

Acharya N G Ranga Agricultural University

Convocation Address

Harnessing the Demographic Dividend for Agricultural  
Rejuvenation

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I am extremely happy to be here on an occasion when this dynamic University is making available to this State and our country large number of trained women and men from accelerating our agricultural progress.

During his recent visit, President Barak Obama pointed out that India is fortunate to have a youthful population with over half of the total population of 1.2 billion being under the age of 30. Out of the 600 million young persons, over 60% live in villages. Most of them are educated. Gandhiji considered the migration of educated youth from villages to towns and cities as the most serious form of brain drain affecting adversely rural India's development. He

therefore stressed that we should take steps to end the divorce between intellect and labour in rural professions.

The National Commission on Farmers (1004-06) stressed the need for attracting and retaining educated youth in farming. The National Policy for Farmers placed in Parliament in November 2007, includes the following goal of the new policy – “to introduce measures which can help to attract and retain youth in farming and processing of farm products for higher value addition, by making farming intellectually stimulating and economically rewarding”. At present, we are deriving very little demographic dividend in agriculture. On the other hand, the pressure of population on land is increasing and the average size of a farm holding is going down to below 1 hectare. Farmers are getting indebted and the temptation to sell prime farm land for non-farm purposes is growing, in view of the steep rise in the price of land. Over 45% of farmers interviewed by the National Sample Survey Organisation want to quit farming. Under these conditions, how are we going to persuade educated youth, including farm

graduates, to stay in villages and take to agriculture as a profession? How can youth earn a decent living in villages and help to shape the future of our agriculture? This will require a three-pronged strategy.

- Improve the productivity and profitability of small holdings through appropriate technologies and market linkages
- Enlarge the scope for the growth of agro-processing, agro-industries and agri-business
- Promote opportunities for the services sector to expand in a manner that will trigger the technological and economic upgradation of farm operations.

Opportunities in the services sector in rural India are crying for attention. Hence, I shall concentrate on giving a glimpse of the untapped opportunities awaiting our educated youth to take to a career of remunerative self-employment in villages. The National Commission on Farmers had recommended a reorientation in the pedagogic methodologies adopted in our Farm Universities, in order to make **every scholar an entrepreneur**. For example, the

course in Seed Technology should be so restructured that it becomes, “Seed Technology and Business”. This will make it unnecessary for the scholar to go to a Business School after earning an agricultural degree.

Some years ago, the Government of India launched a programme for enabling farm graduates to start agri-clinics and agri-business centres. This programme administered by NABARD, and MANAGE located in Hyderabad is yet to attract the interest of educated youth to the degree originally expected. It is hence time that the programme is restructured based on the lessons learnt. Ideally a group of 4 to 5 farm graduates, who have specialized in agriculture, animal husbandry, fisheries, agri-business and home science could jointly launch an agri-clinic cum agri-business centre in every block in the country. Agri-clinics will provide the services needed during the production phase of farming, while the agri-business centre will cater to the needs of farm families during the post-harvest phase of agriculture. Thus, farm women and men can be assisted during the entire cropping cycle, starting with

sowing and extending upto value addition and marketing. The multi-disciplinary expertise available within the group of young entrepreneurs will help them to serve farm families in a holistic manner. The Home Science graduate can pay particular attention to nutrition and food safety and processing and help a group of farm women to start Food Processing and Health Foods Parks. The group should also assist farm families to achieve economy and power of scale both during the production and post-harvest phases of farming.

Opportunities for such young entrepreneurs for initiating programmes in the fields of soil health enhancement, plant and animal health care, seed technology and hybrid seed production, are several. Farm Health Cards can be issued giving integrated information of soil, plant and animal health. Climate resilient agriculture is another area needing attention. In dry farming areas, methods of rainwater harvesting and storage and watershed management as well as the improvement of soil physics, chemistry and microbiology, need to be spread widely. The cultivation of

Fertilizer Trees which can enrich soil fertility and help to improve soil carbon sequestration and storage, can be promoted under the Green India Mission as well as the Mahatma Gandhi National Rural Employment Guarantee programme. A few fertilizer trees, a **Jal Kund** (water harvesting pond) and a Biogas plant in every farm will help to improve enormously the productivity and profitability of dryland farming. In addition, they will contribute to climate change mitigation.

The **Yuva Kisans** or young farmers can also help womens' self-help groups to manufacture and sell the biological software essential for sustainable agriculture. These will include biofertilizers, biopesticides and vermiculture. The Fisheries graduate can promote both inland and marine aquaculture, using low external input sustainable aquaculture (LEISA) techniques. Feed and seed are the important requirements for successful aquaculture and trained youth can promote their production at the local level. They can train rural families in induced breeding of fish and spread quality and food safety literacy.

Similar opportunities exist in the fields of animal husbandry. Improved technologies of small scale poultry and dairy farming can be introduced. *Codex alimentarius* standards of food safety can be popularized in the case of perishable commodities. For this purpose, the young farmers should establish *Gyan Chaupals* or Village Knowledge Centres. Such Centres will be based on the integrated use of the internet, FM Radio and mobile telephony. For example, artesinal fishermen going out into the sea in small boats can now be empowered with information on wave heights at different distances from the shore line and also on the location of fish shoals. Such techniques will help to transform the lives and livelihoods of small scale fisher families.

In the services sector designed to meet the demand driven needs of farming families, an important one is soil and water quality testing. Young farmers can organize mobile soil-cum-water quality testing vans and go from village to village in the area of their operation and issue Soil Health and Water Quality Cards to every family.

Very effective and reliable soil testing kits are now available. This will help rural families to utilize in an effective manner the nutrient based subsidy introduced by Government from April 1, 2010. Similarly young educated youth could help rural communities to organize gene-seed-grain-water banks, thereby linking conservation, cultivation, consumption and commerce in a mutually reinforcing manner. It is only through the provision of such services that we can achieve the goal of improving the economic well being of rural families.

Young farmers can also operate **Climate Risk Management Centres**, which will help farmers to maximize the benefits of a good monsoon, and minimize the adverse impact of unfavourable weather. Educated youth can help to introduce in rural India the benefits of information, space, nuclear, bio- and eco-technologies. Ecotechnology involves the blend of traditional wisdom and frontier technology. This is the pathway to sustainable agriculture and food security, as well as agrarian prosperity. If educated youth choose to live in villages and launch the new agriculture

movement, based on the integrated application of science and social wisdom, our untapped demographic dividend will become our greatest strength.

During the International Year of Youth, this University should launch a programme for reaping the Demographic Dividend in Agriculture and Rural Development. Youth constitute the genuine majority of the population in most developing countries. Also a majority of them live in rural areas. Thanks to the increase in emphasis on right to education, illiteracy is slowly disappearing. The goal of **Literacy For All** propounded by UNESCO is now becoming an achievable one. Agriculture comprising crop and animal husbandry, fisheries, forestry, agro-processing and agribusiness provides employment to a majority of the population in developing countries. However, a recent review of the progress made in achieving the UN Millennium Development Goals, particularly MDG1 relating to a reduction to hunger and poverty, has revealed that we have a long way to go before these goals are realised.

It is therefore essential that we step up our efforts to convert the demographic dividend arising from a young and educated population into an asset from the point of view of hunger and poverty alleviation and elimination. It is clear from the available experience that youth will be attracted to agriculture and rural professions only if they can earn a decent living. An appropriate synergy between technology and public policy will be needed for launching a **“youth in agricultural transformation movement”**.

At present, Business Process Outsourcing (BPO) has become an important source of income generation in urban areas in many developing countries, which have taken on tasks on behalf of industrialized nations. What we should now try is BPO from urban to rural areas. This will be more cost effective and will provide opportunities for intellectually satisfying work for educated rural women and men.

Our Agricultural Universities have Placement Bureaus for introducing their graduates to opportunities for employment in the

organized sector. What is equally important is the establishment of Bureaus for introducing farm graduates to the opportunities available in villages for remunerative, market driven self-employment, particularly in the services sector. Educated youth should become the prime movers of rural regeneration by marrying brain and brawn. Let the Acharya N G Ranga Agricultural University become the flagship of a national movement for reaping the benefit of youth energy and innovativeness for advancing the productivity, profitability and sustainability of small scale farming. This will be the best tribute we can pay to the life and work of the great farm leader and visionary Acharya N G Ranga.