

# Achievements of the Ministry of Environment

*From 15 February 2014 through 31 October 2016*





## **Achievements of the Ministry of Environment From 15 February 2014 through 31 October 2016**

### **“My Environment is My Country”: A slogan, a programme and an action plan**

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Upon his appointment as Minister of Environment in the Government of National Interest presided by Prime Minister Tammam Salam, Minister Mohamad Al Mashnouk launched his slogan “My Environment is My Country” reflected through a dynamic action plan and a list of accomplishments from 15 February 2014 through 31 October 2016.

If this meticulously designed programme guided the Ministry to the achievements listed below, it is because it was developed in conformity with values like transparency, governance and public participation in formulating agreements, protocols, laws, regulations, environmental strategies and in ensuring protection of natural resources and management of environmental risks through prevention and remediation.

It is without a doubt that the environmental situation in Lebanon is overwhelming, especially when considering the ministry's limited resources in addressing environmental challenges and pressing irregularities, which have not stopped throughout the past 50 years. Political interference, administrative routine, and lack of enforcement have contributed to the propagation of violations throughout the Lebanese regions, across governorates irrespective of sects and communities, political affiliations further overburdening the Ministry in its mission.

Perhaps the most prominent example of such political interferences is the witnessed solid waste crisis, which recently afflicted – and still is afflicting – the Lebanese population. In the absence of a formally adopted Law for Integrated Solid Waste Management, initially proposed by the Ministry of Environment in 2005 and forwarded to the Parliament in 2012, the *problématique* remains a shared responsibility between a number of concerned ministries and administrations. If we agreed to take on the responsibility of rapporteur of the Appointed Ministerial Committee and then agreed to head the committee for the evaluation of solid waste management bids, this does not mean that we shall bear the sole responsibility for a file almost as old as the Ministry itself. The efforts employed by the Ministry to clarify the facts and figures and to liberate the market and encourage competition were unfortunately left unappreciated. Only time can give these efforts right.

The Ministry of Environment seizes this opportunity to thank Prime Minister Tammam Salam and ministers, donors, international partners including the governments and agencies, local partners from both the public and private sectors and the civil society, for their contribution to our success in each and every field as presented herein under the following seven chapters:

- I. International Environmental Treaties, Protocols and Conventions
- II. Environmental Laws
- III. Environmental Regulations
- IV. Environmental Strategies and Action Plans
- V. Environmental Governance
- VI. Natural Resources Conservation: Land, Water Resources and Biodiversity
- VII. Environmental Risk Management through Prevention and Remediation: Syrian Crisis, Waste, Industrial Pollution, Climate Change, and Energy

**Mohamad Al Mashnouk**  
**Minister of Environment**  
28 October 2016

## I. International Environmental Treaties, Protocols and Conventions

**Keeping abreast of international developments in the environmental field through continuous efforts to respect and comply with international environmental treaties, protocols and conventions entered into or ratified by the Government of Lebanon, and continuing to work to fulfill other commitments, specifically:**

1. Adoption of Law N°. 29 dated 24/11/2015 related to the approval of the accession to the amendment of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
2. Issuance of Decree N°. 639 dated 18/09/2014 authorising the Government of Lebanon to join the Protocol on Integrated Coastal Zone Management in the Mediterranean emanating from the amendments of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean adopted in Barcelona on 10/06/1995.
3. Issuance of Decree N°. 206 dated 10/07/2014 transferring to the Parliament a draft law for the ratification of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity.
4. Issuance of Decree N°. 3347 dated 27/04/2016 forwarding to the Parliament a draft law authorising the Government of Lebanon to join the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, emanating from the amendments to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean adopted in Barcelona on 10/06/1995.
5. Issuance of Decree N°. 3987 dated 25/08/2016 forwarding to the Parliament a draft Law for the ratification of the Paris Agreement on climate change.
6. Issuance of Decree N°. 579 dated 11/09/2014 on the conclusion of the Memorandum of Understanding for collaboration on environmental protection between the Ministries of Environment of the Republic of Lebanon and Republic of Senegal.
7. Signature of a Memorandum of Understanding (MoU) on the conservation of Migratory Soaring birds in Africa, Europe and Asia based on the Council of Ministers (CoM) decision N°. 51 dated 14/08/2014.
8. Issuance of CoM Decision N°. 14 dated 16/04/2016 authorising the Minister of Environment to approve the by-laws of Arab Union of Nature Reserves.

## II. Environmental Laws

**Advancing on the environmental legislative agenda through the issuance of a number of laws for an improved organisation of the sector, and following-up on a number of draft texts awaiting approval by the Parliament:**

### II.a Adopted Environmental Laws

9. Adoption of a law allocating full-time designated attorneys for environment and investigation judges for environmental matters (Law N°. 251 dated 15/04/2014) and appointing

designated attorneys for environment and investigation judges in 6 governorates (Beirut, Mount Lebanon, North Lebanon, South Lebanon, Bekaa, and Nabatiyeh); as well as the issuance of Decision No. 3330 by the Ministry of Justice (MoJ) dated 10/11/2015 relative to the names of sworn experts, bankruptcy administrators and examiners in all governorates including environmental experts (environment and environmental engineering).

10. Adoption of a law for the establishment of the Jej Cedars Nature Reserve (Law N°. 257 dated 15/04/2014).



Jej Cedars Nature Reserve

11. Adoption of a law setting the principles for financial incentives to municipalities in the vicinity of the Aabey - Ein Drafil landfill, and exempting them from specific fees and duties (Law N°. 280 dated 30/04/2014).
12. Adoption of a law allocating financial provisions for the implementation of infrastructure projects and related expropriation activities in the Litani River Basin from source to mouth (Law N°. 63 dated 27/10/2016).

### II.b Draft Environmental Laws (in the Pipeline)

13. Approval of the CoM of the draft law for the establishment of the Donniyeh Lazzab Natural Reserve and of its transfer under Decree N°. 92 dated 03/07/2014 to the Parliament for adoption.
14. Presentation of a draft law on forest fires to the CoM and issuance of a CoM decision N°. 64 dated 18/08/2016 requesting the Ministry of Environment (MoE) a revision of the proposed text taking into account the comments of the concerned line ministries.
15. Presentation of a draft law to regulate access to Lebanese biological and genetic resources and equitable sharing of benefits arising from their utilisation in order to be adopted as a national legislative mechanism for the implementation of the provisions of the Nagoya Protocol and the organisation of the process of "Access and Benefit Sharing" on a national scale; and issuance of the CoM Decision N°. 2 dated 27/04/2016 appointing a committee headed by the Minister of Environment and including relevant administrations and bodies to revise the proposed draft Law.
16. Presentation of a draft law for the designation of a Marine Nature Reserve in Ras Al-Shaka'a.
17. Preparation of a draft law for the designation of a Marine Nature Reserve in Naqoura.
18. Preparation of a draft law on Integrated Coastal Zone Management.

### III. Environmental Regulations

**Ensuring the implementation of environmental protection policies through the implementation of basic environmental regulations and following up on the approval of others texts:**

#### III.a Approved Environmental Regulations

19. Issuance of Decree N°. 11949 dated 23/05/2014 classifying the Grotto of Al-Kassarat in Antelias as a Natural Site.
20. Issuance of Decree N°. 11987 dated 24/05/2014 for an insurance policy against potential risks to third party arising as a result of the practice of hunting.
21. Issuance of a Decree aiming at amending Article 10 of Decree N°. 8157 dated 18/05/2012 related to compensation of the National Council for the Environment and the Secretariat General of the Council (Decree N°. 1454 dated 05/03/2015).
22. Adoption of Decree N°. 2878 dated 10/02/2016 classifying a site in Ehmej - Jbeil as a Natural Site.
23. Issuance of Decree N°. 3277 dated 18/04/2016 amending Decree 2604 dated 17/09/2009 relating to the licensing system for the control of Ozone Depleting Substances regulated under the Montreal Protocol guidelines and control targets.
24. Issuance of Decree N°. 3989 dated 25/08/2016 for the establishment of an Environmental Police, its mandate, staffing, and organisation.
25. Development of regulatory texts supporting the implementation of the Strategic Environmental Assessment (SEA) System, namely the preparation of Decision 589/1 dated 21/12/2015 regarding the review mechanism for scoping and SEA reports published in the Official Gazette (N°. 53 dated 31/12/2015).
26. Development of regulatory texts supporting the implementation of the Environmental Impact Assessment System, namely the preparation of the following decisions and circulars published in the Official Gazette (N°. 28 dated 03/07/2014, N°. 26 dated 12/06/2015, N°. 53 dated 31/12/2015; and N°. 35 dated 07/07/2016):
  - a. Decision N°. 260/1 dated 12/06/2015 (Review Mechanism for Initial Environmental Examination IEE reports);
  - b. Decision N°. 261/1 dated 12/06/2015 (Review mechanism for scoping and Environmental Impact Assessment EIA reports);
  - c. Decision N°. 262/1 dated 12/06/2015 (Objection and appeal procedures on the Ministry's position on environmental impact assessment reports);
  - d. Decision N°. 588/1 dated 21/12/2015 (Conditions to qualifying consulting firms for preparing environmental studies);
  - e. Decision N°. 719/1 dated 26/10/2016 (Procedure for assigning overtime for MoE staff to review IEE and EIA reports);
  - f. Circular N°. 9/1 dated 26/06/2014 (Relevant documents to be annexed to IEE and EIA reports as per Decree N°. 8633 dated 07/08/2012 - published in the Official Gazette N°. 35 on 16/08/2012);

g. Circular N°. 6/1 dated 15/01/2015 (Procedure on collecting fees for the review of EIA and IEE reports well as on the submission of bank guarantees and their retrieval);

h. Circular N°. 10/1 dated 01/07/2016 to project developers in both the public and private sectors requesting them to abide by the applicable EIA decree N°. 8633/2012.

27. Development of regulatory texts supporting the implementation of the Environmental Audit System, namely the preparation of Decision N°. 539/1 dated 17/11/2015 (Deadlines for the submission of applications for obtaining the Environmental Compliance Certificate by industrial establishments subject to the provisions of Decree N°. 8471/2012); and the preparation of Decision N°. 540/1 dated 17/11/2015 (Deadlines for the submission of applications for obtaining the Environmental Compliance Certificate by classified (non-industrial) establishments subject to the provisions of Decree N°. 8471/2012), published in the Official Gazette (N°. 48 dated 26/11/2015); and Issuance of Decision N°. 189/1 dated 13/04/2016 on the Audit review procedure and its publication in the official gazette on 21/04/2016.
28. Development and issuance of Decision N°. 590/1 dated 21/12/2015 published in the Official Gazette (N°. 53 dated 31/12/2015) regarding the environmental evaluation of industrial establishments as part of the permitting process.

#### III.b Draft Environmental Regulations (in the Pipeline)

29. Approval of the CoM of the draft decree on biosafety in Decision N°. 53 dated 27/11/2014; and issuance of CoM decision N°. 20 dated 22/06/2016 appointing a committee including the Ministries of Environment, Finance and Agriculture to revise, finalise and approve the proposed draft Decree.
30. Presentation of a draft decree on the establishment of the National Environmental Fund and the approval of its By-Laws; issuance of CoM Decision N°. 13 dated 18/04/2016 to postpone the study of the proposed text.



Al-Daliyeh on the World Heritage List

31. Presentation of a draft decree regarding the application of Article 20 of Law 444/2002; Issuance of CoM decision N°. 24 dated 09/06/2016 to postpone the study of the proposed text.
32. Presentation of a draft decree classifying the Pigeon Rocks (Raouché) and its costal and marine surroundings as a Natural Site.
33. Presentation of a draft decree classifying the Batroun beach stretch as a Natural Site.
34. Presentation of a draft decree proposing a remuneration scheme for the National Council for the Environment and its Secretariat.
35. Presentation of a draft decision on the implementation of the provisions of Article 22 of Decree N°. 8803 dated 04/10/2002 and its amendments (regulating quarries and crushers) in order to activate quarries rehabilitation.

## IV. Environmental Strategies and Action Plans

### Identifying environmental objectives through the preparation and publication of a number of strategies, action plans, and studies on the environmental impacts of developmental policies:

36. Initiation of the development of the National Sustainable Development Strategy for Lebanon in collaboration with the Presidency of the CoM coupled with the launching of the roadmap towards the implementation of this strategy under the patronage of the Prime Minister (the Grand Serail, 03/03/2015), and preparing for the implementation of United Nations General Assembly decisions on the Post-2015 UN Development Agenda.



Roadmap towards the National Sustainable Development Strategy

37. In application of the Principle of Integrated Solid Waste Management, implementation of the following:
  - a. Preparation of a roadmap for Integrated Solid Waste Management in coordination with the concerned administrations, amending it based on the comments of the specialised Ministerial Committee, and obtaining the approval of the CoM in its Decision N°. 46 dated 30/10/2014 amended as per Decision N°. 1 dated 12/01/2015 upon which tenders for waste collection, treatment and final disposal in 6 service regions were launched and evaluated, resulting in an average price of USD 120 per tonne (including capital costs) for the services of collection, transport, treatment – sorting, composting, and energy recovery

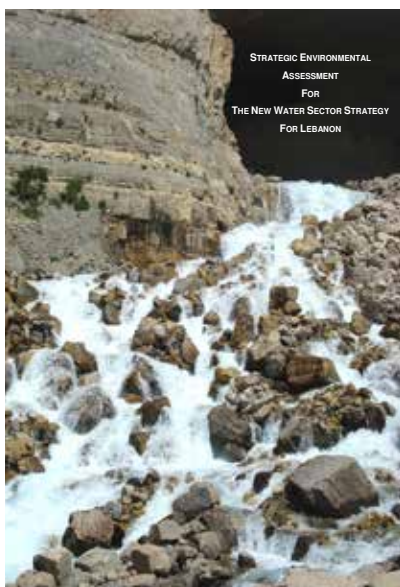
– and final disposal, for 7 years, whereby waste recovery ratios are 60% and 75% for the first 3 years and remaining 4 years, respectively. The results of these bids were later refuted by the CoM in Decision N°. 1 dated 25/08/2015;

- b. Participation in the committee established by the Minister of Agriculture to propose solutions for the solid waste crisis and transition to sustainable waste management as approved by the CoM in Decision N°.1 dated 09/09/2015. In application of this decision, issuance by MoE of Circular N°. 8/1 dated 16/11/2015 related to guidance on integrated management of municipal solid waste as published in issue N°. 47 of the Official Gazette dated 19/11/2015; Additionally, issuance by MoE of Circular N°. 2/1 dated 18/02/2016 to the municipalities including a questionnaire on current solid waste management practices at the municipality level published in issue N°.8 of the Official Gazette dated 25/02/2016;
- c. Dissemination of a bulletin on 04/05/2016 regarding an EU financing scheme for an amount of circa EUR 13 million in grants for the support of Integrated Solid Waste Management;
- d. Award of the update of the Master plan for the Closure and Rehabilitation of Uncontrolled Dumps (dated 2011) to be completed early 2017.



Press release to announce the results of waste bids (24/8/2015)

38. Preparation and publication of the Strategic Environmental Assessment for the renewable energy sector in Lebanon.
39. Preparation of the Strategic Environmental Assessment study for the National Water Sector Strategy in collaboration with the Ministry of Energy and Water, funded by the Global Environment Facility (GEF), and its publication on the web page of the MoE in May 2015, in addition to the presentation of the outcomes of the study during a meeting of the Water Sector Coordination Group at the Ministry of Energy and Water (07/08/2015).



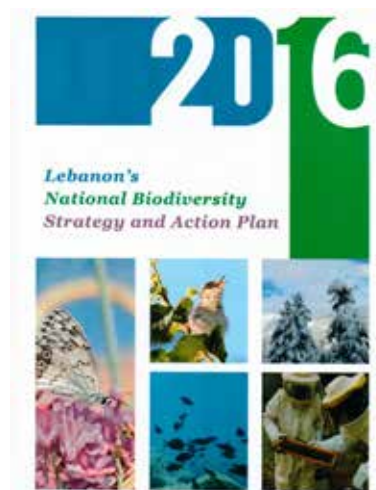
Strategic Environmental Assessment for the National Water Sector Strategy

40. Preparation and publication of the National Action Plan for Sustainable Consumption and Production in the industrial sector and its official launching on 21/03/2016.
41. Finalisation of the draft for modernising the National Action Plan for the Protection of the Mediterranean Sea against Pollution From Land-Based Sources and its publication on the website of the MoE on 18/05/2016.



National Action Plan for sustainable consumption and production in the industrial sector

42. Publication of the National Biodiversity Strategy and Action Plan; its official launching was done 20/07/2016.
43. Finalisation of the draft strategy on Marine and Coastal Biodiversity and organisation of a consultation event to discuss the proposed draft (05/03/2016).
44. Development of a draft National Strategy for Ambient Air Quality Management.



National Biodiversity Strategy and Action Plan

45. Development of environmental recommendations relative to the draft decrees on (i) the proposed division of the Lebanese Exclusive Economic Zone (EEZ) into blocks and (ii) the bidding specifications relevant to reconnaissance permits; and submittal to the Prime Minister and appointed specialised committee.

## V. Environmental Governance

**Improving the environmental performance of the public sector in Lebanon through reforms of environmental governance and strengthening the cooperation between the relevant international and national agencies, including the public and private sectors and academic and civil bodies, by establishing regulatory frameworks for this cooperation and strengthening the capabilities of the Ministry of Environment:**

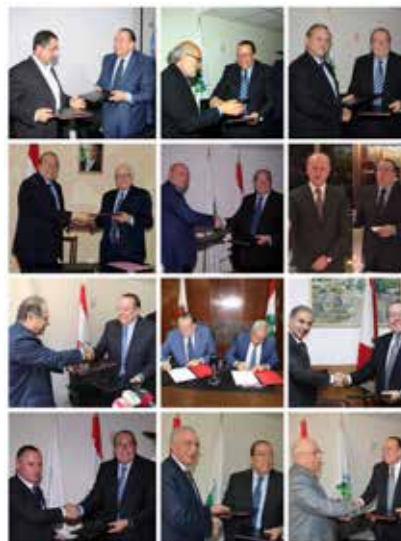
### V.a National Environmental Governance

**Seeking to build national capacity in planning for environmental policies and activating communication and coordination channels between concerned parties by sealing cooperation agreements and organising joint programmes and activities:**

46. Activation of the implementation of the Environmental Impact Assessment (EIA) Decree in application of the Prevention principle by ensuring that all projects that may result in environmental impacts be subject to such EIA studies, and by ensuring public participation (public and private sectors, civil society, etc.) in these studies, amongst others; (1) dam projects, (2) infrastructure projects, (3) tourist and residential projects, etc.
47. Organisation of the third meeting of the EU-Lebanon Sub-Committee on Transport, Energy and Environment (including water) in the framework of the European Neighborhood Policy action plan on 15/10/2014. The meeting covered the most important developments at the policy and legislative level with regards to transport, energy, environment, water and climate change.
48. Hosting of the Secretary of the Hungarian Commission on Sustainable Development who visited Lebanon in the framework of the mission organised by the European Union for the transfer of European expertise on the national councils of the Environment and Sustainable Development, and

organisation of meetings with the members of the Council (10-11-12/02/2015). Furthermore, and given the importance of the role of the National Council for the Environment in the making of environmental policies and strategies developed by the MoE and in the mainstreaming of environmental concepts in other policies for sustainable development, a series of meetings of the National Council of the Environment were held during 2014 through 2016 aiming to review:

- a. The work programme of the MoE;
- b. The results of the study of Strategic Environmental Assessment of the National Water Sector Strategy;
- c. The modernisation of the National Action Plan for the Protection of the Mediterranean Sea against Pollution From Land-Based Sources;
- d. Lebanon's Intended Nationally Determined Contributions (INDC) submitted to the General Secretariat of the United Nations Framework Convention on Climate Change;
- e. The National Action Plan for Sustainable Consumption and Production in the industrial sector prepared by the MoE and the Ministry of Industry with the support of the United Nations Environment Programme (UNEP) in the framework of the SWITCH - MED programme financed by the European Union;
- f. The progress of implementation of (i) provisions of the Stockholm Convention on Persistent Organic Pollutants, (ii) the roadmap for combatting pollution of the Qaraoun Lake, and (iii) the principles of domestic solid waste management as per CoM Decision N°. 1 dated 17/03/2016.



Signature of memoranda of cooperation with several ministries

50. Signing of a Memorandum of Cooperation with the Lebanese University, represented by the "École Doctorale des Sciences et de Technologie" on scientific and technical cooperation opportunities (29/04/2014); and signing of a Memorandum of Understanding with the Beirut Arab University to strengthen cooperation in the fields of education and scientific research in the field of environment, and organisation of a workshop on the University campus on the "Importance of cooperation between the MoE and research bodies to preserve the environment in Lebanon" (10/03/2015); and signing of a Memorandum of Cooperation with the Lebanese Canadian University in view of initiating qualified specialists and experts in environmental fields and engaging them in the environmental public and private work (11/01/2016); and another Memorandum of Cooperation with the Lebanese University on the promotion and rehabilitation of the environment as well as on awareness raising with regards to the agricultural and environmental sectors (15/06/2016).
51. Signing of a Memorandum of Understanding with *Cités et Gouvernements Locaux Unis au Liban/Bureau Technique des Villes Libanaises* (CGLU/BVTL) for the promotion of cooperation with municipalities and unions of municipalities on environmental issues (18/11/2014).
52. Signing of a cooperation agreement to preserve wild plants in cooperation with Green Hand Association (04/11/2015); Signature of a Memorandum of Cooperation with the Lebanon Center for Volunteer Work for awareness raising and on volunteering in environmental causes (22/07/2016).
53. Preparation of a layman report on the Environmental Performance Index in Lebanon– 2016 based on a report by the Yale and Columbia Universities in collaboration with the World Economic Forum and publication of the report in both English and Arabic on the website of the Ministry. The report for Lebanon indicated an overall EPI of 69.14, ranking at 94 in a pool of 180 rated countries while regionally, it positions itself at rank 9 out of the 19 countries rated in the MENA.
54. Organisation of a meeting for the judicial authorities to further activate the implementation of environmental laws



A Meeting of the National Council for the Environment

49. Based on a suggestion by the MoE, signature of Memoranda of cooperation with line ministries in view of promoting environmental conservation and protection of natural resources in line with the principles of sustainable development. Cooperation memoranda have been signed with the Ministry of Industry, the Ministry of Agriculture, the Office of the Minister of State for Administrative Reform, the Ministry of Information, the Ministry of Economy and Trade, the Ministry of Justice, the Ministry of Labor, the Ministry of Youth and Sports, the Ministry of Tourism, the Ministry of Culture, the Ministry of Public Works and Transport, and the Ministry of Social Affairs.



and regulations (03/06/2016). The meeting was attended by the President of the Higher Judicial Council, President of the State Litigation Authority, representatives of the Designated Attorney at the Court of Cassation, President of the State Council, Director General of the Ministry of Justice, in addition to the Designated Attorneys for environment and Investigation judges; Ratification of the outcomes of the meeting by the Minister of Environment and President of the Higher Judicial Council on 22/09/2016 at the MoE in the presence of the President of the State Litigation Authority, a representative of the Designated Attorney at the Court of Cassation, judges, and Designated Attorneys for environment.

55. Review of environmental information included in the officially adopted handbooks of the Educational Center for Research and Development in public schools and proposing modifications in view of integrating them in the publications.
56. Organisation of learning sessions on Environmental Education for the Social Training Center of the Ministry of Social Affairs (MoSA) on domestic solid waste management (16-17-18/08/2016).
57. Holding of an educational and recreational event at the Grand Serail under the slogan "My Environment is My Country" as part of the weekly programme "Appointment at the Serail" (13/05/2014).
58. Participation of the Minister of Environment in regional and international meetings to discuss issues related to international governance, including:
  - a. The fiftieth anniversary of the establishment of the United Nations Development Programme (UNDP) and giving an intervention at the meeting which focused on "Protecting the Earth, Sustaining Development" (New York, 23/02/2016);
  - b. The third Our Ocean conference hosted by US Secretary of State John Kerry in Washington (15-16 /09/2016) entitled "Our Ocean, One Future", which tackled key issues including marine protected areas, sustainable fisheries, marine pollution, and climate-related impacts on the ocean. The conference was an occasion to present Lebanon's relevant activities and challenges faced namely Israel's violations of the 10<sup>th</sup> resolutions of the United Nations General Assembly on the oil slick on Lebanese shores, and specifically the compensation due to Lebanon valued at USD 856.4 million as at 2014, as well as the major environmental impacts of the Syrian crisis on Lebanon.



Educational and recreational event at the Grand Sérail on "My Environment is My Country" (13/05/2014)

## V.b International Environmental Governance

**Following-up on Lebanon's claim to its right for compensation for damages resulting from the oil spill disaster caused by Israel in July 2006, and aiming through this process to reposition Lebanon on the Arab, Mediterranean and International map in coherence to the principles of international environmental law:**

59. United Nations General Assembly adoption of Resolution 69/212 dated 19/12/2014 requesting Israel to take responsibility for damages incurred by the "oil slick on Lebanese shores", after Israel's striking of the Jiyeh thermal power plant in July 2006, requiring from Israel a compensation worth USD 856.4 million and holding of a press conference by the Minister of Foreign Affairs and Emigrants jointly with the United Nations Resident Coordinator in Lebanon following this decision on 20/04/2015. The Council of Arab Ministers Responsible for the Environment supported Lebanon's position to follow up on this matter and to exert pressure in international fora for the implementation of UN resolutions compelling Israel to compensate Lebanon for the disaster by paying the mentioned amount. The UN GA reiterated its decision by adopting of a 10<sup>th</sup> resolution, condemning Israel and reaffirming the previous decision regarding compensation (Resolution 70/194 dated 22/12/2015).



Oil spill disaster of July 2006

## V.c Internal Environmental Governance

**Improving the performance of the Ministry of Environment through the reinforcement and development of its human resource base as an essential pillar to achieving the desired institutional development, and activating the communication between the Ministry of Environment and its international partners:**

60. Formal recruitment of 21 staff members at the MoE—third category (i.e. approximately one third of the total number of employees at the MoE) through MoE Decision 84/1 dated 06/05/2014.
61. Issuance of Decree N°. 3172 dated 07/04/2016 relative to the appointment of technical specialists and engineers and securing needed financing (27 staff members) and their allocation at the Ministry; and approval of the Civil Service Board on the Ministry's need to further recruit 12 additional employees in application of CoM Decision 162 dated 20/10/2016.

- 62. Issuance of Decision N°. 587/1 dated 21/12/2015 on determining the national focal points for (1) international and regional treaties, (2) international and regional bodies, and (3) on-going projects at the MoE.
- 63. Issuance of Decision N°. 621/1 dated 26/12/2015 on archiving procedures at the MoE.
- 64. Initiation of activities of the North Lebanon regional department of the MoE in Tripoli and the issuance of Circular N°. 13/1 dated 02/08/2016 to inform concerned parties, and this following the establishments of the Bekaa and South Lebanon regional departments in August 2013; and the issuance of Circular N°. 15/1 dated 28/09/2016 on the work of the regional departments of the MoE in the Lebanese governorates.
- 65. Upgrade of the information technology system at the ministry, including the geographic information system, with the support of the European Union within the "Support to Reforms – Environmental Governance in Lebanon - StREG".
- 66. Holding of periodic meetings with international partners for the review of completed and on-going environmental projects (15/12/2014; 10/12/2015).

## VI. Natural Resources Conservation: Land, Water Resources and Biodiversity

**Striving to protect and conserve nature's balance through expanding the forest cover, multiplying the number of protected areas, enhancing animal resources, and safeguarding the aquatic environment.**

### VI.a Land

**Adopting measures to reduce direct pressure on land resources in order to protect biodiversity, namely the organisation of the sector of quarries and crushers, the prevention of forest fires, and encouraging afforestation initiatives:**

- 68. Pursuing activities of the National Council for Quarries headed by the Minister of Environment for the organisation of the sector including taking action to stop illegal activities and inspecting sites where activities have ended in order to initiate their rehabilitation starting with the confiscation of deposited guarantees and the mobilization of these funds. In parallel, a consultant was contracted to select 15 pilot sites for rehabilitation and prepare the respective tender documents.



Meeting for International Partners at the Ministry of Environment (10/12/2015)



A Meeting of the National Council for Quarries

- 67. Holding of annual board meetings for jointly implemented projects between the MoE and the UNDP (07/11/2014; 30/11/2015; 28/10/2016) and publication of relevant media communications; in addition to the publication of a booklet highlighting the achievements of the MoE/UNDP partnership for the years 2010-2015.

- 69. Preparation and publication of a technical report including the results and recommendations of the Safeguarding and Restoring Lebanon's Woodland Resources project which tested a number of reforestation techniques reducing irrigation costs from USD 7,000 to USD 1,300 per hectare. Several trials were implemented on large scale municipal lands (total area of 25 hectares) leading to positive results in several Lebanese regions. The final report was presented on the occasion of the project's closing event that took place on 17/12/2014.



MoE/UNDP Partnerships: Key Achievements from 2010 to 2015



Safeguarding and Restoring Lebanon's Woodland Resources project

70. Publication of a statistical and analytical report on forest fires for the years 2008 through 2015 in collaboration with the Institute of the Environment at the University of Balamand based on information available in the unified identification card for burnt areas adopted by the Internal Security Forces.
71. Holding of a joint press conference with the Lebanon Mountain Trail Association to highlight the vital environmental, social, and economic importance of protecting mountain trails extending for approximately 470 kilometres from Marjaayoun in the South to Qobayat – Andaket in the North and working on preventing violations (12/05/2014).
72. Sponsoring of the launching of the campaign "A million trees for Lebanon" supported by the firm Diageo who committed to donating one million trees to different municipalities, organisations, and NGOs throughout Lebanon (22/04/2014); and launching of an afforestation campaign of the south Litani area by planting 300 thousand pine trees with the Commander in Chief of the United Nations Interim Force in Lebanon - UNIFIL (11/02/2015), and launching of an afforestation campaign along the Litani River with the Municipality of Chehour aiming to plant 10,452 trees in the framework of an initiative to green the South (18/03/2015). Sponsoring of the National Campaign for the prevention of forest fires jointly with the Ministry of Agriculture; the Campaign is organised by the Association for Forests Development & Conservation AFDC (19/05/2015).
73. Approval of the GEF project "Smart Adaptation of Forest Landscapes in Mountain Areas SALMA" (grant amount USD 7.2 million to be implemented by the Ministry of Agriculture in partnership with the Ministry of Environment).

## VI.b Biodiversity

**Striving to conserve biodiversity through the appropriate environmental legislation for the establishment of protected areas and preserving them, and through awareness raising on anthropogenic activities threatening the environment through sponsoring and organising activities as well as publishing books and communication materials:**

74. Initiation of the process for the establishment of the Qammouaa Nature Reserve by communicating with the concerned municipalities and communities in order to reach a final agreement on plot delimitation issues relative to the draft law.
75. Celebration of the Nature Reserves Day (March 10) in 2014 by announcing a Nature Reserves Week and inviting students, photographers, and citizens to visit, and also by organising a meeting to exchange experience and expertise on reserves in Lebanon at the Chnaniir Nature Reserve in collaboration with the Chnaniir Reserve Committee; celebrating this occasion in 2015 through open door events on 8-9-10/02/2015 in addition to broadcasting short promotional films about reserves on all television chains and organising informational and field activities to increase awareness about the importance of reserves and their protection; the occasion was also celebrated in 2016 and promoted an infomercial film on the reserves.
76. Based on the proposal of the MoE, approval of the CoM as per Decision N°. 29 dated 19/03/2015 to designating the 5<sup>th</sup> of May of each year a national day for sea turtles in Lebanon in addition to sponsoring, on this occasion, a workshop organised by the Faculty of Sciences at the Lebanese University on sea turtles and biodiversity in Lebanon (05/05/2015).



National Campaign for the Prevention of Forest Fires

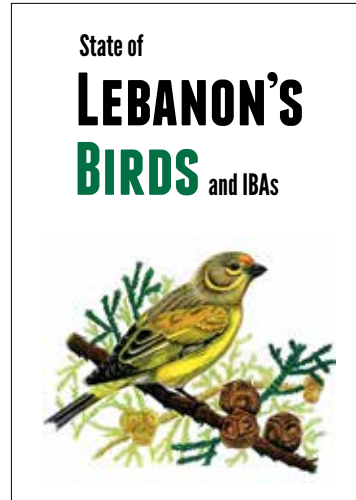


National Day for sea turtles on the 5<sup>th</sup> of May

77. Preparation of the Fifth National Report to the Convention on Biological Diversity and submitting it to the Secretariat of the CBD in the framework of the project on "The preliminary activities for the revision of the National Biodiversity Strategy and the Action Plan and preparation of the Fifth National Report to the Convention on Biological Diversity" by the Ministry with funding from the GEF through the UNEP.



The fifth National Report on biodiversity, in Arabic and English



Book on the State of Lebanon's Birds and IBAs

78. Implementation of a field survey on marine biodiversity in six Lebanese locations in the project "The Market Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon"; a project funded by the GEF, implemented by the UNEP and executed by the MoE.
79. Launching of the project "Sustainable development of the buffer zones of the Shouf Biosphere Reserve" on 02/12/2015 implemented in cooperation with the MoE, the Italian Embassy, the Italian Agency for Development Cooperation and the Committee of Al Shouf Cedar Nature Reserve, for a total value of EUR 500,000 (02/12/2015). Approved by CoM Decision N°. 56 dated 25/08/2016, this project aims at protecting and monitoring wildlife in the buffer and development zones of the reserve by providing environmentally-friendly agricultural techniques preserving wildlife and water resources, at managing biodiversity wealth in development areas in the vicinity of villages exposed to a high risk of fire, and at raising the capacity at the local, national and regional levels through training farmers on sustainable agricultural practices and nature reserves employees on the management of wildlife in Lebanon.
80. In implementation of the Hunting Law (Law N°. 580/2004):

- a. Preparation and publication of a number of books, particularly the Bird Atlas, the Birds Identification Manual, the Field Guide, and the Happy Birday Book in addition to sponsoring "Jabalna" festival which was dedicated in 2014 to the birds of Lebanon under the slogan "Happy Birday", which took place in August and September 2014.

- b. Organisation of a training session in June 2014 for the Nature Reserves guards at the Institute of Internal Security Forces - Al Warwar, in line with the Hunting Law and in preparation for its enforcement, namely with regards to fining offenders and referring them to the competent authorities. Organising a training session in February 2015 for members of the Internal Security Forces (10 groups) on hunting and nature reserves, based on the "Hunting Exam Guide" and "Hunter's Guide", which included sessions on the application of the Hunting Law and the need to differentiate between species;



Training of Nature reserve guards at the Institute of Internal Security Forces (June 2014)

- c. Based on the request of the Minister of Environment through the Higher Council for Hunting, the representative of the Ministry of National Defense (MoND) launched the development of technical specifications for the rifles of type Pump Action, to be used only for hunting purposes and not as war weapons for public safety considering the large number of incidents currently occurring due to misuse of these guns. A decision by MoND was issued and communicated to the Ministry of Interior and Municipalities, Ministry of Economy and Trade, and MoE which determines the aforementioned technical specifications to be respected, notably the banning of the import of foldable rifle grips, as well as barrels shorter than 60 cm and rails for the installation of binoculars on hunting rifles, and requesting from the

- Ministry of Interior and Municipalities to circulate memos to dealers of hunting weapons prohibiting guns manipulation;
- d. Presentation to the Council for Development and Reconstruction (CDR) of a proposal to amend the National Physical Master Plan for the Lebanese Territory to include sensitive areas for birds;
- e. Equipping of the hunting clubs with necessary IT equipment to conduct hunting exams;
- f. Launching of the official website for hunting: [hunting.moe.gov.lb](http://hunting.moe.gov.lb);



A publication of the Ministry of Environment: *Hunting Examination Guide*

- g. Working on the finalisation of other necessary legal, administrative, financial and technical procedures to open the hunting season and reviewing these procedures during the meetings of the Higher Council for Hunting;
- h. Engaging in court action against hunters breaching Law 580/2004 in coordination with the competent judicial authorities, namely environmental public defenders in the respective governorates: Corresponding periodically with the Ministry of Interior and Municipalities requesting swift actions by the Internal Security Forces in cases of violations related to hunting, to deter this activity at all times and follow-up by prosecuting offenders and take necessary action against them based on the complaints received by the ministry on illegal bird hunting in several Lebanese regions.

### VI.c Coastal Areas/River Basins/Water Basins

**Allocating particular attention to the protection of the marine areas, basins and their resources, by mobilising needed resources and executing relevant projects considering the economic value and importance of these areas for population health:**

- 81. Issuance of Decree N°. 3044 dated 25/02/2016 on the signature of a grant agreement between the Government of Lebanon represented by the MoE, the CDR, and the European Delegation. The grant totaling 19 million Euros is allocated for the implementation of the Protection and Sustainable Development of Maritime Resources in Lebanon Project.

- 82. In implementation of the roadmap to combatting pollution in the Qaraoun Lake and Litani river basin:

- a. Appointment of a committee comprising of concerned administrations and municipalities to oversee the implementation of a roadmap to combat pollution of the Qaraoun Lake as per a CoM decision N°. 32 dated 09/05/2014. The committee convenes monthly at the invitation of the Litani River Authority and reports on its work to the CoM every 6 months. The 20<sup>th</sup> meeting was held in the presence of the Minister of Environment (Zahlé, 01/06/2016) and the 21<sup>st</sup> meeting was in the presence of both Ministers of the Environment and Industry (Baalbek 26/07/2016);



A round table at the Grand Sérail on the occasion of the World Environment Day (05/06/2014)

- b. Organisation of a roundtable discussion at the Grand Sérail under the patronage of the Prime Minister on the occasion of the World Environment Day (05/06/2014) to discuss modalities of implementation of the roadmap to combat pollution of the Qaraoun Lake and Litani River Basin;
  - c. Approval of the World Bank of a loan of a value of USD 55 million to support the implementation of this Roadmap for combatting pollution in Lake Qaraoun; Ratification of the loan agreement and the project agreement by the General Assembly (Law N°. 64 and Law N°. 65 dated 27/10/2016);
  - d. Issuance of the grant endorsement decree No.2540 dated 02/02/2016 related to the project "Sustainable Land Management in Qaraoun Catchment" implemented through a grant from the GEF for an amount of USD 3,187,671; and initiation of activities in August 2016;
  - e. Through the Designated Attorney for environment in the Bekaa, filing of a complaint against those identified as responsible for the deaths of fish in the Qaraoun Lake (12/07/2016) in addition to presenting the DA with a proposed methodology for conducting the investigation.
- 83. Organisation of a workshop on updating the National Action Plan for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities in collaboration with the MED POL Programme (24/03/2015).

## VII. Environmental Risk Management through Prevention and Remediation

**Striving to reduce environmental pollution and face threats resulting from the multiplicity of environmental crisis, including the Syrian crisis, waste crisis, industrial pollution, and climate change:**

### VII.a The Environmental Impact of the Syrian Crisis

84. Preparation and publication of the "Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions" funded by the European Union through the StREG project and with the technical support of the UNDP. The report highlights the situation in 4 environmental sectors affected by the Syrian Crisis: solid waste management, water and waste water management, air quality, and land use and ecosystems. The official launching of the report was held at the Grand Serail on 26/09/2014. The findings of the report regarding the emergency environmental situation in Lebanon were also presented at the Council of Arab Ministers Responsible for the Environment which was held in Jeddah – Kingdom of Saudi Arabia on 09/11/2014; preparing and publishing an updated factsheet on the Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions (February 2016); holding a stakeholders' meeting in the framework of the environmental outcome of the Lebanon Crisis Response Plan (LCRP) to discuss required activities which will be implemented in 2016 (22/02/2016, MoE), and continuation with other meetings.



*Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions Report and corresponding Updated Factsheet*

85. Preparation of a practical guide for municipalities to strengthen environmental management at the local level, including the impacts of the Syrian crisis on Lebanon. The guide focuses on the primary role of municipalities and unions of municipalities in improving the environmental performance in Lebanon, and consists of 6 chapters (i) air quality, (ii) solid waste, (iii) water resources, (iv) wastewater, (v) land use and ecosystems, and (vi) environmental governance; dissemination is expected by end of 2016.

### VII.b Hazardous and Non-Hazardous Wastes

**Pursuing progress on environmental and developmental issues with relation to pollution caused by waste from households, health institutions, and persistent organic pollutants:**

86. Completion of the rehabilitation of the Saida dumpsite into a public park and launching its opening to the public in an official event on 22/04/2016. Maintenance of the project remains on-going.

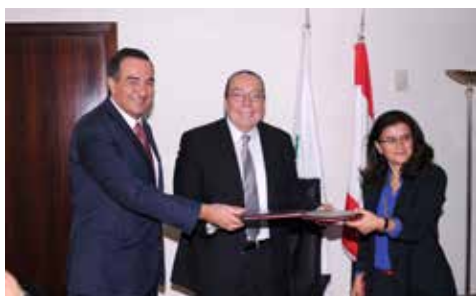


*Rehabilitation of the Saida dumpsite into a public park*

87. Preparation of a master plan for integrated solid waste management in the caza of Baalbek, and equipping the municipality of Baalbek with waste collection and transfer equipment; completion of the works on the repairs and maintenance workshop transferred to the municipality.

88. Preparation of the plan and tender documents for the treatment of oil spill recovered wastes resulting from the July 2006 war and launching of the tender by the European Union in the framework of the Protection and Sustainable Development of Maritime Resources in Lebanon Project (EUR 19 million); and contract award in June/July 2016 with an estimated end date for early 2017.

89. Issuance of the grant endorsement Decree N°. 1552 dated 12/03/2015 for a grant of USD 2.5 million provided by the GEF through the International Bank for Reconstruction and Development for the implementation of the "PCB Management in Power Sector Project", and starting the implementation of the project on 02/05/2015, holding the inception meeting on 01/09/2015, and contracting a service provider to dispose of out-of-use equipment containing high levels of PW002 (PCB) – work began in October 2016 –; finalising the technical evaluation of submitted offers to conduct a comprehensive field survey of transformers contaminated with PCB in the energy sector in Lebanon in cooperation with *Électricité du Liban* (EDL); and organisation of a capacity building workshop for the project team and EDL staff members on best management practices for PCB (01-03/03/2016); Signature of a Memorandum of Cooperation between the MoE and EDL for the implementation of the Project and the National Strategy for the disposal of PCB in line with the provisions of the Stockholm Convention on PCBs.



Signature of the negotiated text of the grant agreement between the Global Environment Facility through the World Bank and *Électricité Du Liban* (22/09/2014)

90. Issuance of the grant endorsement Decree N°. 1394 dated 29/01/2015 for a grant from the GEF through UNEP for the review and update of the National Programme of Action on Unintentionally Produced Persistent Organic Pollutants in Lebanon (grant value of USD 177,589); starting execution on 02/05/2015, holding the inception meeting on the 29/07/2015; initiating the national assessment of POPs in line with the UNEP guidelines and toolkits related to the Inventory process of the 23 POPs listed in the Stockholm Convention and holding a training workshop on the update of this inventory (26-28/01/2016); estimated contract ending date before end of 2016.
91. Inspection of health care facilities to ensure the implementation of Decree 13389/2004 (Specifying the types of wastes in healthcare facilities and their treatment methods), and submission of the results to the competent judicial body for follow-up, and guidance in determining compensation due for incurred damages because of mismanagement.
92. Organisation of a workshop in collaboration with the syndicate of Lebanese Laboratories on healthcare waste management (Beit Al Tabib, 03/03/2015).

### VII.c Industrial Pollution

**Striving to position the Ministry as a key partner for industrialists and provide the necessary assistance to convert their industries to environment-friendly industries, whether by encouraging them to achieve environmental compliance or replace used and harmful materials to the ozone layer, in collaboration with the concerned administrations:**

93. Launching of the Lebanon Environmental Pollution Abatement Project (LEPAP) aiming at establishing a mechanism for environmental compliance of industrial facilities in line with Decree N°. 8471/2012, with funding from the Italian government (grant of EUR 2.3 million, approved by Decree N°. 12045 dated 24/05/2014), the UNDP, the World Bank (loan of USD 15 million approved under the Law N°. 51 dated 24/11/2015) and the Central Bank of Lebanon. The project provides access to free technical advice to industrial establishments for environmental assessment and for the identification of necessary preventive and pollution abatement measures. It also facilitates access to soft loans for the implementation of these pollution abatement measures at an interest rate close to zero percent. The project achieved to date the following:
  - a. Provided free technical studies to 23 industrial establishments; two of these establishments have already completed the necessary banking arrangements

to obtain the loan and implement pollution abatement projects starting October 2015;

- b. Prepared and published detailed environmental guidelines for selected industrial sectors, and identified properties of hazardous waste resulting from the industrial activities. This info was made accessible to the public on the Ministry's website on 18/05/2016.
- c. In the framework of collaboration with related stakeholders, organised events between the Ministry and the Association of Lebanese Industrialists (28/01/2015), the Central Bank of Lebanon (30/06/2015) as well as a workshop with the Federation of Chambers of Commerce, Industry & Agriculture In Lebanon on soft loans to finance industrial pollution abatement projects (27/01/2016), in addition to a consultation meeting on the management of hazardous waste in the industrial sector in Lebanon in the presence of the private and public sectors, of universities and consulting firms, environmentalists and activists (03/02/2016); organisation of a meeting for environmental consultancies on 27/05/2016 to go over the Audit review procedures (Decision N°. 189/1 dated 13/04/2016); holding of an informational meeting for Bank Audi staff to present the project and promote the availability of the LEPAP facilities (20-21/07/2016); in addition to other meetings.



LEPAP project Logo

94. Launching of the institutional support project for the implementation of the 10-year action plan (2016-2025) for the final disposal of HCFC-materials used in the sectors of air conditioning, refrigeration and thermal insulators in application of the Montreal Protocol on protecting the ozone layer. The project value is around USD 4.5 million made available by the Multilateral Fund for the Implementation of the Montreal Protocol upon issuance of the grant endorsement Decree N°. 3630 dated 02/06/2016. In the same context:
  - a. Launching of the institutional support project to the National Ozone Unit for phase IX (2016-2017) financed for the amount of USD 155,000 by the Multilateral Fund (MLF) of the Montreal Protocol (Decree N°. 3042 dated 25/02/2016);

- b. Launching of the Inventory of ozone-depleting substances (ODS) alternatives at the national level financed by the MLF (grant amount: USD 110,000);
- c. Launching of the implementation of a demonstration project on waste management and disposal of ozone-depleting substances (grant amount USD 124,000) in coordination with the United Nations Industrial Development Organisation – UNIDO (Decree N°. 2541 dated 02/02/2016);
- d. In collaboration with the UNEP - West Asia Office and the American University of Beirut, preparation of a university course on Montreal Protocol and the gases used in air conditioning and refrigerating systems, for the students of the Faculty of Mechanical Engineering. The final publication is free of charge and available for public use by all interested universities.



Documentary on the project “Mitigation of Climate Change – Renewable Energy”

- 96. Implementation of pilot projects in Damour, Al Amrousieh and Kfarmashoun aiming to rationalise water consumption through the installation of rainwater harvesting systems on the roofs of greenhouses for reuse in the irrigation of crops in these greenhouses. These projects contributed to collecting about 1,000,000 cubic metres of water over one season at these three locations in Lebanon, and filming a short movie about the project under the international climatelswater campaign which was posted on several websites.



Awareness raising banner on measures to protect the ozone layer



Lebanon's participation in the Paris Climate Change Conference (30/11/2015 – 12/12/2015)

### VII.d Climate Change, Energy and Transport

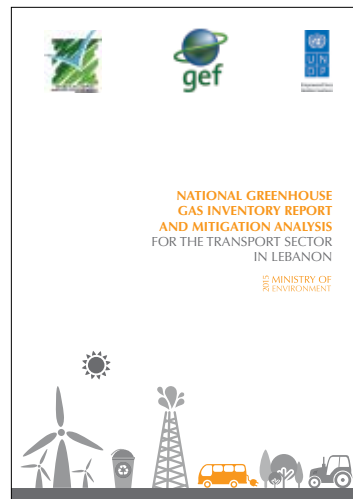
**Focusing on the implementation of air quality management initiatives, preparing reports including a detailed assessment of climate change in Lebanon and preparing for Lebanon's Intended Nationally Determined Contributions:**

- 95. Completion of the project of "Mitigation of Climate Change – Renewable Energy" funded by the Italian Government, which installed solar water heaters in 66 public institutions buildings in various Lebanese regions for a budget of EUR 1 million. The closing ceremony of the project was organised at the Grand Sérail on 10/09/2014, in the presence of all involved parties and beneficiary institutions, as well as a number of ministers, and civil society, academic, and expert representatives.

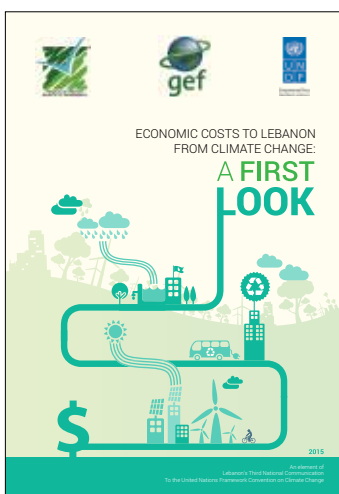
- 97. Participation of Lebanon in the Paris Climate Change Conference (30/11/2015 – 12/12/2015) as part of its commitment to the United Nations Framework Convention on Climate Change, and confirmation of its commitment to combat climate change despite the difficult conditions facing the country as specified in the Intended Nationally Determined Contribution report, where Lebanon committed to reducing its greenhouse gas emissions by 15% as an unconditional target and by 30% as by 2030 conditional to the availability of international support. It was also specified that Lebanon's unconditional target implies (i) Lebanon's speedy recovery from the recent regional crisis which is a legitimate right of Lebanon and (ii) the non-emergence of a new crisis affecting negatively the country; and the organisation of the first informal meeting by the MoE and the UNDP of the working



group to follow up the implementation of Lebanon's contribution nationally (26/07/2016), in collaboration with the Ministry of Energy and Water and with funding from the European Union, Australian and German governments, the meeting discussed methods of implementation of Lebanon's obligations related to climate change and to identify stakeholders in the implementation responsibilities, particularly in terms of reducing greenhouse gases from energy, transport, waste and forestry sectors emissions. Furthermore, Lebanon completed its greenhouse gases inventory and submitted its Biennial Update Report to the United Nations Framework Convention on Climate Change in addition to the Third National Communication (expected to be published in November 2016), as well as a number of related studies, which can be found on the electronic page of the project [www.moe.gov.lb/climatechange/](http://www.moe.gov.lb/climatechange/), including:



**Report on National Greenhouse gas inventory and mitigation analysis for the transport sector in Lebanon**



**Economic Costs to Lebanon from Climate Change: A First Look**

- Study on Lebanon's technology needs assessment for climate change.
- Study on optimal renewable energy mix of the power sector by 2020: investment cost implications for Lebanon.
- Study on the Nationally Appropriate Mitigation Actions NAMAs in the solid waste and the transport sectors.
- Study on energy consumption in institutions and commercial companies and institutional arrangements for the proposed system of measurement, reporting and verification (Energy consumption and energy initiatives – EEG).
- Study on Vehicle Fleet Renewal Through a Scrapping Scheme in Lebanon.
- Study on Fossil Fuel Subsidies in Lebanon: Fiscal, Equity, Economic and Environmental Impacts.
- Report on mobility cost – a case study for Lebanon.

- National Greenhouse gas inventory report and mitigation analysis for the waste sector in Lebanon (2005-2011).
- National Greenhouse gas inventory report for industrial processes in Lebanon (2006-2011).
- National Greenhouse gas inventory report and mitigation analysis for the transport sector in Lebanon (1994-2011).
- National Greenhouse gas inventory report and mitigation analysis for the energy sector in Lebanon (1994-2011).
- National Greenhouse gas inventory report and mitigation analysis for the agriculture sector in Lebanon (2005-2012).
- National Greenhouse gas inventory report and mitigation analysis for the land use, land use change, and forestry sector in Lebanon (1994-2011).
- Report on economic costs to Lebanon from climate change: a first look.

98. Calculation of the amount of greenhouse gases released by industrial emissions in cooperation with the Ministry of Industry and organisation of a ceremony on 19/12/2014 to deliver the certificates to private commercial and industrial companies which declared voluntarily their greenhouse gas emissions that caused global warming in 2013, and another ceremony on 28/12/2015 for the declaration of 2014; and the organisation of a number of other workshops:

- Strengthening skills and capacity building in the field of "Financing Climate Change" (07 and 08/07/2014);
- Methodologies for cost/benefit analysis and cost-effectiveness analysis of environmental and energy projects (19 and 20/08/2014);
- Sponsoring the educational and entertainment ceremony "Earth Hour" organised by the Association G to create an environmental impact by reducing energy consumption and the use of renewable energy (28/03/2015);

- Organising the Regional Event "Climate Vulnerable Forum" (CVF) for the Middle East and North Africa through the Permanent Mission of Lebanon to the United Nations in Geneva and the MoE with the support of the UNDP (29/05/2015), where it was agreed on 14 recommendations, which were adopted by all of Egypt, Jordan, Lebanon, Morocco, Palestine, Sudan, Tunisia, and Yemen;
- Collaborating on the initiative "My Carbon Footprints" lead by Bank Audi, which will be tested in first stage in two schools : Sagesse School and Makassed (29/01/2016);
- Organising the First Workshop of the Lebanon Climate Act- Business Knowledge Platform of the Lebanon Climate Act (04/10/2016).

99. In the framework of air quality monitoring, and through the EU funded StREG project, procurement of 13 air quality monitoring devices in addition to a calibration laboratory to complete the second phase of the National Ambient Air Quality Monitoring Network created in 2013 with support from the Greek government and comprising of 5 real-time ambient air quality stations that have been inspected by a diplomatic Greek delegation during the months of September and October 2015 in the framework of the Environmental Resources Monitoring in Lebanon project. In addition to the 13 new devices, 8 standalone weather monitoring stations will be installed for fire risk prediction. In this context, Memoranda of Understanding on hosting these devices were signed with each of the MoND, Lebanese University, Rafik Hariri Secondary School in Sidon, Municipalities of Zahlé, Deir Ammar, Kfar Hazir, Teir Debba, and Bentaël Nature reserve. More agreements are underway.

Furthermore, and as part of the capacity building and awareness raising activities, the following activities were prepared:

- Organisation of a roundtable discussion (01/07/2014) around the results of a scientific exercise on Ensemble Air Quality Modelling in the framework of the technical assistance provided to the MoE by the Italian Government through the Italian Agency for Development Cooperation and in collaboration with the Faculty of Sciences – of the *Université Saint Joseph* (USJ). This study allows for the assessment of the cumulative impacts of new projects on air quality. This initiative is in application of the draft law for the Protection of air quality, especially the articles related to encouraging research, capacity building, and identifying information management and dissemination modalities;
- Sponsoring of the national awareness campaign "Be an Eco Driver and Preserve your Health and Environment" under the National Campaign for Air Pollution reduction in Lebanon through Efficient Energy Use in Land Transportation organised by IPT Energy Centre (IPTEC) with the support of the United Nations Economic and Social Commission for Western Asia (ESCWA), and the UNDP (15/09/2014).
- Participation of the MoE in the "21<sup>st</sup> LAAS International Science Conference" organised by the USJ in Beirut and the National Council for Scientific Research where the ministry provided two presentations: the first on the results and recommendations of the "Safeguarding and Restoring Lebanon's Woodland Resources Project" and the second on the exercise on Ensemble Air Quality Modelling in Lebanon (16/04/2015).



The daily Air Quality Index "Camil the Chameleon" displayed on the website of the Ministry of Environment: [www.moe.gov.lb](http://www.moe.gov.lb)

100. Launching, within the framework of the project "Environmental Resources Monitoring in Lebanon", of "Camil the Chameleon" the daily Air Quality Index published on the website of the MoE: [www.moe.gov.lb](http://www.moe.gov.lb). The Index was used amongst other to prepare press releases published by the ministry, namely on 08/09/2015 to illustrate the effect of the sand storm that hit Lebanon.





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