



Global Health Strategies

Grand Challenges India

Media Coverage

October - November 2015

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Summary

The Sustainable Development Goals (SDGs) were adopted in September this year and aim to address problems like poverty, illiteracy, disease and overall lack of quality health care for all, among other key issues. It is imperative that countries encourage and promote research and development of new and advanced tools in order to achieve the SDGs. Initiatives such as the Grand Challenges can transform the way we address the health challenges the world faces by improving accessibility to and providing resources for researchers and innovators.

The Grand Challenges India initiative was launched in 2013 by the Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology (DBT) and the Bill & Melinda Gates Foundation to promote scientific and technological advances in health through research and innovation, exclusively for Indian researchers. GCI has so far funded 17 researchers from across the country under three grant programs - '*Achieving Healthy Growth through Agriculture and Nutrition*'; '*Reinvent the Toilet Challenge*'; and '*All Children Thriving*'.

In the last two months, the Grand Challenges initiative has received extensive media coverage in India. GHS organized two interviews with Dr. Renu Swarup, Managing Director, Biotechnology Industry Research Assistance Council (BIRAC) with the Indo Asian News Service on innovation in India. GHS also supported Dr. Swarup in drafting and placing an opinion piece on the need to drive innovation in health care in India which appeared on Huffington Post.

Overall, Grand Challenges has received coverage from over 20 print and online publications from October -November 2015. Please note that this report does not include the additional coverage received for the Annual Grand Challenges Meeting 2015 and lists only the prominent publications that covered Grand Challenges India.

Media Coverage



Driving Innovation For A Healthier India

By Dr. Renu Swarup, Senior Adviser, Department of Biotechnology, Ministry of Science and Technology, Government of India and Managing Director, Biotechnology Industrial Research Assistance Council

November 18

The time period set by the nations of the world in 2000 for achieving the Millennium Development Goals (MDG) comes to an end in December. Leaders from around the world met at the United Nations General Assembly in September to review the progress made and adopt the Sustainable Development Goals. Here I want to posit that encouraging and fostering innovation and research is crucial to achieving these goals.

In the past two decades, the world has witnessed unparalleled advancements in enhancing the quality of life for millions. Healthcare services employing innovative service delivery models and modern technology have improved the global rates for poverty, child mortality and burden of disease significantly. Child mortality rates have declined by more than half and the number of people living in extreme poverty has come down from 1.9 billion in 1990 to 836 million in 2015.

Although there has been significant progress in terms of improving the lives of people around the globe, a number of health problems still plague the world, especially in developing countries. In India, the extreme poverty, the high number of maternal and child deaths and the huge infectious diseases burden are major causes for concern and need to be addressed on a firm war-footing. Health innovations to develop low-cost and high-impact solutions, keeping in mind the ground realities in India, need to be supported.

Driving innovation to improve health and well-being

To harness the vast research potential in India, the Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology and the Bill & Melinda Gates Foundation, launched the Grand Challenges India (GCI) initiative in 2013 to promote and cultivate health innovation in the country. Under the initiative, the DBT and the Gates Foundation pledged an investment of up to US\$25 million each, over five years, to promote innovations in vaccines, drugs, agricultural products and interventions related to improving maternal and child health. Three grant programmes under the GCI initiative, "Achieving Healthy Growth through Agriculture and Nutrition" or Ag-Nu, "Reinvent the Toilet Challenge" and "All Children Thriving" are collectively supporting 17 research projects. The United States Agency for International Development (USAID) is a partner for the agriculture component.

The ongoing grantee projects have shown remarkable progress in terms of empowering communities and delivering progressive results which can be replicated on a larger scale. For example, in Cuddalore

district, Tamil Nadu, a grantee project under the Ag-Nu grant involves the integration of fish farming with livestock production and farming of agricultural crops creating an ecofriendly farming system which is devoid of artificial fertilisers. Knowledge, equipment and the functioning of such an integrated farming system has been shared with 150 women small-holder farmers. The use of organic fertiliser has increased crop yield, decreased the input cost for fertiliser and has ensured that soil fertility remains high. On a team visit to the site in July, the women farmers expressed their satisfaction and hailed the initiative as life-changing, which is truly inspiring and exciting.

BIRAC and the Gates Foundation aim to encourage research to solve India's most troubling problems, i.e. open defecation and stunted growth in children through the "Reinvent the Toilet Challenge" and the "All Children Thriving" programmes. At the 4th Innovator's meeting held in Manesar on 15-16 September, the awardees of the "All Children Thriving" grant were announced. This grant encourages development of solutions to reduce pre-term births, stunted post-natal growth and impaired cognitive development in Indian children.

Another novel programme by BIRAC was the launch of Sparsh -- Social Innovation Programme for Products Affordable and Relevant to Societal Health -- in 2013. The Sparsh programme was launched with the intent of developing solutions aligned with MDG 4, 5 and 7, i.e., reducing child mortality, improving maternal health and sanitation. Under the programme, a pool of social innovators has been created who are being mentored to understand product needs, supported in prototype development and assisted in creating concrete business plans to present to potential investors. The amount committed as seed fund is around US\$ 1.1 million.

BIRAC through a number of other grant schemes -- BIG (Biotechnology Ignition Grant), BIPP (Biotechnology Industry Partnership Programme), SBIRI (Small Business Innovation Research Initiative), and CRS (Contract Research Scheme) is supporting a number of young innovators, start-ups and SMEs for discovery-led innovation research leading for affordable product development. A total of 350 start-ups and SMEs and 155 young entrepreneurs have delivered 23 affordable products, 20 new technologies and approximately 50 new IPs.

Create in India

Dr RA Mashelkar coined the term MLM innovation, or More (value) for Less (cost) for More (people). This is particularly relevant to our country. The problems India faces are enormous but they can be solved through frugal solutions. The government continues to move forward with the creation of policy instruments such as those that support the Make in India movement and promote development. An "Innovation Marketplace" to engage international and regional organisations, corporates, universities and research institutes to induce an atmosphere of research in the country can help empower communities and bolster the country's fight against disease and preventable death.

As a country brimming with talent and creativity, India should strive to create a conducive "innovation ecosystem" where innovation across different areas that need changes in processes is encouraged and inventiveness/creative confidence is praised and supported.

Grand Challenges India aimed towards scientific-technological strides

October 28

'Grand Challenges India' has been jointly launched by the Biotechnology Industry Research Assistance Council (BIRAC), union Department of Biotechnology (DBT) and the Bill & Melinda Gates Foundation in 2013 to promote scientific and technological advances in health through research and innovation exclusively for country researchers.

The first two grants focus on 'Achieving Healthy Growth through Agriculture and Nutrition' and 'Reinvent the Toilet Challenge, while the latest grants have been under the initiative 'All Children Thriving', a statement said. Collectively 17 researchers and social entrepreneurs from across the country are being funded under the partnership, it said.

In India an estimated 1.27 million children die every year before completing 5 years, 81 per cent of under-5 child mortality takes place within one year of birth which accounts for nearly 1 million infant deaths, the statement said. An estimated 57 per cent of under-5 deaths take place within the first one month of life accounting for 730,000 neo-natal deaths every year in the country, it said, adding, globally India continues to be the country with the highest number of people (597 million people) practicing open defecation.

The release also quoted BIRAC Chairman and DBT Secretary Dr K Vijayraghavan as stating, "In the past two decades we have witnessed major advances in science and technology which have transformed the lives of millions in the country. We need to continue to drive innovation and research to meet existing challenges in health care. There is a need to create an enabling environment for research and innovation where creative confidence and inventiveness is praised and encouraged in order to harness the immense potential available in India", Vijayraghavan said.

"We must recognise the need of innovation in developing societies," he said. Encouraging innovation is of principal importance to tackle the problems of open defecation, child morbidity and mortality and malnutrition among mothers and children", said Trevor Mundel, President of the Global Health Division of Bill & Melinda Gates Foundation. "The Bill & Melinda Gates Foundation and DIB have come together to tap the vast potential available in India and drive health innovation in the country", Mundel said.

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"The Bill & Melinda Gates Foundation-DBT-BIRAC partnership aims to fulfil this vision through the Grand Challenges India initiative and encourage Indian researchers from across the country to work towards developing solutions with far-reaching social impact," Swarup was quoted as saying.

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Business Standard

Grand Challenges India seeks nutritional interventions in child health

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The GCI was jointly launched by India's Biotechnology Industry Research Assistance Council (BIRAC) under the Department of Biotechnology (DBT) and the Bill & Melinda Gates Foundation in 2013.

"The focus for this edition is on nutritional interventions in the area of child health and development," Renu Swarup, managing director, BIRAC and senior advisor, DBT, told IANS.

"We are looking at innovations for neo-natal care and pre-term babies for children who are less than 1,000 days old," she said.

Swarup said it would help integrate maternal health with childcare.

The first two grants under GCI focused on "Achieving Healthy Growth through Agriculture and Nutrition" and "Reinvent the Toilet Challenge". The latest grants under the initiative "All Children Thriving" were awarded in 2015.

As many as 17 researchers and social entrepreneurs across the country are being funded under the partnership. The aim is to promote innovation aligned with achieving the Sustainable Development Goals to end hunger, achieve food security and improved nutrition and sustainable management of water and sanitation for all.

Under the initiative, the DBT and the Gates Foundation have pledged an investment up to \$25 million each, over five years.

Swarup said overall, the challenge seeks to promote and nurture innovations in vaccines, drugs, agricultural products, and interventions related to improving maternal and child health.

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"The Bill & Melinda Gates Foundation-DBT-BIRAC partnership aims to fulfil this vision through the Grand Challenges India initiative and encourage Indian researchers from across the country to work towards developing solutions with far-reaching social impact," Swarup was quoted as saying.

"We must recognise the need of innovation in developing societies," he said.

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India aims for at least 1,500 biotech start-ups

November 13

India aims to scale up start-ups in the biotechnology sector to at least 1,500 in the next two to three years to boost technological interventions in the health and agriculture sectors, a senior biotechnology department official said.

"We presently have around 500 start-ups in the biotech sector. It is less in comparison with other sectors. We plan to scale it up to 1,500 to 2,000 in the next two to three years," said Renu Swarup, department of biotechnology's senior adviser and managing director of the Biotechnology Industry Research Assistance Council (BIRAC).

She pointed out that there was a growing market for biotech products and services given India's population and its needs.

Biotech start-ups are into bio-pharma (diagnostics and therapeutics), agricultural (biofertilisers, hybrid seeds etc.), bioinformatics and drug development, etc.

"They are directly or indirectly linked to the health and agricultural sectors," Swarup told IANS.

Prime Minister Narendra Modi earlier this year announced a 'Start-up India, Stand up India' campaign to promote bank financing for start-ups and offer incentives to boost entrepreneurship and job creation.

"Under the new initiative, if we can create a favourable business environment, we can tap into our own products and know-how for solutions in health and agriculture," she said. It would also help researchers to become 'tech-preneurs'. "We have seen good interventions happening in Odisha and Tamil Nadu," said Swarup.

The Indian biotech industry holds about two percent share of the global biotech sector. At present India is ranked 12th in the world in the biotech sector and third in the Asia-Pacific region.

By 2017, the size of India's biotech industry is estimated to increase to \$11.6 billion from \$4.3 billion in 2012.

Indian biotech entrepreneur Kiran Majumdar Shaw has said that the emergence of biotech start-ups is resulting in a reverse brain drain.

Currently, Swarup said, new products have emerged from the Grand Challenges India (GCI) Interventions. The GCI was jointly launched by BIRAC under the department of biotechnology and the Bill and Melinda Gates Foundation in 2013.

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