

VI

THE FIRST IMPLEMENTATION PHASE OF THE NPPLT

CHAPTER VI

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What measures should be taken to start implementing the National Physical Master Plan? What are the main concerned administrations? What is expected from each of them in the immediate and medium terms?

Answers to the above questions are given in the present chapter.

In order to be perfectly functional and assist the concerned ministries or public establishments to easily identify their relevant work, the actions proposed in this Chapter are listed by sector.

These actions are of various types. They concern:

- **Large scale projects**, which should be given priority in order to achieve the proposed development strategy;
- **Planning works**, which should be carried out at different scales;
- **Legal propositions** capable of assuring better control of urban development and equilibrium of land use and regional development; and
- **Institutional propositions** which are oriented towards the above mentioned objectives.

VI.1 TRANSPORTATION

Budget priorities:

The expenditures allocated to transportation should be re-evaluated in order to give priority to three types of interventions:

- Maintenance and rehabilitation of the national road network;
- Execution of necessary projects to avoid traffic jams in the Central Urban Area (CUA); and
- Execution of road projects to comfort traffic in the capital of the North (Tripoli), as well as in poles of the East (Zahle-Chtaura) and the South (Nabatiyeh).

The acknowledgment of these priorities should help to postpone new road projects that are out of these categories, at least until the time when the national network is judged satisfactory and the major traffic problems are adequately solved. It leads also to postponing expenditures on the Port and the Airport of Beirut, and to moderate expenditures on fishing harbors.

Priority projects:

Priority projects for the existing network are the following:

- Rehabilitation and maintenance works that should cover the entire national network on the basis of a systematic program of works handling major deficits and improving the entire network to an acceptable level. The financial envelope allocated to these works should consequently be increased, even if this leads to the reduction of the budgets of less urgent new works.
- Release, reconstitution and preservation of the old railway lines for future use as inter-urban rail lines. This constitutes a strategic option, which should be readied for as soon as possible. The longer the delay, the more difficult it will be to recover the old railway lines.

The priority projects required to solve the traffic problems in the Central Urban Area are:

- Turning the old railroad between Beirut and Antelias into a closed corridor, as a first stage, for public bus transports serving specifically Beirut and the upper regions of Matn;
- The construction of a new coastal road between Bourj Hammoud and Antelias;

- The widening of the coastal road crossing Zouq and Jounieh; and
- The project of the Arab expressway between Laylakeh and Aaley.

The priority projects of Tripoli and the other poles are:

- Upgrading of the Port of Tripoli, the road section of the North highway between Tripoli and Halba, and operation of the railroad between Tripoli and the Syrian network;
- Execution of the section of the Arab expressway crossing Chtaura, including solving the traffic problem of the Chtaura-Zahle-Damascus crossroads, and the improvement of the Zahle-Baalbeck connection through Nabi Chite and Britel (new connection);
- Rehabilitation of the roads around Nabatiyeh, especially upgrading the link with Marjaayoun and Hasbaya on one hand, and Chehabiyeh on the otherhand.

Protection of investments

The Ministry of Transport, in coordination with the Ministry of Interior, should be more strict vis-à-vis the suppression of illegal practices along the highways, namely the private openings executed for private commerce or private access.

A special vigilance in monitoring is needed in this field, all along the South highway, on the Zahrani – Nabatiyeh expressway, along the North highway between Antelias and Dbayeh, and between Jounieh and the northern border with Syria.

The same should be applied on new highway sections that will be executed along the Beirut-Damascus axis.

Regulation of public transport

Regulation of public transport should be done with the strategic objective of developing medium and high capacity buses in order to reduce road traffic problems, especially along the inter-urban axes. This policy implies taking measures for progressively shifting the activity of small cars towards the taxi practice (point to point trajectory), and towards the absorption of the so-called “taxi-service” (random multiple stop trajectory) until its final prohibition on the highway. This could require progressive repurchase of small cars licenses, as soon as they are on the market.

Organizing authority

The establishment of a transport organizing authority on the entire Central Urban Areas (from Nahr Ibrahim to Nahr Damour) is important in order to reach the objective of NPMPLT in the region. This authority should be competent to handle the entire public means of transport and one part of the road network to be accurately

defined (expressways and large axes). It would be alone responsible for planning of new works, rehabilitation and maintenance, traffic signs, and the regulation and pricing of public transports.

VI.2 TOURISM

The Ministry of Tourism could contribute towards a balanced national land management by defining clearly its geographic and sectoral priorities, in accordance with the following:

- Coordinate with the municipalities of Tripoli, Baalbeck and Tyre to implement a promotion policy for these three cities encouraging investors in the hotel sector and to elaborate a regional tourist development plan.
- Cooperate with the Ministry of Transport and municipalities to improve the road and tourism signage system all over the country.
- Conceive, with the help of tour-operators, tourist products (tours, organized trips, etc.) in the North, East and South regions of the country and promote them to potential clientele.
- Establish a policy of classifying rural dwellings (summer holiday room-renting inhabitant) and promote seasonal renting in the regions.
- Allocate to cultural tourism, rural tourism and eco-tourism a privileged attention compared to other forms of tourism (luxury tourism) that are more attractive these days and need less promotion efforts.
- Contribute to the reinstatement of seaside tourism, and support appropriate free public beach sites for mass tourism (Tyre and similar examples).

VI.3 INDUSTRY

The priorities of the Ministry of Industry logically pivot around the reduction of production cost as well as on promotion of exports. Other policies are important to implement in order to encourage the industry, organize it in a better way and make it contribute to the economic boom of the regions.

- The reduction of the energy cost is a crucial objective for the industry. The Ministry of Industry should work hard to accelerate supply of natural gas to the power generation plants, starting with Deir Amar plant, and to condense, on the long term, energy production in the gas operated plants.
- The interest of the industry requires also the availability on the market of reasonably-priced, accessible and well-equipped industrial lands. The National Physical Master Plan recommends the development of 3 industrial zones of national interest, north of Tripoli, towards Rayak and at Zahrani. These

projects should be studied and executed. They should also benefit from a promotion policy to encourage investors.

- The Ministry of Industry is responsible for health and safety norms. It should grant a higher attention to major hazards (explosions, fires, chemical pollution, etc.) in residential areas, such as in some suburbs of Beirut.
- Similarly, a special attention should be given to groundwater pollution hazards from industries established in unsuitable locations. The Ministry of Industry could cooperate, on this issue, with the Ministry of Energy and Water (MoEW), the Ministry of Environment (MoE) and the Directorate General of Urban Planning (DGUP) to elaborate special regulations using the maps of the National Physical Master Plan.

VI.4 AGRICULTURE

The Ministry of Agriculture has an essential role to play in land management. Its contribution could be reinforced through the following orientations and actions:

- Promote to decision-makers, municipalities and farmers the notion of “agricultural domain of national interest”, highlighted by the National Physical Master Plan, using soil suitability analyses. This awareness is necessary to preserve on the long term the agricultural assets of Lebanon.
- Coordinate efforts with the DGUP to establish the regulations for preservation of this national agricultural wealth.
- Follow-up with the Water Establishments the ongoing irrigation projects, while coordinating with the DGUP to protect the lands concerned by these projects against non-agricultural uses and to secure the permanence of heavy investments.
- Improve the production lines, and work to reduce the costs and increase the quality of productions.
- Help provide adequate water irrigation systems adapted to the most fragile soils, especially in Hermel and the valley of Aassi.
- Support the municipalities in establishing proper management plans for grazing and forest areas, especially in the desertification, landslide and erosion prone regions.
- Implement actions of interest to agriculture, livestock farming and forest proposed by the National Physical Master Plan for combating desertification.

- Launch and support innovative projects for encouraging agro-industry, including freshwater and marine aquaculture experiments in the North (Akkar).
- Promote, in close links with the MoE, the notion of “natural domain of national interest” highlighted by the National Physical Master Plan, which includes among others the projects of “Cedars and mountain trees corridor” and “Green valleys and links”.
- Undertake reforestation campaigns in the framework of the “cedars corridor” project and other reforestation projects.
- Organize, manage, protect and exploit the forests and other green areas, in collaboration with the relevant authorities (municipalities, waqfs, private sector, etc.); promote the exploitation of forest by-products other than wood; and participate in the management of protected areas.
- Participate in the elaboration and the implementation of the Mountain Law.

VI.5 EDUCATION

The main orientations that contribute to the land management policy in the field of education, are:

- Reorientation of government policy in providing school seats in the public education sector as well as in technical and professional education: reinstatement of the decree fixing the minimum number of students per school at 75; and limiting the new offer only for regions where public education is demanded and for regions where present schools are in poor conditions, rented or inadequate.
- Reorientation of government policy for new schools in technical and professional post-baccalaureate education, following the same logic.
- Evaluation of the Lebanese University’s new sites, based on the recommendations of the National Physical Master Plan, namely 4 major campuses: Hadath, Tripoli, Zahle and Nabatiyeh, by regrouping the branches of a same faculty on one site, and distributing the faculties on the 4 sites.
- Rehabilitation of the school map as a main tool for the projection of the number of students, the geographic areas to be served and planning for new schools.
- Clarification of complementarities that should exist between the public and private education sectors: in the current state of public finances, and as long as the Government succeeds in having the private sector implement its national education orientations, the public sector should not be in competition with the

private offer, but instead it should provide high quality education services for the regions and social categories deprived of private education.

VI.6 ATTRACTION OF INVESTMENTS

The priority measures to be adopted for this sector concern the following points:

- Creation of 3 agencies for promoting and encouraging investors to establish themselves in the large growth centers, namely Tripoli, Zahle and Nabatiyeh. These agencies could be created within IDAL development agency or as ad hoc missions associating IDAL to the Chambers of Commerce and professional groups and municipalities.
- These 3 “development agencies” should produce communication media for investment opportunities in development projects inspired from the National Physical Master Plan. They are supposed to highlight all measures of support and encouragement foreseen by Law of August 16, 2001 related to the development of investments.
- A retrospective benefit to cost evaluation by IDAL should be carried out of the various measures and operations applied on investments that benefited from important derogations of the construction mechanisms or the occupation of the public maritime domain. The objective of this evaluation would be to determine the proportional benefits of Lebanon from these projects/investments versus the impacts on the non-renewable resources.

VI.7 ENVIRONMENT

The Ministry of Environment (MoE) is highly concerned by the land management policy, due to its influence on the use of, and the negative impact on natural resources.

Hence the contribution of this Ministry would be essential for establishing the land management strategy.

The guidelines that could be the most efficient, at a first stage, would be the following:

- Launching the important project of “Cedars and mountain tree cultivation corridor” by the MoE in collaboration with the Ministry of Agriculture. It is an important program for reforestation and for integrated management of the strip between elevations 1,500 and 1,900m.
- Collaboration between the Ministries of Agriculture and of Tourism with the DGUP for the preparation of a framework law for the mountains, defining the management of all areas located above 1,000 m elevation in 3 brackets: 1,000 to 1,500 m; 1,500 to 1,900 m; and above 1,900 m.

- Collaboration between the Ministry of Agriculture and the DGUP for the preparation of a Law on “regional natural parks”. The National Physical Master Plan has identified 6 potential sites, namely Qadisha, Jaouz, Ibrahim, Ras el-Matn, Barouk-Bisri and Naqoura.
- Supporting the emergence, at a first stage, of the “regional natural parks”, on the sites for which preparatory work is advanced as well as for Naqoura, which should be properly managed ahead of the encroachment of the urban pressure.
- Collaboration between the Ministry of Agriculture and the DGUP to launch the project of the national natural park of North-Lebanon. This would require a prior assessment of the fauna and flora resources, as well as the geological and hydrological wealth of this area. This project requires also consultation with, and support of, local stakeholders.
- Establishing, in collaboration with the Ministry of Agriculture, a framework law on the protected areas in Lebanon, introducing a distinction between the notions of protected sites, protected reserves, national parks and regional parks. This Law should also define the notions of confined and wide perimeters of preservation.
- Launching an inventory work for the identification of natural sites to be protected (grottos, cliffs, fossil deposits, natural bridges, valuable geological formations, wetlands, etc.). The National Physical Master Plan has located a series of sites of these types. The MoE has also undertaken such a project for some categories of these sites. These studies should be completed and each site should be analyzed, identifying protective measures to be taken for its preservation.
- Launching a new land-use mapping. The MoE, in collaboration with the Ministry of Agriculture, produced the first national map of this type in 2002, using 1998 satellite images. This type of work should be repeated every 5 years on average.

VI.8 POWER

For the sector of power, the priority measures recommended by the National Physical Master Plan are the following:

- Give absolute priority to the transmission of gas to the Deir Amar power plant.
- The next priority project concerns improving the security of power supply through the inter-connection of Lebanese and Syrian networks.

- Launch a strategic vision on the power production plants in Lebanon, with the objective of reducing their number, thus contributing to the decrease in production costs.
- Combine this vision with a medium term plan for increasing production capacities and rehabilitation of some plants. In this matter, the National Physical Master Plan recommends, very clearly, to close systematically the inappropriate plants (starting from Zouq) and to concentrate the investments on 2 or 3 priority sites, especially Deir Amar.
- Redefine the investment program in the North, by renouncing to the Selaata plant (the environment of which should be preserved) and by concentrating on Deir Amar and the old refinery site.
- Launch an experimental program for wind power generation in Akkar, and another one for the promotion of solar energy in northern Beqaa.
- Act vigorously for “disconnecting” the social policy of the Government from the energy distribution service: if a support is to be envisaged for vulnerable groups of people, this should be carried out through social assistance from the Government and not through exonerations – in terms of dues or capacity – from paying the bills of the electricity company. EDL’s balance of accounts is a crucial element for reducing the energy bill paid by the economic actors, and hence for competitiveness. When a group of people is incapable of paying its electric bills (case of certain districts of totally deprived populations), it is the duty of the Government to decide – according to its social policy – to pay these bills on their behalf.

VI.9 WATER AND SEWAGE

The priorities in this sector are presented as follows:

- It is appropriate first of all to better control the water resources, and this requires a better knowledge of the water balance and of the water quantities extracted and used by public and private actors. This requires a campaign for measuring and studying the water resources. The pertinence of planning the investments and management of this sector depends on these actions.
- Concerning the increase in distributed quantities to domestic and commercial use that should constitute the first priority of this sector, it would be appropriate to concentrate on modernization of and reducing leakage rates from water distribution networks rather than increasing the volume of mobilized resources as is the case in general. Every new investment is considered lost by half since unaccounted-for water is as high as 50%.
- Establish, within each Water Authority, a plan to close all illegal water wells, concurrently with the achievement of satisfactory water supply.
- Carry out the necessary measures in order to “disconnect”, like in the case of power, the social policy of the Government from the water distribution service. If a support is to be envisaged for deprived groups of people, this should be carried out through social assistance from the Government, rather than through exonerations – in terms of dues or capacity – from payment of actual service bills. However, this disconnection could take-place only when the service reaches an acceptable level and the management services regain the consumers’ trust.
- As for the water storage dams, the short and medium term plans would not allow constructing more than what has already been contracted out, namely Chabrouh and Aassi. Later, the priority dam projects would be those of Noura Tahta, Bared, Iaal, Younine, Massa, Bisri, Damour and Ibl Saqi.
- Concerning irrigation projects, it is appropriate to complete what has already been engaged, especially the Conveyor 800 for South Lebanon, through designing the distribution networks, accelerating the cadastral coverage of the concerned area, and establishing the regulation that preserves the agricultural character of the irrigated lands. The same should apply to Aassi, Noura Tahta and Hasbani.
- For wastewater treatment plants, the priorities should be directed towards the regions where wastewater threatens groundwater resources. According to preliminary analyses carried out within the framework of the National Physical Master Plan, this should concern, most off all, the cities and the regions of Saghbine-Joub Jannine, Qaraoun, Hrajel, Zahle, Jebrayel, Bent Jbayl, Mishmish and Bakhaoun. As a second stage, action should be

concentrated on Hasroun, Besharreh, Khenshara, Jbaa, Laboueh, Mazraat ech-Chouf, Qartaba, Anjar, Amioun, Chaqra and Hermel. The projects of Tyre, Tabarja, Daoura, El-Aabdeh and Ghadir should be considered only as a third stage.

- As for the sewage system in the large cities where wastewater treatment is not a priority, the efforts should concentrate on rehabilitation of the sewage networks, where it is deemed necessary.

VI.10 SOLID WASTE

The rational management of wastes in Lebanon faces three obstacles: institutional (distribution of responsibilities between the ministries of Interior and Environment, and the municipalities), financial (the municipalities do not have the necessary funds to finance this sector) and social (the location of the dump sites and treatment plants is rejected by the municipalities planned to receive them).

Hence, the priority for the Government should be to eliminate these obstacles. The National Physical Master Plan recommends the following initiatives on the short term:

- Proceed to the definition of responsibilities on the basis of a clear decentralization of waste management to groups of municipalities that could be the existing Federations of Municipalities or other new groups to be responsible only for waste management.
- Make sure the created groups of municipalities have the necessary resources to face this problem. The ideal solution consists of attributing to the municipalities' domestic waste taxes and their collection, and adding therein a Government share to poor municipalities in order to balance inequalities of resources.
- Fix to the municipalities, thereafter, a plan showing the expected objectives and the schedule of implementation. The non-satisfaction of these objectives could be sanctioned by decreasing the Government contribution, which will push municipalities to increase their tax, and manage their own finances.
- Give the MoE the prerogative to contest the locations of landfills decided by the municipalities based on environmental impact assessment if sites were judged unacceptable for public health considerations (impact on water resources, agriculture, fishing, etc.).
- Foresee financial compensations that groups of municipalities would pay annually (for example per ton) to the municipality that would accept the construction of a landfill or a treatment plant within its jurisdiction area.

- Until these reforms are implemented, ongoing projects, listed on the CDR program, would have to continue. They concern Hbaline, Hermel-Baalback, and projects for Akkar, Tripoli-Zghorta, Besharreh-Koura-Batroun, Tyre-Bent Jbayl, Nabatiyeh-Hasbaya-Marjaayoun, West Beqaa-Rachaya, Saïda, Tripoli and Zahle. Looking for solutions to the saturated landfill of Greater Beirut should continue as well. But it is unlikely that these projects will be executed in the coming 5 to 10 years. Only sizeable reform of the abovementioned competences and funds could solve the conflicts around this issue and give sustainable results.
- The Government should also solve the problem of hospital and industrial wastes. It is the duty of the MoE to establish the regulations of these 2 issues, in cooperation with the Ministry of Public Health for hospital wastes and the Ministry of Industry for industrial wastes.

VI.11 HEALTH

Within the context of the land use plan, the expected initiatives of the Government in the health care sector are the following:

- The health sector requires major efforts in balancing supply and demand of health services. The establishment of a health plan map is a necessity for the regulation of the supply in the regions (hospitals, health care centers, dispensaries), but also technical plateaus (number of beds for short, medium and long stay, medical and para-medical staff, etc.).
- Health care services should not be conceived only in the framework of hospital structures and health care centers: home hospitalization and ambulatory health care formulas constitute lower cost alternative solutions that should be encouraged and established.
- It will be appropriate, according to an accurate evaluation of needs, to establish an expected balance between public and private offers. In the current situation of public finances and the fact that health care cost is being paid by the user himself and by the relevant social funds equally to the private and public sectors, the public sector should refrain from creating an offer wherever the private offer is already satisfactory.

The problems of improving quality of health care services in all regions, the control of health care expense, the access of deprived people to health care and the progress to be made in the field of preventive medicine are certainly the most important aspects of the health sector, but they have not been considered since they do not have a direct relation with land use planning.

VI.12 ADMINISTRATIVE , LOCAL DEMOCRACY AND THE TAX SYSTEM

The objectives of national cohesion, complementarities between regions and reasonable management of resources often face facts that result from administrative divisions of the territory and democratic territorial representation rules.

Hence, the National Physical Master Plan recommends debating the following issues and reforms:

- The suitability between the territorial representation system and the distribution of the total number of population: the elections by district are carried out in Lebanon based on the official registration of the electors in their home town origin and not their actual residence. In the large agglomerations, often the majority of the resident populations do not participate in the election of those that influence their daily life. In rural zones, permanent residents are submitted to the choice of representatives imposed by non-residents that are often more than the residents. This issue deserves a serious reflection, especially in a highly urbanized country like Lebanon.
- The suitability between the territorial realities and administrative divisions: the agglomerations of Beirut and Tripoli encroach on numerous Cazas, creating thus a double inconsistency. On one hand, the Cazas become composite units containing a suburb of a large city that “operates” with this city – located in another Caza – and less with its hinterland; and a rural hinterland that does not operate with the mentioned suburb (which belongs to its Caza), but instead, with the city located in the other Caza. On the other hand, the 10 larger agglomerations of Lebanon are deprived from united authorities (over the central city and the suburbs) capable of solving the problems in a global vision (for example, transport in the Greater Beirut region, or wastes in the region of Tripoli or Saida). Therefore, a reflection on the pertinence of the Cazas, and on the means to create agglomeration authorities is crucial.
- The suitability between the local tax system and municipal expenses: the municipal authorities lack the means to face the numerous responsibilities conferred to them by the law. The local development is highly obstructed by this condition. The decentralization issue provides the best opportunity to profoundly review the Lebanese local fiscal law.

VI.13 FINANCES AND CADASTRE

The recommended actions within the competence of the Ministry of Finance concern:

- The cadastral coverage of Lebanon; it should be absolutely completed as soon as possible. It represents first a tool that facilitates the property registration procedures for citizens, and help establishing the land use regulations for territories with high urban pressure, or for zones that are concerned by public irrigation projects or expropriations for road and other projects. Moreover, the lack of land registry (cadastre) in some regions provokes illegal practices of appropriation of other peoples' properties, public domains or *Meshaas*. It is therefore an important measure for many aspects.
- The reform of local finances, in order to allow the municipalities to assume correctly their responsibilities that are crucial for local development, the life condition of every person and the environment.
- The reform of fiscal property, the proceeds of which should go to the municipalities. Concerning the urban planning, the priority measure should consist of introducing a "legal ceiling density", which is a threshold of the construction coefficient beyond which the construction is highly taxed (at the cost of land required to build legally within the threshold). The ceiling could be fixed by a percentage of the authorized construction area coefficients in each zone (e.g. payment is done starting from 80% of the authorized coefficient), this percentage being lower for regions with no local urban planning (e.g. 50%). The proceeds of this tax should be affected by the municipalities to the extension of road networks and equipping new zones with infrastructure and public buildings. The idea behind this measure is to affect one part of the land-improvement added value, due to the situation of the land, to public effort necessary to accommodate the expansion of constructions.

VI.14 URBAN PLANNING

The measures to be taken in this sector are numerous and diverse, due to the strong interaction between land management and urban planning.

Legislative and legal reforms

The legislative and legal reforms to be launched as of the publication of the National Physical Master Plan should concern a series of problems highlighted by this Plan:

- The construction regulations in the regions that have no local urban planning (80% to 90% of the territory): the current system that allows the construction of 4 levels with a coefficient of construction of 0.8 to 0.9 in all these regions is not only harmful for sensitive areas (natural or agricultural) but leads also to strong local opposition every time a local urban plan is envisaged. This

condition obstructs the process of urban planning throughout the country, except within the perimeter of large cities (where it is rare to envisage a decrease in coefficient). It is vital for Lebanon to reform this situation by reversing it: the building rights should be the lower possible as long as a local urban plan is not approved.

- The possibilities of housing estate development in regions that do not have local urban plan: these possibilities should be severely restricted when the projects are not located in the direct continuity with built up areas of cities and villages. A real estate project located away from inhabited zones should not be authorized if it is not equipped with a road, potable water supply, sewerage network and electrical network. Even if these conditions are satisfied, the project should be submitted to an environmental impact assessment, and its authorization should be conditioned by the construction of the infrastructure, at the expenses of the project developer and prior to any building permit. Finally, the more the project is distant from inhabited areas, the larger the surface area of the new lots should be and the construction area coefficients reduced.
- The anticipation, in the local urban plan, of future housing estate projects: when a local urban plan is being elaborated or reviewed, it is necessary to preserve the area for a main road that would serve all possible future extension districts. The housing estate projects should respect these road alignments.
- A legal framework for the mountain: with the coordination of the Ministry of Environment, the Ministry of Agriculture and the Ministry of Tourism, the Directorate General of Urban Planning (DGUP) should work towards the conception of a legal framework defining the principles of land use in the mountain, according to 3 ranges of elevation: from 1,000 to 1,500m; 1,500 to 1,900m; and above 1,900m.
- A legal framework for the coastal zone and the water streams: the protection dispositions of the current legislation seem insufficient to protect the public domain and preserve the quality of the water, the shores and the river banks. A complementary legislative effort should allow modernizing the concepts and give solutions to the new practices and threats against the coastline and the water streams.
- The introduction to the Law of Urban Planning and Law of Construction new dispositions concerning natural flood and landslide hazards.
- The participation with the MoE in the elaboration of new legal framework concerning the protection of the natural wealth (localized natural sites with restricted and large perimeters, protected forest areas, natural reserves, regional natural parks, national parks, etc.).

In general, the DGUP will have to engage an important juridical and legal project on the basis of the dispositions recommended by the National Physical Master Plan. This project should be carried out methodically and financed up to the extent and value it represents to the Administration.

Urban planning operations

The National Physical Master Plan recommends launching, at the initiative of the Government, a series of urban planning operations, the juridical form of which is to be defined according to the objectives and the context of each of them.

- In the short term, it is important to achieve the operations already started, namely the Beirut Central District and Elyssar projects.
- A third operation seems to be determinant in the short term which is the “southern terraces” of the Caza of Aaley that covers the zone between Khaldeh and Damour. This area seems to be an obligatory extension area for the agglomeration of Beirut towards the South. It is important to equip this area with adequate road network and infrastructures, allowing a coherent urban planning, which is not currently the case, due to the configuration of the authorized housing estates, the lack of infrastructures, the illegal connections to the highway, etc. It is important, at the same time, to plan a smart management of this zone that could highlight the configuration of the site, constituted of western slopes towards the sea. All of this requires land consolidation, infrastructure funding and construction regulation. The infrastructure funding could be secured by a totally new mechanism: some lands would have higher construction area coefficients than the current regulation could assign, but this density increase would be payed at the price of the land surface area that would be necessary under the old coefficient. The proceeds of this tax would be paid to the developer in order to execute the infrastructure over the entire zone.
- Later on, or simultaneously, other urban planning operations should be conceived and launched on strategic locations: the vicinities of Nahr Beirut in the close suburb and in the city (new districts to be developed), the northern coastal zone (new road to cross along the coast), the vicinities of Chtaura-Jdita (new district to be created), a site to look for in Nabatiyeh (new district to be created), the northern extension of the Central Urban Area between Maamelteïn and Nahr Ibrahim (similar to Khaldeh-Damour).

Local urban plans

Several local urban plans should be elaborated or reviewed in conformity with the perspectives of the National Physical Master Plan.

The geographic locations where it is appropriate to intervene as a priority (besides the southern and northern extensions of the Central Urban Area, being treated as an urban planning operation) are:

- The Nabatiyeh Plan that should take into consideration the status of the “metropolis of balance” proposed for this agglomeration and the perimeter of which should be widened to contain the entire plateau.
- The Zahle-Chtaura-Qab Elias that should take into consideration the status of the “metropolis of balance” proposed for this agglomeration, as well as the Arab highway, the will to preserve the agricultural lands and the management operation that should take place in the sector of Chtaura-Jdita.
- The Enfe-Chekka Plan, a site where important industries, a site of high environmental value (Ras Chaqaa), many sites with important heritage value (Phoenician wall and Salinas), beaches and landslide and flood hazards are located at the same time,.

Beside these local plans to elaborate and implement in accordance with the normal procedures, more specific local plans should be established in priority on certain zones that are threatened by urban linear expansion and scattered invasion of agricultural lands, particularly the following zones:

- Aabde-Halba (including the desire to reserve an important industrial zone in this sector);
- Rayak-Baalbeck (including the desire to reserve an important industrial zone in this sector); and
- Baalbeck-Laboueh.

The DGUP should be present on all potential sites of natural parks as a partner with the promoters of these parks (municipalities, associations, MoE, etc.) to establish together the new regulation that should match with the objectives of each park. This concerns the following regions:

- The triangle Qobeyat-Sir-Jbab el-Homr;
- The valley of Qadisha;
- The valleys of Jaouz and Nahr Ibrahim;
- The valley of the tributaries of Nahr Beirut (Ras el-Matn);
- The valley of Barouk and Bisri; and
- The region between Tyre and the southern border.

An urban development agency

The low level of infrastructure utilities in the new urbanized areas and the alarming linear development of constructions alongside interurban roads between the villages are the consequences of the lack of efficient tools to manage the urban extensions and the offer of lands for construction.

To resolve this problem, it would be necessary, in the situation of Lebanon, to create an “urban development agency” in the form of a commercial autonomous public office.

This agency would have the duty, over the entire territory, to carry out missions for the Government (all administrations that may request the assistance) or the Municipalities, in the following fields:

- Acquisitions of lands in a friendly way;
- Leading the implementation of expropriation procedures;
- Conception and implementation of land consolidation and reparation;
- Construction of infrastructures on public percellation and urban expansion areas; and
- Resale of lands after their management.

The activity of this agency would aim first at the management of extension zones of the agglomerations.

The operation expenses of the agency should be covered from a share cut from the remunerations of engineering missions as well as from the added value of the lands as a result of the management improvements.

VI.15 CENTRAL SUPPORT TO THE LAND MANAGEMENT

The above-mentioned missions in the various sectors show that land management concerns in essence all the administrations. However, the consistency of the operation should be monitored and managed and a central support should be provided to the various administrations to ensure success.

Two parts are to be distinguished: on one hand, the actions of awareness, capacity building and encouragement, which are logically the responsibilities of the Ministries of Administrative Reform and of Information; and on the other hand, the management and control of the applied policies, which are the responsibility of the Council of Ministers and the CDR.

As far as awareness and capacity building are concerned, the following are proposed:

- The Ministry of Administrative Reform could start a program of capacity building of the civil servants of all the Ministries to make them acquire the basics of land management, so that each one of them takes into consideration the “land management” concept in his day to day work in the Administration.
- The same kind of work must be done at the municipality level. The Ministry of Administrative Reform has taken the initiative of such a task, through the program that has already been launched and with the help of the EU, inciting neighboring municipalities to join their efforts to elaborate a vision for the

development of their territory, compatible with the objectives of the land management.

- At the public level, the Ministry of Administrative Reform and the Ministry of Information could conceive awareness campaigns through the mass media (TV, Radio, written Press), that would cover specific topics directly connected to land management and that could promote new behaviors vis-à-vis the territory. They could also organize various events on relevant issues. They could finally act more specifically towards the teachers who would sensitize the growing generations to respect the land and the behavior of the citizens.

As for the public policies piloting and control mechanism, the followings are proposed:

- The establishment of an “Inter-ministerial Committee for Land management” procedure, which would meet once every year to evaluate the tasks executed (compared to the fixed objectives) and to decide on the projects to be undertaken.
- Taking into consideration its situation and its jurisdictions, the CDR is the only administrative and technical body that assures, within the Government, the coordination of the programs and actions that contribute to the realization of the land management objectives. Therefore, it has to play the central role in the preparation of the duties of the “Inter-ministerial Committee for Land management”, and then the coordination of their implementation.
- The CDR has created, within its Directorate of Programs, a land management department. The latter should make sure that the “Land management program” is included, in every investment program. It should also control closely the public actions (investments, legislations, regulations) conducted by the different administrations, analyze them and suggest the necessary corrections.
- This department will have also to manage the spatial database that have been produced by the National Physical Master Plan, and that are compiled in a “Geographic Information System”. The management of this database should be active and in partnership with those concerned. Besides operating this system for the analyses, it is necessary to update the data continuously and to enhance them. For this purpose, the ideal procedure would consist in creating a network of partners (or a “users’ club”), especially with the DGUP, the MoE and the National Center for Scientific Research – National Center for Remote Sensing (NCRS). Each member of this network would be engaged to improve the information related to his field of work and to store them in the common database.