

EIGHTH ANNUAL CONVOCAATION

Friday 22nd February, 2013

CONVOCAATION ADDRESS BY CHIEF GUEST



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8th CONVOCATION ADDRESS

Prof. R.B. Singh
President, National Academy of Agricultural
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Her Excellency, the Governor of Gujarat and Chancellor of the University, Dr. Shrimati Kamla Ji, Hon'ble Minister of Agriculture and Allied Sectors, Shri Babubhai Bokhiria, distinguished Vice-Chancellor, Dr. A.R. Pathak, Members of Board of Management, Academic Council, Faculty, Students and Staff, Honoured Graduating Students, Proud Parents, Press and Media, Ladies and Gentlemen!

It is my pleasure and a privilege to address the 8th Convocation of Navsari Agricultural University, a noted centre of agricultural education and research. On this auspicious occasion, I congratulate the graduating students who have received their well-deserved degrees. Vice-Chancellor Dr. A.R. Pathak and the learned faculty of the University must also be congratulated for their leadership and commitment to impart excellent and relevant education in an academic setting charged with vibrant research, innovation and technology development.

Dear Graduating Classes!

You are graduating just one week after an auspicious day Vasant Panchami. As you may know, Vasant Panchami is dedicated to Maa Saraswati, the Goddess of knowledge,

music, arts, science and technology. This coincides with the transition of your career enriched by new knowledge and wisdom during your studies at this great University. You must let the light within you shine brighter and brighter and you grow endless in purity, wisdom and knowledge.

True education is leadership in thoughts and values. There are periods in human history when the progress of decades and hundreds of years can be accomplished in a few years. The unprecedented progress in science, technology, management, democratization and partnership building has already proven the efficacy of compressing the time scale of development and present still greater moments for creativity. Dear Graduates, you must capture these uncommon opportunities for promoting job-led green economic growth, rooted in the principles of ecology, equity and sustainability. This you could achieve only by continued learning. The day you cease to learn, you cease to live.

Navsari Agricultural University, situated at the historic Dandi Road, becoming a full-fledged State Agricultural University on May 1, 2004, with a sprawling campus of 400 ha fertile and leveled land, has the mission to attain excellence and relevance in education, research and technology dissemination. It is an exemplary institution for accelerating holistic and sustainable development of agriculture and allied sectors in rural areas of South Gujarat. I understand that during the past few years the University has developed and released about 25 outstanding crop varieties and has been notifying a good number of technologies every year, as many as 61 new technology packages during the last year. The University is also a leading innovator and has shown the way to establish public-private-industry linkages and to

institutionalize hands-on-training to its students. Polytechnics are a strong feature of the University.

Gujarat, particularly this area, has been the world leader in hybrid cotton research and the first hybrid cotton in the world – Hybrid 4 developed by late Dr. C.T. Patel heralded a new era of heterosis breeding which is the mainstay of cotton economy of this country and of many other countries. I remember, 45 years ago, Dr. Patel took me to his breeding plots and hybrid seed production fields where the green fingers of women farmers produced the seeds which triggered the white gold revolution.

Gujarat State is a state with a difference. To my knowledge, there is no other state where the Hon'ble Minister of Agriculture is also the Minister for Cow Breeding. This must be with a purpose. Genetic resources, our local and indigenous breeds, are the greatest treasure and building blocks of our future breeds to be developed as per needs or in response to the climate change. The State thus must have a cow breeding policy, encompassing the conservation and development of indigenous breeds. All states and the nation as a whole should adopt such a policy and implement it. Gujarat also has the distinction of having cows hostels. A couple of years ago, I had visited one such hostel near Dantiwada, but was somewhat disappointed to see that most of the inmates were cross-bred cows and not the local improved mighty Kankrej.

Gujarat has the distinction of registering a growth rate of about 10% during the past one decade or so. This has been possible due to synergies among research, technology development, education, extension (the unique *Krishi Mahotsava* and *Krishi Raths* to reach the farmers), innovation,

political will and leadership, and the mission mode action by the Gujarat Government. Some of the policy actions, such as not to give free power to farmers instead assured electricity supply to agriculture on 24x7 basis, spread of micro irrigation scheme, water table recharge, creation of centres of excellence in Agricultural Universities etc. should be adopted across the nation.

Permit me to briefly examine the national scenario. The Green Revolution ushered in the mid-1960's brought an unprecedented agricultural transformation in the country. Between 1965 and 1995 the food and agriculture production and productivity had more than doubled and the intensity of hunger and poverty had halved. This revolution was largely due to the synergy of technology, policies, services, farmers' enthusiasm and strong political will.

However, the Green Revolution has now waned. During the last decade or so, while the overall national GDP had registered a high growth rate of about 8 percent, the agricultural growth had gone sluggish (although recovered lately) and the total factor productivity growth remained stagnant or even declined.

Unethical as it is, the country is still home to almost one-fourth of the world's hungry and poor. Over 40% of world's undernourished children are our own children. It is estimated that the entrenched high undernutrition in the country annually costs about 3 percent of the national GDP.

The income gap between farmers and non-farmers has widened to 1:6, which must be totally unacceptable. Despite several social protection floors, inequalities as well as inequities have multiplied and are proving serious deterrents

to inclusive growth. As proven “high initial levels of inequality limit the effectiveness of growth in reducing poverty, while increasing inequality reduces the impact of growth on poverty for any given level of growth”.

The Indian enigma of the coexistence of high economic growth and the entrenched high prevalence of hunger and poverty and veritable asymmetries can be attributed substantially to the neglect of agriculture in an agriculturally important country. Promoting manufacturing and services sectors at the cost of agriculture sector has not paid the dividends to the majority rural people. In this context, Nobel Laureate Amartya Sen had recently observed “I do not think there’s enough clarity on economics here. I do not judge the performance of the Indian economy by growth alone..... And the fact is that human capability expansion is also very critical for economic growth”.

In an agriculturally important country like ours, agriculture is the main driver of agrarian prosperity and comprehensive food and nutritional security. The past Five-Year Plans have been aiming at an agricultural growth rate of 4% and above to achieve a balanced overall GDP growth rate of about 8 to 9%. But, we have not been able to achieve the targeted growth in the agricultural sector, hence the high overall growth has been hollow. The XII Plan also targets an overall agricultural output growth of 4.0-4.5% coupled with inclusiveness and gender sensitivity.

Towards shaping India to achieve the future we want, it must be realized that we cannot think of a world without a thriving, multifunctional and comprehensive agriculture. If agriculture fails, nothing else will succeed. I am sure, all, including farmers, students of agriculture, scientists, researchers, the

academia, policy makers and politicians agree with this fact and shall not only save but also enrich agriculture to render this world still more beautiful. The hungry child cannot wait. His/her brain and bones are being formed today. We cannot name him/her Tomorrow. His/her name is Today.

The Planet Earth is already under stress. Of the nine interconnected planetary boundaries with defined tipping points in the Earth system, three of them, namely, climate change, biodiversity loss and nitrogen cycle have been crossed. Climate change is already the most destabilising factor. The challenge is to produce more and more from less and less and under more difficult and complex environmental, carbon and GHG imbalances and worsening socio-economic inequities and inequalities. As agriculture impacts climate change and gets impacted by it, the enterprise is increasingly obliged to mitigate its own GHG emissions.

The world is changing fast. The high population and income growths are continuously pushing up the demand for food particularly high value quality foods. As we sit down for dinner tonight we would have additional 40,000 guests at the Indian dinner table, out of the 200,000 fresh arrivals in the world as a whole. The demand for energy is likewise multiplying and renewable sources of energy will be increasingly utilised and put under increasing pressure. On the other hand, the total factor productivity is declining and natural and other production resources are further shrinking.

Excellency!

Ladies and Gentlemen!

The urgency for change thus can hardly be over-emphasized. Agricultural education, research and extension institutions

are therefore increasingly challenged to transform to produce newer technologies, create comprehensive knowledge pool and strengthen trained, skilled and retooled human resources to meet the challenges and new opportunities unleashed by technological revolutions and the fast changing world.

As you all probably know, in the closing days of the 20th Century, in 2000, the world leaders met at the UN Headquarters in New York and came up with eight interdependent Millennium Development Goals (MDGs). The very first goal was to alleviate hunger and poverty. The other goals had emphasized sustainable development, environmental and natural resource conservation, health and educational security, and pro-women, gender-sensitive inclusive growth. This global mandate, profound as it is, must be translated into action at national levels. Universities like NAU, scientific institutions, private sector, public sector and the civil society, duly supported by political commitment, policy options and actions, must converge to achieve the goals.

During February 7-9, 2013, the National Academy of Agricultural Sciences had organized its XI Agricultural Science Congress at Orissa University of Agriculture and Technology, Bhubaneswar. The theme of the Congress, "Agricultural Education: Shaping India's Future", reflected the dream and determination of every generation of Indians, particularly Indian agricultural educationists and scientists to have a prosperous, ever-progressing and happy India.

During January 3-7, 2013, the Centenary Session of Indian Science Congress with the theme "Science for Shaping the Future of India" was held in Kolkata. The Hon'ble Prime Minister in his Presidential Address at the Centenary Session,

recognising the centrality of agriculture in achieving comprehensive and sustained livelihood security, had singled out transformation of agriculture as the top priority of the country's public policies including those on science and technology. He had further emphasized that "As India seeks a sustained growth in national income, we must endeavour to harness the tools of science and technology to cater to the needs of the underprivileged and to bridge the gap between haves and the have-nots."

National Science, Technology and Innovation Policy, 2013, released at the Centenary Congress had outlined the following approaches which must guide us in our march towards a prosperous and happy India:

- A sustained growth in agriculture at the rate of four per cent per annum is essential to achieve food security and also to sustain an overall GDP growth rate of 8 to 10 percent.
- New breakthroughs are needed in water-saving technologies in cultivation, enhancement of land productivity and development of climate-resilient varieties; natural resource management and climate resilient agriculture.
- While ensuring a sustained growth in national income, harness the tools of science and technology to cater to the needs of the underprivileged and to bridge the gap between haves and the have-nots; minimize inequalities to allow faster and inclusive growth.
- Complex issues, be they genetically modified food or nuclear energy or the exploration of outer space, cannot be settled by faith, emotion and fear, but by structured debate, scientific analysis and

enlightenment; let judicious science and scientific rigour guide our actions.

- Produce and nurture talent in science to stimulate research and develop young leaders in science and to adopt science-based value systems, and create an environment for greater private sector cooperation in research, innovation and education.
- International collaboration was vital for increasingly resource-intensive modern science to progress.

Towards implementing the above policy initiatives, note must be taken of the following six profound global developments which have emerged during the recent decade of this Millennium:

First, the technological revolution and complexities with their veritable unprecedented promises, opportunities and challenges. For instance, the human, the rice, and many other genomes are already mapped with unlimited prospects of genetic alchemy of various productivity and adaptability traits - a goldmine for insight of control of a large number of extremely important traits, hence new products and businesses. Your awareness and right perception of these shall help the country harness these developments judiciously and in a biosecure manner.

Second, information and communication technology revolution instantaneously linking the whole world, arousing expectations, creating virtual Universities and tremendously fortifying decision-making capacity and processes. India is a world leader in this field. We all must use this technology to reach the unreached and create dynamic knowledge domains.

Third, the knowledge economies are underpinning the competitive edge of knowledge-based societies and technology-led transformation of economies and life styles. There is an increasing accent on “frugal” solutions and innovations to solve chronic problems of hunger and poverty, sustainable development and green growth. The graduating young men and women may wish to probe whether we are sharing technologies and innovations for enhancing the livelihood security and prosperity of our people and taking India to the higher pedestal?

Fourth, globalization and liberalization rendering the whole world as a global market place and promoting free trade – again underpinning competitiveness, quality of products, including environmental health, cost-effectiveness and efficiency. Can the debate on FDI be viewed in light of these developments without compromising inclusiveness?

Fifth, human capital development emphasizing investment in people’s creativity, skill, competence, and management capacities to ensure healthy economic, social and ethical development of individuals of societies and of nations. Increasing attention is being paid to social capital of trust relationship, values and networks as critical to sustainable economic development, social cohesion, and individual well-being. You may like to ponder over as to why the current controversy on the social websites.

Sixth, the volatility in the markets, economic growth and climate change are hugely impacting development. Have these trends been internalized in our research, education, innovation and management pursuits to build the desired resilience and to protect the majority poor from the onslaught?

Dear Graduates!

As you step out into the real world possessing greater brightness, irrespective of the nature and place of your work, you are bound to be directly impacted by the six developments which I just described. Traversing through and often emanating from these developments, you would frequently encounter equally profound issues, namely, (i) Stubbornly high incidence of food insecurity and poverty, (ii) increasing inequities: widening urban-rural, gender, regional, digital and knowledge divides leading to gross social inequity and rising joblessness, (iii) enhanced volatility in agricultural production due to climate change and accelerated environmental and ecological degradation and biodiversity loss, (iv) increasing demand for safety and quality standards, and their enforcement, in face of the magnifying food safety, biosafety and biosecurity concerns, (v) restricting access to technologies and markets by imposing baseless barriers, (vi) declining pro-poor investment at national and international levels and shrinking availability of public goods, and (vii) accent on strengthening enabling policies and regulatory provisions and mechanisms.

We are thus living in a time of far reaching changes. Many of you end up being leaders in science, education, business management and development. Modern management must be viewed as a dynamic process of seeking constantly to align your institution's internal resources with the fast changing external environment marked by such challenges as I have just alluded to. Your ability to understand the opportunities presented and constraints imposed, a sort of SWOT analysis, will underpin your success as well as the happiness of the society.

Remember, you are graduating at a historic juncture when India is striving to be in the league of developed countries. A large number of national programmes, such as Rashtriya Krishi Vikas Yojana, National Food Security Scheme, National Rainfed Area Authority, National Horticulture Mission, Agricultural Science Pursuit for Inspired Research Excellence (ASPIRE), Rural Entrepreneurship and Awareness Development Yojana (READY), Attracting and Retaining Youth in Agriculture (ARYA) etc. have been initiated to boost agriculture-led prosperity of the nation. These developments are bound to make you feel good and optimistic.

However, the overall buoyancy must be tempered with the fact that, as mentioned earlier, India is still home to one fourth of world's hungry and poor and over 40 percent of the world's undernourished children. And a large proportion of the population, especially the rural poor women, is unlettered. Moreover, the farmers, who feed us, are the poorest and the hungriest. Do you know, in India every three seconds a child dies? These must stir our minds to bring the desired change which is overdue. Time is not on our side.

Excellency!

Ladies and Gentlemen!

We must do a Lula. President Lula's most successful Zero Hunger Programme of Brazil, has a strong message not only for India but for the whole world. Encouraged by the Brazilian movement, the United Nations Secretary General, Ban Ki-Moon, during the Rio+20, June 2012, announced the Global Zero Hunger programme and, echoing the Brazilian success, said that we can achieve zero hunger during our life time. FAO's declaration of 2014 as the International Year of Family Farming augurs well with the centrality of smallholder

farmers in national development, especially in India where 85% of farmers are smallholder farmers.

Permit me to refer to yet another unmet promise. Unemployment and underemployment are one of the main causes of poverty and deprivation. India has the largest bulge of youth. Unfortunately more than one-fifth of them are unemployed. What a terrible waste of the human capital. It is increasingly obvious that economic entitlement, as eloquently emphasized by Nobel laureate Amartya Sen, is the key to food, economic and social security. Creation of jobs for all is not a question of possibility. It is a question of necessity and effective action. “As freedom has finally been recognized as an inalienable right of every human being, we are fast approaching the time when society must recognize and ensure the right of every individual to gainful employment”.

As enunciated in the Millennium Development Goal, all nations must strive to achieve “food, health, education and jobs for all”. A paradigm shift in attitude and approach is required for accomplishing the goal. I am sure, the inspired faculty and students of this University must be aware of these shifts and will further be striving to reach the goals. I am confident, the leadership quality and creativity that you have acquired should ensure not only a fulfilling professional career for yourself and success in a competitive world, but also in creating and nurturing new employment opportunities.

Education for Agriculture in the 21st Century should have the goal that every scholar becomes an entrepreneur. Thus, Business Management should be mainstreamed in all applied courses, e.g. Seed Technology and Business. The Colleges of Human Sciences should revamp their courses and internalise

business management component. Regional Institutes on Food Safety and Security should be established to ensure availability of safe and nutritious food. Like the IITs, Centres of Excellence in form of Agricultural IITs and Agricultural IIMs should be created to ensure availability of quality human resources in agriculture-led development. A new Government programme on 'Youth for Leadership in Farming' should be launched.

Dear Graduates!

The challenges before you are thus complex and formidable. However, you are bestowed with uncommon opportunities. In the words of Hon'ble Former President Abdul Kalam, "Natural resources and human resources are our core competencies". The convergence of ICT, nano-technology, biological sciences and management sciences is on the horizon and India is poised to become a huge knowledge society. However, we cannot build a developed India on the shoulders of "stunted" and "wasted" children and the large number of unemployed youth. Remember, you have to emerge as a job creator and not as a job-seeker.

We live in an unequal world. Half of the world's population owns only 1% of the wealth and particularly in India the situation is even starker. India is very different from Bharat. The immediate challenge for India is to propagate and infuse an inclusive and sustainable growth to build one strong India. We must develop and nurture a leveled playing field in the globalized world. In order to rationally manage the unmixed blessing of globalization in its present form, I will be guided by the profound view of Mahatma Gandhi *"I do not want my house to be walled in on all sides and my windows to be stuffed. I want the cultures of all lands to be blown about my*

house as freely as possible, but I refuse to be blown off my feet by any".

For rapid and sustained poverty reduction there must be an inclusive growth that allows people to contribute to and benefit from economic growth. In order to create a better and sustainable future for our society, government, corporates and NGOs will need to work collectively. You must stand up not only as an accomplished bright agricultural scientist and professional, but also as a noted sociologist and meet your responsibility of social justice and to rid the society of corruption. You, as a social leader and change agent have the onus to balance the two responsibilities.

There is one and only one planet Earth. As future planners, managers and science leaders, you are responsible for conserving the treasure that we have borrowed from our children. Economies will only succeed if they can flourish in a natural resource-constrained world. Often, the nexus between corporate power and policy making derails the sustained development.

We can do better, we should do better, we must do better. We must welcome you as our next generation of science and education leaders. Youth is driven by idealism and ambition. Idealism without ambition may not achieve much but ambition without idealism can be dangerous. May you combine the two in the right proportion. Extend your "right" hand to the farmers and other clients to your scientist colleagues, to your state and to the country. Not just a finger.

The first Prime Minister of India, Pt. Jawaharlal Nehru, on the midnight of August 14-15 1947, the day India became independent and entered into a tryst with destiny, had

emphasized “everything else can wait, but not agriculture”. This message assumes still greater relevance as we are yet to achieve the freedom from hunger and poverty.

On this auspicious occasion, we must learn from our past, recall the sacrifices and vision of our great leaders, appreciate the challenges and the opportunities and vow and dedicate ourselves to build a prosperous India. I urge you to reach out for stars. Even if you fail to reach there, I am sure; you will catch some stardust, enough to keep India glowing today and forever.

In doing so, please remember the following profound words of the Father of the Nation, Mahatma Gandhi “There are seven sins in the world: wealth without work, pleasure without conscience, knowledge without character, commerce without morality, science without humanity, worship without sacrifice, and politics without principle”.

I hope and pray that the next phase of your life will be full of achievements and happiness.

Good Luck!

Jai Hind!!!