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Education:

- 1990 University of Maryland at College Park, Department of Economics.
BA in Economics (magna cum laude).
- 1998 University of Maryland at College Park, Department of Agricultural and Resource Economics.
PhD in Agricultural and Resource Economics (Subject of thesis: **Bilateral Cooperation on Transboundary Water Resources: The Case of the Israeli-Palestinian Mountain Aquifer**).
- 2010 Bar-Ian University, Center for Continuing Education Programs.
Training Course for Members of Boards of Directors.

Employment Record:

- 9/2020 - WORLD HEALTH ORGANIZATION**, European Centre for Environment and Health, Bonn
Program Manager, Environment and Health Impact Assessment
- 3/2020- 7/2020 BEN-GURION UNIVERSITY OF THE NEGEV, ISRAEL**,
Adjunct Lecturer, School of Public Health, Graduate Program for Health Emergency
- 1/2020 - 8/2020 Independent Consultant and Lecturer**
- 6/2011 – 3/2018 MINISTRY OF ENVIRONMENTAL PROTECTION, ISRAEL**
Chief Scientist
- 11/2004 - 6/2011 TAHAL GROUP**
7/2009 - 6/2011 Director of Sustainable Finance, Business Development Division
11/2004 - 6/2009 Senior Economist, Engineering Division
- 2001 - 2009 HEBREW UNIVERSITY OF JERUSALEM, ISRAEL**
& Adjunct Lecturer. Environmental Sciences, Faculty of Agriculture, Rehovot,

2014 - 2016	Hebrew University of Jerusalem
1998-2005	BEN-GURION UNIVERSITY OF THE NEGEV, ISRAEL
1999-2005	Lecturer, Department of Industrial Engineering and Management
1998-1999	Researcher, Institutes for Applied Research
1991-1998	UNIVERSITY OF MARYLAND AT COLLEGE PARK, U.S.A.
1996-1998	Faculty Research Assistant and Co-Investigator on Bi-National Agricultural Research and Development (BARD) Grant (1994-1997), " Prospects on Conflict and Cooperation on Transboundary Water Resources. "
1991-1996	Research Assistant
1994	Teaching Assistant

Positions in Academic Administration:

1999-2002:	Coordinator of Special Activities and member of the steering committee, Center for Water Science and Technology , Ben-Gurion University of the Negev.
1999-2000:	Co-organizer of the International Conference on Water and Environment: Resolving Conflicts in the Development of Drylands , Beer-Sheva, Israel.
1996-1997:	Co-organizer of the Fifth Meeting of the International Water and Resource Economics Consortium on Conflict and Cooperation on Trans-Boundary Water Resources.

Membership of Israeli Boards of Directors and Councils:

2014 -2017	Member of the National Oil Advisory Council (under the Ministry of Energy)
2013 -2016	Director at the National Company for the Protection of the Coastal Cliff (under the Ministry of Environmental Protection)
2011 - 2017	Member of the National Council of Bio-Ethics (under the Ministry of Health)
2011 -2017	Member of the National Committee to Research in Disease Generators (under the Ministry of Health)
2012 - 2013	Member of the Fly-Ash Administration (Inter-Ministerial)
2014 - 2015	Member of the National Council for the Advancement of Women in Science and Technology (under the Ministry of Science and Technology)
2016 - 2017	Member of the National Committee for Research and Development of Energy, the Israeli National Council for Research and Development (under the Ministry of Science and Technology)

Membership in Committees:

2011-2017	Chairperson of the Executive Committee for the National Marine Monitoring Program of the Gulf of Eilat
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2011-2017	Member in the National Administration of Fuel Alternatives for Transportation
2011-2017	Chair-Person of the Inter-Ministerial Steering Committee for the Establishment of the National Museum of Natural History
2011-2017	Member and project-leader of the Inter-Ministerial Committee for Climate Change Adaptation
2011-2017	Chair-person of the Research and Surveys Tenders Committee at the Ministry of Environmental protection
2015-2017	Co-chair-person of the Inter-Ministerial Committee for the Preparation of the National Environmental Health Program
2011-2017	Member of the Inter-Ministerial Committee for the Implementation of the Government's Decision on the advancement of Water Technology
2011-2017	Member of the Government's Chief Scientists Forum
2012	Member of the Inter-Ministerial Team for Assessing Israel's Preparation for Food Crisis in 2050

Membership in Public Councils:

2014 - 2017	Chair-person of the Public Council for the National Ecosystem Assessment Project
2013 - 2017	Member of the Public Council of Statistics, Israeli Bureau of Statistics
2012 - 2015	Member of the Council for Open-Spaces (DESHE)

Selected Professional Functions concerning Water:

2011-2017	Steering committee member of WATEC (the Israeli Water Technology Conference) 2011, 2013, 2015, 2017
2010	Steering committee member of the 1 st annual joint meeting of the Israeli Water Associations
2009	Chairperson of the 6 th Annual Meeting of the Israeli Water Association
2005	Chairperson of the 2 nd Annual Meeting of the Israeli Water Association
2001	Expert witness, the Parliamentary Investigation Committee on the Water Crisis . Knesset, Israel.

Contributing input to the meeting on **Research Targets in Water Technologies**, German-Israeli Cooperation on Water Technologies, Ministry of Science, Culture and Sport, Israel.

Significant International Professional Consulting and Participation:

2011-2017	Alternate to the Minister and member of the European Environmental Health Program, WHO-Europe (in cooperation with EEC, UNEP)
2011-2017	National Negotiator in Climate Change Adaptation for the UNFCC
2011-2017	Participation in the SEIS (Environmental Information System) program of the EEA (European Environmental Agency)

2011-2017	EU-Research Environmental and Climate Research Program (national representative)
2008	Mediterranean Commission for Sustainable Development
2008	Government of South Africa, Ministry of Water Affairs and Forestry
2008	OECD, Joint Committee on Tax and Environment
2006-2011	Government of Angola
2008-2011	IFC and World Bank (in the area of Performance Standards for ESIA and RAP)
2008-2011	Foreign Financial Institutions (e.g., ING, Atradius) (in the area of ESIA and RAP)
2006	UNESCO, International Hydrology Program, Committee of Groundwater Indicators for Sustainable Development
2000	European Commission, Brussels; Fifth Framework, Expert Evaluator in the area of Agricultural Economics.

Membership in Professional Societies (past):

American Agricultural Economics Association
 International Water Resources Association
 American Economic Association
 Israeli Water Association

Awards, Citations, Honors and Fellowships:

Phi Kappa Phi
 Golden Key National Honor Society
 Honor Convocation

Languages:

	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Hebrew	Excellent	Excellent	Excellent

Personal information:

DOB: July 8th, 1965, Israel

Military service: Israeli Military Intelligence (11/1983 – 5/1986)

Enclosed are 3 Appendices:

Appendix 1. Governmental - List of Selected National Responsibilities and Projects as the Chief Scientist at the Israeli Ministry of Environmental Protection (presenting working experience with the government, international organizations, NGO'S, academia, private sector)

Appendix 2. Private Sector - List of Selected Projects with TAHAL (presenting working experience with local & national authorities and with foreign governments and with foreign commercial and developmental financial institutions)

Appendix 3. Academic - List of Scientific Publications

APPENDIX 1: List of Selected National Responsibilities and Projects as the Chief Scientist at the Israeli Ministry of Environmental Protection

List of National Responsibilities as Chief Scientist (selected)

Scientific, strategic and technology adviser to the Minister, Director General and Ministry's staff.

Science for Environmental Policy: promoting environmental research including: Fuel Alternatives for Transportation, Production of Energy from Biomass, Green Building, Environmental Epidemiology, Leishmaniosis, Climate Change, Environmental Technologies including prediction of innovations, Terrestrial and Marine ecology including Assessment of Ecosystem Services, Biodiversity, Planning, Marine, Sustainable Developments, Environmental Industrial Emissions, Soil Rehabilitation, Oil Spill, Agro-Ecology, Waste Management, uses of fly ash, Water treatment (drinking water, desalination of sea water, recycling sewage, sludge), Forest Rehabilitation and Prevention Measures of Forest Fires, Environmental Economics, Environmental Insurance, remote sensing.

Environmental Data: Leading the creation of a national environmental data platform, including writing and editing "The State of the Environment Report: Data, Indices and Trends." December 2017. Participation in the EEA SEIS Program (east-south Mediterranean countries).

Climate Change Adaptation: Leading the national strategic and action program on adaptation to climate change, including working with an inter-ministerial board and writing and editing the report for the government of Israel on "The Recommendations for a National Strategy and Action Plan for Climate Change Adaptation." December 2107

Environmental Health: Leading the National Plan for Health and Environment: leading a government decision commissioning the writing of a national plan, working with 15 teams to write the plan, supervising the economic assessment of the plan. Leading the Ministry's work with WHO-Europe.

Environmental Technologies: assessment of environmental technologies and solutions.

Member of the Board of Directors of the Government Company for Coastal Cliff Protection 2013- 2016

Member of the National Petroleum Advisory Council 2015-2017

Member of the Council for Biological Disease Agent Research 2011-2017

Member of the Israel National Bioethics Council 2011-2017

Member of the National Council for the Advancement of Women in Sciences 2015-2016

Member of the board of the Open Landscape Institute (OLI) 2013-2015

Chair-person of the executive committee for the national marine monitoring for the Gulf of Eilat 2011-2017

Head of the Public Council of the National Ecological Assessment 2014-2017

List of Projects Lead and Managed as Chief Scientist (selected)

Commissioning, managing and approving over 120 environmental research projects mainly with the academia and national research institutions and also with the private sector. 2011-2017

Environmental Data and Trends: Lead writer and editor of the report on "The State of the *Environment in Israel: Data, Indices and Trends*." December 2017.

Climate Change Adaptation: leading an inter-ministerial team and writing and editing the recommendations for government for a *National Strategy and Action Plan for Israel's Preparation for Climate Change Adaptation*. December 2017. Final version January 31st, 2018.

Health and the Environment: leading the government decision regarding the need for writing a *National Plan for Environmental Health*, leading the expert consultation process, the writing process of the challenges, gaps and recommendation and the economic assessment and valuation of the plan.

Environment and Gas Exploration and Drilling in the Mediterranean and on-shore hydraulic-fracturing: writing various expert reports and position papers for the ministry in relation to various committees, government decisions, parliament committees' discussions in relation to the subject.

Fly-Ash: Extensive evaluations and consultations on the use of fly-ash in Israel, risks, market structure, economic dimension and policy.

Technology: Promoting the development and implementation of environmental technologies, removing barriers and creating incentive schemes for implementation.

Carrying Capacity of the Marine Environment in the Gulf of Eilat: commissioning a scientific investigation of a leading national team of experts to

evaluate the carrying capacity in relation to on-shore discharge of water from fish ponds.

Remote-Sensing: an evaluation of the ministry's needs in applying RS to the ministry's work, including legal, economic and technology aspects.

APPENDIX 2: LIST OF SELECTED PROJECTS WITH TAHAL

Israel:

Drinking Water: Multi-annual Program for the Assurance of Drinking Water Quality in Israel, for the Government Authority for Water and Sewage (formerly Israel Water Commission). Report: *Multi-annual Program for the Assurance of Drinking Water Quality in Israel*” 2007. Volume I: Report, Volume II: Annexes.

Water Saving: National Water Saving Projects in Urban Areas in Northern Israel: campaign, education, public participation, technology, for the Government Authority for Water and Sewage. Reports: *Quarterly and Annual Reports for years 2007-2009*.

Water Security: Cost-Benefit Analysis and Economic Examination of Household Water Security, for the Government Authority for Water and Sewage. Report: *“Cost-Benefit Analysis and Economic Examination of Household Water Security.”* 2007, Confidential.

Economic Analysis of Monitoring Customers (Municipal) Connection Points, for Mekorot, the National Water Company. 2010, Confidential

Earthquakes: Priority Protection of Installations Containing Hazardous Materials against Earthquakes, for the Ministry of Environmental Protection. Reports: *Various reports per industrial plant 2007-2009*.

Water Infrastructure: Risk Analysis of Infrastructure Alternatives in the Fifth Water Supply System – Eastern Section, as part of the framework plan for water resources in the Mate Yehuda and Jerusalem region, for the Government Authority for Water and Sewage. Report: *“Risk Analysis of Infrastructure Alternatives in the Fifth Water Supply System.”* 2008.

Storm Water: Economics of Storm Water Preservation in the Urban Area along the Israeli Coastal Aquifer, for the Government Authority for Water and Sewage. Reports: *“Economics of Storm Water Preservation in the Urban Area along the Israeli Coastal Aquifer.”* 2007. *“Economics of Storm Water Preservation: Case studies of the cities of Hertzelia and Rishon- Le’zion”* 2008.

International:

Water Demand: Preparation of a report for the Water Commission of Mediterranean Countries, oriented in particular to Water Demand Management in the Israeli Water Sector.

Water Technology: Preparation of a report for the OECD and the Israeli Ministry of Environmental Protection on Water Regulations, Technology Innovation and the Impact on the Environment.

Water WTP, Ghana: A Willingness to Pay and Affordability to Pay Study for Water in Rural Areas in Ghana, for the Government of Ghana, for the purpose of international private financing of infrastructure projects.

Water Indicators: Water Economic Indicators, International Hydrology Program (IHP), UNESCO

Coastal Development, Angola: Economic Consulting for a Master Plan for the Development of the Coastal Area of Angola, Government of Angola.

National Water Plan, South Africa: National Water for Growth and Development; Economic Consultancy, for Department of Water Affairs and Forestry, Republic of South Africa.

Social and Environmental, Angola: Lead specialist in preparing a Social and Environmental Assessment report for the Integrated Quiminha Agricultural Development, for the Government of Angola and under the requirements of international commercial financial and insurance institutions, according to the Equator Principles and the IFC's guidelines.

Due Diligent Process; responsible for preparing environmental risk portfolio for the company for the IFC. Visiting company's property in China with IFC's due diligence environmental staff.

APPENDIX 3: LIST OF SCIENTIFIC PUBLICATIONS:

Editorship of Books:

R.E. Just and S. Netanyahu, Eds. 1998. *Conflict and Cooperation on Trans-Boundary Water Resources*, Kluwer Academic Publishers, Boston, 432 pages.

Chapters in Books:

Netanyahu, S., 2008. "Economic Aspects of Drainage Plants" in A. Ben-Zvi, ed., *Streams and Drainage*.

Netanyahu, S., 2006. Water Development for Israel: Challenges and Opportunities," in C. Lipchin, E. Pallant, D. Saranga and A. Amster, eds., *Integrated Water Resources Management and Security in the Middle East*. Springer in cooperation with NATO (Series C: Environmental Security).

Netanyahu, S., R. E. Just and J. K. Horowitz. 2001. "Israeli-Palestinian Bargaining over the Mountain Aquifer," in E. Feitelson and M. Haddad eds., *Management of Shared Groundwater Resources: The Israeli-Palestinian Case with an International Perspective*, Kluwer Academic Publishers, Boston.

R.E. Just and S. Netanyahu. 2001. "Environmental Problems, Immigration, and Trade," in C. B. Moss, G.C. Rausser, A. Schmitz, T. G. Taylor, and D. Zilberman, eds., *Agricultural Globalization, Trade and the Environment*, Kluwer Academic Publishers, Boston.

R.E. Just and S. Netanyahu. 1998. "International Water Resource Conflicts: Experience and Potential," in R. E. Just and S. Netanyahu, eds., *Conflict and Cooperation on Trans-Boundary Water Resources*, Kluwer Academic Publishers, Boston, 1-26.

S. Netanyahu, R.E. Just, and J.K. Horowitz. 1998. "Bargaining Over Shared Aquifers: The Case of Israel and the Palestinians," in R. E. Just and S. Netanyahu, eds., *Conflict and Cooperation on Trans-Boundary Water Resources*, Kluwer Academic Publishers, Boston, 41-60.

S. Netanyahu. 1998. "Bilateral Water Policy Coordination Under Uncertainty," in R. E. Just and S. Netanyahu, eds., *Conflict and Cooperation on Trans-Boundary Water Resources*, Kluwer Academic Publishers, Boston, 363-380.

Just R. E., J. K. Horowitz, and S. Netanyahu. 1997. "Problems and Prospects in the Political Economy of Trans-Boundary Water Issues," in Rosen, Tel-Or, Hadar and Chen, eds., *Modern Agriculture and the Environment*, Boston, Kluwer Academic Publishers.

Just R. E., J. K. Horowitz, and S. Netanyahu. 1997. "Peace and Prospects for International Water Projects in the Jordan-Yarmouk River Basin," in D. Parker and Y. Tzur, eds., *Decentralization and Coordination of Water Resource Management*, Boston, Kluwer Academic Publishers, 365-388.

Just R. E., S. Netanyahu, and J. K. Horowitz. 1997. "The Political Economy of Domestic Water Allocation: The Cases of Israel and Jordan," in D. Parker and Y. Tzur, eds., *Decentralization and Coordination of Water Resource Management*, Boston, Kluwer Academic Publishers, 89-114.

Netanyahu, S. 1996. "Trans-Boundary Water Policy Coordination Under Uncertainty: The Case of the Mountain Aquifer," in P. Howsam and R. Carter, eds., *Water Policy; Allocation and Management in Practice*, Chapman and Hall, London, 275-282.

Conference Proceedings:

Just, R.E., S. Netanyahu and L.J. Olson. 2001. "Depletion of Natural Resources, Technological Uncertainty, and the Adoption of Technological Substitutes." In *Renewable Energy Resources – Powered Desalination Systems in the Mediterranean Region: From Identification to Implementation*, Center for Renewable Energy Sources, Greece, Conference held in Limassol, Cyprus, September 1-4, 2000.

Netanyahu S., R. E. Just, and J. K. Horowitz, 1995. "Possibilities and Limitations in Sharing the Mountain Aquifer between Israel and the Palestinians." E. Feitelson and M. Haddad, eds., *Joint Management of Shared Aquifers: Proceeding of the Second Workshop held in Jerusalem, Israel, 27 November - 1 December, 1994*, Jerusalem, The H. S. Truman Research Institute for the Advancement of Peace at The Hebrew University of Jerusalem and the Palestine Consultancy Group.

Just, R. E., L. J. Olson, and S. Netanyahu. 1996. "Resource Depletion, Technological Uncertainty, and Adoption of Improved Technology: The Case of Desalination Plants." J. J. Pigram, ed., *Security and Sustainability in a Mature Water Economy; A Global Perspective*. Water and Resources Economics Consortium, Center for Water Policy Research, University of New England, Armidale, Australia, 99-118.

Refereed Articles in Scientific Journals:

Netanyahu, S., 2017. "Sea-Water Desalination: Resiliency, Challenges and Risks," *Ecology and the Environment* 8(4); 38-47 (in Hebrew).

Just, R.E., S. Netanyahu, and S. Mitra. 2005. "Implications of Nash Bargaining for Horizontal Industry Integration," *American Journal of Agricultural Economics* 87 (2) 467-481.

Just, R.E., S. Netanyahu and L. Olson. 2005. "Resource Depletion, Technological Uncertainty and Adoption of Improved Technology: the Case of Desalination," *Resource & Energy Economics* 27 (2) 92-108 (lead article).

R.E. Just and S. Netanyahu. 2004. "Implications of 'Victim-Pays' Infeasibilities for Interconnected Games with An Illustration for Aquifer Sharing Under Unequal Access Costs," *Water Resources Research* 40 (5).

Aggarwal, R., S. Netanyahu, and C. Romano. 2001. "Access to Natural Resources and the Fertility Decision of Women: The Case of South Africa." *Journal of Environmental and Development Economics* 6 (2) 209-236.

Just, R.E. and S. Netanyahu. 2000. "The Importance of Structure in Linking Games," *Agricultural Economics* 24 (1) 87-100.

Just R. E., S. Netanyahu, and J. K. Horowitz. 1999. "Water Pricing and Water Allocation in Israel." *Journal of Policy Reform* 3 (2) 97-119.

Horowitz, J. K., R. E. Just and S. Netanyahu. 1996 "Potential Benefits and Limitations of Game Theory in Agricultural Economics." *American Journal of Agricultural Economics*, 78 (3) 753-760.

Published Scientific Reports and Technical Papers:

Netanyahu, S. 2010. The Influence of Regulation and Economic Policy in the Water Sector on the Level of Technology Innovation in the Sector and its Contribution to the Environment: The Case of Israel. Written for the OECD COM/ENV/EPOC/CTPA/CFA/RD(2008)36/FINAL .

Just, R. and S. Netanyahu. 1999. "Environmental Problems, Immigration and Trade." Department of Agricultural and Resource Economics, University of Maryland at College Park.

Netanyahu, S. and R. E. Just. 1999. "The Importance of Structure in Linking Transboundary Games." Department of Agricultural and Resource Economics, University of Maryland at College Park.

Aggarwal, R., S. Netanyahu and C. Romano, 1999. "Can Access to Natural Resources Influence Fertility Decisions? Evidence from South Africa." Department of Agricultural and Resource Economics, University of Maryland at College Park.

Mitra S., S. Netanyahu and R. E. Just. 1995 “A Bargaining Theory Approach to Horizontal Industry Coordination with an Application to the Poultry Industry.” Department of Agricultural and Resource Economics, University of Maryland at College Park, Working Paper No. 95-25.

Netanyahu, S., S. Mitra and R.E. Just. 1995. “A Moral Hazard Explanation for Relative Performance Contracts in the Broiler Industry.” Department of Agricultural and Resource Economics, University of Maryland at College Park, Working Paper No. 95-24.

Unrefereed professional articles and publications (in Hebrew):

Netanyahu, S. Contributing writer, chapter on Climate Change and Extreme Weather Events in a publication of The Institute for National Security Studies (INSS) "The Security of the Israeli Electricity System." 2015. D. Weinstock and M. Elran, editors.

Netanyahu, S. 2011. "Municipal Water Corporations. *Water Engineering*.

Netanyahu, S. 2008. “Water Saving in Residences in the Urban Sector – North of Israel.” *Water Engineering*.

Netanyahu, S. 2002. “Who will Watch my Water?” *Water Engineering*. Issue no.18, March-April: 33-34.

Netanyahu, S. 2000. “To Desalinate or not to Desalinate? That is not the Question!” *Water Engineering*. Issue No. 8, July-August: 15-18.