

LAND

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1. Overview

In an increasingly urbanized environment, spatial conflicts are increasing at the national and regional levels. The conflict is between the growing need for accelerated development and our commitment to preserve landscape and cultural heritages and leave ample open space for the use of present and future generations.

However, traditional zoning tools are no longer sufficient on the national and regional levels, and a new planning language is required. While the principle of sustainable development has created a conceptual framework and global commitment to wisely balance between economic, environmental and social needs, there is a need to develop spatial management tools for land use.

Efficient use of land, a significant goal worldwide, is even more critical in Israel due to its increasing land shortage in the face of current and projected development rates. Higher housing density, reuse of existing built-up areas, joint infrastructures, efficient land use for public areas and buildings, mixed land uses, utilization of underground space, utilization of marine space, utilization of desert areas by means of appropriate technologies, utilization of mega-structures, and rehabilitation/reuse of areas for alternative use—all are critical issues in a country characterized by scarce land resources.

Planning in Israel must contend with major constraints such as rapid population growth (3%/year), very high density (561 persons/km² in the central and northern parts of the country), and a diverse cultural-social structure alongside a high GNP growth rate (5%/year).

In 2005, the Israeli government approved the Comprehensive National Master (Outline) Plan for Construction, Development and Conservation (NOP 35), which addresses Israel's development needs for the first two decades of the 21st century. It introduces a new planning concept that suits Israel's overlapping land fabric – “textures” that classify land as appropriate for development or for conservation. The core of the plan is based on urban renewal without sprawl, open space preservation, and development of other regions of the country beyond the heavily developed coastal plain.

The plan consolidates physical development into a concentrated set of urban centers (Haifa, Tel-Aviv, Jerusalem and Beersheva) while curbing suburbanization and urban sprawl and preserving a continuity of open spaces. Special protection is granted to previously unprotected areas such as open spaces along watercourses, buffer zones between built-up urban areas and the urban shoreline as a public open space. In these areas, development is to be strictly restricted except for leisure and recreation. Areas of development and conservation are linked together with a public transportation infrastructure.

The approval of NOP 35 constitutes an important milestone in the history of planning and land use in Israel.

2. Strategic National Planning for Urban and Open Space

Objectives of National Outline Plan 35

The macro goals of National Outline Plan 35 are based on the principles of sustainable development, including economic growth, social equity and quality of life and the environment. Its major objectives are:

- Responding to the planning and building needs of the State of Israel, while directing the bulk of development to urban "textures" and reducing suburban sprawl.
- Organizing Israel's spatial environment into five distinguishable textures (based on development vs. conservation)
- Consolidating urban areas into four metropolitan areas (Haifa, Tel-Aviv, Jerusalem and Beersheva) while emphasizing the principle of contiguous open space between them.
- Giving priority to the development of Jerusalem, as the capital of Israel, the Galilee and the Negev – while emphasizing the development of Beersheva as the capital of the Negev.
- Promoting the development of public transportation.
- Responding to the varied demands of different sectors of the population while narrowing gaps between different sectors and regions.
- Preserving land reserves for future generations while protecting natural assets, agriculture, landscape and heritage and the rural character of agricultural settlement.
- Improving urban entities through gradual renewal, relatively high density building and development of infrastructure systems emphasizing public transportation, as a driving force for urban development.
- Reducing environmental deterioration and nuisances, according to sustainable development principles.
- Encouraging cooperation among local authorities and promoting coordinated regional planning.
- Advancing outline plans and policy papers and following up on development and conservation.

Adding Textures to Planning

NOP 35 consists of statutory directives and maps as well as recommendations for complementary policy measures to be taken by the authorities to assure the achievement of its planning goals. The statutory component of the plan highlights such principles as contiguous/adjacent development, minimum density for residential uses, urban regeneration and open space protection. At the same time, it promotes public transportation, facilitates the reduction of social gaps, calls for the integration of infrastructure corridors and emphasizes environmental sustainability.

The constant tension to create an effective response to high demands for building, residence and employment and the growing concern about irreversible damage to open space and natural resources is responsible for the main spatial concept of NOP 35.

To clearly differentiate between development and preservation oriented areas, NOP 35 proposed a new planning terminology based on **textures**. These are demarcated planning areas which may include a variety of land uses. Each texture includes built areas for residence and employment, open space and infrastructure systems. The textures differ from one another in the quantitative and spatial relations between land uses and their designations, in their development and preservation levels and in the rules governing and directing these relations.

NOP 35 divides the country into five texture typologies:

- Urban
- Rural

- Mixed preserved
- National preserved
- Coastal

Each texture has its own definitions for size of the locality, expansion, densities, development, tourism, and uses of interurban areas. The plan emphasizes the boundaries of urban textures to prevent sprawl and to conserve continuous areas of open space, agriculture, natural assets, landscape and heritage.

The concept of texture is better suited to a long-term national plan than conventional land use designations. It clearly defines restrictions while providing flexibility, without the need to draw boundaries for specific locations or to establish population targets for individual localities. The boundaries for each texture were determined by the following set of parameters: systematic analysis of landscape values, anticipated development demands in each sub-district; assumptions about implementation potential; maintaining reasonable flexibility.

Managing Urban Growth

According to NOP 35, the urban texture constitutes 9% of the land area of the country while preservation and rural textures take up 91% of the area. At present, some 85% of Israel's population resides within the limited urban texture area. NOP 35 will be tested by its ability to maintain or even increase the population concentration within the urban textures until 2020, despite the trend towards suburban sprawl.

Most future development in Israel will have a distinctly urban character. It will be characterized by the consolidation of large urban areas, by medium to high building density, and by significant strengthening of urban lifestyle. For this purpose, detailed directives are an integral part of the plan to ensure gradual development of a high quality urban environment, as well as sufficient long-term spatial reserves, through the following means:

- Assuring efficient utilization of urban land by building above a minimum density and stimulating large scale urban regeneration activities.
- Reducing fragmented urban development to a minimum by assuring that the built areas will be contiguous.
- Determining the extent of interurban open space, which should be preserved within the bounds of the urban texture for leisure and recreation, agriculture, landscape and nature.

NOP 35 views urban regeneration as a primary means of increasing residential capacity without any intruding on "green-field" open space; thereby, urban regeneration becomes one of the main tools for solving the basic conflict between development and preservation.

NOP 35 also differs from traditional planning methods by incorporating multi-functional land use. Traditional planning was based on maximum separation between different land uses. This was especially true with regard to the sharp separation between residential and industrial and commercial land uses, which was a prerequisite for protecting public health and quality of life.

The plan is targeted toward a post-industrial society in which the main economic activities will be hi-tech industries and service-based businesses, characterized by minimal environmental impact. The growing weight of these activities in Israeli cities allowed NOP 35 to encourage the creation of multifunctional urban texture and enable a controlled mix of different uses for residence, employment, commerce, entertainment and leisure within its framework. This should allow for a more vibrant urban life.

Preserving Agricultural Land

Agricultural land is not in short supply today. Some 700 km² of land allocated for agricultural use are not cultivated. However, it is envisioned that future pressures will require extensive areas to be converted from agricultural to urban use. The goal, therefore, is to minimize the land areas which will be transferred from agriculture to the urban sector and to maximize the area left for

agriculture. The problem is especially acute in the center of the country and in the vicinity of major cities where the preservation of orchards and field crops is an important means of safeguarding essential "green lungs." Agriculture can significantly contribute to environmental conservation and the prevention of urban sprawl in the center of the country.

Components of the Plan

The statutory component of the plan highlights such principles as contiguous development, residential density, urban renewal, and open space protection which goes beyond the protection of nature reserves, parks and forests and includes the protection of "strips" of coast, streams and landscape. At the same time, it promotes public transportation, calls for the integration of infrastructure corridors and emphasizes the protection and improvement of the environment.

The environmental regulations of the plan, define more than half of the country as an area of high landscape sensitivity, where additional development is conditional on the performance of landscape/environmental assessments. The environmental requirements also define areas for the protection of water resources and aircraft noise impact areas and call for assessments of each development plan which may threaten the environment. Additional requirements relate to risk assessments including seismic risk and land contamination.

Principles of Spatial Structuring

The conceptual basis for spatial structuring is based on three principles:

- Decentralized concentration – population is dispersed at the national level and concentrated at the regional level (urban development within existing urban areas)
- Metropolitan structure – development within the four existing large metropolitan areas (Haifa, Tel Aviv, Jerusalem and Beersheva) including city core regeneration.
- Spatial structuring of open space – open and rural areas, which are rich in natural assets, landscape beauty and heritage, deserve protection, fostering and shaping, through the creation of a clear and whole national spatial structure.

Development of the Negev, Galilee and Jerusalem

The designation of wide areas as urban texture within the metropolitan regions of the north, south and Jerusalem is meant to encourage their urban growth. Alongside the statutory maps and instructions, NOP 35 recommends a long line of policy measures in the economic, social and organizational realms which are designated to encourage development and growth of the Negev, Galilee and Jerusalem regions.

NOP 35 proposes to change Israel's long-time traditional policy. It argues that the periphery is a national resource rather than a social and economic burden. Since human resources are not sufficiently utilized in the periphery, NOP 35 underlines the need to invest in human capital by raising education levels, creating centers of excellence and making them accessible to all parts of the regional population. The transfer of capital investments for the development of human capital and innovative infrastructure and communication systems to the periphery is essential.

While not part of NOP 35, a separate National Strategic Plan was developed for the Development of the Negev (Negev 2015). This plan aims to "upgrade" the periphery status of the Negev desert region by better utilization of Israel's land assets (the Negev covers 66% of Israel's land but is home to only 8% of its population). The plan is based on government investment in the region's economy, strengthening employment and educational opportunities and creating opportunities for the private sector. The plan includes upgrading infrastructure and transportation, while at the same time preserving the unique values of the desert and its fragile ecosystem (see CSD chapter on Rural Development).

Milestones in the Approval Process

Side by side with the statutory guidelines, the plan includes recommendations on complementary policy measures which should be taken by the authorities to assure the fulfillment of the planning goals: socio-economic policy, urban renewal, preservation and improvement of open spaces, accelerated development of public transportation, accelerated development of the Negev and Galilee, accelerated development of Arab communities and strengthening of cooperative ties among adjacent municipalities.

Policy Resources

Policy resources cover a wide range of subjects including strengthening the outlying periphery (while maintaining environmental and wilderness landscape quality of these areas), mutual cooperation between local authorities to increase "human resources" in the Negev and the Galilee, organizing the dispersed Bedouin settlements in the Negev, priorities for development the Arab population in the Galilee, the Negev and Jerusalem, urban renewal and preservation of historical buildings and more.

The volume on policy resources is intended, as mentioned, to direct and enable the integration of all the government and public activities involved in land usage, and to do so within the principles of Sustainable Development. The decision that enacted NOP 35 directed government offices and their agencies will operate as much as possible to adapt the policy resources associated with NOP 35 into their activities and to report to the government annually on their implementation. The Planning Authority is responsible to investigate the activities of each of the government offices and report on their findings regularly.

Conclusion

NOP 35 today is a statutory plan which is tested on a daily basis. The government views it as a central operational tool and its approach has become part of the professional and public discourse. Similarly, its planning language, the language of textures, has created a new balancing mechanism between initiative and planning control, between preservation and development, between permanence and change. Routine monitoring of the plan's impact has already begun and preparations for its review and updating will soon commence. The proposed updates of the provisions of the plan will be submitted to the National Planning and Building Council and to the Government of Israel in 2010.

3. Open Space and Protected Areas

Tracking land use facilitates analysis of development processes and their environmental impacts, such as changes in built up areas versus open spaces, nature reserves and agricultural land. Chart 2.1 presents an aggregated picture of land use in Israel. Some 18% of the country area is used for agriculture, and 77% is open space (forests, public and other open space). The different kinds of built-up areas total about 5% of the total area of Israel.

Table 2.2 presents selected figures on Israel's protected areas, which are high by international standards. These protected areas total some 19% of the land in the country. Almost all of the reserves are terrestrial and the rest are located in coastal and marine regions. With regard to type of protected area, 52% are nature reserves and 48% are national parks.

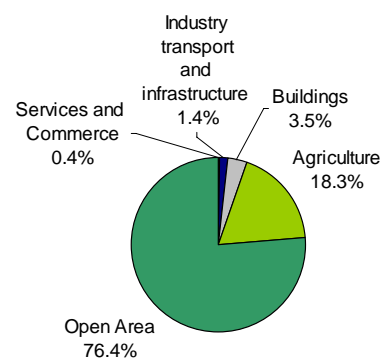


Figure 1. Land Use Chart

Table 2.2 Protected Areas in Israel (2002)

Total	Terrestrial	Coastal	Marine	Total
Number	390	29	8	427
Area km ²	4,071.7	19.7	8.3	4,099.7
National Parks				
Number	180	23	-	203
Area km ²	263.0	18.3	-	281.3
Nature Reserves				
Number	210	6	8	224
Area km ²	3,808.7	1.4	8.3	3,818.4

Source: Israel Nature and Parks Authority

With regard to protected areas, about a fifth of Israel's land is protected. Most of the protected areas are located in the south, with the largest amount of open space and the smallest population in the country. Protected areas in the central and coastal regions are limited to about three percent of the total area of these regions, and these areas are scattered and fragmented without the continuity necessitated for biodiversity conservation. The concept of corridors that connect between protected areas has been proposed in NOP 35 to address this problem.

Although Israel has a long coastline, there are only a very few small protected areas along its coast and in the sea. Since most of the country's population is concentrated in the coastal zone, the conservation of the marine and coastal areas is a difficult task, which has been partially addressed through a recently enacted Law for the Protection of the Coastal Environment.

In recent years the trend of converting open space and agricultural land into built-up areas appears to be rapidly increasing. However, current figures can only provide a present snapshot of the situation, and do not allow for the backtracking of land use changes over time. Systematic updates of the current data over time are required to track land use changes in the future and help policy makers and planners implement the goals of NOP 35.

4. Local Sustainability

Recognition of the key role that local authorities play in ushering in a sustainable future led the Ministry of Environmental Protection in cooperation with other governmental and non-governmental stakeholders launched a Local Agenda 21 initiative in 2002. Since then the majority of local authorities – regional and local councils – in Israel have initiated Local Agenda 21 processes, with the commitment and participation of the council head, local businesses and volunteers in their communities. While experiences differ according to local needs and dynamics, the process toward achieving environmental, social and economic sustainability for local communities is based on community involvement, stakeholder participation and consensus building.

The encouragement of local regional councils to prepare strategies for sustainable development is indicative of a public policy and commitment to this issue within the rural sector in Israel, whose current agenda includes social and environmental elements and the implications of modern agriculture and economic and growth. Sustainability will be perceived as a platform for rural and agricultural development and growth, through an inclusive and long term perspective. Participation of the general public is a guiding principle in this process.

The process is accompanied by an inter-ministerial steering committee that meets regularly, and based on continuous professional integration that supplies the committee members with real time updates, opportunities to add input throughout the process, conveying information between councils, and mutual learning as an integral part of the process (colleague meetings take place

on a quarterly basis with representatives of ministries, councils, chairmen of environmental urban unions and advisors taking part). This is due to the fact that sustainable development reflects a new outlook and approach that requires studying on the move.

Several councils have finished the planning stage and are involved in implementing the plans. This stage includes recommendations for more detailed plans, devising new tools for open space management, defining the part of agriculture as a platform for sustainable development, consolidating a mixed and recognizable community identity, transparent municipal management, environmental education, agro-tourism and more. The process began with five local councils (at the beginning of 2006), and today dozens of regional and local councils are in the midst of planning or considering taking part in the process (as of July 2007). The fact that a majority of the local and regional councils are somehow involved attests to the central role that local authorities will play in ushering in a sustainable future.