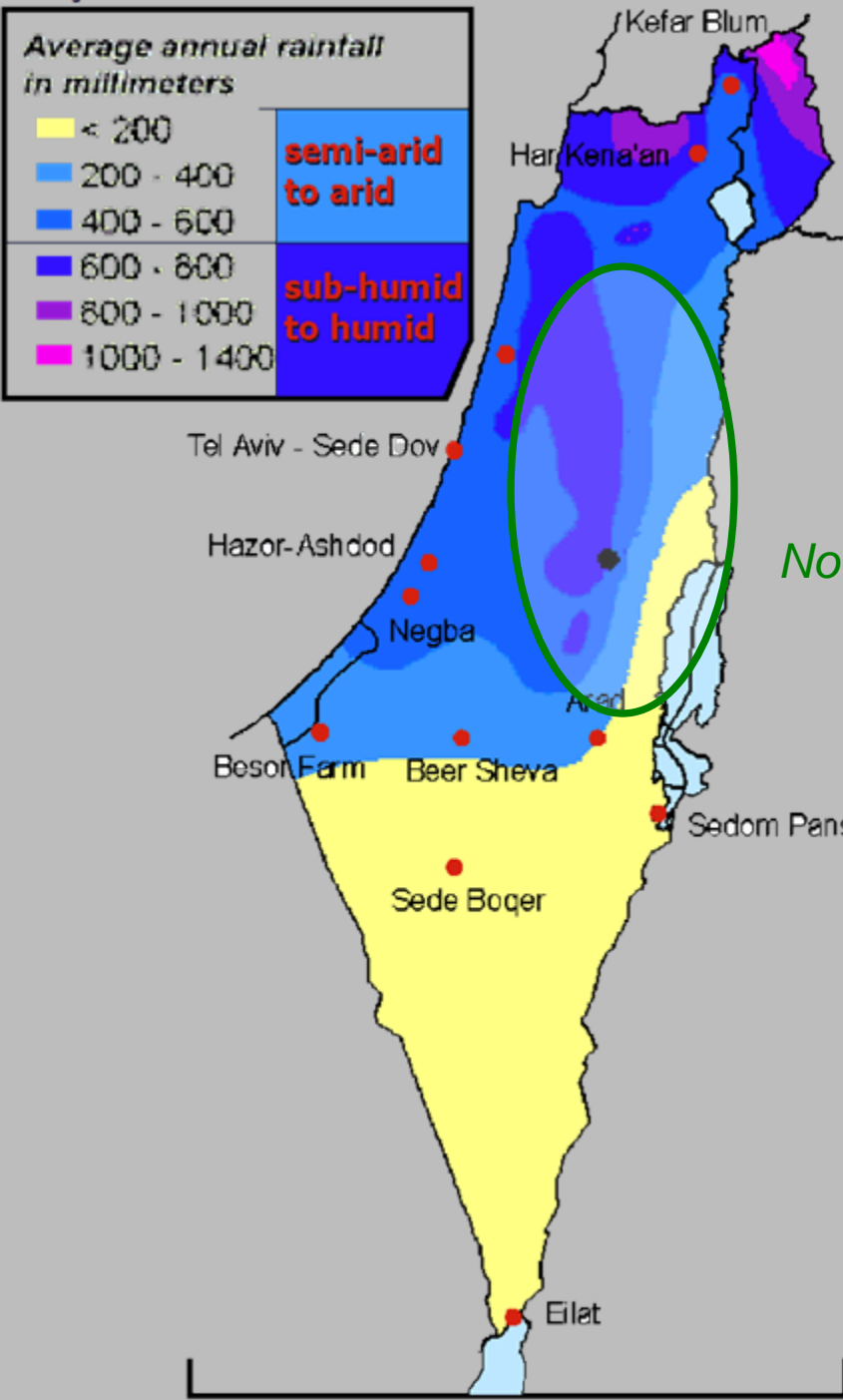
- 1. *"CC - no longer a gloomy projection, but a new hydrological reality with a 5th consecutive year of drought"*

■ Alon Tal, Haaretz 26/5/09

- 2. *"local rainfall remained essentially unchanged in the past 60 years"*

■ Prof. Halfon (Hebrew-U) Haaretz, 11/1/08

only 1 station covers the wetter climate zone



“Israel is warming up and drying out, researchers find”

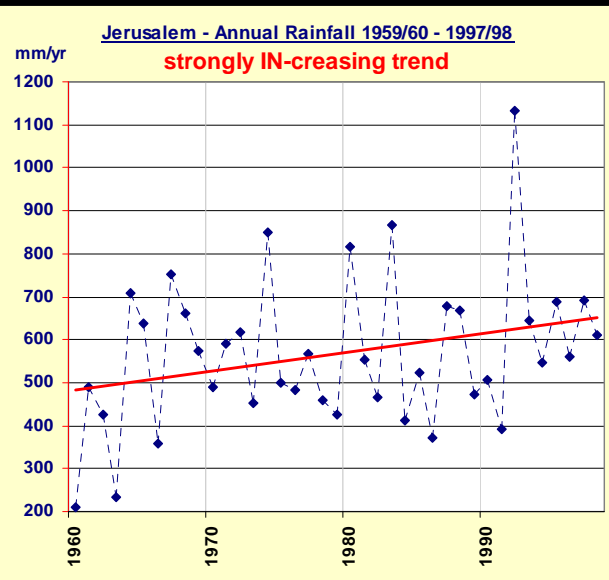
No stations in the West-Bank, nor wetter climates

“results of 12 selected stations (map), presenting all 39 stations would require too much space”

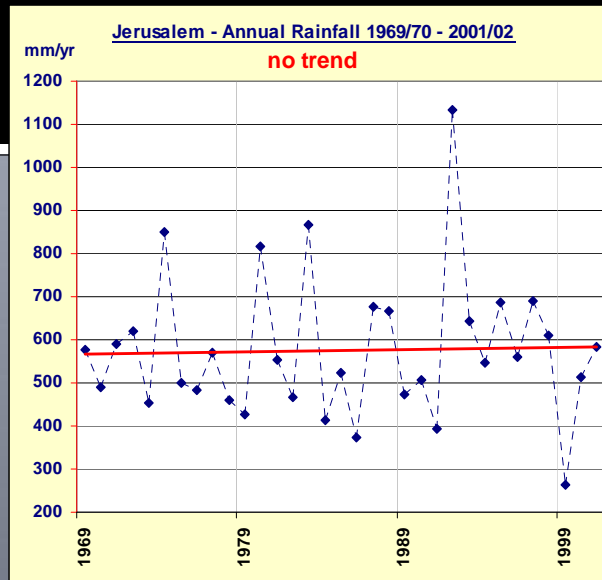
Kafle/Bruins in:

Climatic Change (2009) 96:63–77

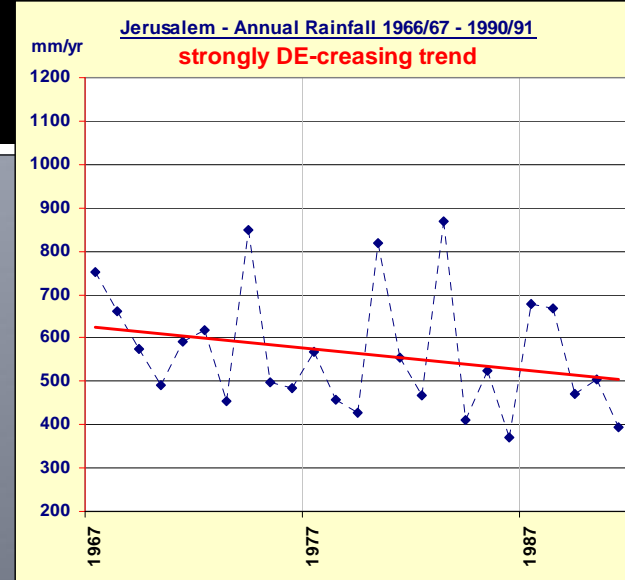
... the 'trends' depend on the years & areas you pick ...



1960-98: Increase



1969- 2002: No trend



1967-91: Decrease

"Congressman, ... the climate change over time is much less significant than the hydrological variability that we have been experiencing, say, in the last 70 years"
Mr. Shamir, Hearing at the House of Representatives (US-Congress), Washington, 5/5/04

2. “natural scarcity”, “reduced availability”

The mantra of supply-side management

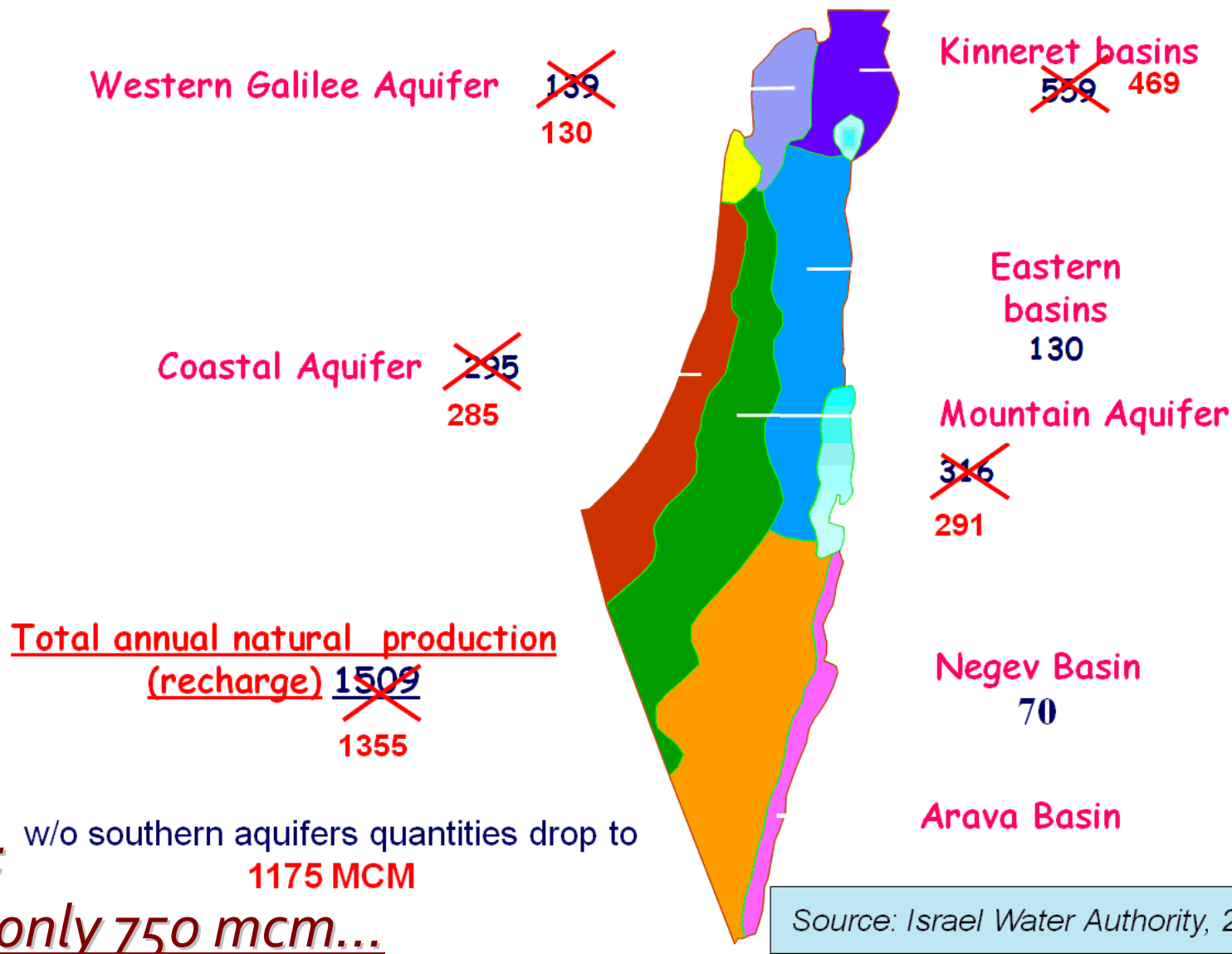
- *Uri Shani (Isr. Water Auth.) explained:
a major reason for Israel's severe water crisis is that the
climate and the region is becoming drier. The refill rate
of aquifers is in decline.*

*In recent years, the average multi-annual refill rate (1,500
mcm), has declined (to 1,370 mcm), and over the past
year (2007/08) was only 750 mcm”*

- *Haaretz, 12/7/08*

constructing ‘scarcity’ as a discourse

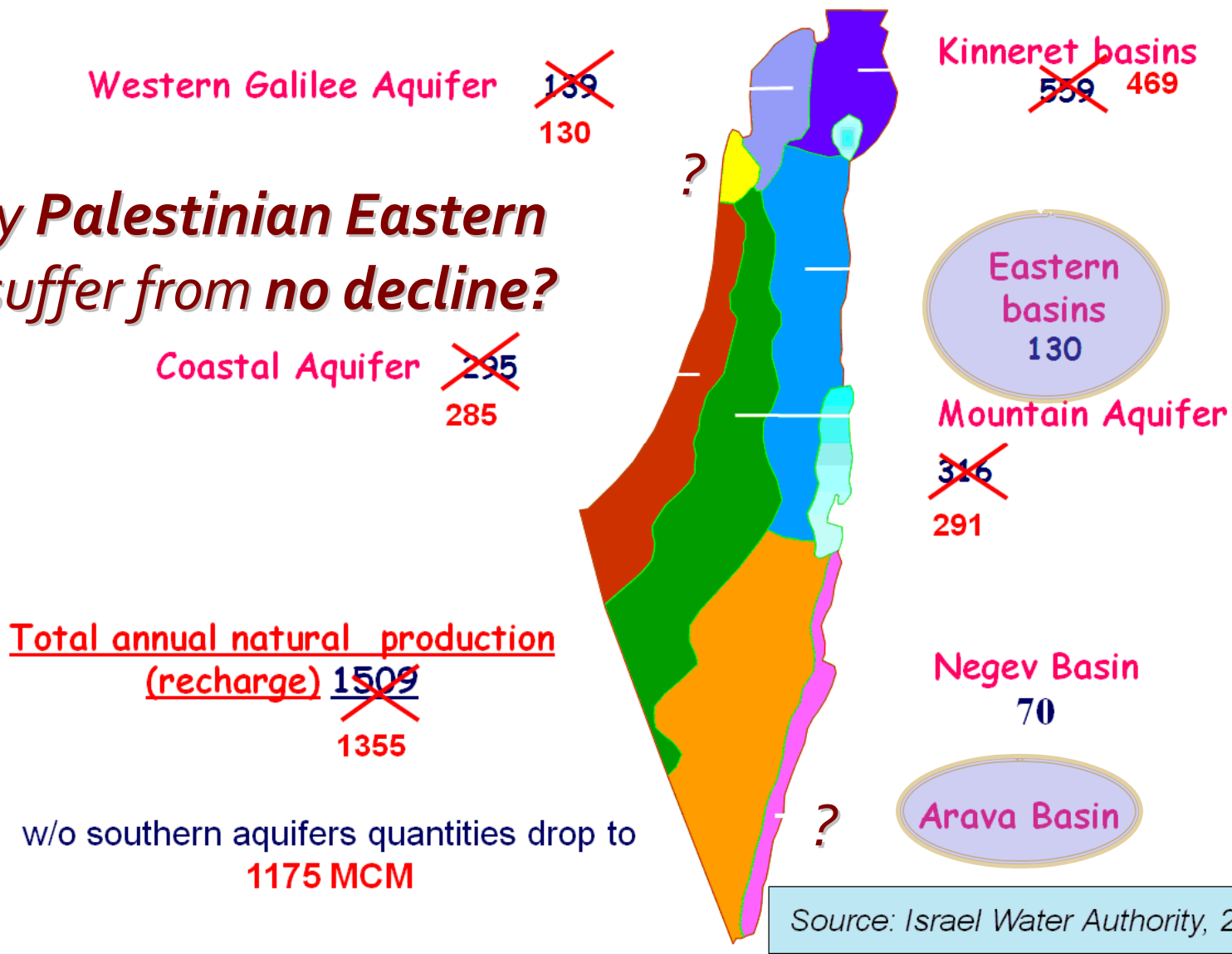
Past and Present Projected Israeli Water Supply (in MCM)



Hydrol. Service of Israel (2008): "Natural recharge" **1659 mcm**

Past and Present Projected Israeli Water Supply (in MCM)

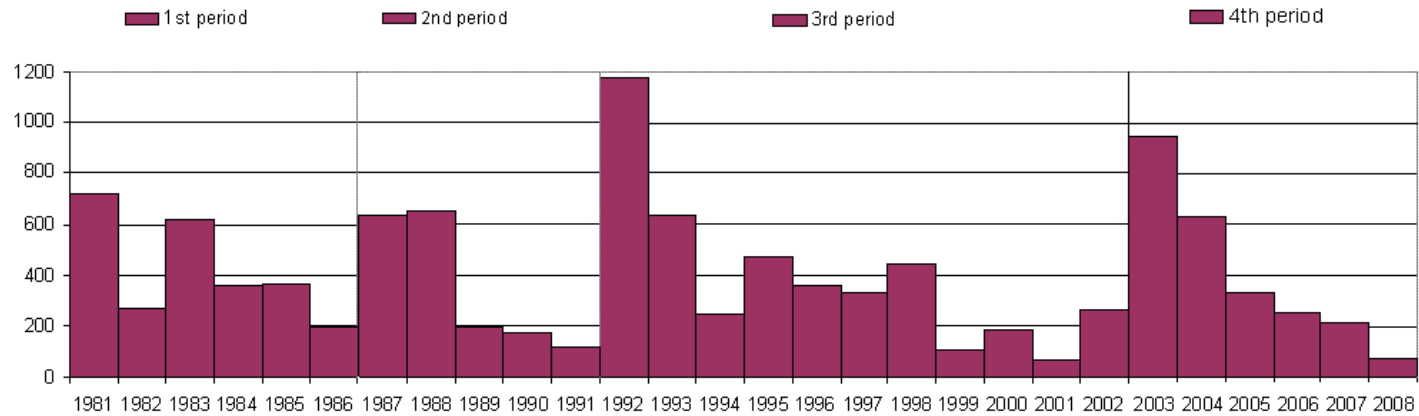
*The largely **Palestinian Eastern Basins** suffer from **no decline**?*



Uri's wonderworld - constructing a discourse

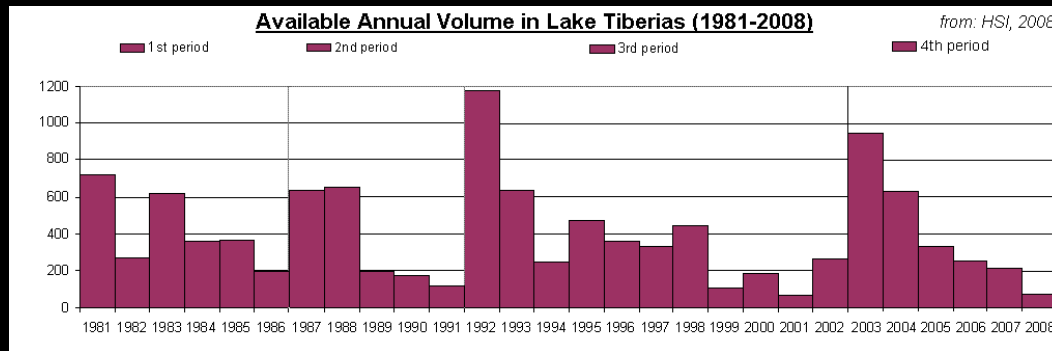
Available Annual Volume in Lake Tiberias (1981-2008)

from: HSI, 2008

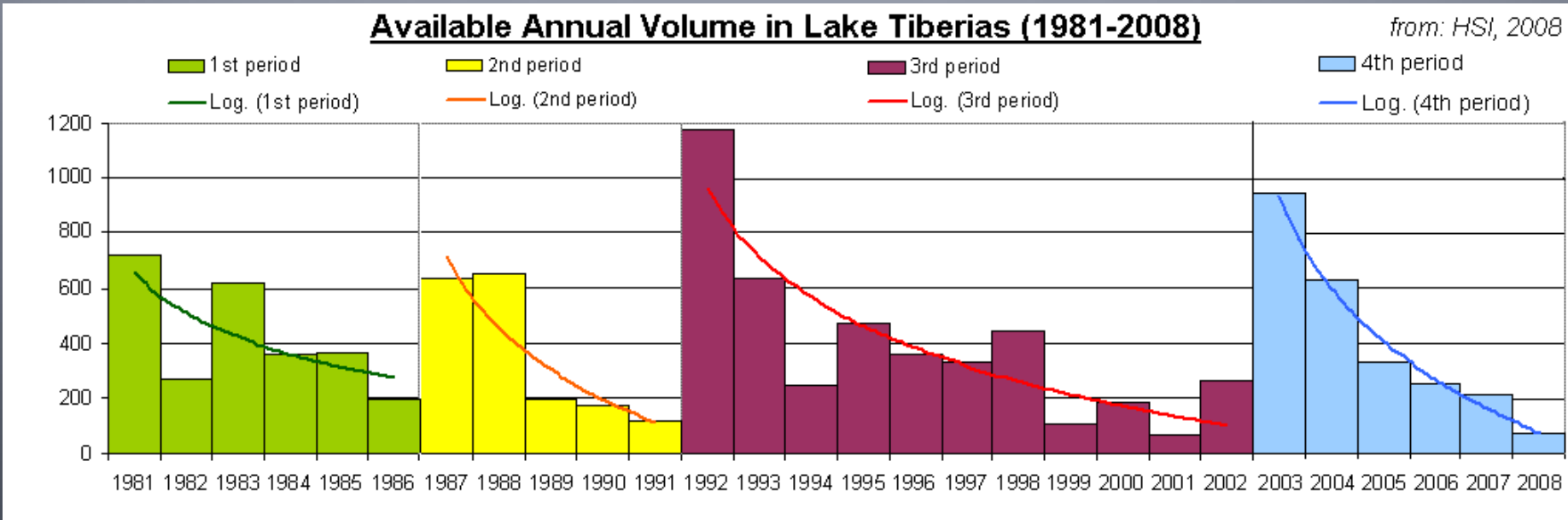


- *"Dr. Rosenfeld (Hebrew-U) emphasized a multiyear downward trend in rainfall in the Lake Kinneret basin : "The annual amount of water reaching Lake Kinneret today has dropped by 100 mcm compared to 40 years ago. There are a number of explanations, and one of them is climate change."*
- *Haaretz, 11/1/08*

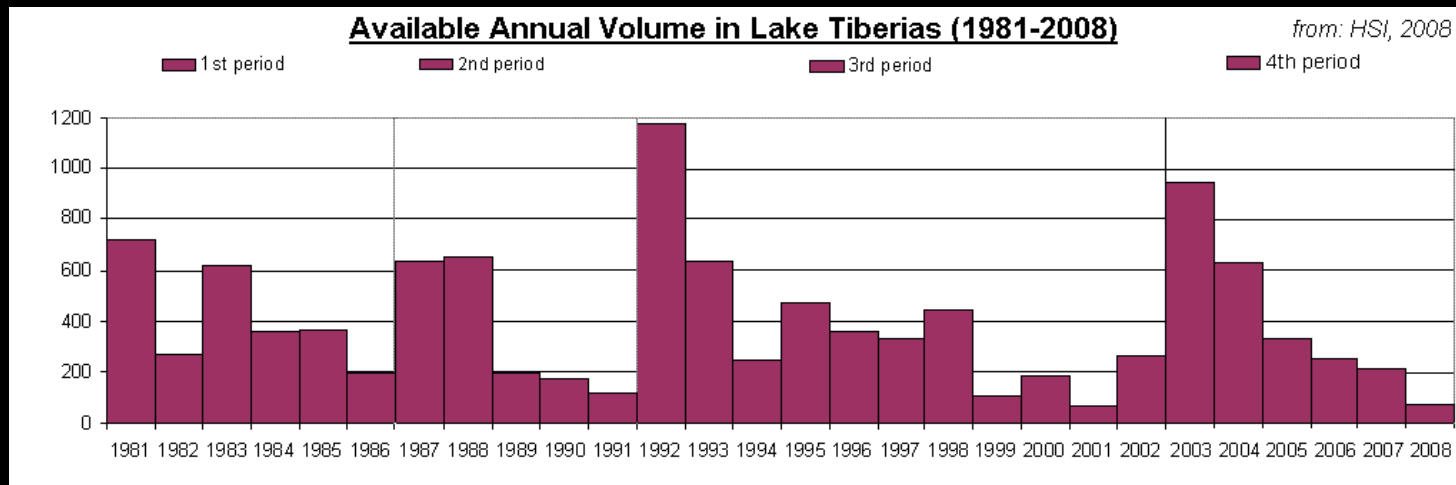
constructing 'scarcity' as a discourse



“downward trend”



Never trust a statistics, you havent forged yourself!



- “Once, the Kinneret was full. Then its water was pumped out at a rate that outstripped its rate of natural replenishment. Years went by. The crisis came. It was all predictable. It’s called unsustainable water management.”*

political discourse – counter to the “scarcity” discourse

2. “natural scarcity” “reduced availability”

The mantra of supply-side management

*“Israel always had a water problem, **never** merely hydrological. out of an **unbalanced development** and settlement policy. enormous quantities of water from the Galilee brought to the coastal plain and the Negev, carefully packaged into oranges and flowers and sent to Europe. The **stupefying waste** immediately created a **false sense of abundance**, and farmers developed a **severe addiction** to the state-subsidized, clear liquid.”*

- *Dan Rabinowitz: “Pipeline Sociology”; Haaretz, 16.Mar, 08*

political discourse – counter to the “scarcity” discourse

2. the supply-side Mantra

despite : “natural scarcity” and “reduced availability”

- *“No serious water professional in the world doubts that a **substantial increase** in local **water supply** is imperative.”*
- *Alon Tal, 26/5/09*

supply-side management discourse

2. the supply-side Mantra

despite : “natural scarcity” and “reduced availability”

- *“No serious water professional in the world doubts that a **substantial increase** in local **water supply** is imperative.”*

- *Alon Tal, 26/5/09*

- → **large-scale desalination**

supply-side management discourse

3. measurable impacts...

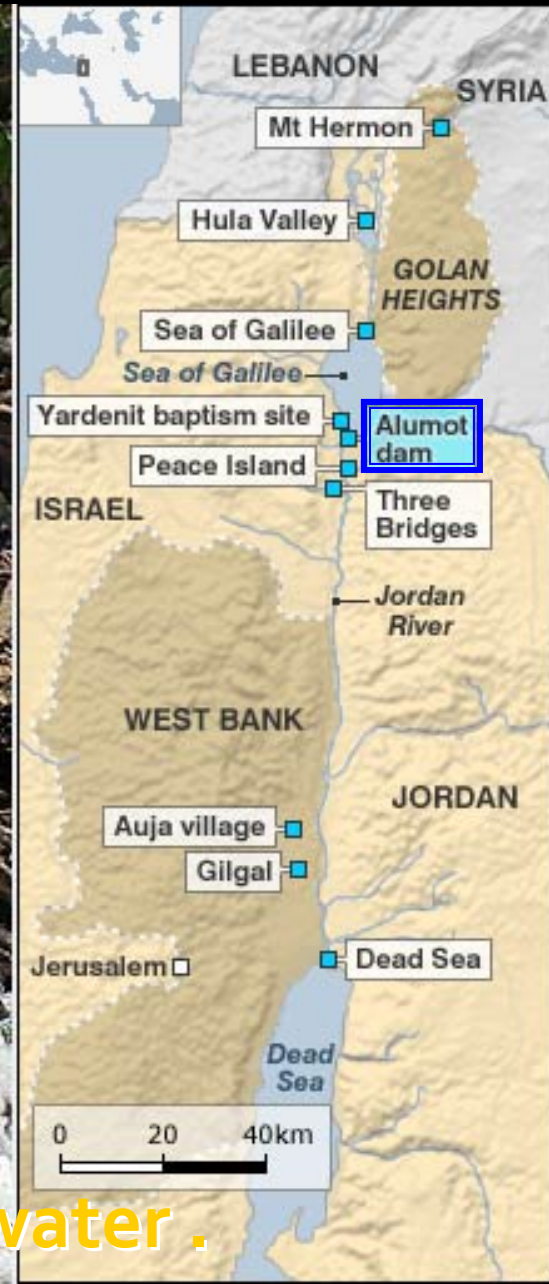
Climate Change or mis-management?

- *Lake Tiberias level* → **black line**
- *Water levels in aquifers* → **red line**
- *Dead Sea level* → **1 metre per year**

- *some examples that would really affect Palestinians:
[salinities in Gaza (95%), rainfed agriculture (94%), cisterns (0.4%), local spring supply, ...]*

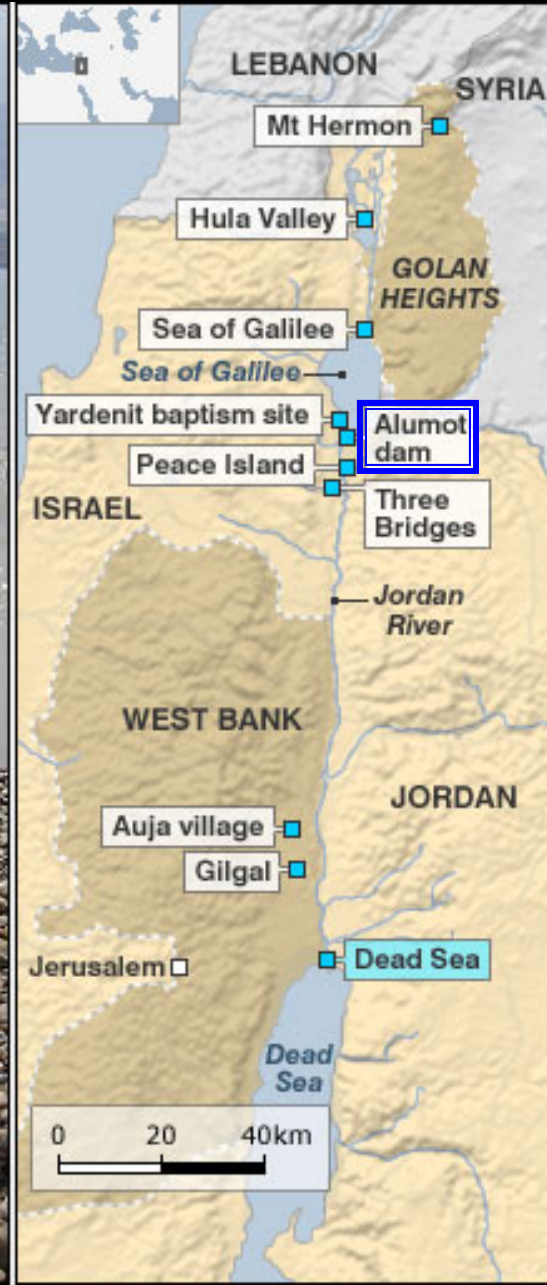
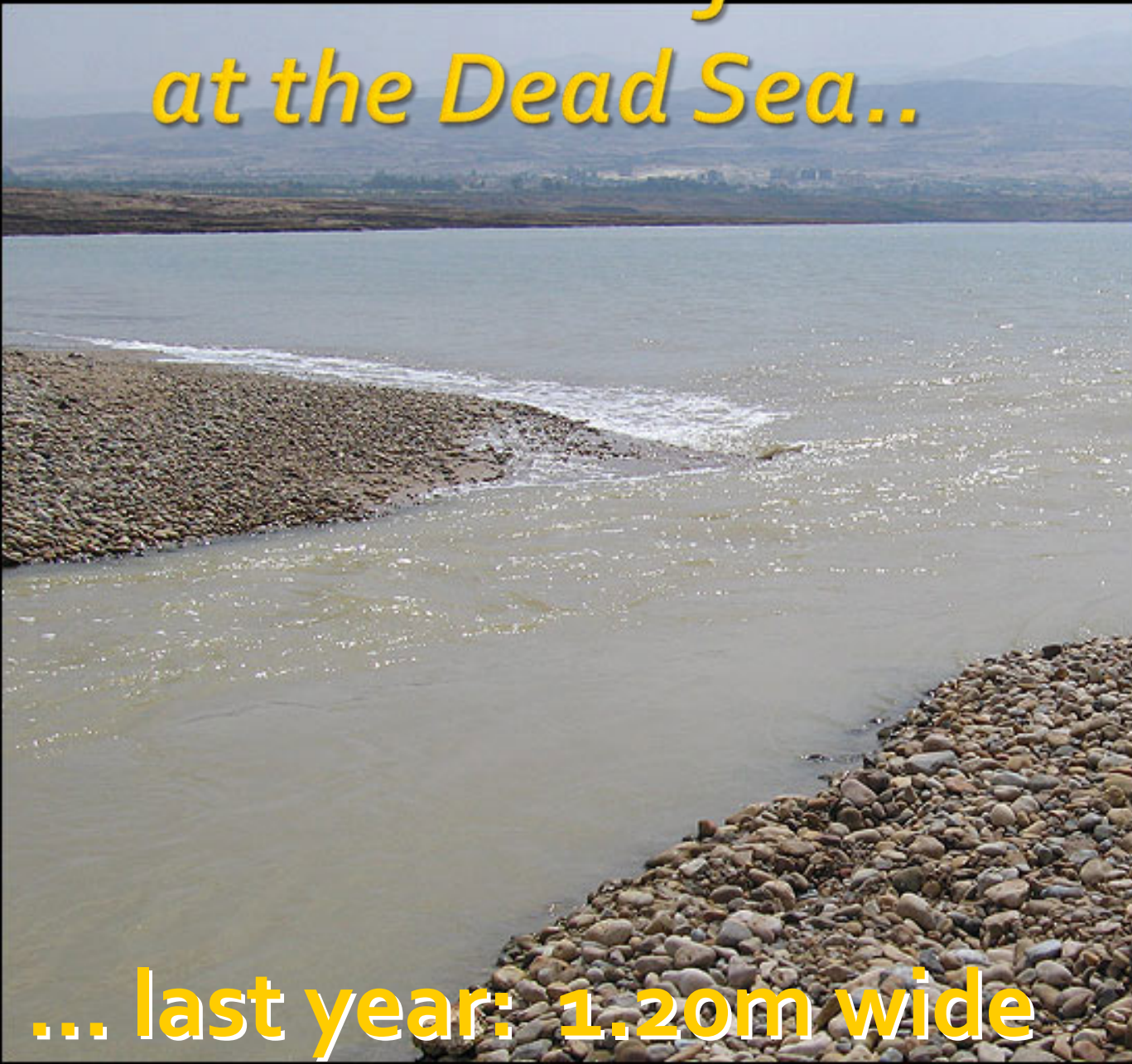
a check on the 'increased scarcity' discourse

this is the Lower Jordan River at Dagania/Alumot...



... 2 pipes with raw sewage and saline water .

the mouth of the Jordan River at the Dead Sea..



... last year: 1.20m wide

4. which interests served?

"urgent politicization"

- *"13 years [of Oslo] have passed, the [Palestinian] population has grown, yet no additional allocations have been permitted"*
- *"water negotiations are still controlled by Israelis who are stuck in a mind-set of continued occupation"*
- *G.Baskin (IPCRI): J-Post 8/12/08*

...openly political discourses

4. which interests served?

"urgent politicization"

- *"people laughed uproariously at the need to reduce the demand for water. Instead, the supply was increased [and] continues to climb by ~4%/yr."*
- *Only the Palestinians experienced water shortages ...* -->
- *Dan Rabinowitz, 16/3/08*

demand reduction discourse

4. which interests served?

“urgent politicization”

- - -> *Those [Palestinians] who are Israeli citizens have for years received **tiny and inequable** water quotas for farming;*
- *those living in the **territories** have experienced **genuine, life-threatening water shortages.**” [50 l/c/d]*

- *Dan Rabinowitz, 16/3/08*

water-sharing & hydro-justice discourse

4. which interests served?

"urgent politicization"

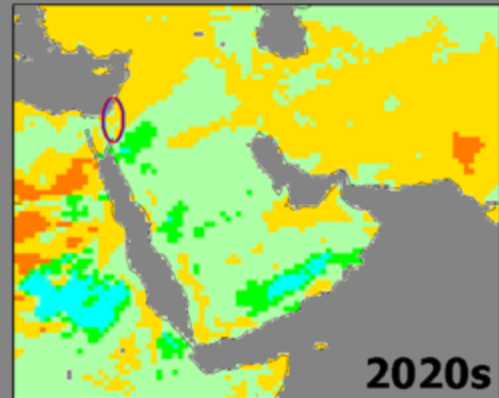
- *"the narrow interests of the farming lobby, (to protect rural water subsidies and freshwater allocations)*
- *not to mention the **even narrower interests** of private-sector companies that make windfall profits from rapidly **expanded desalination***
(Bromberg, 10/10/08)
- *the country's water and electricity economies require urgent politicization"*
- *Dan Rabinowitz, 16/3/08*

...openly social & political discourse

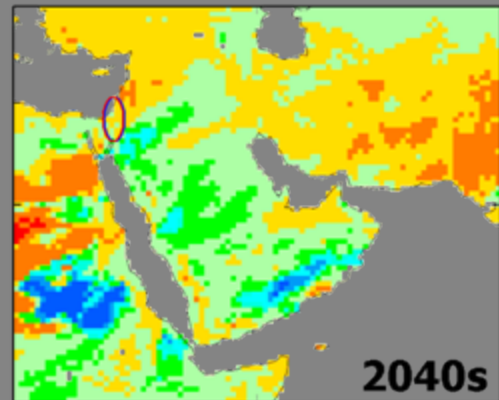
Dec to Feb

20-25% decrease in rainfall by 2070

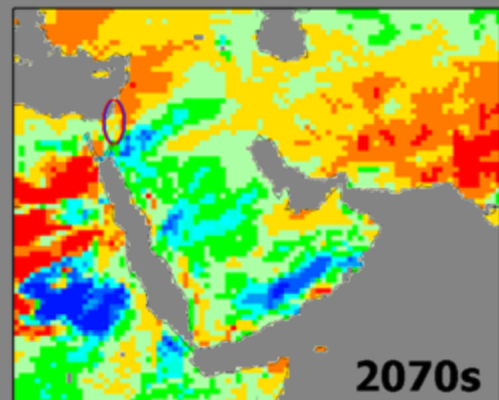
Precipitation change (% , 2071-2100 minus 1961-1990),
MGME ensemble average, A1B scenario



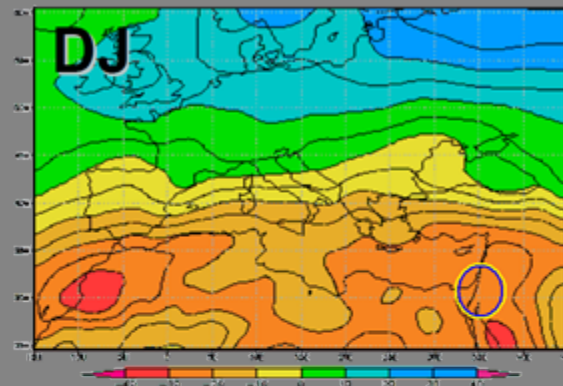
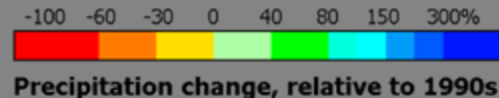
2020s



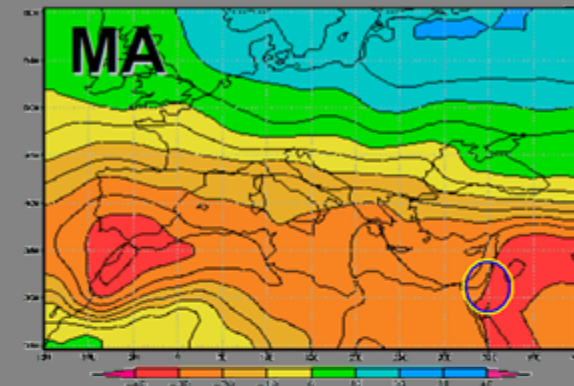
2040s



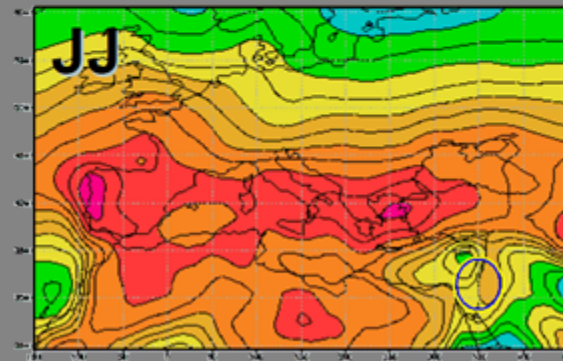
2070s



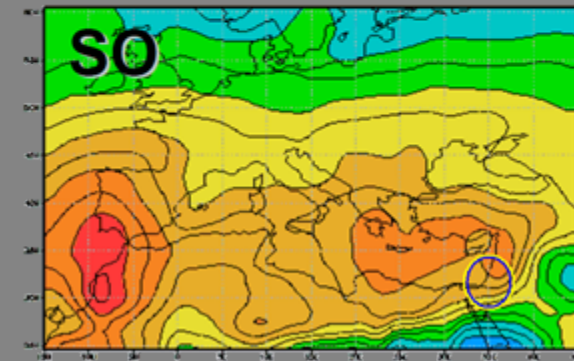
DJ



MA



JJ



SO

Abbildung 1: Ensemblesimulation zukünftiger Niederschläge, Mittelwerte von 17 globalen Klimamodellen

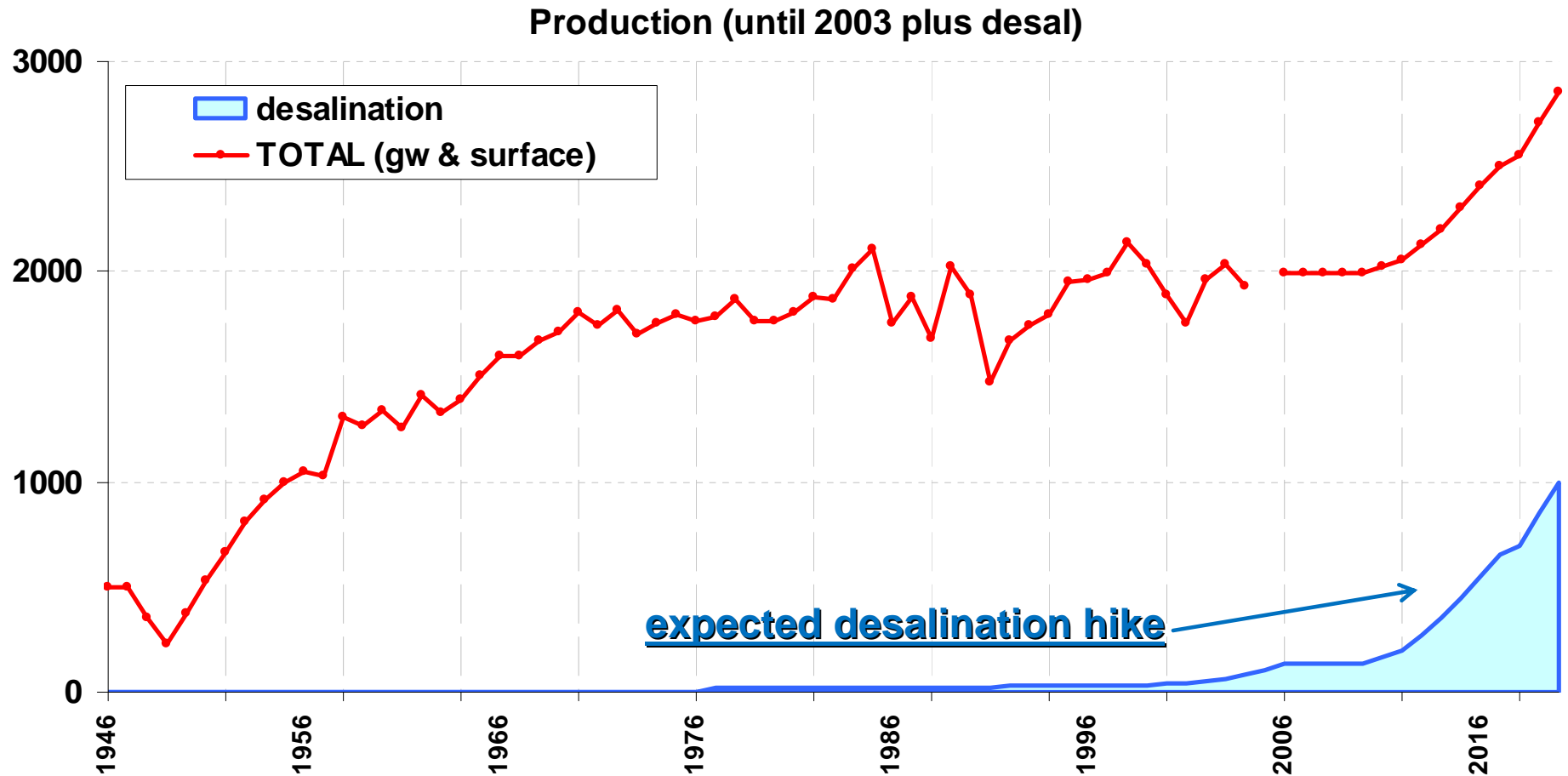
sch

Hoff (2008)

Hemming (2007)

6.a) impact on Israeli

over-compensation through desalination (supply-side management)

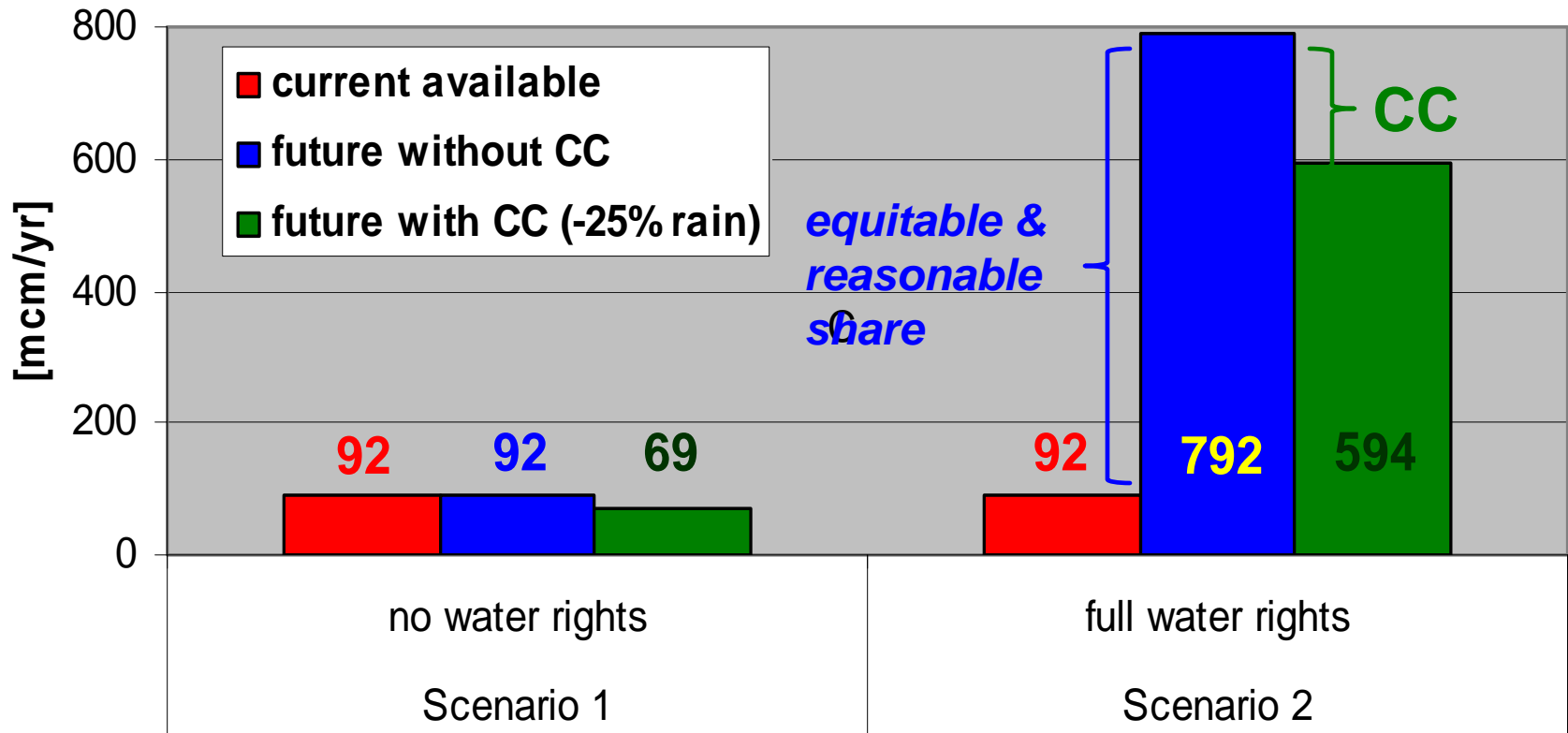


technical fixes (= supply-side management)

6.b) impact on Palestinians

- 2 different scenarios

Comparison of political and meteorological climate change impacts on Palestinian fresh water availability



CC impact becomes negligible

7. adaptation ... ?

- Adapting what to CC ?
- the **lack** of water access ?
 - the **missing** water resources development?

Under continued occupation, Palestinians cannot **even dream** about adapting to CC

Country	Area [km ²]	Agricultural land ('08) [km ²]	Irrigated land ('08) [km ²]	Agricultural employment [mio]	Irrigated land per capita [m ² /c]
Israel	20,770	4,985	2,004	0.140 (2%)	14,310
oPt	6,263	3,883	264	0.536 (14%)	490
Pal share (%)	23%	44%	12%	79%	3%

Palestinians employ **14%** of the labour force in agriculture, yet have a total of **264 km²** of irrigated land (**6.8%** of cultivated land), **490m²** per capita!

The forced 'adaptation' to "reduced irrigation" is already almost complete.

the adaptation mantra

8. the international community

at most, a secondary concern...

	Palestinian population (mio)	Fresh available water (mcm/yr)	Palestinian available water (l/c/d)	Israeli available water (l/c/d)
West Bank	2.35	84.4	99	x
Gaza Strip	1.5	7.5	14	x
SUM	3.85	91.9	66	663

Occupation means: Palestinians control 5% of the water, 10% per capita

- *"against this backdrop, climate change seems, at most, a secondary concern."*
- *IISD (2009)*

the 'detached' donor discourse

9. accomplice in de-politicization

the power of the hegemonic discourse

Serious implications for regional security

(= threats that may lead to increases in):

- *competition for scarce water resources, complicating peace agreements*
- *food insecurity*
- *militarization of strategic natural resources*

IISD (2009) : "Rising Temperatures, Rising Tensions"

Donors give in to the discourses of

"reduced availability & increased demand across the region" (Hoff, '08)

9. accomplice in de-politicization

the power of the hegemonic discourse

Serious implications for regional security

(= threats that may lead to increases in):

- *competition for scarce water resources, complicating peace agreements*

↔ 5% vs. 95% of fresh water control

- *food insecurity* ↔ "diet" for Gaza

- *militarization of strategic natural resources* ↔

MO 158 (19/11/67) "deny any permit, w/o any explanation"

IISD (2009) : "Rising Temperatures, Rising Tensions"

Donors give in to the discourses of

"reduced availability & increased demand across the region" (Hoff, '08)

10. re-politicization

the power of the occupation mind-set

- *"It is true, in this joint water pool, there is a **zero-sum game**. Whatever one side gets is at the expense of the other. Cooperation means changing the "hard disk" in our minds regarding the Palestinians.*
- *The **occupation mind-set** that guides the talks on water can only lead to bad agreements or to conflicts.*
- *In simple terms - **"it's the occupation - stupid!"***

summary

- A) Put CC into Context
- B) Nothing New
- C) CC - Prospects for the Conflict

A) Putting Climate Change into context

“meteorological CC”
is almost **negligible**,
compared to the established
impacts of the
“political climate”

B) Nothing New!

- 1. Palestinians continue to suffer**
- 2. Israel holds the keys** (Israel could share and STILL adapt to CC^{*})
- 3.** Under the hegemonic discourse: *if nothing new in the mind-sets* - **CC will push narratives further apart**

C) Climate Change prospects for the conflict

**the best way to adapt:
--
reach an agreement!**

C) Climate Change prospects for the conflict

the best way to adapt:

--

reach an agreement!

thank you...

2. the supply-side mantra

"natural scarcity" and "reduced availability"

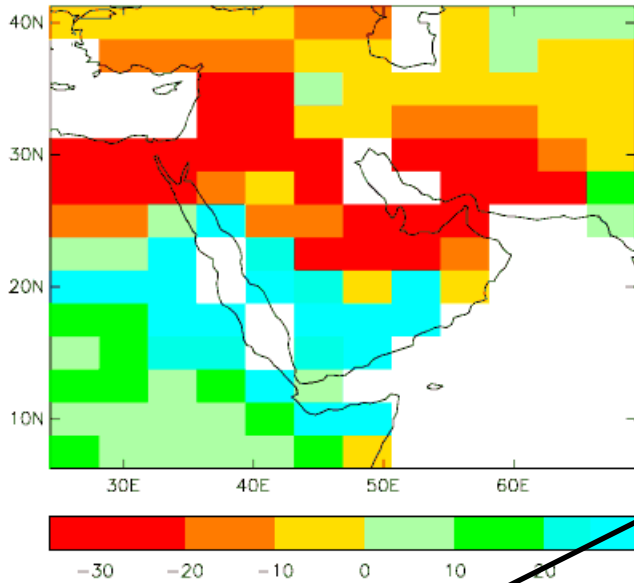
- *"the grim basic facts: Average rainfall has fallen by >10% past 16 years [& now a] 5th consecutive year of drought."*
 - *Alon Tal, Haaretz 26/5/09*
- *"impact of climate change and the current **four-year drought ...**"*
 - *Gideon Bromberg, Haaretz 10/10/08 "Let common sense flow"*
- *"Water crisis endangers **entire state**"*
 - *Jerusalem Post 29/7/08*

constructing 'scarcity' as a discourse

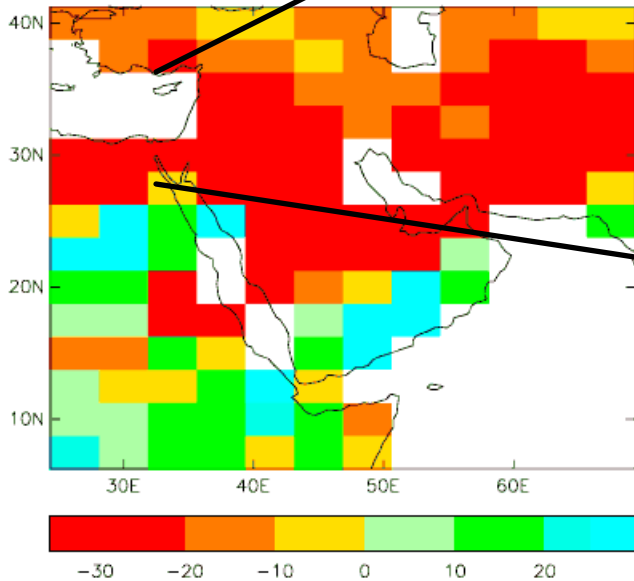
Global Climate Model

(cell size 200km side length!)

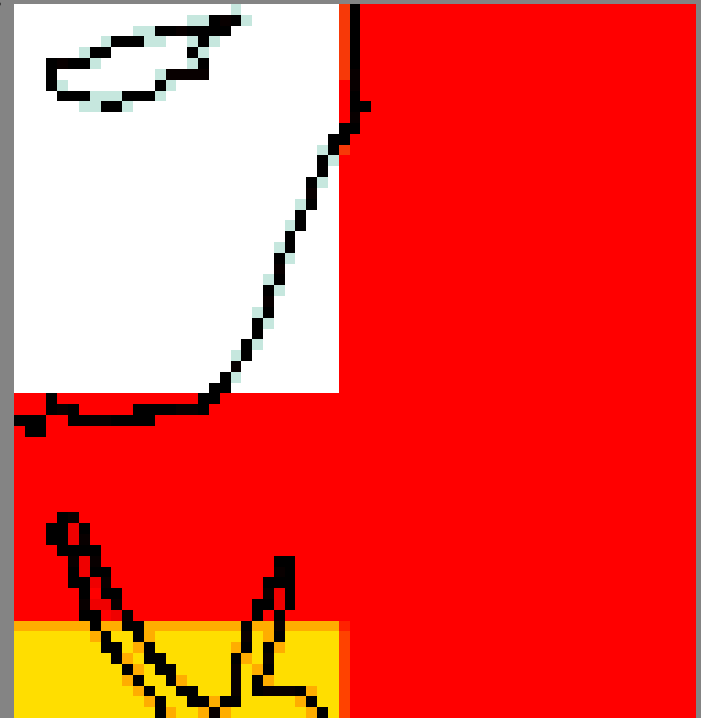
d) 2040s GCM



f) 2070s GCM



*the actual model
cannot cope with
small scale variation*



Hemming (2007)

a technical, not
discursive problem