WIT AT COP 21

“Further Delay is No Longer an Option...”
COP 21 is perhaps the mightiest of human endeavors, even more so than any world war. Instead of various religious, ideological, economic or political factions siding to conquer one another, 195 nations converged in Paris in December, 2015, to save humanity. Many of these nations were at great odds with each other on other issues during the conference, but the ravages of climate change will quickly and decisively render their differences a moot point if they fail to cut CO2 emissions to a safe level. The time for action was decades ago: had we sufficiently addressed it then, we wouldn’t be at this crisis stage today. Further delay is no longer an option. Unlike issues such as nuclear disarmament, you can’t cheat on carbon reductions and get away with it. Countries that do not cut their carbon emissions to a safe level.

“Further delay is no longer an option...”
emissions will not be exempt from the ravages and destruction of climate change and will be contributing to their own demise - as well as that of the rest of humanity - by creating an unlivable planet. You can no longer jeopardize millions of lives for your own greed and convenience. Furthermore, climate change recognizes no political or continental boundaries. Everyone is equally in this together.

A report posted by NASA and NOAA on January 20, 2016 states, “the year 2015 was the hottest year ever recorded. Thirteen of the 15 hottest years in the 150 year-long record occurred between 2000 and 2014 and the researchers found there is just a 0.01 percent chance that this happened due to natural variations in the planet’s climate. The globally-averaged temperatures in 2015 shattered the previous mark set in 2014 by 0.13 Celsius (0.23 degrees Fahrenheit). Only once before, in 1998, has the new record been greater than the old record by this much. The planet’s average surface temperature has risen 1.0 degree Celsius (1.8 degrees Fahrenheit) since the late-19th century, a change largely driven by increased carbon dioxide and other human-made emissions into the atmosphere.”

Between the advent of the industrial revolution and the present day, scientists say that we have burnt 2,000 billion tons of carbon, driving the planetary temperature up by 1.0 degree Celsius. That is dangerously close to the 1.5 degree Celsius limit that scientists now say we dare not exceed, and one only has to look at the rapid increase in global extreme weather events we are already experiencing to get a sense of only some of the possible climatic consequences of a continued reliance on fossil fuels. Scientists warn that we can only afford to burn ~473 billion more tons of carbon before we reach the 1.5-degree Celsius level. The critical issue that is being ignored is simple: right now there are 2,795 billion tons of carbon in our global reserves – that’s 6 times more fossil fuel than we can afford to burn and expect to maintain a livable planet. If we burn that much it may drive the planetary temperature as high as 6 degrees Celsius (10.8 degrees Fahrenheit), rendering the planet uninhabitable for many creatures and possibly us.

According to 2007 Nobel Peace Prize winner and member of the Intergovernmental Panel on Climate Change Dr. Michael Mann, a. Our Temperature Record
“Earth will cross the climate danger threshold by 2036” - twenty years from now. CO2 concentrations must stay below 405 PPM to avoid 2°C Celsius warming. At the current rate of CO2 emissions, we will be there in 3 years.” After a week and a half of negotiations at the COP 21 Climate Summit, on Thursday, December 10th, two days before the signing of the final agreement, several climate scientists went through the press area handing out a media advisory about a press announcement that would take place at 10:00 AM that morning. Its headline read, “URGENT!” Dr. Kevin Anderson, a leading climatologist from the Tyndall Center for Climate Research in the UK and several other climatologists confiscated a negotiating room that was booked to another group and held their impromptu media event. The outrage from the negotiators whose room was confiscated helped to draw lots of media to the event.

The scientists were protesting the fact that the political and industry negotiators were ignoring the science and settling on a bad temperature target limit of 2°C Celsius. The scientists pointed out how dangerous extreme weather events have become with a 1°C Celsius temperature rise over the last 150 years. They also pointed to the massive polar ice cap loss and glacier losses caused by this 1°C Celsius temperature increase. They demanded that the agreed upon target of 2°C Celsius be lowered to 1.5°C Celsius, and emphasized that even that is too high, but they knew that’s all they could push for without killing the agreement. All 195 countries signed the COP 21 Climate Agreement, creating an atmosphere at the Le Bourget conference center of giddy elation over that achievement. However, one significant problem remains: none of the agreement is legally binding. Every Intended Nationally Determined Contribution (INDC) carbon reduction promise was voluntary, with no enforcement mechanism to hold countries to their pledges.

In addition, the 187 countries responsible for about 95% (Climate Action Tracker) of the world’s greenhouse gas emissions submitted their INDCs and, according to the Journal Science, “the INDCs fall short of the needed pledges to keep the temperature below the 2°C Celsius level. In fact, as the pledges stand now, they will allow the temperature to rise...”

b. Our 2 Degree Commitment

Global fossil reserves, if burnt:
2795 billion tonnes, CO2

Emissions to 2°C:
473 billion tonnes, CO2

- Fossil Reserves to remain unused globally
  - 52% of natural gas reserves
  - 35% of oil reserves
  - 85% of coal reserves

c. COP 21: The Outcomes

THE PARIS AGREEMENT

1. Temperature and Emissions
   a. ‘Peak greenhouse gas emissions as soon as possible and achieve a balance between sources and sinks of greenhouse gases in the second half of this century’
   b. To keep global temperature increase “well below” 2°C (3.6°F) and to pursue efforts to limit it to 1.5°C

2. Finance and Review
   c. To review progress every five years
   d. $100 billion a year in climate finance for developing countries by 2020, with a commitment to further finance in the future.


above the preindustrial temperature by 2.7°C Celsius or 4.3°F Fahrenheit.” To see the INDC pledges from each country, go to this site: http://klimalog.die-gdi.de/#INDCContent-Explorer.

After the finalized COP 21 agreement, Dr. Michael Mann and Dr. Jim Hansen, Director of the Climate Science, Awareness and Solutions program at Columbia University Earth Institute, both panned the agreement as useless. Bill McKibben, founder of the environmental group 350.org and author of the book, “The End of Nature” said of the agreement, “the gun has been fired, why isn’t anybody running?” According to Dr. Michael Mann, “Earth will cross the climate danger threshold by 2036” – within the next 20 years. CO2 concentrations must stay below 405 PPM (we are already at 400 PPM) to avoid 2°C warming. At the current rate of CO2 emissions, we will be there in 3 years.” In 2008, when CO2 was at 385 PPM, Dr. Jim Hansen wrote a paper entitled “Target Atmospheric CO2: Where should Humanity Aim?” His conclusion was that we needed to get CO2 below 350 PPM. We’ve failed miserably so far. During the press conference at the COP 21 Summit, Dr. Kevin Anderson of the Tyndall Center stated, “It is reasonable to assume that 2°C now represents a threshold, not between acceptable and dangerous climate change, but between dangerous and ‘extremely dangerous’ climate change.” Given that this urgent prognosis - along with observing the magnitude of glacier loss, sea level rise, extreme storms and droughts, population displacements and conflicts that are costing nations billions of dollars and millions of lives - was caused by just a 1°C Celsius rise in temperature, why isn’t the world in a serious panic over such a dangerous future? Instead, the United States, the second biggest carbon emitter, responsible for 25
percent of the carbon to the atmosphere, has a government in which the Republican Party denies the reality of climate change. The US Senate handed out brochures at the COP 21 Summit that basically said, “it doesn’t matter what President Obama promises, Congress has the last say.” It was obvious that their intention was to scuttle the summit.

On top of that, the INDC process is far too slow and falls far too short of the carbon reductions needed to keep humanity safe. Countries are squabbling over who is most at fault and should pay the most into the Green Climate Fund. They are squabbling over technicalities and on what to base their INDC priorities and a host of other procedural issues that will stall action and progress for many years to come.

Climate change will displace millions, if not billions, of people. It will destroy economies and cause massive food and water shortages. It will pit the growing “have-nots” against the dwindling “haves” in conflict for dwindling resources. The warming climate will turn the planet into a chaotic hostile environment and nothing will be as it is now. Economy, religion, ideology and politics will become moot issues. Sheer survival will be all that matters. Scientists have been warning us that climate change is already here and that the worst is coming much faster than originally expected, so why isn’t the world marshalling a World War II-scaled climate mobilization effort? Everyone knows what we have to do. We have to stop burning carbon as soon as possible – all of us. The first step in our World War II-scaled effort should be to target the largest emitting countries and make a massive and immediate effort to convert them to green energy. It’s going to cost a lot but how much is survival worth? We have to leave carbon in the ground or humans may not be around.

Richard Whiteford was a WIT delegate at the COP 21 Climate Summit in Paris, and is a member of WIT’s Board of Directors.

Private Sector Engagement: COP 21

Apurv Gupta

The contribution of the private sector is essential to the success of the Action Agenda and COP 21 at large. Beyond the necessary advocacy for an ambitious agreement in Paris, businesses have the responsibility to adapt their own business models towards a 1.5/2°C resilient world and take swift actions.

Several companies have, for years, engaged in climate change policies through ambitious corporate social responsibility policies. More recently, many companies have started to publicly pledge ambitious climate actions, notably companies members of Car-
COP 21 are impressive: from the billions expected from the Breakthrough Energy Coalition of 28 billionaires led by Bill Gates and the CEOs of major companies who each promise major clean energy investments, the related Mission Innovation partnership of 20 governments doubling their investment in clean energy, and the $3.4 trillion so far divested from fossil fuel investments, to India’s International Solar Alliance aiming to garner $1 trillion for solar energy infrastructure in equatorial countries.

However, while the total global climate finance is currently estimated at $340-$650 billion by the UNFCCC, the World Energy Outlook, a special briefing for COP21 published by the IEA, estimates investments worth $13.5 trillion between now and 2030, reflecting that much more commitment and investment is required to address climate change. In addition to mobilising tangible investments from the private sector, COP21 has been successful in mobilising business interest in low-carbon industrial and commercial activity; a shift that delegates responsibility. Val Smith, Director of Corporate Strategy, Citi, remarked at a panel discussion on climate financing that, “there is tremendous interest and support from the business community towards a problem that was earlier perceived as unsolvable or untenable in the business community”. This shift from perceiving climate change as an opportunity rather than a liability marks an important undertaking in driving investments for climate change.

One legacy of COP 21 may be the emergence of the private-public collaboration around financing the changes needed to abate climate change: the Mission Innovation partnership with Breakthrough Energy and the targeted funds introduced by large financial services firms, such as Goldman Sachs’ $150 billion fund, Citi’s $100 billion fund and Bank of America’s $125 billion fund. However, the success of private financing reaching all corners of the world that need to deal with climate change remains a sizable challenge. Some of the poorest regions of the world that most need clean energy finance to develop electricity systems do not have the infrastructure in place to receive big investments. An absence of local banks, working contractual laws and engineering workforces are hurdles that need to be countered at a national policy level before effective finance can transition carbon-based economies into clean green-energy economies.

> Apurv Gupta was a WIT delegate at the COP 21 Climate Summit in Paris, and is WIT’s Youth Representative and Rep. in Geneva.
Sustainable Growth in LEDCs

Iman Yashruti

As we progress beyond COP 21, an emphasis on sustainable and climate-conscious growth resonates from the public sector, private sector, and civil society. In order to move towards this sustainable future, there must be a focus on LEDCs (Less Economically Developed Countries): a group of territories that currently hold roughly 85% of the world’s population. How does one create both sustainable and climate conscious economies within LEDCs? As stated by the journalist Junheng Li, “Investing in a business is ultimately about investing in the people who run it.” Similarly, when investing in a country, one is investing in a wide array of institutions and infrastructures, along with the people working within it. The Nordic countries are recognized as the pioneers in launching economic growth within developing countries, while simultaneously working to lower climate emissions. By following a systematic (rather than symptomatic) country-driven (rather than internationally enforced) approach, we can achieve sustainable growth. This article will address the current Nordic framework for supporting developing countries in achieving sustainable, climate-conscious economies, and the challenges that LEDCs face in balancing growth...
with economic and environmental responsibility.

With the introduction of the INDCs (intended national determined contributions) as one of the primary drivers in slowing climate change, there has recently been an increased focus on nationally driven development. INDCs are a tool that allow for countries to individually outline their goals for climate mitigation. In addressing the goals of the INDCs, it is important not to forget the NAMAs (Nationally Appropriate Mitigation Actions), which were introduced at COP 13. NAMAs are rooted within each country as the building blocks used to implement the INDCs, and to address issues that are thought of as the key to sustainable development, financed both nationally and internationally, and targeted at the goal of reducing emissions.

The Nordic Development Fund (NDF), a joint development finance institution made up of the five Nordic countries, has focused on addressing sustainable development through multiple methods. By working closely with developing countries, the NDF has taken on a variety of projects aimed at increasing sector development. An example of this can be seen through the NDF’s work with the Water Resources Management Project in Cambodia; a 3 Million Euro investment in partnership with the Asian Development Bank. Focusing on policy issues, service investment and technology assistance within Cambodia, the NDF has worked to increase the productivity and power of these sectors - an important facilitator in creating a sustainable economy - giving Cambodia more of a focus and framework on how to progress sustainably and efficiently. Next, through looking at the achievements made by the Nordic Partnership Initiative on Up-Scaled Mitigation Action (NPI), we will see a holistic example of Nordic climate finance solutions contributing to the reduction in greenhouse gas emissions within developing countries.

> Up-Scaled Mitigation Action and the Vietnamese Cement Sector

Through NAMA readiness programmes in the municipal solid waste sector in Peru and the cement sector in Vietnam, the NPI has demonstrated success by including local stakeholders and establishing an overall bottom-up ideology (rather than enforcing strategies from a top-down approach). The cement sector is one of the most energy-intensive industries in Vietnam, producing over 61 million tonnes of cement in 2013, using 75 production lines. Overseeing the planning,

**d. INDCs**

The INDC, first introduced at COP21, is an outline of a country’s intended post-2020 climate actions. ‘A good INDC should be ambitious, transparent, and equitable’, states the World Resources Institute. INDCs are trackable at http://cait.wri.org/indc/.

Source: http://www.wri.org/indc-definition

The European Union, submitting one comprehensive INDC, has aimed at reducing its carbon dioxide emissions by 40% by 2030, compared to 1990 levels.

China has submitted an INDC that outlines a goal of reaching peak carbon dioxide emissions by 2030, with ‘best efforts to peak earlier’, and cutting emissions per unit of GDP by 60-65% of 2005 levels in the same time.

management, and regulation of the Vietnamese cement market is the Ministry of Construction of Vietnam (MOC). Although there have been significant emissions stemming from the process of cement production - carbon dioxide and dust primary amongst them - the MOC has historically failed to address the problem. Through working with the MOC, the NPI program, financed by the Nordic Development Fund, has invested 1.6 million USD into the program with the aim of giving Vietnam the ability to implement a sustainable agenda in line with its (COP-13) NAMA. With this, they will have a complete framework in order to receive international funding through sectors such as the carbon market.

During COP 21, Ha Dang Son, the Technical Director of the environmental consultancy company NIRAS Vietnam, stated that this NAMA could be the most ambitious in the world, as benefits from emission reduction in Vietnam could amount to as much as between 130 and 150 million tons of carbon dioxide by 2030. The investment required to achieve such an emission reduction target is estimated to be approximately 1.8 Billion USD: while this seems to be a high number, the estimated savings could amount to 8-10 Billion USD. Furthermore, the NDF found that the cement NAMA in Vietnam is economically feasible: 4 mitigation actions show low-cost (or zero) risk, 8 out of 12 mitigation actions show positive profits, and a production cost reduction per ton of cement. The successful achievement of Vietnam’s cement NAMAs would constitute a significant step towards meeting the country’s broader INDC goals.

The NPI’s project within Vietnam ran as a two-year pilot program with the goal of providing other investors with the knowledge of how to execute development programmes similar to those of the NPI, while taking into account, and managing, the myriad challenges faced along the way. Although not an LEDC, the progress achieved within Vietnam, a ’Middle Income’ country, can be used as a model for frameworks introduced by international organizations within LEDCs.

The recommended mitigation actions focus not only on reducing greenhouse gas
emissions, but also highlight the potential for concurrent, resultant, cost savings. However, there are still challenges for the initiatives, including a lack of incentive for mitigation actions in the cement sector, a shortcoming driven in part by a lack of immediate and direct benefits to the cement companies. Within LEDCs, where there are even less incentives due to weaker infrastructure and institutional backing, this can be even bigger challenges. Beyond this, the Vietnamese MOC’s jurisdiction over the construction sector affords great opportunity for introducing real change in processes and practices: a cross-sectorial approach supporting a low-carbon plan for building materials must be implemented in parallel to initiatives targeting change within the cement manufacturing sector. This once again highlights the importance of a need of a governmental infrastructure that has the capacity to perform both cross-governmental and cross-sectorial actions. Lastly, a goal of this two-year pilot plan was to incentivize financial investment within Vietnam. While the incentives for investing in the Vietnamese cement NAMA were clearly demonstrated, it took two years and 1.5 million USD before targets were met. In LEDCs, the need for similar action in order to incentivize investors must be taken. This is due to the fact that, without the adequate promotion of the possible financial incentives, countries may struggle to secure international funds needed to move forward towards a sustainable future.

> The Importance of Supporting Institutions

The challenges faced in strengthening Vietnam’s cement NAMA clearly reflect a wider set of challenges found not only amongst LEDCs, but in most countries. A recurring factor, however, in determining the success and failure of sustainable projects is the

"...discussing a new, shared vision of humanity..."
strength of the institutions in place to enforce such actions. Beyond simply having the tools to carry out economic growth and development, institutions also promote a certain set of values that can trickle down to the rest of society through mechanisms such as education. An example of the importance of the institution can be found in the success of the livestock mitigation action in Kenya. Here, climate-smart feeding and husbandry practices were circulated to 600,000 farmers within the country. The progress made through this livestock mitigation will lower Kenya’s emissions by 3.3%. The CCAFS (Research Program on Climate Change, Agriculture, and Food Security) stated that the key factor in enabling this success was the identification of the supporting institutions that could work with farmers and enable nation-wide policy.

Sustainable economic growth in LEDCs requires established goals cultivated within the country rather than those enforced by international institutions. Without countries taking ownership of their own projects, there is a lack of incentive or natural growth required for growth to be sustainable. Secondly, there is a need to strengthen institutions within LEDCs. Without institutions having the ability to communicate across sectors and enforce policy, sustainable and climate-conscious economic growth may not be possible. However, people from all sectors departed from COP 21 with a better understanding of what is needed in order to create more sustainable growth within their home countries.

> Iman Yashruti was a WIT delegate at the COP 21 Climate Summit in Paris.

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**Carbon Reduction Efforts: 1990-2016**

*Elisabeth Muratori*

These past 25 years stand for a particularly interesting period regarding the evolution of the global carbon policy. In fact, the first mention of the sustainable development concept appeared in 1987, followed shortly after by the creation of the International Panel on Climate Change (IPCC), the leading international body for the assessment of climate change. Providing a clear scientific view on climate change and its potential environmental and socio-economic impact was a necessary step before assessing any link between human activity and global warming.

In 1992, countries joined the United Nations Framework Convention on Climate Change (UNFCCC) - a treaty aimed at establishing a framework for international cooperation to combat climate change by limiting average global temperature increase. Since then, climate change has truly become a major concern for developed countries. The negotiations surrounding, and subsequent adoption of, the Kyoto Protocol, a measure legally binding countries parties to emission reduction targets, enabled countries to participate

“...providing a clear, scientific view...”
in numerous debates on climate mitigation, adaptation, financing, technology and capacity building, as well as access to clean energy in developing countries.

Despite the ambitious measures that have been pursued with regard to the reduction of greenhouse gases, the outcome of these summits remains largely insufficient. In the ten years following its ratification, the UN-FCCC agreement has failed to overcome national interests, and only half of the signatory countries have fulfilled their commitments. The Kyoto Protocol list of the six greenhouse gases to reduce, including CO2, methane and NO, has encountered strong opposition from the developed countries, among them the United States, a country responsible for 20% of worldwide carbon emissions, and one that refused to take part in the international effort. The recent, yet strong, impact of industrializing countries like China, India or Brazil has demonstrated the limits of a Protocol that sets aside developing countries, allowing them to pollute without constraints. Renewed in 2012 for 8 more years, the Protocol is often considered inadequate, as countries like Canada, Russia or Japan refuse to reiterate their engagement, due to the limited participation of the most serious global polluters: the United States and China. Most of the progress towards responsible green politics and effective sustainable development measures are happening in European countries: the European Commission adopted the toughest climate change target of any region in the world at the COP 21 summit, choosing to reduce its emissions by 40% by 2030 (compared with 1990 levels). More importantly, 27% of its energy will be come from renewable sources.

The recent Paris agreement (COP21) was sought with the aim of accelerating and intensifying the actions necessary for a low carbon future. It aimed to keep the global temperature rise below 2 degrees Celsius and to pursue efforts to limit any temperature increase to 1.5 degrees Celcius. A goal of 100 billion USD a year in climate finance for developing countries by 2020, with a commitment to further finance in the future and enhanced capacity building framework, was decided during the negotiations. This budget will be spent in supporting the most vulnerable countries and encouraging the developing ones, and the Paris Agreement includes measures to review progress every 5 years, and to guarantee transparency in progress reporting. In the light of the current situation, it is however crucial to question the real effectiveness of these past 25 years international carbon policy. There is notably two important points that need to be raised: the first involves the adequacy of the carbon reduction efforts, the second its ability to evolve in space and time.

First of all, when considering the current carbon policies, we need to remember what is at stake. Global warming has been responsible for drastic change in the past few years, and some of them are believed to be permanent. Some scientists consider the accumulating effects of climate change as more and more threatening for the environment and the population, and even question our ability to adapt and survive after a certain limit of climatic alteration is reached. Studies from the World Health Organization show that the number of premature deaths due to air pollution is estimated to be 4 million each year, and will continue to grow to 7 billion by 2050. Carbon dioxide is not only threatening our environment but also human health, and its impact still cannot be fully appreciated.
However, carbon reduction efforts do not seem to be adequate: according to the IPCC 5th report published in 2014, an increase in average global temperatures of 4.8 degrees Celsius can be expected by 2100, as well as a 98 cm rise in sea levels over the same time period, with new parameters yet to be taken into account. Many COP21 activists - including a large part of civil society, but also several companies - highlighted the necessity of building a low carbon economy and introducing a ban on fossil fuels. Indeed, the debate over shale gas extraction has been omnipresent during the Conference of Parties, and called into question the possibility of a transition towards greener sources of energy. How can carbon reduction targets be achieved if some developed countries prefer to consolidate their economic growth on fossil fuels? Also, and this is even more preoccupying, international measures to enhance the reduction of gas emissions might not be carried out in a timely manner. General awareness for the climate may have been raised, but it is still legitimate to wonder if the steps taken will be sufficient in combating the scale and pace of environmental change.

> Elisabeth Muratori was a WIT delegate at the COP 21 Climate Summit in Paris.

## Autism and Vaccination Awareness

*Amirali Agha-Khan*

The ongoing debate between the proponents and opponents of the measles-mumps-rubella vaccine (MMR) picked up again in 2012 when an outbreak of measles in the United States and 12 other countries heralded the recurrence of this debilitating disease. Many of the concerns posed by those opposed to the MMR vaccination could be attributed to the anti-vaccination movement that began shortly after the publication of Dr. Andrew Wakefield’s article in 1998, linking the vaccine to autism. As a result, many parents, including many of those who refused to vaccinate the children in the face of conflicting evidence, chose to forego having this needed believing that they were protecting their children from an often severe

“...in favour of vaccinations...”
and life-altering disease.

In the years following the initial publication of his assertions, Wakefield’s claims have been disproven, and numerous organizations and subject matter experts have spoken in favor of vaccinations. The results of over two decades of epidemiological and biological research also show that that the MMR vaccine does not trigger the onset of autism symptoms in a child. A recent initiative, the Documenting Hope Project, initiated by Dr. Martha Herbert at the Massachusetts General Hospital Neurology Department aims to demonstrate that like many other genetic conditions, there is hope for improving health and life quality for children with autism by addressing the disorder’s core biological and genetic issues.

Yet, despite these scientific findings, the refusal to vaccinate children within the required timeline has not decreased the number of children diagnosed with autism. It has, instead, increased the incidence of measles in areas where the illness has all but been eliminated. Therefore, a more concerted and focused educational campaign, based on medical and scientific research, is required to change the tide of parental opinion and concern.

Autism Speaks, a nonprofit organization that promotes autism awareness and sponsors research in the field, has made its policy clear on this controversial immunization issue: vaccinate your kids. Our goal is to work with Autism Speaks to encourage parents to understand the importance of vaccinating their children, using scientific research and a variety of training programs to educate parents on this issue. By building on Autism Speaks on the association between vaccinations and autism, our education program can effectively increase awareness among families and the general public. Though the anti-vaccine movement has been hugely successful in the United States, our goal is to provide this type of education on both a national and international basis. Our collaboration with Autism Speaks, a leading autism advocacy organization, will enable us to host diverse educational programs, encourage parents to work with their physicians to ensure that their children get vaccinated, and empower parents to ensure that their children are protected from measles, mumps, and rubella.

> Amirali Agha-Khan is a research assistant at HCI.

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### Article Citations:

**‘Sustainable Growth in LEDCs’ — Iman Yashreuti, pg. 8-12**

7. ‘Sustainable Transformation: Nordic Experiences of NAMAs as Building Blocks for INDCs’. Norden: COP21 Nordic Pavilion. 2015

**‘Autism and Vaccination Awareness’ — Amirali Agha-Khan, pg 14-15**

Dogs Are Brilliant Diagnosticians

Dr. Paul E. Sax, MD

The reputation of dogs in the ID world got a big boost when Dutch researchers published this remarkable study of Cliff — a beagle who was trained to “diagnose” C diff using his superior olfactory abilities.

Now, in the pages of Open Forum Infectious Diseases (IDSA’s open access journal, of which I’m editor), we’ve published another landmark study demonstrating the extraordinary sniffing powers of our best friends! From the paper: In this double-blinded case-control validation study, we obtained fresh urine samples daily in a consecutive case series over 16 weeks. Dogs were trained to distinguish urine samples that were culture-positive for bacteriuria from those of culture-negative controls, using reward-based clicker/treat methods ... Dogs detected urine samples positive for 100,000 cfu/mL E. coli (N=250 trials; sensitivity 99.6%, specificity 91.5%). Impressive! Not only that, but the pooches did equally well with other bacteria — Klebsiella, enterococcus, Staph aureus. An anecdote in the Discussion section of the paper highlighted the real-world performance of Abe (he’s a dog) when a sick person visited the training center — I encourage you to read the full paper (which is on OFID’s early access page) for the details. Not only that, but there’s an action shot of the experimental methods.

So how do the dogs do so well at this task? To start, it is estimated that a dog’s nose is over 100,000 times more sensitive than ours. Plus, there’s this astute comment from my Twitter feed: “Indeed, this diagnostic task is right in the “sweet spot”, as it were, of a dog’s abilities. As the paper notes, “Sniffing urine is innate behavior in dogs.” Practice makes perfect. Woof!


Renewables Grow at Record Pace in 2015, says IRENA

Agency reports growth rate of 8.3% in 2015

Global renewable generation capacity grew by a massive 152GW per cent last year, breaking the previous record for annual deployment, according to the latest figures released yesterday by the International Renewable Energy Agency (IRENA). The new capacity added up to an overall growth rate of 8.3 per cent in 2015, the highest on record. The surge in deployment boosted total renewable capacity installed around the world to 1,985GW by the end of the year - an increase of a third since 2010. The increasing rate of renewables deployment was due in large part to significant falls in technology costs.

DID YOU KNOW?

RoundUp - Monsanto's Most Dangerous Herbicide

If you’ve ever had a conversation with a friend about Roundup—Monsanto’s famed herbicide—you know it’s tough to prevent such discussions from developing into shouting matches. Emotions around the herbicide (and genetically modified organisms and Monsanto in general) run high, and people seem to be set in their opinions on the issue. This week, however, both the science and the regulation around Roundup have seen major developments. Here’s what you need to know:

1. **Roundup’s active ingredient is abundant**

Herbicides containing glyphosate, the same weed-killing ingredient that’s in Roundup, are now “the world’s most heavily applied” herbicides, according to a “Statement of Concern” authored by 14 scientists, published last week in the journal Environmental Health. Farmers today use 15 times as much glyphosate as they did 20 years ago. There’s good evidence that traces of glyphosate show up in soil and groundwater and on genetically modified soybeans.

Yet the effects of the chemical on human health are understudied, the Environmental Health team argues. The scientists recommend that specific research be done immediately to answer questions about the herbicide. Around the same time the Environmental Health review was published, the Food and Drug Administration announced it would begin testing food in the United States for traces of glyphosate in 2016. The FDA tests foods for various pesticides, but has never tested for glyphosate before.

2. **Monsanto is getting sued again**

In a controversial move, last year the International Agency for Research on Cancer declared glyphosate to be a “probable” carcinogen. Since then, Monsanto has been the target of several lawsuits based on the notion that Roundup causes cancer, Reuters reports. Last month, Monsanto struck back, suing California’s Office of Environmental Health Hazard Assessment to prevent the office from adding glyphosate to its own list of cancer-causing agents.

3. **Roundup is everywhere**

Glyphosate has shown up in a couple of unexpected places recently. The Munich Environmental Institute says it’s found the herbicide in German beers. Meanwhile, an investigation by a French magazine found traces of glyphosate in a French brand of organic pantyliners.

Source: https://psmag.com/this-week-in-roundup-monsanto-s-most-notorious-herbicide-db541f6a41e2a37f0c
World Information Transfer’s 25th Conference on Health and Environment: Global Partners for Global Solutions

To be held on April 26th, 2016, at the United Nations Headquarters on the topic of “30th Anniversary of Chernobyl: Relevant Findings” and “Environmental factors influencing Human Health”. Keynotes will be delivered by Dr. James Hansen, Director, Program on Climate Studies at Columbia University and former Director of the NASA Goddard Institute for Space Studies, and Mr. Robert F. Kennedy, Jr.

Registration available at: witconf@gmail.com or call 212-686-1996

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3rd International Conference on Environmental and Economic Impact on Sustainable Development

To be held in Valencia, Spain, between the 8th and 10th of June, 2016. The meeting will provide an international forum to discuss the most serious problems affecting sustainable development, considering the impact of economic constraints on the environment, the social aspects as well as the over-use of natural resources, and cases of uncontrolled development resulting in damage to the environment through toxic substances and hazardous waste. The meeting will examine issues related to whether some forms of development are compatible with environmental protection, particularly in cases of possible serious contamination and toxicity.


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18th International Conference on Environmental and Public Health Management

To be held in London, United Kingdom, between the 23rd and 24th of June, 2016. The conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results about all aspects of Environmental and Public Health Management. It also provides the premier interdisciplinary forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns, practical challenges encountered and the solutions adopted in the field of Environmental and Public Health Management.

Registration available at: www.waset.org/apply/2016/06/london/ICEPHM

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11th International Conference on Urban Regeneration and Sustainability

To be held in Alicante, Spain, between the 12th and 14th of July, 2016, addressing all aspects of the urban environment, aiming to provide solutions that take into account urban dynamics, the exchange of energy and matter, and the function and maintenance of ordered structures directly or indirectly, supplied and maintained by natural systems.

Registration is available at: http://www.wessex.ac.uk/conferences/2016/sustainable-city-2016

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5th International Conference on Earth Science & Climate Change

To be held in Bangkok, Thailand, on the theme of “Stimulating and Analyzing the changes of Earth & Climate-ICESCC”.

www.earthscience.conferenceseries.com/registration

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We wear the cape of civilization / But our souls live in the stone age.
-Nizar Qabbani, poet and diplomat (21 Mar 1923-1998)
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Mission Statement:

World Information Transfer (WIT) an international non-profit organization, in Consultative Status with United Nations/ECOSOC, providing accurate information about the impact of worldwide environmental degradation to human health and promoting programs for bringing about change. WIT was conceived by a “small group of thoughtful, committed citizens” (quote from the American anthropologist Margaret Mead) in the aftermath of the twentieth century’s worst nuclear tragedy - the explosions at the Chernobyl nuclear power plant on April 26, 1986.

WIT’s main objective is to influence opinion leaders and concerned citizens around the world to support those strategies which protect human health by safeguarding the natural environment. WIT publishes the World Ecology Report (WER) and organizes an annual international Conference titled “Health and Environment: Global Partners for Global Solutions” which is held at the United National headquarters in New York since 1992.

About WIT:

World Information Transfer is a Non-Profit, 501(c)(3), Non-Governmental Organization in General Consultative Status with the United Nations, Promoting Health and Environmental Literacy. Find out more at worldinfo.org.

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“Never doubt that a small group of
thoughtful committed citizens can
change the world. Indeed it’s the only thing
that ever has.”
Margaret Mead

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