**Translating research into innovation**

Start with the young entreps, not the “big boys”

Researchers, health workers and innovators wanting to make a significant social difference should stay away from the big boys – big companies – and instead seek out the young entrepreneurs, or the so-called young and hungry small guys. This was how director general of the International Rice Research Institute (IRRI) Robert Zeigler phrased his advice while speaking at the Parallel Plenary session on “Translating Research into Innovation” at the Forum 2015 on 26 August 2015.

Relating advice shared with him by an expert, Zeigler warned that large players like multinational corporations are out to maximize their return of investment when adopting new ideas and innovations from researchers. In contrast, young entrepreneurs will make a good living off these technologies, and connect to the small farmers and poor consumers around the world in order to put these great ideas into good use.

It was emphasized in the session that the only way any new idea or technological development would see the light of day is if someone is going to make money out of it. Zeigler cited nutritionally enhanced rice as an example of this. “The farmer has to have a reason to grow it,” he said. “At the end of the day, we all have to pay our debts, pay our kids’ tuition, and others.”

Further advice shared by the IRRI Director General was that the only way to know if an idea succeeds or fails is to take it out to the real world. “The trick is you have to learn from those failures,” he said.

Finally, Zeigler advised participants at the session not to be disillusioned with setbacks. “If somebody is going to steal your work, get over it.”

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**Final round**

“Heated” health debates to heat up on final day of Forum 2015

The past few days have seen intense competitions among topnotch debaters from universities in 17 countries including Bangladesh and Jamaica with a total of 28 teams taking part in the ongoing 2015 Global Health Debates. For this international debate tournament, the Philippine is strongly making its presence felt by sending several teams from its leading universities. These young people have been slugging it out with their international counterparts as they delve into controversial and relevant topics such as reproductive health and expansion of agri-business operations at the expense of local farming industries.

On August 27 – the final day of the Forum 2015 – competition heats up as the final round gets underway at 9:00 in the morning at Banquet Halls 2 and 3. This was announced by Lee Yarcia of UP Manila, chief adjudicator of the debates, during the Forum 2015 third press conference held on August 26.

According to Yarcia, Internationally renowned judges from Scotland, Netherlands, Malaysia, South Africa, and the US specifically from Harvard University, have been invited to help identify the most relevant and urgent global health topics and controversies for discussion on the debate floor.

The winning debating team will receive a 3,000 USD cash prize. Aside from the final round of the 2015 Global Health Debates, the final day of the conference will also feature discussions on public investments for health research, reshaping healthcare with social media, local and international networks for global health, innovations and design for health in megacities, exercise as medicine, training of disaster situation report, and the WHO strategy on research for health. Oral abstract presentations will also be held, as well as a Call to Action featuring COHRED Executive Director Carel IJsselmuiden as speaker among others.

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(c) Global Health Debates
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Speakers at the session noted that even as information is now much more easily accessed through online connectivity, the greater difficulty that arises is in knowing where to access correct and relevant information for research and innovation, and being able to identify quality literature amidst the great amount of material available online. They remarked on how social media can be a powerful information platform for scientific literature, and a valuable avenue for the dissemination of news, feature articles, opinion pieces, journals, and other materials.

Trish Groves, Deputy Editor of The British Medical Journal, remarked “It is incredibly powerful.” There was a study showing catastrophic events. He is also among the leading proponents of Green buildings in the Philippines.

A product of the Harvard Graduate School of Design with over 1,200 projects in 38 countries under his belt in a 43 year career, Palafox notes that the Philippines has all the potential to be a leading force in such undertakings, with the ability to address the growing problems it faces in its congested cities. Citing a Harvard study, he stated that Metro Manila is the fastest growing metropolis in the world, with a population increase of 60 persons per hour which is accounted for mostly by migration of populace away from the underdeveloped rural areas into the capital region. “We either add more people to the congested cities, or build new cities to accommodate the growing population,” he stated.

He recounted recently publicized disaster scenario figures estimating up to 50,000 casualties and 130,000 seriously injured in the event of a magnitude 7.2 earthquake striking the metropolis. Strongly advocating for the increased preparedness of the country’s healthcare infrastructure facilities, Palafox stressed the primacy of such vigilance over the ability to deal with casualties and injured survivors.

“It is 90 percent less costly to address the known hazards than to attempt to deal with rehabilitation,” he noted. Palafox describes his advocacy and advisory work with government as “patriotic architecture,” rather than calling it “pro-bono” work. While he continues to share his recommendations with government, he decries the shortage in political will – necessary to elicit much needed change.

Utilizing information on research for health
Addressing Challenges in Data Collection, Dissemination, and Accessibility

“One of the big challenges we have is how to handle the data we generate, where to put that data, and how people can access it,” stated Vibha Varshney, Associate Editor of Down to Earth, Center for Science and Environment in India at a session discussing the future of information for health, equity, and development on the third day of the Global Forum 2015.

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Trish Groves, Deputy Editor of The British Medical Journal, remarked “It is incredibly powerful.” There was a study showing if you are a researcher and you publish a paper and that paper gets tweeted, it is not only more likely to be read by people, but it is more likely to be cited, which many people care a lot about.” She added, though, that the problem remains of accessing and publishing journals for countries that cannot afford to pay the publishing fees. “The challenge is how to increase online access to publications, but make it fair for everybody; and make it affordable for everybody.”

Another challenge emphasized was how to increase the exposure and visibility of the reviewed journals, “not only for students but also for policy groups where there is similar needs” stated Nick Perkins, Director of SciDev.Net.
Disaster risk management
Saving lives through innovations and technology

"Which do you prefer: a seatbelt, or the best surgeon in the world?" Hands down, the audience at the session on Innovation and Technology in Disaster Risk Management unanimously chose the seatbelt. And why not? Little prevention is much better than a grand cure.

"Disaster Doc" Mark Keim who posed the question then took the audience to the three concentric circles that matter during disasters: the agent (or the hazard), the host (or the person), and the environment (or the exposure). Each of these elements has innate characteristics that are factored in during disasters. For instance, an elderly (host) who has no shelter (environment) during typhoons (agent) is much more vulnerable to risks compared with other people who are safely sheltered.

Dr. Keim said that Disaster Doc came up with several innovative solutions to lessen the effects of disaster such as mapping of vulnerability and developing a planning database infused with new applications using these technologies, high-risk areas can be identified and recurring problems can be prevented.

Dr. Alfredo Mahar Lagmay of the Project NOAH or Nationwide Operational Assessment of Hazards noted that maps also take on a grand scale in reducing disaster risks in the Philippines. By accessing NOAH's website which indicates the vulnerability of specific locations to storm surge, landslides, and floods, users can identify safe areas to be in during hazardous situations. The maps also serve as guides on the most suitable areas to establish vital infrastructure such as health facilities and evacuation centers.

Project NOAH is an early warning tool that has won several international awards. As such, Lagmay underscored the importance of early warning in reducing disaster risks, even as he identified several "disasters that did not happen", such as the Habagat (southwest monsoon) in 2012, 2013, and 2014; and Typhoons Pablo in 2012 and Agaton in 2014. During the onslaught of said hazards, local governments took early warnings seriously, often referring to Project NOAH website for guidance, thereby resulting in low or zero casualty during these weather disturbances.

Department of Science and Technology Philippines Assistant Secretary Raymund Liboro, who moderated the forum, acknowledged that disaster risk reduction has become a fundamental topic, especially with the emergence of the new normal referring to the extreme weather conditions the country has experienced over the past several years. “There has been an increase in scientific knowledge for the past five years, so we can tackle disaster risk reduction for safer, more resilient communities,” he added.
Pushing resilience in disasters through good nutrition, partnerships, and innovation: The WFP experience

Next only to safety concerns, food is of utmost importance during disasters. For the UN-World Food Programme (WFP), undernutrition, especially among children and pregnant and lactating women, is a major concern during disasters. With food and supplies becoming less accessible and less stable during such events, people become hungry and malnourished, increasing their disaster risk.

According to Martin Bloem of the WFP, undernutrition increases vulnerability of people in disaster-affected areas. Children who are undernourished have weakened immune systems, making them more susceptible to infection even after the initial shock brought about by the disaster.

In the session on Nutrition Rick Reduction during Disasters on the third day of the Global Forum, resource persons pointed out that undernourished people usually have low performance in school and belong to low income families. Caught in the vicious cycle of poverty and undernutrition, undernourished people are not able to cope well with the impact of disasters.

Other points raised at the session focused on how emergency responders often focus only on addressing acute malnutrition, and overlook treatment of the chronically undernourished, which includes children who already exhibit stunted growth.

To increase resilience from undernutrition during disasters, the WFP took three big steps:

1. **Prevention of undernutrition.** To attain this, the WFP provides good quality, safe, and nutritious food to vulnerable women and children, with specific focus on building resilience against future shocks and meeting nutrient requirements. On the policy level, the WFP is strengthening its advocacy to integrate the prevention of undernutrition into emergency preparedness.

2. **Building better partnerships.** Among WFP's strategies are increasing coordination among health; water, sanitation and hygiene (WASH) and nutrition clusters to deliver an integrated basket of essential services in emergencies; and strengthening partnership with key actors to integrate global and country coordination. Key actors include the UNICEF, UNFPS, WHO, Médecins Sans Frontières, and others.

3. **Innovative approaches.** Some of the new approaches being implemented include the tracking of household numbers with pregnant and lactating women, and children under two years old; use of tracking technologies and referrals; and decentralization of services for broader sharing of information on health services.

Smarter food production

Healthier rice and smarter rice production pushed to address food and nutrition security

To ensure the success of biofortification of rice, healthier rice varieties must be acceptable to consumers, fit within current farming practice, and be profitable for farmers, pointed out Robert S. Zeigler, director general of the International Rice Research Institute (IRRI) during the Forum 2015’s session on Smarter Food Production to Address Food Insecurity.

Biofortification, or the process of improving the nutritional quality of food crops through biologic means, is intended to complement current strategies like supplementation to reduce micro-nutrient deficiencies which affect around two billion people worldwide.

Current research efforts of IRRI in biofortification include Golden Rice (pro vitamin A or beta carotene enriched), high zinc rice, and high iron rice. Much of the efforts in research are on this staple grain because of its potential to reach many people as it is widely grown and eaten, and is regarded as the world's most important crop.

In addition, IRRI is working to combine Zinc, Iron, and Beta Carotene traits with stress tolerance (to drought, salinity, submergence) traits to make the rice varieties more attractive and more profitable to farmers, Zeigler revealed.

“Stunting is also viewed as largely a ‘development’ issue,” Bloem said, “but many children experience both malnutrition and stunting; and the common risk factors and linkages between the two strengthen the case for integrated programming.” Prevention of wasting and stunting, especially during disasters, then becomes essential. Adequate nutrition is both an input and outcome of the resilience-building process, Bloem added.

Smart rice farming for the future

Meanwhile, the Philippine Rice Research Institute (PhilRice) is pushing for clean, green, practical and smart rice production for competitiveness, sustainability, and resiliency in the face of the growing needs of the country’s population and the threat of climate-associated risks.

Roger F. Barroga, information technology officer of the Philippine Rice Research Institute, in his presentation during the Forum 2015’s session on Smarter Food Production explained that such “rice farms of the future” combine natural farming techniques and modern technology, grow climate resilient varieties of rice, are mechanized using clean renewable energy, and are equipped with sensors and Information Communication Technology for automated and precision farming.

He expounded that PhilRice has established a five hectare compact farm near the farming communities in Muñoz, Nueva Ecija which features a natural farming area using reduced tillage technique, organic rice culture, ecological engineering, and others advanced approaches. The farm also employs a water harvesting facility and a electric water pump engine powered by solar energy. It is, likewise, equipped with an automatic weather station, field water level sensors, and remote CCTV access.

The farm also serves as a rice boot camp for extension workers as well as out of school youths in the community.

Barroga further disclosed that the agency also operates compact farms in their nine other PhilRice stations nationwide, with some of the farms being more advanced than the others, depending on the location’s particular situation.
“Trust us, we will do our best,” was the promise proclaimed to improve health care systems during the Forum 2015 (August 25-27) held at the Philippine International Convention Center, Manila.

Peter Jager, Senior Advisor for Government Relations, Novartis International AG, pointed out how collaboration among different sectors through innovation can transform lives. “Be optimistic. Your future will be healthier, you will live longer lives thanks to biopharmaceutical innovation. Trust us, we will do our best.”

Stress was given on the need to increase investments in research and innovation, emphasizing that building partnerships is an essential part for progress, as mentioned in the forum. Karen Ann Hipol, Research and Innovation Programme Manager of the British Embassy Manila, stated “the easiest way to spend less and get more output more efficiently is do these things with partners; and you’d be surprised because sometimes you think that nobody might want to partner with you; because maybe it’s not interesting enough. If it solves a challenging health care problem, people will be interested. People will be willing to partner with you, whether it’s through financial help or other resources.”

In addition, Ma. Antonia Odelia Arroyo, Chief Executive Officer of Hybridigm Consulting, Philippines said “I think that health care innovation is not just a doctor's problem, nor just a pharmacist's problem. I don’t think it's just the people in the health care field; it is a psychologist problem, a call center problem, an I.T. problem. It is everyone’s problem because everyone needs access to health care; and therefore everyone should try to innovate and try to find ways to innovate so that we can do good by doing well.”

Dr. Vivian Lin, Director of the Division of Health Systems, WHO Regional Office for the Western Pacific (WHO WPRO) said that the enrolment, claims, and costs information consolidated by various health insurance providers are all considered “big data” due to its 3Vs (volume, variety and velocity) which the traditional methods of data management can no longer support.

At the same session, Mr. Jong Heon Park, Senior Research Fellow of the Big Data Steering Department of Korea National Health Insurance Service presented the Korean National Health Information Database, the system responsible for the big data of Social Health Insurance (SHI) of South Korea, with the help of efficient information and communication technologies. South Korea is one of the few countries already using the big data.

In the Philippines, the national health insurance program of the Philippine Health Insurance Corporation or PhilHealth covers the health care of majority of Filipinos. Mr. Ruben John Basa, Senior Vice President, Health Finance Policy Sector of PhilHealth, stressed that their data is already too big that they need to start finding long-term solutions for managing this information.

Incomplete and inaccurate data may result in inadequate health service to the public. Centralized access to patient and beneficiary records will not only help improve the management of SHI, but also promote operational efficiency on healthcare, especially since assessment of medical efficiency will be enabled. With the help of big data, the needs of a health system’s beneficiaries can be readily identified and give way to extensive research for the improvement of policies and services of SHIs. “SHI agencies are just starting in many countries; and will benefit from prioritizing investments and getting the data systems right.” Dr. Lin concluded.