



**Regional Experts Meeting on Climate Change Education
for Sustainable Development in the Arab States
(Beirut, 5-7 May 2015)**

Final Report

(Beirut, June 2015)

The Regional Experts Meeting on Climate Change Education for Sustainable Development in the Arab States, (Beirut, 5-7 May 2015) was organized as part of the ESD workplan for 2014–2015 and funded by the ESD Japanese Funds-in-Trust (ESD-JFIT).

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I. Organization of the expert meeting

- **Introduction**

In the Arab region, climate change has already affected people's livelihoods and lives. There is evidence of prominent increases in the intensity and frequency of many extreme events such as heat waves, tropical cyclones, prolonged dry spells, intense rainfall, tornadoes, thunderstorms and severe dust storms in the region. Furthermore, the region is highly subject to natural hazards, such as desertification, earthquakes and landslides. Such impacts pose additional risks for already vulnerable communities striving to combat poverty and achieve sustainable development.

Climate change poses a serious and additional threat to water resources, agriculture and rural communities in the region, especially in remote areas, post-conflict countries, dry lands and deserts; countries with limited natural resources, communication and transportation networks/systems are particularly impacted. These developments jeopardize the achievement of the current Millennium Development Goals (MDGs), as well as the transition towards Sustainable Development Goals (SDGs) in the region.

Education in general and Education for Sustainable Development (ESD) in particular play an essential role in increasing the adaptation and mitigation capacity of communities and nations in regard to climate change by enabling individuals to make informed decisions. Quality climate change education for sustainable development (CCESD) designed with the purpose of empowering people to address climate change and sustainability issues improves the adaptation capacities of affected communities. It should be enhanced by educational programmes that explicitly prepare communities for natural disasters. Furthermore, it needs to incorporate sustainable knowledge, and promote sustainable lifestyles and development in which the importance of heritage is recognized as an integral part of community identity and an important asset that can help building resilience. Finally, CCESD can stress the unique cultural and natural heritage of countries in the region, which plays an important role in the building of community resilience.

While education plays a key role in strengthening adaptation and mitigation capacities, such capacities are also needed to equip education systems and infrastructures to prepare for climate change. Entire school communities - including local education authorities, administrative staff, teachers and parents - must be prepared to ensure a climate-safe and climate-friendly school environment. Adaptation needs also must be taken into account when constructing new schools

that are safe and have a climate-resilient design. Education for mitigation should be supported by sustainable schools and campuses that serve as a learning laboratory for students to demonstrate and further deepen understanding of the principles learned in the classroom. Furthermore, the capacity of education systems to respond to new migration streams caused by climate change impacts – or to new skill requirements due to a changing environment – needs to be included in education strategies for adaptation to climate change.

- **Objectives**

The experts meeting in Beirut identified the main challenges that climate change poses to education systems in the Arab region and explored the role that education can play in adaptation and mitigation to CCESD. The main objectives of the regional experts meeting were:

1. Promote the important contribution education can make to climate change adaptation and mitigation in the Arab countries, including infrastructure, management and resourcing.
2. Further the effective integration of climate change issues and disaster risk reduction (DRR) into education programmes and school curricula in the Arab region.
3. Enhance the exchange of experiences and good practices on climate change education (CCE) among research institutions, ministries, educators, civil society organizations, multilateral agencies and young people.
4. Identify opportunities for partnerships among ministries, schools, research institutions, non-governmental organizations (NGOs), UN agencies and UNESCO networks to enhance formal and non-formal education programmes on CCESD.
5. Develop regional/sub-regional plans of action identifying key next steps and regional recommendations for the development of CCE strategies, guided by the Global Action Programme on ESD (GAP-ESD) (launched in Aichi-Nagoya, Japan, 12 November 2014).

The Programme/Agenda is presented as Annex (1).

- **Sub-regional studies on CCESD in the Arab region**

A team of experts (Dr Mona Zoghbi, Lebanon, and Dr Hani Sewilam, Egypt), in cooperation with the UNESCO working team (HQ and UNESCO field offices in Beirut, Cairo, Doha and Rabat) prepared four sub-regional studies on CCESD, which included:

- Mashriq countries (Beirut Office Cluster) - five countries;
- Arab Gulf countries and Yemen (Doha Office Cluster) - seven countries;
- Red Sea (Wadi ElNile) countries (Cairo Office Cluster) - three countries; and
- North Africa /Maghreb countries (Rabat Office Cluster) - four countries.

The sub-regional studies were shared with the experts as drafts and used in the working group discussions. Final drafts in Arabic and English of the studies will be shared with the participants and Member States by the end of June 2015. Moreover, the studies will be uploaded on the websites of UNESCO and concerned institutions working on ESD-CCESD in the Arab region as good practices on CCESD.

- **Participants**

The three-day experts meeting was attended by 65 key officials - experts from 16 Arab countries, New Zealand (Asia and the Pacific region), UN and international organizations (ESD Regional Task Force), the League of Arab States (LAS), and civil society (NGOs). The profile of experts covers general education – technical and vocational education and training (TVET), higher education, non-formal education and learning, curriculum development experts, UNESCO Associated Schools Network (ASPnet), youth organizations, research and development institutes, and civil society (NGOs).

Table 1 shows the distribution of participants according to countries/institutions and gender. The meeting drew 40 per cent female participants, which is in line with the policies and action programmes of UNESCO and the United Nations to encourage women’s and girls’ participation and contribution to innovative programmes and projects, such as ESD and CCE.

The List of the participants is presented as Annex (2).

Table 1. Participants according to country and gender

Countries and organizations	Men	Women	Total
Arab countries (16)	30	20	50
Other countries (New Zealand)	0	1	1
International and regional organizations (5)	7	3	10
Civil society (NGOs) (3)	1	3	4
Total	38	27	65
Percentage	60%	40%	100%

II. Programme and discussions

- **Day one, 5 May 2015**

- **Opening ceremony**

The **Youth Ambassador on Sustainable Development, Ms Claudia Matta**, welcomed the participants to the Regional Experts Group Meeting on Climate Change Education for Sustainable Development in the Arab Countries (5-7 May 2015 in the Riviera Hotel in Beirut). The meeting was organized by the UNESCO Regional Bureau-Beirut in cooperation with the National Commission for UNESCO, under the auspices of the Minister of Environment, Mr Mohamed Al-Mashnook, and with funding from the Japanese Funds-in-Trust (JFIT). Ms Matta noted that she was chosen in the Bonn Conference on Education for Sustainable Development in 2009 as a youth ambassador for Lebanon, referring to the importance of empowering young people to participate in all areas and to involve them from the very beginning in the planning of programmes, given the influential role they can play in raising awareness to the dangers of climate change and in contributing to sustainable development.

Following the Lebanese national anthem, **Dr Hamad bin Saif Alhamami, Director, UNESCO Regional Bureau-Beirut**, welcomed the participants, officials and experts from Arab countries and other parts of the world such as New Zealand, as well as representatives of international organizations and regional bodies and universities. He stressed the importance of exchanging experiences among countries and regions of the world, and hoped that the meeting could contribute to the development of regional action plans and identifying future steps to implement the recommendations and developing strategies onCCESD. He pointed out that a team of experts have prepared four sub-regional studies on the Arab States: Mashriq countries, Arab Gulf countries and Yemen, Red Sea (Wadi Elnile) countries, and North Africa/Maghreb countries. These studies are in line with UNESCO programmes of action in the Arab region, and in particular the GAP-ESD, which was launched in Japan (November 2014) during the World Conference on ESD.

In his concluding remarks, Dr Alhamami commended the successful coordination and cooperation with the ESD Section at UNESCO HQ-Paris and the National Commission for UNESCO in Lebanon in organizing the experts meeting in Beirut. He pointed out the important role of civil society and NGOs that have the expertise and excellence in linking the needs of local communities with environment and sustainable development issues, represented by the Hariri Foundation for Sustainable Human Development, the Makhzoumi Foundation and the Safadi Foundation. He expressed thanks and appreciation to His Excellency the Minister of Environment, Mr Al-

Mashnook, for the patronage and support for the Expert Meeting-ESD Programme. He thanked Her Excellency Bahia Hariri, member of parliament and chairperson of the Education and Culture Parliament Committee, for the technical contributions and cooperation on the meeting programme. He expressed his thanks to the National Commission for UNESCO in Lebanon, and the National Council for Scientific Research, represented by Dr Mouen Hamze, Secretary-General of the council and/Vice-Chairperson of the Lebanese National Commission for UNESCO on the fruitful cooperation in organizing the experts meeting. He commended the active role of the organizing committee and working teams in Beirut and Paris.

Dr Mouen Hamze, Secretary-General of the National Council for Scientific Research and Vice - Chairperson of the Lebanese National Commission for UNESCO, expressed his appreciation to UNESCO Regional Bureau-Beirut, represented by its director, Dr Alhamami, and to the Japanese Funds-in-Trust (JFIT) for taking the initiative to organize this meeting under the auspices of the Minister of Environment, Mr Al-Mashnook, and with the participation of experts working in climate change, education and sustainable development in the Arab region.

Dr Hamze pointed to the severity of the global climate change crisis, which can be addressed only by the will of the major countries and their commitment to reducing its causes. He noted that the school plays a fundamental role in developing a culture of knowledge and action on climate change through interactive and experiential learning and through identifying the environmental impacts of daily practices of individuals and communities. He expressed hope for the adoption of Arab educational systems that take into account climate change, and systems of construction that are green (in terms of energy consumption) and disaster-proof, based on solar energy and the storage and reuse of rainwater. He stressed the importance of developing CCESD education and training programmes based on the findings of scientific research on climate change in the Arab countries, and of adopting and adapting the successful global initiatives on climate change and CCESD to the regional and local context.

He concluded by saying that the National Commission for UNESCO and the National Council for Scientific Research, through their strong relationship with UNESCO programmes and their recognition of the importance of combating climate change and taking appropriate initiatives, will follow the work, results and recommendations of this meeting and support the initiatives and decisions taken by participants.

Mrs Samar Malik, Head of the Environmental Technology Department, Ministry of Environment, gave a speech on behalf of the Minister of Environment, Mr Al-Mashnook. She

indicated that the meeting sheds light on the right of every human being to a safe and stable environment, and the duty of every citizen to ensure the protection of the environment and secure the needs of the present generations without prejudice to the rights of future generations. The Environmental Protection Law, Law 444 of 2002, recognized the principle of cooperation, which requires that public authorities and local citizens cooperate and protect the environment at all levels. She added that among the recent environmental priorities globally as well as in Lebanon is a focus on protecting the environment, combating climate change and strengthening political will to reach a new international climate change agreement in 2015. As for Lebanon, she indicated that despite the fact that Lebanon emits only 0.07 per cent of the total global emissions of greenhouse gases, it suffers from the adverse impacts of climate change on natural resources and on the economy and social stability.

Mrs Malik also indicated that the Ministry of Environment, in collaboration with the United Nations Development Programme, is working to increase adaptability to climate change and conducting numerous other projects and plans, most notably the formation of the National Coordinating Committee for Climate Change, composed of representatives of public and private institutions and international civil organizations dealing with climate change. The tasks of this committee mainly relate to organizing national projects and activities related to climate change. In addition, the Ministry of Environment is making significant efforts to reduce national emissions of greenhouse gases, including: cooperation with the relevant ministries to implement the optional commitment of Lebanon to generate 12 per cent of energy through renewable sources by 2020, the preparation of projects and measures to mitigate greenhouse gas emissions from transport and waste emissions, and the preparation of a national strategy for a low-carbon economy.

Mrs Malik emphasized that the Ministry of Environment believes that the development of environmental education in the national education system, raising awareness about environmental issues and organizing academic environmental activities serve the ministry's commitment to ensuring a clean, healthy and safe environment for sustainable development.

During the opening ceremony, a short video was screened on climate change and the environment issues in the Arab region, and the impacts on education and communities. The video was prepared by the Jordan ESD working team: Queen Rania Teacher Academy, Ministry of Education and Jordanian Society for the Environment.

Session One: Regional and International Perspectives on the Global Action Programme on ESD and CCESD

Chairperson: Dr Hassan Charif, National Council for Scientific Research, Lebanon

Rapporteur: Ms Christiane Jeitani, Lebanon

Presentations:

Global Action Programme on ESD Commitments, Dr Sulieman Sulieman

Dr Sulieman Sulieman, UNESCO Regional Bureau-Beirut, gave a short presentation on the GAP-ESD and its applications in the Arab region, based on the discussions and results generated by the Regional Coordination Meeting of the coordinators of the Education for Sustainable Development programme (Beirut, 16-18 September 2014), which preceded the International Conference on Education for Sustainable Development (Japan, November 2014).

Dr Sulieman's presentation focused on the key themes of GAP-ESD, which entailed the following: advancing policies, transforming learning and training environments, building capacities of educators and trainers, empowering and mobilizing youth, and accelerating sustainable solutions at the local level. These themes form an umbrella and a guiding framework for post-2015 in the field of ESD and in particular the time period specified for the GAP (2015-19), in accordance with the global launch of the programme at the conclusion of the World Conference on ESD (Aichi-Nagoya, Japan, 11-12 November 2014). Dr Sulieman explained the important inter-linkages between the regional Experts Meeting on Climate Change Education for Sustainable Development and the GAP-ESD.

Dr Sulieman stressed the importance of the working groups (A, B, C) and of benefiting from the expertise and experiences of Arab countries in the preparation of a sub-regional/regional framework of action on CCESD. He highlighted the most prominent contributions of the Arab States (governments and civil society institutions) to the Programme of Action of the International Conference in Japan.

International Orientations on CCESD, Ms Julia Viehofer

Ms Julia Viehofer, Section of Education for Sustainable Development, Paris, gave a presentation on 'Advancing Climate Change Education through the Global Action Programme on Education for Sustainable Development'. Ms Viehofer gave a brief overview of the Global Action Programme on ESD and the global coordination, provided by UNESCO.

Presenting UNESCO's current work on CCESD, Ms Viehofer further stressed that CCE remains a relevant theme across the different priority action areas of the GAP. She highlighted that UNESCO's current CCE work focuses on three types of activities: Promoting regional networking and exchange on CCE through the organization of regional expert meetings that develop recommendations on adapting education systems of the region to the impact of climate change. Second, supporting countries to strengthen the capacities of educators, education planners and policy makers on climate change education (a set of 12 country programmes has been implemented around the world). CCESD activities are complemented by the development of teaching and learning materials, such as the online course "Climate Change Education in the Classroom" for secondary teachers, stressed Ms Viehofer.

Findings of CCESD Sub-regional Studies in the Arab Region

Dr Mona Zoghbi and Dr Hani Sewilam

Dr Mona Zoghbi presented the results of the two sub-regional studies on CCESD in the Mashriq countries (Jordan, Iraq, Lebanon, Palestine and Syria) and the Arab Gulf countries (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, United Arab Emirates and Yemen).

Dr Zoghbi highlighted several innovative initiatives and good practices in the field of CCESD at the level of the public sector, international organizations, and the private sector and civil society (NGOs), in three main areas: public education (including vocational and technical education), higher education and lifelong learning (LLL).

The two studies demonstrated the importance of integrating a whole-system approach on CCESD in public and private schools, and of enhancing cooperation and partnership among different institutions, ministries and private stakeholders in order to strengthen and expand such initiatives to include other countries in the Arab region as well as a wider range of public and private institutions and civil society stakeholders in each of these countries. Dr Zoghbi emphasized the importance of developing clear policies and time-bound action plans for the integration of CCESD in schools and universities, and the need for establishing centres and programmes for the training of teachers and educators on CCESD. She also drew attention to the importance of establishing technical education programmes tailored towards developing green skills and professions and for training on disaster risk management.

Dr Zoghbi commended the efforts and initiatives of the various partners and stakeholders on CCESD, and emphasized the importance of developing adequate monitoring and evaluation programmes and mechanisms for continuously assessing and improving such initiatives.

Dr Hani Sewilam, the American University of Cairo (AUC), presented the results of two sub-regional studies on CCESD in the Red Sea (Wadi ElNile) countries (Egypt, Libya and Sudan), and in the Maghreb countries (Algeria, Mauritania, Morocco and Tunisia).

Dr Sewilam first highlighted the main impacts and risks of climate change, with focus on facts, statistics and projections for the Arab region, mainly relating to increasing temperatures, decreased water supply and crop yields, and increased risk of desertification in many areas of the Arab countries. He emphasized the importance of CCESD for increasing the flexibility and enhancing the capacity of countries in the region when dealing with the risks and disasters that might be caused by climate change and its impact on different sectors and activities, while considering the three pillars of sustainability.

Dr Sewilam discussed the national environmental education policy for each of the countries in the two sub-regions, and the existing or potential links to CCE in these countries. He also presented a case study from Egypt on 'Education for Sustainable Development Beyond the Campus (EduCamp)', which developed teaching and learning toolkits and teacher's guides on ESD at all levels of general education, as well as conducted training of instructors who subsequently held training sessions for teachers on applying these toolkits in the classroom.

He provided the following recommendations for the integration of CCESD based on the two sub-regional studies:

1. for general education (including technical and vocational education), updating academic programmes beyond regular environmental issues in order to address concepts, principles and practices of sustainable development and links to climate change, and training teachers with new teacher guides in order to fully develop the new education programmes;
2. for higher education – initiating new programmes (e.g. MS Programmes) on climate change and sustainable development towards solving the existing problems within the area of each university, and universities joining different stakeholders together to adopt local solutions for local problems;
3. For LLL, strengthening and empowering NGOs and civil societies, by giving them better collaboration alternatives on CCESD programmes, and initiating new alliances among

different stakeholders to enhance the cooperation opportunities among NGOs, the private sector and universities.

Discussion:

Discussions addressed the importance of linking the concepts of climate change to sustainable development. The main ideas and suggestions related to the following: planning and thinking in advance to prepare for natural disasters; developing skills of teachers, students, specialists and workers in non-governmental associations in the field of climate change and sustainable development, in coordination between the Ministry of Education and the Ministry of Environment in each country; developing partnerships among several parties; building forward-looking visions that include all dimensions such as environmental, social and educational; foreseeing scientific issues and features of development; adopting e-learning and developing scientific curricula; promoting knowledge on climate change and sustainability and subsequent change in behaviours, and exchanging experiences among Arab countries on climate change and CCESD. The participants proposed that the UNESCO Regional Bureau-Beirut could act as the hub or centre for collating and sharing good practices on CCESD.

Session Two: Engage with Youth and Communities

Chairperson: Dr Jihan Kamal Mohamed, Egypt

Rapporteur: Mr Abdel Aziz Ankouri, Morocco

Presentations:

Asia-Pacific Experience, Dr Sandra Morrison

Following a brief overview of the day's sessions and schedule, the floor was given to Dr Sandra Morrison from New Zealand, who presented a range of programmes and experiences from the Asia and the Pacific region. Dr Morrison presented three particular case studies relating to formal education on the island of Kiribati, non-formal education on the island of Samoa and tribal education in New Zealand. Dr Morrison shared Kiribati's experience regarding the adoption of a holistic, participatory, empowering, and contextual (HOPE) evaluation approach on education for sustainable development, an approach that was formulated based on the work of the Asia-Pacific Cultural Centre for UNESCO (ACCU), and the ancient symbolism of two birds from Tonga.

As for the island of Samoa, it has adopted the theoretical framework of the village of Iga with reference to the Maori concept of kaitiakitanga (guardianship), which is an integral part of Maori cultural identity, and which derives its strength from traditional knowledge and practice, and which inevitably will contribute to proposing future solutions towards the development of a 'global plan of action' to achieve sustainable development.

Report on LAS/Arab Ministers of Environment Council, Mrs Eman Mohammed Hassan

The second presentation was given by Mrs Eman Mohammed Hassan, who spoke on the Arab League experience. She indicated that since 2008, the Council of Arab Ministers Responsible for the Environment had placed a permanent item on their agenda titled 'Education for Sustainable Development', of which the first decision demands from the Technical Secretariat of the Council, the Arab League Educational, Cultural and Scientific Organization (ALECSO), the Islamic Educational, Scientific and Cultural Organization (ISESCO), and regional offices for West Asia to prepare a proposal for an Arab Action Plan to achieve ESD. A consultative meeting was also held involving experts in the environment and education fields in the Arab countries, in addition to the relevant Arab regional organizations, to agree on a final version of the draft Arab Action Plan. The final draft of the plan was presented at a joint ministerial meeting of environment ministers and ministers of education in the Arab countries.

Mrs Hassan also confirmed that in spite of the continuous efforts of the Council of Arab Ministers Responsible for the Environment since the 2008 decision, countries and organizations did not respond until 2011, when Egypt prepared a document containing standards and controls for the delivery of environmental concepts in educational curricula. The council resolution included the following two recommendations in the 2014 cycle:

1. Establishment of an Arab committee for developing a joint arab action Plan to achieve ESD. The committee would consist of Saudi Arabia, Iraq, Oman, Egypt, Morocco and the Technical Secretariat of the council, in addition to ALECSO, UNESCO, ISESCO and the Arab Network for Environment and Development. The council commissioned the committee during its initial meeting to devise a common Arab plan of action to achieve ESD and display its findings and recommendations to the next session of the council at its 27th cycle, which will be held during 2015.
2. Benefiting from all the strategies of international, regional and national plans, as well as the document submitted by Egypt to set up a joint Arab Action Plan to achieve ESD.

The speaker also highlighted three major challenges for the League of Arab States (LAS), namely:

1. the need for coordination between the Technical Secretariat of the Council of Arab Ministers and the technical secretariats of the relevant ministerial councils (education and social affairs);
2. the need for adopting steps to promote ESD in the Arab region; and
3. the identification of additional resources from Arab countries or abroad.

Youth Policies Study (ESCWA), Mr Raidan AlSaqqaf

Mr AlSaqqaf provided an overview of the reality and priorities of young people and youth policies in the Arab region and the importance of engaging Arab youth in policies and decisions. He highlighted that the priorities of Arab youth mainly relate to good education, better employment opportunities, and an honest and responsive government. He added that reviews by ESCWA of national youth policies (2008 and 2013) have identified an increasing interest in the development of national youth policies in the region, and that among 22 Arab countries, 4 countries have conducted national surveys of youth (since 2003), 6 countries are implementing national youth policies, and 11 are developing and reviewing national youth policies. The main focus of such youth policies is on issues of employment, quality education and participation in decision-making. Mr AlSaqqaf also indicated that current policies lack detailed implementation frameworks and tools for measuring progress. He pointed out the importance of involving young people and generating information and consultation to build bridges of trust and consolidation of joint action and shared responsibility, as well as to promote the value and contribution of young people who constitute a national resource. He presented some examples of legal frameworks and national policies, institutions and initiatives on youth engagement. He stated that many challenges remain in this context, which require greater openness and focus on the issues and priorities of young people, as well as in-depth information, research and technical materials on adequate ways to address the priorities, opportunities and challenges related to youth. He concluded his presentation with an emphasis on the importance of promoting policy reforms and developing and creating structures and institutional mechanisms involving Arab youth.

Discussion

The discussions and interventions by participants addressed some clarifications on the work of ESCWA and the programmes of the LAS linked to climate change and sustainable development, and highlighted the importance of cooperation with the Council of Arab Ministers Responsible for the Environment on educational issues, enhancing awareness and knowledge on

environment and development issues in all Arab states, and strengthening these contributions through regional and international cooperation.

- **Sharing of Experiences and Country Reports**

Jordan: Dr Ahmad Qablan, Mr Saleh Al-Omari and Mr Ahmad Al-Kofahi

The speakers of this session were Mr Saleh Mohammed Amin Al-Omari from the Humanitarian Studies Department at the Ministry of Education, and Mr Ahmed Al-Kofahi, chief executive office of the Jordan Environment Society. They summarized the most important climate change impacts in Jordan, mainly the increase in average temperatures, increased frequency of extreme events such as floods and droughts, increased crop water requirements with reduced soil moisture, land degradation due to extreme climate events and severe soil erosion, loss of soil and agricultural productivity and fertility, changes in quantity and quality of freshwater, increase in chronic respiratory diseases, reduced access to nutritious food and quantitative decline in food availability, and finally changes in the tourism sector due to the impact of climate change on travel. They also discussed the inclusion of CCESD in curricula and textbooks, and presented several recommendations in this area:

- providing (authoring) teams for preparing textbooks on CCESD;
- building the capacity of authoring teams on integrating climate change and sustainability concepts and principles in order to take account of current levels of awareness and understanding for building an integrated whole-system approach in school curricula;
- initiating CCESD primarily in the first three classes of primary level (phase I) and then moving upwards to higher classes;
- phase II to include higher classes (4 - 5- 6 - 9)

The speakers also presented numerous climate change initiatives that have been executed in Jordan:

- Sustainable education programme through renewable energy (His Majesty King Abdullah ilibin al Hussein Initiative 2015). The programme aims to install and operate solar energy modules to generate electricity in the schools of the Ministry of Education, so as to reduce conventional energy costs in schools.
- Water for schools programme, which aims to develop practical educational programmes to provide students with the knowledge and skills that promote efficient water use and provide safe and healthy water in the targeted schools. The programme has led to the development of water harvesting projects in the schools, community awareness

campaigns, improvement and maintenance of water and sanitation systems, and reduced attacks/violations of water resources and systems.

- Other programs:
 - young nature researcher: in collaboration with the Royal Society for the Protection of Nature;
 - young environmentalists: in collaboration with the Royal Society for the Protection of Nature;
 - Eco-Schools project: in collaboration with the Royal Society for the Protection of the Marine Environment;
 - 'Global' project: in collaboration with the Association of Friends of the Environment of Jordan;
 - environment and agriculture competition: in collaboration with the Ministry of Agriculture and the Royal Society for the Protection of Nature;
 - annual competition in the animal world: in collaboration with the Society for the Protection of Animals; and
 - training course for coordinators and supervisors of new environmental clubs: in collaboration with the Humanitarian Centre for Animal Welfare.

Kuwait: Mrs Ebtisam Al-Hay, Mrs Hanaa Salman and Dr Ali Alkandari

The second talk was on behalf of the State of Kuwait, presented by Mrs Hanaa Salman (Ministry of Education and Science) and Mrs Ebtisam Al-Hay (Director of the Educational Research Department). Their presentation highlighted the country's aims for education, including building citizen environmental awareness and capability to find appropriate solutions to environmental challenges, and instilling concepts of environmental valuation and culture among students in general education and higher education. Environmental education in Kuwait is taught at all levels of general and higher education, through separate units or departments or through integration into the curriculum.

The speakers presented some national education strategies and policies:

- national communication project of climate change at Kuwait University;
- Green Environment Initiative competition;
- application of Kids' ISO 14000 programme in cooperation with Japan; and
- environmental cleaning programmes, and future/planned environmental programmes, such as the Gulf environmental portal project.

They also highlighted educational programmes in the field of climate change:

- lectures and workshops in public and private schools and institutes;
- celebrations of environmental events;
- formation of environmental groups and voluntary work in schools;
- organization of beach clean-up campaigns;
- group tours for school students to visit exhibitions and environmental reserves and analytical laboratories; and
- organization of environmental science competitions and training courses and workshops for learners and mentors (meteorological cycle).

The speakers also indicated that there are many partnerships and institutions that cooperate with the Ministry of Education in education programmes and that play an important role in education programmes. They pointed out that there are difficulties and challenges facing officials in the field of CCE, mostly the lack of special budgets for implementation, the lack of cooperation by some tutors and the unwillingness of students to participate out of fear for their level of achievement.

Finally, regarding the general vision and strategic dimensions of CCE, the speakers indicated that these are mainly characterized by organizing training programmes for teachers, and the recommendations focused on enhancing education through the collaboration of all members of the educational institution to implement such programmes and to promote self-motivation of individuals and the school community.

Tunisia: Mrs Siham Ben Abdallah and Mrs Radiya AlWahishi

Mrs Radiya AlWahishi, president of the association Earth Children, presented the project 'My Responsibility in the Face of Climate Change', which aims to promote environmental awareness and environmental-friendly behaviours among students and strategies for climate change mitigation and adaptation through several awareness and action strategies that aim to:

- promote daily behaviours (individual and collective) to mitigate climate change and adapt to its impacts;
- strengthen the role of students in addressing the negative impacts of climate change in their surroundings (the neighborhood, school, home) through engaging them as active stakeholders in climate change awareness projects; and
- educate junior high school students on climate change through their colleagues/peers.

To achieve these objectives, the association adopted a participatory approach through:

- establishing environmental clubs consisting of delegates elected by the students;
- forming animators-educators (facilitators) and environmental delegates involved in the climate change projects;
- designing awareness tools to provide pedagogical tools that assist and support teachers;
- adopting a 'project pedagogy' in the teaching of climate change and assigning prizes to educational institutions that enhance their performance and develop such projects;
- adopting an inter-disciplinary educational approach; and
- developing websites in educational institutions designed by students with the help of their teachers to share and disseminate the completed projects, visions and perceptions and their innovations, and to enhance networking on national, regional and international levels.

Discussion

The participants' discussions addressed the following issues:

- strengthening partnerships with various ministries and community institutions;
- shifting from theoretical knowledge and awareness to concrete applications;
- disseminating and institutionalizing successful experiences; and
- promoting active citizenship.

- **Working Groups on Engaging with Youth and Communities in CCESD**

Participants were divided into three working groups (A, B, C), according to the geographical distribution of the Arab countries and the implementation of UNESCO's programmes in the Arab region (national and sub-regional level).

Group A Mashriq countries	Group B Arab Gulf countries and Yemen	Group C North Africa /Maghreb countries
Coordinator: Ahmad Qablan	Coordinator: Najj AlMahdi	Coordinator: Eman M. Hassan
Rapporteur: Samar Boulos Najjar	Rapporteur: Abdullah Ambusaidi	Rapporteur: Radiya AlWahishi
Saleh AlOmari	Ali Ben Abdo AlAlmai	Siham Ben Abdallah
Ahmad Al-Kofahi	Salah Aldine Bin Mohamad Ismail	Houriya Ben Chater
Taher Saloum	Noura Bint Ibrahim AlNasser	Ait Mesbah Naima
Shahada Mahmoud AlMohamad	Fatma Bint Said Al-Hinai	Farid Kerboua

Dania Ashi	Sabah Bint Mohammed A-Maouli	AlTayeb Ahmed Hayati
Qusay Fadhil Abed	Ebtisam Ahmad Al-Hay	Ibrahim Mohamed AlToum
Tarek Kamel Ibrahim	Hanaa Saoud Salman	Bashir Mutasin
Amal Aldine Kazim	Ali Habib AlKandari	Merhi Ahmad AlTayyar
Ali Shahada Manasra	Leila Aboud	AbdelSallam Emran Gebril
Dima Wadih AlNazer	Ibtihaj Saleh	Ali Ghafir AlGhaithi
Christiane Jeitani	Sandra Morrison	Jihan Kamal Mohammad
Mona Zoghbi	Julia Viehofer	Hani Sewilam
Ousama Ghoneim	Anwar AlSaid	Soummaya Abdelati Ebrahim
Sulieman Sulieman	Mohammed Abdullah AlDuais	Ahmad AbouGhait Ahmad
Sallama Namani	Raidan Alsaqqaf	Abdelaziz Ankouri
Hassan AlKayssi		Abdel Majid AlRahmani
		Sadati AlNabawi
		Sadafi AlSakhawi

At the beginning of the working groups, each group appointed a coordinator and a rapporteur in order to coordinate with the organizing committee on the discussions and the expected results within each group. The working groups were also characterized by the presence of experts who had participated in the **World Conference on Education for Sustainable Development (Japan, 10-12 November 2014)**, and the Regional Consultation Meeting on the GAP-ESD (Beirut, 16-18 September 2014).

On **day one**, each of the working groups discussed the priorities relating to **theme one**: Engaging Youth and Communities in Climate Change and Sustainable Development issues, exchange of experiences and good practices, and proposing educational programmes for all levels of teaching and learning (general/technical and vocational, higher education, continuing education and training/LLL).

- **Day two, 6 May 2015**

Session Three: Developing Partnerships for CCESD and Regional Cooperation

Chairperson: Dr Ali AlAlmaj, Saudi Arabia

Rapporteur: Ms Siham Ben Abdalla, Tunisia

Presentations:

ICARDA Programmes: Lebanon & the Region, Dr Hassan Mashlab

Dr Hassan Mashlab, director of the Lebanon office of the International Centre for Agricultural Research in Dry Areas (ICARDA), gave a presentation on ICARDA programmes to help improve livelihoods through enhanced food security and poverty alleviation. The programmes are focused on conducting research and enhancing partnerships to achieve increases in agricultural productivity and income, while ensuring efficient and more equitable resource use and the conservation of natural resources.

ICARDA conducts research on adaptation to climate change related to breeding new crop varieties tolerant to drought and extreme temperatures, water harvesting and use, carbon sequestration, conservation agriculture, and water-efficient agriculture.

The centre also contributes to education for sustainability through:

- school/academic education;
- public awareness; and
- training and capacity building.

Dr Mashlab indicated that capacity development projects are among the key priorities of ICARDA, through short and intensive training sessions that are regional, sub-regional or national, or through pursuing master's and doctorate degrees in partnership with universities. He also indicated that ICARDA seeks to improve individual skills and abilities by offering scholarships in related fields, and he concluded with some statistics on the training sessions.

Partnership with Universities & Colleges of Education (Jordan, Oman)

Dr Ahmed Qablan and Dr Abdallah Ambusaidi

Dr Ahmed Qablan, professor at the Hashemite University, shared the Jordanian experience in CCESD, by discussing two projects.

The first project is a networking programme at the Queen Rania Teacher Academy (QRTA), in which a group of schools have access to technology and media training on issues relating to environmental preservation, environmental mapping, sustainable development, and a multidisciplinary learning environment in schools.

The second project is concerned with redirecting university curricula towards sustainable development at the Hashemite University, with funding from the European Union and in partnership with seven European countries. The project aims to provide training workshops for faculty members on how to address climate change in their studies and their teaching process, and to develop diplomas in diverse disciplines relating to climate change and sustainability, as well as awarding the diploma certificate in Arab Euro Passport.

In addition, Dr Abdullah Ambusaidi, professor on the Faculty of Education, Sultan Qaboos University (SQU) gave a presentation on the contribution of SQU in the field of CCESD in partnership with the Ministry of Education, particularly in the field of teacher training through the Faculty of Education in cooperation with other faculties. The university contributes to the issuance of:

- Various environmental courses at several faculties, including courses in environmental engineering and in remote sensing at the Faculty of Engineering, an environmental education course (which addresses climate change issues) at the Faculty of Education, and a sustainable agriculture course at the Faculty of Agriculture.
- A school gardens project, used to enhance the students' learning experiences through interactive and hands-on educational activities. This is mainly applied in scientific subjects/classes but also in other subjects. The project also developed a simplified book on school gardens and their role in the educational process.
- The Green Schools Project, which aims to transform the school environment into a sustainable environment and create a culture of sustainability among students, teachers and administrators with the participation of parents and the community. The project implements numerous activities and events within the school to raise awareness of the school and wider community on sustainability issues.

Discussion

The discussions addressed the following points:

- ways to encourage relevant stakeholders and parties to integrate climate change through the experience of Jordan;
- ways to enhance teacher engagement with such educational programmes; and
- the possibility of circulating the programmes and tools provided by ICARDA to all Arab countries.

Sharing of Experiences and Country Reports:

Lebanon: Mrs Ibtihaj Saleh and Mr Ousama Ghoneim

The speakers indicated that the Centre for Educational Research and Development (CERD) focuses on ESD based on its founding principles. The main roles and tasks of the centre relate to the preparation of curricula and textbooks, training, research and studies of various educational projects aimed at the development and improvement of the educational sector.

Since the beginning of the Decade of Education for Sustainable Development (DESD) and across its three phases, the centre has developed plans and policies related to sustainable development and has carried out a number of initiatives and programmes including:

- Preparation of five educational packages distributed to public and private schools on the following topics: conservation of natural resources (forests and forest fires), 'my health is my fortune', rationalizing consumption, citizenship, media and sustainable development.
- Energy awareness project, through an agreement with the Ministry of Energy, and organizing energy awareness campaigns targeting students, parents and civil society.
- Entrepreneurship education project: a pilot project was conducted for the integration of the concept of entrepreneurship education in schools, and the project is currently being expanded to other schools. The project has developed experimental curricula, a student book and teacher's guidebook, and has included several teacher training courses. The projects and activities have been implemented in partnership among the public sector, the private sector and civil society.
- Community service project: a promising project that seeks to raise youth awareness on issues relating to social and environmental justice, self-expression, respect for others, and the fight against poverty and injustice.

- Learning difficulties project: the project included training of instructors and experts who then trained school teachers, and conducting studies to identify such situations of learning difficulties in schools. A specialized centre has been developed to help this group of students and work is underway to open more centres.

In addition, the speakers noted that many other educational initiatives undertaken by private schools have addressed a three-dimensional approach to sustainable development, focusing on the social, economic and environmental dimensions of sustainability. They indicated that private schools were notably quick to adopt the application of this concept through various educational programmes, which mostly addressed environmental and social issues.

The speakers highlighted the centre's two key action areas for the near future:

- Integrating CCESD into the curriculum: The centre seeks to build on current achievements in the field and to integrate and coordinate current (separate) initiatives on sustainable development in order to form a single matrix that can support and guide the re-orientation of the curriculum towards climate change and sustainable development within various academic subjects.
- Encouraging and supporting current initiatives: The centre will continue to encourage and support the initiatives and projects undertaken by public and private schools in cooperation with local NGOs and international organizations in the field of sustainable development.

Syria: Dr Taher Salloum, Dr Shahada Al-Mohamad and Mrs Dania Ashi

Overview of climate education and sustainable development in Syria

The speakers began their presentation by highlighting the importance of integrating CCESD into formal and non-formal education, in order to promote environmentally-friendly behaviours and sustainable management of natural resources. They emphasized that educated citizens can contribute to the response strategies to climate change and to the preservation of natural resources for future generations. They warned that climate change could lead to numerous dangerous impacts and risks such as reduced crop availability and increased volatility in agricultural productivity from extreme weather conditions (droughts and floods) and unpredictability of precipitation patterns, water shortages and desertification in many regions that will suffer from reduced rainfall, increased destruction of coral reefs and the loss of biodiversity and coastal and environmental systems, rising sea levels, and increased exposure to diseases.

The speakers emphasized the importance of CCESD in contributing to enhancing environmental awareness so that individuals and communities are able to act sustainably out of conviction and in-depth understanding of the inter-connections in the ecosystem and tripartite relationship that exists among humans, society and the environment.

The speakers shared the mechanisms of action at the Ministry of Education in Syria:

- collaboration with other ministries (Higher Education, Environment, Media) and civil society organizations (such as the Syrian Secretariat for Development) in the implementation of the developed action plan;
- development of current curriculum content and introduction of innovative concepts in the curriculum (environmental, population, water, sanitation, traffic);
- capacity-building programmes for teachers;
- establishment of relevant projects such as 'a tree for every citizen';
- preparation and delivery of educational programmes and scientific seminars across the Syrian educational channel;
- expanded application of environmental clubs in schools;
- conduction of awareness lectures at the Syrian Geographic Association;
- preparation of an educational guide on climate change; and
- spreading a culture of recycling.

The work mechanisms at the Ministry of Higher Education include:

- completion of the appointment of trainers in the fields of environmental and population education;
- completion of a development guide in cooperation with the Faculty of Education and the regional UNESCO office;
- convening a scientific conference on sustainable development in the College of Education at the University of Damascus;
- completion of a reference book on environmental and population education; and
- preparation of a teaching textbook in environmental and population education for second-year students.

The representative of the Syrian Society for Development, Mrs Dania Ashi, spoke about the mechanisms of action in civil society institutions:

- Development of an integrated programme called Green Light, concerned with environmental education and sustainable development, which is considered as an essential tool for non-formal learning methods that directly affect the development and

evaluation of children's skills on themes relating to climate change, sustainable development and environmental issues.

- Establishment of a training programme to increase teachers knowledge of various environmental issues, especially local environmental challenges, and to provide them with the information, concepts and skills that will help them to effectively contribute to their community. The programme also seeks to develop students' knowledge and strengthen their leadership skills in the field of environmental preservation and sustainable development through linking intra and extra-curricular educational activities.

Egypt: Dr Jihan Kamal, Mrs Soummaya Ebrahim and Mr Ahmad Abouelghit

Dr Jihan Kamal highlighted the commitment of the Egyptian Constitution in January 2014, particularly the text of Article 45 which emphasizes environmental preservation and the sustainability of natural resources as a right for every citizen, and Article 46 which recognizes the importance of a planned and coordinated framework towards sustainable development.

She added that based on the concepts of sustainable development and inter-generational equity, the key components of sustainable development according to the Egyptian National Strategy, issued by the National Commission on Sustainable Development, include:

- the social dimension of sustainability, focused on addressing issues of unemployment, local and regional development, health care, and the preservation of wealth, social cohesion, and public services;
- the economic dimension of sustainability, focused on economic development, competitiveness and economic growth, innovation, and industrial development;
- the environmental dimension of sustainability, focused on environmental preservation, conserving water, air and soil quality, biodiversity, and climate change.

Several other public institutions in Egypt are collaborating on implementing the national strategy, including the Ministry of Agriculture and Land Reclamation, the Ministry of Environment, the Ministry of Higher Education, and the Ministry of Education. The components of the strategy addressing climate change and sustainable development are as follows:

- The first area addresses climate change. It seeks to enhance the understanding of the science and causes of climate change; the skills to deal with its impacts and risks at the local, regional and international levels; and the quantification of changes in social and

economic activities, taking into account the international conventions and treaties and other relevant climate change agreements.

- The second area addresses sustainable development. It seeks to recognize and apply sustainable development as a strategy for confronting the challenges and risks of climate change. In the field of education, this is related to managing climate change and to enhancing institutional capacities and the quality of educational systems to improve the environmental behaviors of individuals.

The speaker also detailed the initiatives of the UNESCO Associated Schools and UNESCO Clubs in Egypt, which include several action projects and activities addressing climate change and the preservation of the natural environment, such as:

- joining the LIFE LINK initiative for water conservation;
- organizing summer camps and developing environment-friendly schools;
- conducting workshops on the use of waste to make new products; and
- organizing awareness-raising trips to natural reserves.

Awareness Projects of UNESCO Associated Schools and UNESCO Clubs and civil society organizations to climate change and risks in Egypt:

- Phase I: Organizing a training course at the headquarters of the National Commission for UNESCO for school administrators and coordinators and for officials at the Ministry of Education on the inclusion of school activities relating to climate change and sustainability and on the importance of addressing climate change within the curriculum.
- Phase II: Organizing a training course for students of affiliated schools and UNESCO Clubs - via video conference (Cairo: 11 December 2012).
- Phase III: Planting 150 trees and seeds in Mostorod Agricultural School, Qalyubia province, (13 February 2013).
- Phase IV: Organizing a training workshop for raising awareness of NGOs on climate change, (Cairo, 28 September - 2 October 2013).

Algeria: Mrs Houriya Ben Chater, Mrs Ait Mesbah Naima and Mr Farid Kerboua

The speakers shared the initiative of the Ministry of Urban Development and the Environment in Algeria after its inception in 2000, when it sought to develop a national strategy and a national plan for environmental preservation in the context of sustainable development. One of the main issues addressed in the strategy entails environmental education and awareness for

sustainable development. Accordingly, a roadmap was developed that identified the key stakeholders for this strategy, giving priority to national education, the youth sector, professional training and the education sector, media and communications, higher education and scientific research, and associations active in the field of environmental protection. The roadmap also identified the mechanisms for implementing the work programmes with these partners and the establishment of a national fund for environmental protection. In addition, new committees have been established to achieve the desired targets, and local environmental directorates and the National Institute for Environmental Configurations have been renewed for a greater role in environmental protection at the national level.

The speakers highlighted the most important programmes that have been completed:

1. Supporting environmental education programmes in schools:
 - Signing a protocol agreement with the Ministry of National Education in 2002, renewed in 2015 to include new concepts, most notably the green economy and climate change and technological developments.
 - Developing pedagogical tools and packages.
 - Supporting the establishment of environmental clubs. Over 2,500 green clubs were established in 2014, with the same number programmed for the next year.
 - Training of educators (teachers, managers and inspectors). Six training workshops have been organized for more than 1,600 educators.
2. Integrating new jobs into technical and vocational education and training in 2003. There are current consultations for integrating new professional disciplines related to climate change.
3. Supporting environmental awareness through mosques.
4. Building capacity of media and establishing an environmental press club.
5. Building capacity of civil society institutions.
6. Supporting the programme of 'A Hundred Researchers and A Hundred Projects'.
7. Supporting environmental education in youth centres.

Activities targeting the general public entail the following: the environment train, the new environmental promotion plan, green theatre, summer environmental games, clean neighbourhood programme, joint and hospital gardens, parks programme, educating prisoners programme, educating special needs groups programme, and the national contest to protect the environment 2015.

Working Groups on Developing Partnerships and Regional Cooperation (Theme Two)

- **Group A:** Mashriq countries (*Dr S. Sulieman/Dr M. Zohgbi*)
- **Group B:** Arab Gulf countries and Yemen (*Dr A. AlSaid/Ms J. Viehofer*)
- **Group C:** North Africa/Maghreb Countries (*Dr H. Sewilam/Mr A. Ankouri*)

The working groups addressed the second key theme: developing partnerships and regional cooperation for CCESD. The discussions in each group enabled participants to highlight the programmes and projects within their institutions related to CCESD, and to propose practical measures for implementation and improvement.

Session Four: Prepare for Disaster and Emergencies

Chairperson: Dr Naji Al Mahdi, United Arab Emirates (UAE)

Rapporteur: Mr Sadafi Alsakhawi, Mauritania

Presentations:

Sustainable Development Goals (SDGs) and Climate Change, Dr Tarek Sadek

The speaker introduced the 17 goals of sustainable development, indicating that 13 of the 17 target goals are linked to climate change. He indicated that the United Nations Framework Convention on Climate Change (UNFCCC) is a global framework to negotiate a general response to climatic change. He also added that the ESCWA Regional Committee of the United Nations was mandated to manage regional preparations, including the Annual Arab Forum on Sustainable Development and the preparation of Arab Sustainable Development Report (ASDR), in collaboration with the Arab League and regional partners.

In addition, Dr Sadek spoke about the Regional Initiative for the Assessment of the Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR). He indicated that the project aims to assess the impact of climate change on freshwater resources in the Arab region through an integrated consultative regional initiative, and seeks to identify the social, economic and environmental vulnerability of water resources to climate change based on regional particularities. The regional initiative thus aims to provide a common platform to serve as a basis for dialogue, for determining priorities, and for the formulation of climate change adaptation policies at the regional level.

UN-Habitat Programmes (Lebanon & Syria), Mr Tarek Osseiran

Dr Osseiran began his talk by recalling the purpose of the United Nations Human Settlements Programme (UN-Habitat) for promoting sustainable human settlements socially and environmentally, and for ensuring secure adequate shelter for all, all of which can be threatened by climate change. He spoke of the importance of urban flexibility in the prevention of natural disasters, which relates to the ability to prepare for and recover from multi-hazard threats with minimum harm to public safety, health and the economy.

He explained the role of the UN-Habitat programmes in the field of climate change, through working with 20 developing countries in Africa, Asia and Latin America for the development of

mitigation and adaptation strategies to climate change, and an integrated programme of assistance to local authorities to improve and buffer the infrastructure in urban areas.

He also indicated that at the national, regional and global levels, the UN-Habitat programmes work to increase awareness and capacity building to enable cities and local governments to address climate change effectively.

Finally, he discussed the 'City Resilience Profiling Programme' (CRPP) launched by UN-Habitat, which supports initiatives for capacity building to improve flexibility of local governments through a comprehensive and integrated approach that enhances the planning and development of urban management, develops tools for measurement and evaluation, and enhances the ability of cities to adapt to all types of risks.

Sharing of Experiences and Country Reports

Iraq: Dr Kusai Fadel Abed, Mr Tarek Kamel Ibrahim and Mrs Amal Aldin Majid Kadim

The report detailed the main impacts of climate change in Iraq during the last 50 years, including high temperatures, low rainfall, droughts, dust storms and desertification, and the main adaptation strategies. It also shed light on the process of integrating sustainable development concepts and principles since 2003 into academic curricula, the establishment of research and environment centres at universities, and evoking religious values in the field of environment and climate change, as well as developing master's and doctoral theses in this field. The report also posed two key questions on contentious issues, the first regarding tangible achievements and the second on Turkey's role in drying Iraqi rivers.

Palestine: Mr Ali Manasra and Dr Dima Wadih AlNazer

This report focused on four key points regarding general and higher education as well as success stories and recommendations. At the level of general education, schools have integrated environment and climate change concepts within the contents of the programmes of science, geography and health education, whereas activities have been mainly implemented by civil society organizations.

At the level of higher education, several universities have included environmental programmes yet without any particular focus on climate change. Some universities have also developed master's degrees in environmental preservation and water shortages. Among the success stories, the report highlights the green schools project, and another project titled "My School Is

Environment-Friendly" in Ramallah Municipality, a collaboration between the Ministry of Education and civil society. The project revolves around competitions between schools in the field of eco-friendly practices and gives winners prizes. The speaker pointed to some of the key challenges relating to the occupation, funding and other problems.

Oman: Mrs Fatima Alhinai, Dr Abdullah Ambusaidi and Dr Sabah AlMouawali

The speaker alerted participants to the importance of climate change education and to the most important adverse effects recently experienced by the Sultanate of Oman, mainly the hurricanes of 2007 and 2010. He pointed out some of the steps taken by the sultanate in integrating environmental concepts and sustainable development in the educational system, such as teacher training, curriculum review, production of a set of educational documents, and carrying out a range of activities performed by students as part of the configuration framework for environment-friendly houses. He also spoke about the projects and activities of two environmental associations, namely the Environment Society of Oman and the Water Society of Oman, and lastly presented a set of recommendations that need to be incorporated into any future strategy on CCESD.

Morocco: Mr Abdelaziz Ankouri and Mr Abdel Majid AlRahmani

The speaker started with a general overview of Morocco and main environmental facts and statistics, then highlighted the main features of climate change in Morocco including desertification, sand encroachment and severe decline in rainfall levels. He presented the municipality of Tafilalet as a model example on climate fluctuations (drought, floods, snow).

The speaker then pointed out that Morocco has made a head start in the field of environment and climate change through signing the United Nations Charter, the Kyoto Protocol and other agreements, and had prepared a strategy of six key themes and a national charter. The charter was ratified by a 'national referendum', which enabled Morocco to obtain a rank of fifteen globally and to attend the International Conference on Education for Sustainable Development in Japan along with a small number of Arab and African countries.

The speaker also indicated that Morocco has established a directorate for the environment and climate change at the Ministry of Education and Vocational Training and has adopted decentralization in the management of environmental issues and climate change, and that 85

per cent of schools have green clubs. He concluded by presenting a number of projects and tools achieved by Morocco, which he said he was ready to share with participants.

Discussion

The participants' discussions addressed numerous issues including:

- ways to move from the MDGs to the SDGs without having achieved the former;
- overlap of the work of international organizations while noting the difference in the stated disciplines of each of these organizations; and
- Turkey's role in the drying up of rivers in Iraq.

- **Day three, 7 May 2015**

Session Five: Building Green Societies through Green Job Training

Chairperson: Mrs May Makhzoumi, Lebanon

Rapporteur: Mrs Fatima Alhinai, Oman

Presentations:

TVET and Green Societies, Dr Naji Al Mahdi, UAE

Dr AlMahdi pointed out that the Government of the UAE emphasizes sustainable development through the preservation of the environment and seeks to achieve adequate balance between economic and social development by integrating sustainable development into UAE Vision 2021.

The speaker highlighted some key initiatives, including:

•**Eye on Earth:** The Environment Agency-Abu Dhabi, through the Abu Dhabi Global Environmental Data Initiative (AGEDI), in partnership with the United Nations Environment Programme (UNEP), in 2011 convened global leaders, innovators and decision makers to participate in the opening summit of Eye on Earth, which emphasizes the importance of providing environmental and social data and the impact of adequate communication channels on the decision-making process. The Eye on Earth project thus aims to:

- join leaders of thought and action from the international community;
- unify views on key aspects of common interest; and
- enhance cooperation for strengthening existing initiatives and bridging current gaps.

- **Supreme Council for Energy in Dubai** is the governing body entrusted with planning and coordination with the authorities and relevant bodies to find new sources of energy with the use of a balanced approach to environmental protection. The vision of the council is for Dubai to become a global role model in the field of safe and effective use of energy. The council also acts to support Dubai's economic growth through energy saving and sustainability of supply and optimal energy use while preserving the environment. Furthermore, the council developed in 2010 Dubai's Integrated Energy Strategy 2030, which was launched in 2011, with the aim of determining the strategic direction of Dubai towards securing sustainable energy and improving efficiency in demand (water, energy and fuel used for transport).

The speaker identified the goals of Dubai's Integrated Energy Strategy 2030 as follows:

- provide 1.7 terawatt hours (TWh) of energy by 2030;
- provide 5.6BIG of water by 2030;
- reduce carbon dioxide emissions by 1 million metric tons by 2030; and
- build 30,000 green buildings in Dubai.

Dr Al Mahdi also spoke about various other initiatives, including Etihad Esco, –a project by the Dubai Electricity and Water Authority; the 'Tarsheed Award for a Better Tomorrow'; Dubai Municipality and green buildings project; the initiatives of the Emirates Wildlife Society in association with the World Wide Fund for Nature, the e-learning programme; Eco-Schools in the UAE; and the greening initiatives of TVET.

- **Sharing of Experiences and Country Reports:**

Saudi Arabia: Dr Ali Alalmi, Mr Salah Aldin Bin Alsmail and Mrs Noura Bint Naser Ebrahim

Sustainable development in National Development Plans:

The Eighth Development Plan (2005-2009) entailed the following two objectives:

- preservation, development and rational use of water resources; and
- protection of the environment and the development of regulations within the framework of sustainable development requirements.

The Ninth Development Plan (2010-2014) entailed the following two objectives:

- achievement of sustainable economic and social development, through accelerating the pace of economic growth and social well-being; and

- development and preservation of natural resources, especially water resources, the rational use and protection of the environment, and the development of regulations within the framework of sustainable development requirements.

The Tenth Development Plan (2015-2019) entailed the following objectives:

- expansion in the application of the principles and criteria for sustainable development in the management of natural resources;
- development of plans and strengthening mechanisms for the protection of environmental systems from pollution; and
- improving environmental health and wildlife and strengthening mechanisms for the protection of lands from desertification and overgrazing, and of coastal and regional waters from pollution, and for the preservation of biodiversity.

Sustainable development in the curriculum:

Saudi Arabia has adopted concepts of sustainable development into the curriculum, achieving a balance among:

- disseminating knowledge and awareness of environmental concepts;
- instilling environmental values and educational trends; and
- developing skills to deal with environmental issues.

The academic curricula in Saudi Arabia cover several sustainability concepts including:

- | | | |
|--------------------|----------------------------------|-------------------------|
| - Health education | - Citizenship | - Climate change |
| - Desertification | - LLL | - Natural resources |
| - Human rights | - Rationalization of consumption | - Fight against poverty |
| - Pollution | - Disaster risk management | - Biodiversity |

Environmental sensing in schools

A national initiative of the Saudi Society for the Environment, aiming to promote and develop positive environmental awareness and behaviour at all school levels, including managers and administrators, teachers and educators, students, and residents, as well as the local community, in order to achieve sustainable development.

GLOBE environmental programme

An international educational scientific programme in collaboration with the United States National Aeronautics and Space Administration (NASA), aims to develop the next generation of future scientists in the environmental field through engaging students in a range of environmental measurements and studies, recording data and using them to conduct scientific and environmental studies. Students also share their experiences with their peers around the world and can communicate with scientists.

Environmental education project

A project implemented by the Ministry of Education in cooperation with Saudi Aramco. The project targets elementary school students to instill environmental values such as the importance of the natural environment, recycling and re-use.

The national programme to get rid of substances that deplete the ozone layer

The National Institution for Education and Training participates in the implementation of the kingdom's commitments relating to its accession to the Vienna Convention for the protection of the ozone layer and the Montreal Protocol on substances that deplete the ozone layer. The practitioners in refrigeration and air conditioning in the public and private sectors are trained on how to get rid of environmentally harmful gases and on shifting to the use of heating and cooling modes that are least harmful to the environment.

Sudan: Dr ALTayeb Ahmed Hayati, Dr Ibrahim Mohamed Al-Toum and Mr Bashir Mutasim

The delegation of Sudan presented examples and case studies on CCESD in general education, through the programmes of the Ministry of Education mainly at the secondary level. The speakers indicated that the National Centre for Curriculum Development at the ministry coordinates with other departments at the ministry on the integration of ESD and CCESD concepts in the curricula and organizes training workshops for school teachers and supervisors on such concepts and practices in the classroom.

The University of Khartoum is dealing with higher education programmes related to CCE and sustainable development in general. Most of the programmes are offered in the Faculty of Agriculture, and additional research and development (R&D) activities are needed, but they usually lack funding mechanisms.

The role of NGOs was presented through the experience of Mr Bashir Mutasim (agriculture researcher, Higher Council for Environment Resources) who acted as the NGO representative among the Sudan participants.

Libya: Dr Merhi AlTayyar, Dr Abdesallam Emran Gebriel and Dr Ali Ghafir AlGhaithi

The speakers indicated that the Ministry of Education in Libya is trying to cope with the educational and learning difficulties facing students in several parts and regions of the country, and that CCESD can be a topic to attract young students (especially at the secondary level) to be engaged in the community and environmental protection.

They also stated that the University of Benghazi is offering several R&D activities on climate change and sustainability education that can be utilized in the future for bilateral and regional cooperation with other Arab universities and countries (i.e. Egypt and Tunisia).

Mauritania: Mr Sadati Al-Nabawi and Mr Sadafi Al-Sakhawi

The speakers described three main indicators of the observed climate trends in Mauritania:

- the dynamics of drought, with two variables, namely the total rainfall levels and the length of the drought periods;
- the changing climate, characterized by the rising temperature and waves of extreme cold; and
- floods, with two variables, namely rainfall levels and the increase in the frequency of torrential rains.

They discussed the application of CCESD in teaching and learning programmes through the educational reform of 1973, which integrated related concepts into programmes of nutrition and health, and supported the teaching of scientific subjects such as natural sciences and geography at the secondary level. The reform of 1979 recommended teaching ecology and environment in natural sciences classes at the secondary level. The speakers also noted the importance of initial preparation of teachers for teaching programmes and subjects relating to environmental themes, particularly on biodiversity, pollution, desertification, global warming and green seeds and plants.

As for higher education, the textual analysis of the contents of higher education programmes indicates that environmental education concepts exist in most higher education institutions, given the recent development of such programmes. The Graduate School of Education is responsible for preparing and assigning teachers of general education, education inspectors, technicians and laboratory technicians in schools. It has integrated environmental education into the formation programmes of secondary school teachers, with focus on various subjects including ecology, botany, zoology and geography. It has also sought to create partnerships with national protected areas and research institutions in order to benefit teachers and students through field visits to sanctuaries and nature reserves.

The speakers concluded by stating the strategic directions for the integration of environmental education and sustainable development in the educational system of Mauritania, addressing the following points:

First stage: Attention and awareness

- The Ministry of Environment and Sustainable Development was established in 2013 and is responsible for coordination among all the ministerial sectors with regards to environment and sustainable development issues.
- The coordinating unit of the national programme on climate change has developed 46 formative documents for experts, decision-makers, teachers and professors of natural science and geography in secondary education on climate change.
- Mauritania has agreed with 11 African countries to complete the Great Green Wall project (the length of the Mauritanian section is 1100 km, width is 15 km and can be further increased).
- Among the objectives of the Third National Report 2014 is developing an educational tool on climate change and establishing a framework for consultation and formulation of concrete proposals for integrating climate change into academic textbooks.

Furthermore, Mauritania drafted a strategy in 2012 for the integration of the concepts of environment and climate change in the educational system. The strategy is centred on five key themes:

- developing an appropriate legal and regulatory framework for the integration of environmental education and sustainable development into the educational system;
- review of educational programmes and approaches and school practices;
- creating adequate educational tools and means for teaching environmental education and sustainable development;

- providing the necessary human and financial resources for the integration of environmental education and sustainable development into the educational curriculum, and building the capacity of teaching staff in the theoretical foundations and practical dimensions of education for sustainable development;
- promoting scientific research to enhance knowledge of the surrounding environment and evaluate its vulnerability to climate change.

Civil society (NGOs):

Makhzoumi Foundation, Mrs Sallam Naamani

Ms Naamani indicated that one of the foundation's main goals entailed education for climate change adaptation, and she briefly detailed several projects and initiatives implemented by the foundation, including:

- promoting agricultural pest control through environment-friendly methods;
- conducting diverse environmental activities with schools: afforestation - environmental arts, beach clean-ups, environmental trips;
- holding environmental awareness seminars;
- conducting forest plantations;
- raising awareness about the importance of solar energy;
- conducting the climate change and biodiversity initiative in the Qannoubine Valley;
- exchanging youth experiences in Mediterranean countries;
- developing the green application room; and
- developing the project 'Lebanese Youth as Messengers of Sustainability'.

Safadi Foundation-Tripoli, Mrs Samar Boulous Najjar

Mrs Najjar highlighted the main goals of the Safadi Foundation and their link to ESD, indicating that the foundation is based on a participatory approach focused on individual and community empowerment, seeking to raise the sense of responsibility among citizens to become key players in the development process. On the basis of this approach and in response to the four dimensions of development, particularly the environmental dimension, she discussed the "Environmental Policeman" initiative launched by the Safadi Foundation over ten years ago, which aims to implement environmental awareness activities as well as to lobby for activating the role of the concerned parties to play their role in solving environmental problems in the area of northern Lebanon. In this context, Mrs Najjar suggested an idea for launching a pioneering initiative that combines the main objectives of the "environmental policeman"

initiative with climate change education. The proposed initiative entails coordinating with concerned stakeholders, especially universities and their students, in order to prepare a report on the reality of climate change in the north of Lebanon and to document and disseminate the findings through a promotional and awareness-raising tool. The initiative also consists of preparing a training manual for social workers and practitioners in civil society organizations on climate change in collaboration with the Ministry of Social Affairs, and the formation of local committees of youth and women that raise awareness on concepts of climate change and sustainability and that encourage citizens to demand that concerned ministries play their role in this field. She finally indicated that such an initiative would activate and strengthen the role and contribution of civil society organizations on CCESD, through engaging NGOs such as the Safadi Foundation and in partnership with other environmental associations and stakeholders.

DYNED Teacher Training Programme-Bekka, Mr Hassan AlKaissi

Mr AlKaissi summed up the most prominent programmes by the DYNED Foundation as follows:

- Implementation of language teaching strategies using multimedia to design activities and stimulate the human brain to achieve the best interactive learning environment for students.
- A programme that categorizes learning skills and assigns specific measuring factors to record relevant percentages of each skill in a special register for each student. The teacher can then access and follow-up on student records and distribute students to default groups according to the results, the frequency of each skill and the periodic testing of the units of study.
- A three-day training course for teachers and adequate follow-up performances through a customized programme within relevant educational software packages.
- The adoption of an educational framework built on student evaluation based on their results, highlighting that the measure of success may be less related to the time students spend doing homework rather than being involved in community activities.

Working Groups on Preparing for Disasters and Emergencies and Building Green Societies (Themes Three and Four)

Group A: Mashriq countries (*Dr S. Sulieman/ Dr M. Zogbi*)

Group B: Arab Gulf countries and Yemen (*Dr A. AlSaid/Ms J. Viehofer*)

Group C: North Africa/Maghreb countries (*Dr H. Sewilam/Mr A. Ankouri*)

The working groups held discussions and proposed appropriate programmes and projects regarding the third and fourth key themes: preparing for disasters and emergencies and building green communities through green job training.

- **Field visit:**

The organizing committee arranged a field visit to Deir El-Qamar City and Beiteddine Palace, Al-Shouf, in order to observe and experience CCESD issues (social, economic, and environmental) in tourist cities and heritage locations in Lebanon.

III. Results and Recommendations

- **Working groups results (A, B, C)**

The organizing committee and the rapporteurs of the three working groups (A, B, C) summarized the most important discussions and conclusions of the working groups along the three days of the meeting, in accordance with the four key themes of the programme and with focus on areas of general education/TVET, higher education and LLL. In order to facilitate the utilization and application of the working groups' discussions and conclusions (i.e. identifying good practices) in the Arab countries, and the educational institutions participating in the meeting, the results of the working groups have been included in tables and presented as Annex (3) of the Report.

- **Recommendations**

The following recommendations are the outcomes of the Regional Experts Meeting on Climate Change Education for Sustainable Development in the Arab States that UNESCO organized in cooperation with the Lebanese National Commission for UNESCO, with financial support from ESD-JFIT.

Adopted by 65 participants from 16 countries, these recommendations are addressed to UNESCO and its Member States as well as all relevant stakeholders, including education planners, researchers, and practitioners.

1. Integrate CCE into the curriculum across all levels and ensure a harmonized approach across the different subjects and disciplines. Make use of active/participatory teaching and learning methods to help prepare learners for the problems of the future.
2. Build teachers' capacities to facilitate climate change learning through activity based capacity-building programmes, helping them to teach CCE without 'adding an additional burden'.
3. Support schools, institutes and universities in developing and implementing whole-institution approaches, by including sustainable development principles in curriculum and teaching, campus management, and school culture, as well as engaging with the local community.

Engage with youth and communities

4. Identify mechanisms to establish confidence among youth in sustainable development programmes and objectives. Empower youth (female and male) to engage with social and political responsibilities and promote their active participation in CCE decision-making processes.
5. Empower youth (female and male) to take action for sustainable development at the local level through sharing of experiences with innovative, hands-on CCE adaptation projects in local communities as well as through the use of modern technologies, social media and arts (e.g. movies, theatre and painting) – ‘walking the walk’.

Develop partnerships for climate change education and regional cooperation

6. Support building new multi-stakeholder partnerships on CCE and ESD at national, regional, and international levels. Among others, foster collaboration among universities, schools and youth organizations; promote establishing CCE working teams in schools and communities, and creating university chairs on CCE; and explore potential involvement of religious authorities in promoting CCE and ESD.
7. Strengthen the coordination between ministries of education and other ministries in charge of sustainable development issues as well as between other stakeholders to ensure efficient delivery of CCE programmes and activities. Promote the decentralization in the management of environmentally friendly projects.
8. Promote the engagement of and partnerships with the private sector (business and industry) in CCE activities at all levels of formal and non-formal education, with a focus on practical experiences. Promote entrepreneurship education and alternative fields of economic development, such as eco-tourism.
9. Promote the development of a clearinghouse/database for sharing CCE initiatives and good practices among institutions and countries within the region, and to inform about funding opportunities. Explore potential to link up with the AGEDI.

Prepare for disaster and emergencies

10. Prepare education systems for disasters and emergencies by developing guidelines/handbooks for students and teachers; preparing risk maps on natural disasters and scenarios for disasters and emergency prevention; and equipping institutions, especially schools and universities, with necessary tools and equipment.

Provide training and capacity building on disaster risk reduction and preparedness for all staff of education institutions. Reach out to municipalities in order to enhance building resilience at community level.

Building green societies through green Job training

11. At the level of education institutions, develop strategies and activities to promote building green societies. Raise awareness of students and teachers on non-sustainable consumption and production patterns and promote adopting more sustainable lifestyles (e.g. reducing and improving efficiency of water and energy consumption, recycling, changing consumption habits).

Financing

12. Mobilize financial and technical support for CCE activities, in particular supporting CCE activities of civil society organizations. Promote the establishment of scholarships for research on CCE.

The participants of the experts meeting further support strengthening efforts in promoting CCESD as a contribution to the GAP-ESD.

(Closing Session, Riviera Hotel, Beirut, 7 May 2015).

- **Evaluation of the meeting**

Evaluation forms were distributed at the closing session of the experts meeting. The questionnaire contained three main items entailing the following: evaluation of the content and organization of the conference, the most useful themes, and suggestions for improvement . The total number of forms returned to the organizing committee was 38 completed in the Arabic and 1 form in English.

Positive aspects of the meeting:

- learning about the role of civil society in the field of climate change and the exchange of views and opinions;
- learning about and benefiting from the experiences and expertise of Arab countries on climate change, especially on disaster preparedness;

- learning about the experiences of various countries in youth engagement with sustainable development and environmental education;
- adequate and clear response of speakers to the questions that arose;
- worksheets and high-quality presentations;
- excellent coordination and exchange of experiences among the participants; and
- working groups.

Negative aspects of the meeting:

- drifting of certain presentations away from the main topic of discussion;
- tight time.

Suggestions for improvement and development:

- adding a fourth day to the meeting;
- allowing more time for presentations;
- providing the opportunity for participants to communicate and network through social media after the conference;
- providing printed materials;
- collating national reports and placing them on the website for use by researchers; and
- implementing the suggested recommendations of the meeting.

● **Closing session and concluding remarks**

The closing session consisted of two statements from the participants given by Dr Jihan Kamal Al-Said, Egypt, Dr AlTayeb Ahmed Hayati, Sudan, in which they emphasized the importance of the work programme of this regional experts meeting for the Arab countries, and of developing programmes on CCESD. They indicated the desire of the participants to cooperate with UNESCO and other relevant UN organizations in arranging meetings and workshops addressing the GAP-ESD. Dr Kamal thanked the organizing committee and the UNESCO Regional Bureau-Beirut for the efforts in organizing the meeting in Beirut, Lebanon.

Ms Christiane Jeitani, representing Dr Zahida Darwich Jabbour, the Secretary-General of the Lebanese National Commission for UNESCO, thanked the participants for their efforts and stressed the importance of the results achieved in the working groups and the general recommendations for guiding future educational programmes to achieve the SDGs. She pointed to the importance of coordination and networking among relevant ministries such as the Ministry of Education, schools, universities and non-governmental associations and national committees and the offices of UNESCO, in order to advance CCESD in the Arab region. Ms

Jeitani also drew attention to the need to engage young people in schools and universities in these issues. In her concluding remark, she praised the close relationship between the National Commission, the UNESCO Regional Bureau-Beirut, and UNESCO-Paris in the implementation of UNESCO's programmes in various fields.

Dr Sulieman Sulieman, representing Dr Hamad bin Saif Alhamami, Director, UNESCO Regional Bureau-Beirut, asserted UNESCO's keenness to provide the elements of success for these meetings and programmes of action in accordance with the approved programmes in the Arab region. He thanked the experts and officials for their efforts in contributing to the success of the programme and to the achievement of the goals of the plenary sessions and working groups. He also thanked the management of Riviera Hotel and the translation team for their efforts in providing quality services for the meeting.

Annex (1): Programme/Agenda
Regional Experts Meeting on Climate Change Education
for Sustainable Development in the Arab States
(Beirut, 5-7 May 2015)

Day One: Tuesday, 5 May 2015

Timing	Activity
09.00 – 09.30	Registration
09.30-10.15	Opening of the meeting , welcoming speeches: <ul style="list-style-type: none"> - Dr Hamed Alhamami, Director, UNESCO Regional Bureau - Beirut - Dr Mouin Hamzé, Vice-President, National Commission for UNESCO-Lebanon/ Secretary-General, National Council for Scientific Research - Mrs Samar Malik, Director, Environmental Technology Department, Ministry of Environment - Short Film – Video on climate change and environment (Lebanon and the Arab region)
10.15 – 10.45	Group photo & coffee break
10.45 – 11.45	Session One: Regional and International Perspectives on the Global Action Programme on ESD and CCESD Chairperson: Dr Hassan Charif, National Council for Scientific Research, Lebanon Rapporteur: Ms Christiane Jeitani, Lebanon <ul style="list-style-type: none"> - Global Action Programme on ESD Commitments, Dr S. Sulieman - International Orientations on CCESD, Ms J. Viehofer - Findings of CCESD Sub-regional Studies in the Arab Region; Dr M. Zoghbi/ Dr H. Sewilam <i>Discussion</i>
11.45 - 13.00	Session Two: Engage with Youth and Communities Chairperson: Dr Jihan Kamal Mohamed, Egypt Rapporteur: Mr Abdel Aziz Ankouri, Morocco <ul style="list-style-type: none"> • Asia-Pacific Experience, Dr S. Morisson, New Zealand • Report on LAS/Arab Ministers of Environment Council, Ms E. Hassan • Youth Policies Study – ESCWA, Mr R. AlSaqqaf • Experiences and Reports from the Arab Region: <ul style="list-style-type: none"> - Jordan - Kuwait - Tunisia <i>Discussion</i>
13.00 – 14.00	Lunch break
14.00 – 16.30	Working Groups on Engaging with Youth and Communities in CCESD <ul style="list-style-type: none"> - Group A: Mashriq countries (<i>Dr S. Sulieman/Dr M. Zogbi</i>) - Group B: Arab Gulf countries and Yemen (<i>Dr A. Alsaid/Ms J. Viehofer</i>) - Group C: North Africa/Maghreb countries (<i>Dr H. Sewilam/Mr A. Ankouri</i>)
20.30	<i>Dinner – Reception</i>

Day Two: Wednesday, 6 May 2015

Timing	Activity
09.00 – 11.00	<p>Session Three: Developing Partnerships for CCESD and Regional Cooperation</p> <p>Chairperson: Dr Ali Al Almai, Saudi Arabia</p> <p>Rapporteur: Ms Siham Ben Abdalla, Tunisia</p> <ul style="list-style-type: none">• ICARDA Programmes: Lebanon & the Region; Dr H. Mashlab• Partnership with Universities & Colleges of Education (Jordan, Oman), Dr A. Qablan/Dr A. Ambousaidi• Experiences and Reports from the Arab Region:<ul style="list-style-type: none">- Lebanon- Syria- Egypt- Algeria <p><i>Discussion</i></p>
11.00 – 11.30	<p>Coffee break</p>
11.30 – 13.00	<p>Working Groups on Developing Partnerships and Regional Cooperation</p> <ul style="list-style-type: none">- Group A: Mashriq countries (<i>Dr S. Sulieman/Dr M. Zohgbi</i>)- Group B: Arab Gulf countries and Yemen (<i>Dr A. Alsaïd/Ms J. Viehofer</i>)- Group C: North Africa/Maghreb countries (<i>Dr H. Sewilam/Mr A. Ankouri</i>)
13.00-14.00	<p>Lunch break</p>
14.00 – 16.00	<p>Session Four: Prepare for Disaster and Emergencies</p> <p>Chairperson: Dr Naji Al Mahdi, UAE</p> <p>Rapporteur: Mr Sadafi Alsakhawi, Mauritania</p> <ul style="list-style-type: none">• SDGs and Climate Change, Dr T. Sadek• UN-Habitat Programmes (Lebanon & Syria), Mr T. Osseiran• Experiences and Reports from the Arab Region:<ul style="list-style-type: none">- Iraq- Palestine- Oman- Morocco <p><i>Discussion</i></p>

Day Three: Thursday, 7 May 2015

Timing	Activity
09.00 – 10.30	Session Five: Building Green Societies through Green Job Training Chairperson: Mrs May Makhzoumi, Lebanon Rapporteur: Mrs Fatima Al-Hinai, Oman <ul style="list-style-type: none">• TVET and Green Societies, Dr N. Al Mahdi• Experiences and Reports from the Arab Region:<ul style="list-style-type: none">- Saudi Arabia- Sudan- Libya- Mauritania- Civil Societies: Makhzoumi Foundation, Ms S. Naamani Safadi Foundation Ms Samar Boulous Najjar DYNED Teacher Training Programme-Bekka, Mr H. AlKaissi <p><i>Discussion</i></p>
10.30 – 11.00	Coffee break
11.00 – 12.30	Working Groups on Prepare for Disaster and Emergencies and Building Green Societies <ul style="list-style-type: none">- Group A: Mashriq countries (<i>Dr S. Sulieman/ Dr M. Zogbi</i>)- Group B: Arab Gulf countries and Yemen (<i>Dr Al-Said/Ms J. Viehofer</i>)- Group C: North Africa/Maghreb countries (<i>Dr Sewilam/Mr A. Ankouri</i>)
12.30 – 13.00	Presentation of Working Groups Results and Outcomes <ul style="list-style-type: none">- Group A: Mashriq countries- Group B: Arab Gulf countries and Yemen- Group C: North Africa/Maghreb countries Next Steps and Draft General Recommendations on CCESD in the Arab region (<i>Dr Sulieman Sulieman, Dr Mona Zoghbi and Dr Hani Sewilam</i>)
13.00 – 13.30	Wrap-up and concluding remarks <ul style="list-style-type: none">- Participants' Comments-Speech, Dr Jihan Kamal Mohammad- National Commission for UNESCO – Lebanon, Ms C. Jeitani- ESD Section UNESCO HQ– Paris, Ms J. Viehofer- UNESCO Regional Bureau – Beirut, Dr S. Sulieman
13.30 – 14.30	Lunch break
14.30 – 19.30	<i>Field visit to Deir El-Qamar City and Beiteddine Palace, Al-Shouf: CCESD issues and experiences will be observed during the field visit.</i>

Notes:

1. Thematic papers and studies (15-20 minutes)
2. Country experiences and reports (10 minutes)
3. Discussion (15 – 20 minutes)

Annex (2): List of participants

Regional Experts Meeting on Climate Change Education for Sustainable Development in the Arab States (Beirut, 5 - 7 May 2015)

I- Arab countries

1. Algeria

- Mrs Houriya Ben Chater, Director, Partnership for Environmental Protection, Ministry of Urban Development and Environment
- Mrs Ait Mesbah Naima, Director, Environmental Awareness, Ministry of Urban Development and the Environment
- Mr Farid Kerboua, Professor, Green Torch Association for Environment

2. Egypt

- Dr Jihan Kamal Al-Said, Director General, Educational Research and Development-MOE
- Dr Hani Sewilam, Director, Centre for Sustainable Development, American University of Cairo
- Mrs Soummaya AbdelAti Ebrahim, Educational Supervisor, ASPnet Coordinator-Ministry of Education
- Dr Ahmed Abouelghit Ahmed, Board Chairperson, Youth and Women Empowerment Association

3. Iraq

- Dr Qusay Fadhil Abed, Lecturer, College of Education and Humanities, Al-Muthanna University-Baghdad
- Mr Tarek Kamel Ibrahim, Expert/Assistant Director, General Administration Affairs, MOE
- Mrs Amal Aldine Kazim, Expert, Development of Iraqi Environment Organization

4. Jordan

- Dr Ahmad Qablan, Professor/Senior Project Coordinator, Hashemite University- QRTA
- Mr Saleh Al-Omari, Chief, Humanitarian Studies Department, Ministry of Education
- Mr Ahmad Al-Kofahi, Executive Director, Jordan Environment Association

5. Kuwait

- Mrs Ebtisam Al-Hay, Director General, Educational Research and Curricula Department, MOE
- Mrs Hanaa Saoud Salman, Technical Supervisor for Sciences, Kuwait City, MOE
- Dr Ali Al-Kandari, Professor/Expert, Kuwait University-AISSAD Foundation for Knowledge and SR

6. Lebanon

- Dr Mouin Hamza, Secretary General, National Council for Scientific Research
- Dr Hasan Charif, Adviser, Sciences Policy, National Council for Scientific Research
- Mrs Ramza Jaber Saad, Assistant Sec. General, National Commission for UNESCO
- Ms Christiane Jeitani, ASPnet Coordinator, National Commission for UNESCO
- Dr Mona Zoghbi, Expert/Consultant, Environment and Sustainability
- Mrs Ibtihaj Saleh, Chief, Sciences Department, Centre for ED Research and Development
- Mr Ousama Ghoniem, Chief, Vocational and Technical Education Department, CERD
- Dr Leila Aboud, Professor, Economic and E-Learning, Lebanese University (E-BUMP)
- Ms Claudia Matta, Youth Ambassador, ESD

7. Libya

- Dr Merhi Ahmad AlTayyar, Secretary General, National Commission for UNESCO-Libya
- Dr Abdesallam Emran Gebriel, Director, International Cooperation Bureau, MOE
- Dr Ali Ghafir AlGhathithi, Director, General Date Base, Ministry of Education

8. Mauritania

- Mr Sadati Al-Nabawi, Director, Nutrition and Health Education, Ministry of Education
- Mr Sadafi Al-Sakhawi, Professor/Coordinator Education Programme, Aboub Association for Development

9. Morocco

- Mr Abdelaziz Ankouri, Director, Environment and Sustainable Development, MOE
- Mr Abdel Majid Al-Rahmani, Regional Coordinator for ESD, Ministry of Education

10. Oman

- Mrs Fatma Al-Hinai, Assistant Secretary General for International Relations, NATCOM
- Dr Abdullah Ambusaidi, Professor, Science Education, Sultan Qaboos University
- Dr Sabah Al-Maouli, Lecturer, Higher College of Technology-Muscat

11. Palestine

- Mr Ali Manassra, Director General, Curriculum Department, Ministry of ED and HE
- Dr Dima Wadih Al-Nazer, Lecturer, Palestine Technical College, Ramallah

12. Saudi Arabia

- D Ali Al-Almai, Director General, Planning and Policy Department, Ministry of Education
- Mr Salah Aldine Bin Alsmail, General Supervisor, Planning and Policy Dept., MOE
- Mrs Noura Al-Nasser, Director, Scientific Activities/Deputy National Coordinator GLOBE Environmental Programme, Ministry of Education

13. Sudan

- Dr AlTayeb Ahmed Hayati, Director General, National Centre for Curricula, MOE
- Dr Ibrahim Mohamed Al-Toum, Professor, Geography Department, University of Khartoum
- Mr Bashir Mutasim, Agriculture Researcher, Higher Council for Environment Resources

14. Syria

- Dr Taher Saloum, Dean, Faculty of Education, Damascus University
- Mr Shahada Al-Mohamad, Senior Supervisor, Ministry of Education
- Ms Dania Ashi, CEO-Masar Project, Syrian Society for Development

15. Tunisia

- Mrs Siham Ben Abdallah, Researcher, Research and Technology Centre for Water, MOESD
- Mrs Radiya Al-Wahishi, Chairperson, Association for "Earth Children" - Tunis

16. UAE

- Dr Naji Al-Mahdi, Chief Executive Officer, National Institute for Vocational Education, Dubai

II – Other Regions

- Dr Sandra Morrison, Associate Professor, Faculty of Education, Waikato University, NZ

III- International and Regional Organizations

1. UNESCO

- Dr Sulieman Sulieman, Programme Specialist: STV, UNESCO-Beirut
- Mrs Julia Viehofer, Associate Expert: ESD, UNESCO HQ- Paris
- Dr Anwar Al-Said, Programme Specialist: Education, UNESCO-Doha
- Dr Mohammed Abdallah Al- Duais, Natural Sciences Programme Assistant, UNESCO - Doha
- Mrs Rita Menassa, Programme Assistant, UNESCO-Beirut

2. ESCWA

- Dr Tarek Mohieddine Sadek, Senior Officer, Economic Issues, PSD Division, Beirut
- Mr Raidan Al-Saqqaf, Officer, Social Affairs, Social Development Sector

3. ICARDA

- Dr Hassan Machlab, Director, ICARDA Office-Lebanon

4. United Nations Human Settlements Programme (UN-Habitat)

- Mr Tarek Osseiran, Acting Director, UN-Habitat, Lebanon

5. League of Arab States

- Ms Eman M. Hassan, Expert, Department of Environment, Housing and Development-Cairo

III- Civil Society NGOs

- Mrs May Makhzoumi, Chairperson, Makhzoumi Foundation, Lebanon
- Mrs Sallama Namani, Director of Projects, Makhzoumi Foundation, Lebanon
- Mrs Samar Boulos Najjar, Director, Social Development Sector, Safadi Foundation, Tripoli
- Mr Hassan AlKayssi, Executive Director, DYNED Programme for Teacher Training - Bekaa

Annex (3)

اجتماع الخبراء الإقليمي حول التعليم في مجال التغير المناخي والتنمية المستدامة في الدول العربية

Regional Experts Meeting on CCESD in the Arab States

Working group A: Mashriq countries

مجموعة العمل (أ): دول المشرق العربي

Domain	Engage with Youth and Communities	Develop Partnerships for CCESD	Build Green Societies through Green Job Training	Prepare for Disaster and Emergencies
General education (Schools and technical institutes)	<ul style="list-style-type: none"> - Integrating climate change concepts informally in the existing curricula to cover all three educational stages (primary, middle and secondary). - Reconsidering certain policies to meet the climate change demands such as changing the start and the end of school semesters in Iraq. - Project of school and health environment. - 'Tree for every citizen' project in Syria. - Rural schools initiative (Syria) - Environment clubs' cooperation with local communities. - collecting and recycling wastes initiative (Syria) - citizenship project and 	<ul style="list-style-type: none"> - Training teachers and students on how to deal with catastrophes and how to coordinate with civil defense centers. - Developing vocational training programme that has field component and coordinate with MoE, MoL, MoP, and vocational schools and commerce champers. - Integrating climate change concepts in existing educational curricula. - Organizing students' field visits to certain places impacted by climate change issues. - Establishing desertification centers in universities and research institutes. - Holding forums for youth and local communities to raise their awareness on climate change 	<ul style="list-style-type: none"> - Encouraging teachers and parents' councils to run environmental activities. - Offering a degree programme on environment in existing school curricula. - Geographical redistribution of schools. - Offering training courses on civil defense for teachers and students. - Green communities and rural schools project. - Preparing environmental teachers in the university level. - 'Tree for every citizen' project. - Conducting awareness on CCESD campaigns in schools. - Training teachers and students on civil defense protection activities. - Adopting certain environmental 	

	<p>volunteering work in schools (Palestine)</p> <ul style="list-style-type: none"> - Producing and integrating ESD training materials in three languages in school curricula (Lebanon). - Training school teachers and principals on the ESD training packages. - Conducting several environmental activities such as environmental clubs and concerts. - Community schools project in Jordan. - Encouraging local municipalities to sponsor schools' projects. 	<p>issues.</p> <ul style="list-style-type: none"> - Developing a manual for climate change concepts and suggesting research subjects on climate change for theses and dissertations. - Establishing degree programmes at universities for research on climate change and ESD. - Offering diploma degrees on climate change and ESD in Jordanian and Lebanese universities. - Developing a technical programme on alternative energy (Lebanon) 	<p>codes for school buildings to enhance their readiness for catastrophes and earthquakes.</p> <ul style="list-style-type: none"> - Launching green school projects. - Rehabilitating agricultural lands and encouraging water harvesting practices. - Supporting Arab society for the protection of nature activities such as planting trees in Palestine. - Training school teachers and students on suitable plans for disaster risk reduction. - Conducting environmental impact assessments in schools. - Establishing national centres on disaster management practices and launching awareness projects for decision-makers. - Support school health programmes.
Higher education (Universities and R&DC)			<ul style="list-style-type: none"> - Encouraging students to plant trees. - Opening new academic programmes in the school of engineering on climate change and ESD. - Adopting new water technologies to save water. - Encouraging buying electrical and hybrid cars.
Informal education and training (Local communities and		<ul style="list-style-type: none"> - School initiatives such as drawing natural graphics and green gardens. - Producing interactive training 	<ul style="list-style-type: none"> - Producing documentaries on climate change and posting them in social media channels.

NGOs)		<p>manual (green light) for science curricula (Syria).</p> <ul style="list-style-type: none"> - 'I can' initiative for students and communities. - Organizing interactive exhibitions and environmental games on CCESD. - Certifying environmental and healthy schools. - Organizing local and regional conferences for teachers to facilitate the exchange of experiences on climate change (NATCOM, Lebanon) - Environmental police project. - Launching environmental school initiatives such as green schools, green flag and green key in Jordan. - Solar energy school project. - School recycling project. 	<ul style="list-style-type: none"> - Supporting the practices of civil defense academies such as Prince Hussein Academy for Civil Defense. - Changing customs policies to encouraging people to buy electrical and hybrid cars. - Training leaders on disaster risk reduction practices. - Launching environmental projects in coordination with governmental and private sectors. - Facilitating the sponsorship of environmental projects.
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اجتماع الخبراء الإقليمي حول التعليم في مجال التغير المناخي والتنمية المستدامة في الدول العربية

Regional Experts Meeting on CCESD in the Arab States

Working group (B): Gulf countries and Yemen* مجموعة العمل (ب): دول الخليج العربية واليمن

Domain	Engage with Youth and Communities	Develop Partnerships for CCESD	Prepare for Disaster and Emergencies	Build Green Societies through Green Job Training
General education (Schools and technical institutes)	<ul style="list-style-type: none"> - Linking students with the local community through field visits. -Building capacities of teachers to apply teaching methods on CCESD. - Expanding the outlook of teachers to consider the curriculum as more than scientific content. - Involving young people in school activities concerned with climate change and sustainable development. - Providing an opportunity for young people to engage with research and studies on climate change. - Involving parents in CCESD initiatives. - Providing tools and channels on climate change-specific information 	<ul style="list-style-type: none"> - Developing a framework for partnership with the local community to promote the concept of sustainability. - Diversifying partnership between the public and private sectors and civil society institutions. - Encouraging public and private sector and civil society institutions to implement activities and projects relating to CCESD (such as Earth Day, Earth Hour) - Linking students with the local community through field visits. - Developing an effective partnership with parents through the adoption of the idea of councils that combine parents and teachers. - Providing schools with the opportunity to partner with different sectors in accordance with the rules and regulations approved by the Ministry of Education. 	<ul style="list-style-type: none"> - Developing a guide for schools on evacuation during disasters. - Training school personnel on evacuation during disasters. - Establishing schools in ways that provide a safe environment for evacuation during disasters and emergencies. - Educating students and teachers in how to deal with natural disasters. - Equipping schools with equipment and tools needed to deal with emergency cases. - The need for school curricula to include the 	<ul style="list-style-type: none"> - Adopting strategies and activities within the schools to achieve the objectives of green communities (reduction of water consumption, energy saving). - Training of staff within schools to achieve the goals of green schools. - Using recycled materials and tools in the educational process. - Activating the role of student management within schools in raising awareness on the green communities. - Encouraging schools to reduce unnecessary consumption in the educational process instead of excessive use of paper.

	in schools		impact of natural disasters and how to deal with it. - The preparation of students to be responsible for their health and safety and the health of their peers.	
Higher education (Universities and R&DC)	<ul style="list-style-type: none"> - Linking students with the local community through field visits. - Developing the research system to better understand how to engage youth and communities in CCESD. - Educating and training of teachers of higher education institutions on CCESD. - Promoting youth participation in projects within the higher education institutions concerned with climate change and sustainable development. - Encouraging young people to get involved in education projects for climate change and sustainable development through competitive contests. 	<ul style="list-style-type: none"> - Developing a framework for partnership with the local community to promote the concept of sustainability. - Diversifying partnership between the public and private sectors and civil society institutions. - Encouraging public and private sector and civil society institutions to implement activities and projects relating to CCESD (such as Earth Day, Earth Hour) - Training students in higher education institutions in the private sector and civil society organizations on climate change and sustainable development. - Encouraging the support of public and private sector and civil society institutions for youth initiatives on climate change and sustainable development. - Providing financial support for young people studying in higher 	<ul style="list-style-type: none"> - Developing a guide for faculties and universities on the evacuation during disasters. - Training staff in higher education institutions on evacuation during disasters. - Establishing schools in ways that provide a safe environment for evacuation during disasters and emergencies. - Equipping universities and colleges with the necessary tools to deal with emergency cases. - Promoting research and studies in the field of disaster and emergency response and management. 	<ul style="list-style-type: none"> - Adopting strategies and activities within the schools to achieve the objectives of green communities (reduction of water consumption, energy saving). - Training staff within schools to achieve the goals of green schools. - Using recycled materials and tools in the educational process. - Activating the role of student management within schools in raising awareness on the green communities. - Encouraging schools to reduce unnecessary consumption in the educational process instead of excessive use of paper.

	<ul style="list-style-type: none"> - Providing an opportunity for students in higher education institutions to study disciplines dealing with climate change. 	<ul style="list-style-type: none"> education institutions for implementing their projects and entrepreneurial ideas. - Encouraging students in higher education institutions to carry out research in the fields of climate change and sustainable development, through the provision of financial support from government and the private sector. - Providing researchers with relevant databases and international funding to conduct research in the field of climate change and sustainable development. - Encouraging research studies among the Gulf countries in the field of climate change and sustainable development. - Benefit from the expertise of professionals in CCESD in the public sector, private sector and civil society institutions. 	<ul style="list-style-type: none"> - Encouraging projects by university students on disaster and emergency response and management. 	
<p>Informal education and training (Local communities and NGOs)</p>	<ul style="list-style-type: none"> - Encouraging youth to engage in civil society institutions to have an active role in CCESD. - The need for greater contribution of civil society organizations in raising awareness on climate 	<ul style="list-style-type: none"> - Establishing networks (networking) between the government and private institutions and civil society organizations that are supporting CCESD initiatives. - Promoting cooperation among various institutions in the implementation of CCESD activities 	<ul style="list-style-type: none"> - Encouraging the participation of various institutions of society in responding to an emergency situation. - The participation of the various institutions of society in educating 	<ul style="list-style-type: none"> - Training personnel in various fields to enhance understanding of and skills for green communities. - Raising awareness of various civic/social institutions on the concept of green communities

	<p>change and sustainable development.</p> <ul style="list-style-type: none"> - Encouraging civil society organizations to participate in environmental events such as Earth Day, Arbor Day, Earth Hour. - Encouraging the establishment of civil society institutions dealing with climate change. 	<p>and events.</p> <ul style="list-style-type: none"> - Providing information and data on climate change to public and private institutions and civil society in order to use in their activities and events. - Public and private sector and civil society organizations can take advantage of social media in raising awareness on climate change and sustainable development. - Activating the role of councils to raise awareness on climate change and sustainable development. - Coordinating with the Ministries of Awqaf to activate the role of mosques in raising awareness on climate change and sustainable development. - Activating cooperation with the electronic environmental portal. 	<p>workers in different educational institutions.</p>	
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***Note: The presentations relating to Yemen were linked to the questionnaires completed by specialists and experts in Yemen (3), as well as to the contributions of two experts from Yemen in the experts meeting (ESCWA and UNESCO Office -Doha).**

اجتماع الخبراء الإقليمي حول التعليم في مجال التغير المناخي والتنمية المستدامة في الدول العربية

Regional Experts Meeting on CCESD in the Arab States

Working group C: North Africa / Maghreb countries

مجموعة العمل (ج): دول شمال إفريقيا/ المغرب العربي

Domain	Engage with Youth and Communities	Develop Partnerships for CCESD	Prepare for Disaster and Emergencies	Build Green Societies through Green Job Training
General education (Schools and technical institutes)	<ul style="list-style-type: none"> - Engaging youth in social and political structures - Youth pressure on officials and decision-makers - Early preparation for young people through activities and forums. - Creating mechanisms to qualify young people to contribute to the decision-making process. - Creating mechanisms to give young people confidence in the importance of programmes aimed at achieving sustainable development. - Enabling young people to access and learn from other experiences. - Giving young people the opportunity to practically apply theoretical knowledge on the ground. - Importing ideas and methods and tools from outside the Arab countries, and contextualizing them to meet regional challenges and working on localization and translation of key words to Arabic 	<ul style="list-style-type: none"> - Identifying who takes leadership of partnerships in the Arab world: *UNESCO can play the role of regional coordinator to build partnerships and exchange experiences and good data and initiatives among Arab countries; *The National Commission for UNESCO can be responsible for local coordination. - Preparation of a specialized database for projects and initiatives in the Arab region, coordinated by UNESCO. - Determining the anticipated effects: * Strengthen coordination; * Enrich practices. - The goals of ESD - What is the role of the ministry on Education in creating opportunities for exchange and transfer of information? - Who coordinates with civil society? Partnership with organizations 	<p>Raising the level of attention to this theme through:</p> <ul style="list-style-type: none"> - Identifying disaster risk areas in the local Arab communities and developing response strategies. - Creating an early warning system. 	<ul style="list-style-type: none"> - Educating on sustainable consumption and production, and this can be achieved by changing lifestyles in the community. - Defining concepts and methods of green economy, green jobs, green technology - Creating programmes of ambassadors of sustainability in schools: one person in each school who is knowledgeable on the application of the concept of sustainability.

	<p>language.</p> <ul style="list-style-type: none"> - Transferring successful regional initiatives and sharing them with youth in Arab countries. 	<p>and institutions of civil society</p> <ul style="list-style-type: none"> - Who will coordinate with these institutions? <p>Public education sector is usually the coordinating body, preferably with decentralization of educational institutions such as schools and NGOs in each country.</p> <ul style="list-style-type: none"> - What is the expected impact on these institutions (schools, universities, civil society organizations)? <p>Partnership between industry and investors sector.</p> <ul style="list-style-type: none"> - Who? Education sector. 		
Higher education (Universities and R&DC)	<ul style="list-style-type: none"> - Stimulating a sense of belonging to the region through twinning between schools, universities and clubs. - Developing a database on climate change and communicating for sharing of data and information, programmes and experiences among Arab countries. - Giving young people a sense of responsibility and ownership of programmes. -Enabling young people to translate their ideas on the ground. 	<ul style="list-style-type: none"> - Strengthening cross-linking of themes of sustainable development among curricula in the Arab countries. - Developing a database for sharing projects, initiatives and expertise. - Promoting the principles of decentralization and deconcentration in eco-friendly projects and environmental management programmes. - Agreeing to develop an Arab Charter for Environment and Sustainable Development. 	<ul style="list-style-type: none"> -Identifying ways to transfer knowledge to different groups of learners. -Providing scientific information and encouraging learners and research institutions to adopt these concepts in educational programmes . - Managing disasters at the local level. - Learning from the Moroccan experience on the main plans for disasters, earthquakes, floods and fires 	<ul style="list-style-type: none"> - Illustrating and documenting the importance of sustainability in the culture of the community (local, regional; and international) - Components/pillars of a green society: <ul style="list-style-type: none"> * Green economy; * Sustainable consumption and production; * Eco-friendly behavior.
Informal	-Providing financial and technical	-Building capacity to encourage		

<p>education and training (Local communities and NGOs)</p>	<p>support to civil society groups working on programmes related to sustainable development.</p> <ul style="list-style-type: none"> - Transferring experiences through workshops such as the 'Reach for Change' project. - Employing arts (theatre, cinema) to mobilize youth on education for sustainable development. - Spreading the culture of education on climate change among young people through religion. 	<p>industry to reduce pollution.</p> <ul style="list-style-type: none"> - Emphasizing that polluters must contribute to the mitigation of climate change. <p>The result: financing by industry to promote partnerships with the education sector on CCESD.</p> <ul style="list-style-type: none"> - Partnership with international organizations - Who? Relevant ministries - How? Follow-up issues that have an impact on sustainable initiatives. The result: exchange of knowledge, personal practices of sustainability, integrating sustainability indicators into project design. 		
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