

A GLOBAL FRAME
FOR UNIVERSITY RESEARCH IN SRI LANKA

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Mr. Vice-Chancellor, distinguished members of the Faculty, Ladies and Gentlemen,

I am here primarily as an alumnus of this great and beautiful University to which I remain grateful for four culturally and intellectually enriching years of my life. I have always been proud that the first degree I earned, and the first honorary doctorate conferred on me, were both from the University of Peradeniya in the region of my own roots. It is, consequently, a great honour and a greater pleasure for me to accept your kind invitation to address the opening of this annual research session – a healthy new tradition in Peradeniya - providing the academic staff of all faculties an opportunity to present and discuss the results of their research activities in a trans-disciplinary context in marked contrast to the intolerance of honest dissent in our national political discourse. It is a tradition that survives despite the huge challenges and the onerous teaching responsibilities the academic staff have to shoulder.

Arthur Koestler once wrote -“If politics is the art of the possible, research is surely the art of the soluble. Both are immensely practical-minded affairs.”

Despite the notoriously dilettantish nature of the diplomatic profession, research has been, for me, an inescapable part of the diplomat's toolkit for the investigation and analysis of situations and trends and in the composition of reports and speeches. As an intellectually invigorating interlude in my diplomatic career, I also directed and engaged in research at the United Nations Institute of Disarmament Research (UNIDIR) for five years working on problems in the global disarmament agenda. Thus research is an eminently practical endeavour not necessarily confined to the ivory tower of universities or the laboratory of the scientist. The encouragement of research and the adoption of research methodologies in as many areas of activity as possible can only be beneficial. We cannot claim, a priori, that the location of research in a University is better than in a NGO 'think-tank' whether it is foreign funded or not. Marga Institute, for example, as a pioneering socio-economic research group has produced some excellent research employing many graduates of this University. So also has the International Centre for Ethnic Studies in Kandy under a former University of Peradeniya Professor Kingsley de Silva – the doyen of our historians. No doubt post-graduate research institutes within Universities do provide additional facilities and the teaching of students by graduate researchers is an important dimension missing in other research institutes. Perhaps collaboration between

University-based researchers and other research bodies, both within Sri Lanka and outside, could help in the cross-fertilization of ideas and in the vital area of funding. Ultimately research priorities and research methodologies should be left to the researchers to decide on. That is a part of the invaluable academic freedom that any University must have. Whether one adopts the research methodology of the logical positivists, Karl Popper's empirical falsification or Jacques Derrida's deconstructionism, research is essentially about the solving of problems. And of course the solutions to problems have wide-ranging benefits both tangible and intangible, nationally and internationally.

As the world faces the unprecedented global financial crisis at the same time as it discusses common solutions to the problems of climate change, weapons of mass destruction, terrorism and the achievement of the Millennium Development Goals, a gradual shift in the centre of gravity of global power is taking place. New engines of economic growth in the South – China, India, the ASEAN nations, South Africa and Brazil – are powering their countries into positions of influence in global decision-making. The concept of international peace and security has today evolved into a combination of military security, development and human rights – each component as important in itself but best pursued in tandem with the others.

Likewise we are seeing the essentially interconnected nature of the problems of the international financial crisis, climate change, rising fuel and food prices, weapon proliferation, terrorism, pandemics and several other global problems. All this requires increased global co-operation and the compliance with multilateral norms. A man at the frontiers of scientific research, Dr. J. Craig Venter, said a year ago in his BBC Richard Dimbleby Lecture ‘A DNA-driven World’ –

“Our planet is facing almost insurmountable problems, problems that governments on their own clearly can't fix. In order to survive, we need a scientifically literate society willing and able to embrace change - because our ability to provide life's essentials of food, water, shelter and energy for an expanding human population will require major advances in science and technology.”

For this purpose Venter goes on to call for ‘disruptive technologies’ saying, “It is clear to me that we need more approaches and creative solutions. We need new disruptive ideas and technologies to solve these critical global issues. This is where, I believe, biology and genomics, come in. Wikipedia defines a disruptive technology or

disruptive innovation as "a technological innovation, product, or service that eventually overturns the existing dominant technology or status quo product in the market." Well known examples of disruptive innovations include: telephones replacing telegraphs, cell phones replacing land lines, automobiles replacing horses and carriages and digital photography over film. We are clearly in need of a multitude of disruptive inventions to change our approach to energy and the challenges ahead of us."¹

The global South must prepare for these challenges. China has recognized the importance of creating and retaining a critical mass of high quality scholars and research institutions. While in the US only 16% of all post secondary education degrees are in math, science and engineering, in China the figure is 52%.² Again in China an estimated 4800 companies are directly linked to academic institutions as academy-run enterprises (AREs). This may appear to be a form of academic entrepreneurship far removed from the traditional concept of the University and University research. And yet our University researchers, especially in science and technology, may find it

¹ Dr J Craig Venter, The Richard Dimpleby Lecture 2007: A DNA-Driven World, BBC Press Release, 5.12.2007,

URL<http://www.bbc.co.uk/pressoffice/pressreleases/stories/2007/12_december/05/dimpleby.shtml>

² Loc.cit

mutually beneficial to establish links with the private sector. Universities can therefore be agents of change. The former Senior Vice-Rector of the United Nations University, Professor Ramesh Thakur, writing in an op-ed to the 'Hindu' on 2 October 2008 stated, and I quote,

“Universities are the marketplace of ideas. The process of transformation of large and complex societies creates social ferment, disorder, dislocation, volatility and, sometimes, even conflict. Universities often find themselves embattled because they are at the forefront of this struggle for social transformation. Education and scholarship provide the terrain on which arid and stagnant societies encounter new world ideas from foreign cultures. A university, as a repository of scholarship, is dedicated to teaching and research in the spirit of free and critical inquiry, tolerance of diversity and a commitment to resolution of difference of opinion through dialogue and debate. That is to the acquisition, criticism and transmission of knowledge from one generation to the next and to being a centre for creative and innovative learning”.³

³ Ramesh Thakur , “The changing world of higher education” , The Hindu, Opinion, 2 October 2008 , URL <<http://www.hinduonnet.com/thehindu/thscrip/print.pl?file=2008100255881100.htm&date=2008/10/02/&prd=th&>>

Whatever other deficiencies we may have, Sri Lanka is by no means “an arid and stagnant” society. But if we allow our Universities to be arenas for the encounter of ideas, whether they are indigenous or foreign, we can all witness the transformational change that we would like to see in developing countries following the sage advice of Mahatma Gandhi who famously said, “You must be the change you want to see in the world”.

A survey this year showed that China had six universities (excluding four from Hong Kong) among the top 200 in the world in comparison to India with 2, Singapore with 2, Japan with 10, Australia with 9, UK with 28 and USA with 58.⁴ I hope that the University of Peradeniya will soon be featured in this global ranking. Both China and India have excellent programmes to attract expatriates back to the country. Recently Sri Lanka’s Minister of Science and Technology announced ambitious plans for nanotechnology to be launched with the help of Sri Lankan scientists who have worked abroad. Increasingly Sri Lanka is becoming a knowledge economy and a knowledge society. For this higher education centres of excellence and constant innovation is vital. Patent applications are commonly regarded as a benchmark of innovation and the Republic of Korea (ROK) and Taiwan are

⁴ “World University Rankings 2008”, [Times Higher Education Supplement](http://www.timeshighereducation.co.uk/hybrid.asp?typeCode=243...), 27 Nov. 2008, URL <[http://www.timeshighereducation.co.uk/hybrid.asp?typeCode=243...>](http://www.timeshighereducation.co.uk/hybrid.asp?typeCode=243...)

way ahead of China and India in this respect. In fact the latest World Intellectual Property Organization (WIPO) statistics show that 77% of the patents filed and 74% patents granted were concentrated in China, Japan, the European Patent Office, the ROK and USA.⁵ In general, while Sri Lanka must certainly ensure equality of opportunity in accessing higher education and technology, the country cannot allow a dilution of standards in comparison with the rest of the world with whom she has to interact. Innovation and research is the key element in this. UNESCO statistics reveal that in 1990 the investment on research and development (R & D) in developed countries was 90% of the global share with 10% being spent in developing countries. A decade later this was transformed into 79% and 21% respectively.⁶ More recent statistics from the so-called “rich men’s club” – the Organization for Economic Co-operation and Development (OECD) – show that the global share of R & D in non-OECD countries was at 18.4% in 2005⁷ reflecting not only the growing share of developing countries in the world economy but a steady increase in the intensity of investment on R & D in the South.

⁵World Intellectual Property organization, “WIPO Patent Report 2007”, Statistics on worldwide patent activity , 2007 Edition, URL

<http://www.wipo.int/export/sites/www/freepublications/en/patents/931/wipo_pub_931.pdf>

⁶ “Research and Development Statistics 2004-05”, Government of India, Ministry of Science and Technology, Department of Science and Technology, New Delhi-110 016, September 2006, URL <<http://www.nstmis-dst.org/RnDPDF/CHAPTER%20-%20VIII.pdf>>

⁷ Alan Osborn, Global Europe and US behind in Global R &D investment, University World News, 16 November 2008, URL <<http://www.universityworldnews.com/article.php?story=200811131515497>>

In a developing country like Sri Lanka, with limited resources available for Research and Development, the challenge is to use research as innovation or as a change-agent. I will not enter the recent controversy about making University research strictly relevant to the needs of the country except to say that I think the notion of placing any sort of constrictions on intellectual endeavour is to me repugnant to the fundamental freedom which the human mind must always enjoy if it is to flourish. Governments should not dictate the research agenda. They can certainly influence it through incentives such as research grants and other facilities and ensure that research follows the direction of a national plan. Contextualization is another matter. Research at the very frontiers of knowledge must go on and we do need geniuses like Albert Einstein, whom we all know created the most elegant physical theory of all time, $E=MC^2$, and Srinivasa Ramunujan, the self-made Indian mathematician, who worked on numbers theory, to push forward the boundaries of human knowledge. At the same time with resources so limited, both in terms of human resources and material resources, prioritization is inevitable. But contextualization cannot be confined to one's national boundaries. We must take into account the international context especially in an increasingly globalized and inter-dependent world accelerated by the ICT revolution and the increasing digitalization of

knowledge. This means that our research scholars must be free to learn and adopt research methodologies prevailing in other countries. At the same time they must have access, especially Internet access, through the availability of journals, international exchanges of scholars and participation in conferences to global trends in their respective areas of expertise. Not to do so will be a grave disservice to our national development whether you justify it on the nationalist grounds of relevance or on the basis of economic priority. Let me go back to Dr. Venter and the frontiers of modern research into the new field of genomics –

“But above all I believe the best examples of disruptive technologies that could change our future are in the new fields of synthetic biology, synthetic genomics, and metabolic engineering. These fields can change the way we think about life by showing that we can use living systems to increase our chances of survival as a species. Simply put: this area of research will enable us to create new fuels to replace oil and coal. Imagine scientists in the near future sitting at their computers and designing the chromosome of a new organism, an organism that perhaps could produce fuels biologically, fuels like octane, diesel fuel, jet fuel even hydrogen all from sugar or even

sunlight with the carbon coming from carbon dioxide.”⁸

That is the gravamen of my message to this learned audience – do not listen to those who would have you live in the past however glorious the achievements of our ancient civilization have been. We cannot wallow in self-centred exclusivist thinking erecting walls against trends that can only help our people develop themselves. Open your minds, as indeed our ancestors did in this island country of ours, welcoming foreign influences and adapting them to our needs.

Let me draw on two experiences I have been engaged in recently to illustrate my point. The Geneva-based World Economic Forum, which runs the annual Davos meetings, invited me last month to Dubai to participate in what was described, a little pretentiously perhaps, as the largest brainstorming session on the Global Agenda. Over 700 experts participated in 68 Global Agenda Councils clustered in 8 thematic groups to explore the current state of the world in their respective areas and to provide recommendations on how this state should be improved. The overall

⁸ Dr J Craig Venter, The Richard Dimpleby Lecture 2007: A DNA-Driven World, BBC Press Release, 5.12.2007,
URL <http://www.bbc.co.uk/pressoffice/pressreleases/stories/2007/12_december/05/dimpleby.shtml>

conclusion was that the global system needed a fundamental ‘rebooting’. Sri Lanka must be a part of that process since this is a unique opportunity to redress the inequalities of the past and reshape a future in which the developing South can ensure a level playing field in international relations. Of course the selection of the experts was arbitrary and, of course, there was a preponderance of Western scholars and experts resulting in a bias in the analysis and the recommendations made. However the ideas discussed are a pointer to the preoccupations of some of the leading thinkers on these subjects which can only be useful to us in Sri Lanka whether we accept them, adapt them or totally reject them as relevant or irrelevant to our needs. I will examine the discussions in some of these areas to illustrate my point.

On the current financial crisis the highlights of the discussion were summarized in the following terms -

“The current financial crisis continues to unfold and highlights the limitations of the current regime of global coordination and regulation. Crisis management has been and is extremely difficult as the financial landscape continues to morph dramatically. The impact of the financial crisis is being felt in the real economy and there is a

significant risk of a global recession that will affect many sectors, asset classes and regions, in tandem. The current economic downturn is also exacerbating distortions within and between key markets as evident in:

1. severe dysfunction in the banking sector and other financial institutions.
2. the global exchange rate system, as a whole, which is not flexible enough.
3. the financing of residential housing, which is still impaired and causing downward pressure on housing prices.
4. the deterioration of capital flows and financing conditions for emerging economies .
5. the distortions in credit flows to non ring-fenced countries and industry sectors In the short term, the key actors in the financial system will be governments, acting both as owners and as regulators.

They have three important tasks:

1. determine appropriate government interventions to prevent further financial contagion and mitigate recession.
2. deploy capital effectively to support critical areas of the economy (e.g., the refinancing of US\$ 1 trillion in commercial real estate debt maturing next year in the US) .
3. communicate their actions to a sceptical public.

Longer term, the future financial architecture must address the need:

- a) for appropriate international regulatory coordination that is inclusive of all key decision-makers and that reduces regulatory arbitrage; and regulatory measures introduced to deal with new financial instruments and products should be carefully crafted to be effective, without inhibiting innovation.
- b) to structure incentives that enable the financial sector to act in a

manner that fosters systemic stability without excessive government intervention (this includes elements of compensation, corporate governance and regulatory oversight) .

c) to integrate societal values and concerns into a capitalist market model .

d) to tackle global imbalances (e.g. trade, savings, exchange rate models, etc.)

e) to ensure that protectionist backlashes do not limit growth in both emerging and developed economies.”⁹

On the critical issue of the Environment the discussion was as follows - although I must confess in the light of the meagre achievement of the Poznan conference earlier this month, it does sound naively disconnected from the international reality –

⁹ World Economic Forum, Highlights from Council and Cluster Discussions, Summit on the Global Agenda, p 1, Dubai, United Arab Emirates 7-9 November 2008, URL<<http://www.weforum.org/pdf/GAC/Highlights.pdf>>

“On climate change, a new international climate change framework is to be set in 2009 and although the elements of the new framework as laid down in the Bali Action Plan are clear and will be discussed and negotiated in the course of 2009, some important dimensions have not yet been agreed upon. Five key elements will need to be addressed in 2009: a) commitments, b) finance, c) institutions, d) innovation and technology and e) awareness/behaviours.

Within the context of the current financial crisis, the international community must integrate climate change considerations – and more broadly environmental and core sustainability issues – into the discussions around restructuring the international financial architecture.

For the sustainable/alternative energies sector, there is no doubt that this sector in the short term will be hurt by the ongoing credit crunch. Some companies will go bust and projects will be delayed but optimism remains that from this crisis comes tremendous opportunity for sustainable energy, for the following reasons:

- A shift from an era and mentality of abundance to one of scarcity is likely to speed innovation and spur efficiency.
- A crisis is likely to encourage long-term thinking and a shift in the fundamental energy paradigm that goes beyond mere tinkering with the status quo or business as usual approach.
- The financial crisis may force a useful shakeout that weeds out unsustainable business models and which leaves a stronger, more vibrant clean technology sector in its wake.
- There are signs that this sector may even end up attracting a lot of private capital as an island of long- term promise in this ocean of turbulence .”¹⁰

Finally on the issue of Global Governance the discussion was summarized in the following way –

“What is new about the crises today is a global context that includes

¹⁰ Ibid.,p 3

radically increased interdependence, both among countries, and across issues. There are three fundamental global governance problems: global market failures, sovereignty failures and inter-governmental failures. All three of these failures reflect failures of imagination, political will and in particular an unwillingness to re-think the foundations of international order and the responsibility that comes with them. Current challenges (realization of basic human rights, financial, climate, the balance between national security and fundamental rights, etc.) focus attention on the deficiencies of the international legal system. Ever more areas require international collaboration, as state- based systems are increasingly unable to address key issues without effective global cooperation. The complexities of globalization indicate that many issues – from terrorism to financial crises – require an international legal system that can anticipate and address unforeseen events in a manner that is rapid, fair, effective and efficient, and which can attract international support.... The current economic crisis will further state fragility. As most fragile states are exporters of primary commodities, a decline in demand for primary commodities will represent a significant loss of revenue. Countries dependent on migration and remittances are likely

to experience the impact of the financial crisis. Moreover, cuts in foreign aid will have severe budgetary impact on fragile states but it may also precipitate the more efficient deployment of more scarce aid resources. The estimates of illicit trade that range from 7-10% of the global trade do not convey the severe harm resulting from the illicit trade or the urgency of the problem. Illicit trade is perpetrated by a variety of criminal actors, not just traditional criminal organizations but diverse networks that often include a range of individuals including high- ranking government officials. Corruption is the major facilitating mechanism for this trade to function.

Moreover, the criminality is morphing and transforms more rapidly than a state or multinational system can respond, while policies at the state and multinational level have failed to stop the growth. The current financial crisis is likely to increase the different forms of illicit trade because of the increased pressure to lower prices and the greater desperation of individuals in affected economies.

As to the future of governments, democracy around the world is in danger. A serious crisis is in the making, due to four challenges: (1)

collapse: basic democratic institutions are at risk and in danger of failing partly due to the economic crisis in poor countries; (2) capture by interest groups, the military, organized crime, etc.; (3) competition: there are fairly stable authoritarian regimes that make the case that democracy is an unnecessary luxury or is inferior; (4) constraints: the current economic crisis shows that national governments and domestic regulation are inadequate to deal with the challenges of the global economy. There is also a danger of protectionism and isolationism that could further undermine democratic institutions.”¹¹

The second experience I would like to draw on is my Chairmanship of the United Nations University Council which is the governing body of the UN University (UNU) established in 1973 by the first Asian Secretary-General of the UN, U Thant, in Tokyo to conduct research into areas relevant to the policies and programmes of the UN. The Mission of the UNU is described in its own words as -

“The UN University’s mission is to contribute, through collaborative r

¹¹ Ibid., p 4,5

research, capacity development and advisory services, to efforts to resolve the pressing global problems of human survival, development and welfare that are the concern of the United Nations, its Peoples and Member States. In doing so it pays due attention to the social sciences and the humanities as well as the natural sciences”

In pursuing this mission, the University functions as:

- an international community of scholars;
- a bridge between the United Nations and the international academic community;
- a think-tank for the United Nations system;
- a builder of capacities, particularly in developing countries; and
- a platform for dialogue and creative new ideas.

Over the years the UN University has been at the centre of a network of research institutes in a wide diversity of countries functioning as a de facto but little publicized ‘think-tank’ of the UN. One of these institutes is the Helsinki-based World Institute for Development Economic Research (WIDER) whose founder Director was the late Dr.Lal Jayawardena of Sri Lanka. While a number of Sri Lankan scholars have participated in the

research conducted by the UNU and its global network of research institutes, our Universities have been inadequately exposed to the results of this research. I would like to cite some of this research which could be of benefit to us and propose ways and means to enhance contacts between our Universities and the UNU network.

Taking the Brundtland Commission Report of 1987 and the goal of global sustainable development as its point of departure the major topics fall in three fields related to societal, physical and environmental needs. While there is admittedly some overlap among them, societal needs would include research into Conflict resolution and Security, Dialogue of Cultures, Poverty Alleviation, Population dynamics and Migration. Physical needs include research into Food, agriculture and fisheries; Global Health and development Economics and trade. Environmental needs include Ecology, Biodiversity and Climate. The topics are essentially inter-linked and a systems approach involving the social sciences as much as natural and engineering sciences has been adopted. Despite its global scope as a UN institution the UNU places special emphasis on questions relating to the developing world.

Sustainability or that which “meets the needs of the present without compromising the ability of future generations to meet their own needs”, is

thus a common theme running through the research of the entire UNU. I will cite four examples from the Annual Report of the UNU 2008. The first is the research project conducted by UNU-WIDER on “Fragility and Development” which studied the various dimensions of fragility and vulnerability, including the extent and consequences of fragility at the national level and its interactions with household vulnerability. A project workshop in Fiji focused on state fragility and household vulnerability in some 30 small island states. A conference on “Fragile States-Fragile Groups” emphasized that fragile states have adverse implications for global security, regional development and stability and the achievement of the UN Millennium Development Goals.

A second example is the United Nations University - Institute of Advanced Studies (UNU-IAS) Education for Sustainable Development programme which initiated the Promotion of Sustainability in Postgraduate Education and Research Network (ProSPER.Net) – a network of leading higher education institutions in Asia and the Pacific that have committed to work together to integrate sustainable development into postgraduate course and curricula. I hope the University of Peradeniya is linked to this network. Two meetings of the network were held this year.

The third example is the United Nations University Maastricht Economic and social Research and training centre on Innovation and Technology (UNU-MERIT) project on “Financial Inclusion Improves Sanitation and Health” which represents a unique collaboration that aims to harness and integrate expertise from diverse sectors (such as health sciences, sanitary engineering, economics and microfinance) to identify mechanisms for more effective inclusion of poor communities in the provision of sanitation services. The project’s basic premise is that the scaling up of sanitation coverage in developing countries is hampered by insufficient knowledge on optimal combinations of appropriate technologies and a lack of financing and incentive schemes to ensure adequate investment and usage. A key barrier in devising norms for equitable and efficient investment in sanitation is the lack of empirical data to quantify the willingness of target communities to pay for and maintain sanitation facilities. This project focuses on improving both the investment and usage aspects of sanitation. UNU-MERIT’s major project partners include Indian health insurer TATA-AIG and micro-finance company BISWA; WASTE (a Dutch-based international environmental network); SNS Real and Maastricht University’s Faculty of Health Sciences. The project results are expected to be useful not only for India but also for other developing countries especially in Africa.

The final example is the research project conducted by the Peace and Governance programme of UNU at its Tokyo headquarters on “Building Sustainable Peace”. It has been established that many countries emerging from conflict fall back into violence within a few years. This highlights the need to build sustainable peace by addressing the root causes of conflict. Peace building is a holistic, long-term process. The UNU Peace and Governance programme, in collaboration with the UN Peace building Commission, is focused on meeting the pressing need to establish clear guidelines for peace consolidation and implementation and is part of the diverse UN-wide community of peace building practitioners.

Let me conclude.

Research transcends national boundaries and cannot be circumscribed by nationalist sentiment. Sustainable development, poverty, climate change, international terrorism, health issues, the threat from weapons of mass destruction, natural disasters and their mitigation, are but some of the issues that are global in scope which are directly relevant to Sri Lanka. Let us be engaged with the global research community in finding the best answers and

the best practices to help our fellow citizens in Sri Lanka and our fellow human beings in the world at large.

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