

Name: Orna Raviv

Date: May-2022

## CURRICULUM VITAE

### 1. Personal Details

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#### A. Academic Background

| Date (from-to) | Institute                           | Degree               | Area of specialization  |
|----------------|-------------------------------------|----------------------|---|
| 1985 -1987     | The Technical College of Beer-Sheva | Practical Engineer * | Faculty of Physics/Electro-Optics   |
| 1993 -1998     | The Open University                 | B.A.                 | Faculty of Science  |
| 2011-2015      | University of Haifa                 | M.A. *               | Faculty of Natural Resources and Environmental Management, focusing on environmental and energy costs and benefits. |
| 2016-2021      | University of Haifa                 | PhD                  | Interdisciplinary research in environmental economics and ecosystem services valuation                              |

\* Graduated with honor

#### B. Previous Employment

| Date (from-to) | Institute           | Title   | Research Area  |
|----------------|---------------------|---|--|
| 1989           | Optomic             | Lab analyst   | Lasers for the vehicles industry   |
| 1990-2013      | Intel Israel (74)   | Data analyst, UX/UI design and project manager of information systems | Information systems, UX/UI, change deployment (partial research, non-academic)   |
| 2014-today     | University of Haifa | Researcher at the Natural Resources and Environmental Research Center | Environmental economics, ecosystem services, energy and resource management, modeling of LCA, climate change effects, CGE and other. |

|                      |                                  |            |  |
|----------------------|----------------------------------|------------|--|
| June-2022<br>- Today | Neaman<br>Institute,<br>Technion | Researcher | Energy, agriculture and<br>environment |
|----------------------|----------------------------------|------------|--|

C. Researcher role in the following projects:

| Dates                                | Research area  | Role (and focus)  |
|--------------------------------------|--|---|
| 2014-2015                            | External Costs and Sustainable Development of Energy Systems (Wind energy vs alternative energy sources in Israel)   | Researcher: renewable energy, ecosystem services, multi-parametric-analysis (MA Thesis)                 |
| Nov 2014 -<br>Dec 2016               | The Israeli department of agriculture (led by Iddo Kan & Ofira Ayalon): Treatment and Reuse of Vegetative Agriculture Organic Wastes – Economic Analysis of Integrative Technologies                             | Researcher: techno-economic-environmental analysis, circular economy                                    |
| Jan 2016-<br>Dec 2018                | The Israeli ministry of environmental protection (led by Ido Izhaki): Assessment of ecosystem services and human wellbeing in Mount Carmel Biosphere Reserve (socioeconomic analysis)                            | Researcher: PhD dissertation;<br>Economic valuation and modeling of ecosystem services in Mt. Carmel BR |
| Jan 2019-<br>Dec 2021                | The Israeli ministry of environmental protection (led by Gershman Y., Ayalon O., and Mamane H.): Ozonation as pretreatment for ethanol as transportation fuel replacement – optimization and life cycle analysis | Researcher:<br>LCA, efficiency, scale-up and techno-economic feasibility                                |
| <b>* May<br/>2020 –<br/>Dec 2023</b> | <b>AWESOME - mAnaging Water, Ecosystems and food across sectors and Scales in the sOuth MEditerranean</b>  | Researcher: CGE modeling and ecosystem services analysis  |

D. List of Publications (articles published in scientific journals or books in last three years only)

1. **Raviv O.**, Ayalon O., Palatnik R.R. (2015). Economic Evaluation of Wind Power Generation in Israel. Ecology and Environment 6(3). [Hebrew, an English version available here below]

<http://magazine.isees.org.il/ArticlePage.aspx?ArticleId=529>

- Conference paper:  
[https://www.researchgate.net/publication/283148942\\_Economical-Environmental\\_Assessment\\_of\\_Wind-Power\\_Generation\\_in\\_Israel](https://www.researchgate.net/publication/283148942_Economical-Environmental_Assessment_of_Wind-Power_Generation_in_Israel)

2. **Raviv O.**, Broitman D., Ayalon O., Kan I. (2018). A regional optimization model for waste-to-energy generation using agricultural vegetative residuals. *Waste management*, 73, March: 546-555 <https://doi.org/10.1016/j.wasman.2017.10.011>
  - Conference paper
3. Broitman D., **Raviv O.**, Ayalon O., Kan I. (2018). Designing an agricultural vegetative waste-management system under uncertain prices of treatment-technology output products. *Waste Management* 75: 37-43  
<https://doi.org/10.1016/j.wasman.2018.01.041>
4. Negev M., Sagie H., Orenstein D., Zemah-Shamir S., Hassan Y., Amasha H., **Raviv O.**, Fares N., Lotan A., Peled Y., Wittenberg L., Izhaki I. (2019). Using the ecosystem services framework for defining diverse human-nature relationships in a multi-ethnic biosphere reserve. *Ecosystem services*: 39 (100989)
5. **Raviv O.**, Zemah Shamir S., Izhaki I., Sagie H., Negev M., Mazor-Tregerman M., Collins-Kreiner N., Mansfeld Y., Lotan A. (2020). The socioeconomic value of multiple ecosystem types in a biosphere reserve as a baseline for one, holistic conservation plan. *Ecosystem Services* 41:101043.  
<https://www-sciencedirect-com.ezproxy.haifa.ac.il/science/article/pii/S2212041618306582>
6. **Raviv O.**, Tchetchik A., Zemah Shamir S., Izhaki I., Lotan A. (2021). Direct and indirect valuation of air-quality regulation service as reflected in the preferences towards distinct types of landscape in a biosphere reserve. *Ecological Economics* 180:106835  
<https://www-sciencedirect-com.ezproxy.haifa.ac.il/science/article/pii/S0921800919319500>
7. **Raviv O.**, Zemah Shamir S., Izhaki I., Lotan A. (2021). The effect of wildfire and land-cover changes on the economic value of ecosystem services in Mount Carmel Biosphere Reserve, Israel. *Ecosystem Services* 49: 101291  
<https://www-sciencedirect-com.ezproxy.haifa.ac.il/science/article/pii/S2212041621000498>
8. Gershman Y, Ayalon O, Maman H, **Raviv O**, Rosen Y, Halpern B, Peretz R, 2021. Ozonation as pretreatment for ethanol as transportation fuel replacement – optimization and life cycle analysis. Submitted to the Ministry of Environmental Protection [Hebrew].
9. **Raviv, O.**, Palatnik, R.R., Shechter, M. (2022). Review of the Economic Impact of Water Availability on Food Security and the Related Ecosystems. In: Cavalli, L., Vergalli, S. (eds) *Connecting the Sustainable Development Goals: The WEF Nexus*. Sustainable Development Goals Series. Springer, Cham.  
[https://doi.org/10.1007/978-3-031-01336-2\\_4](https://doi.org/10.1007/978-3-031-01336-2_4)

