

A very warm Hamınız Xoş gəlmişsiniz! (Welcome to all of you)

Welcome to Baku, Azerbaijan, not just the capital of the country but also a city steeped in history! A city that has undergone multiple changes in the past 150 years, the largest city in Azerbaijan, the largest city on the Caspian Sea, the largest city in the Caucasus and the largest city located below sea level. With roughly 25 per cent of Azerbaijan's population living here, it is the scientific, cultural and industrial centre of the country.

Azerbaijan, or the Land of Fire, is an ancient concept that denotes the geographical space of the country. Azerbaijan is more than just a country of ancient culture, it is a crossroads, a stop on the Silk Road, famous for its people and its outsized role, past and present, in the production of oil and very much one of the birthplaces of the oil industry.

The inner city of Baku is a UNESCO World Heritage Site, as exemplified by the Azerbaijan Carpet Museum. Gaining its independence in 1991, Azerbaijan initially experienced war and unrest. By 1994 however, under then President Heydar Aliev, the country signed the "Contract of the Century" with the Western Oil Consortium. The building of the Baku-Tbilisi-Ceyhan pipeline was another major milestone that got the oil to European markets.

A few important milestones:

It was the first republic in a predominantly Muslim inhabited country.

O The Azerbaijan Democratic Republic lasted from 1918 until the Bolshevik occupation of 1920. It was the first secular, parliamentary republic established in a pre-dominantly Muslim-dominated country. The ADR's brief Declaration of Independence, signed on May 28, 1918, spoke volumes about its founders' commitment to the universal principles of human rights: "The Azerbaijani Democratic Republic guarantees to all its citizens within its borders full civil and political rights, regardless of ethnic origin, religion, class, profession, or sex." The Azerbaijan Democratic Republic was ahead of its time.

Azerbaijan was one of the first countries to enact universal adult suffrage.

 Women in Azerbaijan gained the right to vote in 1918. The history of the short-lived Republic offered a modern, yet culturally embedded vision that still inspires Azerbaijani citizens of today. Multicultural - tolerance of different faith traditions and ethno-linguistic diversity.

o In the early 1990s, the newly established Republic renewed its pledge to the progressive values of gender equality, interfaith and intercultural tolerance, and bridge-building between civilizations and ways of life. The Republic has hosted and organised numerous international events on these themes of diversity, tolerance, and peace-building.

Perhaps, the artefact that best represents Azerbaijan's rich culture is carpet. For centuries, Azerbaijanis have used the art of carpet weaving as a form of storytelling.

We hope you will join us on Tuesday afternoon as we visit the Azerbaijan Carpet Museum, which has recently moved to a new, beautiful building in Baku's seafront park *Baki Bulvari*. In the museum, you will find an unmatched collection of hand-woven carpets, some of them hundreds of years old.

We offer our profound appreciation and gratitude to the Nizami Ganjavi International Center. Its founder "The Magnificent Sage" Nizami Ganjavi, whose rich legacy and compelling treatment of crucial issues, cross-cultural understanding, peaceful co-existence and respect among classes, peoples and nations has indeed gathered great momentum, specifically during the immediate past.

As always, please do not hesitate to contact the Secretariat if you have any questions, concerns, or are in need of assistance. They can be found in the Business Centre on Conference Level 2.

Enjoy Baku!

Yours Sincerely,

Thomas S. Axworthy Secretary-General

Tom axmel

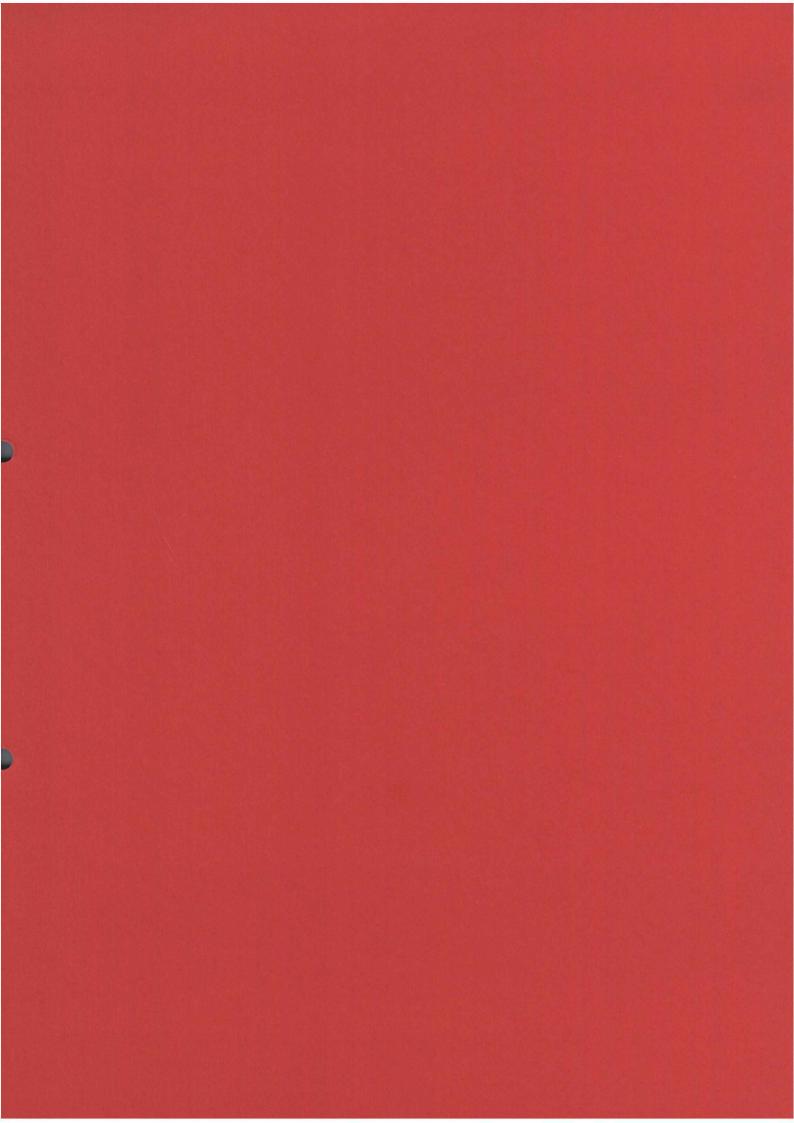


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 - Paper by Mr. Bob Sandford, "Transforming our World: Water & Climate Security for All"
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 - Summary prepared by Emily Tsui, "OECD Employment Outlook 2015:
 Summary on Youth Unemployment"
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NIZAMI GANJAVI INTERNATIONAL CENTER

IV GLOBAL BAKU FORUM

"TOWARDS A MULTIPOLAR WORLD"



BAKU, AZERBAIJAN

THURSDAY, 10 MARCH

08:30 - 09:15 Registration

Four Seasons Hotel Baku

09:15 - 10:30 Opening Session

Four Seasons Hotel, Segah ballroom

Moderator: Ismail Serageldin, Director Library of Alexandria, Co-Chair Nizami Ganjavi International Center

Speakers:

- Ilham Aliyev, President of the Republic of Azerbaijan
- Rosen Plevneliev, President of the Republic of Bulgaria
- Bujar Nishani, President of Alban
- Giorgi Margvelashvili, President of the Republic of Georgia
- David Cameron, Prime Minister of the United Kingdom of the Great Britain and Northern Ireland. Message presented by Irfan Siddiq, Ambassador to the Republic of Azerbaijan
- Justin Trudeau, Prime Minister of Canada (video message)
- # Irina Bokova, Directo-General of UNESCO
- Vaira Vike-Freiberga, President of Latvia (1999-2007), Co-Chair NGIC

10:30 - 11:00 Family Photo (by invitation only)

11:00 - 12:30

The State of the World Today and What we need for tomorrow to tackle most pressing issues.

Venue: Four Seasons Hotel: Segah Ballroom

Moderator: James Bolger, Prime Minister of New Zealand (1990-1997)

Speakers:

- Mladen Ivanic, Member of the Presidency of Bosnia and Herzegovina
- **Bujar Nishani**, President of Albania, President of the Republic of Albania
- Giorgi Margvelashvili, President of the Republic of Georgia
- Filip Vujanovic, President of Montenegro
- Gjorge Ivanov, President of the Republic of Macedonia
- Gro Harlem Brundtland, Prime Minister of Norway (1981; 1986-89; 1990-96)
- Ehud Barak, Prime Minister of Israel (1999-2001)
- Tarja Halonen, President of Finland (2000-2012)

Present world leaders present their visions of the most pressing challenges for the world today, and

what key aspects for change they are seeking, and working towards.

Speakers will focus on: Regional Security (Syria/Iran/Afghanistan), Radicalisation, Migration, Interfaith dialogue, global inequality, youth and gender, energy security)

12:30 - 14:00 Lunch

Venue: Four Seasons Hotel: Rast Banquet Room (by invitation)/Segah Foyer (Buffet)

14:00 - 15:30 Taking Global Responsibility for Syria: Towards an action plan

Venue: Four Seasons Hotel: Segah Ballroom

Moderator: Peter Semneby, Swedish Ambassador to Syria

Speakers:

- Franco Frattini, MFA of Italy (2002-2004; 2008-2011), President SIOI
- Jean Chretien, Prime Minister of Canada (1993-2003)
- Viktor Zubkov, Prime Minister of Russia (2007-2008; 2012)
- Amine Gemayel, President of Lebanon (1982-1988)
- Hikmet Cetin, Minister of Foreign Affairs of Turkey (1991-1994)

The last few years have shown that no single great power has the means to put an end to a conflict of the dimensions of Syria's. The Syrian conflict stands as a testimony of the progressive multi polarization of international politics, and highlights the failure of the international community, or even a coalition of Western powers; it also underscores the necessity to compromise with the interests of new or resurgent diplomatic players. Now entering its fifth year, the Syrian civil war appears intractable, thus requiring that the power takes responsibility to achieve a peacetur settlement and contribute to sustainable post-conflict nation-building.

- Is the conflict nearing its end? Are the Peace Talks in Vienna actually making progress or is it just a diplomatic show with no substantial achievements?
- 2. Given the multiple intricacies of the conflict, what would/should a peace agreement entail? And who would/should be in charge of its supervision?
- 3. In retrospect: looking at the hardships faced by countries that underwent an Arab Spring revolution, should Western governments have reacted differently and resisted the overthrowing of previous Arab leaders? Is there a lesson that can be learned by the international community about the challenges and unknown risks

- that Arab Spring-like revolutions could bring in the future?
- 4. What commitments need to be sought from leaders in order to pacify the region?

15:30 - 16:00 Coffee break

16:00 - 17:30 Plenary session: Ukraine as a watershed for regional security.

Venue: Four Seasons Hotel: Segah Ballroom

Moderator: Francis O'Donnell, Ambassador, Iris Institute of International & European Affairs

Speakers:

- Daniel Ionita, Deputy Minister of Foreign Affairs of Romania
- Viktor Yushchenko, President of Ukraine (2005-2010)
- Bronislaw Komorowski, President of Poland (2010-2015)
- Vaira Vike-Freiberga, President of Latvia (1999-2007), Co-Chair NGIC
- Bertie Ahern, Prime Minister of Ireland (1997-2008)

As it enters its second year of war in the East, Ukraine is now faced with a sharp reduction of international attention in the wake of global terror attacks. Yet, having fallen from the list of key conflicts to watch in 2016, the Ukrainian conflict poses today the same threats to international security it posed a year ago, having shaped the relations between the European Union, the United States, and Russia. In a time where cooperation will prove so important for global stability, Western and Eastern powers have yet to resolve a conflict at the heart of Europe.

- What are the internal and external aspects of Ukrainian security?
- What are the roles and challenges for the international community, such as the OSCE/UN and the EU?
- 3. What does it take to build commitment for regional security?
- 4. Is there a prospect for a new Iron Curtain splitting the Eurasian continent? Is it a realistic outcome? Perhaps the only possible outcome?

20:00-22:30 Gala Dinner (by invitation)
Venue: Jumeirah Hotel

Friday, 11 March

09:00 - 10:30 Iran and Afghanistan: Keys to regional Caspian and Central Asian security and prosperity. What's next?

Venue: Four Seasons Hotel: Segah Ballroom

Moderator: Franco Frattini, MFA of Italy (2002-2004; 2008-2011), President SIOI

Speakers:

- Eka Tkeshelashvili, Deputy Prime Minister of Georgia (2010-2012)
- Fouad Siniora, Prime Minister of Lebanon (2005-2009)
- Shaukat Aziz, Prime Minister of Pakistan (2004-2007)
- Mohammed Al-Dairi, Minister of Foreign Affairs of Libya

10:30 - 11:00 Coffee break

11:00 - 12:30 Pep-talks on critical issues; Parallel panels

A pep-talk is an opportunity for a short speech intended to encourage people to work harder on a certain task. The following sessions are intended to provide for sharp, straightforward recommendations and actions to be discussed with the audience.

Panel A:

Radicalization and Migration as a global security challenge: how to progress to committed joint action?

Venue: Four Seasons Hotel: Segah Ballroom

Moderator: **Zlatko Lagumdzija**, former Prime Minister of Bosnia and Herzegovina

Speakers:

- Peter Medgyessy, Prime Minister of Hungary (2002-2004)
- Petru Lucinschi, President of Moldova (1997-2001)
- Abdullah Badawi, Prime Minister of Malaysia (2003-2009)
- Petre Roman, Prime Minister of Romania (1989-1991)
- Tzipi Livni, Foreign Minister of Israel (2006-2009)

Panel B: The future of energy, the future of global governance?

Venue: Four Seasons Hotel: Rast Ballroom

Moderator: Friedbert Pflüger, German Deputy Minister of Defense; Director, European Centre for Energy and Resource Security (EUCERS), King's College London

Speakers:

- Mirko Cvetkovic, Prime Minister of Serbia (2008-2012)
- Valdis Zatlers, President of Latvia (2007-2011)
- Natig Aliyev, Minister of Industry and Energy of Azerbaijan Republic
- Olusegun Obasanjo, President of Nigeria (1976-79;1999-2007)
- Obiageli Ezekwesili, Former Vice-President of the World Bank

12:30-14:00 Lunch and networking opportunities

Venue: Four Seasons Hotel: Shur Room (by invitation), Segah Foyer (Buffet)

14:00 - 15:30 Parallel thematic Panels

Panel A: Shifting from an unequal, divided world to a sharing society: how?

Venue: Four Seasons Hotel: Rast Room

Moderator: Alexander Likhotal, President of Green Cross International

Speakers:

- Noeleen Heyzer, Under Secretary General of the United Nations (2007-2015)
- Ivo Josipovic, President of Croatia (2010-2015)
- Benjamin Mkapa, President of Tanzania (1995-2005)
- Emil Constantinescu, President of Romania 1996-2000
- Ismail Serageldin, Director Library of Alexandria, Co-Chair NGIC

Panel B: Global promotion of human rights and rising awareness on gender issues

Venue: Four Seasons Hotel: Segah Ballroom

Moderator: **Kateryna Yushchenko**, First Lady of Ukraine (2005-2010)

Speakers:

- Jean Omer Beriziky, Prime Minister of Madagascar (2011-2014)
- Farida Allaghi, Libyan Ambassador to EU
- **Sadiq Al-Mahdi**, Prime Minister of Sudan (1966-1967; 1986-1989)
- Stanislav Shushkevic, President of Belarus (1991-1994)
- Andres Pastrana, President of Colombia (1998-2002)

15:30 - 16:30 Plenary session "Youth talks, we listen"

Venue: Four Seasons Hotel: Segah Ballroom

Four Youth Leaders present challenges and how they see it, and Leaders Respond

16:30 - 17:30 Confronting the challenges: Parallel Thematic Panels

Panel A: Interfaith Dialogue as a venue to resolving present conflicts

Venue: Four Seasons Hotel: Rast Room

Moderator: Ismail Serageldin, Director Library of Alexanda Co-Chair NGIC
Speakers.

- Abdulaziz Altwaijri, Director General ISESCO
- Petar Stoyanov, president of Bulgaria (1997-2002)
- Abdul Salam Majali, Prime Minister of Jordan 1993-95; 1997-98
- Carlos Westendorp, Former MFA of Spain, SG of the CdM
- Vaira Vike-Freiberga, President of Latvia (1999-2007), Co-Chair NGIC

Discussion of Results from the NGIC regional meeting

Panel B: Migration, multiculturalism and the issue of integration:

Venue: Four Seasons Hotel: Segah Room

Moderator: **Antonio Zanardi Landi**, Diplomatic Advisor to the President of Italy (2013-2015)

Speakers:

- Linda Lanzillotta, Vice president of the
- Baderschneider, Senior VP, Exxon Mobile (2000-2013)
- Rosalia Arteaga Serranno, President of Ecuador (1997)
- Lothar de Maiziere, Prime Minister of Germany (1990)
- Rexhep Meidani, President of Albania (1997-2002)
- Novruz Mammadov, Deputy Head of the Administration of the President of the Republic of Azerbaijan

17:30 - 18:30 Concluding Plenary session: How to avoid conflicts in the emerging multipolar world of the 21st Century?

Venue: Four Seasons Hotel: Segah Ballroom

Speakers:

- Mladen Ivanic, Member of the Presidency of Bosnia & Herzegovina
- Vaira Vike-Freiberga, President of Latvia (1999-2007), Co-Chair NGIC
- Ismail Serageldin, Director Library of Alexandria, Co-Chair NGIC
- Jean Chretien, Prime Minister of Canada (1993-2003)
- What kind of dialogue is needed for peacebuilding within the global community?
- 2. How can future wars be avoided, and present wars be resolved, and transformed into opportunities?
- 3. What should be the values of the Global Order in a Multipolar World? How to promote it?

18:30 - 19:00 Press Conference

20:30-22:00 Dinner

Venue: Four Seasons Hotel: Rast room



Established in 1983



Business Centre Conference Levels

SCHEDULE

33rd Annual Plenary Meeting 8-9 March 2016 Baku, Azerbaijan

MONDAY, 7 MARCH

Participants arrive

20:00 -22:00 Welcome reception

Fairmont Gold, 19th Floor

TUESDAY, 8 MARCH

Breakfast at your leisure

09:30 Refreshments available

Foyer outside Uzeyir Hacibeyov Junior Ballroom, Conference Level 2

10:00 Opening Ceremony

Welcome messages from The Rt. Hon. Jean Chrétien

Dr. Ismail Serageldin

H.E. Dr. Vaira Vike-Freiberga

Introduction of IAC and its members by

H.E. Mr. Bertie Ahern

Keynote address by H.E. Mr. Olusegun Obasanjo

Closing remarks

The Rt. Hon. James Bolger

Nizami Ganjavi Grand Bairoom C, Conference Level 2

11:00 Future Forum: Inspiring the Leaders of Tomorrow
Moderated by Dr. Thomas S. Axworthy

Nizami Ganjavi Grand Ballroom C, Conference Level 2

12:00 Luncheon

Uzeyir Hacibeyov Junior Ballroom, Conference Level 2

13:30 - Session I - Present State of the World

15:30 Chair: The Rt. Hon. James Bolger

Introducers: Dr. John Polanvi, Mr. Bob Sandford

Nizami Ganjavi Grand Ballroom B, Conference Level 2

16:30 Buses depart for Azerbaijan Carpet Museum (optional)

www. of of attraction.

16:35	Visit to the Azerbaijan Carpet Museum (optional) Bakı ş., Mikayıl Useynov pr-ti, 28, Dənizkənarı Milli Park
17:45	Buses return to the Hotel
19:30 - 22:00	Dinner Fairmont Gold, 19 th Floor

WEDNESDAY, 9 MARCH

Breakfast at your leisure

10:00 Session II - New Realities for Global Health Security Chair: H.E. Mr. Bertie Ahern Introducers: Prof. Anthony Capon, Lt. Gen. Louis Lillywhite, Dr. John Wyn Owen Nizami Ganjavi Grand Ballroom B, Conference Level 2 12:00 Luncheon Uzeyir Hacibeyov Junior Ballroom, Conference Level 2 Session III - Iran and the New Middle East 13:00 Chair: The Rt. Hon. Jean Chrétien Introducers: H.E. Dr. Abdel Salam Majali, H.E. Amb. Gholam Ali Khoshroo, Mr. Franco Frattini, Prof. Thomas Juneau Nizami Ganjavi Grand Ballroom B, Conference Level 2 Session IV - The Future of Work in the 21st Century: 15:00

Jobs, Technology, and Youth Employment
Chair: H.E. Mr. Olusegun Obasanjo
Introducers: Video message from UN Youth Envoy,
Prof. Robert Austin, Mrs. Obiageli Ezekwesili,
Mr. Steven Rahman, Dr. Moneef Zou'bi
Nizami Ganjavi Grand Ballroom B, Conference Level 2

19:00 - Gala Dinner23:00 Grand Ballroom, Conference Level 2

THURSDAY, 10 MARCH

Breakfast at your leisure

09:30 **Opening Session of IV Global Baku Forum**Segah Ballroom, 1st Floor, Four Seasons Hotel

Meeting venue:

Fairmont Baku, Flame Towers 1A, Mehdi Huseyn Baku, AZ1006 Azerbaijan www.fairmont.com/baku Phone: +994 12 565 48 48 Fax: +994 12 565 48 49

Secretariat office:

Business Centre, Conference Level 2



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LIST OF PARTICIPANTS

33rd Annual Plenary Meeting 8-9 March 2016 Baku, Azerbaijan

InterAction Council Members

- 1. The Rt. Hon. Jean Chrétien, Co-Chairman (former Prime Minister), Canada
- 2. H.E. Mr. Olusegun Obasanjo, Co-Chairman (former President), Nigeria
- 3. H.E. Mr. Bertie Ahern (former Prime Minister), Ireland
- 4. H.E. Tun Abdullah Ahmad Badawi (former Prime Minister), Malaysia
- 5. The Rt. Hon. James Bolger (former Prime Minister), New Zealand
- 6. H.E. Dr. Gro Harlem Brundtland (former Prime Minister), Norway
- 7. H.E. Dr. Abdel Salam Majali (former Prime Minister), Jordan
- 8. H.E. Mr. Péter Medgyessy (former Prime Minister), Hungary
- 9. The Rt. Hon. Sir James Mitchell (former Prime Minister), Saint Vincent and the Grenadines
- 10. H.E. Mr. Benjamin Mkapa (former President), Tanzania
- 11. H.E. Mr. Andrés Pastrana (former President), Colombia
- 12. H.E. Mr. Konstantinos Simitis (former Prime Minister), Greece
- 13. H.E. Dr. George Vassillou (former President), Cyprus
- 14. H.E. Dr. Vaira Vīķe-Freiberga (former President), Latvia
- 15. H.E. Mr. Viktor Yushchenko (former President), Ukraine
- 16. H.E. Dr. Viktor Zubkov (former Prime Minister), Russia

Nizami Ganjavi International Center Members

- 17. H.E. Mr. Ehud Barak (former Prime Minister), Israel
- 18. H.E. Mr. Emil Constantinescu (former President), Romania
- 19. Mr. Franco Frattini, former Minister of Foreign Affairs (Italy)
- 20. H.E. Mrs. Dalia Itzik (former interim President), Israel
- 21. H.E. Mr. Zlatko Lagumdžija (former Prime Minister), Bosnia and Herzegovina
- 22. Dr. Ismail Serageldin, Co-Chair, Nizami Ganjavi International Center
- 23. H.E. Mr. Petar Stoyanov (former President), Bulgaria
- 24. H.E. Mr. Boris Tadić (former President), Serbia

Secretary-General

25. Dr. Thomas Axworthy, Distinguished Senior Fellow, Munk School of Global Affairs, University of Toronto (Canada)

Associate Members

26. Mr. Bill F. Weld, former Governor of Massachusetts (U.S.A.)

Special Guests

- 27. H.E. Mr. Gholam Ali **Khoshroo**, Ambassador and Permanent Representative of the Islamic Republic of Iran to the United Nations (Iran)
- 28. Prof. Robert **Austin**, Associate Professor, Centre for European, Russian and Eurasian Studies, Munk School of Global Affairs, University of Toronto (Canada)
- 29. Dr. Arne Olav **Brundtland**, Researcher and Specialist in Security Policies and "Nordic Balance" (Norway)
- 30. Ms. Brenda Bury, Artist (Canada)
- 31. Prof. Anthony **Capon**, Director, International Institute for Global Health, United Nations University (Australia)
- 32. Mrs. Obiageli **Ezekwesili**, Senior Economic Advisor, Africa Economic Development Policy Initiative, Open Society Foundation (Nigeria)
- 33. Prof. Thomas **Juneau**, Assistant Professor, Graduate School of Public and International Affairs, University of Ottawa (Canada)
- 34. Prof. Aira Kalela, Senior Advisor, Office of President Halonen (Finland)
- 35. Lt. Gen. Louis **Lillywhite**, Senior Research Fellow, Chatham House Centre for Global Health Security (U.K.)
- 36. Dr. Sawsan Abdul Salam **Majali**, Secretary General, Jordanian Higher Population Council (Jordan)
- 37. Dr. John Wyn **Owen**, Senior Global Health Advisor, InterAction Council; Chair, Health Protection Committee, Wales; Treasurer, Learned Society of Wales (U.K.)
- 38. Prof. The Hon. John **Polanyi**, Faculty Member and Nobel Laureate, Department of Chemistry, University of Toronto; Founding Chairman, Canadian Pugwash Group (Canada)
- 39. Mr. Bob **Sandford**, IAC Senior Water Advisor; EPCOR Chair of the Canadian Partnership Initiative in support of the United Nations Water for Life Decade (Canada)
- 40. Dr. Moneef Zou'bi, Director General, Islamic World Academy of Sciences (Jordan)



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BIOGRAPHIES

33rd Annual Plenary Meeting 8 – 9 March 2016 Baku, Azerbaijan

MEMBERS

Jean Chrétien, Co-Chairman

Prime Minister of Canada 1993-2003

Born 1934. LL.L. Laval University 1958; Lawyer with Chrétien, Landry, Deschênes, Trudel and Normand 1958-63; Member of Parliament 1963-65; Parliamentary Secretary to Prime Minister Pearson 1965; Parliamentary Secretary to Minister of Finance 1965-67; Minister Without Portfolio 1967-68; Minister of National Revenue 1968; Minister of Indian Affairs and Northern Development 1968-74; President of Treasury Board 1974-76; Minister of Industry, Trade and Commerce 1976-77; Minister of Finance 1977-79; Minister of Justice and Attorney General of Canada, Minister of State for Social Development, Minister responsible for constitutional negotiations 1980-82; Minister of Energy, Mines and Resources 1982-84; Deputy Prime Minister and Secretary of State for External Affairs 1984; Counsel with Lang, Mitchener, Lawrence and Shaw, and Senior Adviser with Gordon Capital Corporation, Montreal 1986-90; Senior Counsel, Heenan Blaikie 2003-2014; Counsel, Dentons Canada LLP 2014-.

Olusegun Obasanjo, Co-Chairman

President of Nigeria 1976-79, 1999-2007

Born 1937. Began his military career by enlisting in the Nigerian Army in 1958; Commissioned into the Nigerian Army as Second Lieutenant in 1959; Promoted to Lieutenant 1960; Transferred from the Infantry to the Corps of Engineering 1961; promoted to Captain and appointed Commander Engineering Corps 1963; Promoted to Major, heading the Engineering Unit of the Nigerian Army 1965; Between 1967 - 69, he was promoted to the following ranks: Lieutenant Colonel and served as Commander Second Area Command, The Nigerian Army Commander, Second Division (Rear) and Commander, Army garrison, Ibadan; Colonel serving in the capacity of Third Marine Commando Division, General Officer Commanding (GOC) Third Infantry Division, Nigerian Army. He led the 3rd Marine Commando to conclude the Civil War in 1970. He became deputy- Head of State (1975) and Head of State (1976) following the assassination of General Murtala. He retired as General in 1979, becoming the first Nigerian military Head of State to relinquish power voluntary. In 1995, he became a very important prisoner when the military dictator, General Sani Abacha, clamped a phony coup plot charge on him. As was widely expected, he was found guilty and banished to a regional local prison in Yola where it was intended that he would die. President Obasanjo received the people's mandate - first for a four-year tenure and renewed during the 2003 Presidential Election. His administration renegotiated and paid Nigeria's debt, launching Nigeria on the path of sustainable growth. He chaired the African Union NEPAD before handing over to a civilian government in 2007. He established the Africa Leadership Forum (1988), founded Bells University of Technology (2005), launched his Presidential Library (2005) and launched the Olusegun Obasanjo Foundation (2013). He is a member of the National Council of State, Africa Progress Panel (APP) and Club de Madrid. He is an author/publisher of several books and journals.

Bertie Ahern

Prime Minister of Ireland 1997-2008

Born 1951. College of Commerce, Rathmines; University College Dublin; First elected to the Dail (Parliament) in 1977 for the constituency of Dublin-Finglas and has represented Dublin Central since 1981; member of Dublin City Council 1978-88; first ministerial appointment was as Government Chief Whip and Minister of State at the Department of the Taoiseach and at the Department for Defense in 1982; Lord Mayor of Dublin from 1986-87; Minister for Labour 1987-91; appointed Minister for Finance on three separate occasions 1991-94; served as Tanaiste (Deputy Prime Minister), Minister for Arts, Culture & the Gaeltacht and Minister for Industry and Commerce at various stages; leader of his party Fianna Fail and served as Leader of the Opposition 1994-97; a defining moment in Irish history was the successful negotiation by Bertie Ahern and Tony Blair of the Good Friday Agreement between the British and Irish Governments and the political parties in Northern Ireland in April 1998; On 8th May 2007 a power sharing Administration was established in Northern Ireland led by First Minister, Dr. Ian Paisley and Deputy First Minister, Mr. Martin McGuinness. After nine years of unstinting political commitment this historic event represented the full implementation of the Good Friday Agreement and a great triumph for Mr. Ahern, Mr. Blair and the leaders of the Northern Ireland parties; during his Presidency of the European Council from January 2004 to June 2004 Bertie Ahern presided over the historic enlargement of the European Union to 27 member states including eight countries from Eastern Europe; led Ireland to take leadership roles on key global issues such as increasing aid to developing countries and tackling the spread of HIV AIDS.

Tun Abdullah Ahmad Badawi

Prime Minister of Malaysia 2003-2009

Born 1939. BA in Islamic Studies, University of Malaya 1964; Minister, Prime Minister's Department 1981-84; Minister of Education, 1984-86; Minister of Defence, 1986-87; Minister of Foreign Affairs, 1991-99; Former Chairman, South-East Asian Nations; Chairman of the Tenth Islamic Summit Conference, Organization of Islamic Conference; Former Chairman, Non-Aligned Movement; Founder Patron, The World Islamic Economic Forum; Chairman, Malaysian Institute of Islamic Understanding; Founder Patron, Institute of Advanced Islamic Studies, Kuala Lumpur; Adviser to Malaysia's Regional Growth Corridors and Malaysia Airlines; Board Member, BOAO Forum for Asia; Chair, Commonwealth Eminent Persons Group 2010-2011; Council Member, Asian Peace and Reconciliation Council; Founder Patron, World Islamic Economic Forum; Board Member, World Muslims Foundation; Vice Chairman, Asian Peace and Reconciliation Council (APRC); and Chair, Commonwealth Eminent Persons Group.

James Bolger

Prime Minister of New Zealand 1990-1997

Born 1935. Cattle and sheep farmer, active in farming organizations; Member of Parliament 1972-98; Parliamentary Under-Secretary 1975-77; Minister of Fisheries and Associate Minister of Agriculture 1977-78; Minister of Labour and Minister of Immigration 1978-83; President, International Labour Organisation (ILO) 1983; Deputy Leader of the Opposition 1984-86; Leader of the National Party and Leader of the Opposition 1986-90; Sworn in as Privy Councillor 1993; Minister of State and Associate Minister of Foreign Affairs and Trade (with responsibility for APEC) 1997-98; Ambassador to the United States 1998-2002; Member, International Advisory Board, World Agricultural Forum 2000-02; Chairman, International Advisory Board, World Agricultural Forum 2002-; Chair of Establishment Board, New Zealand Post's new Kiwibank 2001-10; Chair of the Board, New Zealand Post 2001-10; Chairman, Ian Axford Foundation 2002; Until 2010, Chair, Express Couriers Limited; Chair: Gas Industry Company, Trustees Executors Limited; Chancellor, Waikato University 2007-; Trustee, Rutherford Trust; President, NZ/U.S. Council; Chair of Board, Mt Cook Alpine Salmon; Patron, New Zealander of the Year Awards.

Gro Harlem Brundlandt

Prime Minister of Norway 1981, 1986-89, 1990-96

Former Director General of the World Health Organization

Born 1939. Medical Doctor, University of Oslo 1963; Masters of Public Health, Harvard University 1964; Background in public health and research on child health and development; Active within the labor movement and Labor party since youth; Deputy head of Oslo School Health Services 1970-74; Minister of Environment 1974-79; Member of Parliament 1977-96; Deputy leader of the Labor party 1975-81; Leader of the Labor Party 1981-92; Leader of the opposition 1981-86; Chair of World Commission on Environment and Development 1984-87; Director General, WHO 1998-2003; Member of the Board United Nations Foundation 2003-; The Elders 2007-; Special Envoy on Climate Change for UN Secretary General 2007-10; UN Secretary General's High Level Global Sustainability Panel 2010-12; Vice Chair, United Nations Foundation 2013-; Deputy Chair, The Elders 2013-.

Abdel Salam Majali

Prime Minister of Jordan 1993-1995, 1997-1998

Born 1925. MD, Syrian University, Damascus 1949; Diploma of Laryngology and Otology, Royal College of Surgeons and Physicians, London, 1953; ENT Consultant and Director General, the Royal Medical Services of the Jordan Armed Forces, Amman 1960-1969; Minister of Health, Jordan 1969-71; President, University of Jordan, Amman 1971-76, 1980-89; Minister of Education 1976-79; Minister of State for Prime Ministry Affairs 1970-71, 1976-79; Member, Executive Board of UNESCO 1985-90; Chairman, Jordan Senate Foreign Relations Committee; President, International Affairs Society, Jordan 1999-; President, Islamic World Academy of Sciences.

Péter Medgyessy

Prime Minister of Hungary 2002-04; Member, NGIC

Born in Budapest in 1942, Péter Medgyessy graduated from the Budapest University of Technology and Economics, Department of Theoretical Politics and Economy, in 1966, and obtained his PhD from the same university. He started his career at the Ministry of Finance where he worked in various positions, including Deputy Minister of Finance, between 1966 and 1986. He was appointed Minister of Finance in 1987. His name was hallmarked by the establishment, in 1988, of a new tax-system (introduction of TVA and Personal Income Tax) and a banking system meeting the requirements of the market economy. Péter Medgyessy was Deputy Prime Minister responsible for Economic Affairs from 1988 until 1990 in the reform government of Miklós Németh, implementing the political changes. He led the process of economic liberalisation and the preparation of the corporate law that created the fundament of privatisation. He was President and Director General of Magyar Paribas (member of the French Paribas Group) from 1990 until 1994. From 1994 until 1996 he was President and Director General of the Hungarian Investment and Development Bank. From March 1996 to July 1998 he was again Minister of Finance. He brought a pension reform before the Parliament, which compelled appreciation also from OECD and other international institutions. From 1998 to 2001 he was Chairman of the Board of Inter-Európa Bank (San Paolo-IMI Group) and Vice President of Atlasz Insurance Company (member of the Australian QBE Group). Péter Medgyessy was Prime Minister of the Hungarian Republic from May 27 2002 to September 27, 2004, when he resigned in order to maintain the coalition. Between 2004 and 2008 he was in charge of international missions assigned by the Government. He was Chairman of the Hungary-Hong Kong Business Association from January 2008 to February 2009, and he has been Honorary Chairman of the same Association since February 2009. He has published a large number of articles concerning budgetary and exchange rate policy and the monetary system in Hungarian and international financial and economic papers. He was Professor at the College of Finance and Accounting from 1973 until 1996. From 1994 to 1996 he was Chairman of the Hungarian Economic Association and Member of the Counsellor's Committee of the World Economic Forum. From 1995 to 1996 he was a

member of the Board of Directors of the Hungarian Banking Association. From 1998 until 2000 he was a member of the Hungarian Atlantic Council.

James Mitchell

Prime Minister of Saint Vincent & the Grenadines 1972-1974, 1984-2000

Born 1931. B.Sc., DICTA, Imperial College of Tropical Agriculture (Trinidad) and University of British Columbia (Canada); Agronomist, Agricultural Research Officer, St. Lucia and St. Vincent 1957-61; Chartered Biologist, U.K. 1965; Member of Parliament, the Grenadines 1966-2001; Premier 1972-74; Held portfolios as Minister of Trade, Agriculture, Labour, Tourism, Finance, Foreign Affairs, National Security; Opposition Parliamentarian, 1975-1984; Founder and President, New Democratic Party 1975-2000; Prime Minister, 1984-2000; Sworn in as Privy Councillor, United Kingdom 1988; Knighted (KCMG) 1994; Senior Minister, 2000-2001; Autobiography: Beyond the Islands, Macmillan 2006; Chairman, Hotel Frangipani Ltd and other companies; Order of Simón Bolívar, Venezuela 1972; Order of the Infante Dom Henrique, Portugal 1991; Founder, Bequia Sailing Club.

Benjamin William Mkapa

President of Tanzania 1995-2005

Born 1938. BA (Honours) in English, Makerere University College, Uganda 1962; Special course for Diplomats from Newly Independent States, School of International Affairs, Columbia University 1963; District Officer, Dodoma 1962; Managing Editor of Tanzania's leading newspapers, The Nationalist, Uhuru, The Daily News, and The Sunday News 1960s-70s; Press Secretary for Founding President of Tanzania, Mwalimu Julius Kambarage Nyerere 1974; Founding Editor, Tanzania News Agency (SHIHATA) 1976; High Commissioner in Nigeria 1976; Minister for Foreign Affairs 1977-80, 1984-90; Minister for Information and Culture 1980-82; High Commissioner to Canada 1982; Ambassador to the U.S.A. 1983-84; Minister for Information and Broadcasting 1990-92; Minister for Science, Technology and Higher Education 1992-95; Chairman, Chama Cha Mapinduzi 1996-2006; Co-chair, World Commission on the Social Dimension of Globalisation 2002; Commissioner, Commission for Africa 2004; Chairperson, Southern African Development Community 2003-04; Member of Panel of Eminent Persons appointed by UNCTAD Secretary-General to review and enhance role within U.N. reforms; Member of Panel on U.N. System-wide coherence in areas of Development, Humanitarian Assistance and Environment; Member of African Union Panel of Eminent Persons 2008; Chairman of South Centre; Cochair of Investment Climate Facility for Africa and Africa Emerging Markets Forum; Board of Trustees, Africa Wildlife Foundation; Commissioner on U.N. Commission on the Legal Empowerment of the Poor 2006-08; Patron for U.N. Committee of 2008 International Year of Planet Earth; Member of Club of Madrid and Africa Forum; Co-chair and Chairman of International Relations of Investment Climate Facility for Africa 2006-.

Andrés Pastrana

President of Colombia 1998-2002; Member NGIC

Born 1954. LL.B. and LL.M., Colegio Mayor Nuestra Señora del Rosario, Bogotá; Fellowship, Center of International Affairs, Harvard University 1991; Co-founder and director, Guión Magazine 1978; Founder, TV Hoy news program 1979; Fundacion Colombiana de Comunicacion Social 1978-79; Director, TV Hoy 1980-87, twice winning the King of Spain journalism award, the Spanish equivalent of a Pulitzer Prize; Bogotá City Council 1982-86; President, Plan Commission of Bogotá 1982-86; one of youngest City Council Members to hold Presidency of the Council 1984-85; Elected first Popular Mayor of Bogotá in 1988, after surviving a kidnapping attempt ordered by the Cartel of Medellín; Mayor of Bogotá 1988-90; Founder, New Democratic Force movement 1991, and won 8 seats in Senate; Senator, Republic of Columbia 1991-93; Secretary-General, Latin American Union Parties 1993-98; During presidency, made

important steps towards negotiating a peace process with the FARC and the ELN guerrilla groups; His administration also proposed and implemented Plan Colombia, a multimillion U.S. Aid package to combat illegal non-state actors and to strengthen Colombia's institution, Armed Forces and the rule of law; Ambassador to the United States 2005-06; Mr. Pastrana is also Honorary President of the Unión de Partidos Latinoamericanos (UPLA) and member of the Club of Madrid.

Konstantinos Simitis

Prime Minister of Greece 1996-2004

Born 1936. Studied law at the University of Marburg and economics at the London School of Economics; Co-founder and secretary of the Alexander Papapastasiou Group 1965, which became Dimokratiki Amyna (Democratic Defence) in 1967; In 1969 he left Greece to escape the military dictatorship of the Colonels, and was subsequently convicted in absentia by court martial for his political resistance activities; In 1970 he joined PAK, the Pan-Hellenic Liberation Movement, and became member of its National Council; Lecturer at various West German universities 1971–75; Professor of Commercial Law at the Panteion University, Athens 1977-81; A founding member of PASOK (1974), he was a member of the first Executive Office of the party, as well as of the founding Central Committee; elected MP (PASOK) in Piracus A 1985-2004; Minister of Agriculture 1981-85; Minister of National Economy 1985-87; Minister of Education and Religious Affairs 1989-90; Minister of Industry, Energy and Technology 1993-95; Minister of Trade 1993-95; PASOK Party Chairman 1996-2004; Prime Minister 1996-2004. As Greek Prime Minister he presided the European Council during the first semester of 2003.

George Vassiliou

President of Cyprus 1988-1993

Born 1931. Degree and Doctorate in Economics, University of Economics, Budapest. He subsequently specialised in marketing and market research in London; Member of Parliament 1996-99; Head of the Republic of Cyprus Negotiating Team for the accession of Cyprus to the European Union with responsibility for coordinating the harmonization process within the country 1998-2003; Chairman, MEMRB International, a major market research, marketing and economic consultancy organization; Chairman, Ledra and Innovation/Leo Burnett Advertising Companies; Member of Board and major shareholder in Alison Hayes Group (manufacturers of ladies clothing); Member of the Trilateral Commission; Member of the Board of Governors of the Shimon Peres Institute for Peace; Visiting Professor at the Cranfield School of Management in the U.K.; Honorary Professor of the Cyprus International Institute of Management (CIIM).

Vaira Vike-Freiberga

President of the Club de Madrid and former President of Latvia (1999-2007); Co-Chair, NGIC She was instrumental in achieving membership in the EU and NATO for her country and was Special Envoy on U.N. reform. She was vice-chair of the Reflection group on the long-term future of Europe, and chaired the High-level group on freedom and pluralism of media in the EU in 2011-12. Dr. Vaira Vike-Freiberga is Co-chair of the Board of Trustees of the Nizami Ganjavi International Centre, and a member of two High-level groups on European security and defence. Born in Riga on 1 December 1937, she started her schooling in refugee camps in Germany, then lived in Morocco and Canada, obtaining a Ph.D. at McGill University (1965). After a distinguished career as Professor of psychology at the University of Montreal, she returned to her native country in 1998 to head the Latvian Institute. She is a member of 30 international organisations, has published extensively and is much in demand as speaker.

Viktor Andriyovych Yushchenko

President of Ukraine 2004-2010; Member, NGIC

Viktor Yushchenko graduated from the Ternopil Finance and Economics Institute in 1975 and began work as an accountant, as a deputy to the chief accountant in a kolkhoz. From 1975 to 1976, he served as a conscript in the Transcaucasian Military District on the Soviet-Turkish border. In 1993, he became Governor (head) of the National Bank of Ukraine. From 1999 to 2001 he was Prime Minister. After his dismissal as Prime Minister, Yushchenko went into opposition and founded the Our Ukraine Bloc, which at the 2002 parliamentary election became Ukraine's most popular political force, with 23.57% of the votes. Yushchenko won the presidency through a repeat runoff election between him and Prime Minister Viktor Yanukovych in 2004. Yushchenko was named Man of the Year 2004 by Wprost and included in the 2005 Time 100, an annual list of the 100 most influential people in the world. He holds honorary doctorates from the University of Maria Curie-Sklodowska (2000) and the Catholic University of Lublin (2009).

Viktor Zubkov

Prime Minister of the Russian Federation 2007-2008

Viktor Zubkov was born in 1941 in the Sverdlovsk Region of Russia. Before joining government bodies in the Leningrad (St. Petersburg) region in 1985, he had worked for twenty years as an agricultural manager. In 1993, he joined the Russian Federal Tax Service, becoming First Deputy Finance Minister in 2001 and Head of the Federal Financial Monitoring Service (anti-money-laundering body) in 2004. He served as Russia's Prime Minister from 2007 to 2008, when he was appointed First Deputy Prime Minister, the position he held until 2012. Mr. Zubkov has been Chairman of the Gazprom Board of Directors since 2008, and also holds the position of Presidential Special Representative for Cooperation with the Gas Exporting Countries Forum. He holds a doctorate in economics."

NIZAMI GANJAVI INTERNATIONAL CENTER MEMBERS

Ehud Barak

Prime Minister of Israel 1999-2001

Born at Kibbutz Mishmar Hasharon, Ehud Barak enlisted in the Israeli Army at age 17, and saw significant action leading a commando unit in the 1967 Six-Day War. His superiors noted his exceptional bravery and coolness under fire. When hostilities erupted again in the Yom Kippur War of 1973, Barak commanded a tank battalion on the Sinai front. Although his academic education was repeatedly interrupted by calls to active duty, Barak found time to earn an undergraduate degree in Physics and Mathematics from the Hebrew University of Jerusalem, and a Masters in Economic Engineering Systems from Stanford University. In addition to his scientific and military interests, he is a talented pianist and linguist. For many years, he led Israel's elite anti-terrorist unit, on one occasion successfully storming a hijacked airliner in Tel Aviv, and on another -- disguised as a woman -- leading a raid against the organization that murdered Israeli athletes at the 1972 Munich Olympics. He also played a pivotal role in planning what has been described as the most audacious and perfectly executed special forces operation in history, the Entebbe raid and hostage rescue mission. After serving as head of Israeli Intelligence and Central Command during the 1980s, Barak was appointed army Chief of Staff, his country's top military leader, in 1991. After five distinguished years as Chief of Staff, Barak stepped down to become Interior Minister in the government headed by his mentor, Prime Minister Yitzhak Rabin. The former warrior who fearlessly faced death on the battlefield brought a different kind of courage to his new job, striving to engage the Palestinian leadership in a productive dialogue. In 1995, when Rabin was assassinated by a domestic extremist, Shimon Peres became Prime Minister, and Barak replaced Peres as Foreign Minister. Barak was propelled to leadership of the Labor Party following Peres's narrow electoral loss to Benjamin Netanyahu. Barak became Prime Minister in his own right when he led the Labor Party to a landslide victory in 1999. As Prime Minister he ended Israel's 17-year occupation of southern Lebanon and offered unprecedented concessions to the Palestinians. Barak's peace offer was rejected, the Palestinians broke off negotiations, and the subsequent outbreak of violence led to Barak's defeat in the next election. Barak declined an offer to serve as Minister of Defense in the subsequent government headed by Likud leader Ariel Sharon. For the next few years Barak pursued a business career in Israel and the United States, joining private equity firms with interests in security-related industries. In June 2007, Barak was once again elected to lead the Labor Party and was immediately appointed to serve as Minister of Defense in the reorganized coalition government. Although Barak's Labor Party placed fourth in the parliamentary election of February 2009, he was reappointed as Minister of Defense in a new coalition government led by the Likud Party. As Defense Minister, Barak continued to advocate a negotiated settlement with the Palestinians, while supporting the government's hard line on security issues. Many of his allies in the Labor Party, frustrated with the breakdown of peace talks, pressured Barak to leave the coalition, forcing him to choose between his party and the government. In January 2011, he shocked the political world by leaving the party he had led for many years. The other Labor members in the cabinet divided over Barak's decision. Some remained in the coalition alongside him, while others resigned their posts. Ehud Barak continued to serve as Minister of Defense while leading a centrist faction called Independence. At the end of 2012 he announced his decision to retire from electoral politics.

Emil Constantinescu

President of Romania 1996-2000; Board Member of the Nizami Ganjavi International Center

He first graduated from the Faculty of Law and then the Faculty of Geology and Geophysics of the University of Bucharest, and subsequently started a career as a geologist. Beginning in 1966, Constantinescu taught in the Geology Faculty of the University of Bucharest, where he also became Propaganda Secretary of the local organisation of the Romanian Communist Party. After the Romanian revolution in 1989, Constantinescu became a founding member and vice president of the Civic Alliance. He was the acting chairman of the Romanian Anti-Totalitarian Forum, the first associative structure of the opposition in Romania, which was transformed into a political and electoral alliance: the Romanian Democratic Convention (CDR). In 1992 he was elected president of the University of Bucharest, and became CDR's candidate for president. He lost the election to the incumbent, Ion Iliescu, after a second round. He remains, however, heavily involved in politics through working for many NGOs, both in Romania and internationally. Emil Constantinescu is the current president of the Association of Citizenship Education, of the Romanian Foundation for Democracy and also the founding president of the Institute for Regional Cooperation and Conflict Prevention (INCOR). Emil Constantinescu is on the Board of Directors of the World Justice Project The World Justice Project works to lead a global, multidisciplinary effort to strengthen the Rule of Law for the development of communities of opportunity and equity. Constantinescu is also a member of the Board of Trustees of the World Academy of Art & Science, an organization seeking solutions for the multiple global challenges related to peace, global governance, economic development, ecological sustainability, law and human rights. Romanian President Emil Constantinescu made an official visit to Greece in 1997.

Franco Frattini

Minister of Foreign Affairs, Italy 2002-2004; 2008-2011

Franco Frattini holds several positions in national and international bodies, among which: President of the Italian Society for International Organization (SIOI), Head of the International Affairs Department in the People of Freedom Party (PDL), Co-chair of the new ad hoc EPP Group for Foreign Policy. Franco Frattini was Minister for Civil Service and for the Coordination of Information and Security Services from

2001 to 2002. He served as Vice President of the European Commission and Commissioner for Justice, Freedom and Security from November 2004 to 2008.

Dalia Itzik

Interim President of Israel 2007

Dalia Itzik was born in Jerusalem in 1952. She received a B.A. in Literature and History from the Hebrew University and a Teacher's Diploma from the Efrata Teachers Seminary in Jerusalem. She received a Law Degree from the Interdisciplina Center in Herzliya. A teacher by profession, Dalia Itzik is a former Deputy Mayor of Jerusalem in charge of Education. She was chairperson of the Legislative Panel of the Labor Party, a member of the Labor Party Central Committee, and a member of the Board of Governors of the Israel Broadcasting Authority and the boards of the Jerusalem Theater and Gerard Behar Center. Elected to the Knesset in 1992, she has served on the Knesset Finance Committee (1992-96); the Education and Culture Committee (1992-99), which she chaired from March 1995 to June 1996; and the Committee on the Status of Women (1992-99). She also served as chairperson of the Special Committee for Research and Scientific Technological Development (July 1997-June 1999). Dalia Itzik served as Minister of the Environment from July 1999 until March 2001. She served as Minister of Industry and Trade from March 2001 until October 2002, when she resigned from the government together with the other Labor ministers. In January 2005, Dalia Itzik was appointed Minister of Communications. In May 2006 Dalia Itzik became the first female Speaker of the Knesset.

Zlatko Lagumdžija

Prime Minister of Bosnia & Herzegovina (2001-2003)

Born 26 December 1955, Sarajevo (Bosnia & Herzegovina). Mr. Lagumdzija graduated from the University of Sarajevo with a B.Sc., M.Sc., and Ph.D in Computer Science and Electrical Engineering (1977, 1981, and 1988, respectively). Since 1989 Mr. Lagumdzija has worked as a Professor of Management Information Systems within the School of Economics as well as the Computer Science and Electrical Engineering School at the University of Sarajevo. He also currently serves as Director of the Management and Information Technology Centre in Sarajevo, a position which he has held since 1995. Today Zlatko Lagumdzija provides consultative services to various businesses and governmental organizations. Mr Lagumdzija was named Deputy Prime Minister of Bosnia & Herzegovina in 1992. He served as acting Prime Minister during 1993, and has been a Member of Parliament and the House of Representatives since 1996. He has served as Foreign Minister of Bosnia and Herzegovina (2001-2003), Chairman of the Council of Ministers (2001-2002), and in 2001 became Prime Minister of Bosnia & Herzegovina, a position which he held through 2003. He has served as a Member of different International Missions and Commissions such as the International Mission on Pakistan elections in 1998, the First SI Mission of four former Prime ministers in Post-Saddam Iraq in 2003, the NDI Pre-election Mission in Afghanistan during 2004 and the International Commission on the Balkans in 2004. Since 1998 Mr. Lagumdzija has been a member of "Global Leaders for Tomorrow" which is part of the World Economic Forum and has been Member of the International Advisory Committee for the Congress of Democrats from the Islamic World 2004. He currently serves as President of the Social Democratic Party of Bosnia & Herzegovina (SDP). He is actively involved in many international conferences as both a participant and a speaker, and has been awarded numerous national and international awards for his research and expertise. He is the author of over one hundred scholarly research and expert papers, numerous articles on Bosnian political and economic issues, and six books on Management Information Systems.

Ismail Serageldin

Director, Library of Alexandria; Founding Member and Co-Chair, Nizami Ganjavi International Center He was Vice President of the World Bank & Professor at the College de France, Paris. He holds Ph.D. from Harvard University and has received 40 honorary doctorates. He has published over 60 books and monographs and over 200 papers on a variety of topics including biotechnology, rural development, sustainability, and the value of science to society. Recipient the "Public Welfare Medal" from the National Academy of Sciences US, Order of the Rising Sun from Japan, Legion d'Honneur from France and a Commandeur of Arts and Letters of the French Republic. Ismail Serageldin referred to as the "most intelligent man in Egypt". He serves as Chair and Member of a number of advisory committees for academic, research, scientific and international institutions and civil society efforts; the Advisory Committee of the World Social Science Report for 2013 UNESCO. Vice President Institutd'Egypte (Egyptian Academy of Science), US National Academy of Sciences, the American Philosophical Society, the Brookings Doha Center, the European Academy of Sciences and Arts, the American Academy of Arts and Sciences, Member of the Foundation Chirac's honour committee. He also participates as jury member for the Prize for Conflict Prevention awarded every year by this foundation. Ismail Serageldin is a founding Member and Co-Chair of the Nizami Ganjavi International Center, a cultural institution for promoting the advancement of culture and creative expression, learning, dialogue, tolerance and understanding between cultures and people dedicated to the memory of Azerbaijani poet, Nizami Ganjavi. The study and dissemination of his works, the promotion of the principles embodied in his writings, the advancement of culture and creative expression, and the promotion of learning, dialogue, tolerance and understanding between cultures and people.

Petar Stoyanov

President of Bulgaria 1997-2002; Board Member of the Nizami Ganjavi International Center He won the 1996 presidential election as a candidate of the Union of Democratic Forces (UDF). From 1992 to 1993 Mr. Stoyanov was Deputy Minister of Justice in the first non-communist (UDF) government of Bulgaria since 1944. In 1994, as the holder of a doctorate in law, he was elected as a member of the 37th National Assembly in Bulgaria and in 1995 he was elected Deputy Chairman of the UDF. Petar Stoyanov is an active and passionate promoter of democracy and European ideals. In the 2002 he founded the "Petar Stoyanov Centre for Political Dialogue". He is a member of several different international associations, e.g. the Clinton's Global Initiative, the Board of Global Fairness Initiative, the Judging Committee of the European Business Awards, the International Advisory Board of the American Bar Association, Board Member of the Nizami Ganjavi International Center, Honorary co-chair of the World Justice Project and is a member of the European Executive Committee of the Trilateral Commission. Additionally, he has been the winner of numerous awards like the Anti-Defamation League's Courage to Care Award, the Annual Award of the Association of the Russian Lawyers, etc. September 2004 Appointed Special Envoy for Moldova of the OSCE Chairman-in-Office. In 2005 Stoyanov returned to active politics. He was elected member of the 40th National Assembly, he was member of European Integration Committee and member of State Administration Affairs Committee. Because of UDF's inadequate result at these elections (8.4% of the popular vote, and 20 out of 240 seats) he blamed rigorously the party leader Nadezhda Mihailova criticizing her policy. On October 1, 2005 the UDF National Conference elected him as a Chairman. In May 20, 2007 at the first Bulgarian elections for EU Parliament Stoyanov - who led UDF list - failed to get elected since UDF fell 1% short of the 5.66% electoral threshold. This resulted in his resignation from the chairmanship of the Union of Democratic Forces in 22 May 2007.

Boris Tadić

President of Serbia 2004-2012; Board Member of the Nizami Ganjavi International Center Boris Tadic is a Serbian politician who served as President of Serbia from 2004 to 2012. He scheduled general elections and on 25 November 2012 was elected Honorary President, after dropping out from the race for presidency. Prior to his presidency, Tadic served as the last Minister of Telecommunications of the Federal Republic of Yugoslavia and as the first Minister of Defence of Serbia and Montenegro. He became known for his army reforms and his idea to send a Serbian contingent on a mission to Afghanistan in a bid to warm his country's relations with NATO. He made the General Staff directly accountable to the defence ministry for the first time since World War II, and launched a modernization plan aimed at readying the armed forces for membership in NATO's Partnership for Peace programme. During the election campaign, Tadic promised to take his country closer to the EU, telling voters that this was only way to secure a better life for Serbs. Tadic advocated co-operation with the West, a peaceful solution to the Kosovo problem, the continuation of reforms, and EU accession in as short a time as possible. His presidency is expected to help Serbia continue its journey towards association with the EU, the Partnership for Peace programme, and other European and NATO organisations. Tadić strongly advocates close ties with the European Union and Serbia's European integration He is widely regarded as a pro-Western leader but who also favors balanced relations with Russia, the United States and the EU. In March 2010, Tadic received the Steiger Award Europe of the Rhine-Ruhr for "respectfulness, openness, humanity, and tolerance". In 2011, he won the North-South Prize awarded by the Council of Europe and distinguishing his deep commitment and actions for the promotion and protection of human rights, defense of pluralist democracy and the strengthening partnership and the North-South solidarity. Serbian President Boris Tadic made an official three-day visit to Greece in 2012 and met with Greek Prime Minister George Papandreou as well as Greek businesspeople.

SECRETARY-GENERAL

Thomas Axworthy

Distinguished Senior Fellow, Munk School of Global Affairs, University of Toronto (Canada)
Born 1947. Special Assistant to the Minister of State for Urban Affairs and the Minister of National Revenue 1974; Consultant, The Canada Consulting Group 1975-76; Special Assistant, Office of the Prime Minister 1975-76; Policy Advisor, Office of the Prime Minister 1976-78; Assistant Principal Secretary (Policy) 1978-79; Senior Policy Advisor, Office of the Leader in Opposition 1979-80; Acting Director of Liberal Caucus Research Bureau 1979-80; Principal Secretary to the Prime Minister of Canada 1981-84; Mackenzie King Professor of Canadian Studies, Harvard University 1985-86; Associate of the Center for International Affairs, Harvard University 1986-1991; Adjunct Lecturer in Public Policy, John F. Kennedy School of Government, Harvard University 1990-2003; Executive Director, Historica Foundation of Canada 1999-2005; Chairman, Asia Pacific Foundation of Canada 2001-06; Chairman, Centre for the Study of Democracy, Queen's University 2003-2010; President and CEO, Walter and Duncan Gordon Foundation, 2009-2015; Senior Fellow, Massey College, University of Toronto, 2011-present; Distinguished Senior Fellow, Munk School of Global Affairs, University of Toronto, 2010-present.

ASSOCIATE MEMBERS

William F. Weld

Governor of Massachusetts, 1991-1997 (U.S.A.)

Born in New York in 1945; Graduated with JD from Harvard Law School, 1970; Diploma in economics and political science, Oxford University; National Co-chair, Privatization Council; U.S. Attorney, Massachusetts 1981-1986; Assistant U.S. Attorney General, Criminal Division of the United States Department of Justice in Washington, D.C. 1981-88; Former Commercial Litigator, Boston, New York and Washington; United States Attorney for Massachusetts; Member, Council on Foreign Relations; Attorney, Mintz Levin Cohn Ferris Glovsky and Popeo, Washington, Boston and New York; Senior Advisor to the Chairman of Ivanhoe Nickel and Platinum.

SPECIAL GUESTS

Gholam Ali Khoshroo

Ambassador and Permanent Representative of the Islamic Republic of Iran to the United Nations (Iran) Born 1955. As a sociologist he studied at Tehran University and New School for Social Research, New York, U.S.A.; Served as the Dean, School for International Relations 1981-89; Ambassador and Deputy of the Permanent Mission of the Islamic Republic of Iran to the United Nations 1989-95; Board member of the Encyclopedia of the World of Islam 1995-2014; Deputy Foreign Minister for Research and Training 1997-99; Ambassador to Australia 1999-2002; Deputy Foreign Minister for Legal and International Affairs 2002-05; Assistant Secretary General of the Asian Parliamentary Assembly 2005-14; Senior Editor of the Encyclopedia of Contemporary Islam 2007-14; Member of Policy Making Council of "Iran Diplomacy" 2010-14; Ambassador to Swiss Confederation 2014-15. In recent years, he has extensively worked on current developments of contemporary political Islam and its implication for western societies. He has also contributed to various forums and seminars on how to promote dialogue and moderation among nations and how to contain extremism and sectarian violence. He has published several articles and book on political and cultural affairs.

Robert Austin

Associate Professor, Centre for European, Russian and Eurasian Studies, Munk School of Global Affairs, University of Toronto (Canada)

Robert Clegg Austin (PhD University of Toronto) is a specialist on East Central and Southeastern Europe in historic and contemporary perspective. In the past, Austin was a Tirana-based correspondent for Radio Free Europe/Radio Liberty; a Slovak-based correspondent with The Economist Group of Publications; and a news writer with the Canadian Broadcasting Corporation in Toronto. Austin has written articles for The Globe and Mail, The Toronto Star, Southeast European Times, Orbis, East European Politics and Societies and East European Quarterly along with numerous book chapters and two books published separately in Tirana and Prishtina. He has lectured widely in Europe and North America and was a Guest Professor in 2009 – 2010 at the University of Graz's Centre for Southeast European Studies. His most recent book, "Founding a Balkan State", was published with the University of Toronto Press in October 2012. At CERES, he coordinates the Undergraduate European Studies Program, the Hellenic Studies Program and the Hungarian Studies Program.

Arne Olav Brundtland

Researcher and Specialist in Security Policies and "Nordic Balance"

Born in Horten, Norway, 1936. Master of Political Science, University of Oslo, 1962; Visiting Scholar, Center for International Affairs, Harvard University, 1964-65; Associate, Norwegian Institute for International Affairs, 1963-98; Editor, "Internasjonal Politikk" 1977-90.

Brenda Bury

Renowned Portrait Artist (Canada)

Brenda Bury is a Toronto-based portrait painter with experience in Canada, England, and around the world. Her subjects (painted from life, in oils) include Her Majesty the Queen, Prime Ministers Margaret Thatcher, John Diefenbaker and John Turner, Earl Mountbatten, and H.E. Jeanne Sauvé.

Anthony Capon

Director, International Institute for Global Health, United Nations University (Australia)

Professor Anthony Capon directs the global health institute at United Nations University. He is a public health physician and an authority on environmental health whose research focuses on urbanization, sustainable development and human health. Tony is a member of The Rockefeller Foundation—Lancet Commission on Planetary Health which published its report Safeguarding human health in the Anthropocene epoch in July 2015. A former director of public health in Australia, he has held NHMRC and WHO fellowships, and leadership roles with the Royal Australasian College of Physicians, the Frank Fenner Foundation and the International Society for Urban Health.

Obiageli Ezekwisili

Senior Economic Advisor, Africa Economic Development and Policy Initiative, Abuja (Nigeria) Ms. Obiageli Katryn Ezekwesili, also known as Oby, has been Vice President of Africa at The World Bank Group since 2007. Ms. Ezekwesili oversees more than 1500 staff and is responsible for the delivery of projects and economic and sectoral work in 47 Sub-Saharan countries. She joined the World Bank Group from her most recent position as Minister of Education in the Government of Nigeria since June 2006, where she led a comprehensive reform program within the education sector including: Restructuring and refocusing the ministry for the attainment of Education for All (EfA) targets and Millennium Development Goals. Ms. Ezekwesili also introduced the Public-Private Partnership models for education service delivery; revamped the Federal Inspectorate Service as an improved quality assurance mechanism and introduced transparency and accountability mechanisms for better governance of the budget. Ms. Ezekwesili led the establishment of the Innovation & Vocational Enterprise Institutions initiatives which focuses on the development of skills for economic competitiveness and -- in conjunction with the Nigerian Stock Exchange-- launched the "Adopt-A-School" program, an initiative that fosters philanthropy by corporations; community groups and individuals. Ms. Ezekwesili began her career with Deloitte & Touche where she worked as an Auditor, management and financial services consultant. She then served as a founding Director of Transparency International (TI) and as TI's Director for Africa from 1994 to 1999. From 2000 to 2002, she worked with Professor Jeffrey Sachs as Director of the Harvard-Nigeria Economic Strategy program, during which time she was also appointed as an aide to President Obasanjo.

In 2003, she was designated Senior Special Assistant to the President of Nigeria on Budget Monitoring and Price Intelligence. As Minister of Solid Minerals from 2005 to 2006, Ms. Ezekwesili oversaw the passage of the Minerals and Mining Act, the establishment of the Nigerian Mining Cadastre Office and the opening of the sector to private participation. Ms. Ezekwesili also served as the Chairperson of the Nigerian Extractive Industries Transparency Initiative from 2004 and led the voluntary sign-on of Nigeria to the EITI Principles as well as the first ever process, financial and physical audit of Nigeria's oil and gas sector. She served as an Independent Director of Bharti Airtel Limited from September 26, 2012 to

September 25, 2015. In 2006, Ms. Ezekwesili was given the national award of Commander of the Order of the Federal Republic (CFR). She holds a Masters in International Law & Diplomacy from the University of Lagos, a Masters in Public Policy & Administration from Harvard University's Kennedy School of Government, and a Bachelors degree from the University of Nigeria. She is a Chartered Accountant.

Thomas Juneau

Assistant Professor, Graduate School of Public and International Affairs, University of Ottawa Thomas Juneau is an assistant professor at the Graduate School of Public and International Affairs. His research focuses mostly on the Middle East, in particular on Iran, Yemen, Syria and US foreign policy in the region. He is also interested in Canadian foreign and defence policy and in international relations theory. He is the author of Squandered Opportunity: Neoclassical realism and Iranian foreign policy (Stanford University Press, 2015), co-editor of Iranian Foreign Policy since 2001: Alone in the world (Routledge, 2013), and co-editor of Asie centrale et Caucase: Une sécurité mondialisée (Presses de l'Université Laval, 2004). He has also published many articles and book chapters on the Middle East, international relations theories and pedagogical methods, notably in International Studies Perspectives, Middle East Policy and Orbis. Prior to joining the University of Ottawa, he worked for the Department of National Defence from 2003 to 2014, chiefly as a strategic analyst covering the Middle East. He was also a policy officer and an assistant to the deputy minister.

Aira Kalela

Senior Advisor, Office of President Halonen

Born 1946. MA in Political Science, University of Helsinki 1968; Licentiate of Political Science (International Affairs, Public Administration), University of Helsinki 1974; Assistant Professor, University of Helsinki 1969-73; Cultural Secretary, Ministry of Education 1973-83 (Secretary General of the Finnish National Commission for Unesco); Visiting Lecturer and Associate Professor, University of Helsinki 1974-80, 1984; Director, International Affairs, Ministry of the Environment 1983-92; Director, EU-Affairs, Ministry of the Environment 1993-97; Director-General, International Affairs, Ministry of Environment 1998-2010; Deputy Executive Secretary, United Nations Convention on Combating Desertification 1999-2001, Bonn; Senior Advisor on mainstreaming environment in the Finnish Development Cooperation, Ministry for Foreign Affairs 2008; Special Representative for Gender and Climate Change, Ministry for Foreign Affairs 2008-10; Senior Advisor, Global Gender and Climate Alliance and Women for Environment and Development 2010-; Senior Adviser, Office of President Tarja Halonen 2013-. Several articles on international cooperation, in particular on science, education and culture as well as on sustainable development, climate change and gender equality in various publications. Led and participated in several delegations in international meetings and conferences on science, education and culture as well as sustainable development, climate change and environment.

Louis Lillywhite

Senior Research Fellow, Chatham House Centre for Global Health Security

Louis Lillywhite retired as Surgeon General of the UK Armed Forces in 2010. His 42-year career in the Army included medical appointments as a consultant occupational physician, operational deployments, and command and staff appointments in the Ministry of Defence and in various army and NATO Headquarters. Since retirement he has worked with Chatham Houses Centre for Global Health Security. He has undertaken work in the area of health and conflict, including research on health and Non State Armed Groups; co-authored two recent publications in the BMJ and Lancet; and has recently won a seed grant from the Wellcome Trust to develop a research project on "The Healthcare Anatomy of Conflict". He is also leading for Chatham House on a project funded by the Bill & Melinda Gates Foundation on developing a 'Global Health Security Track' for the Munich Security Conference. He is a member of the WHO Independent Review Committee on the International Health Regulations in the

context of the recent Ebola outbreak. He qualified from the Welsh National School of Medicine (MB, BCH) in 1971 and gained an MSc in Occupational Health from the London School of Hygiene and Tropical Medicine in 1989. He joined the Membership of the Faculty of Occupational Medicine (MFOM) in 1990 and the Membership of the Institute of Healthcare Management (MHIM) in 2008. He is a fellow of the Royal Society of Medicine; the British Medical Association; and a trustee of the Medical Society of London (president 2009 – 2010). He is president of his local branch of the Royal British Legion and of the Airborne Medical Society. He was appointed MBE in 1985, OStJ in 2007, CB in 2009 and QHS from 2002 until 2010. Other honours and awards include: the USA Secretary of State for Defense Award for Exceptional Public Service; honorary member of the Association of Medical Consultants to the (USA) Armed Forces (2009); honorary FRCGP; and honorary FRCP (Glasg). He was Mentioned-in-Despatches in the First Gulf War (1990-91).

Sawsan Abdul Salam Majali

Secretary General, Jordanian Higher Population Council

Dr. Sawsan Majali earned her BSc in nursing from the University of Jordan in 1981, MS in nursing from the Catholic University of America in 1984, and PhD in nursing from University of Michigan in 1991. After completing her PhD, Dr. Majali joined UJ's Faculty of Nursing for 11 years (1991-2002) as an assistant and associate professor, during which she became a member of the Global Advisory Group on Nursing and Midwifery to the General Director of WHO, and a member of the Nursing and Midwifery Advisory Group for WHO Regional Office for the Eastern Mediterranean (EMRO). She was also Director of UJ's Community Service Office. In 2002 Dr. Majali became the Nursing Program Director at Dar Al Hekma College, in collaboration with King Faisal Specialist Hospital (KFSH), in Saudi Arabia where she remained till 2010. During her tenure there she finalized the nursing curriculum document, developed the Accelerated Nursing and Bridging Program for nursing diploma graduates, and established the one-year internship program for nursing graduates. She also became Acting Vice-Dean of Student Affairs. Dr. Majali returned to Jordan in 2010 where she became Director of Queen Zein Al Sharaf Institute for Development (ZENID), and Deputy Executive Director of the Jordan Hashemite Fund for Human Development (JOHUD) for Planning, where she established the early childhood and disability program, and supervised the Oxfam Regional Project for Women Economic Empowerment at ZENID. She assumed assuming the position of the Secretary General of the Higher Population Council in 2013.

John Wyn Owen

Senior Global Health Advisor, InterAction Council (U.K)

Professor John Wyn Owen's career has spanned public, private and charity sectors in the U.K. and internationally, including National Health Service (NHS); the Civil Service as first Director of NHS Cymru Wales; Director General NSW Health State Government New South Wales and Chair Australian Health Ministers Advisory Council; Director United Medical Enterprises a U.K. Government established company providing health services development globally for governments, aid agencies, the World Bank and WHO; prior to retirement, Secretary of the Nuffield Trust directing its programmes including global health, security and foreign policy. Previously a Member of the Hong Kong Chief Executive's SARS Expert Committee at the time of the outbreak and which reported in 2003 "SARS in Hong Kong: From experience to action"; Until 2013, Wales member on the Board of the Health Protection Agency

John Polanyi

Faculty Member and Nobel Laureate, Department of Chemistry, University of Toronto; Founding Chairman, Canadian Pugwash Group (Canada)

Prof. the Hon. John Polanyi is a faculty member and Nobel laureate in the Chemistry Department of the University of Toronto, where his research group studies the molecular motions in chemical reactions. He

is a Member of the Queen's Privy Council for Canada, a Fellow of the Royal Society of Canada, and of the Royal Societies of London and of Edinburgh, a Fellow of the American Academy of Arts and Letters, and of the U.S. National Academy of Sciences, and a Fellow of the Pontifical Academy of Rome, the Russian Academy of Sciences and the Indian Academy of Science. He has served on the Prime Minister of Canada's Advisory Board on Science and Technology. Founding Chairman of the Canadian Pugwash Group, he has written widely on science policy and the control of armaments.

Bob Sandford

EPCOR Chair of the Canadian Partnership Initiative in support of the U.N. Water for Life Decade (Canada)

Member of the Advisory Committee, Rosenberg International Forum on Water Policy; Director, Western Watersheds Climate Research Collaborative; Associate, Centre for Hydrology, University of Saskatchewan; Fellow, Biogeoscience Institute, University of Calgary; Member of the Advisory Board of Living Lakes Canada, the Canadian chapter of Living Lakes International; Co-chair, Forum for Leadership on Water (FLOW); Member of the Advisory Panel, RBC Blue Water Project; Appointed in 2011 as senior advisor on water issues to the InterAction Council.

Moneef Zou'bi

Director-General, Islamic World Academy of Sciences (Jordan)

Born in Amman, Jordan. Undergraduate and postgraduate degrees in Civil Engineering Technology and Management, Brighton and Loughborough Universities, United Kingdom 1980-87; Worked at various consulting firms in the United Kingdom; Further postgraduate work, Department of Science and Technology Studies, University of Malaya; Joined Islamic World Academy of Sciences (IAS) (an international NGO based in Jordan) in 1990, embarking on a career in international scientific and technological collaboration involving more than 50 countries; became Director-General of IAS 1998. Over the course of the last two decades, he has been involved in scientific missions in more than 25 countries. For some time, he was consultant for the Islamic Development Bank (IDB) in Jeddah (Saudi Arabia) on Information Technology policies and strategies, as well as a consultant for the UNESCO. He has headed over 20 different scientific missions in as many countries, and has been involved in most of the science and technology activities undertaken by the relevant international organisations over the last decade. Moneef Zou'bi has written extensively on science and technology, education, as well as on water issues from a Middle Eastern context, and has given lectures on such topics in over 25 countries. He has been the editor of a number of specialised publications and journals and has published over 50 papers on science and technology issues, water, and edited and co-edited 10 books on topics such higher education, the environment as well transformational technologies. In 2010, he co-authored the ground-breaking Arab States Chapter of the 2010 UNESCO Science Report.



Established in 1983

8-9 March 2016 Baku, Azerbaijan

STEPPING BACK FROM THE BRINK: IN THE FACE OF A NEW ARMS RACE

by

John Polanyi

Faculty Member and Nobel Laureate, Department of Chemistry, University of Toronto Founding Chairman, Canadian Pugwash Group The nuclear powers believe that by threatening opponents with obliteration they are keeping the peace. What they don't acknowledge is that in order to make their threats credible they are being forced to make them real, approaching ever closer to the nuclear brink. This will end in disaster unless we make a determined effort to draw back.

Presently 95 per cent of the world's 16,000 nuclear weapons belong to the United States and Russia, so their restraint is vital. That is why the 2010 'New START' arms control agreement, restricting their deployed nuclear warheads, was important. But arms control has almost ground to a halt.

The exception was the agreement to delay Iran's nuclear weapons program; a major achievement in stemming 'horizontal' proliferation among nuclear aspirants. But that does nothing to halt the 'vertical' proliferation within the nine existing nuclear-weapons states.

These nine are engaged in nuclear 'modernisation', a euphemism for re-arming. The element of restraint is being lost. For the U.S., modernisation carries a price tag of a trillion dollars. Russia's plans, though less transparent, are as extravagant.

Both the U.S. and Russia propose to perpetuate the 'triad' of land, sea and air-based strategic weapons. At the same time both regard their present level of weapons as inadequate.

The U.S. claims that their air force could be unable to penetrate Russian defences. It is arguing for a thousand new dual-capability conventional/nuclear) cruise missiles. This is arms racing, made worse by its blurring of the nuclear threshold.

Meanwhile, Russia fears that its strategic nuclear forces are vulnerable to a first strike by the U.S. Its weakened retaliation could then be negated by U.S. anti-missile defences.

These exaggerated fears could be addressed by reciprocal arms control. Instead, additional nuclear weapons are planned. These include U.S. and Russian 'tactical' weapons, ready for nuclear war-fighting. In war their availability would invite nuclear escalation.

Additionally, Russia has plans for a six-thousand-mile-range nuclear-armed H-bomb-torpedo, seeded with radioactive material so as to make its target, the east coast of the U.S., uninhabitable. This lunatic device would be new.

The U.S., Russia and China are developing conventional and nuclear-armed Hypersonic Glide Vehicles that skim the earth's atmosphere at supersonic speeds. Their attraction is speed and stealth -- precisely what the world does not need.

This is an incomplete catalogue. Cyber-weapons pose a threat to command and control everywhere. Particularly vulnerable will be autonomous weapons, under computer but not human control.

To all but the blindest devotees of deterrence, this emerging world is more dangerous. Miscalculation remains the greatest menace. Our survival has owed much to luck. However, we cannot continue to play nuclear roulette.

We must seek disarmament, but cannot wait for it. We need to address the most imminent threat, the sensitivity of the nuclear trigger.

From earlier times when their weapons were vulnerable, the super-powers have inherited a commitment to hazardous 'Launch On Warning'. Hundreds of nuclear weapons are kept in readiness for firing. Frequent military exercises ensure this readiness is real. All this in the face of a long history of false alarms.

The justification is that warning times are measured in minutes. This includes the time available to check the information, communicate it, and effect a considered response.

It is sobering that in a world in which so many have been recently freed from tyranny, a single individual can be called on at a moment's notice to command the deaths of millions.

It is urgent that we increase the time for reflection. This 'de-alerting' of nuclear weaponry is the subject of a recent study by the "Global Zero Commission on Nuclear Risk Reduction" -- a committee of generals, admirals and defence ministers, from all nuclear weapons countries except North Korea.

These people are realists. They propose a step-by-step approach to de-alerting, over a decade. Warheads would be separated from their delivery systems, so as to introduces delays of days, rather than minutes, before firing.

But first there must be a desire for it. In the matter of climate change reason has altered thinking. The imperative to step back from the nuclear brink is every bit as great. China has long kept its nuclear warheads separated from its missiles, but is signalling it may join the U.S. and Russia in placing them on high alert. Other nuclear powers will follow.

It is late, but not yet too late, to turn in a more hopeful direction.



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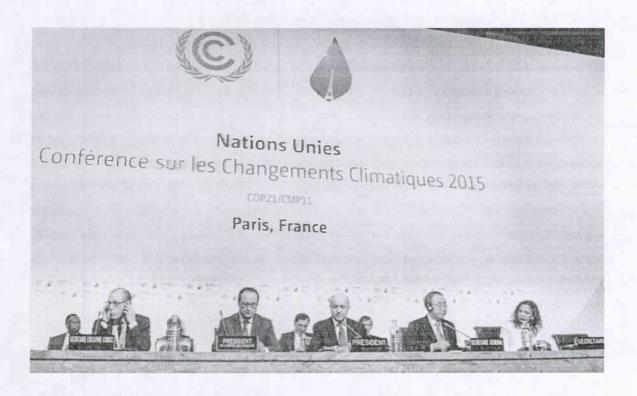
8-9 March 2016 Baku, Azerbaijan

TRANSFORMING OUR WORLD: WATER & CLIMATE SECURITY FOR ALL

by

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Water in the World We Want

There is not enough water to support our constantly growing numbers and to sustain all the uses to which we want to put this precious resource. In addition to matters of availability and quality we now recognize that the world will soon be redefined by changing precipitation patterns associated with an increase in the mean temperature of our planet's atmosphere. There are going to be winners and losers – places that will remain habitable and places that will not. The geography of human presence on the planet is about to change. Change in that geography is unlikely to occur without conflict. While there are precedents to suggest that outright warfare specifically over water can be avoided, solving the problem of inequitable water supply and reducing the tensions persistent water shortages create will not be easy nor will it be cheap.

Among the many reports published by the UN in the lead-up to the Paris climate conference in 2015, was one published by the United Nations University Institute for Water, Environment and Health which warned that without large new water-related investments many societies worldwide will soon confront rising desperation and conflicts over life's most essential resource. Presenting their report which was entitled Water in the World We Want: Catalysing National Water-Related Sustainable Development, at UN Headquarters in New York, officials of UN University and the UN Office for Sustainable Development officials said

unmet water goals threaten many regions of the world and form a barrier to key universally-shared ambitions including stable political systems, greater wealth, and better health for all.

The Water in the World We Want report argued that continued stalling, coupled with population growth, economic instability, disrupted climate patterns and other variables, could reverse hard-earned development gains and preclude meaningful levels of development that can be sustained into the future. The report underlined that all current water management challenges will be compounded one way or another by hydro-climatic change, and by increasingly unpredictable weather. The report noted that historical predictability, known as relative hydrological stationarity provided the certainty needed to build houses to withstand winds of a certain speed, snow of a certain weight, and rainfalls of certain intensity and duration, when to plant crops, and to what size to build storm sewers. Because of warming generated by changes in the composition of the Earth's atmosphere, however, the relative stability of the global hydrological cycle has been lost. The consequence is that the management of water in all its forms in the future will involve a great deal more uncertainty than it has its the past.

In a more or less stable hydro-climatic regime, the report observed, you are playing poker with a deck that you know and can bet on risk accordingly. The loss of stationarity is playing poker with a deck in which new cards you have never seen before keep appearing more and more often, ultimately disrupting your hand to such an extent that the game no longer has coherence or meaning. People, unfortunately, do not have the luxury of living without water and when faced with a life or dirath decision, people tend to do whatever they must to survive. Changes in fundamental hydrology, the report noted, are likely to cause new kinds of conflict, and it can be expected that both water scarcity and flooding will become major transboundary water issues."

The report noted that within 10 years, researchers predict 48 countries — 25 per cent of all nations on Earth with an expected combined population of 2.9 billion — will be classified "water-scarce" (1,000 to 1,700 cubic metres of water per capita per year) or "water-stressed" (1,000 cubic metres or less). By 2030, overall global demand for freshwater could exceed supply by 40 per cent, with the most acute problems in warmer, low-resource nations with young, fast-growing populations, according to the report.

An estimated 25 per cent of the world's major river basins run dry for part of each year, the report noted, and new conflicts are likely to emerge as more of the world's rivers become

further heavily abstracted so that they no longer make it to the sea. Meanwhile, the magnitude of floods in Pakistan and Australia in 2010, and on the Great Plains of North America in 2011 and 2014, "suggests that the destruction of upstream flood protection and the failure to provide adequate downstream flood warning will enter into global conflict formulae in the future." The report cited the rising cost of world flood-related damages: US\$53 billion in 2013 and more than US\$312 billion since 2004.

Published in the run-up to the UN Member State adoption of universal post-2015 Sustainable Development Goals, the report provided an in-depth analysis of 10 countries to show how ensuring reliable water supply and providing universal sanitation services offers a rapid, cost effective way to achieve sustainable development. The countries included in the study cover the full range of economic and development spectrum: Bangladesh, Bolivia, Canada, Indonesia, Republic of Korea, Pakistan, Singapore, Uganda, Vietnam, and Zambia. Based on the national case studies, the report prescribes country level steps for achieving the global water targets.

The report also noted that the success of global efforts to achieve sustainable development goals with respect to water on the scale required rests in large part on a crackdown on widespread corruption in the water sector, particularly in developing countries. The report noted that in many places corruption is resulting in the hemorrhaging of precious financial resources, siphoning an estimated 30 per cent of funds earmarked for water and sanitation-related improvements.

The report underscored the need for clearly defined anti-corruption protocols enforced with harsh penalties. Given accelerating Earth system changes and the growing threat of hydroclimatic disruption, corruption adding to the cost water-related improvements threatens the stability and very existence of some nation states, affecting everyone. The report went so far as to claim that corruption at any level is not just a criminal act in its own right. In the context of sustainable development corruption could be viewed as a crime against all of humanity.

The Water in the World We Want report also noted that the world's water and wastewater infrastructure maintenance and replacement deficit is building at a rate of \$200 million per year, with \$1 trillion now required in the USA alone. To finance its recommendations, the report says that in addition to plugging the leakage of funds to corruption, US\$1.9 trillion in subsidies to petroleum, coal and gas industries should be redirected by degrees. The estimated global cost to achieve post-2015 sustainable development goals in water and sanitation

development, maintenance and replacement is US\$1.25 trillion to \$2.25 trillion per year for 20 years, a doubling or tripling of current spending translating into 1.8 to 2.5 per cent of global GDP. The resulting benefits would be commensurately large, however — a minimum of US\$3.11 trillium per year, not counting health care savings and valuable ecosystem service enhancements.

The report recommended that national governments must make sustainable advancements in water, wastewater, and sanitation management, supported by a dedicated and independent arm's length water agency, a high level policy priority. The report also observed that decisions for managing water at all scales must be evidence informed, accounting for the multiple roles, uses, and demands on water and disposal of human waste and wastewater, as well as the way in which the distribution of water resources is changing, and expected to continue to change over time and space.

Governments and all economic sectors, the report clearly stated, must eradicate corruption through the establishment and implementation of clear and defined anti-corruption protocols, with meaningful consequences when the protocols are breached.

Capacity development must be nested within, and form a pillar of institutional reform at all scales within a country, with an emphasis on transferable skills that can be used for sustainable development across all areas and goals. The report also recommended that governments, supported by relevant stakeholders, must commit to timely and transparent monitoring and reporting on sustainable development indicators to monitor progress and hold the global community mutually accountable. There must also be a national commitment to universal access to water and sanitation, linked to waste treatment and management, delivered through nationally coordinated and monitored multi-stakeholder response. The report also noted that the world can no longer ignore the water nature needs for planetary bio-diversity based Earth system function and charged national governments with committing to ensuring continued viability and level of provisioning and regulating natural ecosystem functions.

The report recommended that national water governance and management include a requirement to balance supply and demand at the at the sub-basin level for sustainability and disaster risk reduction, while recognizing and protecting downstream users. Common disaster risk reduction targets the report noted need to be formally incorporated into post-

2015 water- and sanitation-related sustainable development goals. These targets must permit the tailoring of actions to national realities.

The report argued that agriculture sector must be held more accountable for water use efficiencies and other system efficiencies which limit water demand while maintaining or increasing productivity, ensuring that women and small scale farm-holders are provided with the knowledge and technology to be able to play their part, thereby increasing income above poverty thresholds. The energy sector must also be held accountable for water efficiencies in energy and a transition to clean energy, including hydropower, which does not compromise water quality, environmental integrity, community access, or disaster mitigation.

The report was also very clear about the importance of involving the private sector in the global effort to achieve sustainable development goals with respect to water. Water-dependent companies have a key role to play, the report noted, in financing and implementing sound water, sanitation and wastewater management strategies and must step up to the plate or risk significant losses. This is no longer simply corporate social responsibility but sound economic strategy. National governments, multi-national corporations, and international institutions must work together to identify and implement strategies to equitably free up available existing resources.

Current expenditures must be more efficient, freeing up and increasing returns on existing resources through integration of inter- and intra-sectoral activities that take advantage of economies of scope and scale. Subject to rigorous due diligence, national governments must identify, explore, and utilize new and emerging financial sources.

Dr. Zafar Adeel, Director of the United Nations University Institute of Water, Environment and Health and Jong Soo Yoon, Head of the UN Office for Sustainable Development, stated that the report filled a critical gap in understanding the complexities associated with water resources and their management, but also provided substantive options that enabled the world to move forward with the global dialogue on the relationship to water and sustainability.

The 2030 UN Transforming Our World Sustainable Development Agenda

Such reports make it clear that it is not unreasonable to say that as a global society we face some very substantial and very complex immediate threats to the sustainable presence of the global social order as it exists today. But within these challenges resides opportunity. The

opportunity before us is humanity's big chance to get it right for future generations. In responding to the urgency and the opportunity of finally getting sustainable development right, the United Nations announced its long anticipated new framework for global action. Lastrached in New York in the September of 2015, the 2030 Transforming Our World agenda promises to be the most comprehensive and inclusive effort to positively change the world in all of human history. Many observers called it the most important thing humanity has ever done for itself and for our planet. It was heralded at the time of its release as nothing less than a charter for people and the planet for the 21st century. While it remains to be seen if it meets these high expectations, there is no question that the 2030 Transforming Our World agenda raises the ceiling on sustainability globally. While it did not receive the same attention in the media, the announcement of 2030 Transforming Our World agenda was at least as important as the later climate negotiations in Paris if only because it deals with damage we are doing to other elements of the Earth system that are exacerbating and being exacerbated by climate change. The Transforming Our World agenda recognizes that unless we address the problems that form the backdrop to the climate threat, it will not be possible to prevent runaway changes in Earth system function that could bring the conditions that make life possible on this planet as we know it today to an end.

The 2030 Transforming Our World agenda is constructed around five themest people, planet, prosperity, peace and partnership. It is also important to note that this agenda applies equally to the developed world as it does to developing nations. In this context we may wish to remind ourselves of what sustainable development is commonly held to mean. Sustainable development refers to development that meets the needs of the present without compromising the ability of future generations to meet theirs. More specifically, sustainable development recognizes that eradicating poverty in all its forms, combatting inequality within and among countries, preserving the planet, creating sustainable and inclusive economic growth, and fostering social stability are linked to each other and are inter-dependent. Our hope for achieving sustainable development globally resides in the balance between urgency, capacity and will to succeed as demonstrated by each and every UN Member State in making action possible through common but differentiated responsibility at the level of each nation state. It is at the national level that these goals must be met. The degree of our success will depend on governance, which in this context refers to the way in which authority is organized and executed in a society.

The 2030 Transforming Our World agenda not only demands far more focused national action within an enhanced framework of global cooperation and coordination, it also

underscores the urgency of such action. The agenda makes it clear that we will not be able to deal with the degree of hydro-climatic change we are now witnessing on a global scale unless we are able to translate the 2030 sustainable development agenda to action at the national level. In other words we won't achieve the goal of sustainable human existence at any meaningful level of prosperity unless we all take common global goals seriously and implement meaningful and measurable actions at the national level in every country in the world, now. This means there can be no laggards particularly in the developed world. It also means that the world cannot afford to leave anyone behind.

So the question becomes one of how any given country goes about integrating sustainable development goals into its national development strategies. This will be particularly difficult in developing countries where the national government has limited means to act. It may be just as difficult, however, in developed countries where national governments have little interest in such strategies or choose to simply devolve responsibility for sustainability without attendant resources to sub-states or provinces which in turn devolve responsibility to cities, towns and rural districts. The 2030 Transforming Our World agenda holds that the manner in which we effect the translation from global threat to national action has to be seen as an urgent immediate priority for everyone fortunate enough to be able to be in a position to give meaningful consideration to the future viability of their nation and the communities within their nation in which they live.

One of the ways to re-energize the conversation about sustainable development and humanity's need for resilience in the face of rapid change is to talk about something none of us can live without: water. Of the nine critical Earth system boundaries that we dare not cross, water plays a significant role in seven. There are 17 goals in the 2030 Transforming Our World sustainable development agenda. While important in its own right, water plays a role in 13 of the other 16 goals including ending poverty and hunger; creating healthy lives; gender equity; energy security; promoting economic growth; resilient infrastructure, sustainable cities and economies; and taking action on climate change. Goal 6, however, pertains specifically to water.

The global goal with respect to water is to achieve universal and equitable access to safe and affordable water and sanitation for all. The goal also aims to improve water quality by reducing pollution, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. The *Transforming Our World* agenda also seeks

to protect and restowe water-related ecosystems in part by implementing integrated water resource management at all levels including transboundary basins by 2030.

The world learned from the earlier Millennium Development Goals that we need to better address the multiple roles water plays in establishing, maintaining and improving the human condition. We need to take advantage of the synergies that exist between effective water management and benefits that accrue not only directly to human health and well-being but also to the environment and the economy.

We are very good at evaluating the state of water resource use, determining ecosystem health and evaluating potential climate impacts but we are less capable of changing our practices once we have characterized those parameters. Broader nexus thinking is critical in part because normal professional thinking is narrowly focused within economic sectors. This thinking is reinforced within institutional silos that arbitrarily separate needs and habits of utilization. Creating a systems approach to managing water has to be seen as synonymous with sustainability and resilience.

The 2030 Transforming Our World agenda focusess considerable attention on the not insignificant matters of cities. Some 92 per cent of the population growth that has brought the last 1.2 billion into the world has occurred in cities. Some 60 per cent of the urban space required to accommodate future populations has yet to be built. Sustainable development goal 11 aims to make the world's cities and harman settlements inclusive, resilient and sustainable.

If we are to live sustainably on this planet, cities must commit to achieving the goals of the 2030 Transforming Our World agenda. This means that resilience has to be seen as a child of sustainable development. While the Transforming Our World agenda does not provide enough guidance to help any given city in terms of specific pathways to resilience, it does provide clear recognition of the critical importance of cities with respect to the goal of creating a sustainable civilization. While cities can certainly act in any manner consistent with their own local needs and vision with respect to resilience what they do must contribute to the global sustainability effort. Sustainable development in cities means adequate, safe and affordable housing and basic services for all as well as safe, affordable transportation systems. It also means strengthening and safeguarding cultural diversity.

The Transforming Our World target of providing universal access to safe, inclusive and accessible green and public spaces is consistent with all efforts to improve resilience especially in cities vulnerable to heat island effects.

Rising levels of urban heat are now seen to constitute the single greatest climate-related threat to human health globally. Urban heat waves now account for more deaths per year globally than all other forms of extreme weather events. We don't have to wait for the future for this. It's happening now. The Transforming Our World vision is that by 2030 sustainable, resilient cities will significantly reduce the number of deaths and the economic and psychological effects caused by disasters including water-related catastrophes. The target is that as early as 2020 we will have substantially increased the number of cities and human settlements adopting and implementing plans to mitigate and adapt to climate change and to enhance resilience to disasters. The template for holistic disaster risk management at all levels is the United Nations supported Sendai Framework for Disaster Risk Reduction.

By 2030 we also want to reduce the adverse per capita impact of cities on surrounding regions. This target of course speaks directly to air quality, water contamination and other waste management issues. But the agenda does not stop there. Another global sustainable development target that has great relevance here is recognition of the need to support positive economic, social and environmental links between urban, peri-urban and rural areas through the strengthening of national and regional planning.

The 2030 Transforming Our World global sustainable development agenda makes it very clear however that sustainable development can no longer simply aim for environmentally neutral solutions. If we are to achieve any meaningful level of sustainable development all development has to not only be sustainable, but restorative. We can no longer simply aim to slow or stop damage to the Earth system, we have to thoughtfully restore declining Earth system function. A good first step would be to create a global business model that respects the real value of ecosystem services rather than simply creating a market for repairing the uncalculated and often incalculable damage we do to them as a matter of prescribed course. Nowhere is this truer than in agriculture.

As has been noted by many UN agencies and underscored at the United Nations Conference on Trade and Development in 2013, over the past 50 years farming has come to be controlled by the demands of machinery rather than the nature of agricultural lands. Universities, corporations and governments continue to almost unanimously support industrial

agriculture despite the now almost overwhelming evidence of it impacts. These impacts include soil erosion and salinization, aquifer depletion, and dependence of fossil fuels and toxic chemicals. The damage caused by industrial agricultural practices also includes its polluting effect on streams, rivers and lakes; the loss of genetic and biological diversity it causes and the destruction of rural communicies and cultures of animal husbandry that follow in its wake. We now realize that, in addition to these problems, climate change has the potential to irreversibly damage the fundamental resource base upon which agriculture depends, with grave consequences for food security globally.

What we need is another agricultural revolution. We need to focus on critical interdependencies especially as they relate to water, food and energy. Reliable, secure access to water is a necessary condition for food security. One of the *Transforming Our World* goals pertaining to ending hunger that relates directly to the food-growing regions of the world is to implement agricultural practices that increase productivity and production while at the same time help maintain ecosystems, strengthen capacity for adaptation to chimate change and reduce the impacts of extreme weather, drought, flooding, and other disasters that progressively diminish land and soil health. The goal is to do this by 2030.

By 2030, we also have to halve per capita global food waste at the retail and consumer level and reduce food losses along production and supply chains, including post-harvest losses.

By 2030, the world also needs to achieve sustainability with respect to management and efficient use of natural resources. We have to figure out how to manage chemicals and wastes throughout their life cycles.

We have to substantially reduce waste generation. People everywhere have to have the relevant information and awareness of what they can do in terms of their own lifestyles to help themselves and their communities achieve sustainability. We have to make the transition from seeing waste as waste to seeing waste as wealth. If we don't want these kinds of problems to get away on us we have 15 years to do this.

Regrettably, the fact that is emerging is that nothing we do will be sustainable unless we address the climate threat. If we are to have any hope of achieve a meaningful level of sustainability globally, we have no choice but to combat climate disruption and its impacts. We can protect ourselves from climate impacts by improving public education, enhanced awareness of the issues as they develop and increased institutional capacity directed at

mitigation, adaptation, impact reduction, and early warning. To achieve that end every country in the world has to integrate climate change into its national policies, strategies and planning processes. We could start down that road by rationalizing inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions.

It is important to be very clear on this point: climate impacts will affect the development trajectory of all nations, rich and poor. In fact there is a proven link between climate disruption and de-development. While the link between recurring extreme weather events and challenges of maintaining critical physical and social infrastructure in developing countries has been noted by organizations like the United Nations and the World Bank, the extent to which climate disruption has begun not to just slow, but reverse economic development was not recognized as a global economic threat until 2016. In January of that year, the World Economic Forum held in Davos, Switzerland released its annual Global Risks Report. As part of that survey nearly 750 experts assessed 29 separate global risks for both impact and likelihood over a 10-year time horizon. The risk with the greatest potential impact in 2016 was found to be the failure of climate change mitigation and adaptation. It is important to note that this was the first time since the report has been published that an environmental risk had the top ranking. The failure to mitigate and adapt to climate change was now considered to have created greater potential risk of damage than weapons of mass destruction (2nd); a global water crisis (3rd); large-scale involuntary migration (4th) and the economic consequences of energy price shock (5th).

When the risks were ordered in terms of likelihood alone, the number one risk in 2016 was thought to be large-scale involuntary migration, followed by extreme weather events (2nd); failure of climate change mitigation and adaptation (3rd); interstate conflict with regional consequences (4th) and major natural catastrophes (5th). It was also noted that such a broad risk landscape was unprecedented in the history of the publication of the report. The authors also noted that this more diverse risk landscape came at a time when the toll from global risks appeared to be on the rise. The report went on to note that the global climate warmed enough in 2015 to raise the global average surface temperature to the milestone of 1°C above the pre-industrial era for first time in human history. The report also observed that according to the UN's Refugee Agency, the number of people around the world forcibly displaced in 2014 stood at 59.5 million, which is almost 50 per cent higher than the number of refugees on the move at the beginning of World War II in 1940. The report also noted that available data supported the likelihood of increasing risk annually in all 24 of the categories that the World Economic Forum had been measuring since 2014.

In addition to measuring their likelihood and potential impact, the World Economic Forum Global Risks Report 2016 also explored interconnections among risks. The report found that a very small number of risks accounted for interconnections than in 2015. The two risks that were most interconnected in 2016 were profound social instability and structural unemployment or under-employment, which accounted for 5 per cent of all interconnections. The report quoted Margareta Drzeniek-Hanouz, the Head of the Global Competitive Risks program at the World Economic Forum, who underscored the importance to leaders of understanding such connections as a means of prioritizing areas for action as well as planning for contingencies. "We know climate change is exacerbating other risks such as migration and security, but these are by no means the only interconnections that are rapidly evolving to impact societies, often in unpredictable ways," she said. "Mitigation measures against such risks are important, but adaptation is vital," she concluded.

The report noted that in terms of risk, it is becoming difficult to determine which panic button to press. Cecilia Reyes, the Chief Risk Officer of the massive Zurich Insurance Group, probably explained the circumstances as they stand in 2016 best at least in terms of impacts on global economic performance. "Climate change," she said, "is exacerbating more risks than ever in terms of water crises, food shortages, constrained economic growth, weaker societal cohesion and increased security risks. Meanwhile geopolitical instability is exposing businesses to cancelled projects, revoked licenses, interrupted production, damaged assets and restricted movement of funds across borders. These political conflicts are in turn making the challenge of climate change all the more insurmountable – reducing potential for political co-operation as well as diverting resources, innovation and time away from climate change resilience and prevention."

A haunting image of the extent and nature of contemporary risks was put forward at the 2016 World Economic Forum by the global insurance giant Munich Re. The image was a map of interconnections between various economic, environmental, geopolitical, societal, and technologic risks associated with the failure to effectively and meaningfully adapt to climate change. What the map illustrates was the cascading effect of the failure to adapt to hydroclimatic change. On a global scale failure leads first to greater vulnerability to extreme weather events; food crises; water crises; large-scale involuntary migration; further man-made environmental catastrophes which in turn lead to biodiversity loss and Earth system collapse.

This wasn't speculation; it is already happening. The terrible violence rocking Syria and the spill over effects in Europe in 2015 did not start as a war; it started as a five-year drought that contributed to sparking a war. What we haven't understood until now is the extent to which the fundamental stability of our political structures and global economy are predicated on relative hydrologic predictability. As a result of the loss of relative hydrologic stability, political stability, and the stability of our global economy in a number of regions in the world are now at risk. We are only now beginning to understand how complex this issue has become.

Even though it often sucks all the air out of the room, climate disruption is only one of the 19 global sustainability challenges that we need to address through the 2030 Transforming Our Water sustainable development agenda. We have to better protect our occans first from land-based activities including marine debris and nutrient pollution, protect and restore coastal ecosystems, regulate harvest, and end over-fishing; and halt perverse subsidies and destructive fishing practices. There is urgency in this. If we don't minimize and reverse the impacts of ocean acidification by 2030, we will lose one of humanity's most important sources of food and livelihood.

To achieve these goals we must increase scientific knowledge, further develop research capacity and stimulate faster transfer of marine knowledge and technology.

The UN has also set 2030 as the goal for combatting desertification, restoring degraded land and soil, halting the degradation of natural habitats; minimizing the impacts of invasive species, and halting the loss of natural biodiversity with the aim of ensuring that sustainable development remains possible in the future.

We cannot achieve these goals without making the world a safer place. In order that sustainable development is not slowed or reversed we have to significantly reduce all forms of violence and related deaths everywhere. We must, all of us, promote the rule of law at all levels; and reduce corruption and bribery in all their forms.

Our sustainability also depends of reducing illicit financial and arms flows, and combatting all forms of organized crime. We must demand responsible, inclusive, transparent, participatory and representative decision-making wherever we live.

Looking at this long list of goals it becomes very clear that fulfilling the *Transforming Our World* agenda will require that we find new ways to pay for what we need to do. We will need to re-prioritize domestic and public funding, domestic and international business finance, and international development cooperation to find that kind of money. Subject to rigorous due diligence, national governments must identify, explore, and utilise new and emerging financial sources. It will be critical to encourage and promote effective, public, public-private and civil society partnerships in efforts to develop new kinds of financing and resourcing strategies.

All 17 of the sustainable development goals and all 169 of the targets in the 2030 Transforming Our World agenda are held to be universal, indivisible, and interlinked and as such should all be regarded as having equal importance and be accorded equal priority with respect to implementation. While the agenda respects each country's policy space, it is recognized that national development efforts need to be supported by an enabling international economic environment. That environment must include coherent and mutually supportive world trade, monetary and financial systems and strengthened and enhanced global economic governance.

The very real specter of unanticipated new issues emerging between now and 2030 is virtually a given. We will need to expand the data available upon which to make sustainable development decisions to include broader satellite-based Earth system observations and geospatial information.

Implementation of the *Transforming Our World* agenda will be tracked to make sure no one is left behind. The goals and targets will be followed and reviewed using a set of global indicators that are scheduled to be put in place by March of 2016. All reviews of progress toward implementation of the agenda must be country-led and country-driven. They should be regular and inclusive, draw on observations and contributions by Indigenous peoples, civil society, the private sector, and other stakeholders. Ideally such reviews should provide a new platform for partnerships.

There is a lot to do. Is there economic opportunity in pursuing these goals and targets? Absolutely. If we want to have meaningful and prosperous lives in the coming decades, achieving these goals now must become a pillar of every economy nationally and globally.

Theoretically, all the elements required to create sustainability are included in the agenda. The great challenge and urgency is to make these goals and targets a priority at the national level.

To this end, all member states are encouraged to develop ambitious national responses to the implementation of the *Transforming Our World* agenda as soon as it is practicable. This does not by any means suggest starting over; what this means is building on and focusing existing planning instruments, sustainable development, and resilience enhancement strategies.

Why A Stable Climate is Critical to Sustainability

The more we focus on climate change the more the focus is on water and in particular water security. Water security used to mean having and being able to reliably provide adequate water of the right quality where and when you need it for all purposes, especially agriculture but also for purposes related to sustainable natural bio-diversity-based Earth system function. It also used to mean ensuring that your use and management of water in the region in which you live does not in any way negatively affect the water security of regions up or downstream from you, now or in the future. Water security still means all of these things; but changing circumstances now mean that there is an additional element of water security that must now be considered. Over the last decade water security has also come to mean being able to achieve these goals not just in the face of growing populations but also in the face of new circumstances created by the acceleration of the global hydrological cycle.

The era in which we live might be called the storm after the calm. After a period of relative hydro-climatic stability during which we created most of our built environment, step-like changes to our hydro-climatic circumstances are demanding that we redefine what development and sustainability mean not just nationally, but globally. This in turn demands that we reassess personal and collective vulnerability, accountability, and liability and adapt quickly to change circumstances if we want to sustain our prosperity in the face altered hydro-climatic conditions.

What such reassessment reveals is that water security, food security, and climate security are inseparable; one is implicit in the other. It could even be said they are the same thing. Water, food, and climate security are critical elements of sustainability. Without stable water and climate regimes, sustainability will forever remain a moving target.

Those who remain skeptical about whether or not climate change is real or who believe it isne't necessarily a bad thing are urged to consider other impacts we are collectively having on the Earth system, the effects of which are coming at us fast. We have physically altered the character of 60 per cent of the Earth's surface; we are on the way to wiping out as many as half of the rest of the life forms with which we share this planet that are big enough to see; we have changed the chemistry of the global ocean; accelerated the rate and manner in which water moves through the global water cycle; we have disturbed natural precipitation patterns; and now on top of all of this are changing our climate. This means that we have entered a new epoch in which we can no longer count on self-willed, self-regulated natural landscapes to absorb human impacts on Earth system function.

Whether we like it or not, we have to assume responsibility for staying within Earth systems boundaries. This means we have to re-think sustainability. Despite inherent tensions among them, the next iteration of global sustainable development goals and targets must create a safe operating space within Earth system and social boundaries. The 17 goals and 169 targets set in UN's 2030 Transforming Our World global sustainable development agenda aim to do just that; but just as the World Economic Forum's Global Risks Report demonstrated there are important interconnections between threats to global economic stability, there are interconnections between the goals of the 2030 Transforming Our World sustainable development agenda. While they all must be linked together, some sustainable development goals must be achieved before it will become possible to achieve others. Climate action is one of goals that if not achieved, will make it difficult if not impossible to achieve many of the others.

What elevates the issue of climate action to its current and growing importance is that we cannot achieve success in addressing the 16 other global sustainable development challenges, which include huge challenges such as eliminating poverty and hunger, unless we stabilize the composition of the Earth's atmosphere. To do that, we have to stop filling the sky with our unwanted greenhouse gas emissions.

The composition of the atmosphere is the lynchpin holding the ice-water-weather-climate system of the planet together. If we cannot stabilize the composition of the Earth's atmosphere, we cannot know to what end our sustainability efforts must aim because we will not know the conditions to which we will need to adapt.

Because of warming effect on the global hydrologic cycle, we have to stabilize the composition of the atmosphere or we will not be able to achieve the goal of providing clean water and sanitation for all.

Without stabilizing the composition of the Earth's atmosphere, we will no longer be able to reliably predict where our food will come from. What happened in California recently and in Syria between 2006 and 2011 is beginning to happen more widely and will continue to do so for the foreseeable future, threatening food security everywhere. But we don't just grow food on land; without stabilizing the composition of the Earth's atmosphere we cannot reverse the acidification that is threatening ocean food webs. What we learn from this is that we cannot have food security without climate security, and without food and climate security there cannot be peace and justice for all.

But there is more; our cities were designed for climatic circumstances that will soon no longer prevail. Without stabilizing the composition of our atmosphere, we will not know to what standards we need to redesign our cities in the face of ever more powerful storms, bigger floods, and longer heat waves. The complicated challenge of accurate prediction aside, we cannot know how much sea level rise we need to protect our cities against. Without stabilizing the composition of the atmosphere, urban resilience will remain a moving target constantly receding beyond our grasp.

Nor can we, without stabilizing the composition of the Earth's atmosphere, prevent desertification, halt ecosystem collapse, or slow the accelerating rate of extinction of the other creatures with which we share this planet.

It is now very clear that the relative climatic stability we have enjoyed over the past century or so will not return for centuries, if ever. Failure to realize this could cost us our prosperity. It could even cost some of us our lives.

It is clear also we need to define a safe place in terms of sustainability to which all of humanity must aim. In this quest knowledge is not enough; we need the will and the permission to solve global change problems. That is why COP 21 in Paris was so important. We need the will and the permission because, as the motivating theme of COP 21 made clear. "Later, it will be too late." So how did we do in Paris?

Separating the Hope from the Hype in Paris

Part One: The Hype

Perhaps it was British journalist George Monbiot who said it best. By comparison to what it could have been, what happened in Paris was a miracle. Compared to what it should have been, however, it was a disaster. As American climate change action advocate Bill McKibben pointed out we are no longer sitting around the table negotiating with other countries. We are dealing with fundamental atmospheric physics, and the physics holds all the best cards. It means that if temperatures on Earth rise 4°C to 5°C, significant areas of the planet are likely to become uninhabitable for at least parts of the year.

The Paris agreement continues to represent a linear approach to problem of leaving all of humanity vulnerable to unanticipated step-like changes in our climate-related circumstances. One does not have to read far into the agreement to realize we have wasted a generation in responding to the climate threat. There are many things in the Paris agreement that we should have done already such as meaningfully reducing greenhouse gas emissions, developing methodologies for assessing adaptation needs with a view to assisting developing countries; strengthening regional cooperation on adaptation; climate-proofing national and regional economies; and developing integrated approaches to averting, minimizing and addressing large-scale displacement of people as a consequence of climate disruption.

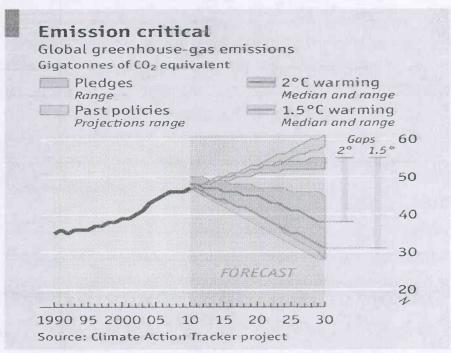
The Paris agreement allows for examination of the risks of damage and displacement but it does not allow attribution of blame, suggestions of liability, or recommendations of compensation. If you are an island state in the process of being submerged there is no one you can hold directly accountable.

Because it has taken us 20 years just to agree upon goals, pace has now been identified as everything. That said, the Paris agreement grants the world five more years not to set the pace as might be expected but just to set national emissions reductions targets. Prior to 2020, nothing is obligatory.

The degree to which this agreement is largely aspirational is obvious in that it calls for the establishment of a mechanism for tracking emissions at a national level but maintains that even these contributions to global reduction targets are still voluntary. The agreement "recognizes" the important role of providing incentives for emissions reduction activities including tools such as domestic policies and carbon pricing; but that's all.

The agreement rightly suggests that governments cannot and should not be allowed address the climate threat by themselves and "welcomes" the involvement of the private sector, civil society, financial institutions, cities, and other sub-national to join the initiative. That the agreement did not say that it "expects" the participation of these entities or even "demands" participation of these entities in implementing solutions underscores its aspirational character.

Then there is the not insignificant issue of timeframes. The first global stocktaking of global implementation progress will not take place until 2023 – seven years from now. Even participation in mechanisms for establishing targets for greenhouse gas emissions reductions beyond 2023 into mid-century and longer is voluntary. In a very real sense, these conditions in themselves undermine the agreement from its very inception. In the five years Parties to the Convention have granted themselves to establish how much they will contribute to global emissions reductions we could very well blast past any real opportunity to limit mean warming to 1.5°C. The delay in action could even put the 2°C target out of reach. All self-congratulations aside it appears that once again all we have done is kick the can down the road. Cut the numbers any way you want but at the end of the Paris conference we still have less than a 50 per cent chance of avoiding runaway climate impacts.



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The agreement also has other shortcomings; there is no mention of direct human health risks. Aviation and shipping are not mentioned or included in this Paris agreement. Water security is not mentioned in the agreement even though effective management of water is the foundation of climate security.

The agreement focuses largely on technology and technological transfer while largely ignoring the improvement of ecosystem function in service of keeping the world from warming more than 1.5°C.

While the agreement recognizes the critical need to reduce emissions generated by deforestation and forest degradation, there is no reference beyond forestry management to ecosystem-based mitigation and adaptation strategies such as the enhancing of soil health as a means of increasing carbon sequestration. In this agreement, agriculture gets a "get out of jail free" card.

Nor is it clear where the money is going to come from to finance even what has been proposed in terms of climate action. Though much is made in the agreement about transparency, it allows developing countries to weasel out of transparency reporting by making such reporting at the level of in-country reviews optional.

The agreement relies on transparent, non-adversarial, non-punitive compliance. It is also an agreement that is easy to get out of. At any time after three years from the date on which the agreement comes into force for a signatory, that signatory can withdraw from the process by simply giving written notification of the intent to do so. The withdrawal will take effect one year after the filing of notification.

There is also some question as to whether this agreement can withstand outside disruptions such as large-scale terrorism events and cyclic economic collapses neither economists nor politicians appear to be able to predict or control. Because it is non-binding, the agreement is also highly vulnerable to political manipulation. The question then becomes whether it can survive political turmoil or the election of radically different new governments. How, for example, would the agreement fare if Donald Trump were elected President of the United States?

The biggest failing of the Paris agreement, however, may reside in the fact that it offers only a long list of urgings, invitations, and encouragements to signatories to act now and in the

future. But there is nothing to force the signatories to do so. At this time the agreement merely "urges" parties to make voluntary contributions to the timely implementation of the process to which they agreed. We are still working on reaching the peak of greenhouse gas emissions with the promise that once we have done so we will start cutting them. In this knowledge, it is hard to be hopeful. But there is hope.

Part Two: The Hope

The real miracle in Paris is that for a moment at least we got 193 nations – rich and poor – to agree to something however limited at the same time. That is an achievement in itself. Whether everyone will continue to agree once the delegations return home and are worked over by the divided political constituencies remains to be seen.

No, it's not perfect – in fact it is far from perfect – but now at least we have something to build on – something concrete we can work together toward that didn't exist until COP 21. This is a beginning, not an end.

The first thing that is really important about the Paris agreement is that it nests climate action within the larger context of the UN's 2030 Transforming Our World global sustainable development agenda as well as other important UN conventions.

It has been said often that addressing the global climate threat will require nothing less than the kind of vision, concentration of finances, resources, intelligence, and purpose that permitted the United States to put a man on the moon in 1969. In nesting the climate challenge within the expanded global dialogue concerning the sustainability of human presence on this planet, this agreement recognizes that what we have arrived at is the need for multiple moon-shots in each of the 17 areas critical to sustainability and that we have to urgently embark upon all simultaneously.

Within this context, the agreement clearly recognizes that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires the widest possible cooperation by all countries, and their participation in an effective and appropriate international response, with a view to accelerating the reduction of greenhouse gas emissions.

It also recognizes that deep reductions in global emissions will be required in order to achieve the ultimate objectives of avoiding dangerous anthropogenic warming.

The agreement importantly recognizes the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge. The agreement makes it very clear that the global effort must be to hold the increase of global average to well below 2°C and to limit the increase to 1.5°C, if possible.

In establishing the 1.5°C target, the agreement recognizes the specific needs and special circumstances of developing countries and countries particularly vulnerable to harmful climate effects. The agreement also conversely recognizes that many nations may be affected not only climate change but also by the impacts of measures taken in response to it. The agreement also clearly recognizes the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse effects of climate change.

While acknowledging that climate change is a common concern to all of humankind, the agreement also makes it clear that actions taken to minimize its effects must be respectful of human rights, the right to health and the rights of indigenous peoples as well as gender equality and intergenerational equity.

Within these parameters, the agreement calls for the setting and achieving of economy-wide absolute emission reduction targets at the national level.

Parties to the agreement have to formally submit their targets for greenhouse gas emissions reductions no later than by 2020 and resubmit revised targets every five years thereafter.

Signatories to the agreement are bound in such submissions to clearly and transparently include common baseline references such as the year to which emissions reductions must be compared; methods utilized in estimating and accounting for anthropogenic emissions; assumptions and methodological approaches in arriving at targets; timelines for implementation; and explanation of how their reductions of emissions contribute to the objective of strengthening the overall global response to the climate change threat.

The common methodologies for accounting will be established by the Intergovernmental Panel on Climate Change and will require that parties do not double count or arbitrarily fail to include carbon sinks or sources.

Article 5 of the agreement recognizes the importance of preserving and enhancing carbon sinks and provides clear marching orders in this regard for forestry management. The agreement encourages signatories to take action to implement and support policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and enhancing the role of conservation and enhancement of forest carbon storage in support of sustainable forest management.

The agreement also makes it clear that adaptation is urgently required. The agreement calls upon signatories of the agreement to ensure that education, training, increased public awareness, participation, and improved access to information are adequately considered at the national level in capacity-building associated with strengthening the global response to the climate threat.

As noted above, the agreement also acknowledges that governments can't do all of this alone. The achievement of any meaningful level of climate security will require the coordinated action of all official Parties as well as non-party stakeholders including civil society, the private sector, financial institutions, cities and other subnational jurisdictions, local communities, and indigenous peoples.

Though still non-binding, Article 7 on Adaption, which calls for formalizing and implementing national adaptation strategies, is very strong. This article makes it clear that adaptation action should follow a country-driven, gender-responsive, participatory, and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on the best available science and, as appropriate, traditional knowledge.

It also calls for sharing of information, good practices and lessons learned and the further strengthening of scientific knowledge on climate, including research, systematic observation of the climate system and the development of early warning systems that will inform and support decision-making.

Article 8 establishes the role of the UN's 2030 *Transforming Our World* sustainable development goals in averting, minimizing, and addressing loss and damage from extreme weather events.

The agreement also welcomes the role of non-state actors in advancing climate action and invites them to register their actions in what is called the Non-State Actor Zone for Climate Action platform.

What happened in Paris should be of particular interest to the private sector. The agreement calls for the enhancement of linkages and creating synergies between mitigation, finance, technology transfer, and coordination of non-market approaches to sustainable development. This agreement is all about opportunity linked to hastening the transition to renewable energy.

The agreement also makes it very clear that climate security cannot be achieved without the cooperative engagement of the average citizen in tandem with the full support of the private sector. What was implied but not said in the agreement was that individuals and corporations with amassed wealth are going to have to put that wealth to work in service of the planetary good if they are to protect the sources of that wealth or have that wealth have the same meaning in a massively changed world.

But even the most optimistic interpretation of the Paris agreement has to be tempered by a realistic judgment of human nature. Though we are doing an ever better job of characterizing and depicting the damage we are doing to the biodiversity-based planetary life support system upon which we depend to make our civilization possible, we appear incapable, at the moment at least, of adequately slowing that damage. After decades of tough sledding with respect to advancing climate change mitigation and adaptation, we find ourselves starting all over again from only 100 metres further down the road to meaningful action. We can only hope that this time, the results will be different.

The first test of the durability of the Paris agreement will be to see if parties to the agreement actually ramp up their carbon reduction programs between now and 2020. The second test will be to see if the US\$100 billion climate fund is topped up by 2020. The final test is whether we will be able to keep our Paris promises and build on them beyond 2020.

"The climate conference in Paris," the French Ambassador to Canada Nicolas Chapuis said in Ottawa three weeks before the conference began "is an opportunity to put out the fire that is burning our house down." Flames were no longer seen to be shooting out of the roof at the close of the conference, but clearly the fire is still smouldering inside our house. Hope remains, however, that this fire can be extinguished.

In Mid-February of 2015, the World Bank launched a report about the cost of meeting the 2030 Transforming Our World Sustainable Development Goals 6.1 and 6.2 which respectively address targets linked to water and sanitation. The three major findings of the report were encouraging. The first major finding was that current levels of financing can cover the capital costs of achieving universal basic service for drinking water, sanitation, and hygiene by 2030, provided resources are targeted to the needs. The second major finding was capital investments required to achieve the water supply, sanitation, and hygiene related to targets 6.1 and 6.2 amount to about three times the current investment levels. Finally, the report observed that sustained universal coverage requires more than capital inflows: financial and institutional strengthening will be needed to ensure that capital investments translate into effective service delivery.

The Paris agreement is infinitely better than what we were left with after Copenhagen but despite fine words and high aspirations, when you separate the real hope from the hype what is missing is a binding common commitment to act. We are on the river of no return and urgently need clear action now to invest the Paris agreement with the substance it presently lacks. As with all of the UN's 2030 Transforming Our World sustainable development goals, that substance has to manifest itself at the national and sub-national level. It is at the national and subnational level globally that all hope of addressing the global climate threat presently resides. It is what happens now at the national and subnational level that will determine humanity's future on this planet.

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High-Level Expert Group Meeting

Chairman's Report on the High-Level Expert Group Meeting

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Chaired by His Excellency Bertie Ahern

> 15-16 February 2016 Newport, Wales

Last year in Wales at the InterAction Council's 32nd Annual Plenary Meeting, the Council addressed the threat of global pandemics. Diseases do not respect national borders: health security is a global concern that affects all people and all nations. Last year, the Council recommended that states must be better prepared for sudden disease outbreaks, that disease surveillance be increased, health systems strengthened, and responses improved through multilateral cooperation and adequate funding for the World Health Organisation (WHO).

Global health is a question involving security, foreign policy, economic, and development challenges. In short, global health security is a global public good requiring collective action. Continuing its commitment to seek multilateral solutions to imminent global issues the InterAction Council convened a High-Level Expert Group Meeting focusing on "New Realities for Global Health Security" chaired by Mr. Bertie Ahern at the Celtic Manor in Newport, Wales from 15-16 February 2016.

Challenges relating to Global Health Security

There are fifty emerging diseases all over the world, largely related to increased contact between humans and nature. The UN High-Level Panel on the Global Response to Health Crises noted in its recent report following the outbreak of Ebola that "future epidemics could far exceed the scale and devastation of the West Africa Ebola outbreak and the emergence of a highly pathogenic influenza virus, which could rapidly result in millions of deaths and cause major social, economic and political disruption, is not an unlikely scenario."

The probability of such outbreaks is increased by the effects of climate change (for example, affecting the distribution of mosquitoes responsible for the spread of the Zika virus); population increases; changes in food systems; and evolving land use. Increased travel can result in rapid spread of diseases. This occurred with SARS, which infected 8,096 individuals, killed 774 and cost the global economy an estimated US\$40 billion in 2002-2003.

The UN High-Level Panel noted further that: "the high risk of major health crises is widely underestimated...and the world's preparedness and capacity to respond is woefully insufficient." The response to each outbreak differs, but any response relies on a functioning health system, absent in the Ebola affected West African states and thus requiring an international response to bring the epidemic under control. The response also relies on each country implementing the International Health Regulations (IHR), an international treaty binding upon its states parties. Recent pandemics have shown that the IHR have not been fully implemented in many states. Low- and middle-income (LMI) states are lagging behind. In part, the reticence to the IHR is due to states not fully understanding the IHR, not having

the capacities to implement them or not finding the benefit in their implementation. There is also a belief amongst some that the IHR are primarily a device to protect high-income states from low- and middle-income states. This is a belief reinforced by many high-income states imposing travel restrictions during the Ebola outbreak in contravention of the IHRs whilst at the same time calling for the implementation of the IHRs by low- and middle-income states. There is thus a need to raise understanding for the importance for all countries to implement and to comply with the IHRs, and to connect implementation with incentives and the broader development agenda. Their full implementation is fundamentally a question about foreign policy, financial policy and ensuring public goods. Heads of state and government must understand the importance of the IHR and actors such as the World Bank should be supportive of IHR implementation.

The recent report "The Neglected Dimension of Global Security: A Framework to Counter Infectious Disease Crises" by the Academy of Medicine's Commission on a Global Health Risk Framework for the Future assessed the financial requirements for improved health security.

It assesses that there could be US\$60 billion per annum in expected losses from pandemics. Against this figure the Commission proposes an investment of US\$4.5 billion per annum to include US\$3.4 billion to upgrade national preparedness funds at the WHO and the World Bank. This is less than one dollar per person if compared to the world population.

The threat from infectious disease is further exacerbated by antimicrobial resistance; now identified in the UK and the US as a strategic risk to national security, with (if not successfully addressed) an estimated 10 million excess deaths by 2050 and costing the global economy US\$100 trillion. In the UK, the Chief Medical Officer has described antimicrobial resistance as a "big of a risk as terrorism." The risk arises from the overuse of antibiotics by humans and in farming. It can return civilization to the pre-antibiotic era when minor infections led to amputation or death, and will make hazardous now common operations such as joint replacements. This will affect everybody regardless of where they live, their health, economic circumstances, and lifestyle behaviours. It will affect sectors beyond human health, such as animal health, agriculture, food security, and economic development. Antimicrobial resistance is a danger of the utmost urgency and requires immediate global action by fully engaged governments, in particular by ministers responsible for agriculture and food. There are proposals to put antimicrobial resistance on the agenda of the UN General Assembly and even suggestions to work on a framework convention on antimicrobial resistance.

In January 2016, The Lancet reported on a 25-year study on the global burden of disease: revealing the large number of deaths due to preventable risks. An earlier study published in 1990 had found that malnutrition, unsafe water, and lack of proper sanitation were leading health risks. Today, these are on the verge of being replaced by dietary risks and high blood pressure leading to non-communicable diseases, such as diabetes and heart-disease, which account for nearly 70 per cent of global deaths and 86 per cent of premature deaths in developing countries. Non-communicable diseases have immense financial implications in developing countries. Most of these diseases are not attributable to genetic predisposition, but are rather triggered by the environment. Many of these diseases are attributed to behaviour or other clear risk factors such as the over consumption of alcohol, the use of tobacco, and lifestyle choices such as inactivity and poor diet. There are excellent examples in addressing these behavioural issues through fiscal means, for example by imposing sugar or alcohol taxes. For poor people consuming poor diets may not even be a choice, but a result of what is available to them in food stores and attainable to them financially. Foods high in fat, salt and sugar are cheaper than fresh fruits and vegetables. Perhaps this could be addressed with trade arrangements favouring fresh produce over processed food products.

Industrialisation, exposure to hazardous chemicals, and climate change significantly impact global health. Currently, air pollution kills around 7 million people annually (household air pollution kills around 4.3 million and outdoor air pollution kills 3.7 million, with overlaps), leaving women and children most exposed. The environmental effects on human health are most likely underestimated. Indeed, global environmental changes including climate change, biodiversity loss, and freshwater depletion threaten to reverse the gains in health that have occurred over recent decades.

Underpinning both defence against pandemic infectious diseases and the fight against the increase in non-communicable diseases is an effective health system. Global health security can only be addressed through a long-term commitment to strengthen health systems (including universal health coverage and public health as well as personal and collective health security) rather than designing disease-specific solutions case by case. For real impact on the ground, a broad approach is required. The Commonwealth Secretariat has addressed this by adopting a more comprehensive approach to building and strengthening health systems and building universal healthcare. It focuses on building holistic health systems under the umbrella of knowledge, advocacy, capacity, and governance. Importantly, the Commonwealth approach addresses health services: protection, disease prevention, and health promotion. New work by the WHO equally links health security to universal health coverage. This approach needs to include addressing the shortage of healthcare workers - for

example Sierra Leone, which was the most badly affected by Ebola, has only 0.1 doctors per 10,000 persons compared to 24 doctors per 10,000 persons in the US. The solution must include training increased numbers of healthcare workers, policies to encourage them to remain in their own countries and 'task shifting' – letting lesser qualified workers undertake, with appropriate training, tasks previously reserved to more highly qualified workers.

Health is key in the global Sustainable Development Goals (SDG), an unprecedented and ambitious agenda addressing the way all dimensions of life on this planet shape human life. The SDGs differ from the Millennium Development Goals in that the SDGs do not rely on aid, but rather require all states to take concrete measures towards achieving sustainable development. Goal three is to provide "Good Health and Well-Being" for populations. The SDGs are interrelated and interdependent and in addition to goal three many other SDGs have direct or indirect impact on global health: poverty, climate change, access to water, responsible production and consumption, and gender equality.

Health and Conflict

The Ebola outbreak in West Africa occurred in post-conflict states and highlights the need to address health systems during peace processes. However, it also highlights the need to maintain some form of a health system during conflict situations. Healthcare facilities, workers and patients have increasingly become targets for attacks. In the last few months, hospitals run by, for example, Médécins Sans Frontiéres in Yemen, Afghanistan and Syria have been attacked. Deliberate attacks on health facilities represent a flagrant violation of international humanitarian law (IHL). In accordance with IHL all those taking part in the fighting are obliged to protect medical facilities and personnel at all times. Means must be found to reinstate and uphold respect for these rules and enhance protection from accidental, deliberate or negligent attack, identify who is responsible for such attacks, and take action as required by IHL. This is reflected also in the UN Secretary General's report to the forthcoming Humanitarian Summit. Its Core Responsibility 2 states that "even wars have limits: leaders must recommit to upholding the rules that protect humanity."

Governance for Health

Global health governance is about how to use the world's assets more fairly and effectively to improve people's lives. Governance for health implies the impact on health of governance decisions across other sectors: social, economic, environmental, commerce, trade, finance advertising, culture, migration, and communication. Finding, and agreeing on, coherent policy across sectors and societies is one of the most prominent challenges for global health. This requires engagement with actors across the spectre of the international community as

well as on national and local levels. The problems at hand cannot be left to health departments alone. They must be supported by heads of state and government.

At the opening of the UN General Assembly last September, UN Secretary General Ban Kimoon asked, "Why is it easier to find the money to destroy people and planet than it is to protect them?" The current level of investment in countering the threats to human lives is inadequate. The challenges presented above are all plagued by a lack of sufficient willpower to place these issues in the heart of political agendas, to fund them adequately, and to hold non-compliant states accountable. These were identified as "gaps": a political gap, a financial gap, a gap in accountability, and a gap in response and implementation. The scientific community has had to conform to political realities as even a presentation of solid, scientific evidence does not necessarily lead to policy change. The InterAction Council is well posited to make recommendations on how to address these gaps and how to frame these questions in order to bring global health to the forefront of the international political agenda. For example, the InterAction Council should make recommendations to the G7 meeting in Japan, where global health security will be on the agenda and recommend Germany to include this to the agenda of the G20 meetings in 2017.

In Wales, there is an excellent example of addressing global health on a national and regional level based on a sustainable development principle. The *Well-being of Future Generations Act* in Wales was passed by the Welsh National Assembly in April 2015. It aims to improve the social, economic, environmental and cultural well being of Wales. Its seven goals include a prosperous, resilient, healthier, more equal and globally responsible Wales of cohesive communities and vibrant culture. It requires public bodies mentioned in the Act to prevent problems ahead and engage in long-term planning. The Wales plan is an early example of how the SDGs will be implemented and how to measure a nation's progress. The plan was welcomed by, for example, the UN stating that "what Wales is doing today we hope the world will be doing tomorrow." Using the Welsh project as an example, the IAC could consider how to promote the idea and make it a viable option in other regions, countries and communities. Good global health begins at home – and this type of governance for global health can be critical to ensure the health of populations.

The InterAction Council has already worked on human security, and noted last year that individual health security is inextricably linked to collective health security. It was suggested that global health is in fact connected to a broader perspective: that of planetary health, which is defined as "the health of human civilisation and the state of natural systems on which it depends." It's a concept that integrates human health and environmental sustainability. To

truly address all threats to global health, states and other actors must therefore address it as a question involving not only the health of people but also the state of the planet.

The High-level Expert Group meeting recommended that the InterAction Council consider the following recommendations:

- 1. Investing in Pandemic Preparedness
- States must invest in preparedness for pandemics and global health emergencies for their own benefit and the benefit of all.
- O States must build stronger national health systems, infrastructure, and processes built to a common standard set and regularly assessed, as envisaged by the IHR.
- o The WHO should establish a dedicated Centre for Health Emergency Preparedness and Response coordinated with the rest of the UN system, the World Bank and the IMF.
- O The reticence to implement the IHR must be addressed through multilateral dialogue and by emphasising the objectives of the IHR, which is global preparedness to cope with health emergencies for all countries.
- Adequate and accelerated funding of research and development in the field of infectious disease prevention and response.
- 2. Support the recommendation of the National Academy of Medicine that the World Bank and other donors should make support contingent on a country's participation in an independent assessment of the IHR process.
- 3. The IMF should also include pandemic preparedness in its economic and policy assessments in its country evaluations.
- 4. Health systems strengthening will require technical support from WHO and financial support and leadership from the World Bank and other donors to secure support for low and middle income countries and sustaining health system capabilities and infrastructure in fragile and failed states and in war zones to the extent possible.
- 5. In war zones, the InterAction Council calls on all parties to the conflict to fully respect IHL and refrain from operations near or the targeting of hospitals and schools; and promote the development of technical means to help protect health facilities, and, if attacked, identify the perpetrator.
- 6. Recognize the impact of conflicts, failed states and displacement on global health and recommend the WHO to revisit its "Health as a Bridge to Peace" initiative.
- 7. Support the call by the WHO for a meeting with Heads of State on antimicrobial resistance at the UN General Assembly in September 2016.

- 8. Call on Germany to include global health on the agenda of the G20 meeting in 2017.
- 9. Welcome the Sustainable Development Goals and call on states to take appropriate measures to work toward the realisation of the SDGs with a cross-sectoral approach.
- 10. Call on states to integrate the SDGs with the wider concept of planetary health as called for in the "Rockefeller Foundation-Lancet Commission on planetary health and on safeguarding human health in the Anthropocene epoch."
- 11. Engage with communities to consider adopting similar national, regional and local approaches as the *Well-being of Future Generations Act* in Wales.
- 12. States should address governance of and for health:
- Drawing from the Commonwealth Secretariat toolkit to strengthen health systems
 in a comprehensive manner, including through implementing universal
 healthcare
- o Governance for health requires support to the ministries of health by other governmental sectors, such as trade, finance, and development.
- 13. Support current leaders in developing learning networks to share experience and knowhow.

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A Pathfinder for Global Health: Potential Approaches in Wales

February 2016

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Executive Summary

This paper presents Wales' response and potential approaches to the Global Health Emergencies concerns and recommendations of the 32nd Annual Plenary Meeting of the InterAction Council in June 2015 and aspires to inform the upcoming High Level Expert Group meeting of the InterAction Council in February 2016.

The document recognises that health is multi-level: global, national, regional, local, community and individual and that the connections between these are complex and reciprocal, including wider determinants and inequalities. Globalisation, environmental, social and economic challenges are related to planetary and human health and sustainable development. Global Health Security is concerned with all aspects of human health, including communicable and non-communicable diseases, emergencies and globalisation processes. Good health and wellbeing is important prerequisite for sustainable development and economic growth.

The paper outlines a possible Welsh 'pathfinder for global health', offering examples of national developments contributing to increasing awareness of and strengthening response to global health security. It showcases the explicit and interlinked commitment of national, public and third sector bodies to sustainability, health and wellbeing, international development and global citizenship through coordinated, coherent, cross-sector, multiagency approach. The document is framed by the Welsh policy and legislative context and considers the European and UK context.

This 'pathfinder' should strengthen Welsh position, promote partnership and contribute to mutually beneficial collaborations globally and greater alignment between the four sectors of academia, industry, government and the not for profit sector. There are six specific areas where Wales has the potential to make a difference, subject to the necessary engagement and brokering of ownership, namely: engaging through networks; promoting research for 'One Health Agenda'; support and training for health and relates professionals as well as capacity building and utilisation; normative and moral leadership for health; and supporting multi-sector approach to improving national and global governance for health.

Acknowledgments

The 'Pathfinder for Global Health: Potential Approaches in Wales' document has been developed jointly by contributors from Public Health Wales, The Learned Society of Wales and Aberystwyth University including Professor Colin McInnes, Professor John Wyn Owen, Dr Tracey Cooper, Dr Quentin Sandifer, Professor Mark Bellis and Dr Mariana Dyakova.

A Pathfinder for Global Health: Potential Approaches in Wales

Introduction

This paper outlines the potential for Wales to offer a 'pathfinder for global health' and to provide an example of relevant national developments. The genesis of the document was the final communiqué from the 32nd Annual Plenary Meeting of the InterAction Councilⁱ, held in June 2015, and aims to inform a discussion at a High Level Expert Group meeting on Global Health Security to be hosted by the InterAction Council in February 15-16, 2016. It describes potential approaches that Wales could take in response to the increasing awareness of global health, and global health security, as a public, policy and academic issue of importance and its implications at national and local level.

The paper is organised into **three sections** starting with a description of the context (Health, globalisation and sustainable development), followed by a statement of the implications for Wales (Wales and global health). The paper then outlines some of the distinctive conditions in Wales (the 'Welsh model') before describing potential approaches that Wales might pursue.

1. Health, globalisation and sustainable development

Our world has become ever more interconnected and interdependent. Globalisation processes (i.e. migration, global economy and trade, urbanisation, communication) and environmental degradation (i.e. climate change, deforestation, soil and water decline) are having direct and indirect impacts on human health and wellbeing. In a 'borderless' world, local health threats can become global and global health threats can have local effects as experience has shown with communicable and non-communicable diseases, natural disasters and the risk of the deliberate use of pathogens by terrorists.

The population health impact of globalisation is seen most clearly in the rapid and extensive spread of communicable diseases, including outbreaks of zoonotic infections such as SARS (2003) and H1N1 (2009). These diseases have spread across continents with ease, creating health risks and fear not seen for generations. Almost a quarter of the global disease burdenⁱⁱ is caused by modifiable environmental factors, such as physical, chemical and biological hazardsⁱⁱⁱ. Globalisation affects also a range of health goods and services, including the mobility of health professionals and access to medicines.

Social, environmental and economic instability and extreme events are threats to all, but the poor and disadvantaged are affected the most - maintaining and increasing inequalities within and between countries. At the same time the advent of modern and affordable communications (i.e. smart phones) allows immediate information spread, i.e. everyone knows everything everywhere. Thus, people living in poverty are connected to the world of the most affluent while the most affluent see those suffering in poverty. This may raise expectations and demands from governments. Violence, conflict, population displacement and war can be triggered by growing populations and scarcity of resources, pushing health and sustainability systems to their limits.

Thus the challenges of globalisation are related to planetary and human health and interlinked with sustainable development: "A growing body of evidence shows that the health of humanity is intrinsically linked to the health of the environment, but by its actions humanity now threatens to destabilise the Earth's key life-support systems." Health security issues are reciprocally related with the three pillars of sustainability: economic, social and environmental (fig. 1). While food consumption patterns are risk factors for most non-communicable diseases, unsustainable consumption of finite resources plays a key role in global warming, food and water security. Chronic conditions also pose risks to sustainable development, by increasing the probability of poverty through reduced income and early retirement. Good health is therefore an important prerequisite for both sustainable development and economic growth.

The strategic context

Viewed from different perspectives, health can be framed as a human right; a security issue; an equity issue; a legal obligation of governments; a global, national and personal responsibility; a factor contributing to and dependent on economic growth; and a factor contributing to and dependent on sustainable development. The global health security agenda has to be considered both in developing and developed countries but requires different approaches in each as well as globally agreed processes, exchange and structures.

Co-ordinated, coherent and focused international activity, working in partnership, sharing knowledge, resources and capacity will allow us to align and achieve our mutual health goals as well as to perform horizon scanning for global security risks, threats and opportunities.

Global Health Security covers **all aspects of human health**. The globalised world of the 21st century and its economic, social and environmental challenges directly influence public health (see 'Global Health Security Issues' box below). Global warming and climate change, migration, conflict and violence, financial turbulence, and epidemics of communicable and non-communicable diseases affect all people and countries. They require multi-level, multi-disciplinary, cross-sector and cross-country approaches.

On a global level, in 2014 the UN Security Council, for the first time, declared a disease – Ebola – to be a threat to international peace and security, reflecting the growing consensus that communicable diseases represent security threats^{vi}. This followed a series of outbreaks (including SARS in 2003, H1N1 in 2009 and MERS in 2012) demonstrating the potential for pandemics to emerge and spread quickly due to population mobility, while the risk of highly virulent pandemic influenza remains. The *International Health Regulations*^{vii}, revised once in 2005, are again being scrutinised to enable a better response to these global threats.

Global Health Security Issues

- 1. Emergencies, including environmental (natural/technological disasters), economic (financial crisis) and social/political (war, (bio)terrorism)
- 2. Epidemics of communicable diseases, including emerging ones and antimicrobial resistance
- 3. Epidemic of non-communicable disease and their risk factors (obesity, smoking, diet, etc.)
- 4. Globalisation impacts: migration, urbanisation, global trade and communications, etc.

The *United Nations Sustainable Development Goals 2016–2030*^{viii} represent a milestone for human and planetary sustainable development and an opportunity to address health, inequalities and their wider determinants worldwide. Agreed by the 193 Member States of the UN, they consist of 17 Sustainable Development Goals (SDGs) (fig. 2) and 169 targets. They are potentially more than simply a follow up from the Millennium Development Goals, rather representing a more ambitious agenda where the responsibility is placed firmly on member states^{ix}. The 2030 Agenda integrates all three dimensions of sustainable development (economic, social and environmental, fig. 1), representing a major shift from multiple fragmented parallel processes to a single comprehensive and universal agenda for the people, planet and prosperity, grounded in peace, justice, inclusiveness, strong governance, and global partnership. It recognizes the goals' interrelation and interdependence and explicitly links them through their targets, meant to facilitate cross-sector integration, policy coherence and whole of government, whole of society approaches.

Health in the 2030 Agenda is an explicit outcome in its own right in SDG 3: Ensure healthy lives and promote well-being for all at all ages. Importantly, health is also an input to other goals, and a measure of how well sustainable development is progressing in general. The global goals promote also the 'One Health Agenda', integrating planetary health (environment, ecosystem, plant and animal health) and human health through SDGs 2 (agriculture), 6 (water), 7 (sustainable and modern energy), 12 (sustainable consumption and production), 13 (climate), 14 (life below water) and 15 (life on land). They recognize that eradicating poverty and inequality, creating inclusive economic growth and preserving the

planet are inextricably linked, not only to each other but also to population health and wellbeing; and relationships between each of these elements are dynamic and reciprocal.

On a European level, the WHO European Health 2020 Strategy and Policy Framework^x represents another milestone, aiming to support action across government and society to "significantly improve the health and well-being of populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality". All 53 European Region Member States have signed up to it and committed to its implementation. Health 2020 highlights the role of health and wellbeing as public goods and assets for human development that contribute to economic growth and strong, dynamic and creative societies. It promotes whole-of-government and whole-of-society approaches through vertical and horizontal policies, actions and across sector work. It recognises that different countries and communities are at different starting points and can pursue common goals through different pathways. Social progress is best measured by objective indicators of health, health equity and well-being, and this includes the conditions in which people are born, live and work.

Health 2020 values, principles and approaches are closely related to the SDGs, suggesting common opportunities and strategies for implementation and progress.

The United Kingdom strategy for 2008–2013, Health is Global,^{xi} accepted a growing consensus that national health could not be divorced from global developments, in health and in related fields, including macro-economic growth and development. Considering that health and health care in the UK is a devolved responsibility, more attention is needed to define how the new global context affects devolved nations and how they can contribute to global health security.

Mainstreaming Sustainable Development – The Government's vision and what this means in practice, 2011^{xiii} sets out the UK commitment to a more sustainable approach to policy and government action and promoting "the synergies between enhancing and protecting our environment and improving the quality of life and health of our communities". Public Health England has also published its Global Health Strategy 2014–2019^{xiii} as well as the Faculty of Public Health for 2015-2019^{xiv}. Engaging in Global Health - The Framework for Voluntary Engagement in Global Health by the UK Health Sector, 2014^{xv} focuses on how voluntary international development work can contribute to building and sustaining capacity in lowand middle-income countries. It also outlines the benefits and opportunities for UK employers, professional associations and individual volunteers.

Within Wales the Well-Being of Future Generations (Wales) Act 2015^{xvi} (WBFGA) represents a first of its kind national sustainable development legislation. Its multi-dimensional, cross-sector and multidisciplinary framework focuses on improving the social, economic, environmental and cultural well-being of Wales. It poses a statutory requirement on all public bodies to prioritise and take action in pursuit of the sustainable development principle. The Act puts in place seven well-being goals (fig. 3) which are interrelated with the

SDGs and have direct or indirect contribution to achieving population health and wellbeing in Wales and beyond (table 1). It is a unique vehicle for the promotion and implementation of the global SDGs and the wider sustainability agenda.

The Charter for International Health Partnerships in Wales^{xviii} (the Charter), developed by the International Health Coordination Centre (hosted by Public Health Wales), introduces and aims to ensure common principles and standards for international health work across the NHS in Wales. All health boards and trusts have pledged to the Charter in 2014, committing to sound governance, organisational responsibility, reciprocal partnership, and good practice. The Charter implementation links to the WBFGA and contributes directly to its Global Responsibility Goal (fig. 3).

The Sustainable Development Charter of Cynnal Cymru^{xviii} (Sustain Wales) encourages and enables organisations in Wales to become more sustainable — to make decisions that produce the best long-term outcomes for themselves and for the future of Wales. Signing the Charter is a voluntary commitment aimed at improving the economic, social, environmental and cultural well-being of Wales.

Public Health Wales Strategic Plan 2015–2018^{xix} outlines its work 'locally, nationally and internationally, with our partners and communities' in various public health areas 'to achieve a healthier, happier and fairer Wales'. In doing so, it addresses its own domestic priorities, while contributing to the public health priorities of others. The global, European, UK and national strategic developments are reflected and require a clear and coherent approach internally and externally.

2. Wales and global health

Wales is affected by global health in two distinct ways:

- 1) Health developments; and
- 2) Policy developments

Wales is not immune from broader trends and developments in global health, including:

- the risk of novel infections and pandemics, especially related to antimicrobial resistance and its impact both on the people and on the food chain;
- the mobility of health professionals and the impact on the capacity of health systems in an increasingly globalised workplace for health;
- the global market for health and related products;
- research and development priorities in health;
- the promotion of unhealthy food products and lifestyles; and
- the accumulation of harmful environmental impacts, i.e. global warming.

Another not health specific, but relevant development is the concept of **global citizenship**^{xx} (world citizenship), defining the idea that one's identity transcends geography or political borders and that the planetary human community is interdependent and whole, i.e. humankind is essentially one. This has implications for Wales – linking to the Global Responsibility wellbeing goal of the WBFGA as well as to the obligation to implement the International Health Regulations (IHR).

Wales is also affected by a range of policy developments as part of the framework for global governance. Some of these policy developments are in the health sphere, for example:

- Surveillance and reporting of infectious diseases;
- Control of unhealthy food products (most notably the WHO Framework Convention on Tobacco Control^{xxi});
- Agreements on stockpiling of pharmaceuticals;
- Water standards (for example, blue flag beaches);

Others are outside the health sphere but have implications for health, for example:

- International agreements on patent protection, with implications for the development of and/or access to pharmaceuticals;
- Economic development policies;
- Trade and investment agreements, such as the Transatlantic Trade and Investment Partnership (TTIP)^{xxiii} being negotiated between European Union and the United States.

Wales, like other devolved nations in the UK, has responsibility for the provision of health services and the protection of citizens from health threats as well as for its health legislation. However, significant areas of policy that affect health in Wales, such as trade and international development, are not devolved. While Wales has numerous programmes which contribute towards global health developments, its mechanism for influencing the broader determinants of global health also rests in its ability to effectively engage and influence the UK Government.

Two related trends are emerging. The first is a growing acceptance that *governance arrangements* for global health need strengthening. The 2014-15 West African Ebola outbreak threw into sharp relief the inadequacies of the current system – from in country infrastructure, through surveillance to response. The international community is now looking at what could be done better by international agencies and to consider the correct approach and whether the structures need to be reformed. Global threats and challenges require global solutions. This is complicated by a growing awareness that health is not only inter-sectoral, but also scalar. The links between poverty and poor health are well established, tying a range of other policy issues (such as economic growth, social exclusion, access to education and social mobility) to the promotion of health. What we now face is a

situation where these broader policy issues at a *global level* can impact upon *national* health, in Wales and elsewhere.

The second trend is reframing health as a *security* issue, i.e. health is fundamental to the security of the individual, the community and the state. This has largely been discussed in terms of the spread of communicable diseases, most notably HIV and pandemic influenza. Diseases such as these have the capacity to affect not only large numbers of individuals but, if the morbidity/mortality rate (or the fear of contagion) is sufficiently high – they can damage economic performance and even the functioning of the state. Some countries, notably the US, have seen national and international public health capabilities as critical national security assets. The UN Security Council has passed resolutions on both HIV and Ebola Virus Disease (EVD) and considered the 2014 EVD outbreak in West Africa a threat to international peace and security. The WHO presented its strategy against the threats of communicable disease as one that would strengthen global health security.

However health security is not limited to communicable diseases. 'Westernisation', presents increasing threats to individuals and populations from chronic diseases and diseases consequent on changing lifestyles. These are evidenced by rising levels of obesity, smoking in some regions of the world and increasing prevalence of specific diseases such as diabetes. Their impacts directly connect public health with the concept of human security, placing the individual and not just the state as the centre of security considerations.

3. Potential approaches in Wales

The 'right' conditions in Wales (the 'Welsh Model')

The 'Welsh model' consists of the following interconnected and interdependent elements:

- 1. Explicit national (Welsh Government) commitment to sustainable development and cross-sector work. The *Well-Being of Future Generations (Wales) Act 2015* with 7 crosscutting wellbeing goals, embodies a whole-of-government approach (fig. 3).
- 2. Explicit public sector commitment to the sustainable development principle and agenda, including health, wellbeing and equity. This is a statutory requirement for all public bodies (arising from the WBFGA), ensuring horizontal collaboration. In addition, there has been a coordinated effort between Welsh Government, Public Health Wales, other stakeholders and the public to align the SDGs and their targets and indicators with the WBFGA goals and its newly developed indicators; and in due course with the new Public Health Outcomes Framework for Wales. Thus, there is a real opportunity and drive to create a coherent accountability framework with meaningful, relevant and transferable targets / indicators. These can help implementing the SDGs across Wales as well as provide an example of vertical collaboration and alignment.

- 3. Explicit National Health Service (NHS) commitment to the Charter for International Health Partnerships in Wales. All health boards and trusts have pledged to it and are implementing it, ensuring better governance and organisational responsibility for international health work, reciprocal partnerships (of benefit both to the Welsh and foreign populations) and following good medical and public health practice.
- 4. Explicit governmental commitment to coordination, coherence and national support for international health work across the NHS and whole of Wales, through the establishment of the International Health Coordination Centre (IHCC) within Public Health Wales.
- 5. Wide community and non-governmental commitment towards sustainability and partnership work (whole-of-society approach). This is embodied in establishment of the Hub Cymru Africa with overarching responsibilities for coordination and funding of developmental work in Africa; the Wales for Africa Health Links Network, supporting health partnerships with Sub-Saharan Africa; the Welsh Council for Voluntary Action, supporting and representing Wales' third sector; the Cynnal Cymru Charter, etc.
- **6.** Explicit and functional commitment to cross-sector, multi-agency and multi-disciplinary approach, bridging the gaps in a cross-sector governance for health. This includes the establishment of joint posts and programmes of work for housing and health; police and crime and health; environment and health; sports and physical activity.
- 7. Explicit consideration of the Global Citizenship idea and plans to improve health professionals' understanding and develop their capacity in global health, global responsibility and citizenship. This is undertaken by the IHCC with a scoping questionnaire and exploring opportunities for education and training across the NHS.

Principles

The proposals in this paper are framed by the Welsh policy and the legislative context of the WBFGA Sustainable Development Principle^{xxiii} (fig. 4), including long-term; prevention; integration; collaboration and involvement.

It is also guided by the *Prudent Healthcare principles*^{xxiv} (fig. 5) of co-production; priority of greatest health need and most effective use of skills and resources; doing only what is needed and doing no harm; and reducing inappropriate variation.

The paper recognises that health is multi-level: global, European, national, regional, local, community and individual and that the connections between these are complex and reciprocal, including wider determinants and inequalities.

Furthermore, these proposals are based on and can contribute to progression of the unique 'Welsh model' of linking global and national sustainable development with health and

wellbeing. It presents an opportunity and provides a vehicle to implement the 17 UN Sustainable Development Goals in Wales.

Potential approaches in Wales

Several present themselves for consideration:

- 1. To demonstrate a novel approach linking health, wellbeing and sustainable development on a national level. The 'Welsh model' can be scaled up (globally) or down (locally) and its approaches can be adapted and used in various contexts and settings.
- 2. To contribute to further progress in meeting the new global, European and UK challenges and opportunities, supporting global health security, emergency preparedness and sustainability across Wales, the UK and beyond.
- **3.** To promote cross-sector partnership and governance as well as health system strengthening across government, academia, industry and the third sector.
- **4.** To describe the Welsh role and provide a coherent and relevant contribution to the 'UK offer' on global health.
- 5. To inform the InterAction Council's agenda and priorities.

The Pathfinder should strengthen the Welsh position, promote partnership working and contribute to mutually beneficial collaborations globally and greater alignment between the four sectors of academia, industry, government and non-profit.

There are **six specific areas** where Wales has the potential to make a difference, subject to the necessary engagement and brokering of ownership of relevant actions by the relevant Welsh and UK agencies, and in doing so serve as an example to and be an active participant in the Global Health Security and sustainability agenda.

I. Networks

Wales possesses a rich variety of formal and informal networks, both within the health and related fields. Some of these are with other devolved nations and agencies, some are UK-wide, and some are international. Wales can use these as platforms for influencing progressive policies. Examples include: Wales' leading role in the WHO European Regions for Health Network, especially for sustainability and health; Public Health Wales membership and active partnership within EuroHealthNet and the International Association of National Public Health Institutes (IANPHI); and a developing collaboration with the Commonwealth Secretariat, supporting its programme of strengthening the sustainability of delivering universal health coverage.

II. Research

A number of opportunities exist, across health, life and social sciences, to make a difference to our understanding of the drivers and consequences of global health development. These include both universities and other research organisations. Wales

has particular strengths in rural health and agriculture, global health governance and with the 'One Health Agenda'.

III. Support and training

It is unrealistic to consider a small nation such as Wales providing large scale generic training to low income countries. However, targeted packages building on established and recognised, or readily developed, strengths and utilising modern technologies for enhanced delivery are realisable. Examples include the ongoing developmental and educational activities of Hub Cymru Africa including the Wales for Africa Health Links, as well as the Global Citizenship training planned for health professionals.

IV. Capacity building and utilisation

WHO is developing an enhanced response capacity for large scale health emergencies. Key to this is a 'surge capacity', whereby professionals not only from the health sector, but others as well, can be mobilised on a global scale. Ensuring Wales can effectively contribute to this is one way in which its capacity and can be utilised.

V. Normative and moral leadership

Ensuring Wales remains fully compliant with key health governance instruments, such as the International Health Regulations (IHRs). While no agency in Wales can lay claim to be the National IHR Focal Point for the United Kingdom, bodies in Wales can provide moral leadership in ensuring that the UK meets its international obligations and Public Health Wales actively supports Public Health England in the discharge of its responsibilities under the IHR for public health threats that might impact on Wales. Another example is Prudent Healthcare and ensuring health organisations follow its principles (fig. 5).

VI. Multi-sectoral approach and governance for health

Wales is uniquely placed to share its governance model, based on the WBFGA and the elements described above. Open and pro-active collaboration with other countries, regions and authorities across Europe and the world can promote, support and provide an incentive for developing effective and functional cross-sectoral governance elsewhere, protecting, promoting and improving health and wellbeing on a national level, but also supporting global health governance and responsiveness to common threats and challenges.

4. Conclusion

This paper describes potential approaches to the development of a Pathfinder for Global Health based on a 'Welsh model' that, together with new legislation (WBFGA), provides a platform for increasing awareness and strengthening the response in Wales to global health and global health security, as important public, policy and academic issues.

Figures and tables

Figure 1: The three pillars of sustainable development: economic, social and environmental

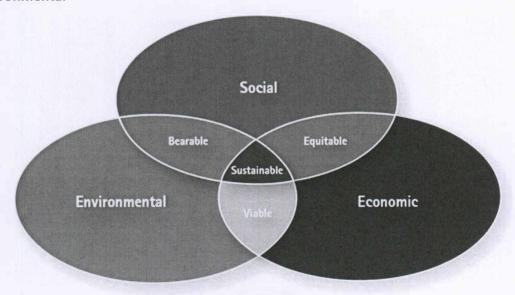


Figure 2: The 17 UN Sustainable Development goals (2016 – 2030)





































Figure 3: Well-Being of Future Generations (Wales) Act 2015 Goals

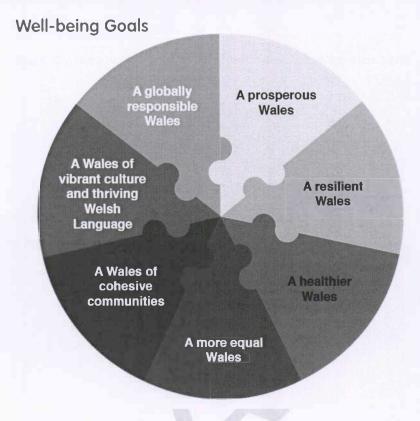


Figure 4: Sustainable Development Principle

Sustainable Development Principle by The Wales We Want, 19th August 2015

Long Term - The importance of balancing short-term needs with the need to safeguard the ability to also meet long-term needs.

Prevention - How acting to prevent problems occurring or getting worse may help public bodies meet their objectives.

Integration - Considering how the public body's well-being objectives may impact upon each of the well-being goals, on their other objectives, or on the objectives of other public bodies.

Collaboration - Acting in collaboration with any other person (or different parts of the body itself) that could help the body to meet its well-being objectives.

Involvement - The importance of involving people with an interest in achieving the well-being goals, and ensuring that those people reflect the diversity of the area which the body serves.

Figure 5: Prudent Healthcare principles



Table 1: Global Health Security and implementing the UN SDGs and the WBFGA Goals

Direct contribution to Global Health Security	
UN SDGs	Wales WBFGA Goals
Goal #1Poverty	A healthier Wales
Goal # 2Hunger and food security	A globally responsible Wales
Goal # 3 Health	
Goal # 6Water and sanitation	
Goal # 10 Inequality	
Goal # 13Climate change	
Goal # 16 Peace and justice	
Indirect contribution	to Global Health Security
UN SDGs	Wales WBFGA Goals
Goal # 4 Education	A resilient Wales
Goal # 5 Gender equality and women's	A more equal Wales
empowerment	A Wales of cohesive communities
Goal # 7 Energy	A prosperous Wales
Goal # 8 Economic growth	
Goal # 9 Infrastructure, industrialisation	
Goal # 11 Cities	
Goal # 12 Sustainable consumption and	
production	
Goal # 14 Oceans	
Goal # 15 Biodiversity, forests, desertification	
Goal # 17 Partnerships	

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Established in 1983

8-9 March 2016 Baku, Azerbaijan

NEW REALITIES FOR GLOBAL HEALTH SECURITY: A PATHFINDER FOR THE INTERACTION COUNCIL

by

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Background

At its 32nd Plenary in June 2015, the IAC noted how health security was a global concern with the potential to affect us all. The recent outbreak of Ebola virus disease (EVD) in West Africa had indicated not only how regional disease outbreaks can have global implications, but the uncertainties over where and when epidemics will occur. The IAC recognized that threats and challenges such as these require global solutions, rooted in multilateral cooperation. It recommended that states must be better prepared for sudden disease outbreaks, that disease surveillance be increased, health systems strengthened, and responses improved through multilateral cooperation and adequate funding for the WHO.

Fundamental to health security is access to resources. Healthcare professionals from the developing world however are often recruited to work in affluent countries, exacerbating problems in their home countries in the healthcare field. Nor are vaccines and anti-virals always readily available and affordable. The IAC identified these as issues that should be addressed to improve global health security.

The IAC also noted how health security begins with the security of individuals from health threats: collective security in health begins with individual security. Moreover, health security should not be limited to discussions of epidemics, but also concerns non-communicable diseases. Nor can human health be divorced from animal health and food security – a 'One Health' approach is required.

Trends in global health to note since the 32nd Plenary

This section identifies some of the developments and trends subsequent to the 32nd Plenary that are particularly noteworthy:

1. Weaknesses in the international response to the West African outbreak of EVD led to an official Review of the WHO's performance chaired by Dame Barbara Stocking and to the decision to consider revisions to the International Health Regulations. Both of these developments suggest a movement towards stronger global governance for health and improved capacity to act in large-scale health emergencies; but the challenge will be to ensure that this movement succeeds in realizing improved responses to major health crises. A second independent report on Ebola, commissioned by the medical journal The Lancet, was published in November quickly followed by a flurry of further reports (many of which were critical of a perceived lack of independence on the part of the Stocking Review). This strongly indicates that concern over the WHO in particular and global governance for health in general remains a live topic.

- 2. The Ebola outbreak highlighted weaknesses in national *health systems*, not only amongst the very poorest states, but more widely. This created a movement, endorsed by the IAC, arguing the need for health systems strengthening in addition to better outbreak response. In a parallel move, universal health coverage and a 'whole society' approach to health has also received heightened profile. Taken together, they represent a contrasting and potentially competing narrative to that which focuses simply on disease surveillance and outbreak response.
- 3. The Sustainable Development Goals contain a series of ambitious health targets, as well as targets on poverty reduction which will have a bearing on health globally. The SDGs will focus the attention of major international agencies, including the UN system, as well as national priorities for development aid. There was some disappointment over the failure to adopt an eighteenth SDG explicitly focused on global health security, as endorsed by the IAC; however SDG 3's focus on 'healthy lives' did indicate a welcome broadening of the agenda to include both noncommunicable and communicable diseases, as well as structural issues such as workforce availability (an issue highlighted by the IAC at its 32nd Plenary), access to medicines (especially the implications of patent protection) and health risk protection. SDG 3 also mentions Neglected Tropical Diseases, reflecting a growing concern that the focus on HIV, malaria and TB in the first decade of the twenty-first century has obscured the attention required by other diseases. SDG 3.4 also reflects albeit briefly the growing concern over mental health, including dementia, which is especially evident in Europe and North America.
- 4. The global economic forecast suggests that *major funding initiatives*, such as those seen in the first decade of the twenty-first century, are unlikely for the foreseeable future. The SDGs meanwhile appear to have shifted the focus away from aggregated results at the regional and global level to measurable national results, with responsibility for development more clearly placed in the hands of individual nation states.
- 5. Interest in 'one health' approaches whereby human health is seen as being intimately connected to animal health and food security are gathering momentum. For example, the Rockefeller Foundation and The Lancet have combined to call for a new discipline of planetary health, 'safeguarding human health and the natural systems that underpin it.'
- 6. The requirement to 'fast track' the approval of vaccines during the 2014-15 Ebola outbreak raised a series of immediate *ethical issues* concerning the use of drugs which had not gone through full testing. Wider debates over the ethics of new

pharmaceuticals and treatments have been in evidence for some time, particularly concerning advances in decoding the human genome and in synthetic biology. These are likely to continue as medical and bio-technologies continue to advance. However, the debate over health and ethics is broader than this, as recent events have demonstrated. These include issues concerning health and social justice, which are implicit in the SDGs, while attacks on aid workers delivering health (both deliberate and as collateral damage) suggests that their previously inviolate status in conflict zones is no longer a given.

- 7. In April 2014, the WHO reported that *anti-microbial resistance* (AMR) now represented a serious threat to world health. In June 2015, the UN Secretary General hosted a briefing on AMR for all member states and inter-governmental agencies, while the WHO, OIE and FAO have now adopted resolutions on joint measures to combat AMR. The cost of inaction is estimated to be in the region of 10M additional deaths and US\$100 trillion by 2050. The burden would be global, but would fall heaviest in Africa and Asia (with both regions projected to have ten times the mortality compared to Europe, North America or Latin America). Calls for global cooperation to meet this challenge are now being articulated, including the G7's October 2015 'Berlin Declaration on AMR', which called for a high level meeting at the UN on AMR in 2016.
- 8. COP21 drew attention to the impact of **environmental change** on human health. Despite the agreement reached in Paris, continued changes to the natural environment are likely to lead to further direct and indirect negative health consequences. These include social changes with negative health results (for example, the growth of 'climate refugees'), to changes in disease vectors.

The IAC may also wish to note that, following its Plenary in Wales, the Welsh Government is taking forward the challenge of global health. A draft 'Pathfinder on Global Health' has been prepared and was presented to the IAC's expert group on global health in March 2016. The aim is to develop an exemplar for how devolved authorities might respond to the challenge of global health. The 'Pathfinder' identifies not only how global changes affect a devolved authority, but also show how a small country such as Wales can contribute to the improvement of health globally.

Ongoing Concerns

Three major gaps can be identified which continue to limit progress on global health in general and responses to health emergencies in particular:

- A political gap, between the need for action and the willingness to take action. This is
 particularly the case outside health ministries. Not least, although some Heads of State
 appear to have recognized the need for action, they remain in the minority
- A budgetary gap, between funds needed and those available. One estimate from the
 US National Academy of Medicine, for example, claims that a further \$4.5B per anna
 is required to secure global health which amounts to about \$0.62 per person per
 year.
- An accountability gap, not only for international organisations with a role in global health, but the wide range of other organisations (including some charities and civil society organisations) involved in an increasingly complex global health architecture.

Major concerns include the need for:

improved cooperation and joined up policies on health. The requirement is not simply for better coordination between health organizations and across health issues, though this is a very real deficiency in the current global health system. It also includes a requirement for better cooperation between heath and other sectors (including trade), across borders, between animal and human health, and the relationship with the environment. There is a developing consensus that global health policy cannot be limited to health ministries, but opportunities to improve cross-sectoral action remain largely under-developed and/or poorly implemented.

making global health governance work. There is now widespread consensus that the WHO should remain the lead organization in global health. Doubts however remain over whether it can deliver. This is especially if its role develops from one of providing normative and technical guidance, to one which incorporates a capacity to act in global health emergencies. Similar concerns are expressed over the International Health Regulations. The likely recommendation of the review panel is that they not be renegotiated, but rather that the current Regulations be more fully implemented. Securing the political will and necessary financing for this will be challenging.

building sustainable health systems. The Ebola crisis revealed inadequacies in large-scale response mechanisms. Understandably much attention has therefore focused on 'downstream' responses to health crises. This needs to be balanced however with 'upstream' improvements to health systems to prevent such crises occurring, or to limit their development. Health systems need to be resilient and adaptive, but in many of the most vulnerable countries they remain a critical weakness with potentially global consequences. Sustainable health systems also require the promotion of healthy lifestyles and responding to the global determinants of health: non-communicable diseases such as diabetes, and related

'lifestyle' issues such as obesity, are now global issues not only because they affect the lives of a significant percentage of the global population, but because the determinants are genuinely global in nature. We must therefore broaden the debate on health system strengthening to address global health determinants more fully.

greater awareness and clarity on who global health security is for. There is a widespread – and sometimes justified - belief in the global south that global health security is a vehicle to reflect northern concerns, rather than a genuinely global issue; and that issues appear on the global health security agenda because they resonate with northern concerns. This undermines the potential for progress in advancing truly global health security. The global health security agenda must therefore be genuinely global, with the focus on promoting the health of all. There also needs to be greater sensitivity to different contexts - that what might work in one region is not guaranteed to work elsewhere. During the Ebola crisis, the WHO belatedly recognized this with its call for social anthropologists but this awareness has yet to be more widely incorporated into global policy.

Action areas

This section identifies three areas on which the IAC might wish to focus in order to realize their recommendations made at the 32nd Plenary.

1. Preparing for Global Health Emergencies as an Issue of National and Global Security

The 2014-15 Ebola crisis was a failure in global governance for health. Specific failures were evident in surveillance, in warning and in action. For this, the WHO received considerable criticism leading many to call for its reform and some for its replacement. As German Chancellor Angela Merkel commented at the 2015 World Health Assembly, however, the WHO remains the only health body with sufficient legitimacy to take the lead in developing global health governance. What is required is for the WHO to change and for member states to accept its developing role in tackling large-scale health emergencies. Traditionally the WHO has focused upon providing expert, technical advice while its authority has been 'loaned' by member states, who have overridden WHO's advice when it has seemed to be in their best interests to do so. This is no longer sufficient if future large-scale health crises are to be prevented or mitigated. Rather, to protect global health security, the WHO requires increases in both its operational capacity and independence to allow it to act. Further, improved compliance with the International Health Regulations is essential. In general, WHO member states still need to be persuaded, as Gro Harlem Brundtland commented almost two decades ago, that 'there are

no health sanctuaries'. Responsible sovereignty may require ceding authority to the WHO in large-scale health emergencies; but the WHO must also demonstrate its competence to act effectively in such circumstances.

2. Developing, Protecting The Health Workforce and Health as Bridge to Peace

The 2014-15 Ebola outbreak was made more serious by the lack of indigenous health capacity in West Africa. The good work done by MSF and other aid agencies served to highlight how impoverished the health sector was in this region, both through lack of investment and also through the migration of health workers in a global market. Deficiencies in local, accessible clinics, as well as trained health personnel, are not unique to this part of West Africa; but they may have global consequences when epidemics are not contained at an early stage. Moreover, humanitarian concerns are raised by the unequal distribution of trained health personnel globally. The issue therefore is not only one of global health security, but also one of global social justice.

The health workforce is also increasingly at risk in conflict areas. Its inviolate status is no longer universally accepted; rather it is seen in some areas as part of the struggle. The independence of health workers should be recognized and protected. One way of promoting this would be to revitalize the concept of 'health as a bridge for peace.' This uses health as a progressive element in conflict resolution, through initiatives such as 'days of tranquility' for vaccine delivery and the building of inter-communal health centres. Key to this is the idea is the idea that health transcends conflict and difference. This would assist in re-establishing health as being both neutral and inviolate.

3. Anti-microbial resistance and one health and planetary health

AMR is likely to become one of the defining health issues for the next generation. Its effects will be global, but its costs will be to the health security of individuals. Action now may mitigate the effects for the future, but cannot be taken by states independently. Rather, dealing with AMR requires global cooperation and cross-sectoral action. This is increasingly being recognized, but momentum is only slowly building. Support for global action and the development of concrete plans are required. The problem of AMR however is a 'one health' problem – resistance is emerging not simply because of over use in human health, but in animal health as well. Addressing AMR requires a one health approach, but can also be used as a springboard for wider policy engagement with the links between animal, environmental and human health.



Commonwealth Summary Action Plan for Strengthening Health Security: Suggested Roadmap February 2016

1. Governance

Support country national policy and legislation for:

- Implementation of IHR
- Strengthening of Health Systems to enable Health Security
- Financing national health systems plan
- Ensuring accountability and coordination

2. Advocacy

- Strengthen leadership and link to delivering the Sustainable Development Goals (SDGs)
- Communications plan for emergency preparedness/ rapid responses and community engagement

3. Knowledge

- Mapping and risk assessment of potential health hazards
- Ensure adequate surveillance and monitoring
- Invest in Research and development
- Leverage Information Communication and mobile technologies for real-time coordination.

4. People

Training and workforce development in:

- Early detection and reporting of diseases by existing health workers
- Antibiotic stewardship to tackle antimicrobial resistance

5. Protection

Build and develop components of Health Protection as part of Health System Strengthening:

- Communicable diseases control and laboratories
- Emergency planning and preparedness
- Environmental health
- Climate change and sustainable development

6. Prevention

Vaccination against common infectious diseases and screening programmes.

7. Promotion

Establishing cross-sector collaboration to work on environmental determinants of health

8. Capacity

Building health system resilience through scaling up infrastructure and workforce development

9. Collaboration

 Identify national collaboration mechanisms and focal points to work with regional and global partners such as the WHO IHR focal points

10. Universal Health Coverage

- Develop longer term policies for health system strengthening including plans to address NCDs
- Establish cross-sector links to deliver the SDGs



High-Level Expert Group Meeting

Chairman's Report on the High-Level Expert Group Meeting

"Bringing Peace and Security to a Divided World: Opportunities and Challenges"

Chaired by
The Right Honourable Jean Chrétien

19 January 2016 Toronto, Canada

Introduction

In January 2016, the Islamic Republic of Iran returned to full participation in the world economy following the adoption of the Joint Comprehensive Plan of Action (JCPOA). The JCPOA framework encourages Iran to abandon some components of its nuclear program in exchange for relief from long-term sanctions imposed by the United States, the European Union, and the United Nations.

The issue of nuclear non-proliferations is, in the view of the InterAction Council, a pressing and persistent concern. As such, the Right Honourable Jean Chrétien, Co-Chair of the InterAction Council, brought together a group of experts to discuss, "Iran and the New Middle East" on Tuesday, 19 January 2016, at Massey College, University of Toronto, in Toronto, Canada, to deliberate on the JCPOA and consider its possible impact.

The experts who gathered agreed that the impact of the deal was substantial not only for Iran and the Middle East, but the peace and security of the world. They drew links between the opportunities and challenges offered by the JCPOA not only on Iran, but on numerous peace and security issues, including: nuclear proliferation, North Korea's nuclear ambitions, the West's relationship with Russia, combatting Isis, and addressing the situation in Syria. The flow of the discussion illustrated once again that the world is increasingly interconnected.

Nuclear Non-Proliferation

To the minds of many, the issue of nuclear non-proliferation ended with the Cold War. Nuclear weapons were central to the super power rivalry. So prominent was the public discourse surrounding "the bomb," during those years that many assumed that after the Cold War the issue was no longer a concern. However, nuclear weapons continue to be a threat to humanity: As the 2010 Hiroshima Declaration of the InterAction Council stated, "As long as anyone has nuclear weapons, others will seek them."

The JCPOA has created another opportunity to direct global attention towards nuclear weapons. The adoption of the JCPOA provides a call to action to address the nuclear agenda more broadly. An additional opportunity exists in March 2016 when Barack Obama, President of the United States, hosts the 4th Nuclear Security Summit in Washington, DC.

Much attention is given to the "horizontal" increase in nuclear weapons capabilities--that is, that additional states are gaining these resources--more attention needs to be given to a "vertical increase." A vertical increase describes nuclear states increasing their present nuclear capabilities. This is currently being done under the guise of "modernization," whereby nuclear powers acquire new and more sophisticated weapons systems, arguing that their

existing systems are out of date. Both horizontal and vertical proliferation needs to be addressed. The world needs less, rather than more nuclear weapon capabilities.

The JCPOA also created elevated standards for monitoring Iran's supply chain for acquiring nuclear materials. In the words of one expert, "... the provision [in the JCPOA] for a dedicated procurement channel to monitor and approve Iran's acquisition from external sources of nuclear-related materials and technology... points to the potential for a significantly raised nuclear transparency bar." What would such a raised nuclear transparency bar look like?

One means to increase transparency is the long considered Fissile Material Cut-Off Treaty. While it is crucial that this treaty be immediately adopted, it may also prove to be beneficial to deal with fissile material in an additional way: through the supply-chain, as has been attempted with Iran. There are only a few producers of uranium around the globe. Canada, for example, produces 22 per cent of the world's uranium. Instead of selling uranium, a new regime could be established where uranium is leased. This would mean that the uranium-producing states would take back the fissile material when it is no longer of use for civilian purposes, reducing the risk that it will be used for other means. It is an opportune moment to address this issue, as the current regime to address fissile material has just expired. A new regime must be put in place, and the role of uranium-producing states in ensuring the safe disposal of these materials at the end of their life cycle should be considered for inclusion under this new regime. This is in keeping with previous calls from the InterAction Council that, "support be given to countries with large uranium reserves to ensure that this material does not fall into the hands of terrorists."

However, it is not sufficient to establish agreements; enforcement and implementation of the agreements is essential for the global nuclear non-proliferation system to be a success. To be effective the agencies responsible for verification and monitoring need the financial and human resources to do their important work. In particular, the International Atomic Energy Agency (IAEA) must be supported with additional resources.

Recommendations:

- 1. The Fissile Material Cut-Off Treaty should be adopted and implemented;
- 2. The United States and China must be encouraged to sign the Comprehensive Test Ban Treaty immediately.
- 3. Uranium producing countries should establish an agreement to lease, as opposed to sell, nuclear materials for peaceful purposes under the condition that the fissile material be returned to the producing country;

- 4. Programs to modernize nuclear weapons must be abandoned and arms control negotiations be pursued not only to reduce the level of existing weapons, but to put in place measures against the production of new ones;
- 5. States possessing nuclear weapons must make significant progress to achieve nuclear disarmament as called for in Article VI of the NPT, the current pace of which could undermine the confidence on this important treaty by non-nuclear states;
- 6. Nations participating in defensive treaties that ultimately rely on nuclear weapons should start to define the nature of their alliances in a way that eventually excludes any reliance on nuclear weapons. As a first step, states should immediately agree to the doctrine of "no first use" as outlined in the 2010 Hiroshima Declaration;
- 7. The IAEA and other agencies involved in the monitoring and verification of nuclear resources should be better supported through additional financial and human resources so they can adequately verify compliance, with additional resources made available for collecting and sharing intelligence information; and
- 8. Initiatives to increase public awareness of nuclear proliferation should be actively pursued.

North Korea

At the forefront of the discussion was North Korea, who is developing a nuclear arsenal. The return of North Korea to the Nuclear Non-Proliferation Treaty must remain the international community's main objective. Failure to achieve this goal undermines confidence in the existing system to prevent and remedy the spread of nuclear weapons. As one participant asked rhetorically, "If the non-proliferation system cannot effectively deal with a state as poor, dysfunctional, and marginalized as North Korea, who will be prepared to rely on it?" Therefore, the InterAction Council must reiterate its 2013 demand that North Korea "...fully comply with its obligations under the relevant Security Council resolutions, ...rejoin the NPT as a nuclear weapons-free state, and fully cooperate with the IAEA."

Constructive cooperation between Russia, the United States, China, Japan and South Korea is needed to resolve the conflict with North Korea. The role of China, in particular, cannot be underestimated, given that it is North Korea's primary trade partner, accounting for 90 per cent of its foreign trade.

Recommendations:

1. North Korea must fully comply with its obligations under the relevant Security Council resolutions, to rejoin the NPT as a nuclear weapons-free state, and fully cooperate with the IAEA.

2. China should be encouraged to play a leadership role in the resolution of the existing conflict with North Korea.

Russia

A failure to engage in dialogue between the West and Russia has exacerbated a number of global conflicts and has stalled resolution of important international concerns; nuclear non-proliferation among them. It is crucial that we avoid a new Cold War and essential to this goal is the establishment of a new dialogue and partnership between the West and Russia. The first step towards reinvigorating this dialogue is the reinstating of the NATO-Russia Council as a positive platform for these discussions. Without a rapprochement between both sides, progress towards addressing the world's pressing geopolitical issues, including the proliferation of nuclear weapons will not be possible.

Recommendations:

- 1. NATO-Russia Council meetings should recommence immediately to foster positive dialogue about nuclear non-proliferation and other issues of geopolitical importance;
- 2. The United States and Russia should work together to explore the possibilities of further reduction of their nuclear arsenals.

Iran

Russia seeks to ensure its own security by having influence in the conflicts in the Middle East. However, it also seeks to project its influence by positioning itself as a great power, an indispensable player with a leading role in the management of regional affairs, according to one of the experts in attendance. He went on to argue that Russia is an "indispensable player," given its veto and its close ties to Iran.

The factors that contributed to the successful negotiation of the JCPOA with Iran were discussed amongst the experts. It was suggested that the defining feature that led to the successful negotiation of the JCPOA was that there was adverse consequences for all parties if the negotiations failed, so that all parties felt that they could not walk away from the negotiations.

The JCPOA also helps to shed light on the role of sanctions in overcoming conflict. It was argued by one expert that for sanctions to be successful they must: (1) be multilateral and involve a broad cross-section of members of the international community; (2) be both broad and deep. Others argued that sanctions are counterproductive towards the resolution of

disputes, because they create an atmosphere of mistrust that prevents the essential dialogue from taking place.

While there are lessons that can be learned from the successful negotiation of the JCPOA for other conflicts, there are a number of important domestic factors in Iran that contributed to the success of the agreement that must not be overlooked. These factors include the state of the Iranian economy and the role of moderates. While the sanctions did promote import substitution that created a new middle class, there were also internal political tensions that put pressure on the regime to reach a deal in order to have the sanctions lifted. These domestic factors contributed to reaching a deal, but may not be ready or present in other states, such as North Korea. In particular, the role of the international community in providing support to moderates must be done in a manner that does not undermine the positive factors pushing for change internally.

Will Iran move towards a normalization of relations with the rest of the world? Will there be a conservative push back to recent events? Or will the emerging well-educated and young population of Iran push it further into international dialogue?

Much, one participant offered, will depend on whether the Iranian economy is able to maintain sustained growth now that the sanctions have been lifted. For this economic growth to take place, economic reform needs to complement the sanctions being lifted. At the same time, the provisions of the JCPOA – including financial and technical resources – need to be effectively implemented if Iran is to respect its provisions and the sanctions remain removed. Economic growth will be made more difficult by the falling price of oil, which Iran seeks to sell on world markets, where the price of oil is predicted by one investment bank, Morgan Stanley, to fall to as low as \$20 per barrel.

As mentioned earlier, international organizations tasked with verifying this deal need to be adequately supported. Verification is essential because, as one expert offered, "the know-how and the means to building nuclear weapons eventually accrue to any state with a civilian nuclear program and a reasonably advanced scientific/technology community." Consequently, the purpose of the JCPOA and the role of the IAEA is to prevent "know how" from being turned into actual weapons. However, verification alone will not be enough. As one participant offered, a starting point to understanding Iran's stance in the negotiations is to reflect on its profound sense of vulnerability. Encouraging major powers to begin serious discussions about security guarantees in the Middle East will help to alleviate the fears of those who feel insecure and identify opportunities for collaboration on this issue. In

particular those states not overly supportive of the JCPOA, such as Saudi Arabia and Israel, must be brought into the discussion.

Iran's relationship with its neighbours is often tense and complicated. Iran's neighbours, according to one expert, view it as a competitor and as "an ambitious regional actor" whose rise will only come with their fall. This sentiment is compounded by the fact that Iran's neighbours, such as Saudi Arabia, have also had ambitions to become regional powers. Saudi Arabia's relationship with Iran has become even more strained recently due to the execution of a leading Shia religious figure. Sunni Saudi Arabia was chastised by Shia Iran and Saudi Arabia's embassy in Iran was sacked. This led several Sunni-majority countries, such as Bahrain and United Arab Emirates, to cut-off diplomatic ties with Iran.

While dialogue in and about the Middle East has been at times difficult, progress towards resolving the conflicts that may appear intractable, will never be made without it. A renewed dialogue with Iran on nuclear proliferation was one of the major positive events of 2015. Building on this momentum is crucial: first, the JCPOA must be implemented; and second, Iran should be encouraged to use its influence to restore peace and stability to Syria, in particular, and the Middle East in general.

Recommendations:

- 1. Ongoing discussions for the continuation of the Joint Comprehensive Plan of Action past the current expiration date be pursued in order to create incentives for renewal prior to the expiry of the current agreement; and
- 2. Close attention should be paid towards Iran's relationship with its neighbours and positive dialogue should be facilitated.

Isis

The world is certainly preoccupied with the threat of Isis. However, joint and sustained action to address the threat has not occurred. Why? Some of the participants offered that this was because Isis, while being a common threat to many, is not the number one threat to any. The terror of Isis has pushed actors, who otherwise may not have seen each other as having a common interest, into dialogue.

In the face of the atrocities being perpetrated by Isis, the dignity of human life requires actions. A successful response to Isis requires a comprehensive, multilateral approach anchored in international law. The threat of Isis certainly requires a military response, but in addition to force, the international community must employ other tools to deal with Isis activities. The widespread mass killings, abductions, slavery and sexual violence committed

by Isis amount to crimes against humanity and war crimes. The Council of Europe and the UN High Commissioner for Human Rights Zeid Ra'ad Al Hussein have stated that Isis may have committed genocide against ethnic and religious minorities. Under international law, states are required to prevent these crimes and hold those responsible to account. Peace and justice must be sought in parallel. It was proposed that an unconditional, time-limited, and comprehensive ceasefire to allow the delivery of humanitarian aid in Syria be immediately negotiated and implemented.

Illegal and unregulated arms trade feed violence. It has been reported that the massive arsenal of arms in the hands of Isis today, is the result of poorly regulated arms trade and lax control over the Iraqi military stockpile. The Council has previously taken note of the importance of regulating arms trade and continues to call for widespread ratification of the Arms Trade Treaty (ATT). A number of organisations have called for a comprehensive arms embargo on Syria. The InterAction Council has persistently called for the end of the unrestricted proliferation and availability of small arms, which exacerbates such conflict. So too does the conflict in Syria necessitate a reconfirmation that chemical warfare in any form must cease immediately.

The impact of Isis does not end within the borders of its self-claimed caliphate. Millions of refugees have fled the Syrian war and indiscriminate violence by Isis in Iraq. While the majority of these refugees reside in over-crowded settlements in Syria's neighbouring countries, European countries are closing their borders from those trying to receive protection there. The UN has informed states that the Syria Regional Refugee Response, which is a coalition of aid organizations, has only met 56 per cent of its required funding for 2016. Resettlement, such as the recent pledge by the Canadian government to resettle 25,000 refugees, is welcome as it allows vulnerable individuals such as children and families to receive protection without having to embark upon perilous journeys to reach safe countries.

Hundreds of young men and women have travelled to the region to join Isis. In order to combat radicalisation and recruitment of new Isis members, states must also address those social and economic factors, such as poverty, youth unemployment, and racism that are driving young men and women all over the world to join groups such as Isis. Countering terrorism is as important as ever, but the international community must be careful not to repeat its mistakes of the "war on terrorism." The Council's previous reports, and recommendations, on respecting human rights while countering terrorism are as topical today as they were then.

Most importantly, in the face of human suffering in Syria, it was proposed that an unconditional, time-limited, and comprehensive ceasefire to allow the delivery of humanitarian aid in Syria be immediately negotiated and implemented.

Recommendations:

- 1. The United Nations Security Council is urged to refer the situations in Syria and Iraq to the International Criminal Court, in order to hold accountable those responsible international crimes and ensure justice, truth and reparations for victims;
- 2. Should the United Nations Security Council fail to refer the situation in Syria to the ICC, states are urged to apply universal jurisdiction to ensure justice for these crimes;
- 3. The United Nations Security Council should impose an arms embargo on the Syrian government and all armed groups operating in the country;
- 4. All states should ratify and implement the Arms Trade Treaty and take urgent steps to curb future arms proliferation in Iraq and Syria;
- 5. States should ensure the sufficient funding of the United Nations Refugee Agency and in particular the Syria Regional Refugee Response;
- 6. States should resettle and give international protection to those fleeing violence by Isis;
- 7. In countering terrorism, States must adhere to international law and human rights obligations;
- 8. Radicalization and recruitment to terrorist organizations should be combatted through comprehensive programs that include such elements as education and employment;
- 9. An unconditional, time-limited, and comprehensive ceasefire to allow the delivery of humanitarian aid in Syria be immediately negotiated and implemented;
- 10. A comprehensive program to deal with the humanitarian crisis caused by the war in Syria and exacerbated by Isis instructed by international legal norms should be urgently assembled; and
- 11. Reiterate the call that chemical weapons never be used in times of war or peace.

LIST OF PARTICIPANTS

InterAction Council Members

1. The Rt. Hon. Jean Chrétien (former Prime Minister), Canada

Secretary-General

2. Dr. Thomas S. **Axworthy**, Distinguished Senior Fellow, Munk School of Global Affairs, University of Toronto

Special Guests

- 3. Dr. Adele Buckley, Past Chair, Canadian Pugwash; Member, Pugwash Council
- 4. Prof. Tony **Burman**, Distinguished Visiting Professor of Journalism, Ryerson University; Former Head CBC News and Al Jazeera English in Qatar (Canada)
- 5. Prof. Kathleen **Davis**, Adjunct Professor, Osgoode Hall Law School; Doctoral Candidate, University of Toronto
- 6. Dr. Walter **Dorn**, Professor of Defence Studies, Royal Military College of Canada; past Chair, Canadian Pugwash
- 7. Dr. John **English**, Director, Bill Graham Centre for Contemporary International History, Trinity College/Munk School, University of Toronto
- 8. Prof. Thomas **Juneau**, Assistant Professor, Graduate School of Public and International Affairs, University of Ottawa
- 9. Mr. Patrick **Martin**, Senior Correspondent, specializing in the Middle East, *The Globe and Mail*
- 10. The Hon. R. Roy **McMurtry**, former High Commissioner to the United Kingdom; former Chief Justice of Ontario; former Attorney General of Ontario
- 11. Dr. John **Polanyi**, Faculty Member and Nobel Laureate, Department of Chemistry, University of Toronto; Founding Chairman, Canadian Pugwash Group
- 12. Mr. Oleg V. Pozdnyakov, Senior Counsellor, Russian Embassy
- 13. Prof. Ernie **Regehr**, Senior Fellow in Arctic Security, The Simons Foundation; Research Fellow, Centre for Peace Advancement, Conrad Grebel University College
- 14. The Hon. Hugh **Segal**, Master of Massey College; Chair, NATO Association of Canada; Co-Chair, Democracy 10 negotiations in Europe, 2015, 2016 Committee
- 15. Dr. Erika Simpson, Associate Professor of International Relations, Western University
- Dr. Janice Gross Stein, Belzberg Professor of Conflict Management, Department of Political Science; and Founding Director, Munk School of Global Affairs, University of Toronto
- 17. Prof. Mohamad **Tavakoli-Targhi**, Professor of History, Historical Studies & Near and Middle Eastern Civilizations
- 18. Mr. Murray **Thomson**, Co-Founder, Project Ploughshares; Coordinator, Canadians for a Nuclear Weapons Convention
- 19. The Very Rev. the Hon. Dr. Lois M. **Wilson**, Distinguished Minister-in-Residence, Emmanuel College, University of Toronto



Address by

Dr Abdel Salam Majali
Former Prime Minister of Jordan;
and
President of the Islamic World Academy of Sciences (IAS)
Amman, Jordan.

Baku, Azerbaijan 8 March 2016

Honourable guests Excellencies Ladies and gentlemen

- ➤ Here in the city of Baku, we meet in our continuing pursuit to deepen and broaden the bonds and relations between peoples and countries. I wish firstly to extend my appreciation to the Republic of Azerbaijan and H E President Ilham Aliyev for kindly inviting us to assemble in the beautiful city;
- ➤ In a multidisciplinary fashion, typical of some of the great polymaths of the Islamic civilisation to which this city belongs, I would like to discuss some ideas germane to our state of the world today; to talk about the current turmoil in the Middle East. Our meeting here is a manifestation of our social responsibility towards ourselves and towards humanity;
- Today, violence on the world stage has reached unprecedented heights. We wake up every day expecting some act of violence, some act of terror! Sadly also, there always seems to be some connexion to Islam. Islam which states that: 'If anyone slays a soul unjustly or for no overarching reason, it would be as if he slew the whole people.'
- ➤ Today, a culture of hate is increasingly the norm on our TV screens, in the newspapers we read and the social media we follow; internationally and nationally. Ample evidence of this exists in the Middle East of course however there are manifestations of this from elsewhere. The US for example, where psychologist, Dr Erik Fisher, says, a culture of hate and anger is fuelling mass shootings in the U.S., including the shooting at schools and colleges. He adds that: 'We do a horrible job in our culture of understanding emotions.' I think that this is an issue that deserves our attention;

- This leads me to state that the culture of hate is not necessarily religion or Islam centred. The question thus rises as to why Islam has become associated with terror? Or indeed, why have Muslims (not Islam) become associated with terrorism?
- ➤ UN Secretary General Ban ki-Moon's recent call to respect the Convention on the Prevention and Punishment of the Crime of Genocide (CPPCG) is a highly significant perspective, to boost awareness and eliminate some of the bad images about inhumane practices in some parts of the world;

Excellencies Dear friends

- The Middle East is the cradle of civilisations and the home of the world three monotheistic religions. Throughout the centuries, historians have used such powerful words to describe the Middle East. Many great civilizations rose and fell. The religions of Judaism, Christianity, and Islam each trace their origins back to that part of the world;
- All of those civilizations arose in the area known as the Fertile Crescent. The Fertile Crescent stretches from the Mediterranean Sea in the west to the Zagros Mountains in the east. It is bordered in the north by the Taurus Mountains (not very far from Baku) and in the south by the Gulf and the Arabian Desert. Its shape resembles a crescent moon; a Levant. Ironically, the 'L' from the 'Levant' has been pilfered by *Da'esh* or ISIL; the so called Islamic State of Iraq and the Levant. What mockery!
- Described by His Majesty King Abdullah II as the *Khawarej* (outlaws), *Da'esh* murdered Jordan's hero pilot early in 2015, an action that outraged all Jordanians, and horrified the world. Jordan's response has been swift and determined. At the same time, the danger of extremism must be seen for what it is: global;

- The threat is not only in Syria and Iraq. It has struck Libya, Yemen, Sinai, Mali, Nigeria, the Horn of Africa, Asia, the Americas and Australia. Europe too has suffered despicable attacks the latest of which struck in Paris recently;
- ➤ Libya for all practical purposes is a country in tatters with extremists in control of many parts within. Yemen, the grandmother of all countries with its long history, is country in bloody havoc, sadly with no end in sight to its problems;
- ➤ In Syria, the conflict is entering a sixth brutal year. Bloodshed and human suffering have continued unabated. The repercussions have been global. The crisis has challenged economic and political alliances, raised questions about existing structures of cooperation and strained the social values that keep humanity united;
- The conflict in Syria has drawn in major global powers, supporting and opposing President Bashar al-Assad and the myriad rebel groups ranged against him. In the words of Albert Hourani, 'Great powers are primarily concerned with their relations with other great powers; their clients must fit into this framework, but often forget this, and in doing so may draw their patrons into conflicts they do not desire.' This avowal is particularly true of Syria today;
- Dur world must act as one on the diplomatic front. The killing in Syria has to stop if we are to move forward and find a political solution, one that protects Syria's independence and integrity, and enables the Syrian people to live with dignity and enjoy the rights they deserve. Achieving that solution is key to winning this war together, and will help us focus on the global threat;

- Together with other Jordanian and Arab politicians, I have recently called on President Assad of Syria and the leaders of the opposition to stop the war in, and the destruction of, Syria; to resort to the language of dialogue instead of the language of arms, and agree on a consensual vision to preserve their country and the unity of its land and its people, and to immediately begin to rebuild what was destroyed by war. Alas, our appeal has so far fallen on deaf ears;
- There are also other key steps that must be taken collectively. Supporting the Iraqi government in clearing areas under the control of Da'esh also requires support. We, moreover, should not allow sectarian and religious differences to be used to advance political agendas or gain influence;
- And there is the 'elephant in the room.' Left unresolved, the Palestinian-Israeli conflict will become a religious conflict of a global dimension. And it is only a matter of time before we may be faced by yet another war in Gaza or in South Lebanon. This is why reaching a two-state solution should remain a priority for us all;
- The community of nations cannot talk about universal rights and global justice, but continue to deny statehood to Palestinians! This failure has created a festering injustice, and continues to be exploited by *Da'esh* and its kind. Our whole world has paid the price;
- Fime after time, the peace process has stalled; more Israeli settlement building, more hopelessness for the occupied Palestinians and more bloodshed. This failure sends a dangerous message. It erodes trust and threatens world peace and has given the extremists a powerful rallying cry. They exploit the injustices and the lingering conflict, to build legitimacy and recruit foreign fighters across the world;

Excellencies Dear friends

- International human rights law lays down the obligations of states to promote and protect human rights and freedoms of individuals or groups. So, how do we bridge the divide? How do we balance counter-terrorism and human rights?
- In the twenty-first century we are living in the so-called 'globalized world.' Surely, we must build solidarity for a global civilization to live the spirit of justice; which is for the whole world. This can help us to overcome the ignorance and prejudices which exist towards 'the other;'
- Counter-terrorism cannot only be carried out by force; it needs ideas and dialogue. Why don't we put our differences aside and work together to achieve socioeconomic development for all our countries? Let us all try to seek peace for our peoples, promote harmony and good neighbourly relations;
- In the words of Bishop Desmond Tutu, 'Do your little bit of good where you are; it's those little bits of good put together that overwhelm the world.' Or in the words of Gibran Khalil Gibran, 'Tenderness and kindness are not signs of weakness and despair, but manifestations of strength and resolution;'
- ➤ Similarly, His Majesty King Abdullah II of Jordan, in a recent speech before the European Parliament, said that, "Humanity must arm itself with ideas, with justice and with economic and social inclusion;"
- ➤ Here, I call upon our future leaders to take the lead; they must be inspired by values that reject violence, create peace and build inclusive societies. Let me suggest two areas of importance for us to think about;

- Firstly, outreach; meaningful interfaith outreach, engaging peoples where they live. A dialogue of respect of all societies. Attacking and excluding others, insulting other peoples and their faiths and convictions is no way forward;
- The world must stop the global rise of Islamophobia. This poison is based on false ideas and plays into the hands of the extremists. Muslims have to illuminate what it really means to be a Muslim. Islam demands respect and caring for others. The Prophet of Islam said: 'None of you has faith until you love for your neighbour what you love for yourself;'
- ➤ Thirteen centuries before the Geneva Conventions, Muslim soldiers were ordered not to slay a child, a woman or an old person, not to destroy a tree, not to harm a priest, not to destroy a church. Islam, like all faiths, commands mercy, peace and tolerance. It upholds the equal human dignity of every person men and women, neighbour and stranger;
- ➤ Secondly, economics; radicalisation thrives on economic insecurity and exclusion. To create stakeholders in a peaceful world, people need opportunities to fulfil their potential and build good lives. Helping them is a powerful message of respect;
- ➤ Speaking of economic hardship; let me again refer to the Syrian crisis. Jordan despite its meagre resources has given shelter to 1.5 million Syrian refugees, which is 20 per cent of the population, over the past few years. This is more than the equivalent of China hosting the entire population of Indonesia of 250 million; Jordan is now the world's third-largest refugee host;
- The Syrian refugee crisis is an urgent case in point. One of the biggest humanitarian tragedies of our age is unfolding on our shores and

borders. Nowhere has this been brought closer to home than in Jordan, which now hosts one Syrian for every five Jordanians;

Excellencies Ladies and gentlemen Dear friends

- In 1997, the InterAction Council convened a meeting of thinkers from all faiths, scholars and political leaders to examine the relationship between freedom and responsibility. The outcome was a proposal for a 'Universal Declaration of Human Responsibilities,' which the Council saw as a companion charter supporting the famous 1948 'Universal Declaration of Human Rights;'
- The goal is to bring freedom and responsibility into balance. If a person, newspaper, cleric or government seeks to maximize freedom or to defend religion, but does it at the expense of others, a large number of people will suffer. That is precisely what we see happening today;
- The Charter also has particular things to say about the three ringleaders media, religious leaders and politicians. Article 14 declares that 'freedom of the media carries a special responsibility for accurate and truthful reporting. Sensational reporting that degrades the human person or dignity must at all times be avoided;'
- The Charter outlines the special responsibility of religious leaders 'not to incite or legitimize hatred, fanaticism and religious wars.' Religious leaders, although few, inciting crowds to violence fall within this category. It also states that 'no politicians, public servants, business leaders, scientists, writers or artists are exempt from general ethical standards;'
- Recent attacks of terror confirm the usefulness and necessity of a 'Universal Declaration of Human Responsibilities.' Governments

around the world should introduce it into the UN system. A debate in the General Assembly about the necessary balance between freedom and license, right and responsibilities, is an urgent public need;

- The present very serious situation of our world shows how important it would be to gain a new consciousness of some ethical standards in world politics;
- To his credit, Ban Ki-moon, the UN Secretary-General has sought to strengthen UN peace efforts through steps to improve the impact of the United Nations "blue helmets" operating in the world's conflict zones. Also, a mediation support unit, along with new capacity to carry out the Secretary-General's good offices, has been set up to help prevent and resolve conflicts and crises. Another commendable effort is the 'responsibility to protect,' campaign which aims to prevent and halt genocide and other grave crimes;
- I would however remind the UN Secretary General that we need to be humanly responsible for human responsibility. With what is happening in Syria, Iraq, Yemen and other parts of the world I would propose that he champions the establishment of a 'UN Panel on Human Responsibility.' The foundation for this initiative is there in the IAC's 'Universal Declaration of Human Responsibilities.' The essential role of such a body would be to work towards the peaceful resolution of conflict through the acceptance of the dignity of all protagonists and their inalienable freedom and equality...;

Dear friends

➤ Where do we go from here? There is no denying that today, there is a feeling of hopelessness; a climate of fear and uncertainty prevails worldwide. However, optimism can best be described as a light in darkness which widens the horizon. The need to acquire other's trust is essential. In order for trust to exist between individuals, optimism must become part of their lives;

- ➤ We have to develop a culture of tolerance. We must utilize the tools at our disposal to address our human needs, to realize a better future for our children and our grandchildren;
- Let me conclude with quote form the late Nelson Mandella who said:

'I am fundamentally an optimist. Whether that comes from nature or nurture, I cannot say. Part of being optimistic is keeping one's head pointed toward the sun, one's feet moving forward. There were many dark moments when my faith in humanity was sorely tested, but I would not and could not give up to despair.'

Thank you.

Escalating dispute between Saudi Arabia, Iran threatens Syria peace talks

The escalating dispute between Saudi Arabia and Iran, regional powers vying for influence throughout the Middle East, threatens to derail peace talks aimed at stopping Syria's civil war

PATRICK MARTIN Senior Correspondent, *The Globe and Mail* Tuesday, January 5, 2016

The age-old schism between Shia and Sunni Muslims continues to destabilize the Middle East and throws a wrench into efforts to end the civil war in Syria.

Saudi Arabia's Saturday execution of dissident Shia imam Sheik Nimr al-Nimr, for example, roiled the entire region. The capital punishment may have been intended as a warning to Saudi Arabia's minority Shiites not to challenge the authority of the Sunni House of Saud, but its reverberations were felt acutely in Iran, the region's dominant Shia power. The Saudi embassy was sacked and Iranian authorities vowed revenge. (The assault was viewed in Riyadh as having been encouraged by the Iranian leadership, causing Saudi Arabia to sever its diplomatic and commercial ties with Tehran. Bahrain, where a majority Shia population is ruled by a Saudi-backed Sunni emir, followed suit, while the business-oriented United Arab Emirates downgraded their diplomatic relations with Iran.)

More important, the shock waves also extended to Syria just as the parties to that country's civil war were close to entering peace talks in which Iran and Saudi Arabia were to play leading roles. With an irate Iran defending the Syrian regime and a defiant Saudi Arabia backing the rebels, those peace talks likely will be set back by recent events.

Some say this was Saudi Arabia's intention all along.

Proxy battles in Lebanon and Yemen may be affected as well. In Lebanon, the normally dominant Hezbollah movement, a Shia group backed by Iran, had lost some of its influence in the past year as the fighting in Syria took its toll on Hezbollah forces who were helping defend the regime of Bashar al-Assad. Now, however, Hezbollah, which shares Iran's outrage over Sheik al-Nimr's execution, may be invigorated and take out its resentment on Saudi-led Sunni groups in Lebanon.

In Yemen, in recent months, there has been an intensification of the hit-and-run war between Houthi rebels, supported by Iran, who took control of the capital, Sanaa, in February, and a Saudi-led coalition that is trying to salvage a government currently in exile. The al-Nimr execution has drawn attention to Iran's influence throughout the Arabian Peninsula and may lead to an increase in the already considerable Saudi efforts in Yemen.

The United States is suffering the consequences of the Saudi execution. For more than a week, U.S. officials had strongly counselled Saudi authorities not to include Sheik al-Nimr in the capital punishment, for fear of the consequences. The advice was pointedly ignored, making the Obama administration appear weaker than ever in Arab eyes. This would seem to be a goal of the new Saudi regime, in which King Salman appears to be allowing his Crown Prince,

the Interior Minister Mohammed bin Nayef, and his son, Defence Minister Mohammed bin Salman, to set the tone of the new Saudi regime.

Even Canada is touched by these developments. Ottawa sharply criticized Saudi Arabia's mass executions of 47 people that included Sheik al-Nimr on Saturday and expressed its concern that it might lead to sectarian violence. But the new government of Prime Minister Justin Trudeau remains committed to a \$14-billion contract to supply Riyadh with hundreds of armoured personnel carriers intended for quelling any domestic uprisings. This kind of business dealing will complicate matters for the government should it wish to reinstate diplomatic relations with Tehran, severed in 2012 by the Harper government.

Iran's agenda

Iran's initial interest in the Syrian civil war was to ensure the survival of a client state regime that helped extend Iran's influence from the Afghanistan border to the Mediterranean. In particular, the Assad regime in Damascus helps facilitate Iran's support for the militant Shia Hezbollah movement in neighbouring Lebanon and protects Shia pilgrimage sites inside Syria, keeping them safe from Sunni extremists.

The advent of the Islamic State (IS) in 2014, however, and its continued strength in 2015, has made Iran look somewhat differently at the conflict. It now views the war as part of a larger Sunni-Shia struggle that engulfs Iraq, Lebanon and Yemen and may well spill over into Saudi Arabia and the Gulf.

With Russian forces now active in Syria on behalf of the Assad regime, Iran was able in December to withdraw large numbers of Revolutionary Guardsmen it had deployed to assist Syrian forces, and which had been incurring heavy losses.

As the year ended, it appeared that Iran would be focusing its external attention on the war against IS forces in Iraq where it was having greater impact and where the nucleus of the IS self-proclaimed caliphate is located.

Iran also has felt newly empowered by the signing in July of an agreement reached with the five permanent members of the UN Security Council plus Germany to restrict Iran's nuclear capacity for the next 15 years. In exchange for this restriction, international sanctions that have been in place against Iran are to be gradually lifted and the country's waning economy will be revived. Already, Tehran is flaunting its improved situation by carrying out several controversial tests of long-range missiles.

It is suspected that the lifting of sanctions will breathe new life into Iran's agenda of extending its influence in the Shia-populated areas of the region, something Saudi Arabia is determined to stop.

Syria's endless war

After five years of fighting, the Syrian civil war continues unabated. The millions of Syrians who had fled the violence had been waiting out the war in nearby camps in Turkey, Jordan, Lebanon and Iraq. In the past year, hundreds of thousands began washing up on the shores of

southern Europe, bringing the reality of war to the attention of Europeans and North Americans.

Humanitarian concern mixed with fear of being overrun lent a new determination to Western efforts to end the war; talks led by Russia and the United States, with the participation of Iran, Turkey, Egypt, Saudi Arabia and several other interested outside parties, had produced a "road map" intended to lead to a political solution.

Many differences remain unresolved, such as which Syrian opposition groups would be allowed to participate in the process and which would be excluded as "terrorists." Also unsettled is the status of Syrian President al-Assad and how long he'll be allowed to remain part of the process of transition. Saudi Arabia, in particular, is vehemently opposed to Mr. al-Assad continuing in office, to rule by an Alawite minority group over the majority Sunni population and to Iran benefiting by such a rule.

Russia's arrival

The most significant change within the Syrian conflict was the arrival in September of Russian forces that quickly went into combat. Following a formal invitation by the Syrian government, Russia deployed several fighter bombers, cruise missiles, heavy armoured vehicles and several hundred troops to a newly expanded base near Latakia on the Mediterranean coast. The base is close to a Russian naval facility at Tartus and within the Alawite homeland of President al-Assad and his family.

Russian bombing has been almost daily, almost always heavy and usually successful in reversing the advances of rebel forces in the northwest that were closing in on the Alawite areas.

The rebels have been led in part by the al-Qaeda-linked Nusra Front and included a great many Turkmen who had the quiet support of nearby Turkey.

The Russian role has been a game changer for the Assad regime and for the moribund political process since it has made clear that the Syrian leadership will not be forced from office.

Turkey stirs

Russia's actions also stirred things up with Turkey. When a Russian strike aircraft strayed over Turkish territory on Nov. 24, it was promptly shot down by Turkish fighter jets that had been lying in wait. The move may have been intended to discourage Russia from targeting the Syrian Turkmen population who live in the border area near Turkey, but it had the opposite effect. Russia increased its attacks on the Turkmen and moved into Syria some of Russia's most potent surfaceto-air defence systems, daring Turkey to try to attack a Russian aircraft again.

The episode served to expose the extent of Turkey's increased role in the Syrian conflict. Turkish President Recep Tayyip Erdogan has always made clear he wishes to see Mr. al-Assad vanquished, but has maintained an officially neutral position. Turkey, however, has been far

more active than people realize, and increasingly so. In this, it is closely allied with Saudi Arabia.

In addition to supplying arms and ammunition to the Turkmen in the northwest, Ankara has also kept the border with Syria deliberately porous so that foreign fighters could filter in to join the Nusra Front or other groups, including the Islamic State. Turkey wants to support any group that is effective against the Assad regime, even the Islamic State.

Indeed, when the U.S.-led coalition against the Islamic State began operations in late 2014, Turkey refused to allow even its allies to use Turkish facilities in carrying out bombing runs against IS forces.

As well, when the Kurds of northeastern Syria were fighting for their lives against the Islamic State, Turkey refused to allow any Turkish Kurds to join the battle - it was the one border area Ankara kept closed. In 2015, however, plenty of Turkish Kurds succeeded in joining the fight, including members of the Kurdistan Workers' Party, better known as the PKK. But rather than help these U.S.-backed Kurds in the campaign against IS forces, Turkey carried out frequent bombing attacks on the Kurds. Mr. Erdogan views the PKK as the greater threat.

Islamic State evolves

The Islamic State's role in the Syrian conflict also changed in 2015. It lost ground in the northeast to the Kurds, though it succeeded in taking new territory in the south and middle of the country, including the historically significant ruins of Palmyra, parts of which the group appears to have destroyed.

Over all, including Syria and Iraq, the Islamic State's self-proclaimed caliphate shrank by about 14 per cent in 2015, with most of those losses being to the Kurds.

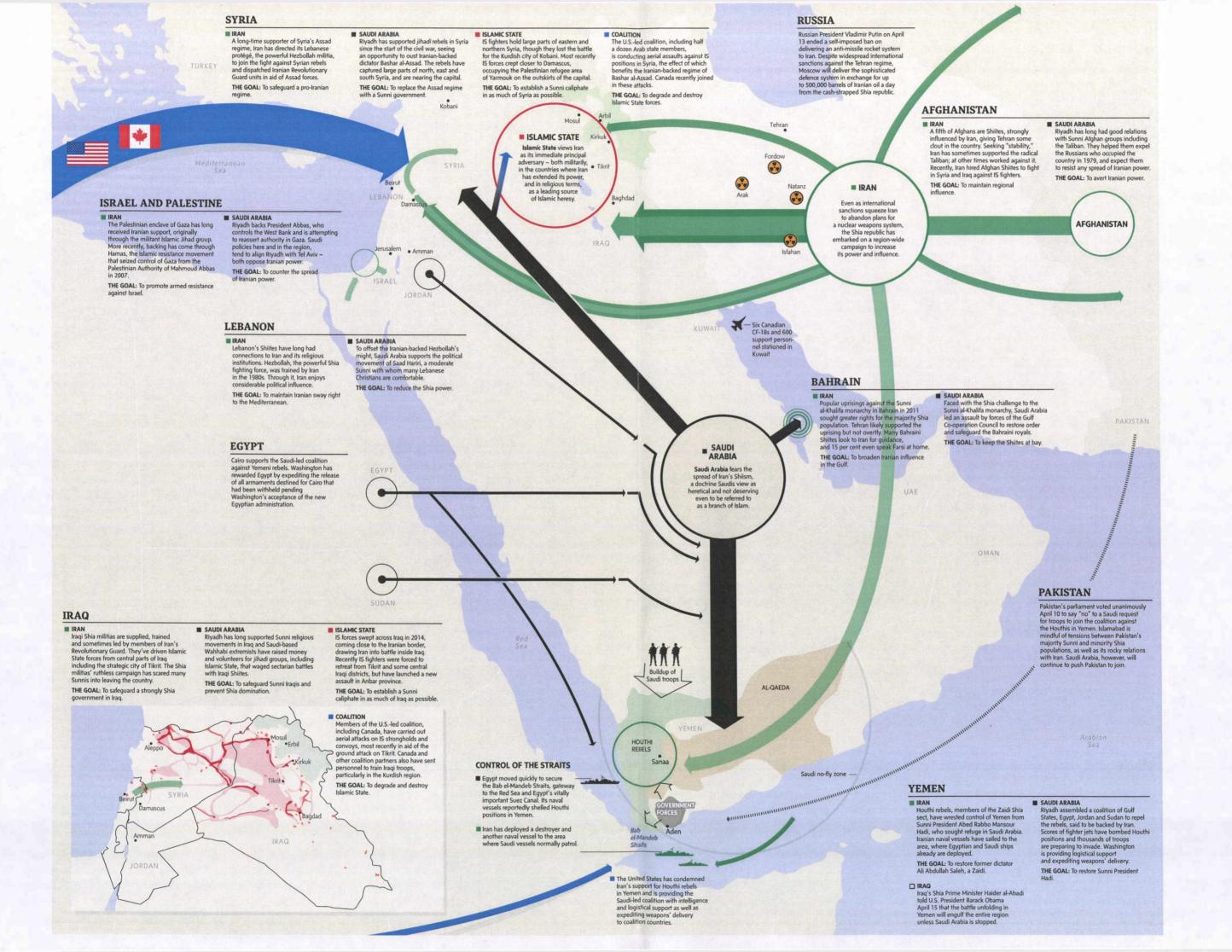
This may explain why IS leaders this past year projected their violent path to areas outside their caliphate. On Oct. 31, a bomb planted on a Russian airliner departing from Sinai was traced to the Islamic State; the blast downed the plane killing all 224 passengers and crew.

And in Paris, on Nov. 13, seven co-ordinated attacks were carried out by IS supporters, killing 130 people.

The two unforeseen assaults led Russia to intensify bombing of IS targets in Syria and to call for a broad coalition against IS terror, an invitation Washington has declined, preferring to conduct its own operations against IS facilities in Syria and Iraq. The assaults did lead European countries, especially France, to join in the fight against IS forces. Paris echoed Moscow's appeal for a coordinated campaign against the extremists.

These developments contributed to improving the prospects for a political solution to the Syrian conflict so that all attention could be focused on ending the Islamic State. Now, however, those prospects are running into considerable opposition from Saudi Arabia.

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Established in 1983

8-9 March 2016 Baku, Azerbaijan

ILO 2015 REPORT SUMMARY

Prepared by

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Global Employment Trends for Youth 2015

Summary is tailored for a focus on global and regional youth unemployment trends, with an emphasis on policies targeted at structural barriers to employment.

Access the document here:

http://ifuturo.org/documentacion/Employment%20outlook%202015.pdf

Framing the problem

The global youth unemployment rate has settled at 13.0 per cent for the period 2012-2014, which is a decrease from the 2007-2010 financial crisis period, signalling that global youth unemployment trends are slowly decreasing. However, recovery is not universal and indeed many young people are severely affected by changing patterns in the nature of work. The ILO notes that overall, two in five (42.6 per cent) economically active youth are still either unemployed or working, but still living in poverty. This is particularly pervasive in the Asian region and Middle Eastern and North African regions where youth unemployment rates have worsened between 2012 and 2014. For the developed economies, the youth unemployment rate improved over the same period, but still many European countries face massive youth unemployment, such as in Central and South-Eastern Europe. Youth unemployment remains a top policy concern in most countries across all regions. These policies have translated in to the development of a global strategy for youth employment at the international level, which is embedded in the 2030 development agenda by the ILO. This report provides an update on youth labour markets around the world, encouraging partnerships for policy coherence and effective coordination between governments and industry leaders on youth employment.

Policy Recommendations

Creating jobs for youth is a critical component of economic growth, fair societies and stronger democracies. The ILO emphasizes that it is not only the quantity of jobs that matters, but the quality. Providing youth with decent and productive work in which rights are protected, an adequate income is generated and social protection is ensured is vital for youth to both realize their aspirations and to improve their living conditions. Yet a mix of policies that tackle both structural and cyclical issues are required to address current challenges. Access to decent work for young people cannot be achieved and sustained through

¹ "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". For more information see https://sustainabledevelopment.un.org/post2015/transformingourworld.

fragmented and isolated interventions. Long-term, concerted actions spanning a wide range of policies and programmes are needed to help young people overcome barriers and disadvantages they face in the labour market. The following points summarize the policy recommendations enshrined in the 2015 ILO report:

- 1. Active labour market policies should promote employment-centred and inclusive growth: Keeping youth unemployment strategies tied to macroeconomics and sectoral policies are critical. Job growth can be spurred by encouraging economic diversification and structural transformation. For example, rural non-farm economic activities are the source of 40 to 70 per cent of rural households' income in Africa, Asia and Latin America. Many countries need to move beyond low-productive agriculture in order to influence job growth. In these developing countries, rural diversification and structural transformation has not yet resulted in better jobs for the significant share of young people living in rural areas. It is noted that there are multiple and diverse ways to structural transformation. The state must always play an active role. This role can take the form of building markets, nurturing enterprises, modernizing agriculture and providing access to finance.
- 2. Aligning skills with labour market requirements: Education and training are a necessary step towards obtaining decent and productive work. Skills development is increasingly viewed in the context of enabling job growth and as a tool to address inequality. Policies that focus on reforms to improve education, training and skills development with the direct participation of employer organization and trade unions are able to address skills mismatches in the labour force. A strategic and systematic process through which labour market actors identify and prepare for future skill needs is required to avoid the potential gaps between the demands of job creators and the supply of job seekers. The ILO has produced a tool called the Skills for Trade and Economic Diversification (STED), which provides occupation assessments that are required for determining the most effective skills training and strategy for growth sectors.
- 3. Targeted interventions to reduce inequality and promote employment of disadvantaged youth: The changing nature of work has resulted in increased insecurity among young people. Young workers are consistently over represented in part-time and temporary work, in certain types of occupations/economic sectors and in the informal economy. This has effectively resulted in a persistent wage gap. In response to the precarious nature of labour market conditions, certain developed and emerging economies have introduced reforms promoting youth transition programmes leading to open-

ended and full-time jobs. Targeted intervention policies have been implemented by countries to mitigate the negative impact of the global economic and financial crisis on youth employment outcomes. This has taken the form of labour market training and work-experience programmes, job-search assistance and other employment services. Countries have also sought to **incentivize employers** to recruit disadvantaged young people or to have introduced novel measures to support young people so that they are able to start their own economic activity. In an effort to enhance the **integration of different labour market policies**, countries have reformed the targeting and sequencing of different labour markets and have expanded targeted interventions to respond to diverse needs of protection measures.



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8-9 March 2016 Baku, Azerbaijan

OECD EMPLOYMENT OUTLOOK 2015: SUMMARY ON YOUTH UNEMPLOYMENT

Prepared by

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2015 OECD Employment Outlook Summary

Summary is tailored for a focus on youth unemployment.

Access the document here:

http://ifuturo.org/documentacion/Employment%20outlook%202015.pdf

Framing the Problem

Despite labour market conditions generally improving in the 32 OECD countries, this recovery has grown too slowly, and youth unemployment in particular still remains well above its pre-crisis levels (on average, 2.7% higher across the OECD area). Since 2007, the percentage of young people aged 15-29 who are neither employed nor in education (NEET rate) has increased in more than 75% of the OECD countries, with Greece, Ireland, Italy, Slovenia, and Spain being among those the hardest hit. This report finds that long-term career prospects are largely determined in the first 10 years of working life, and youth unemployment therefore puts the future of a country's economy in a precarious position. Other findings in the report about the current situation include:

- 1. <u>Earnings mobility</u>: Earnings mobility is more than 50% higher for young people than for prime-age and older workers. Older workers (aged 50-65) have wages 36.1% higher than younger workers (aged 16-29). Youth have a risk of around 25% of being low-paid in the long-term. Earnings mobility has declined for young men and increased for women.
- 2. <u>Informal job</u>: Starting with an informal job can leave permanent scars on worker's careers. Young people who start with an informal job may expect to spend most of their working lives in informal employment and it is difficult to move out of precarious, low-paid jobs into jobs that offer opportunities for career advancement. Informality is more prevalent among women, youth, and the low skilled.
- 3. <u>Part-time work:</u> Job mix has shifted towards more part-time work and away from manufacturing and construction, which may make it harder for some unemployed to find full-time jobs. About 1 in 5 employed persons worked part time in third quarter of 2014. Many production jobs lost during the recession may never be recovered.
- 4. Participation in workforce: Since 2007, there has been a fall in the share of youth participating in labour force (either working or unemployed) and lower employment may be translated into enrolment in high school or vocational training. However, half of the NEETs between 15-29 left school early. A key barrier for employment for youth with children is accessible and affordable childcare. A finer age breakdown of NEETs

show that the problem mostly concerns young adults and not older teens, since the latter are mostly attending school, and the rate increases between ages 20-24 and ages 25-29. About half of NEETs between 15-29 are early school leavers in a number of OECD countries and are particularly likely to face limited career prospects.

- 5. <u>Job quantity and quality:</u> Young people tend to experience poor performance in terms of both job quantity (low employment rates) and job quality (lower earnings quality, higher insecurity and lower quality of working environment, instead of long hours). The best performing OECD countries showed that high job quality can be coupled with high employment rates.
- 6. Minimum wage: Negative employment effects of minimum wage increases tend to be concentrated among (low-skilled) youth. However, youth face a choice to either study or work, and increases in minimum wage may raise the benefit of work and lead young people to drop out of school, strengthening the argument for a sub-minimum wage for youth to reduce attractiveness of work to encourage further human capital accumulation.
- 7. <u>Technology:</u> Technological change and digital revolution have skewed job demands towards high-level skills and put downward pressure on pay of less skilled workers. However, younger workers tend to have higher skills than older generations, but this does not translate necessarily into wages.

Policy Recommendations

The report suggests that workers, and in particular young people, need the opportunity to build skills needed by employers, but also the flexibility to adapt them to changes in labour demand and use their skills fully on the job. To achieve this, the government should work closely with the private sector to achieve increased labour market prospects for workers at the bottom of the economic ladder through three policy measures:

- Improve activation measures to connect jobseekers with suitable jobs, that emphasizes
 maintaining the motivation of job seekers that actively pursue employment, improve
 employability of the individual through education and training programs, and improve opportunities to be placed and retained in appropriate jobs through placements;
- 2. Correct **skill deficits** in the workforce by making better use of the skills that workers already possess and matching workers to jobs that make use of their skills;
- 3. Improve job quality of workers through co-ordinating a minimum wage scheme with other policies and conditions, such as the tax-benefit system to increase take home

pay, accounting for differences in skills and age of the individual, and the job hours and conditions to ensure a sufficient living pay.

Education and training were the object of focus in a large number of recommendations to be more responsive to changing skills needs, which included strengthening careers guidance, working more closely with employers, expanding traineeship and apprenticeship programmes, and reforming funding structures that distort the mix of vocational education and training. Support also needs to be provided for youth in the workforce, which include providing quality and affordable early childhood education and care. Better use of the productive potential of younger generations can strengthen growth and reduce poverty.

The report also cites a recent paper by Michelacci and Ruffo (2015) that suggests unemployment insurance systems that are more generous for youth, who have a limited ability to smoothen consumption during unemployment spells, can be welfare enhancing.

2013 OECD Action Plan for Youth Summary

Access the document here: http://www.oecd.org/els/emp/Youth-Action-Plan.pdf

There is a core group of youth across all countries that face combinations of high and persistent unemployment, poor quality jobs when they do find work, and high risk of social exclusion. As the population is ageing, engaging the youth in the labour market is crucial to strengthen overall economic growth. This report is a product of the meeting of OECD Ministers on 29-30 May 2013 which recommends that:

1. In the short term:

- a. Weak aggregate demand must be tackled to boost job creation
- b. Adequate income support be provided to unemployed youth but is subject to strict mutual obligations until labour market conditions include
- c. Expand cost-effective active labour market measures
- d. Demand-side barriers to the employment of low-skilled youth are tackled
- e. Employers are encouraged to expand or continue quality apprenticeship and internship programs

2. In the long term:

- a. Education system is strengthened to prepare all young people for work
- b. Vocational education and training is strengthened
- c. Assist in transition to world of work
- d. Reshape labour market policy and institutions to increase access to employment and tackle social exclusions

Particular attention should also be placed on assisting disadvantaged youth, low-skilled youth, and youth with migrant backgrounds.

OECD Youth Website

Access the site here: http://www.oecd.org/youth.htm

The OECD finds that:

- 1. 40% of youth indicate an interest in self-employment and entrepreneurship. Policy should target resources to help young people succeed, and provide sufficient support for the businesses, which includes: entrepreneurship education and training, information, advice, coaching and mentoring, financial support, and infrastructure that include incubators and business networks.
- 2. National surveys found that young adults have amongst the lowest levels of financial literacy, and strengthening financial literacy in schools is a core life skill.

17 · The Arab States

Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Sudan, Tunisia, United Arab Emirates, Yemen

Moneef R. Zou'bi, Samia Mohamed-Nour, Jauad El-Kharraz and Nazar Hassan

INTRODUCTION

The global financial crisis has ricocheted on the region

The Arab world¹ is of strategic importance, owing to its location and wealth of oil and natural gas: 57% of the world's proven oil reserves and 28% of those for gas (AFESD *et al*, 2013).

The tremors of the global financial crises of 2008 and 2009 and the subsequent recession in most developed countries affected Arab states in a variety of ways. The oil-exporting countries of the Gulf Cooperation Council felt such tremors, most being characterized by open financial and commercial systems with high exposure to global financial markets and close association with the global commodity markets (AFESD *et al*, 2010). Not so countries such as Algeria, Libya, Sudan and Yemen, where local capital markets are not directly linked to global markets. However, as their economies also rely on oil revenue, the Brent crude price significantly affects their fiscal policy.

In, Egypt, Jordan, Lebanon, Mauritania, Morocco, Syria and Tunisia, where the banking sector is dependent on national borrowing sources, the economy was not directly affected by fluctuations in global capital markets. Such countries nevertheless felt these external economic shocks through their close association with the markets of developed countries and other major trading partners in the European Union (EU) and USA. Needless to say, their exports depend primarily on demand from the developed countries, in addition to income from tourism, remittances from expatriate workers and foreign direct investment (FDI) flows (AFESD et al, 2010).

The inability of most Arab countries since 2008 to address socio-economic needs effectively and ensure that their economies have kept pace with population growth has created widespread frustration. Even before the economic crisis of 2008, unemployment in the Arab world was high,² at around 12%. Young job seekers constitute over 40% of the region's unemployed. Today, over 30% of the population of Arab states is aged less than 15 years. As of 2013, most Arab states had achieved a gross tertiary enrolment rate of more than 30% and even above 40% for Jordan, Lebanon, Palestine and Saudi Arabia but they have failed to create the appropriate value chain of job openings required to absorb the spreading pool of graduates.

The Arab region: from hope to turmoil

The so-called Arab Spring was triggered by demonstrations in Tunisia in December 2010. Popular unrest quickly spread across the region, revealing a common aspiration towards freedom, dignity and justice (ESCWA, 2014a).

Since December 2010, Arab countries have undergone extraordinary transformations, including regime change in Egypt, Libya, Tunisia and Yemen and the descent of Syria into civil war after what began as peaceful protests in the spring of 2011. Despite having elected parliaments, Jordan and Bahrain also witnessed a series of demonstrations in favour of reform in 2011. In Jordan, the protests were essentially directed against the failure of successive governments to address serious economic issues and combat unemployment. In Bahrain, demonstrations were more political in nature and, to some extent, sectarian.

In part, the upheaval in the Arab world was a reaction by technology-savvy young Arabs to decades of political stagnation and the failure of some Arab governments to afford people adequate levels of socio-economic development. Within a couple of years, however, the failure of the Arab Spring to deliver on its promises had left many disillusioned. One of the great beneficiaries of the Arab Spring was the Muslim Brotherhood movement, which won the election in Egypt in mid-2012; barely a year later, President Mohamed Morsi was deposed, following mass popular protests at the Muslim Brotherhood's failure to build a national consensus to address the country's problems. Since 2015, there have been repeated clashes between the government of President Abdel Fattah al-Sissi and the Muslim Brotherhood, which is now considered a terrorist organization by the governments of several Arab and non-Arab countries, including Bahrain, Egypt, the Russian Federation, Saudi Arabia, Syria and the United Arab Emirates. The Egyptian government has, meanwhile, forged ahead with its ambitious expansion of the Suez Canal (Box 17.1) and, in March 2015, organized a major conference in Sharm El-Sheikh on the theme of economic development (see p. 435).

Military spending is eating up resources for development

Military spending in the Middle East increased by 4% in 2013 to an estimated US\$ 150 billion. Saudi Arabia's own budget shot up by 14% to US\$ 67 billion, allowing it to leapfrog over the UK, Japan and France to become the world's fourthlargest military spender behind the USA, China and the Russian Federation, according to the Stockholm International

^{1.} Although members of the League of Arab States, Djibouti and Somalia are profiled in Chapter 19 on East and Central Africa.

^{2.} with a few exceptions, such as Kuwait, Qatar and the United Arab Emirates

UNESCO SCIENCE REPORT

Box 17.1: Up grading the Sue. Canal

The Suez Canal provides a vital shipping link between Europe and Asia. On 5 August 2014, Egyptian President Abdel Fattah Al-Sissi announced plans for a 'new' Suez Canal that would run in parallel to the current waterway. This was to be the first major expansion of this vital trading route in its 145-year history.

The Egyptian plan to upgrade the Suez Canal could raise its capacity from 49 to 97 passing ships a day by 2023. The current Suez Canal, which connects the Mediterranean with the Red Sea, can mostly only facilitate one-way traffic and is too narrow at some points for vessels to pass one another. The new canal is expected to solve this problem

and thereby cut the waiting time for ships from 11 to 3 hours. The area around the canal (76 000 km²) is being turned into an international industrial and logistics hub. Officials expect the new development to boost annual revenue from the canal, which is operated by the state-owned Suez Canal Authority, from US\$ 5 billion at present to US\$ 13.5 billion. In October 2014, work began on deepening the Suez Canal.

Some shipping industry executives had expressed doubts as to whether Egypt could obtain sufficient funding to finish the project on schedule. The Egyptian government was adamant that the project would not be dependent on foreign funding. By September 2014, the total amount needed

(US\$ 8.4 billion) had been raised, according to the Egyptian central bank, through the issuance of 500 million shares reserved for Egyptians. The government inaugurated the new canal on 6 August 2015.

Despite widespread acknowledgment that the project is an economic necessity, some scientists fear that that it could damage the marine ecosystem. A group of 18 scientists from 12 countries published a letter in 2014 in the journal of *Biological Invasions* calling on the Egyptian government to take steps to minimize any ecological damage.

Source: compiled by authors

Peace Research Institute³ (see also Figure 17.1) However, the largest increase in the region (27%) came from Iraq, which is reconstituting its armed forces.

The escalating pressures on Arab states, particularly those related to security and counterterrorism – including military confrontations with radical groups such as Al Qaida and Da'esh –, have spurred the governments of these countries to increase their own military spending.

Still a long way to go to improve governance

There is little doubt that corruption has played a pivotal role in the outbreak of turmoil since 2010. Available estimates suggest that the smuggling of funds amounted annually to US\$ 2 billion in Egypt and US\$ 1 billion in Tunisia, according to the institution charged with monitoring the soundness of the global financial sector (Global Financial Integrity, 2013). This amount represented 3.5% of Tunisia's GDP and 2% of Egypt's in 2005.

Government effectiveness has deteriorated in several Arab countries. Kaufmann *et al.* (2013) found that, in the Arab world, only the United Arab Emfrates (UAE) and Qatar ranked above the 80th percentile in 2013. Bahrain and Oman ranked between the 60th and 70th percentiles and five countries between the 50th and 60th percentiles, namely, Jordan, Kuwait, Morocco, Saudi Arabia and Tunisia.

The voice and accountability indicator over the past ten years has been disappointing, according to Kaufmann *et al.* (2011; 2013). In 2013, the scores for the top five Arab states (Tunisia, Lebanon, Morocco, Kuwait and Jordan) were low by international standards (between the 45th and 25th percentiles). Algeria, Iraq, Libya and Palestine show some improvement but, overall, 12 Arab states registered a decline in voice and accountability between 2003 and 2013, namely: Algeria, Bahrain, Djibouti, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, Syria and the United Arab Emirates.

An economic downturn in most Mashreq countries

The countries of the Mashreq have a population of about 196 million, or 53.4% of the Arab population. With the exception of Iraq, they have few oil reserves. Thanks to high commodity prices for oil, Iraq was able to weather the global financial crisis better than its neighbours. The slump in Sudan's economy in 2012, however, was more a consequence of the birth of South Sudan in 2011 and subsequent skirmishes between the two Sudans than the impact of global shocks.

In 2013, GDP per capita in the Mashreq countries, Egypt and Sudan was highest in Lebanon and lowest in Sudan. From 2008 to 2013, annual growth slowed in all the countries of this group, even though it was less noticeable in Palestine in 2013. Over the same period, unemployment rates changed little in all but Egypt, where the slump in tourism and FDI following the revolution in 2011 pushed up unemployment (Table 17.1). With the return to stability, GDP growth recovered to 2.9% in 2014 and is expected to hit 3.6% in 2015. Economic growth

^{3.} See: www.sipri.org/media/pressreleases/2014/Milex_April_2014 (accessed 16 January 2015)

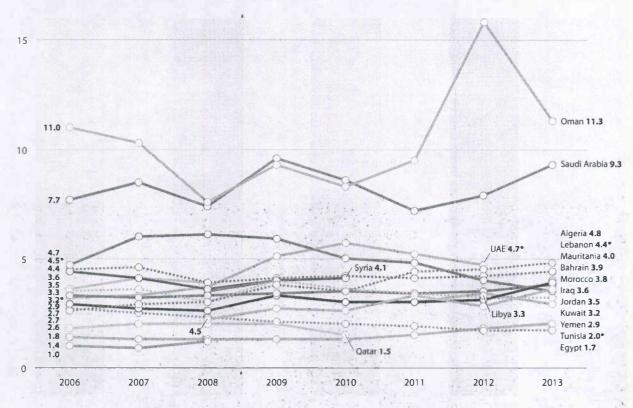


Figure 17.1: Military expenditure in selected Arab states as a % of GDP, 2006–2013

*SIPRI estimate

Note: The low figure for Egypt (1,7%) in 2013 only tells half the story, as it excludes the economic activities of the Egyptian armed forces and American aid, which cover 80% of military procurement (Gaub, 2014).

Source: Stockholm International Peace Research Institute database; accessed January 2015

in Jordan and Lebanon, in particular, has been affected by the massive influx of Syrian refugees since 2011.

Together with Egypt and Sudan, the Mashreq countries are considered reservoirs of human talent which supply neighbouring states with teaching faculty, researchers and both skilled and unskilled workers. Egypt, Iraq Jordan, Lebanon, Palestine, Sudan and Syria all boast relatively mature higher education infrastructure that includes some of the oldest universities in the Arab world, including the American University of Beirut (1866) and Cairo University (1908).

The Arab Spring has left a big imprint on the Libyan economy

Since 2008, the Maghreb countries have experienced mixed fortunes. Whereas the economies of Algeria and Mauritania have maintained healthy growth rates, countries directly affected by the Arab Spring have witnessed a more negative trend. Growth

4. On 29 November 2012, the United Nations General Assembly voted to grant Palestine non-member observer status at the United Nations. Palestine has been a member of UNESCO since 31 October 2011.

slowed to 2.2% in Tunisia and even contracted by 11.6% in Libya (Table 17.1). However, unemployment rates have remained unchanged, with variations from one country to another. Despite average growth of 5.9% between 2011 and 2013, Mauritania's unemployment rate was as high as 31% in 2013, indicating that growth had not been sufficient to provide much-needed jobs.

The Gulf States contribute nearly half of the Arab world's GDP

The six Gulf States, which contribute about 47% of total Arab GDP, are all economically dependent on oil. Some 75 million people (including a sizeable foreign labour force) belong to this group, representing around 20.4% of the Arab world population in 2014 (Table 17.1).

In 2014, the economy slowed in Oman and Qatar, primarily as a consequence of weaker exports and the drop in both private consumption and investment. At the same time, Kuwait and Saudi Arabia emerged from a period of economic contraction, with several sectors showing signs of recovery, including housing in Kuwait and banking in Saudi Arabia.

UNESCO SCIENCE REPORT

Table 17.1: Socio-economic indicators for the Arab States, 2008 and 2013

	Population (*000s)		GDP per capita (current RPPS)		GDP average annual growth (%)		Employment rate (% of adult population)			
	2008	2013	2008	2013	2008 - 2010	2011 - 2013*	2008	2013	2008	2013
Gulf States plus Yemen										
Bahrain	1 116	1 332	40 872	43 824	4.4	3.7	63.9	65.0	7.8	7.4
Kuwait	2 702	3 369	95 094	85 660-1	-2.4	6.1	66.0	66.3	1.8	3.1
Oman	2 594	3 632	46 677	44 052	6.4	2.2	52.1	59.9	8.4	7.9
Qatar	1 359	2 169	120 527	131 758	15.4	7.5	85.1	86.2	0.3	0.5
Saudi Arabia	26 366	28 829	41 966	53 780	5.9	6.0	48.6	51.8	5.1	5.7
United Arab Emirates	6 799	9 346	70 785	58 042-1	0.0	2.7	74.0	76.9	4.0	3.8
Yemen	21 704	24 407	4 250	3 958	3.8	-3.2	40.6	40.3	15.0	17.4
Mashreq plus Egypt and	Sudan			13 3						-
Egypt	75 492	82 056	9 596	11 085	5.7	2.0	43.9	42.9	8.7	12.7
raq	29 430	33 417	11 405	15 188	6.0	8.2	35.3	35.5	15.3	16.0
Jordan	5 786	6 460	10 478	11 782	5.0	2.7	36.6	36.3	12.7	12.6
Lebanon	4 186	4 467	13 614	17 170	9.1	1.7	43.2	44.4	7.2	6.5
Sudan	34 040	37 964	3 164	3 372	3.2	-6.5	45.3	45.4	14.8	15.2
Syria	20 346	-		-	-	_	40.1	_	10.9	-
West Bank & Gaza	3 597	4 170	3 422	4 921-1	4.2	5.6	31.7	31.6	26.0	23.4
Maghreb										
Algeria	35 725	39 208	11 842	13 304	2.4	3.0	37.9	39.6	11.3	9.8
Libya	5 877	6 202	27 900	21 397	3.6	-11.6	43.2	42.6	19.1	19.6
Mauritania	3 423	3 890	2 631	3 042	2.2	5.9	36.3	37.2	31.2	31.0
Morocco	30 955	33 008	5 857	7 200	4.7	4.0	46.2	45.9	9.6	9.2
Tunisia	10 329	10 887	9 497	11 092	3.9	2.2	40.9	41.3	12.4	13.3

⁺n/-n = data refer to n years before or after reference year.

The slump is hitting oil-rent economies hard

The slump in global oil prices from US\$ 115 in June 2014 to US\$ 47 in January 2015 has been mending holes in the budgets of Arab oil-importing countries such as Egypt, Jordan, Morocco and Tunisia. By contrast, it has punched holes in the budgets of oil-producing countries, including members of the Organization of Petroleum Exporting Countries (OPEC) [Figure 17.2]. The slump has not affected the export growth of Bahrain and the United Arab Emirates as much as that of other Gulf states, thanks to their diversification of exports. In order to diversify their own sources of income, other Arab governments will need to create a socio-economic environment in which all active stakeholders can thrive, including the private sector.

As early as 1986, the Gulf Cooperation Council identified economic diversification as a key strategic goal for its members. Whereas Saudi Arabia, the United Arab Emirates and Qatar have since developed their non-oil sectors, Bahrain and Kuwait are finding it harder to make the transition (Al-Soomi, 2012). Some voices from within the subregion have suggested transforming the Gulf Cooperation Council into a regional socio-economic and political bloc modelled on the European Union (O'Reilly, 2012).

The slump in oil prices comes at a particularly bad time for Iraq, which needs high oil revenue to revive its economy and combat terrorism, and for Libya which is facing internal

^{*} For Kuwait, Oman and United Arab Emirates, the years are 2011–2012.

Note: Palestine is designated as the West Bank and Gaza here, owing to data coverage issues.

Source: World Bank's World Development Indicators, May 2015

instability and battling an insurgency by militia groups. Algeria raised its welfare spending in 2011 and now needs oil prices at US\$ 121 a barrel to avoid a budget deficit, the International Monetary Fund estimates; it could slip into the red in 2015 for the first time in 15 years (*Wall Street Journal*, 2014). Oil and gas exports still represent two-thirds of national income for Algeria (see Figure 18.1), which has a tiny manufacturing sector (Figure 17.3). This said, Algeria may be less vulnerable the next time Brent crude prices tumble. It is developing solar and wind energy for domestic consumption and export (see p.447). Global investment in renewable energy technologies increased by 16% in 2014, triggered by an 80% decrease in the manufacturing costs of solar energy systems.

FDI flows to the Arab world have slowed

The economic fallout of the current upheaval has negatively affected the flow of FDI into Arab states, not to mention their tourism sector and real estate markets. Interestingly, the drop in FDI appears to have begun before 2011 (Figure 17.4). This can be traced back essentially to the global financial crisis of 2007–2008, thought to have been the worst since the Great Depression of the 1930s. Countries less affected by this turbulence, such as Algeria and Morocco, have seen greater stability in FDI inflows but they also enjoyed modest levels of foreign investment to begin with. There has been a surge in the flow of FDI to Morocco for new projects to expand the railways and deploy renewable energy on a massive scale. In Mauritania, FDI tends to be destined

Figure 17.2: Estimated oil price needed to balance the government budget in OPEC member states, 2014

Iran	(40)
Venezuela	121
Algeria	124
Nigeria	
Eculador	Pront stude
lrag	Brent crude price on 16 January 2015:
Angola 9	US\$ 50 per barrel
Saudi Arabia 23	
Libya 90	
Kuwait 75	
JAE 70	T. A. A. A.
Qatar 65	

Source: adapted from Wall Street Journal (2014), based on data from the Government of Libya, Angolan Ministry of Finance, International Monetary Fund, Arab Petroleum Investments Corp., Deutsche Bank

primarily for projects related to crude oil and natural gas exploration and drilling.

In Egypt, FDI increased by 7% to US\$ 4.1 billion between 2013 and 2014. The Sharm El-Sheikh Economic Development Conference organized by the government in 2015 attracted more than 1 700 investors, as well as former British prime minister Tony Blair, US Secretary of State John Kerry and the International Monetary Fund's managing director Christine Lagarde. By the conference's end, Egypt had attracted US\$ 36.2 billion in investment, plus US\$ 18.6 billion in infrastructure contracts and US\$ 5.2 billion in loans from international financial institutions.

STI GOVERNANCE ISSUES

Bringing the business community in from the cold

In March 2014, the Council of Ministers of Higher Education and Scientific Research in the Arab World adopted the Arab Strategy for Science, Technology and Innovation at its 14th congress in Riyadh (Saudi Arabia). The strategy has three main thrusts: academic training in science and engineering, scientific research and regional and international scientific co-operation. One of the strategy's key objectives is to involve the private sector more in regional and interdisciplinary collaboration, in order to add economic and development value to research and make better use of available expertise. Up to now, STI policies in Arab states have failed to catalyse knowledge production effectively or add value to products and services because they focus on developing R&D without taking the business community on board. There has also been a lot of talk about re-orienting the education system towards innovation and entrepreneurship but little action thus far (Box 17.2). Of note are the recent higher education reforms launched by Egypt and Tunisia.

Tunisia and Saudi Arabia currently lead the Arab world in electronics and the United Arab Emirates is investing heavily in space technologies. In the field of renewable energy, Morocco is a leader in hydropower. Algeria, Jordan, Morocco and Tunisia are all developing solar energy. Egypt, Morocco and Tunisia have experience of wind energy that could benefit other countries keen to invest in this area, including Jordan, Libya, Saudi Arabia, Sudan and the United Arab Emirates. Morocco and Sudan are currently the main users of biomass.

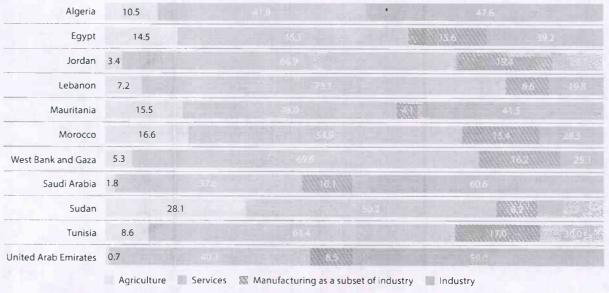
The strategy proposes the following areas for co-operation:

- Development and management of water resources;
- Nuclear energy, with applications in the health sector, industry, agriculture, materials science, environment and nuclear energy production;
- Renewable energy: hydropower, solar, wind and biomass;

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Figure 17.3: GDP per economic sector in the Arab world, 2013 or closest year

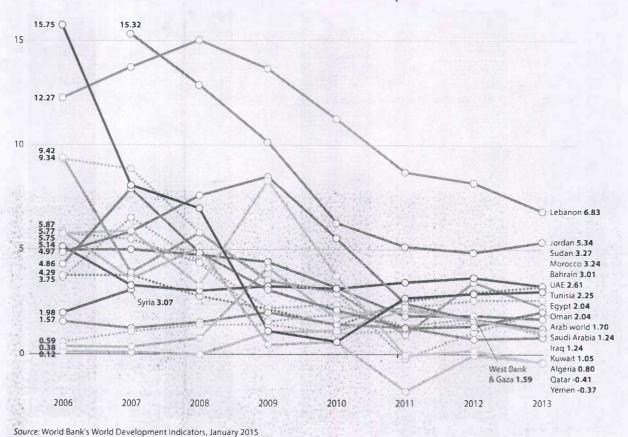
Selected economies



Note: For the West Bank and Gaza, data are for 2012. Palestine is designated as the West Bank and Gaza here, due to data coverage issues.

Source: World Bank's World Development Indicators, January 2015

Figure 17.4: FDI inflow to selected Arab economies as a share of GDP, 2006–2013 (%)



- Oil, gas and petrochemicals industries;
- New materials;
- Electronics:
- Information technologies;
- Space sciences: applications in navigation systems, meteorology, irrigation, environmental monitoring, forest management, disaster risk management, urban planning, etc.;
- Nanotechnology: applications in health and pharmaceuticsal fields, food industry, environment, desalination, energy production, etc.;
- Agriculture, livestock and fisheries;
- Industry and production;
- Desertification, climate change and its impact on agriculture;
- Health sciences and biotechnology;
- Future convergent technologies: bioinformatics, nanobiotechnology, etc.

The strategy also emphasizes public outreach by scientists⁵ and greater investment in higher education and training to build a critical mass of experts and staunch brain drain. It also advocates involving scientists from the diaspora. It was originally due to be adopted by ministers in 2011 but the timetable was perturbed by the events of 2011.

Priorities: problem-solving research, scientific mobility and education

In September 2013, ministers of research met in Morocco to lay the foundations for a common research policy between the five countries of the Maghreb and five countries of the Western Mediterranean: France, Italy, Malta, Portugal and Spain. These ten countries have met regularly since 1990 to discuss a wide range of issues, from security and economic co-operation to defence, migration, education and renewable energy but this was the first time that the 5+5 Dialogue, as

5. Tunisia's first dinosaur exhibition opened at Tunis Science City in mid-2011, with a focus on Saharan dinosaurs. The exhibition, which had taken two years to prepare, was originally scheduled to run until August 2012. It proved so popular that it was extended to mid-2013.

Box 17.2: Marchine and present curricula to market need

The Network for the Expansion of Convergent Technologies in the Arab Region (NECTAR) was launched by the UNESCO Cairo Office in June 2011 to help correct the mismatch between the skills companies seek and the programmes provided by most universities.

Biotechnology, nanotechnology, ICTs and cognitive sciences are all convergent technologies which overlap considerably. By developing linkages between academia and industry in these fields, NECTAR plans to reorient academia towards problem-solving and remove the barriers between disciplines that currently hinder innovation in the Arab world.

A top priority for NECTAR has been to modernize the curricula of the Arab region's universities, in collaboration with renowned Arab scientists based at universities in the USA and in Egypt, where the majority of specialists in convergent technologies can be found in the Arab region. NECTAR targets both universities and technical

colleges, as technicians are the group which gives convergent technologies their manufacturing edge.

The original plan was for professors from the USA to travel to Cairo to teach intensive courses (3-4 weeks maximum) every year. After the Arab Spring, Cairo and other key cities came to be considered a security risk, so the programme morphed into a virtual education programme. The e-content has been developed by Pennsylvania State University (PSU) and should be ready by August 2015. The courses will be permanently accessible via PSU's portal, with tutoring support on hand from the professors who own the courses. This approach will guarantee continuity and greater equity for Arab universities in terms of access to the coursework.

NECTAR has developed a virtual Higher Industrial Diploma Çertificate and a master's degree in Applications of Nano-sciences. Initially, both programmes will be used to train university teaching staff (mainly PhDholders). These staff members will then serve as the core team for the development of an undergraduate minor programme

in nanosciences at each university. The tuition fees have been greatly reduced to encompass only PSU's costs in administering the programme. The diploma certificate will be accredited by PSU, whereas the master's programme will be accredited through participating universities in the Arab world.

There should be strong demand for NECTAR graduates from industries such as pharmaceuticals, chemicals, petrochemicals, oil production, opto-electronics, electronics, information technology, fertilizers, surface coating, building technology, foodstuffs and automotive.

NECTAR organized a regional forum in Cairo in November 2014 on the theme of Galvanizing Science Education and Higher Education towards a Knowledge-based Economy, Since the forum, UNESCO has submitted a proposal to the Egyptian government for a pilot education programme which would stretch from the first year of primary school to postgraduate levels.

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the regional forum is known, had focused on research and innovation. In the *Rabat Declaration*, ministers undertake to facilitate training, technology transfer and scientific mobility by creating a specific visa for researchers; in parallel, the Maghreb countries are encouraged to join European research programmes as a first step towards harmonizing national policies and launching joint research projects.

The declaration adopted by ministers meeting in Rabat a year later at the Second⁶ Forum on Science, Technology and Innovation in Africa reflects many of the concerns of the *Rabat Declaration*: the need for a greater focus on applied research to solve practical problems related to sanitation, health, agriculture, energy and climate change; the catalytic role of public investment in fostering a strong private sector; the need to improve the teaching of science, technology, engineering and mathematics and to facilitate the mobility of researchers.

Research takes a back seat in most universities

A growing number of Arab governments are setting up observatories to monitor their science systems, including in Egypt, Jordan, Lebanon, Palestine and Tunisia. When studying the data collected, however, analysts often see a direct correlation between the number of graduates or faculty and the number of researchers. This is misleading, as many students and faculty members do not conduct research and only a few actually publish in refereed journals listed by the Web of Science or Scopus and have international contacts. Many Arab universities are simply not research universities. Moreover, until recently, the terms of reference for a university professor in the Arab region did not include research.

The real test comes from counting the time spent effectively by an individual on research, as opposed to teaching or other tasks. It is rare for the actual research activity of teaching staff in government and most private universities to exceed 5–10% of their total academic duties, compared to 35–50% in European and American universities. A recent survey by the American University of Beirut'shows that around 40% of academics' time is spent on research; this translates into an average of two publications per year for each full-time equivalent (FTE) researcher (ESCWA, 2014a).

In Jordan and many other Arab states, the bulk of scientific research is carried out within a higher education system that is faced with its own problems, including scarce resources and burgeoning student numbers. With the ranking craze

6. The first took place in Nairobi in March 2012: It focused on STI for youth employment, human capital development and inclusive growth. Both were organized by UNESCO, the Afrian Development Bank, United Nations Economic Commission for Africa and African Union in association with the Association for the Development of Education in Africa.

sweeping Jordanian universities, rectors are no longer certain whether their institutions should aim to generate knowledge (i.e. scientific publications) or transmit knowledge (i.e. teach).

Scientists under pressure to target international journals

The pressure to publish in internationally recognized journals discourages publication in local journals. Moreover, Arab scientific journals suffer from fundamental problems, such as irregular periodicity and a lack of objective peer review. Many local periodicals are not regarded as credible vehicles for obtaining an academic promotion – even within the countries where they are published – thus reinforcing the desire of many academics to publish in international peer-reviewed journals whenever possible (ESCWA, 2014b).

In 2010, the Egyptian Academy of Scientific Research and Technology contacted a number of internationally renowned journals to establish a checklist of the criteria an article needed to meet to be accepted for publication. Five years on, there has been a 200% increase in peer-reviewed publications, according to the academy.

In 2014, UNESCO and the Arab League Educational, Cultural and Scientific Organization (ALECSO) decided to establish an online Arab observatory of science and technology. The observatory will host a portal for research projects and an inventory of Arab universities and scientific research centres, as well as patents, publications and master's and PhD theses in digital format; scientists will be able to use the forum to organize virtual conferences. The observatory will also host national observatories for Arab states to facilitate an interactive, semi-automated database of STI indicators.

Lessons can be learned from the Tunisian experience

Arab countries face a host of hurdles, including a lack of focus in research priorities and strategies, insufficient funding to meet research goals, little awareness of the importance of good scientific research, inadequate networking, limited collaborative efforts and brain drain. It is clear from available statistics that countries will need more sustained government support in future, if they are to strengthen university research, overcome weak university–industry linkages and give university graduates the professional and entrepreneurial skills to create viable national innovation systems.

There are lessons to be learned from the experience of Tunisia prior to December 2010 where, despite clear government support for research and higher education, socio-economic progress across the various strata of society had stalled and was failing to create jobs. This situation was at least in part a consequence of the lack of academic freedom and the fact that allegiance to the regime was considered more important than competence.