

An Israeli (personal) perspective on IIASA

By way of introduction:

- My field of research, teaching and consulting: hydrology and water resources systems planning, design, operation, management, policy
- Methodologies: systems analysis, modeling, simulation, optimization, decisions under uncertainty, negotiations
- International consulting: urban, regional, national and international water agencies and authorities
- Local consulting: Mekorot (1967-92), the Israeli Water Authority since 1992
- Member of the Water Negotiation Team in the Agreements with the Hashemite Kingdom of Jordan (1994) and the Palestinian Authority (1995)

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- I participated in several IIASA projects, conferences, and consultations on water resources management, including:
 - 1972-75: IIASA Water Project, invited by Howard Raiffa
 - 2006/7: Consultation on a new water program for IIASA; I suggested “IIASA Project on Water in the Middle East”
 - 2013: Water Futures and Solutions: World Water Scenarios Initiative
 - Systems Analysis 2015 “dedicated to Howard Raiffa for his huge contribution to systems analysis”
- I enjoy professional and personal contacts since the 1970s with Howard Raiffa - the founding Director of IIASA (1972-75)
- Some of this is recorded in Raiffa’s “Memoir: Analytical Roots of a Decision Scientist”, 2011

Dear Peri and Yona,
You both are an
inspiration to me.

With warmest regards,
Howard Raiffa 12/19/11

MEMOIR: ANALYTICAL ROOTS
OF A
DECISION SCIENTIST

BY
HOWARD RAIFFA

A (personal) Israeli perspective on IIASA

- In the 1990s Howard and I tried to get Israel to become a member of IIASA, but found no response in the national science authorities
- We also tried to promote the establishment of a Middle East Institute for Applied Systems Analysis (MEIASA) somewhere in the ME – we thought of the Sinai between Egypt and Israel – but found no way to move it ahead
- I still consider that a MEIASA could be a bridge across national divides in our region, like IIASA was established to be a bridge between East and West after WWII

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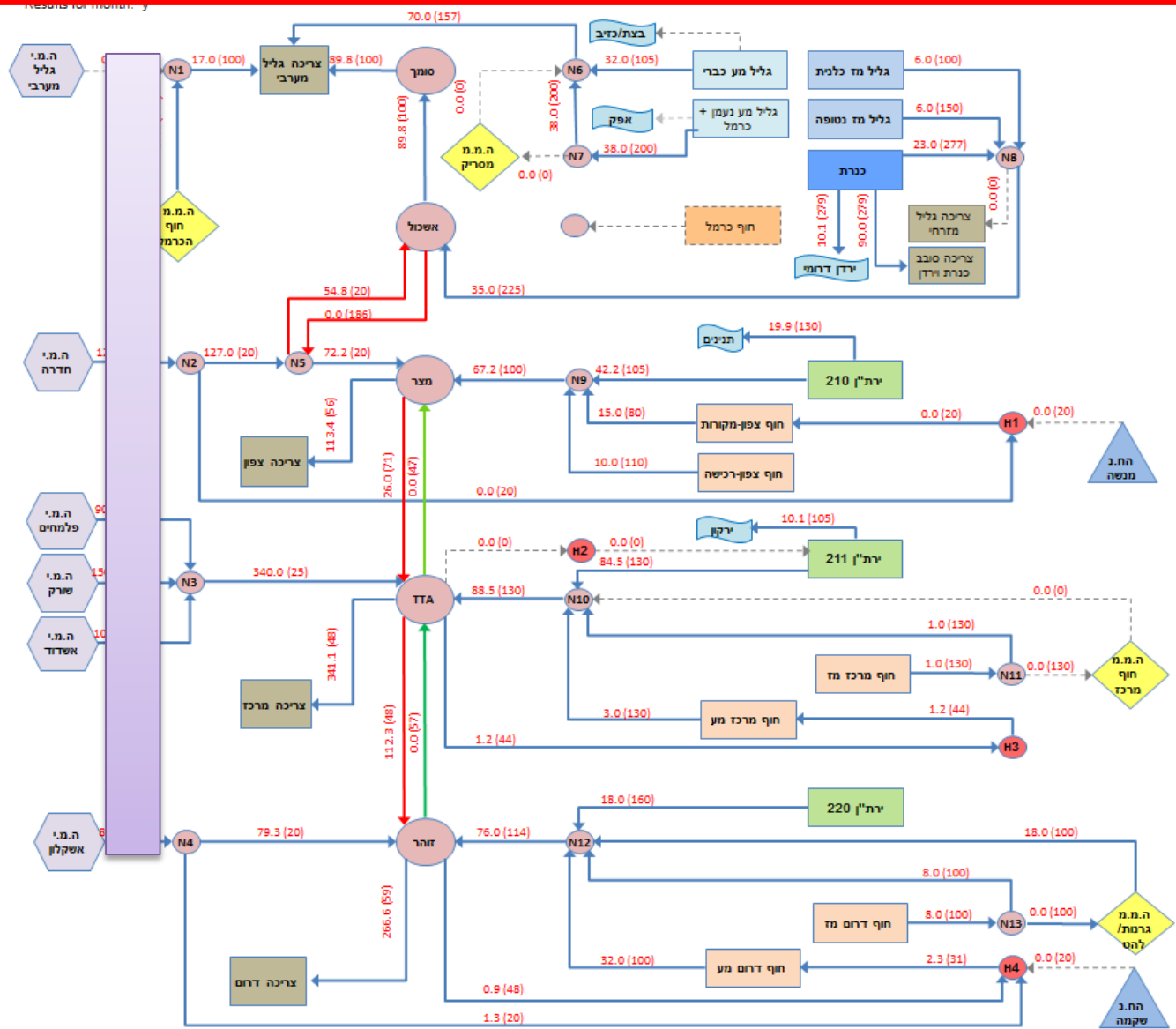
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- **Demo: a current ongoing project of systems analysis for management of the Israeli national water resources and systems**

Management of the Israeli National Water System with Natural and Desalinated Waters

- Deterministic non-linear model of water quantities and salinities, with complex desalination operation and pricing contracts, non-linear, two-objectives: min. total cost vs. balanced reduction of production of desalinated water when the total purchase is less than the full production capacity
- Runs in real-time “on the table” during working and decision-making sessions, able to respond to proposed “what-if” questions and suggestions
- It is a kernel for a stochastic model – uncertain hydrology, uncertain demands
- Similar models for regions, e.g., the Kinneret watershed

AGAT Team for and with the Water Authority's Operations Division

Mashor Housh, Lea Kronaveter-Goldstein, Uri Shamir



Operational Plan for 2016

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I hope that we can help Pavel Kabat to convince
Israel to join IIASA

But even before/without formal membership:
IIASA can explore working relations with Israeli
scientists, practitioners, and agencies

Membership of regional parties can create a
bridge for beneficial cooperation
(Affiliate MEIASA)