

WHO-EM/CEH/153/E

Report on the

**Regional meeting on
the implementation of
the regional strategy
for health and the
environment and
framework for action,
2014–2019**

Amman, Jordan
8–9 December 2014



**World Health
Organization**

Regional Office for the Eastern Mediterranean

Report on the

**Regional meeting on the implementation of
the regional strategy for health and the
environment and framework for action,
2014–2019**

Amman, Jordan
8–9 December 2014

© World Health Organization 2015

All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Publications of the World Health Organization can be obtained from Knowledge Sharing and Production, World Health Organization, Regional Office for the Eastern Mediterranean, PO Box 7608, Nasr City, Cairo 11371, Egypt (tel: +202 2670 2535, fax: +202 2670 2492; email: emrgoksp@who.int). Requests for permission to reproduce, in part or in whole, or to translate publications of WHO Regional Office for the Eastern Mediterranean – whether for sale or for noncommercial distribution – should be addressed to WHO Regional Office for the Eastern Mediterranean, at the above address: email: emrgogap@who.int.

CONTENTS

1.	INTRODUCTION.....	1
2.	TECHNICAL PRESENTATIONS	2
2.1	Overview of the regional health and environment strategy and framework for action 2014–2019	2
2.2	Framework for environmental health management	3
2.3	Methodology for developing model national strategies, strategic frameworks for action, and monitoring and evaluation tools on health and the environment.....	3
2.4	Sudan strategic plan for environmental health (2015–2019)	4
2.5	Towards developing an environmental health strategy in Punjab, Pakistan: a case study	4
2.6	Water supply, sanitation and hygiene	5
2.7	Air quality and health in developing countries	5
2.8	Air quality	6
2.9	Chemical safety	6
2.10	Food safety	6
2.11	Environmental health in emergencies.....	7
2.12	Waste management and environmental health services in health care facilities	7
2.13	The public health response to climate change in the Eastern Mediterranean Region	8
2.14	Sustainable development.....	8
3.	GROUP WORK SESSIONS	8
4.	CONCLUSIONS AND RECOMMENDATIONS	9
Annexes		
1.	AGENDA	10
2.	PROGRAMME	11
3.	LIST OF PARTICIPANTS	12

1. INTRODUCTION

In October 2013, the sixtieth session of the WHO Regional Committee for the Eastern Mediterranean (RC60) endorsed the regional strategy on health and the environment with a framework for action (2014–2019) and issued resolution EM/RC60/R.5 requesting WHO to: provide technical support to Member States to adapt and implement the regional strategy on health and the environment; build partnerships with United Nations organizations and other relevant stakeholders to facilitate the implementation of the strategy; and monitor and report to the Regional Committee the progress achieved in the implementation of the strategy every two years until 2019. The strategy provides a roadmap for protecting health from environmental risks in the Eastern Mediterranean Region. The implementation of the strategy will be carried out, and indicators monitored and evaluated, jointly by WHO and the countries of the Region (through results-based national work plans).

In order to operationalize the regional strategy, a meeting was held in Amman, Jordan, on 8–9 December 2014 to discuss and adopt a mechanism for building a collaborative multi-agency approach, emphasizing the leadership role of the health sector in terms of governance and surveillance responsibilities, as well as for advocacy and motivation of other specialized environmental health service providers. The regional meeting, attended by over 60 participants, was organized jointly by the WHO, specifically the WHO regional Centre for Environmental Health Action (CEHA), ministries of health and of the environment from around 20 Member States, and international and regional experts. The aim of the meeting was to operationalize the regional strategy at national level by launching national multi-stakeholder processes through: provision of technical support to Member States to adapt and implement the strategy for health and the environment; building partnerships to facilitate implementation of the strategy; and monitoring and reporting on the progress achieved. The meeting presented a methodology for adapting the strategy at national level and preparing national plans of action. It also provided a platform to launch the strategy implementation process in the Region on all seven environmental health priorities identified by Member States.

Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean, in his opening address welcomed participants and thanked them for taking the time to review and identify approaches to operationalize the strategy at national level. He noted that the key objective of the regional strategy on health and the environment and its associated framework for action (2014–2019) is to support the countries of the Region in their concerted multisectoral efforts to reduce the toll of morbidity and premature mortality caused by environmental risks. The regional strategy was based on: rigorous review of evidence and the consensus outcome of two regional consultations in 2011 and 2012 concerning the magnitude of environmental risks and the related burden of disease; expressed demand from countries for technical support; WHO country cooperation strategies; and the WHO General Programme of Work 2014–2019. He added that the strategy included a practical framework of action for 2014–2019, outlining the responsibilities of Member States and WHO, and the importance of the role of ministries of health as steward, broker and interlocutor in partnership with other actors within their respective governments.

The Regional Director outlined the seven environmental health priorities of the strategy, including air quality (outdoor and indoor air quality) which causes several diseases that WHO estimated to be globally responsible for the death of seven million people in 2012 as a result of preventable exposure to indoor and outdoor air pollution. The clear link between health, climate change and air pollution made public health-based air quality management a very good model for demonstrating the leadership, and regulatory and monitoring roles, that should be undertaken by the health sector. These roles included support for the development of a national policy to protect health from the impact of air pollution, advocacy for health-based air pollution control policies and management interventions by other relevant sectors, and promoting the monitoring and surveillance of the health impact of air pollution.

Dr Alwan also observed that during the Sixty-First session of the Regional Committee, the representatives of Member States had discussed the public health response to climate change in the Region, addressing the impact of air pollution as an example. Member States had unanimously agreed that climate change posed serious but preventable risks to public health in the Region, manifested in weather-related mortality and injuries, and in water, food and airborne communicable and noncommunicable diseases, including under-nutrition. Delegates had highlighted new climate change-related impacts that were endangering the health of people in their countries, especially children and the elderly, and called for concrete vulnerability assessment, and adaptation and mitigation measures, to protect human health from climate change. With the leadership of the health sector, a multisectoral response to climate change could be a vehicle for improving public health in the Region, he said.

The Regional Director further stressed that for this to happen there was a need to agree on implementation modalities and to develop national plans of action, with ministries of health assuming a stewardship role. WHO was already providing technical support to two countries of the Region to help them develop national environmental health strategies and plans of action based on the regional strategy. WHO was prepared to expand such support to all countries in the Region, he said. Finally, Dr Alwan expressed his hope that the meeting would succeed in establishing a roadmap for implementing the regional strategy, raising awareness of air pollution as a regional and national health problem, building commitment towards improving air quality, and outlining a framework for action on air pollution and health for the health sector.

2. TECHNICAL PRESENTATIONS

2.1 Overview of the regional health and environment strategy and framework for action 2014–2019

Dr Ahmad Basel Al-Yousfi, Director, WHO/CEHA

The regional strategy on health and the environment with a framework for action provides an evidence-based framework for action for protecting health from environmental risks in the Eastern Mediterranean Region for implementation in 2014–2019, with clear roles and responsibilities for all stakeholders, including countries and WHO. With the endorsement of the strategy by the Regional Committee, it is necessary to integrate environmental health into public health strategies and plans. The leadership role and institutional capacities of ministries

of health for environmental health governance and surveillance need to be strengthened in order to catalyse and synergize actions by all stakeholders. National mechanisms for the implementation of the strategy should be developed, adopting a collaborative multi-agency approach, to operationalize the strategy at the national level through national multi-stakeholder processes. WHO will provide technical support to Member States to adapt and implement the strategy, build partnerships to facilitate implementation of the strategy, and monitor and report on the progress achieved. The outcome of the regional meeting is expected to be the initiation of the strategy implementation process in countries and agreement on a methodology for adapting the strategy at national level and preparing national plans of action.

2.2 Framework for environmental health management

Mr Hamed Bakir, WHO/CEHA

Environmental health priorities include: water, sanitation and hygiene; air quality; chemical safety; waste management and environmental health services in health care facilities; environmental health management in emergencies; climate change and health; and sustainable development and health. The presenter outlined the institutional responsibilities and the governance, regulation and oversight roles of public health agencies in environmental health. He also described the evolution of the role of public health agencies in environmental health and presented two examples, from Egypt and Morocco, on interventions by public health agencies in the drinking water sector. The regional strategy for health and the environment supports the role of public health agencies within an integrated framework for the management of environmental health risk factors.

2.3 Methodology for developing model national strategies, strategic frameworks for action, and monitoring and evaluation tools on health and the environment

Dr Ahmad Basel Al-Yousfi, Dr Mohamed Elmi and Mr Mazen Malkawi, WHO/CEHA

A process for adopting the regional strategy and framework for action at the national level was tested in Sudan and Pakistan in June and October 2014, respectively. The recommended process includes establishing a country task team (CTT), including focal points from the ministries of health and the environment, and WHO national programme officers for health and the environment. The CTT should also identify national experts to participate in the team. Ideally, the CTT should be composed of 15 to 20 national experts with a strong background in the following areas: public health and epidemiology, the environment, policy analysis, economics and statistics. The CTT should reflect representation from all interested ministries including those of health, the environment, agriculture, industry, planning, infrastructure and land, as well as from academia and research institutions, development partners and civil society.

The CTT should then form subgroups of two to three experts tasked to focus on one thematic priority area, as already agreed in the regional strategy: water, sanitation and hygiene; air quality; chemical safety; waste management and environmental health services in health care facilities; environmental health management in emergencies; climate change and health; and sustainable development and health. Based on the specific needs of the country, additional priorities, such as food safety and radiation, can be included. Each

subgroup will be responsible for identifying and collecting the documentation and data needed, extracting the required information for each priority, and compiling a problem overview, objectives and priority actions.

It is essential that the problem overview is drafted by each subgroup prior to the holding of a workshop involving all subgroups to draft a framework for action on health and the environment. The workshop will: review and validate the problem identification process started by the different subgroups; identify specific, measurable, achievable, realistic and time-bound goals; and compile a strategic framework for action with clear identification of the roles and responsibilities of the government and any external help required, with a clear timeframe and identified indicators.

2.4 Sudan strategic plan for environmental health (2015–2019)

Dr Salaheldin Mubarak El Khalifa, Federal Ministry of Health, Sudan

A systematic approach was adopted towards the development of a Sudanese strategic plan for environmental health (2015–2019). The approach included: an advocacy meeting for the strategic plan; the establishment of a national committee for developing the strategic plan; the division of the national committee into small subcommittees according to specialization and the preparation of a draft; a workshop for all national committee members; recruitment of an international consultant from WHO; development of a draft strategic plan by the international consultant, the Federal Ministry of Health and the national committee; and revision of the strategic plan by state ministries of health. A vision, mission, goals, specific objectives, and principles for the strategy were developed, and a SWOT analysis undertaken.

The priority technical areas for the national strategy were: water, sanitation and hygiene; waste management; food safety; occupational health; environmental health management in emergencies; air quality; chemical safety; environmental health services in health facilities; climate change and health; and sustainable development and health. Efficient implementation of the national strategy in Sudan will require a focused and robust capacity-building programme, establishing partnerships with stakeholders and advocacy at all levels.

2.5 Towards developing an environmental health strategy in Punjab, Pakistan: a case study

Dr Muhammad Zulfiqar Ali Khan, WHO Consultant

Punjab province was selected as a case study for developing an environmental health strategy because it hosts around 60% of total population of Pakistan (116 million people), and has relatively better infrastructure and institutional facilities, and relatively fewer environmental health emergencies, disasters and internally displaced people. Furthermore, overall success and improvements on the Millennium Development Goals (MDGs) in Pakistan depend on progress in the province.

The process for strategy development started with the formation of a main technical team that included representatives from the Department of Health, National Institute of Health and WHO. An environmental health expert consultant was selected with terms of

reference to review all available data, reports, documents, guidelines and policies, and draft a comprehensive environmental health document. Several discussions and meetings took place with key partners, including the Department of Health, Environment Protection Department, Ministry of Environment, National Institute of Health, Public Health Engineering Department and WHO. In April and June 2014, two technical consultation meetings were held with key provincial stakeholders, including donors, community-based and nongovernmental organizations, and other civil society groups. A draft of the environmental health strategy document was discussed, and environmental health issues, needs, objectives, priority actions to be taken, indicators, and recommendations and other suggestions, were identified.

As a result, in August 2014, a strategy was drafted, using the pressure, state, response (PSR) framework, for further refinement and the preparation of an operational plan. The stakeholders identified the priorities for the study area, in descending order, as: drinking water, sanitation and hygiene; food contamination and safety; outdoor air pollution; indoor air pollution; solid and hazardous waste management; health care waste management; noise pollution; environmental health impact assessment; the environmental health aspects of emergencies and disasters; traffic injuries; and climate change and health. WHO technical support is required in mobilizing resources for implementation of national and provincial environmental health strategies and action plans, for follow-up regional meetings to assess progress made and further guide countries regarding the implementation of national and provincial environmental health strategies, and to assist in mainstreaming environmental health in national programmes and obtaining political commitment at the highest level.

2.6 Water supply, sanitation and hygiene

Mr Hamed Bakir, WHO/CEHA

WHO's regional programme for water supply, sanitation and hygiene addresses household water security, including access to reliable, safe and sufficient amounts of water, safe excreta disposal, including household sanitation, removal of waste and safe waste integration into the environment, and personal and domestic hygiene, including the behaviours and facilities that support cleanliness. WHO's global, regional and country work on water supply, sanitation and hygiene includes providing evidence-based normative guidelines and policy options for managing drinking water safety and the use of wastewater and recreational waters. It also provides technical support to countries, especially public health agencies, on the governance and regulatory framework for the sector, national water and sanitation policies and programmes, and the surveillance and monitoring of water and sanitation sector and services. Furthermore, it monitors water supply and sanitation globally, and in all countries, through the Joint Monitoring Programme for Water Supply and Sanitation (JMP) and the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS).

2.7 Air quality and health in developing countries

Professor Michal Krzyzanowski, WHO Consultant

The presenter described the assessment of air quality and its burden on health in developing countries. The scientific evidence on the magnitude and severity of the health effects of air

pollution was also presented. Air pollution source types associated with negative health effects include the carbonaceous material from traffic, coal combustion, oil combustion, biomass, traffic generated dust and dust storms. The elements of air quality management are setting air quality standards, defining pollution control/reduction, monitoring pollutant levels, defining mechanisms for enforcement and compliance, and public communication about air pollution management. The accumulated evidence provides a strong argument for effective policies aiming at radical decrease in population exposure to ambient and household air pollution.

2.8 Air quality

Mr Mazen Malkawi, WHO/CEHA

According to WHO estimates, seven million people, including more than 400 000 in the Eastern Mediterranean Region, died prematurely in 2012 as a result of air pollution. Key challenges for the Region include a lack of adequate regulation and/or systems for controlling and monitoring air pollution, a lack of data for many air quality parameters, and a lack of research on air quality and health. The objectives of the regional strategy in relation to air pollution are to strengthen the regulatory capacity and partnership-building role of the public health sector for establishing and monitoring national air quality standards in line with WHO air quality norms, to develop/strengthen the surveillance function of the public health sector with regard to air quality, and to increase the awareness of all stakeholders (including the public) about air pollution risks.

2.9 Chemical safety

Dr Mohamed Elmi, WHO/CEHA

Chemical safety includes the availability of easy access to information on the hazards of chemicals, the uses of chemicals and precautionary measures to enable safe use, risk management measures, and regulation to ensure that chemicals are used and disposed of in a safe manner. It applies to both individual chemicals and formulated products. The existing instruments for chemical safety management include the Strategic Approach to International Chemicals Management (SAICM), multilateral environmental agreements (MEAs), the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the Chemical Weapons Convention (CWC) and the International Health Regulations 2005 (IHR 2005).

2.10 Food safety

Mr Soren Madsen, WHO/CEHA

Strategic approaches to improving food safety include the updating of food safety legislation, reorganizing the food safety structure, developing integrated food safety programmes, strengthening food inspection systems, and improving foodborne disease management and surveillance in national public health programmes. The common challenges for food safety are low public awareness of food as a source of disease and limited public sector capacity in food safety. Furthermore, there is an urgent need for intersectoral cooperation in all countries. Country options for improving food safety include the mapping of food hazards and identifying priority issues, reviewing and updating legislation and policies, matching the food safety structure to legislation, strengthening intersectoral coordination mechanisms, improving

the capacity of individual national food safety system components (such as foodborne disease surveillance, inspection systems and laboratories), strengthening programmes for the identification and management of foodborne disease, and meeting IHR 2005 requirements through the development of the regulatory, surveillance, preparedness and management aspects of addressing foodborne disease events and incidents. WHO's ongoing activities and technical support to countries encompass the assessment of food safety programmes or their individual components, support for national food safety management, coordination and priority setting, and providing an international network of experts.

2.11 Environmental health in emergencies

Mr Osama Ali Maher, WHO/CEHA

WHO's activities on environmental health in emergencies include identifying vulnerable populations and their respective locations of risk in countries of the Region, generating awareness and advocacy for disaster reduction and risk management programmes to be established/strengthened in countries, supporting decision-makers in allocating the appropriate resources for preparedness and response, and promoting coordination and collaboration of potential partners working on disaster reduction in the Region. The WHO e-atlas of disaster risk for the Eastern Mediterranean Region is a tool to help disaster management decision-makers predict the magnitude of a disaster on a specific population, to assess where damage might be the greatest and to forecast specific resources which may be required to reduce health risks to vulnerable populations. Volume 1 of the WHO e-atlas of disaster risk focuses on exposure to natural hazards. Responses to environmental health within the emergency context should be made within the framework of the roles and responsibilities of the cluster approach, in which a group of agencies, organizations and other stakeholders, interconnected by their respective mandates, work together to address needs in a specific area of humanitarian activity for greater effectiveness and efficiency.

2.12 Waste management and environmental health services in health care facilities

Mr Raki Zghondi, WHO/CEHA

Waste management challenges for countries in the Region include the lack of alignment of waste management policies with international conventions (such as the Basel and Stockholm conventions), little effective coordination between government institutions on waste management, weak enforcement mechanisms, a lack of programmes on hazardous waste management, the a lack of a systematic approach towards integrated waste management approach (from cradle-to-grave), a need to assess the public health impact of the waste management policies, programmes and plans of other sectors, the lack of surveillance, monitoring and evaluation of the health impact of waste management, and public concern in some countries over the health impact of landfill/dumping sites. The objectives of the regional environmental health strategy related to health care waste management include strengthening national capacities for waste management, focusing on the health impact of waste management and minimizing the health risks associated with exposure to health care waste for both health workers and the public by promoting environmentally-sound management policies and practices.

2.13 The public health response to climate change in the Eastern Mediterranean Region

Mr Hamed Bakir, WHO/CEHA

Climate change has the potential to have a major impact on health and it is important to recognize the interrelationship between climate change, environmental risks and health. The top health impacts of climate change in the Eastern Mediterranean Region encompass both communicable and noncommunicable diseases, and include: waterborne and foodborne disease due to water scarcity and pollution; respiratory and allergic diseases caused by air pollution; the re-emergence and redistribution of vector-borne diseases due to temperature rises and increased humidity; undernutrition resulting from food insecurity; death and illness due to heat waves and dust storms; and death and injuries from extreme weather events such as flooding and droughts.

Action required by the health sector to address the impact of climate change includes strengthening health resilience to climate change by integrating the necessary capacities within health systems, augmenting the leadership, governance, regulatory, monitoring and catalysing roles of public health for managing the environmental determinants of health, and engaging actively in national, regional and international policy processes on climate change to position health at the centre of the climate debate agenda.

2.14 Sustainable development

Mr Raki Zghondi, WHO/CEHA

There is a strong relationship between health and sustainable development. Indeed, health is a pre-condition for sustainable development, with improvements in human health contributing to the achievement of sustainable development and poverty reduction. Health can also be seen as one of the principal outcomes of investment in sustainable development and the green economy. Furthermore, health is also an indicator of sustainable development, with health indicators providing a powerful means of measuring social, economic and environmental progress towards sustainable development.

3. GROUP WORK SESSIONS

Participants were divided into three country groups to discuss the following themes: environmental health priorities and steering national processes; water, sanitation and air quality; food and chemical safety, and environmental health in emergencies; climate change; sustainable development; and waste management and environmental health services in health care facilities. The three groups ranked their environmental health priorities in relation to those in the regional strategy, and added additional priorities to be addressed at the national level. The results of the group work discussion were presented to the plenary and used to draft the recommendations of the meeting.

4. RECOMMENDATIONS

To Member States

1. Countries should initiate the development of a national strategic framework for action and plan in accordance with the regional strategy for health and the environment and its framework of action. The proposed methodology and tools for adopting the regional strategy for health and the environment (2014–2019), and its associated framework for action, at the national level have been reviewed and modified, and provide a very cost-effective option that should be considered by the countries of the Eastern Mediterranean Region for implementation.
2. Countries should adopt and implement the regional strategy for health and the environment as a cornerstone of strengthening their capacity in emergency preparedness and response.
3. Multidisciplinary and multi-stakeholder country task teams should be formed in all countries to initiate and lead the implementation of the framework for action and plan.
4. Each country task team should form subgroups of two to three experts focusing on one thematic priority area that should draft a problem overview section prior to a national workshop, involving WHO experts/facilitators and all subgroups, to draft a national health and the environment profile (national situational analysis) and a national framework for action.
5. The agencies responsible for health and the environment in the countries of the Region should proactively invest in adopting and implementing the regional strategy for health and the environment and its framework for action as a viable and cost-effective means of achieving greater sustainability.
6. An annual report on progress achieved in each Member State should be provided to WHO, adopting the indicators outlined in the regional strategy for health and the environment and using the report template provided by WHO.

To WHO

7. WHO should continue its advocacy to countries of the Region on the importance of adopting and implementing the regional strategy for health and the environment and for the strengthening of the existing environmental health departments.
8. WHO should provide technical support and seed funds for commencing the process of adopting and implementing the regional strategy for health and the environment and its framework for action at national level in accordance with resolution EM/RC60/R.5.
9. WHO should develop a timeframe for the process with milestones and timelines, and distribute to countries.
10. WHO, in collaboration with the United Nations Environment Programme and the League of the Arab States, should expedite the establishment of a joint ministerial forum on health and the environment, with a programme of work based on the regional strategy for health and the environment.

Annex 1

AGENDA

1. Registration
2. Inaugural session
3. Objectives and mechanisms of the consultation
4. Overview of the regional health and environment strategy and framework for action 2014–2019
5. Methodology for developing model national strategies, strategic frameworks for action, and monitoring and evaluation tools on health and the environment
6. Discuss case studies from Sudan and Pakistan
7. Working groups for delineating national plans
8. Resource mobilization
9. Conclusions and recommendations
10. Closing session

Annex 2**PROGRAMME****Monday, 8 December 2014**

08:30–09:00	Registration	
09:00–09:30	- Inaugural session - Introduction of participants - Objectives and mechanisms of the meeting	<i>Dr Ala Alwan, Dr Ahmad Basel Al-Yousfi Dr Ahmad Basel Al-Yousfi</i>
09:30–10:00	Overview of the regional health and the environment strategy and framework for action 2014–2019	
10:00–10:45	Framework for environmental health management	<i>Mr Hamed Bakir</i>
10:45–12:15	Methodology for developing model national strategies, strategic frameworks for action, and monitoring and evaluation tools on health and the environment	<i>Dr Ahmad Basel Al-Yousfi, Dr Mohamed Elmi, Mr Mazen Malkawi</i>
12:15–13:45	Presentation of group work on environmental health priorities and steering of the national process	
13:45–14:30	Case studies from Sudan and Pakistan	<i>Dr Salaheldin Mubarak El Khalifa, Dr Muhammad Zulfiqar Ali Khan</i>
14:30–15:25	Water supply, sanitation and hygiene	<i>Mr Hamed Bakir</i>
15:25–16:05	Air quality and health in developing countries	<i>Prof Michal Krzyzanowski</i>
16:05–16:45	Air quality	<i>Mr Mazen Malkawi</i>
16:45–17:30	Group work presentation on water, sanitation and air quality	

Tuesday, 9 December 2014

09:00–09:40	Chemical safety	<i>Dr Mohamed Elmi</i>
09:40–10:35	Food safety	<i>Mr Soren Madsen</i>
10:35–11:15	Environmental health in emergencies	<i>Mr Osama Ali Maher</i>
11:15–12:00	Group work presentation on food and chemical safety and environmental health in emergencies	
12:00–13:40	Waste management and environmental health services in health care facilities	<i>Mr Raki Zghondi</i>
13:40–14:20	Climate change	<i>Mr Hamed Bakir</i>
14:20–15:15	Sustainable development	<i>Mr Raki Zghondi</i>
15:15–16:00	Group work presentations on climate change, sustainable development, waste management and environmental health services in health care facilities	
16:00–16:30	Group work presentation on other priorities	
16:30–17:00	Conclusions and recommendations and closing session	<i>Dr Ahmad Basel Al-Yousfi</i>

Annex 3

LIST OF PARTICIPANTS

BAHRAIN

Mr Abdulaziz Abdulrahim Al Khedri
Head
Environmental Health Department
Public Health Administration
Ministry of Health
Manama

EGYPT

Dr Gehad Ahmed Abo Elata
Coordinator
Swiss Project for Health Care Waste Management
Cairo

Dr Eman Atef Ibrahim Mohamed Zahran
Director
Environmental Quality Sector
Ministry of State for Environmental Affairs
Cairo

IRAN (ISLAMIC REPUBLIC OF)

Ms Sheida Malekafzali
Ministry of Health and Medical Education
Tehran

Ms Mahsa Tamjidi
Expert
Air Pollution Office
Department of Environment
Tehran

IRAQ

Mr Jamal Abed Kadhim
Technical Affairs Directorate
Ministry of Health
Baghdad

Ms Nisreen Azeez Lafta
Technical Affairs Directorate
Ministry of Health
Baghdad

JORDAN

Mr Salah Al Hyari
Director
Environmental Health Directorate
Ministry of Health
Amman

Mr Abdullah Hiasat
Ministry of Health
Amman

Mr Faraj Al Taleb
Ministry of Environment
Amman

Mr Sayed Saleh
Ministry of Environment
Amman

Dr Jihad Sawayer
Aqaba Special Economic Zone Authority
Aqaba

Ms Taghrid Ma'ayta
Aqaba Special Economic Zone Authority
Aqaba

KUWAIT

Dr Ahmad Al Shatti
Director
Occupational Health
Ministry of Health
Kuwait

Eng Meshaal Al Ibrahim
Head
Indoor Air Quality Section
Industrial Environment Department
Environment Public Authority
Kuwait

Dr Marwan Dimashki
Senior Environmental Consultant
Environmental Monitoring Information System of Kuwait
Environment Public Authority
Kuwait

LEBANON

Dr Sabine Barakat
Department of Chemical Safety
Service of Environmental Technology
Ministry of Environment
Beirut

Professor May Jurdi
Environmental Health Department
Faculty of Health Sciences
American University of Beirut
Beirut

Dr Myriam Mrad Nakhle
Faculty of Sciences
Saint Joseph University
Beirut

MOROCCO

Mr Rachid Wahabi
Head
Division of Environmental Health
Directorate of Epidemiology and Diseases Control
Ministry of Health
Rabat

Dr Samira Azzaoui
Environment and Health Service
Department of Surveillance and Risk Prevention
Ministry Delegate for the Environment to the Minister of Energy, Mines, Water and the
Environment
Rabat

OMAN

Dr Mohammed Al Yazeedi
Director
Environment and Occupational Health
Ministry of Health
Muscat

Mr Said A Al Zadjali
Chemical Expert
Ministry of Environment and Climate Affairs
Muscat

PAKISTAN

Dr Muhammad Khurshid
Pakistan Environmental Protection Agency
Islamabad

PALESTINE

H.E. Dr Yousef Abu Safieh
Former Minister of Health

Eng Ibrahim Ateiah
Director
Environmental Health Department
Ministry of Health
Nablus

Mr Yasser Abu Shanab
Director
Public Health Department
General Administration of Environmental Protection
Environment Quality Authority
Al Bireh

QATAR

Dr Shaikha Abdulla Al-Zeyara
Head
Environmental Health
Public Health Department
Supreme Council of Health
Doha

Dr Mohamad Ahmad Ali
Supervisor
Drinking Water Quality
Public Health Department
Supreme Council of Health
Doha

Ms Fareeda Nasser Al-Mousa
Senior Environmental Monitoring Specialist
Ministry of Environment
Doha

SAUDI ARABIA

Mr Mushawah Abdullah Al Mushawah
Director
Environment Health Department
Ministry of Health
Riyadh

SUDAN

Dr Salaheldin Mubarak El Khalifa
Director
Environmental Health and Food Control Administration
Federal Ministry of Health
Khartoum

Mrs Amani Adam El Nour
Ministry of Environment, Forestry and Physical Development
Khartoum

TUNISIA

Ms Emna Helmi
Engineer and Vice Director
Directorate of Hygiene and Environment Protection
Ministry of Health
Tunis

YEMEN

Mr Ahmed Salim Mulqat
General Manager for Planning and Environmental Information
Environment Protection Authority
Ministry of Water and Environment
Sana'a

OTHER ORGANIZATIONS

UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA

Mr Ralf Klingbeil
Regional Advisor on Environment and Water
Sustainable Development Policies Division
Beirut
Lebanon

UNITED NATIONS ENVIRONMENT PROGRAMME

Dr Abdul-Majeid Haddad
Regional Climate Change Coordinator
Manama
Bahrain

WORLD METROLOGICAL ORGANIZATION (WMO)

Dr Jaser Rabadi
Representative, WMO Office for West Asia
Manama
Bahrain

BARCELONA DUST FORECAST CENTRE

Mr Enric Terradellas
Technical Director
Barcelona
Spain

LEAGUE OF ARAB STATES

Ms Eman Mohamed Hassan
Cairo
Egypt

Mr Abdel Moneim El Hakim
Cairo
Egypt

WHO SECRETARIAT

Dr Ahmad Basel Al-Yousfi, Director, WHO/CEHA, Amman
Dr Mohamed Elmi, Coordinator, Environmental Health Risk, WHO/CEHA, Amman
Mr Hamed Bakir, Coordinator, Environmental Health Intervention, WHO/CEHA, Amman
Mr Mazen Malkawi, Environmental Health Exposure, WHO/CEHA, Amman
Mr Raki Zghondi, Environmental Management and Sustainability, WHO/CEHA, Amman
Mr Soren Madsen, Food Safety, WHO/CEHA, Amman
Mr Osama Ali Maher, Environmental Health Security, WHO/CEHA, Amman
Dr Nigel Bruce, Consultant in Air Quality and Health, WHO, Geneva
Dr Hala El Hennawy, WHO Representative Office, Cairo
Mr Mohammad Hamasha, Technical Officer, WHO Representative Office, Erbil
Dr Tasnim Atarah, National Professional Officer, Advocacy and Health Promotion, WHO Representative Office, Jerusalem
Ms Nosheen Usman, Environmental Health Officer, WHO Representative's Office, Islamabad
Dr Khalid Altahir, Technical Officer, WHO Representative's Office, Khartoum
Mr Marco Martuzzi, Programme Manager, Environmental Health Risk Assessment and Management, WHO European Centre for Environment and Health, Bonn
Professor Michal Krzyzanowski, Temporary Adviser
Dr Muhammad Zulfiqar Ali Khan, Temporary Adviser, Islamabad
Dr Munjed Al Sharif, National Temporary Adviser, Amman
Mr Ahmad Al-Kofahi, National Temporary Adviser, Amman



World Health Organization
Regional Office for the Eastern Mediterranean
P.O. Box 7608, Nasr City 11371
Cairo, Egypt
www.emro.who.int