A total of NIS 20 million (ca US$ 5.8 million) has been allocated under this incentive programme to establish five innovation labs:

- The Alliance Open Innovation Lab (Renault–Nissan–Mitsubishi) in the automotive sector;
- Infralab in the smart infrastructure and construction sector;
- Let-lab in the Industry 4.0 and flow systems sector;
- PMatX Ltd in novel materials and (two- and three-dimensional) printing technologies in the electronics sector; and
- FoodNxt in the FoodTech, functional ingredients and nutraceuticals sectors.

The Innovation Labs Programme has two distinct target groups. The first a leading corporations interested in establishing innovation labs to practice open innovation. The second target group are Israeli entrepreneurs with a technological idea that they would like to transform into a product who wish to gain access to key technological infrastructure and the market expertise of leading corporate innovation teams, along with exposure to the corporation’s network of customers and investors (IIA, 2019).

### A focus on urban sustainability

In 2019, Israel’s population passed the 9 million threshold, the consequence of decades of targeted immigration and natality policies. The country now has a high population density of 400 inhabitants per km², similar to that of the Netherlands. However, each inhabitant of the Netherlands has access to seven times more renewable internal freshwater than an Israeli (Box 16.3).

For Israel, sustainable development is not a luxury. Rather, taking this path will be vital to overcome pressing socio-ecological challenges such as scarce water and land resources.

This scarcity has led the country to focus on urban sustainability, as outlined in its Voluntary National Review (2019). Innovation is one of Israel’s most valuable resources. The government’s vision is to expand its existing culture of innovation to give practical expression to the value of ‘leaving no one behind’ (Govt of Israel, 2019).

A government decision adopted in 2019 (#4631) has mainstreamed The 2030 Agenda for Sustainable Development into all strategic planning processes.

With better environmental protection and the introduction of sustainable consumption and production patterns being a particular challenge (Sachs et al., 2019), the government allocated a five-year budget (2017–2021) of about NIS 120 million (ca US$ 34.9 million) to regional projects designed to reduce the negative impact of intensive agriculture on natural resources and support adaptation to climate change. Since 2012, 1% of the income from sales of land for housing has been allocated to the Open Spaces Protection Fund, which operates in accordance with the Israel Lands Authority Regulations. Over US$ 150 million has been distributed by the fund to more than 300 projects nationwide since 2013, most of it on a competitive basis. These projects may be submitted by any stakeholder group, including government agencies, local authorities, companies, civil society and universities.

By 2018, the waste recycling rate had increased to 24% but the remainder of waste was still being dumped in landfills (MoE, 2019). The Ministry of Environmental Protection is redirecting its waste management policy towards an integrated approach consisting of five levels: reduction at source, re-use, recycling, recovery and landfill. According to the Strategic Plan for Waste Treatment to 2030, 51% of all generated waste will be recycled by this date, 23% will be recovered for energy and the remainder will be landfilled (MEP, 2018a). The plan includes a US$ 1 billion budget to support the establishment of sorting, recycling and waste-to-energy facilities.

Israel ratified the Paris Agreement in November 2016 and committed to an unconditional target of limiting its greenhouse gas emissions to 7.7 tonnes of carbon dioxide equivalent (tCO₂e) per capita by 2030, a reduction of 26% over 2005 levels. An interim target of 8.8 tCO₂e per capita has been set for 2025; actual emissions in 2017 were about 9 tCO₂e per capita (MEP, 2019).

Israel is an energy island without grid connections to neighbouring countries. It suffers from severe urban air pollution, which amounted to 21.4 µg m⁻³ on average in 2017 (Health Effects Institute, 2019). The country is also expected to become increasingly vulnerable to extreme weather events related to climate change.

National policies aim to eliminate coal from electricity production by 2030. This will be compensated by a rise in the

### Box 16.2: Four Israeli pilot projects experimenting with industrial symbiosis

The Ministry of the Economy and Industry launched a pilot project in 2019 to promote industrial symbiosis, in order to support responsible consumption and production patterns across Israel’s industrial sector.

Four companies operating in different regions won the tender for NIS 5 million (ca US$ 1.5 million). They are Daniron Consulting and Investments Ltd, 4S (concrete slabs and mining), the Good Energy Initiative and Aviv Management and Counselling.

The by-products and waste from one plant will be used as raw material in the production process of another.

By dividing the country into the Northern Region, Haifa and Sharon Region, Central Region and Southern Region, the ministry hopes to create specialization at the local level, as well as in industrial zones and city centres.

The pilot project will last for about a year, with the ministry planning to establish a long-term national project to promote industrial symbiosis with one of the partners having won the tender.

Source: compiled by author