

Comparative look at Israel and Germany

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1	<p>Key words</p> <p>Environmental Issues</p> <p>Israel, economic development vs. environmental deterioration, desertification, water shortage, pollution, soil degradation, water extraction from reservoirs, efforts to reduce water extraction, water management programs, Mediterranean Action Plan, sustainable national gas policy, waste treatment</p> <p>Germany, large CO₂ emitter, ambitious climate goals, 2020 plan, Energy Transition, renewable energy sources, feed-in remuneration, nuclear phase-out</p>
2	<p>Introduction</p> <p>Climate change and environmental problems are global challenges (Baylis / Smith: 453). Their effects are drastic, versatile, and can be observed in every part of the world: polar ice melting, desertification, water shortages, and so forth. A vivid example for this is a comparative look at Israel and Germany. This paper presents main environmental challenges in both countries and measures taken to deal with them.</p>
3	<p>Environmental issues in Israel</p> <p>Since its foundation in 1948, Israel has developed from a mainly agrarian country to an industrialized high-tech nation (Robert: 358). In the last five years, the Israeli gross domestic product increased by 3.6 percent annually, compared to 0.7 percent in Germany (OECD). Population grows steadily by 4 to 5 percent every year (Israel Bureau of Statistics). This success, however, has led to massive environmental deterioration. Main issues are desertification, water shortage, and pollution.</p> <p>Israel is almost entirely comprised of dry lands: Around 95 percent of the country is dry, sub-humid, semi-arid, arid or hyper-arid, with 60 percent of the country's land area covered by the Negev desert. This leads to the ever-present threats of soil degradation and desertification. To face these challenges, Israel implemented a number of programs in each of the dry land types, including reforestation initiatives and introducing renewable energy projects to prevent desertification (Tal).</p> <p>Annually, only 346 m³ of water per capita are covered by precipitation in Israel, compared to 2286 m³ in Germany (Reiss). In order to supply agriculture, industry and households, an extensive water extraction from the country's rivers and natural water reservoirs such as the</p>

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	<p>Jordan and the Sea of Galilee is undertaken. Consequences are fatal: The Sea of Galilee is Israel's only fresh water lake and provides one third of the country's drinking water, but its water level has decreased dramatically.</p> <p>Various efforts are undertaken to reduce the water extraction and aspirations are high: With a combination of desalination facilities, additional water treatment facilities, and reservoirs, Israel aims at achieving a water surplus in the long run (Israel Water Authority).</p> <p>Additionally, government and NGOs support water management programs to fight pollution. The main causes of groundwater pollution are chemical fertilizers, pesticides, seawater intrusion, and domestic and industrial wastewater. In 2012, the government approved a Master Plan for the National Water Sector that stipulates improved wastewater treatment for seawater and brackish water for reuse purposes, efficient water production and water conservation (Israel Water Authority a). Additionally, the quality of drinking water is strictly supervised.</p> <p>Pollution in general is a main issue in all urban areas, especially along the coast line of the Mediterranean Sea, as more than half of Israel's population and most of its industry are located here (Israel Ministry of Foreign Affairs). To combat the pollution of its coast lines along the Mediterranean and the Red Sea, Israel supports international cooperation, primarily within the framework of the Mediterranean Action Plan (MAP), a regional cooperative effort of the United Nations Environment Program (UNEP) (Israel Ministry of the Environment).</p> <p>MAP comprises 21 countries bordering the Mediterranean, as well as the European Union. Primary goals are massive reduction in pollution from land-based sources, limiting and intervening promptly on oil pollution and further promoting sustainable development in der Mediterranean region (United Nations Environment Program). An upcoming ecologic challenge is accompanied by the extraction of natural gas: In 2010, large natural gas fields were discovered in front of Israel's north coast. Since then, politicians, companies, and environmentalists have struggled over a sustainable national gas policy (Friedrich Ebert Stiftung: 5).</p>

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	<p>The growing population and industry have caused a demand for new waste treatment. Most of the country's illegal garbage dumps have been shut down in recent years and replaced with environmentally-safe landfills. The government supports waste treatment plans for the industry and plans to introduce an integrated licensing system for different industrial sectors to boost coherent waste treatment. By 2015, more than 450,000 private households are expected to join the separation of waste and thus support recycling in renewable waste to energy facilities (Israel Ministry for the Environment a).</p>
4	<p>Environmental issues in Germany</p> <p>The rapid reconstruction and the immense economic growth of the 1950s and 1960s in Germany led to dramatic environmental pollution in the form of contaminated rivers and lakes, polluted air, and badly marred and spoilt landscapes. Due to its economic weight, Germany remains one of the world's major CO₂ emitters (International Energy Agency).</p> <p>Since the 1980s, comprehensive measures have been taken to counteract the negative impacts of pollution and emission of greenhouse gases. Germany pursues ambitious climate goals on the national, European, and international level. In 2007, the government initiated the development of the European Union's environmental protection policy and the "3 * 20% plan" which envisages a reduction of CO₂ emissions by 20 percent, increasing the share of renewable energy sources in the energy balance to 20 percent, and lowering the energy consumption by 20 percent until 2020. Since 2008, Germany's CO₂ emissions are below the Kyoto requirements (Bundesumweltministerium).</p> <p>Domestically, the "Energy Transition" has become the main environmental project: Until 2050, 80 percent of the country's energy demand is to be covered by renewable energy sources (Bundesumweltministerium a). To support renewable energy production, the German government passed the Renewable Energy Act in 2000. It guarantees a generous feed-in remuneration for electricity produced from renewable resources such as solar power systems so that investment in such installations pays off in a reasonable amount of time (Bundesumweltministerium b).</p> <p>A major environmental topic in the last three decades was the usage of nuclear power: Advocates promoted the small quantities of CO₂ emitted by nuclear power plants, while opponents stressed the risk of radioactive contamination. The issue was settled abruptly in 2011,</p>

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	<p>when in the aftermath of the Fukushima disaster the government declared phase-out plans for nuclear power until 2022 (Landeszentrale für politische Bildung Baden-Württemberg). However, a final repository for the nuclear waste has yet to be found (Deutscher Bundestag).</p>
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