

# E&HI

# Environment & Health International

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# A word from the IFEH President

## Bernard Forteath



Welcome to the second edition of Environment and Health International produced by Hadrian Bonello. I hope that you enjoyed reading his first edition.

The 2009 Council meeting and AGM of the Federation took place in Singapore on Saturday 18 and Sunday 19 July. The arrangements for these meetings were made by our colleagues in the Society of Environmental Health, Singapore.

Singapore, known as the Lion City, is an island city state located at the southern tip of the Malay Peninsula, 85 miles north of the equator. Singapore gained independence from the United Kingdom in 1963 and although it only has a land mass of some 275 square miles, and is one of the smallest nations in Southeast Asia, it is now the 5<sup>th</sup> wealthiest country in the world in terms of GDP. Since independence Singapore's standard of living has risen dramatically due to foreign investment and state-led industrialisation. The population of Singapore is slightly

less than Scotland at 4.86 million, with Chinese forming an ethnic majority together with large populations of Malay and Indian.

The first thing that strikes you about Singapore is the abundance of good public transport, the cleanliness of the streets and precincts, and well maintained parks and open spaces. There is no litter, no chewing gum, no graffiti; no grass cuttings left on pavements. It is an environmental health officer's dream. For example, people are fined heavily for dropping a cigarette end. Apart from the obvious, the other reason for this is that surface water is recycled and used again so cigarette ends would cause problems during the filtration process. Water Sustainability is very important to the country and is rigorously monitored. Environmental Protection, Air Quality, Environmental Health, Solid Waste Management, and Food Safety are seen as important and receive appropriate investment. There is, however, strict enforcement and heavy penalties for anyone who does not act in accordance with the law. You can now purchase chewing gum in Singapore but only on prescription and from a pharmacy! The general public are enthusiastic about their environment - they think it natural to keep it clean - and have an enthusiastic pride in their country, which I must admit was infectious.

The Council meeting took two days to complete with most of the first day given over to presentations made by member organisations. These presentations have now become an intrinsic part of Federation meetings and give members a good insight into some of the challenges being faced by colleagues around the world. Needless to say the current Influenza A H1N1 pandemic and general problems associated with Climate Change were high on everyone's agenda.

Members of the Council were invited to the Society's Annual Dinner and Awards Ceremony on the Saturday evening where we were treated to typical Singaporean hospitality. This was an excellent opportunity to meet with colleagues who live and work in Singapore. A full report about the IFEH meetings

appears elsewhere in this magazine but I would like to place on record my thanks to Dr Pranav Joshi, President, Mr John Gerizim, Secretary, and other committee members of the Society of Environmental Health for their hard work and for making us feel so welcome during our visit.

On the last day of our visit to Singapore I was invited to speak at a meeting of the Singapore Environment Institute's Professional Sharing Series. These meetings are a knowledge sharing initiative where the Institute brings in professionals to share their expertise and perspectives on environmental issues. An important aspect of the Institutes outlook is that they recognise that no one person or organisation can unlock environmental solutions alone, this can only be done by working together with other professionals or as the Institute put it 'increase our net environmental knowledge towards a sustainable quality environment for everyone'.

At our Council meeting two new members, Portugal and Indonesia, were admitted to full membership of the Federation. In October I

had the privilege of speaking at a seminar and workshop held by the Indonesia Environmental Health Specialists Association (EFSA) in Bogor, Indonesia. EFSA was established in 2008 by environmental health academics from the faculties of public health of five leading universities. The purpose of the seminar and workshop, which was held over three days, were to increase the number of research papers produced within the environmental health community in Indonesia. It was acknowledged by EFSA that there are numerous pieces of research work on environmental health issues taking place in Indonesia but much of this work still remains unpublished. The seminar, which was attended by environmental health professionals from Indonesia and other parts of the Asia Pacific region, was voted to be an overwhelming success by those in attendance and I would like to thank EFSA for their invitation for me to take part.

At the start of the New Year may I take this opportunity to wish all members if the IFEH every success in their endeavours to improve and protect environmental and public health around the world.

### **IFEH NEWS: New Membership Groups**

Two new membership groups, Individual Membership and Affiliated Organisation, were approved by the IFEH Council and AGM last July in Singapore. The criteria for membership of each group is as follows:

#### **Individual Membership**

Individual membership is open to individuals who will either be a member of a Member Organisation of the Federation or possess a degree or relevant post graduate qualification, and be involved in the field of environmental health.

#### **Affiliated Organisations**

Affiliated Organisation membership is open to a private company interested in environment and health and support the aims and objectives of the Federation.

Further details can be obtained from the Honorary Secretary ([secretary@ifeh.org](mailto:secretary@ifeh.org)) to whom completed applications forms (available on the IFEH website) should be returned.



**11<sup>TH</sup> WORLD CONGRESS ON  
ENVIRONMENTAL  
HEALTH  
VANCOUVER CANADA  
SEPT 5-10 2010**





[www.ifeh.org](http://www.ifeh.org)

## About IFEH

### INTERNATIONAL FEDERATION OF ENVIRONMENTAL HEALTH

The Federation works to disseminate knowledge concerning environmental health and promote co-operation between countries where environmental health issues are trans-boundary. It promotes the interchange of people working in this sector and the exchange of Member's publications of a scientific and technical nature.

Amongst other things, the Federation seeks to provide means of exchanging information and experience on environmental health, to hold Congresses and meetings to discuss subjects relevant to environmental health science and administration, to represent the interests of environmental health to state agencies, national governments and international organisations and to promote field studies of environmental health control.

## *Front Cover Photo*



### **Feature:**

### **Symphony Lake within the Botanical Gardens, Singapore**

Photo taken by Linda Forteach, Scotland

**Symphony Lake** is the [lake](#) in the [Singapore Botanic Gardens](#), [Singapore](#). An [artificial lake](#), it features a large stage known as the *Shaw Foundation Symphony Stage* built on an islet in the middle of the water body. The

stage is most known as the venue for the [Singapore Symphony Orchestra](#)'s monthly [SSO in the Park](#) open-concept [concerts](#), hence giving the lake its name.

**Singapore Botanic Gardens** is a 52 hectare botanical garden in [Singapore](#) that includes the National Orchid Garden which has a collection of more than 3000 species of orchids.

It also has a mini rainforest trail, and a spice garden.

The views expressed in this magazine are not necessarily the views of the International Federation of Environmental Health.

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# Editorial

## Hadrian Bonello



Climate change is currently the hot topic of the year with regards to Environmental Health. This shifting of weather pattern is being caused by global warming which results primarily from the build up of heat trapping

gases from burning fossil fuels.

Global climate change poses multiple consequences for human health. Oceans are warming, Arctic ice is melting, temperatures are rising and changes like these in the climate system are bringing with them instability and abrupt change. The earth needs a new clean energy plan and hopefully in Copenhagen we will see this happen with bold incentives to rapidly change the world's energy diet.

All of us have an important role to play, being small or large, in making this happen. If we do not understand the importance of preserving the environment than the catastrophic costs for our health and lives and that of our children will be beyond comprehension.

Not taking any action will bring with it higher mortality rates mainly from air pollution, dust storms, extreme temperatures, floods and heavy downpours, large epidemics particularly from malaria & water borne diseases.

Climate change is threatening species and eco systems. Human health depends on these eco systems. Doing nothing about it and sitting pretty will eventually bring us to a point of no return. Do we really want this to happen?

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# The Use Of Ultra-Violet for Disinfection in Domestic Reverse Osmosis Units

Mario Camilleri, *Senior Principal Environmental Health Officer*



*Mario Camilleri joined the Environmental Health Department in 1981. Qualifications include a B.Sc in Environmental Health and an MBA from Henley Management College. He is currently employed with the Department for Environmental Health in Malta. He is directly responsible to implement ISO standard for the Department and also is the Department's Internal Auditor.*

In 1901, the invention of the mercury vapour lamp led to the use of Ultra Violet (UV) as a means of disinfecting water. It is one of the four disinfecting agents approved by the US. Environmental Protection Agency. The other three are chlorine, iodine and ozone. Like chlorine, UV is a disinfectant but neither is considered a sterilising agent. UV is a point of contact disinfectant which does not require the addition of chemicals. This means that no disinfection by products other than ozone are formed, and the characteristics of the water are not dramatically changed.

At wavelengths of 254 nano metres, UV is a very effective bactericide and viricide. UV penetrates the bacterial cell wall and is absorbed by the cellular nucleic acids. Radiation absorption prevents replication, thus killing the cell within seconds. On the other hand, if the energy dosage applied is not sufficient to destroy the DNA molecules of the targeted organisms, disinfection is not complete. Photoenzymic repair of the bacterial cells can

occur if the genetic material is only damaged during irradiation. This repair mechanism, called photo reactivation, occurs with exposure to light from the sun, or from most incandescent and fluorescent lights. Photoreactivation does not occur with all bacterial species and is difficult to predict. To assure the absence of photoreactivation, the rule of the thumb is to increase the UV dosage necessary to meet required reductions in organism levels.

Prior to the positioning of the UV unit, one has to decide whether one wants to protect the carbon filter or the membrane from bacteria or else give priority to disinfecting the downstream water.

1. Sediment Filter
2. Carbon Filter
3. Reverse Osmosis Membrane
4. Storage Tank
5. UV Unit Filter
6. Post Carbon Filter
7. Product Water

Most common configuration. The UV unit is placed to prevent bacterial growth in the post carbon filter.

1. Sediment Filter
2. Carbon Filter
3. RO Membrane
4. Storage Tank
5. Post Carbon Filter
6. UV Filter
7. Product Water

Second most commonly used configuration. Provides the most bacteria free water.

## **UV Intensity Dosage Calculation**

UV intensity Dosage:

= intensity transmission x exposure per unit volume

= microwatts/centimetre<sup>2</sup> x retention time

= microwatt seconds per centimetre<sup>2</sup>

### **Definitions:**

**Intensity transmission:** The ability for lamp energy output at a specific wavelength to transmit through water.

**Exposure per volume:** The volume of water to be treated by UV light as measured inside the contact vessel.

**Microwatt/centimetre<sup>2</sup> :** Total ultraviolet energy output emitted in a 3600 square area along the overall length of lamp, measured at specific distances from the lamp surface.

**Retention time:** The total volume of water passing through a contact vessel while being exposed to UV light energy as measured in seconds.

**Microwatt seconds:** The total volumetric intensity average per centimetre<sup>2</sup>.

Even when bacteria aren't detected, UV equipment can be installed as a safe guard.

Since so much importance is being given to the germicidal properties of UV sterilizers, the importance of regular monitoring and changing of the lamps cannot be overstressed. Lamps must be replaced on a yearly basis (9,000 hours), preferably every nine months.

The fact that UV lamps are installed after the sediment filter, or better still, after the Reverse Osmosis membrane, will eliminate the need for regular cleaning of the lamp which would otherwise limit or even block the radiation output due to fouling.

Lack of know-how by the general public, lack of legislation and codes of ethics for suppliers can lead to the production of water of an inferior quality or even worse, the production of contaminated water.

The requirement for maintaining an adequate servicing schedule undertaken by persons competent to ensure safe water, has been leg-

islated in certain states in the USA where performance, operating and maintenance data sheets have to be provided to each and every customer prior to a sale.

## **Ultraviolet Energy Levels at 254 Nanometer Units Wavelength Required for 99.9% Destruction of Various Microorganisms.**

### **Bacteria**

Agrobacterium turnefaciens	8500
Bacillus anthracis	8700
Pseudomonas aeruginosa	10,500
Shigella dysenteriae	4,200
Shigella flexneri (Dysentery)	3,400
Staphylococcus epidermidis	5,800
Escherichia coli	7,000
Salmonella enterides	7,600
Salmonella typhosa	6,000
Streptococcus faecalis	10,000
Salmonella typhimurium	15,200
Vibrio cholerae	6,500
Legionella pneumophilla	3,800
Bacillus subtilis	58,000

### **Viruses**

Hepatitis virus	8000
Bacteriophage (E. Coli)	6600
Influenza virus	6600
Poliovirus	21,000

### **References:**

Chespak W. (1994) Linking UV to Household RO Water Technology 17 (3)



# UPDATE: IFEH<sub>2010</sub> WORLD CONGRESS ON ENVIRONMENTAL HEALTH



The 11<sup>th</sup> World Congress on Environmental Health running jointly with the 76<sup>th</sup> CIPHI Annual Educational Conference in Vancouver, BC takes place from September 5<sup>th</sup> to 10<sup>th</sup> in 2010. Here's an update on the Congress and what it will offer delegates.

## Call for Papers:

The Call for Papers was extended to December 31, 2009 and we have received a good number of quality papers that fit the themes for the educational sessions. Submitters will be notified in the first few months of 2010 as to whether their abstracts have been accepted. Successful speakers will be provided with additional information including registration procedures, A/V requirements etc.

## Congress Registration:

The Organizing Committee has selected International Conference Services (ICS) to provide registration services for the Congress. The link to the registration website will be provided at [www.ifeh2010.org](http://www.ifeh2010.org) in January 2010 and will allow for both web and paper versions for registration. The Early Bird Congress Registration will likely be Cdn\$750 (+ Tax @ 12%) and will include the full Congress and Social Program package. An accompanying persons' program is also being planned.

## Travel to Vancouver:

### By Air:

Vancouver is located on the Pacific Rim, with a world class international airport (YVR)

servicing most major countries with direct service. Air Canada, through its Star Alliance partners, provides direct service to most major European and Asian cities. Within Canada both Air Canada and WestJet provide regular scheduled service to YVR. We are working with both airlines to negotiate a "conference rate" for 2010. For more information about Vancouver International Airport please visit [www.yvr.ca](http://www.yvr.ca).

### By Land:

If you are travelling from (or through) the U.S. by car, bus or train, you will need to cross the Canadian border (and greeted by a good natured Canada Border Services Agency official) at some point. The most convenient entry point for the Congress would be the Peace Arch border crossing just 40 minutes south of Vancouver. You would then travel up Highway 99 until you enter the City of Vancouver and make your way into Downtown and the Bayshore Hotel.

### Visa/Passport Requirements:

To check on Canadian Immigration requirements (visa/passports) please visit the following website: [http://www.staralliance.com/en/travellers/tools\\_services/health\\_visa\\_form.html#](http://www.staralliance.com/en/travellers/tools_services/health_visa_form.html#)

Or the Canada Immigration website at: <http://www.cic.gc.ca/english/visit/visas.asp> for up-to-date details on visa and passport requirements.

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# **Compendium on Sustainable Development Indicator Initiatives: How to Define, Find, Share, Develop and Follow Best Practice on The Use of Systematic Indicator Initiatives.**

Henning Hansen, International Federation of Environmental Health (IFEH)

in consultation with

Laszlo Pinter, Program Director, International Institute for Sustainable Development (IISD)

Presented at the Third OECD World Forum on Statistics, Knowledge, Policy October 27, 2009 Busan, South Korea



Even though many sustainable development indicator systems have evolved since the call by the Brundtland Commission and later Agenda 21, it is still not common at national and especially at regional and local levels to systematically follow and monitor progress on an ongoing basis using a holistic framework.

Sharing knowledge and information on sys-

tematic indicator initiatives is crucial for harmonization, capacity building and influence on policy.

The landscape of sustainable development indicator systems whose number has significantly grown in number and sophistication since the 2<sup>nd</sup> World Forum in Istanbul is full of success stories, but also of continuing major challenges. Indicator systems are key policy tools to define in detail and operationalize the general concept of sustainable development based on shared but differentiated responsibilities. Indicator systems that help articulate and track progress in fulfilling these responsibilities are fundamental as planning, implementation and evaluation instruments, and also as instruments of communication and coordination across different scales, up to and including the global scale. However, the landscape of indicator efforts is fragmented in terms of types of indicator systems and ways of indicator development and use in informing policy development. It is also fragmented in terms of developed versus developing countries and national versus local or sectoral initiatives.

The OECD World Forum Website can be found at:

<http://www.oecdworldforum2009.org>

Despite many international efforts there is still no general consensus on a more systematic approach to measuring progress and on how to use these measures in policymaking more effectively, which is most evident in the lack of clarity about what progress measures should be used to track the success of economic stimulus initiatives. Even in cases where there is consensus on the indicators, due to the different priorities or unsystematic design of monitoring efforts in the past, availability and quality of time series data is a major problem.

The 3<sup>rd</sup> OECD World Forum on Statistics, Knowledge and Policy presents an unprecedented opportunity to advance the measurement and sustainability agenda in pragmatic ways at a critical point in time. In this light you may see the Compendium on Sustain-

ability Indicators – A global directory for indicator initiatives as an attempt to bring together experience in one place on best practice related to measuring progress from the global to local level. While the Compendium offers no synthesis and does not by itself offer solutions, it lays bare the facts on parallel indicator systems with the explicit intention of facilitating cross-scale and cross-jurisdictional dialogue and cooperation. As we view the development of sustainable development and well-being indicators as part of a long-term social learning process, the Compendium itself is intended to be a long-term, ongoing initiative. Being probably the most comprehensive and certainly the longest maintained information sources on systematic indicator initiatives, the Compendium documents the development and potential of a social movement many representatives of which will be present at the 3<sup>rd</sup> World Forum.



**Photo:** A presentation made by Bernard Forteath, IFEH President to the Society of Environmental Health, Singapore who hosted the 2009 IFEH Council meeting and AGM. Picture right to left:- Bernard Forteath, IFEH President, Dr Pranav Joshi, President, John Gerizim, Hon Secretary and Society members.

# INVITATION TO CONTRIBUTE TO THE COMPENDIUM:

*A global directory of sustainability indicator initiatives*

**Henning Hansen** *IFEH Working Group Coordinator*

The [International Institute for Sustainable Development \(IISD\)](#) and [The International Federation of Environmental Health \(IFEH\)](#) have entered into collaboration with the aim of collecting, disseminating and promoting the use of indicators and measurement systems to monitor and assess progress towards sustainable development.

The IISD has housed the [Compendium of Sustainable Development Indicator Initiatives](#) since 1995 and the International Federation of Environmental Health has been running a project on sustainability indicator initiatives since 2000.

We would like to invite your organisation/institution to join the Compendium. Your organisation's/institution's indicator initiatives would be a valuable addition as other organisations and institutions such as yours and involved in similar activities would benefit from learning about your work. Any contribution from your organisation to the Compendium will be an added value to the success of the presentation at the OECD World Summit

You can add information on your indicator initiative(s) with a broad focus on sustainability and environmental health and protection or just browse initiatives already included in the Compendium from both the IFEH and IISD websites:

IFEH: [www.ifeh.org/indicators/compendium](http://www.ifeh.org/indicators/compendium)

IISD: [www.iisd.org/measure/compendium](http://www.iisd.org/measure/compendium)

By contributing, you can help to:

- Improve how to measure progress towards sustainability
- Share your experience with other institutions involved in similar indicator efforts throughout the world

- Track the organizations/institutions which are innovating in this field
- Facilitate the coordination of sustainability indicator initiatives worldwide
- Keep your organisation in touch and informed

With more than 840 entries, the Compendium is one of the most extensive sources of information on sustainable development indicator initiatives around the world. Entries in the Compendium are created by practitioners, for practitioners with the Compendium website receiving more than 1000 visits per month.

Access to the Compendium is free and it aims at reaching and motivating the widest audience possible. Practitioners save time and resources, enabling them to stay current and avoid duplication.

Over the years, the Compendium has benefited from the collaboration and support of organizations such as Environment Canada, UN Commission for Sustainable Development, World Bank, Redefining Progress and others.

As you are in the best position to provide information on your organisation/institution and its work, we urge you to take a few minutes to create an entry in the Compendium and join the growing network of sustainable development measurement practitioners. Just follow the link below to add your initiative: <http://www.iisd.org/measure/compendium/addinitiative.aspx>

The IFEH is willing to enter the above mentioned information on your behalf, if needed. To use this option please send an email to [compendium@ifeh.org](mailto:compendium@ifeh.org)

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**Accommodations - The Congress Hotel:**

The Congress venue is the Westin Bayshore Hotel, set on Vancouver’s waterfront with a majestic view of the ocean and the local mountains, within walking/jogging distance of world famous Stanley Park and the downtown shopping district. The Westin Bayshore is newly renovated, 100% smoke-free and provides exceptional service and comfort. Congress sessions will take place in the Westin Bayshore Conference Centre, just a short walk from your room!



**Guest Room Reservations:**

We have been able to secure a competitive hotel rate of just over \$200/night (double occupancy) for standard guest rooms in the main building, with the ability to upgrade (at extra cost) to Harbour View guest rooms in both the main building and the tower building. Suites are also available on an upgrade basis.

Please visit the Westin Bayshore Congress registration page at: <http://www.starwoodmeeting.com/StarGroupsWeb/booking/reservation?id=0907293515&key=9A90D>

Please note that these special rates are also offered from 3 days prior to 3 days after the Congress dates, subject to availability.

**Technical Tours & Mid-Week Workshop:**

We have arranged for 5 Technical Tours for mid-congress (Wednesday) as well as an on-site workshop (& site tour) entitled “The Healthy Built Environment – a Primer for Environmental Health Practitioners”. The choices for the technical tours will include:

Whistler, Sea to Sky Green Initiatives: Zero Waste Target Resource Management.

Seymour Water Treatment Plant and Capilano Suspension Bridge Tours

University of British Columbia Green Building & Sustainability Initiatives and Museum of Anthropology

Vancouver “Green City” LEED Gold Building and Emergency Preparedness Plan Tours

Vancouver Convention Centre Sustainable Design and Cruise Ship Terminal Kitchen Tours

When you register for the Congress you will be asked to select your 1<sup>st</sup> and 2<sup>nd</sup> choices of tours and/or the on-site workshop. Space will be limited on some technical tours due to bus capacity.

**HOW DO YOU FIND OUT MORE ABOUT THE 11<sup>TH</sup> WORLD CONGRESS?**

For more information about submission of papers, attending as a delegate, the venue and venue city, or sponsorship and exhibits please visit the Congress website:

[www.ifeh2010.org](http://www.ifeh2010.org)

**Our Congress Partners**



# A Generic Curriculum Outlay For Training Programmes In Environmental Health In Africa

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<sup>1</sup>Kenyatta University, Kenya. <sup>2</sup>Tshwane University of Technology, Pretoria, <sup>3</sup>University of Malawi, <sup>4</sup>University of Johannesburg, <sup>5</sup>Zambia University.

## Acknowledgements

Various organisations, individuals and institutions contributed through peer review as well as workshop contributions to the final version of a curriculum for environmental health training in Africa. The British Council (through the DelPHE (Development of Partnerships in Higher Education) grant) who is the main sponsor of a project of which the development of this curriculum is one of the main objectives. The authors would also like to recognise contributions from various training institutions in Africa and abroad, professional boards and associations, governments and local authorities, non-governmental organisations as well as individuals.

## Introduction

The Africa Academy for Environmental Health (AAEH) views the discipline of Environmental Health as the theory and practice of ascertaining, correcting, controlling, minimizing and preventing those factors in the environment that can potentially and adversely affect the health of present and future generations. This is in line with the WHO (2009) definition of environmental health as the discipline that: addresses all the physical, chemical, and biological factors external to a

person, and all the related factors impacting on behaviors; encompasses the assessment and control of those environmental factors that can potentially affect health; and targets prevention of disease and creation of health-supportive environments.

Many people in Africa are exposed to a series of environmental threats to their health, physical and mental development and even their survival. Morbidity and mortality due to unhealthy environmental conditions are largely preventable by taking decisive action and finding innovative, healthy, cost effective and sustainable ways to develop and improve our livelihoods (Okonofua, 2005; Esposito *et al* 1995)

The AAEH recognises the importance of training Environmental Health professionals who will address the issues that will ultimately help to enhance good health and sustainable environmental management. According to Hailu (2008) training environmental health professionals is important because it will ensure protection of public health and consistent implementation of existing rules and regulations, as well as prepare staff to address new and emerging environmental public health is-

sues.

To ensure that the professionals trained are able to participate in enhancement of good health, the International Federation of Environmental Health (IFEH) commissioned the International Faculty Forum (IFF) for environmental health educators to develop an international curriculum in environmental health. This curriculum was intended to address the ongoing issues of professional identity, status and transportability of qualifications for environmental health professionals. To this effect a model was developed to guide the development of such a curriculum in 2008 at the World Congress on Environmental Health in Brisbane. The model emphasized the concept of core skills for Environmental Health Professionals and focused on the development of a curriculum that enhances ability/skills that are uniquely entrenched and focused on by health professionals. Based on this model, the AAEH workshop held in Pretoria in March 2009 came up with a model that emphasised development of an internationally portable curriculum that aims to promote environmental health articulation within various countries in Africa. It is on this background that the AAEH as an organ of the IFEH developed this curriculum.

The mission of the curriculum is to ensure development of environmental health professionals who have relevant knowledge, skills and competencies through training and research required for the improvement of

health in communities (seen in the broader sense that includes industry and other recipients of an environmental health service).

### **Rationale**

The development of an international programme on environmental health is intended to ensure that irrespective of the location within Africa all environmental health practitioners will be educated to the same core curriculum. This will ensure that cross-cultural insights have been shared and will lead to the development of environmental health professionals who have common internationally recognized educational base. This will facilitate transportability of qualifications and mutual recognition of partners not only in Africa but also for the rest of the world.

### **Curriculum process**

The AAEH was launched in August 2008 in Nairobi with the main aim of advancing the science and practice of environmental health in Africa. As part of achieving its objective the AAEH was successful in being awarded a DelPHE award funded by the British Council. The establishment of the curriculum was facilitated through a number of workshops in Africa that included important role-players such as academic institutions, professional bodies and –associations, government department (health and environment), municipalities, private industry as well as non-governmental organizations. A refined curriculum is to be formally launched at the 2<sup>nd</sup> All Africa on Environmental Health to take place in Lilongwe, Malawi during May 2010.

### **Objectives of the curriculum**

- To create a curriculum for environmental health practitioners which is aligned with quality assurance principles and facilitates increased articulation;
- To create a curriculum which can be adapted to individual institutional frameworks in order to offer a degree course in Environmental Health; and
- To create a curriculum for Africa which fits within the international framework for environmental health practitioners to increase global articulation and portability

### **Implementation of the curriculum**

Admission to the programme will require student compliance with the relevant national and institutional policies which should allow for vertical and horizontal articulation. Various entry routes will be considered for all potential scholars, for example, mature entry and school leavers. However, fundamental knowledge/qualification in Mathematics, Core sciences (biology, chemistry and physics) and Language competency will have to be considered. Minimum and maximum duration of the proposed curriculum will be in line with institutional policies.

### **Course Requirements**

All aspects of the curriculum must be achieved together with practical training to attain competency. The African curriculum for the Bachelors degree in environmental health stipulates the minimum competencies that a graduate should achieve to practice. These competencies consist of relevant knowledge, skills and competence. These

competencies can be achieved either through an integrated curriculum approach during the time of study at the Institution, or professional body certification/registration subsequent to graduate practical training. These should include teaching strategies such as, laboratory practices, field trips, industrial attachments, work integrated learning and service learning as detailed in the curriculum outcomes.

### **Competency Criteria**

This curriculum is based on a cluster of related knowledge, skills and competence that was compiled by the AAEH and IFF (IFEH) respectively and relates/affects a major part of the environmental health practitioners' scope of practice. This can be measured against some accepted standards, and can be improved via training and development. .

### **Assessment Strategy and credit transfer and certification**

Assessment of competencies is to be aligned with institutional policies. A combination of various assessment strategies should be utilised in order to ensure achievement of the stated competencies and assessment criteria. Therefore the theoretical, practical and reflective aspect of the curriculum must be assessed. The level of assessment should be aligned with the level of the competency and assessment criteria (e.g. progression of learning). Grading of results/competencies will be aligned with institutional policies. Credit transfer/ exemption/ waiver/ progression can be considered where institutional policy allows. On successful completion of all requirements the degree that will be awarded is

the Bachelor degree in Environmental Health.

The course structure for the curriculum was based on the five main pillars, that is, Community health, Pollution control, Built environment, Food and meat safety and Occupational health and safety as shown on Figure 1. From Figure 1 it is clear that the program should be built on a sound foundation of sciences that have to include the natural, social, mathematical, IT, language and social sciences. Finally, students need to be equipped with the necessary professional skills that would enable them to render an effective service. The following are regarded as important professional skills: risk management, development, interpretation and application of legislative requirements and policies, epidemiology and research skills.

### **Course Structure**

Work Integrated Learning (WIL)/ Placement would also form an integral part of this curriculum. According to the December 2007 paper compiled by the International Faculty Forum in Environmental Health, a period of internship or similar after acquisition of the qualification is recommended in order to improve:

- problem-solving
- communication skills
- professionalism
- comprehensive experience in
- technical areas
- professional areas

- management and organizational arrangement
- planning, evaluation and implementation of EH programmes

The curriculum of the AAEH is supporting criteria similar to the above stated, and would include the following:

- The WIL programme should promote the students' understanding of the specific occupation for which they are being trained;
- Students should master techniques and skills required to successfully function as EH practitioners;
- WIL/ placement should form an integral part of the curriculum; and
- Each institution should have a policy and/or procedures in place for the implementation, management and assessment of WIL.

The curriculum also makes provision for quality assurance options exercised by the relative Professional Associations / Board in the respective countries. It is of utmost importance that the body(ies) that formally represents or regulates the profession in the respective countries plays a pivotal role in assuring quality by accrediting training programmers. They also need to play an active role in the process of continually updating the programmes to keep up with trends and practices in the field of environmental health service delivery.

### **References**

AAEH, 2009. Discussion paper, Pretoria, South Africa



Esposito, T.J., Sanddal, N.D., Hansen, J.D., & Reynolds, S.A. (1995). Analysis of preventable trauma deaths and inappropriate trauma care in a rural state.

Journal of Trauma, 39(5), 955-962.

Hailu Asnake (2008): Environmental health Professionals Training Needs

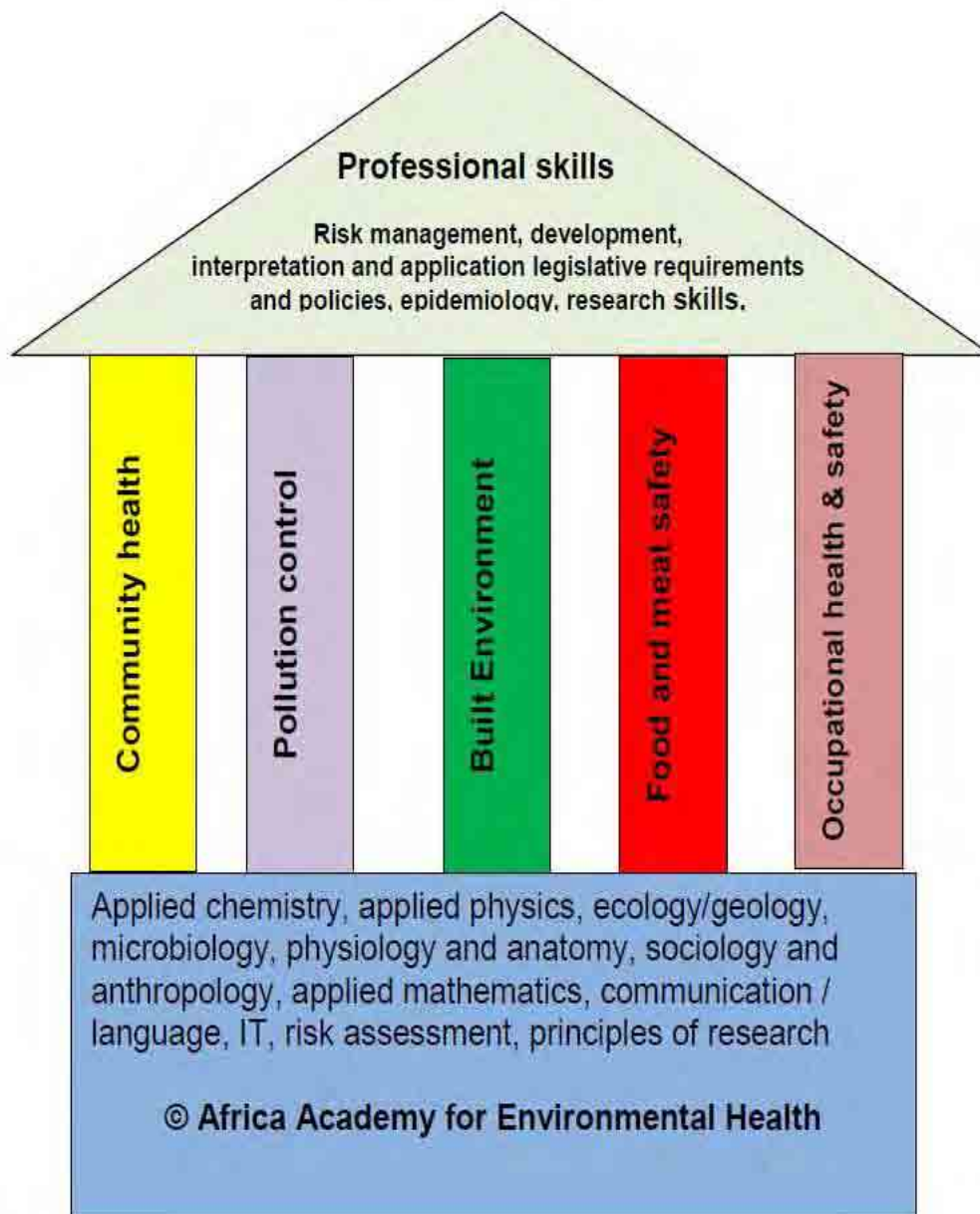
Assessment Survey, Division of Environmental health. Office of Environmental

Health Assessments. Olympia, Washington

International Faculty Forum in Environmental Health (2007): Environmental Health Qualifications, Ireland

Okonofua F.E. (2005) Achieving the millennium development goals in Africa: how realistic? Afr J Reprod Health. 2005 Dec; 9(3): 7-14.

WHO (2009): Environmental health definition. [http://en.wikipedia.org/wiki/Environmental\\_health](http://en.wikipedia.org/wiki/Environmental_health)



# The 2nd IFEH Africa Group All Africa Environmental Health Congress 2010, Lilongwe, Malawi

24th–27th May 2010



Government of Malawi



University of Malawi



## Introduction

The African continent has increasingly been affected by various environmental health challenges. A great proportion of the health problems in this region are linked to environmental factors not least drinking water, sanitation and infectious disease control. Various efforts have been made to mitigate these factors; however such interventions have largely been from the greater medical perspective. Little emphasis has been put on disease prevention and the wide range of environmental health aspects that affect human health. One of the major challenges to our profession has



been the very low levels of environmental health awareness and the lack of sustainable strategies for environmental health controls.

Nevertheless, globally we are seeing an increase in the support and understanding of the importance of the environmental health profession, and the key role that it plays in the achievement of the Millennium Development Goals and, on a local basis, the Malawi Growth and Development Strategy.

This was the basis of the 1st All Africa Environmental Health Congress held in Nairobi, Kenya in August 2007(<http://www.aphok.org/conf2007/confinfo.htm>).

The congress was a momentous one, not only in the number of participants who attended from throughout the continent, but also in the sharing of information and experience between environmental health professionals. The congress was organized by the Association of Public Health Officers of Kenya (APHOK) in conjunction with the International Federation of Environmental Health (IFEH) Africa Group and academic institutions offering environmental health qualifications.

Following this, Malawi formed a group of key



partners containing the University of Malawi – The Polytechnic, the Ministry of Health and the Environmental Health Professionals, who together proposed to the IFEH Africa Group to hold the 2nd All Africa Environmental Health Congress in 2010.

It is against this background that the International Federation of Environmental Health (IFEH) in collaboration with the Government of Malawi and the University of Malawi welcomes the submission of abstracts for papers to be presented at the 2nd IFEH Africa Group All Africa Environmental Health Congress to be held in Lilongwe, Malawi from **24th – 27th May 2010** at [Cresta Crossroads Hotel](#).

### **Vision**

The vision of this congress is the improvement of the standards of environmental health in Africa.

### **Objectives of the Congress**

- Raise the profile of environmental health in Africa
- Sharing best practices of environmental health services delivery in Africa
- Enhance inter-country collaboration in environmental health practice
- Addressing the training needs of environmental health
- Promote the environmental health needs of children in Africa
- Promote environmental health research

### **Congress Sub-Themes**

- Water and Sanitation

- Food Safety
- Chemicals and Pesticides
- Environmental Remediation
- Community Development
- Data use and Information Management
- Environmental Pollution
- Disease Surveillance
- Port Health
- Disaster Management
- Community/Child Health
- Environment and Health
- Waste Management
- Policy and Legislation
- Occupational Health and Safety
- Research
- Environmental Health Training and Development
- Climate change
- Communicable diseases



### **Targeted Participants**

The conference targets various groups of specialists, managers, students, practitioners, entrepreneurs, and leaders involved in either directly or indirectly with environmental health science, practice and research. Environmental health agencies are encouraged to send participants. Among the specific target groups are the following:

- Local Government Associations (Africa)
- Ministries of Health and Environment in Africa
- Public health officers/environmental health practitioners, technicians, students
- Local authorities
- Water quality experts
- Pollution control specialists and agencies
- Environmental health consultancy firms
- Environmental impact assessors/auditors
- Quality assurance officers
- Food safety specialists and inspectors
- Biomedical and health scientists and students
- Disaster managers
- Occupational health and safety inspectors/specialists
- Community health care providers
- Health managers
- Public health and environmental health law enforcers
- Chemical engineers and safety specialists
- Urban planners
- Environmental engineers
- Housing inspectors
- Community development and social welfare officers
- Climate change experts
- All other persons directly or indirectly involved in environmental health and safety
- Private sector

#### **Contact Details**

The organizers of the congress may be contacted through the following addresses:

The Secretariat  
 WASHTED  
 University of Malawi - The Polytechnic,  
 P/B 303,  
 Chichiri,  
 Blantyre 3, Malawi.  
 Tel: +265 (0) 1877592: E-mail:  
[washted@poly.ac.mw](mailto:washted@poly.ac.mw)



## Book Review:

### A Community Guide to Environmental Health

Written collaboratively with the help of 100's of communities and issue specialists from over 33 countries, *A Community Guide to Environmental Health* is a remarkable tool kit that instructs people how to tackle everything from improving access to safe drinking water to organizing against oil companies polluting their water and land. The book is a collection of best practices from communities worldwide that address both the immediate symptoms of environmental threats as well as the root causes of environmental problems.

Like all of Hesperian's books, *A Community Guide to Environmental Health* is highly illustrated and contains numerous easy to follow actions and educational activities, ranging from the simple to the more complex, based on a community's needs and resources.

Topics covered in the book include:

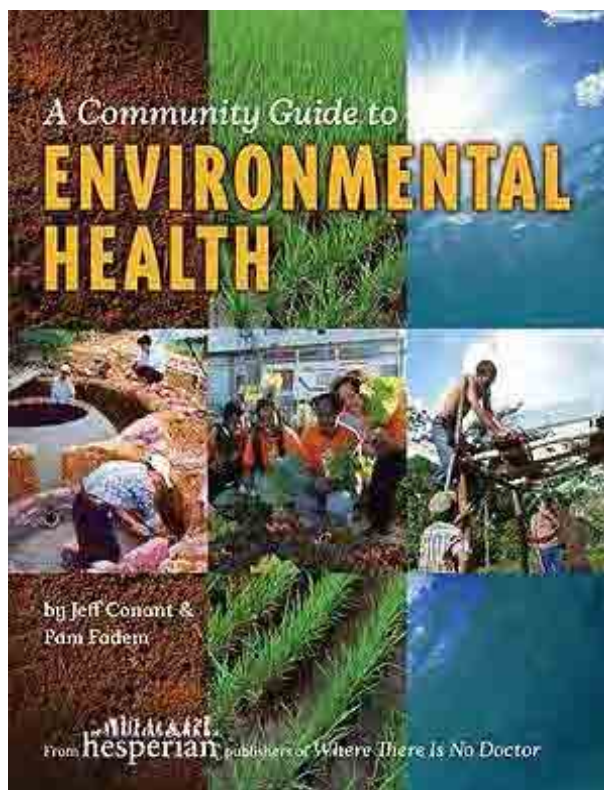
Preventing and Reducing Harm from Toxic Pollution; Protecting Community Water and Watersheds;

Forestry - Restoring Land and Planting Trees; Food Security and Sustainable Farming; Solid Waste and Health Care Waste; and How to Reduce Harm from Mining and Oil Development. Throughout the book, the focus is on creating sustainable forms of development that promote local, community-based solutions.

The World Health Organization has titled Hesperian's other famous publication, *Where There Is No Doctor*, "The most widely used health education manual in the world."

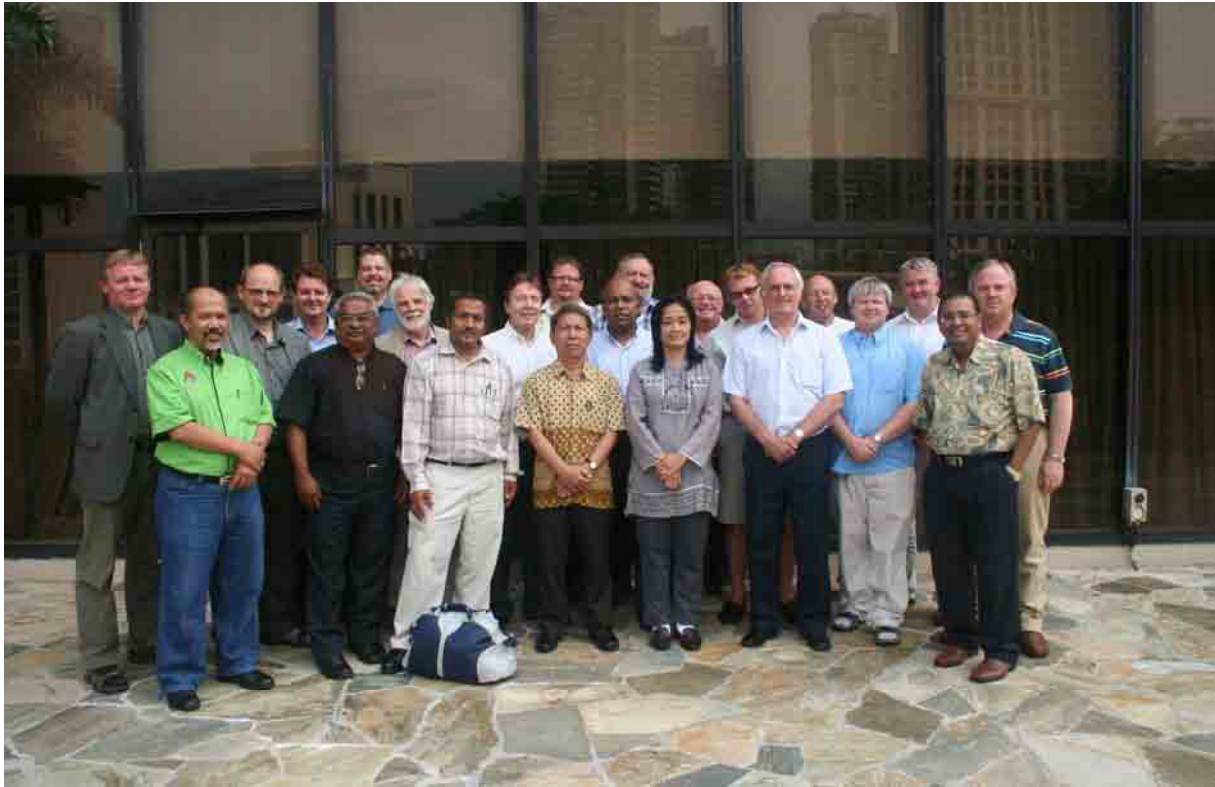
Miriam Aschkenasy MD & MPH, a Public Health Specialist with Oxfam America, declares, "This timely guide is the *Where There Is No Doctor* of community water, sanitation and environmental health. It makes water, health and hygiene accessible to those who need it most. Focusing on the important intersection of public health and risk reduction at the community level FOR the community, this guide is literally a lifesaver."

Charlotte Brody, Director of Commonweal, a



center for cancer research and treatment states, "From the inside cover's encouragement to freely copy, reproduce and adapt this book, Hesperian's *Community Guide to Environmental Health* is not your standard how-to manual. Instead it is a comprehensive and practical handbook on how to create transformational planetary change, one guided discussion, one community health walk, one rehydration drink, one flytrap, one tippy tap, one trench latrine, one planted tree and one international campaign against a multinational corporation at a time."

And contributor Feliciano dos Santos, 2008 Goldman Environmental Prize Winner and Director of ESTAMOS in Mozambique states, "Community work is more effective and efficient when we have tools that meet the needs and expectations of the communities. Hesperian produces materials so creative and communicative, and of such quality and precision, that they allow us to respond to the many common problems of communities while recognizing that each case is unique."



**Photo:** Group photo of IFEH Council Meeting and AGM which was held in Singapore



*The flexibility of these materials makes them useful in a wide variety of social and geographic contexts."*

AVAILABLE FOR INTERVIEW

Jeff Conant, Project Coordinator and Editor of Hesperian's "A Community Guide to Envi-

ronmental Health" is available for interviews to discuss Hesperian's unique collaborative process for creating their "How-to Books" as well as to share stories of the global grassroots efforts to solve environmental problems presented in *A Community Guide to Environmental Health*.



## ‘We invite you to Vancouver in 2010’

The International Federation of Environmental Health (IFEH) together with the Canadian Institute of Public Health Inspectors (CIPHI) invites you to be part of the 11th World Congress on Environmental Health in Vancouver - **September 5 - 10 2010!**

We invite you to join us in Vancouver, British Columbia, the gateway to our four-season playground and the rest of Canada. Located on the west coast, Vancouver is a world-class, multicultural city situated between majestic coastal mountains and the Pacific Ocean. Rainforests, sparkling waterways and seasonal foliage have inspired others to confer accolades of “Most Liveable” and “Most Beautiful” on our city.

We invite you to explore our historic, educational and cultural facilities. Experience our sights, sounds and scenery with activities ranging from sedate walking tours to strolls in our parks and to more challenging hike on our mountains.

About the congress: Our theme Global Health Protection From Sea to Sky provides a broad platform from which we will explore universal challenges to environmental health in an era of increasing globalization.

Keeping true to our motto “Educate, Innovate, Advocate”, attendees will be provided with up-to-date information on the latest innovations and strategies in health protection by focusing on core competencies in a number of thematic areas including:

- Food safety
- Promotion of active living & healthy communities
- Sustainable communities & environments (Air quality, water quality, and climate change)
- Disaster preparedness and emergency response
- Occupational health, risk and injury prevention
- Uniformed Services Health Protection
- Indigenous Peoples' Environmental Health
- Environmental health management

Core Competencies for Environmental Public Health Professionals

**We look forward to being your hosts in 2010!**



# ***The European Union – The Great Experiment?***

**Raymond Ellard** Dip. H.I., M.Appl Sc., M.Sc. (HSM), M. Sc. (EFRA),  
FEHOA - Honorary Secretary– IFEH



## **Brussels Bureaucrats**

The European Union gets a bad press. The bureaucrats are often depicted as barmy and the makers of obtuse and ridiculous rules. Myths about Europe abound, such as the supposed ban on curved bananas, the introduction of a standard size for condoms or a threat to end the traditional Irish wake. The evidence is there to explode easily such myths but sadly is seldom cited. (Duff, 206, European Commission, 2006, Systems Modelling 2006)

Equally people are often mystified or perhaps indifferent about the common market, the single market, the European Community and the European Union. The terms are seen as

interchangeable. The workings of the institutions of Europe – the European Commission, the parliament, the courts and the council are viewed as remote. The concept of a democratic deficit has emerged. (Mitchell, 2005, Majone, 2006)

To concentrate on the bureaucratic machinery of Brussels or to try to grasp the intricacies of the institutions is perhaps to miss a bigger picture. Despite the jargon and the officialdom, the project that is the European Union has been remarkable. It has united in peace countries which for decades had been disunited in war and created prosperity for millions.

## **Peace in Our Time?**

When the First World War, the so called war to end all wars, ended it left eight and half million people dead. The Peace Treaty of Versailles redrew the boundaries in Europe and set economic terms. When Marshall Foch heard of the signing of the treaty he observed with singular accuracy (Churchill, 1948, p24) “This is not peace. It is an Armistice for twenty years”. The League of Nations was established with the aim of maintaining peace, but after the withdrawal of the USA became ineffective (Monnet 1978)

The Second World War wreaked even greater havoc than the first; countries were destroyed and sixty five million were killed. The boundaries were again redrawn. Europe was divided east and west and the Cold War began. A lasting peace in Europe was even more remote than ever. Centuries of rivalry remained. Even today, the conflict in the Balkans in 1990s is a brutal reminder of the ten-



sions and violence that have characterised much of Europe's history.

### **United We Stand**

After two world wars, a Europe based on nation states seemed doomed to repeat its past mistakes and remain in a cycle of instability, war and poverty. A Frenchman called Jean Monnet was one of the first to recognise the need for a different Europe. In 1943 in a letter to the Committee for the National Liberation in Algiers, he wrote that there would be no peace in Europe if States re-establish themselves on the basis of national sovereignty with all that implies by way of prestige, politics and economic protectionism. (Monnet, 1978). He claimed that the countries of Europe were too small to give their peoples the prosperity which was attainable. They needed wider markets and to achieve the prosperity and social progress which were essential, a federation or a "European entity" which will make them a single economic unit was necessary. (Monnet 1978)

### **Industrial Muscle for Military Power**

Seven years later he persuaded the French Foreign Minister, Robert Schuman to propose a plan for a European Coal and Steel Community, the forerunner of the EU. His vision for a single economic unit was born. Monnet was convinced that coal and steel were the raw materials for war which could now be used to secure the peace. (Mayne, 1991). When Schuman launched the project in 1950 he declared that any war between France and Germany would not be merely unthinkable, but materially impossible. (Pinder, 2001). Over the past sixty years, this has proven to be the case and not just between the traditional enemies of France and Germany, but amongst other great powers such as Great Britain and Italy as they joined the EU. There is now evidence that the EU can transform border conflicts, as countries are less likely to take security actions which will endanger membership or prospective membership. (Diez *et al*, 2006)

Monnet's view has been validated. It would seem clear that recent and planned enlargement of the EU can also bring the political stability into the countries of Eastern Europe and the Southern Mediterranean.



### **Wider and Deeper**

The EU is about two things – states and markets, or as Commissioner Olli Rehn stated in January 2006, political integration and extending the zone of peace, democracy and prosperity in our continent.

From five countries, the EU has continually grown. According to Commissioner Olli Rehn (2006) the EU has made its most significant developments at the same time as enlargement. At each expansion, the nature of the union has changed and been adapted to the new circumstances. The Single European Act strengthened the EU's powers and its institutions (Pinder 2001). Succeeding treaties such as those of Maastricht, Amsterdam and Nice were drafted and agreed in response to changing nature of the EU. Great Britain, Denmark and Ireland joined in 1973, followed

by Greece in 1981 and Spain and Portugal in 1986. It is worth noting that these latter three countries, now at the heart of a democratic Europe, were until relatively recent times, ruled by authoritarian regimes. (Pinder 2001). Austria, Finland and Sweden joined in 1995.

Membership of the EU is only offered to on conditions, set down in Article 49 of the EU's Treaties. Principally candidate countries (Mathijsen 1999) must have:

- stable institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities
- a functioning market economy and the capacity to cope with competitive pressure and market forces within the Union
- the ability to take on obligations of membership, including adherence to the aims of political, economic and monetary union.

The new Member States together with Romania and Bulgaria, now out from under the weight of Soviet domination, have already undergone a transformation in meeting the above requirements, involving massive institutional and legislation reform and the privatisation of industry (Vatta, 2006).

Another important aspect of the EU has been flexibility and the ability to compromise, to recognise that while states hand over some sovereignty to the "suprastate", in turn they are protected by systems which guarantee their participation. (Wallace, W. 2000) These include qualified majority voting which protects the smaller countries, or the right to nominate a Commissioner, or the right to hold the Presidency of the Council. The Common Foreign and Security policy is decided by intergovernmental process and not by the Commission. The new member States will participate in that and will be significant players in redefining relations with external partners such as Russia. (Edwards, 2006). The Council (of Ministers) and therefore govern-

ment(s) including those of new entrants are fundamental. (Wallace, H. 2000. Emerson (2004) identified a pattern emerging that the new member states become special friends and mentors of selected neighbourhood partner states or regions and there are now to increasingly European tendencies in Moldova, Georgia and Armenia.

The new member states are therefore not passive members of the EU, but active and influential. They are represented and have a voice in the European Parliament. They will participate in every aspect of the EU, from agreeing any future enlargement, to regulating the standard for bananas, though to protecting consumer rights. (Dinan, 1999) Enlargement has always been vital to the EU and an almost natural step (Karp and Bowler, 2006) bringing with it enhanced political stability which is a pre-requisite to prosperity in Europe.

### **Peace and Prosperity**

From its onset, the EU has worked to build social cohesion around economic prosperity. Creating a climate in which business can prosper is fundamental to the vision of prosperity.

The single European Market is a huge achievement. The figures speak for themselves, a population of 457 million (European Commission, 2005) It is the richest consumer market in the world and accounts for forty per cent of global trade (Department of the Taoiseach, 2005). The EU is now the largest trading group in the world accounting for just over twenty percent of total global trade in goods (Mathijsen 1999). UK trade with EU has grown from thirty five per cent to fifty one percent. In 2005, the new Member States grew at double the rate of the old EU fifteen, on average. The Czech Republic is much closer to becoming viable. (Rovna, 2006) Growth was even stronger in the countries in the accession process, at over 9% in Turkey and 8% in Romania. The experience in Ireland and elsewhere is that the numbers of

new jobs created is greater than those lost as manufacturing jobs move to cheaper third country economies.

Membership of a stable political-economic union makes the new Member States an attractive target for inward investment. (Economist, 2006). For instance Smithfield Foods the largest hog producer and pork processor in the world with annual revenues of \$11.4 billion is now investing in Romania. The company predicts that Romania will become Europe's leading food processor in the year ahead (Cole, 2006).

### **Rights of Citizens**

Until the 1950s most existing "public services" were those concerned with tax, military and police services. Consequently the most important task of the state sector was to control society, rather than serve society and its citizens (Demmke, 2006). Politics and economics aside, membership of the EU offers its citizens rights and benefits which they may otherwise not have achieved as quickly if at all.

There are numerous examples – an end to discrimination against disabled people or dis-

crimination in the workplace on grounds of sex, race, ethnic origin or religion, consumer rights, improved air and bathing water quality, emergency hospital cover, reduced carbon emissions and better product quality due to competition. (British Foreign and Commonwealth Office, 2006). In terms of environmental health, the EU has been a major influence, raising, setting and demanding higher standards and empowering consumers in many aspects including food safety, working conditions, occupational health, drinking and bathing water, air quality and waste management. The rights conferred together with improved living standards now extended to millions more and offer a greater likelihood that in improved living conditions in peace will prevail.

### **Conclusions**

Europe operates at two levels, the political and the economic. Both are interdependent. The political Europe has already proven its worth, offering geopolitical stability in countries where previously none existed. The new member states will strengthen that stability, extending the rule of democracy and improving the rights of citizenship for millions. In



turn such stability in combination with the common legal framework for business, will create an even greater and easily accessible market (Badinger and Breuss, 2006), which is already a huge success. Prosperity is a good recipe for peace. Romania and Bulgaria have a combined population equal to that of Canada. Their entry in 2007 will not only expand and improve that market, but attract further inward investment. Their new status has already added to the stability in the troubled Balkans (Timmins and Dejan, 2006). Membership of the EU is not compulsory, but a list of willing candidate countries exists, confirming the desirability of membership. Albania, Turkey and Croatia await their turn. Europe has proved itself adaptable in dealing with expansions and in ensuring the protection of smaller states, in return for bigger markets and growth potential. The 2004 enlargement has given greater credibility to the EU ambitions to be treated as a global actor in international politics (Dannreuther, 2006).

The "European entity" as Monnet first referred to it, is perhaps better considered a process rather than a project or an end in itself (Monnet 1978). European integration continues to evolve. The current enlargements are in some ways no different to those that went before them. The EU has embedded the national in the European and the European in the national, a break with Europe's past, a Europe of imperialism and war (Laffan *et al*, 2000) The present system relies on a delicate balance between large and small states, but with participation and guarantees for all, the prospect of prosperity and greater strength on the world stage.

After retirement Monnet was asked by his friends what they should. He replied "Keep going, keep going, there is no future for the people of Europe except in union." (Jean Monnet Foundation for Europe, 2006). I believe his words still ring true.

## REFERENCES

Badinger, H and Breuss, F (2006) *Country Size and the gains from Trade Bloc Enlargement: an Empirical Assessment for the European Community in Review of International Economics*, Vol 14 (4) pp 615-631

British Foreign and Commonwealth Office (2006) *Britain in the EU* (online) Available from <http://fco.gov.uk/servlet/Front?pagename=OPenMarket/Xcelerate/ShowPage&c=cid=1007029391674> Accessed 23<sup>rd</sup> October 2006

Churchill, W. (1948) *The Second World War – 1- The Gathering Storm*, Bungay, Clay and Company Ltd.

Cole, M (2006) *Investing in Romania in Newfood Vol 2 2006* Brasted Kent, Russel Publishing Ltd

Department of the Taoiseach (2005) *Ireland and the European Union – Identifying Priorities and Pursuing Goals*, Dublin, Department of the Taoiseach

Dannreuther, R (2006) *Developing the Alternative to Enlargement: The European Neighbourhood Policy in European Foreign Affairs Review* Vol 11, pp183-201

Demmke, C (2006) *Governmental, Organisational and Individual Performance – Performance Myths, Performance "Hype" and Real Performance* in Eipascope Bulletin Vol 1

Diez, T., Stetter, S and Albert, M. (2006) *The European Union and Border Conflicts: The Transformative Power of* continued from page 27.

*Integration in International Organization* Vol 60, pp. 563-593

Dinan, D. (1999) *Ever Closer Union- An Introduction to European Integration*, Second Edition, London, Macmillan Press London

Duff, A (2006) *Euro-Myths Debunked-* available at <http://andrewduffmep.org.uk/pages/myth-brussels-bureaucrats.html>

- Edwards, G (2006) *The New Member States and the Making of Foreign Policy in European Foreign Affairs Review* Vol 11, pp146-162
- Economist (2006) *Europe: A case of enlargement fatigue: Charlemagne* in *The Economist* Vol 379 pp 48
- Emerson, M (2004) *European Neighbourhood Policy: Strategy or Placebo?* in Centre for European Studies Working Document No 215
- European Commission (2005) *Europe in figures – Eurostat Yearbook 2005, Luxembourg, Office for the Official Publications of the European Commission*
- European Commission (2006) - *The EU in the United Kingdom*
- Available at:- <http://europa.eu.int/unitedkingdom/press/euromyths/>
- Jean Monnet Foundation for Europe (2006) *1975-1979: The lessons of experience* Available from <http://www.jean-monnet.ch/en/pMonnet/monnet8.php>
- Karp, JA and Bowler, S (2006) *Broadening and deepening or broadening versus deepening: The question of enlargement and Europe's 'hesitant Europeans'* in *European Journal of Political Research* Vol 45 pp 369–390
- Laffan, B, O'Donnell, R., Smith, Michael (2000) *Europe's Experimental Union*, Routledge, London and New York
- Majone, G (2006) *The Common Sense of European Integration* in *Journal of European Public Policy*, Vol 13:5 pp 607–626
- Monnet, J. (1978) *Jean Monnet – Memoirs*, London, Collins
- Mayne, R (1991) *Gray Eminence* in D. Brinkley and C. Hackett (eds) *Jean Monnet: The Path to European Unity*, London, Macmillan
- Mathijsen, P (1999) *A Guide to European Law* Seventh Edition, London, Sweet & Maxwell
- Mitchell, J (2005) *The European Union's "Democratic Deficit": Bridging the Gap between Citizens and EU Institutions in EU Monitoring and Advocacy Program* Available from <http://www.eumap.org/journal/features/2005/demodef/mitchell/>
- Pinder, J. (2001) *The European Union – A very short Introduction*, Oxford, Oxford University Press
- Rehn, O (2006) *Europe's Next Frontiers, Europe's Blurred Boundaries* (online) Available at [http://ec.europa.eu/commission\\_barosso/rehn/index\\_en.htm](http://ec.europa.eu/commission_barosso/rehn/index_en.htm)  
Accessed 14th October 2006
- Rovna LA, (2001) *The Enlargement of the European Union: The Case of the Czech Republic in Perspectives on European Politics and Society*, Leiden, Koninklijke Brill
- Systems Modelling Ltd (2006) *Euromyths/Facts* – Available from <http://www.sysmod.com/irc98b13.htm>
- Timmins, G and Dejan, J (2006) *Introduction: The Next Wave of Enlargement: The European Union and Southeast Europe after 2004* in *Journal of Southern Europe and the Balkans*, Vol 8, pp1-5
- Vatta, A (2001) *The Enlargement of the European Union: Social Dialogue in Central and Eastern Europe*, in *Perspectives on European Politics and Society*, Leiden, Koninklijke Brill
- Wallace, Helen (2000) *The Policy Process in Policy Making in the European Union* fourth Edition Edited by Helen Wallace and William Wallace Oxford University Press Oxford
- Wallace, William (2000) *Collective Governance in Policy Making in the European Union* Fourth Edition Edited by Helen Wallace and William Wallace, Oxford, Oxford University Press

## **SPOTLIGHT:**

# **ENVIRONMENTAL HEALTH IN CANADA**

Greetings from Canada! The Canadian Institute of Public Health Inspectors (CIPHI) is a member organization of the International Federation of Environmental Health (IFEH) and we are thrilled, along with the British Columbia Branch of CIPHI, to host the 2010 IFEH World Congress in beautiful Vancouver, British Columbia.

Canada, with a population of just over 32,000,000 and a population density of 3.3 people per square kilometer, has one of the lowest population densities in the world. Canada's polar region encompasses 41% of the land mass in Canada but only 0.3% of the population. (Canada's polar region is made up of the Yukon & Northwest Territories and Nunavut.) As you can see, contrary to popular belief, we don't all live in the "frozen north".

At the recent IFEH World Congress in Ireland, a delegate remarked that in looking at the name tags of the Canadian delegates, "None of you have a Canadian surname." This illustrates the multi-cultural nature of Canada and the fact that other than First Nations peoples, Canada has been populated by immigrants from around the world. Canada is a land of great multi-cultural diversity and geographic diversity.

### **CIPHI**

CIPHI was first formed as a professional association in 1913 and received its Charter from the Government of Canada in 1934. CIPHI membership comprises of Environmental Public Health Professionals (EPHP) from across Canada. Most EPHP use either "Public Health Inspector" or "Environmental Health Officer" as their working titles. While the majority of EPHP are employed by municipal, provincial or federal government agencies, other employment opportunities include private industry, education facilities and self-employment.

CIPHI is the only professional association for EPHP in Canada. CIPHI is a non-profit or-

ganization that continually works to advance the profession of Environmental Public Health through certification, advocacy, education and the setting of standards. Membership with CIPHI is not yet mandatory for practicing EPHPs. There are about 1,600 EPHP's working in Canada with about 1100 of those holding membership in CIPHI.

The Board of Certification (BOC) of CIPHI is the body which is responsible for certifying Environmental Public Health Professionals in Canada since 1963. To advance its' objectives, CIPHI also operates the Environmental Health Foundation of Canada (EHFC) as an independent, charitable foundation whose sole function is dedicated to advancing environmental health in Canada and internationally through the development and implementation of education and research initiatives.

Operationally, CIPHI is a bilateral organization consisting of CIPHI National and eight regional branches: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia/Prince Edward Island, and Newfoundland and Labrador. At the National level, day-to-day decisions are the responsibility of the National Executive Council (NEC), which is comprised of the Presidents of the regional branches, a Past President and a National President. The Presidents of the regional branches are elected by the members of their branch, whereas the National President is elected by the general membership. As separate arms of CIPHI, both the BOC and the EHFC ultimately report to the NEC.

One of the challenges CIPHI faces is communication. With a relatively small membership scattered across such a large land mass, various communication tools are necessary. The professional journal, the "Environmental Health Review" is published quarterly and reaches all members. The CIPHI website, [www.ciphi.ca](http://www.ciphi.ca) is another invaluable tool in this electronic age that has proven to be a popular site to visit for all

EPH Professionals. Recently, CIPHI has also launched an electronic newsletter.

As a volunteer-based organization, CIPHI work is typically done off the ends of workplace desks, from home basements, and on living room floors. CIPHI as an organization is in a growth phase that poses significant challenges for these dedicated volunteers. Through the vision of these volunteers, CIPHI is working on several large projects including the defining of Discipline Competencies for the Environmental Public Health Profession, implementation of mandatory membership in CIPHI and the development of a Continuing Professional Competency Program. In moving to a self-regulatory model CIPHI believes this will result in increased recognition and a means to assess ongoing competency after entry to practice.

In an effort to raise the profile of the EPHP and celebrate our profession, CIPHI volunteers organize a recognition week each January. Activities that have been arranged around Environmental Public Health Week include the broad distribution of a poster, press releases, articles in newsletters etc. This recognition week has grown steadily over the past few years with more and more members participating in finding creative ways to promote the profession.

We look forward to seeing you in Beautiful British Columbia in September 2010!

***Claudia Kurzac***  
***Past National President***  
***Canadian Institute of Public Health***  
***Inspectors***



Photo: Inukshuk, English Bay, Vancouver, Canada.

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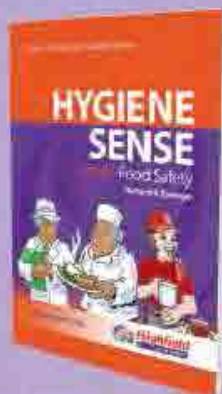
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## HYGIENE SENSE

Level 1 Food Safety



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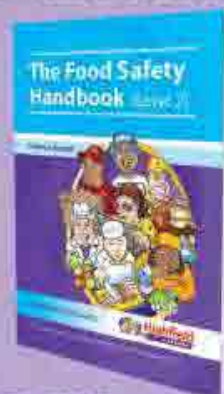
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