

**ISRAEL - NATIONAL REPORT CSD-18**  
**THE TEN YEAR FRAMEWORK OF PROGRAMMES ON**  
**SUSTAINABLE CONSUMPTION AND PRODUCTION**  
**PATTERNS**

**Introduction**

It is widely recognized today that the transition to more sustainable patterns of consumption and production is what sustainable development is all about. Although there is no formal national plan on sustainable consumption and production (SCP) in Israel, the subject is incorporated in both policies and legislation, especially in relation to integrated waste management, energy efficiency and water conservation and management. Moreover, the 2003 government decision on sustainable development has accelerated the development of a range of tools and policies including green procurement, green building, green government, eco-efficiency, eco-innovation and awareness-raising.

**Generic issues relating to the inclusion of SCP in national policies**

**Inclusion of SCP in development planning**

The 2003 government decision on sustainable development directly relates to the wise use of natural resources. *Inter alia*, the decision calls on the relevant government ministries to prepare strategic plans for sustainable development, which relate to such issues as energy conservation, renewable energy, water conservation, efficient use of raw materials, water, energy and land in the business sector, clean production practices, research and development of environmental technologies, green building, public transit, and sustainable development education.

The Ministry of Environmental Protection is currently in the process of formulating a national plan for sustainable consumption. This plan will direct present and future initiatives for development planning on sustainable consumption. The ministry is also in the process of mapping its programs and regulations on green growth and the private sector.

## **Inclusion in national and local development planning, including infrastructure investment**

### **Planning Guidelines**

Israel's planning system does not mandate SCP. However, many voluntary plans and standards exist, especially with regard to green building, which incorporate new designs and technologies for reduced resource consumption, such as energy, water, recycling etc. Following are some examples:

- In 2002, the Energy Conservation Department of the Ministry of National Infrastructure published specifications on Energy Conservation in Public Buildings. The specification relates, *inter alia*, to the building envelope and to lighting, air conditioning and heating systems.
- In 2007, the Ministry of Construction and Housing published guidelines on the planning of sustainable communities and neighborhoods, which relate to land, water, energy and environmental quality.
- In 2008, the district planning committee of Tel Aviv prepared a policy document on green building, which provides guidelines for sustainable planning as well as tools to planning agencies, planners and entrepreneurs for the integration of sustainable construction from the earliest stages of planning.
- In 2009, the Ministry of Environmental Protection published a condensed guidebook on the principles of green building, which relates to such aspects as planning, water savings, wastewater treatment, energy efficiency and conservation, lighting, use of alternative energy, material and resource conservation, waste recycling, eco-design and more.
- Guidelines and instructions on the integration of green building principles were incorporated in local master plans for municipalities, communities and regional councils in Israel. The master plan for a Kfar Saba neighborhood is an example of such a plan, with 1000 residential units currently under construction.

### **Sustainable Industrial Zone**

This plan, initiated by the Ministry of Environmental Protection and the Ministry of Industry, Trade and Labor, aims at turning selected industrial zones into sustainable industrial zones. The plan proposes new zone planning and infrastructure changes that will influence the chain of production, including planning for integrated

environmental management, energy conservation, water consumption, solid waste, wastewater, recycling and material reuse. A pilot project has been budgeted.

### **Sustainable Transport**

The Israeli government views railways as a central means of mass transport which is both efficient and environmentally prudent. In an effort to realize the potential inherent in the development of the rail system, both in terms of passengers and freight, the government decided to invest \$7 billion in a multi-year program to establish a rail connection between all major and medium-sized Israeli cities.

### **Sustainable Waste Management**

A Solid Waste Management Master Plan was approved by the National Planning and Building Board in 2006. It presents a comprehensive framework for solid waste management, based on reduction at source, recovery and landfilling, as a last option. The goals of the master plan include sustainable management of land resources in Israel and protection of the environment. In another development, a landfill levy which requires landfill operators to pay a levy for every ton of waste landfilled came into force in July 2007. Funds are deposited in a dedicated account and are returned to local authorities or to the private sector for establishing recycling and recovery infrastructures.

### **Sustainable Energy**

Several government decisions have addressed the issues of energy conservation and promotion of renewable energy, as follows:

- A 2002 government decision called for the introduction of renewable energy into the electricity sector, with the aim that at least 5% of electricity supply will be supplied from renewable sources by 2016. Within the framework of this decision, the Public Utilities Authority (Electricity) decided in 2004 to determine tariffs for the production of energy from renewable sources, which will take account of the costs of pollution emissions.
- A 2008 government decision on energy efficiency aims to bring about 20% savings in anticipated electricity consumption by 2020. Among the proposed measures: energy savings in the home and in government structures, green

building, higher energy efficiency standards for electrical appliances, information programs on wise use of electricity and establishment of an energy efficiency fund.

- In January 2009 the Israeli government approved a proposal on establishing targets and formulating tools for the promotion of renewable energy, especially in the Negev and Arava arid regions. The decision calls for generating 10% of Israel's electricity from renewable sources by 2020, with 5% by 2014, and for identifying and allocating lands in the Negev and Arava for the construction of power plants from renewable energies.
- The Ministry of Finance has published a tender based on Performance Contracting - shared savings – in which the winner of the bid will install energy saving devices in government buildings and will be responsible for maintenance for the first five years in return for a payment equivalent of 50% of the value of energy savings achieved per year. A minimum of 10% energy saving is required. Currently, seven public buildings (courts and ministry buildings) are included in the tender and it is expected that government and private hospitals will be included in the future.

### **Water Conservation**

A “Transitional Master Plan for Water Sector Development in the Years 2002-2010” was prepared in 2002 which relates to policy, institutional and operational changes which are required to manage Israel's water sector more sustainably. Among the steps identified to close the gap between supply and demand are: water conservation and water saving projects, reclamation of large amounts of effluents to replace fresh water for agricultural irrigation, seawater and brackish water desalination and remediation of wells. Many of these goals have been backed up by government decisions and are currently being implemented.

## **Green public procurement policies, laws and regulations**

### **Green Government**

On December 13, 2009, the government approved a decision on "*Green Government – Operational Efficiency of Government Ministries.*" The decision aims at setting the Israeli government as an example of sound environmental management that integrates

steps for sustainability in its activities. Additionally, the decision reflects the environmental commitment of the civil service and the government for efficient management and environmental responsibility.

The goals of the government decision are to:

- Conserve energy and resources.
- Promote thrifty financial allocations – doing more with the same allocated budget.
- Increase the demand for eco-friendly products to encourage the creation of an environmentally friendly product market.
- Support local initiatives for environmental management.
- Set an example for the practice of sustainable consumption.
- Increase legitimacy and public awareness of environmental regulation.

Government offices are expected to adopt the following aspects of green procurement and resource conservation:

- Reducing the consumption of resources.
- Reducing the amount of waste generated in the office.
- Increasing the use of recycled materials.

### **Green Procurement**

A government decision on green procurement, titled Promotion of Goods and Corporations with an Environmental Standard in Public Procurement, was adopted in 2008. The decision calls on the Minister of Finance to authorize the Accountant General of the Treasury to formulate administrative instructions on promoting products and corporations with an environmental standard in contracts for land or products or purchase of services. As a result, environmental criteria are incorporated into the public procurement of several products and services through the Governmental Purchasing Administration, including, for example, recycled paper and collection of waste paper and printers (including the requirement for two-sided copies).

The decision to take account of the environmental impacts of products in government procurement is expected to advance the development of eco-technologies, to encourage environmentally friendly production by manufacturers and to increase public awareness.

## **Instruments for sustainable consumption**

### **Awareness-rising programmes/campaigns on SCP, including water conservation, energy efficiency, waste minimization and recycling**

#### **Energy conservation and efficiency**

The Ministry of National Infrastructure, in cooperation with the Israel Electric Corporation and the Ministry of Environmental Protection, coordinates an energy conservation campaign, which includes public service announcements in all media with tips on reducing household energy consumption, (e.g., setting lower air conditioners temperature, turning off lights, installing electric meters that can provide information on energy consumption). The ministry also promotes regulative policies that are aimed at reducing the energy consumption of households by, for instance, prohibiting the import of high energy consumption electric appliances.

Workshops on energy efficiency are organized for industry to demonstrate the considerable energy efficiency potential in different branches of industry and to highlight the advantages for companies that participate in the international carbon market.

#### **Water conservation**

In recent years, and in light of water scarcity in Israel, major water saving campaigns have been launched to increase awareness of the need for water conservation and to reduce consumption in all sectors.

- Israel's Water Authority conducts an annual campaign designated to reduce water consumption. The campaign utilizes all forms of the media – newspapers, radio, and television. It includes information on water saving devices such as double-volume toilet flushing basins and pressure regulators on taps and showers.

- Education on water efficiency and conservation is integrated into school curriculums. Additionally, the Water Authority conducts an annual national water awareness day for elementary school, junior high and high school children, in which all students undergo instruction dedicated to expanding knowledge and raising awareness of water conservation, especially in the home.
- The website of the Ministry of Environmental Protection features a set of green tips, targeted at the general public, on water conservation in both home [http://www.sviva.gov.il/bin/en.jsp?enPage=e\\_BlankPage&enDisplay=view&enDispWhat=Object&enDispWho=Articals^12068&enZone=Water\\_Conservation](http://www.sviva.gov.il/bin/en.jsp?enPage=e_BlankPage&enDisplay=view&enDispWhat=Object&enDispWho=Articals^12068&enZone=Water_Conservation) and garden [http://www.sviva.gov.il/Enviroment/bin/en.jsp?enPage=e\\_BlankPage&enDisplay=view&enDispWhat=Object&enDispWho=Articals^15862&enZone=Water\\_Conservation](http://www.sviva.gov.il/Enviroment/bin/en.jsp?enPage=e_BlankPage&enDisplay=view&enDispWhat=Object&enDispWho=Articals^15862&enZone=Water_Conservation).
- Information on advanced technologies for water-efficient irrigation is provided to farmers.
- Information on water thrifty plants is provided to the public on the websites of the Ministry of Environmental Protection, Water Authority, the Israel Water Company and others.

### **Recycling**

In addition to legislative requirements under the Deposit Law for Beverage Containers, a voluntary scheme for the collection and recycling of large beverage containers is in operation in Israel. Some 127 million large beverage containers were voluntarily collected in 2008 by means of 8,000 collection bins in local authorities throughout Israel, constituting 18% of the total number of bottles in the market. The public is urged to discard empty containers in such bins via advertisements in the media.

In parallel, composting is a major activity, especially in light of the fact that nearly 40% of the weight of Israel's waste is made up of organic matter. Non-governmental organizations, local authorities, kibbutzim and schools actively participate in composting workshops and instructions. In addition, community gardens, which are

springing up throughout the country, often include a composting heap for nearby residents which helps transform kitchen waste and garden clippings into soil.

Non-governmental environmental organizations and the Ministry of Environmental Protection have invested major efforts in promoting the reuse and recycling of plastic bags. In addition to proposals for regulatory measures, retail chains have begun to sell reusable cloth bags to their customers, with satisfactory results. In June 2008, a public forum was organized by the Ministry of Environmental Protection in the Knesset (Israel's parliament), with the participation of all stakeholders, on the environmental impacts of plastic bags and on measures to reduce their use.

### **Green Building**

Several measures have been implemented to increase awareness of green building among both professionals and the public. Courses on green building are offered to architecture and design students in the country's academic institutions, funds for research on green building are allocated, and seminars for architects, engineers and decision makers are conducted. In 2007, a green building competition was held, under the auspices of the Ministry of Environmental Protection.

### **Eco-Innovation**

Several national and international conferences have been organized in Israel focusing on eco-innovation and energy efficiency:

- The Eilat-Eilat Renewable Energy International Conference which features what Israel has to offer in the area of renewable energy innovations (<http://eilatenergy.org/site/Default.aspx>).
- CleanTech - the International Summit and Exhibition for Renewable Energy and Water Technologies, Recycling and Environmental Quality, Infrastructure and Green Building which relates to such subjects as water technology, sewage purification, desalination, water betterment and recycling, sewage purification facilities etc.
- (<http://www.mashovgroup.net/cleanTechEnglish/tabid/99/Default.aspx>).

- WATEC Israel, the International Conference and International Water Technologies & Environmental Control Exhibition which presents a showcase of technologies, products and services to support a sustainable economy. During the most recent exhibition in 2009, the Ministry of Environmental Protection organized conferences on separation of waste at source and renewable energy. The Ministry of Environmental Protection's booth featured a model green house to allow participants to experience the environmental and economic benefits of sustainable building. (<http://watec-israel.com/index.php>).

## **Policies and/or infrastructure to support citizens' choices for responsible consumption of products and services, including consumer information tools**

### **Eco-labels**

Israeli standard 1728 on General Guidelines for the Assessment of Products with Reduced Environmental Impact (Green Products) was published by the Standards Institution of Israel ([http://www.sii.org.il/385-en/SII\\_EN.aspx](http://www.sii.org.il/385-en/SII_EN.aspx)) in 1994.

The green label represents a holistic judgment, giving overall assessment of a product's environmental quality relative to other products in its category. It is granted when a product meets environmental criteria in such realms as waste reduction, energy savings, reduction of hazardous substances use, utilization of recycled materials, and reduction of packaging. Different categories of products are defined, with clear criteria for eligibility for each, including: electrical appliances, computers, toners, solar collectors, lubricants, paper and plastic products, fluorescents, paints and more.

The Ministry of Environmental Protection features an eco-label guide on its website. The guide includes information on the main labels and their social and environmental significance.

### **Sustainable Consumption Index**

The Ministry of Industry, Trade and Labor is in the process of developing an index that will examine lifestyle progress for sustainability. The intention is to monitor changes in consumer behavior of households in Israel – reducing environmental pollution and consumption of non-renewable energy. The index will reflect behavioral

changes such as: the degree of recycling (organic materials, bottles, packaging, plastic bags, etc.), clothing, water use, consumption of organic food, recreational activities, etc.

### **Energy Labeling**

The Standards Institution of Israel is responsible for developing labels and standards for residential electrical appliances. Both mandatory and voluntary labels have been introduced, with mandatory labels going into effect in the 1990s, when Israel enacted standards and labeling requirements for such products as air conditioners, refrigerators and freezers, water heaters, and several other household appliances.

### **The Guidebook for Sustainable Lifestyles**

In August 2008, the Ministry of Environmental Protection published a comprehensive guidebook for sustainable lifestyles. The guidebook is designated to provide the public with information on wise consumption and to raise awareness of the possible outcomes of unsustainable consumerism. The information aims to enable individuals to wisely choose their consumption patterns and to understand possible effects on society and the environment. For example the guidebook for sustainable lifestyle covers issues of:

- What to buy – general factors to consider when buying a product (e.g., usefulness, environmental impact, product life cycle, quality, purchase of services rather than products, fair trade, etc.).
- Going shopping – choosing where to buy things (e.g., buying from small businesses, combining a few shopping trips into one, using the internet or phone to purchase some products, minimizing the use of plastic bags, etc.).
- Buying fruits and vegetables – buying tips (e.g., buying local produce, buying seasonal produce, buying loose fruits and vegetables, etc.).
- Detergents, paint and other hazardous substances – tips for alternative eco-friendly (homemade and bought) detergents.
- Office supplies and school equipment – ideas for consumption reduction and information on health hazards.
- House pets – information about endangered species, biodiversity, and pet care.

- Finance and investments – responsible investments and choosing socially responsible banks.

## **Curriculum development/formal education programmes**

### **Professional education**

All of the country's major universities and colleges have opened graduate or undergraduate level programs in environmental studies and management. In parallel, the Division for Professional Training of the Ministry of Industry, Trade and Labor plans to open three new educational curriculums in the coming academic year – Water Engineering, Wastewater Technician, and Renewable Energy Engineering. These curriculums are designed for young professionals that wish to expand or change their professional abilities. The studies will be conducted in a number of colleges across Israel, with the tuition subsidized by the Ministry of Industry, Trade and Labor. Furthermore, several of Israel's non-governmental organizations provide training and seminars on different aspects of SCP.

### **Education for sustainability**

Education for sustainability, with an emphasis on sustainable consumption and production, ranks high on the priority list of both government and public organizations. Of special importance is the Green School accreditation program, under the auspices of the Ministry of Environmental Protection and the Ministry of Education, which has seen the certification of 232 Green Schools and 274 Green Kindergartens in Israel

Schools are approved for the green school process if they meet the following three criteria:

1. Integration of environmental subjects in the curriculum.
2. Rational use of resources, including reduction in electricity, water, and paper consumption and collection of waste for recycling.
3. Contribution to the community, including implementation of a community environmental project, such as increasing awareness of recycling and information on environmental subjects such as reduction of plastic bag use.

In addition, a "Green Campus" project is being implemented in Israel which sees the accreditation of institutes of higher education, in a process similar to the green school. The assimilation of green building as one of the components of the rational use of resources program is recommended.

### **Education and awareness**

In Israel formal and informal education programs are continuously being developed by the Ministry of Environmental Protection, the Ministry of Education, community centers and non-governmental organizations. Targeted at all segments of the population, many of these programs deal with raising awareness for sustainable consumption by means of the three Rs – recycle, reuse and reduce:

- **Recycle:** recycling projects have ranked high among school activities, whether composting workshops (utilizing composting bins provided by the Ministry of Environmental Protection to participating schools), paper recycling competitions or used battery collection campaigns. In addition, students often collect and return used beverage containers and transfer the redeemed deposits to charities throughout the country.
- **Reuse:** plastic bag reuse is high on the agenda for school children. The plastic bags are turned into carpets, handbags, and ornamental statues. ([http://www.sviva.gov.il/bin/en.jsp?enPage=BlankPage&enDisplay=view&enDispWhat=Object&enDispWho=Articals^12432&enZone=green\\_consumption\\_200](http://www.sviva.gov.il/bin/en.jsp?enPage=BlankPage&enDisplay=view&enDispWhat=Object&enDispWho=Articals^12432&enZone=green_consumption_200))
- **Reduce consumption:** The Ministry of Environmental Protection published an activity book teaching children how to different kinds of daily products. The simple understanding of product cycle and the ability repeat it is considered to be an empowering and an awareness rising experience.

Educational initiatives by Israel's non-governmental organizations include:

- **Children Make a Difference:** This eco-education program of the Society for the Protection of Nature in Israel (an NGO) obliges participating schools to adopt environmental thinking and green management in cooperation with the community and the neighborhood. Program activities take place within both the formal and informal education systems and aim to increase the child's responsibility for his or her immediate environment, as a first step toward wider environmental responsibility.

- **Green Course – Students for the Environment:** Established in 1997, Green Course is the only nationwide student environmental organization in Israel. The organization produces and distributes materials on recycling, energy use, and decreased waste and encourages students to assimilate environmentally-friendly behavior.

## **SCP in national priority areas**

### **Inclusion of SCP in policies, laws, regulations, and guidelines**

#### **Waste Management**

To address the problem of ever-increasing quantities of solid waste, the Ministry of Environmental Protection has formulated a policy founded on integrated waste management. It calls for reduction of waste at source, reuse, recycling, energy recovery and landfilling. The goal is to reduce the total quantity of waste that the country generates, in general, and the quantity of waste which reaches landfills, in particular, and to increase waste recovery and recycling to 50% by 2015.

To promote waste recycling and reduce the quantity of waste destined for landfilling, the Ministry of Environmental Protection has introduced several laws and regulations in recent years, including the landfill levy, the Deposit on Beverage Containers Law and the Tire Recycling Law.

In February 2010, a new Memorandum on a Packaging Law was distributed, expanding the regulative span to include issues of sustainable production. The proposed law will impose personal responsibility on all manufacturers and importers in Israel (food, cleaning materials, electronic products, etc.) to collect and recycle the packaging waste of the products they market. The law aims to regulate the treatment of packaging in Israel, and is based on the principle of extended manufacturer responsibility, whereby the manufacturer or importer is responsible for the collection and recycling of the packaging they produce or import for sale in Israel. The law adopts the guidelines and targets of the European Directive on packaging and packaging waste.

### **Green Building**

Israel Standard 5281 for buildings with reduced environmental impact (green buildings) was published by the Standards Institution of Israel in 2005. The standard is currently voluntary and is awarded to new or renovated buildings that comply with specific requirements and criteria on energy, land use maximization, water conservation, wastewater and drainage and other environmental subjects, reuse of waste from demolished buildings, indoor air quality, and use of green label materials and products. The Ministry of Environmental Protection is helping to promote a mandatory building code in cooperation with the Ministry of Housing and Construction. This code will include regulations issued by the Ministry of Interior under the Planning and Building Law, 1965. Green building and energy efficiency will be important elements in the set of new building codes. To date, several buildings have been accredited as green buildings throughout Israel. Significantly, several universities have constructed green buildings or are in the process of doing so, including the Center for Desert Architecture and Urban Planning in Ben-Gurion University of the Negev, the Blaustein International Center for Desert Studies in the Institute for Desert Research, the Faculty of Civil Engineering in the Technion – Israel Institute of Technology, the Environmental Sciences building at the Weizmann Institute of Science, and in the near future, the Porter School of Environmental Studies at Tel Aviv University.

### **Energy Conservation and Efficiency**

A standard on the energy rating of residential buildings (Israel Standard 5282 Part 1) was approved by the Standards Institution of Israel in 2005 and a standard on the energy rating of office buildings was approved in 2007 (Israel Standard 5282 Part 2). To comply with the energy chapter of Standard 5281, it is necessary to fulfill some of the requirements of Standard 5282, especially with regard to insulation and windows. The aim of the standards is to define the necessary conditions for make a building environmentally friendly in terms of its energy consumption.

The Energy Resources Law of 1989 aims to regulate the exploitation of energy sources, allocate them in accordance with the needs of various industries and use them efficiently and sparingly. Regulations within the framework of the law relate to the energy efficiency, energy rating and energy labels of a number of products, including

air conditioners, refrigerators, electric heaters, solar water heating installations, thermal insulation, efficient consumption of energy, energy audits, inspections, etc.

Legal requirements for the installation of solar water heaters in new buildings and compliance with a standard which mandates thermal insulation levels that provide thermal comfort at reasonable energy consumption are in force in Israel. This accounts for 80% of all water heating requirements annually.

In January 2010, the Israeli Institute of Standards published a new standard for energy system management, ISO 50001. The standard is expected to save at least 10% of the energy consumption of organizations. It is expected that pilot programs in a number of companies will begin in 2010.

### **Water Management and Conservation**

The Water Law of 1959 regulates the management of Israel's water resources, their preservation and their allocation for use. Pursuant to the law, all water resources in Israel are owned by the public and there are no private water rights or resources. The State, through the Governmental Authority for Water and Sewerage (the Water Authority) controls, manages and allocates the water resources as a trustee for the benefit of the inhabitants and for the development of the land. The Water Law allows wide-range and efficient instruments for sustainable water management system starting from water supply and demand strategies to wastewater management including treatment and reuse.

Effluent reclamation is an important source of additional water and Israel already holds a world record of 70% reclaimed effluents reuse in agriculture and is a world leader in the development and the production of efficient water saving irrigation systems. Upgraded effluent quality standards, which are appropriate for unrestricted irrigation and discharge to rivers, were approved by the Knesset (parliament) in 2010. These Public Health Regulations (Effluent Quality Standard) obligate both producers of wastewater and operators of wastewater treatment plants to treat their wastewater to the levels set in the regulations. The regulations allow for the reuse of effluents as a water source while at the same time improving public health and protecting the environment, including ecosystems and biodiversity.

### **ISO 14001 and 14004**

ISO 14001 and 14004 standards (environmental management systems) were approved by the Standards Institution of Israel in 2004. Dozens of companies and several municipalities have already been awarded certification.

### **Climate Change**

A directors-general committee was established in 2009 to prepare a climate change policy for Israel and to formulate a national action plan on climate change mitigation and adaptation. Working groups have been set up on different subjects, including energy, transport, agriculture, planning and building and more.

A carbon cost curve for Israel, prepared by McKinsey & Company, demonstrated that technical abatement measures, such as introduction of renewable energy, improved fuel efficiency in cars, increased energy efficiency in buildings, use of efficient lighting and lighting control system, have a high potential for reducing greenhouse gases in Israel. The study also underlined the importance of behavioral changes, such as energy efficient lighting, public transportation, bicycle use, increased average building temperature and reduced meat consumption, in reducing emissions.

### **Inclusion of measures and policies to improve the environmental and social impacts of products (e.g. life-cycle analysis, energy-efficiency standards, internalization of environmental and social costs)**

Measures and policies to improve the environmental and social impacts of products include the adoption of green building and energy rating standards for buildings and products. Life-cycle analysis is still in its infancy, but headway has been made in internalizing environmental and social costs in resource use. Thus, for example, the landfill levy specifically relates to the internalization of the environmental and social costs of landfilling.

Economic incentive measures for renewable energy have been developed by the Israel Public Utilities Authority – Electricity (PUA) for the sale of renewable energy to the Israel Electric Corporation and the related feed-in tariff and licensing arrangements for solar thermal generation. The renewable premiums reflect the cost of the avoided

CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub> and particulate emissions due to the renewable generator's replacing fossil-fuel generators during each time-of-use period

In 2008, the government approved measures to encourage electricity production based on the installation of photo-voltaic cells on roofs by setting a higher tariff (about four times the going price of electricity for consumers) for electricity which would be sold to the national grid.

Furthermore, in January 2008, the Israeli government approved a proposal on the promotion of clean energy by means of green taxes, as per the recommendations of an interministerial committee on green taxes. The decision relates to taxes on private and commercial vehicles up to 3.5 tons, taxis, trucks and buses, fuel, congestion fees for all types of vehicles and renewable energies. As of 2010, purchase tax rates on vehicles in Israel are linked to the emission rates of five pollutants: carbon monoxide, hydrocarbons, nitrogen oxide, particulates and carbon dioxide.

### **Public, parastatal and private institutions involved**

Governmental, public and private entities are involved in the promotion of SCP in Israel in the context of sustainable development, as follows:

- **The Israeli Association for the Initiative of a Sustainable Built Environment:** Founded in 2004, this non-profit organization is comprised of environmentalists, architects, engineers, entrepreneurs and companies which have adopted green technologies. Its aim is to promote public awareness and development of professional skills and practices in the field of green building, while making it accessible and available to all. It conducts seminars and workshops, assists companies and contractors in implementing the green building standard, trains green building facilitators, and publishes papers. The Association works in liaison with such international organizations as the IISBE (the International Initiative for a Sustainable Built Environment) and WGBC (World Green Building Council).
- **Israel Green Building Council:** Founded in 2007, this non-profit organization is supported by industry, government and academy, together with professional, social and environmental organizations. The ILGBC aims to

bring green building education to architects and builders in Israel, and to create a rating tool for real change in Israeli buildings. It expects to create a green design course for professionals to provide them with theoretical and practical training in designing green building. A rating tool committee is working on research that will set the benchmarks for green buildings in Israel.

- **Program for sustainable consumption and production:** The Ministry of Environmental Protection coordinates a long term dialogue – "round table" – to promote discussion, activity cooperation and transparency on activities for sustainable consumption and production. The members of this 'round table' include the Ministry of Industry, Trade and Labor, the Manufactures Association of Israel, the Federation of Israeli Chambers of Commerce, 'Maala' - Businesses for Social Responsibility, The Israel Union of Environmental Defense, NGOs and academia representatives. The goal of the 'round table' is to build a long term platform of cooperation.
- **Israel Small and Medium Enterprises Authority - Green Business:** Under the Ministry of Industry, Trade and Labor, the Israel Small and Medium Enterprises Authority manages Small Business Development Centers. The Green Business Center offers entrepreneurs and businesses:
  - Consultations, accompaniment and guidance (compliance with environmental regulation, cost effectiveness, technical solutions, etc).
  - Professional studies, including green entrepreneurship and green marketing.
  - Direct financing options and links to potential financial aid sources.
  - Reduction of environmental and economic costs.
- **Manufacturers Association of Israel:** The MAI is the sole representative body of all industrial sectors in Israel: private, public, kibbutz and government industries. Its Chemical, Pharmaceutical & Environmental Society is responsible for environmental issues and activities with the help of sub-committees on hazardous materials, air quality, sewage and environmental management. The society provides MAI members with ongoing updates on standards, legislation, innovation and environmental material and with consultation services related to the subjects of the subcommittees.
- **Cleaner Production Center:** Since July 2001, the Ministry of Environmental Protection and the Manufacturers Association of Israel run the Israel Cleaner

Production Center in the headquarters of the Association in Tel Aviv. The objectives of the Cleaner Production Center include:

- Accumulating and disseminating information on cleaner production issues by means of seminars and a website.
- Enhancing awareness of the cleaner production process, its significance and its benefits, by providing assistance to cleaner production programs.
- Initiating projects incorporating cleaner production principles by local industry.

A high priority item on the Center's agenda is reduction of solid and hazardous waste at source and its recycling. This is undertaken by two means: a feasibility study of implementing clean production in industry, with the aid of experts and Good Housekeeping Practices.

The website of the Israel Cleaner Production Center features, among other things, a waste material exchange bulletin board. The board includes two listings: supply and demand. This free service allows companies to request the materials they require for their production or recycling processes (demand), on the one hand, or to offer waste materials which may be used as raw material by another plant (supply), on the other hand.

Also included on the Cleaner Production Center are guidebooks on good housekeeping practices in industrial plants and guidebooks on clean production in industrial sectors including print houses, metal plating plants, dairy factories, the textile industry, food processing, skin processing as well as pollution prevention case studies of plants in Israel which implemented clean production processes.

- **The Heschel Center for Environmental Leadership** and the **Center for Local Sustainability:** These organizations, in conjunction with other NGOs and the Ministry of Environmental Protection, are especially active in capacity building for sustainability by providing training, tools, and support networks for government officials, architects, planners and mayors. Projects initiated include the 20/20 initiative of major cities in Israel to reduce greenhouse gas emissions by 20% by the year 2020, the Zero Waste Initiative focusing on capacity building for community waste actions, the New Horizons project with a concentration on sustainable energy production and consumption, and the

Good Energy Initiative, which aims to reduce greenhouse gas emissions through voluntary carbon offsetting.

- **Convention of the Forum 15 for Reducing Air Pollution and for Climate Protection:** Israel's major cities signed a convention in 2008 on the reduction of air pollution and the protection of climate. Following the preparation of a baseline emissions inventory and forecast based on energy consumption and waste generation, the municipalities are moving toward the development of action plans in four main areas: transportation and fuels, energy conservation and environmental friendly construction, garbage and recycling, and green spaces.
- **The Israel Lottery (Mifal Hapayis):** The Israel Lottery, a major financier of public buildings, including schools, has set up a committee of professionals and academics to prepare the criteria necessary for public green construction. These criteria will serve as the basis on which support and grants will be provided by the Israel Lottery for the construction of public green buildings.

### **Eco-efficiency/eco-design programmes**

There is a wealth of design and architecture institutions in Israel. A majority of these institutions offer elements of eco-design in their educational program. In addition, workshops and seminars are provided by organizations such as the Manufacturer's Association.

### **Promotion of Corporate Social Responsibility in the sector**

- **Israeli Standard SI 10000 for Social Responsibility:** In February 2007, the Standards Institution of Israel introduced a voluntary Israeli Standard known as SI 10000. This mark guides companies to reduce social inequalities and mainstream corporate social responsibility practices.  
Additionally, the Standards Institution of Israel is drafting ISO 26000. This ISO aims to encourage voluntary commitment to social responsibility and will lead to common guidance on concepts, definitions and methods of evaluation standard in the area of social accountability.
- **Maala–Business for Social Responsibility:** Founded in 1998, Maala is a non-profit membership organization which serves as an advocate, consultant,

educator and facilitator, encouraging corporations to identify opportunities for community involvement, promoting environmentally sound practices, social accountability and reporting.

(<http://www.maala.org.il/Eng/Home/About/01/default.asp?ContentID=333>)

- **Government private sector relations:** In 1976 the OECD (Organization for Economic Co-operation and Development) published voluntary governance guidelines. The guidelines direct accountable governance in a wide variety of issues, such as: employment, relations with industry, environment, commerce, consumer rights and more. In order to monitor and assist the implementation, member states appointed focal points responsible for awareness rising and providing solutions to problems that may conflict with the proposed organizational conduct. In Israel, the Foreign Trade Administration at the Ministry of Industry, Trade and Labor is the national focal point. Twice a year a steering committee of the focal point meets, including representatives of the Ministry of Finance, Ministry of Foreign Affairs, Ministry of Justice, and Ministry of Environmental Protection. The committee works as a forum for discussions between the government and the private sector.

#### **R&D incentive or support provided**

- The Ministry of Industry, Trade and Labor has launched a national water and energy program – 'Israel NEWTech'. This program aims at providing funds for the development of water technology and renewable energy sectors in Israel. It continues Israel's accumulated experience with coping with water scarcity and developing renewable energy by spearheading new technologies of water management and energy efficiency which reduce consumption and environmental pollution.  
(<http://www.israelnewtech.gov.il/Eng/Pages/IsraelNewTech.aspx> )
- During 2010, Israel is expected to take part in an OECD Household Behavior and Environmental Policy survey. The survey analyses the determinants of environmental behavior in five key areas where households exert pressure on the environment: energy use, transport, waste generation, food consumption and water use. The survey is anticipated to widen the scope of previous analysis by examining the effect of various types of environmental policy

instruments and by considering differences in environmental behavior among households (e.g. age, income, education).

- The Chief Scientist of the Ministry of Environmental Protection has published calls for research and a call for proposals to plants for consultation services for the feasibility review of reducing pollutants at source and increasing resource use efficiency. The support will be given for consultation services to the plant for possibilities of reducing pollutants in the following areas: industrial effluents, air emissions and reductions in the quantity or toxicity of hazardous substances. The review will include a review of alternatives for pollution reduction in the chosen area, including technological and economic technology feasibility of each of the alternatives.
- A 2008 government decision called for the promotion of research, technology development and energy production in the field of renewable energy. The goals of the new plan, slated for implementation in 2008-2012, are to increase renewable energy sales and increase research and development investments in the field. One proposal calls for establishing a research and development center for renewable energy technologies in the Negev.
- A study on Eco-Innovation in Industrial Firms was published by the Jerusalem Institute for Israel Studies in 2009. The study presents a model which describes the primary factors which influence industrial firms to undertake eco-innovation was constructed.

### **Links with spatial planning and sustainable city policies, including Integrated Waste Management**

The planning system in Israel encourages sustainable consumption and production in two main categories:

- **Promoting cycling in the urban sphere:** The Ministry of Transport has drafted guidelines on the uniform planning of biking paths. The Ministry of Environmental Protection financially supports 20 projects for planning and 11 projects for implementation of bicycle trails.
- **Green building:** several communities and neighborhoods in Israel have been developed according to green building standards.

- **Sustainable transport:** Transport Today & Tomorrow, the Ministry of Environmental Protection and the Ministry of Transport have advanced a joint initiative aimed at encouraging a systematic sustainable approach to transportation planning from within local authorities. The initiative includes a sustainable transportation contest and a sustainable transport course.
- **Climate protection on the local level:** Israel's major cities, known as the Forum 15, signed a convention in 2008 on reducing air pollution and protecting climate. The municipalities have conducted a baseline emissions inventory and forecast, based on energy consumption and waste generation, which will be followed by the development of a local action plan describing the policies and measures that the local authority will take to reduce greenhouse gas emissions and air pollution in four main areas: transportation and fuels, energy conservation and environmentally friendly construction, waste and recycling and green spaces. Within each area, the municipalities will undertake specific initiatives such as planting roof gardens to reduce carbon dioxide, switching to cost-effective lighting in public buildings, recycling, and encouraging alternative transportation such as biking, walking, car-pooling and public transit.
- **Integrated waste management:** Several cities in Israel are implementing integrated waste management, which goes beyond requirements set in legislation, in terms of recycling centers, recycling infrastructures, and composting.