



מכון ירושלים לחקר ישראל

Jerusalem Institute for Israel Studies

The Environmental Policy Center

# Mainstreaming Sustainability

## Sustainability Outlook 2030: Environmental Future for Israel

Joint project with the Ministry for Environmental Protection  
Supported by a philanthropic fund

# Challenges for (long-term) policy-making

- Sometimes, we wait too long for evidence to justify action (climate change, hazardous substances)
- Sometimes, we act too quickly on new opportunities and oversee spill-over effects (biofuels)...
- ... because attention is fragmented - government is coherent in its parts, but not as a whole.
- Often, we approach the future on the basis of our experiences in the past: policies function in the short, but not in the long run (ecosystems)

EEA “BLOSSOM” project 2008-

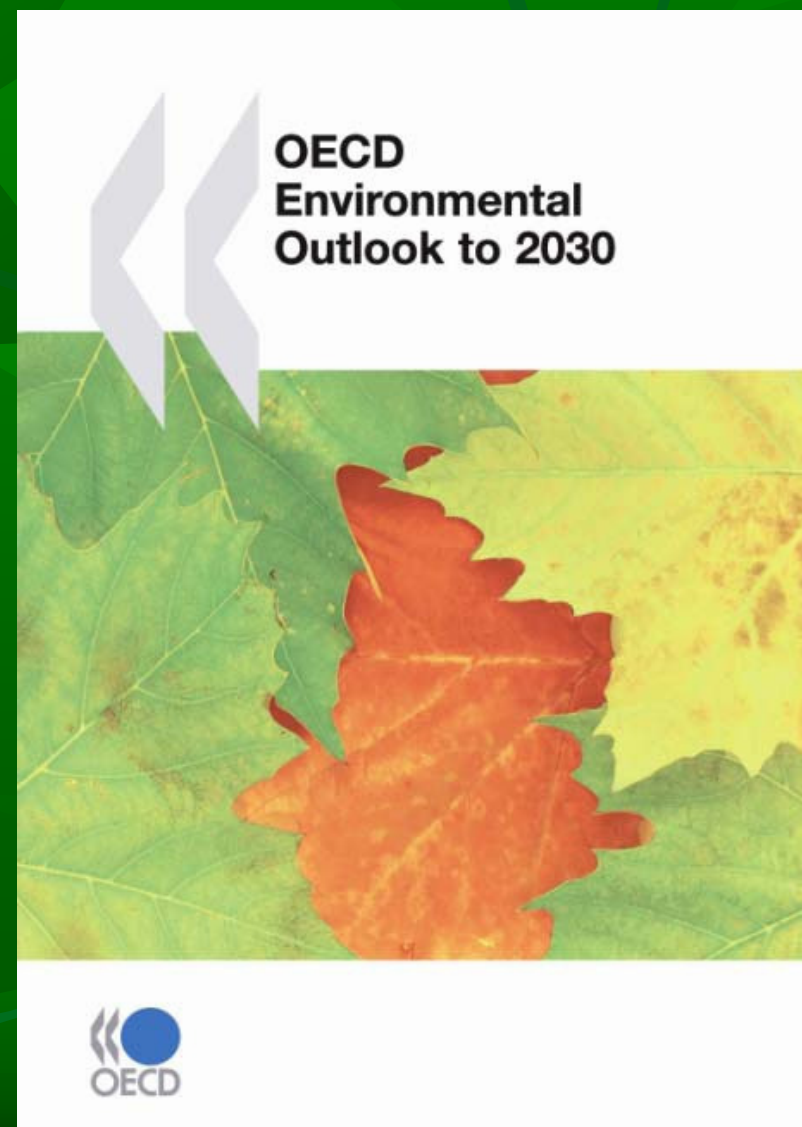
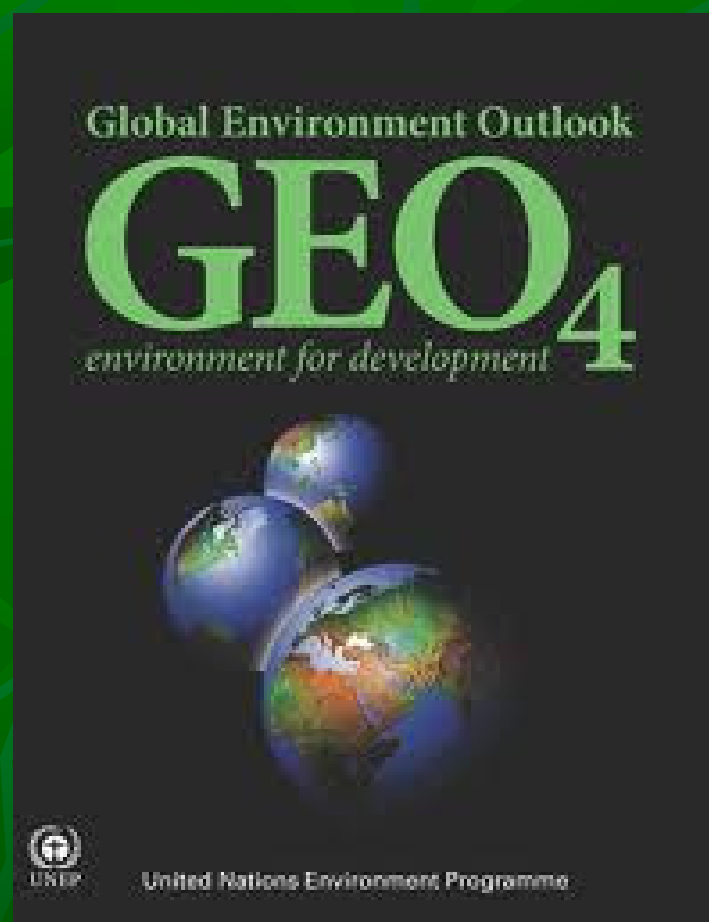
# Agenda of the Ministry for Environmental Protection

Environmental media	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Water</b>											
River reclamation	*	*	*	*	*	*			*		
Effluent standards			*	*	*	*					
Water for nature			*	*							
Pollution of aquifers	*		*	*	*						
<b>Air</b>											
Industry			*	*	*	*			*	*	*
Transport	*	*	*	*	*	*			*	*	*
Energy			*	*					*	*	*
<b>Climate change</b>						*			*	*	*

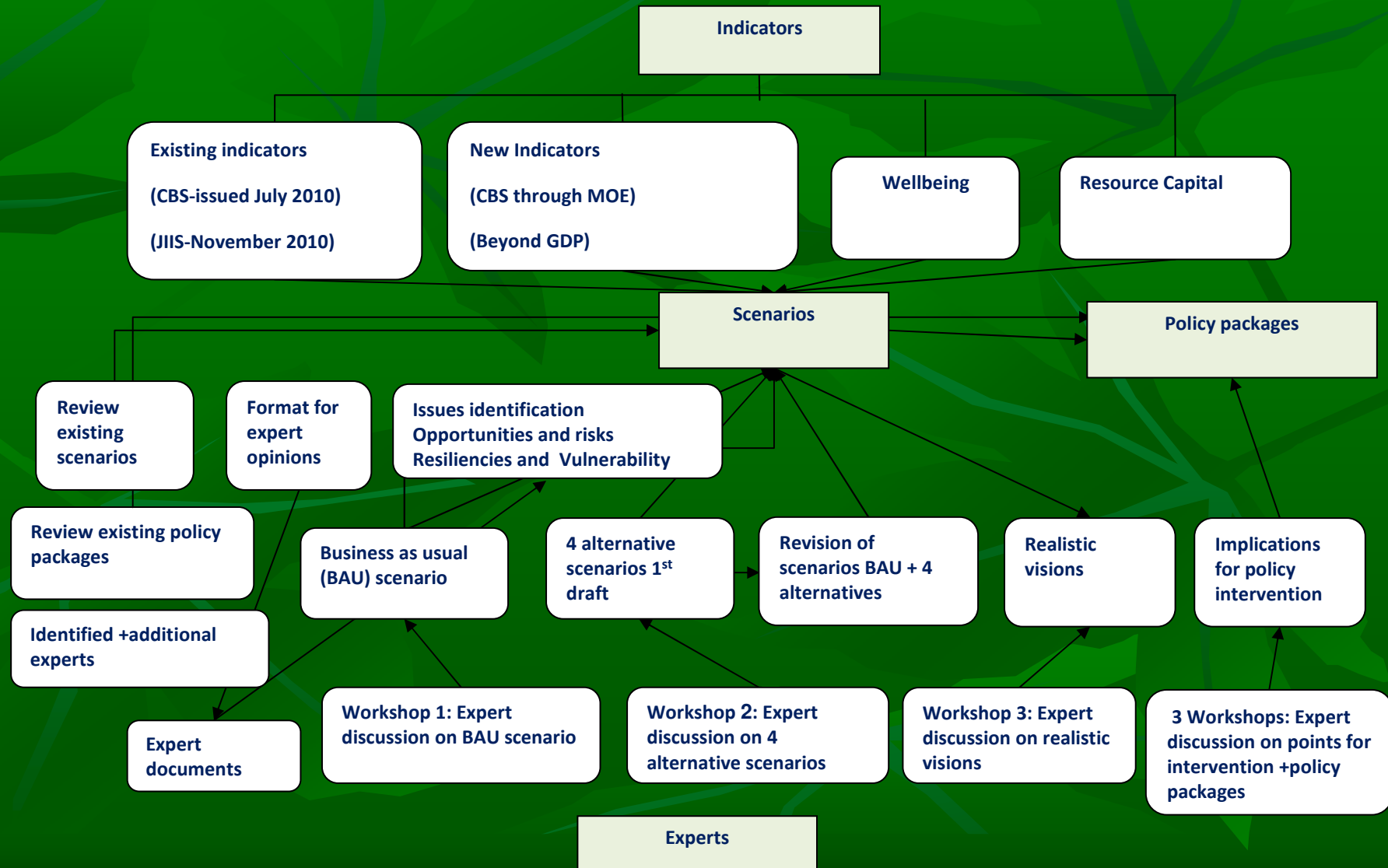
## Agendas of several major environmental NGOs in Israel 2007-10

	2007	2008	2009	2010
<b>Open spaces</b>	SPNI	SPNI	SPNI-	SPNI-
<b>Biodiversity</b>	-	-	-	SPNI
<b>Cliff shores</b>	SPNI :	IUED: Kinneret ()	-	-
<b>Clean air/Climate change</b>	IUED	IUED	IUED	IUED
<b>Planning reform</b>	-	-	-	IUED/SPNI
<b>Water</b>	-	-	SPNI/ ZALUL	-
<b>Transportation/Highway 6</b>	SPNI		SPNI	-
<b>Recycling/Waste</b>	IUED	IUED	IUED	IUED
<b>Environmental justice</b>	Life and Environment	Life and Environment		
<b>Enforcement</b>			IUED	IUED

# GLOBAL OUTLOOKS TO 2030

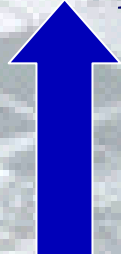


# Sustainability OUTLOOK 2030 : Project scheme



# Increasing pressures 2020

40 m<sup>2</sup> pc



20 m<sup>2</sup> pc



8 million



7million



1000-~ 450



1000-~ 300



95,580  
Million kw/h



42,678



2.2 -2000

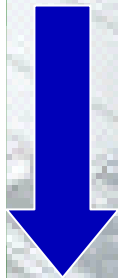
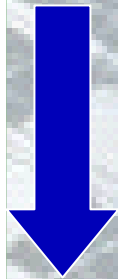
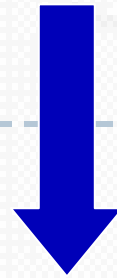
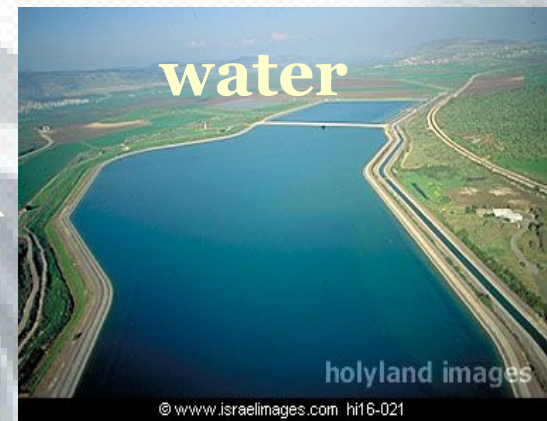
Km pc



1.2 -1975



# Natural Resource Depletion



+ + + + + + + + + +

# Risk Management

- Hazardous substances
- Radiation
- Coastal erosion
- Subsidence
- Forest fires



- Climate change
- Seismic
- Radon
- Floods
- Tsunami

# Yesterday, Today and Tomorrow

1990 – 2010 - 2030

## Resource base

### Air quality

- Nox and Sox per person and per unit GDP
- Particles PM 10

### Climate change

- Greenhouse gas emissions

### Water

- Groundwater salinity

### Spatial land use

### Biological diversity

## Driving forces

### Economic

- GDP pp
- Food expenditure per docile

### Energy

- Energy consumption pp and per unit GDP

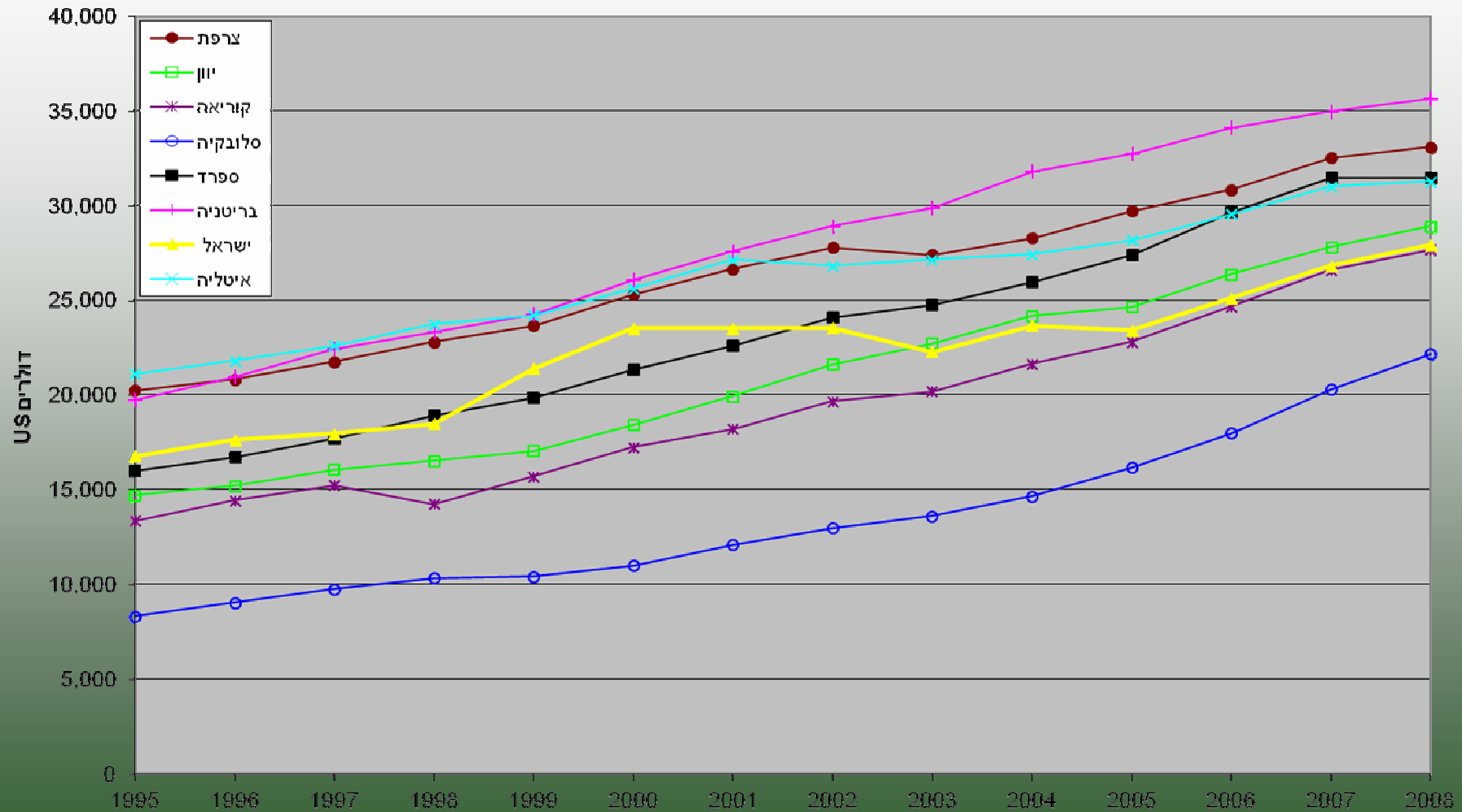
### Transport

- Car ownership
- Kms travelled pp

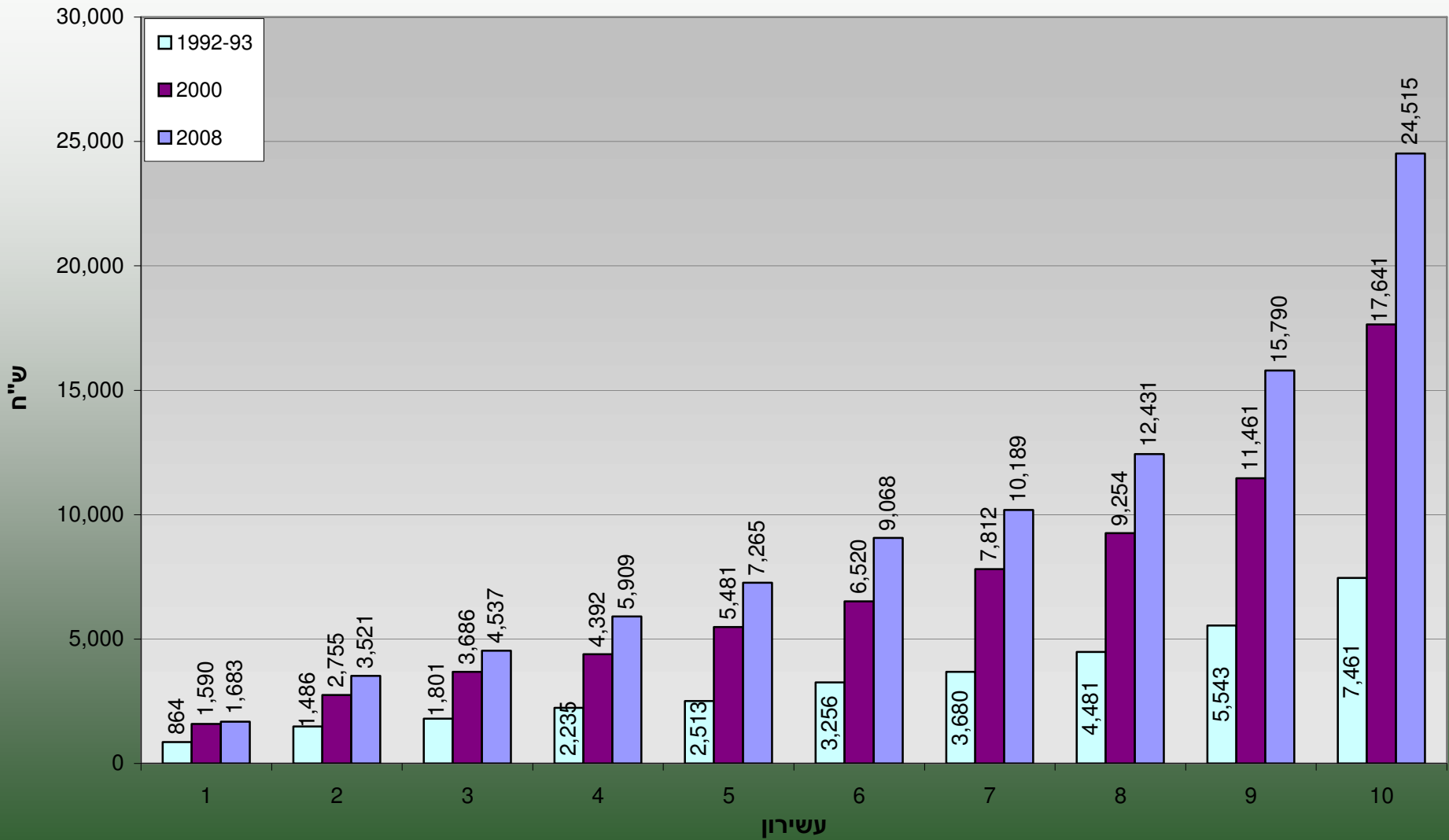
### Household consumption

- Domestic water consumption pp
- Domestic waste pp

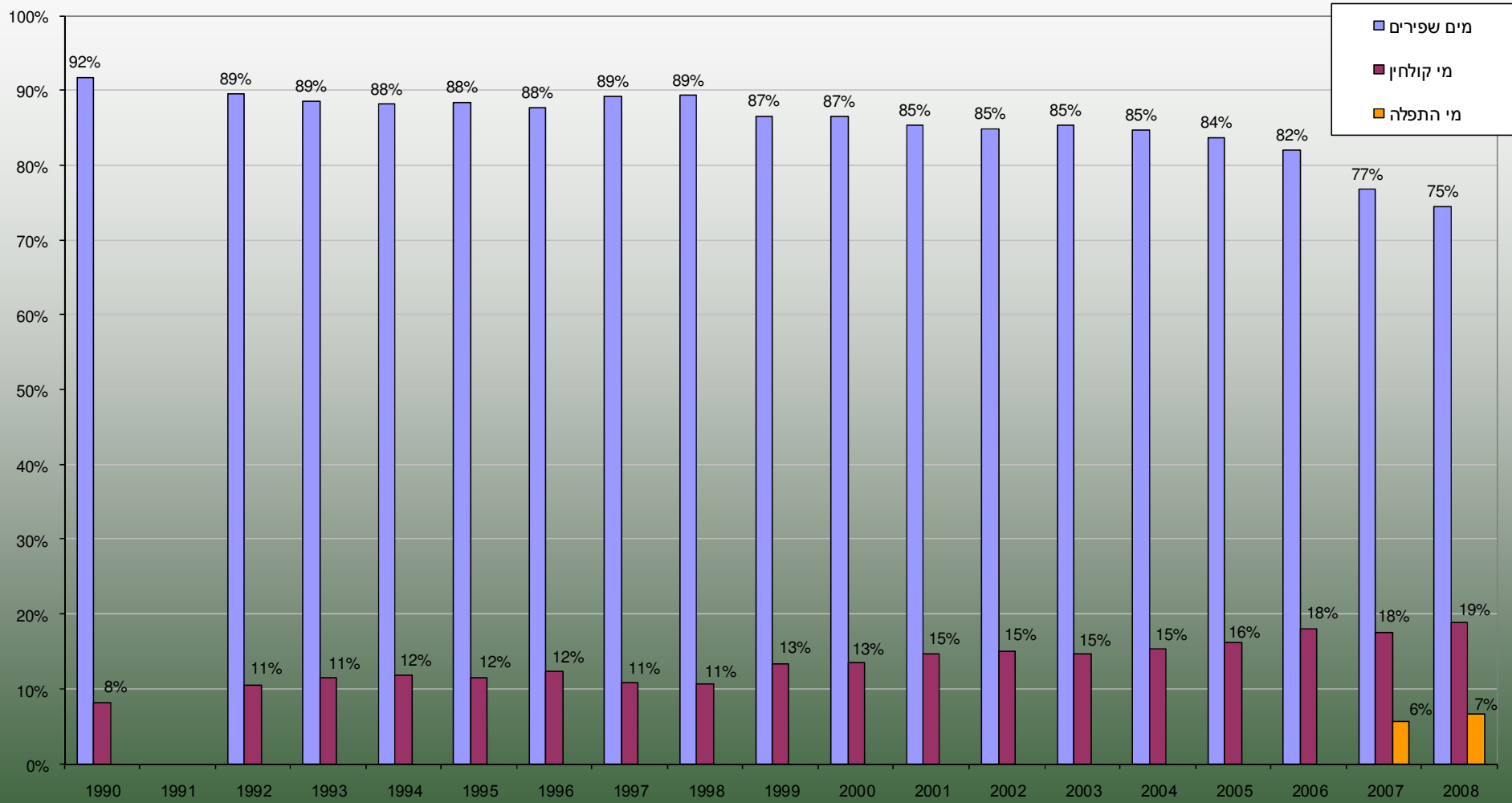
## Rise in GDP pp 1995-2008 (\$ current value weighted PPP)



# Trends in income available after expenditure on food according to decile (household)

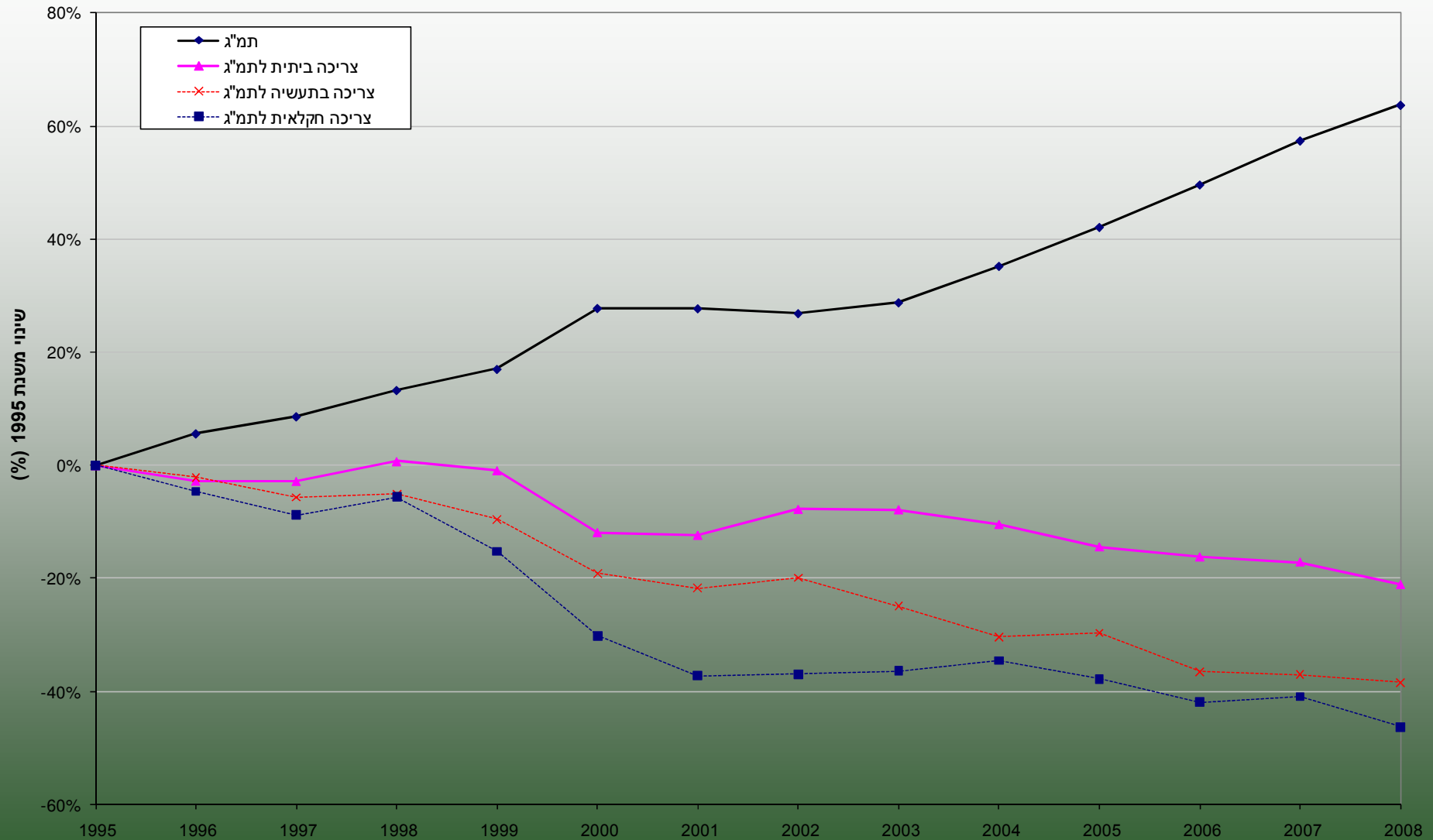


# Trends in water supply by type and quantity

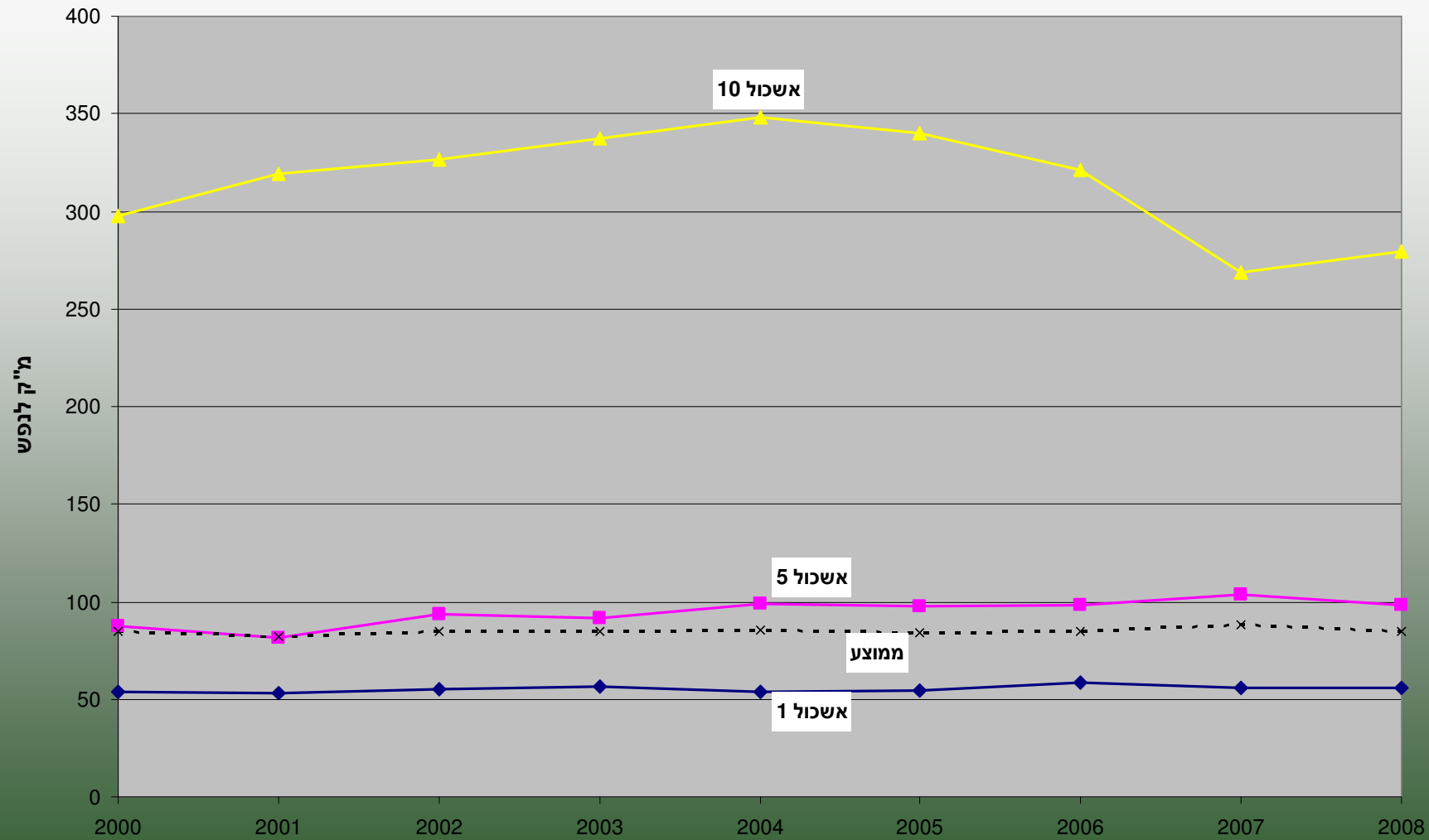


# Trends in domestic water consumption in relation to GDP

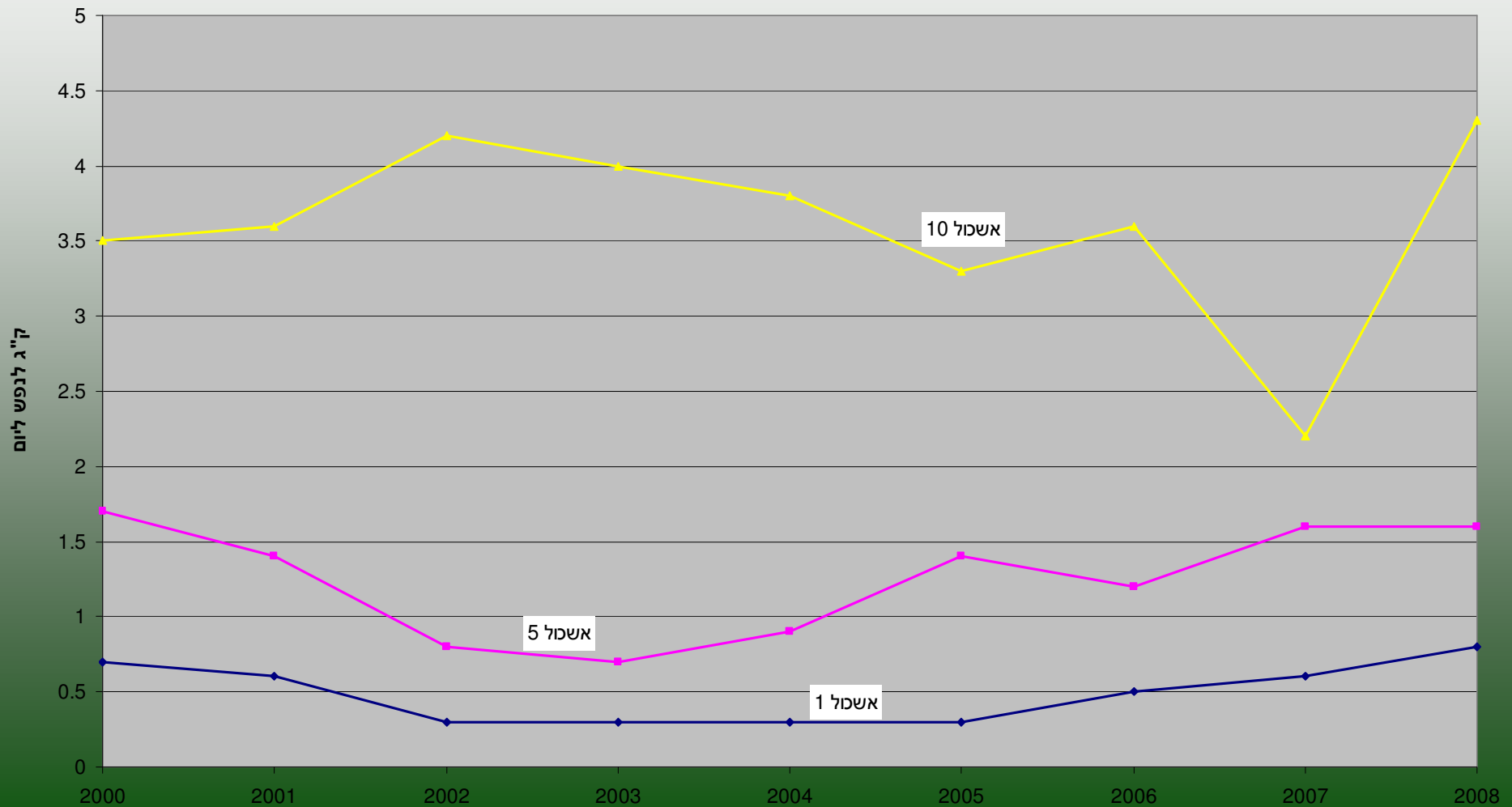
## שינויים בצריכת מים ביתית ליחידת תמ"ג



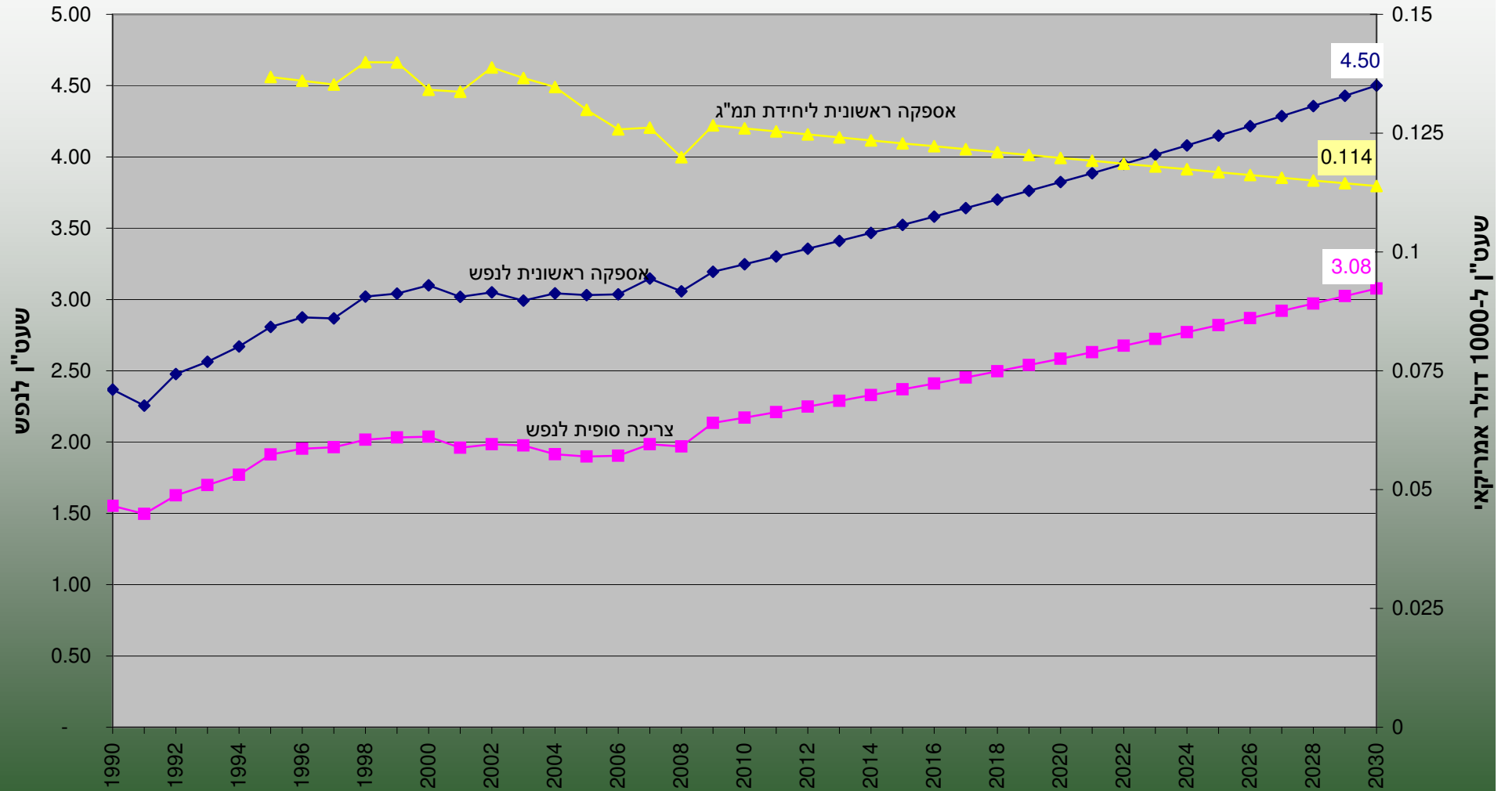
# Urban water consumption pp according to socio-economic level of LA



## Waste pp according to the socio economic level of the LA



# Extrapolation of energy trends BAU scenario



# Scenarios

## UK Environment Agency

Scenarios are tools for thinking about the future based on four assumptions:

- The future is unlike the past, and is shaped by human choice and action
- The future cannot be foreseen, but exploring the future can inform present decisions
- There are many possible futures, scenarios map a 'possibility space'
- Scenario development involves rational analysis and subjective judgment.'

The use of exploratory scenarios approaches should be considered when:

- The future is uncertain
- The ability to adapt to future change is restrained or if adjustments carry the risk of negative effects over the longer term (e.g. technological 'lock-in').
- There are opportunities for positive gains from pursuing 'robust strategies'

# Global Scenarios

## Tellus Institute

### Conventional Worlds

- Market Forces – risks of market-centered development
- Policy Reform – redirecting growth by government

### Alternative Visions

- Fortress World – an authoritarian path
- Great Transitions – a sustainable civilization

# Scenario building

**Scenario 4**  
**Technology first**

**Scenario 3**  
**governance first**

**Scenario 2**  
**security first**

**Scenario 1**  
**markets first**

**Baseline scenario**  
**BAU**

## External driving forces

**Globalization of trade**

**Technological breakthrough**

**Cooperative sovereignty**

**Political stability in ME**

**Ecological disaster**

Realistic vision (floor and ceiling)

# Intervention points and instruments

Analysis of scenarios to identify where similar and where different

goals

Instruments for intervention

options

Effective and efficient intervention

evaluation

# Policy packages

- Combination of coherent policy instruments for reaching the same goal
- Cancellation of opposing instruments
- Promotion of supporting instruments
- Cancellation of ineffective instruments
- Promotion of acceptable instruments to politicians, interest groups and public
- Reduction of transaction costs