

TWENTY FIFTH CONVOCATION OF THE UNIVERSITY

Convocation Speech of Dr.N.G.Hegde Principal Advisor, BAIF Development Research Foundation Pune

Shri.RadhaKrishna Vikhe Patil , Hon'ble Pro-Chancellor and Minister of Agriculture, Government of Maharashtra, Dr.V.M.Mayande Vice –Chancellor of the University, Dr. Bangali Baboo National Director (NAIP) ICAR ,New Delhi, Sh. Vijayraoji Kolte Vice-Chairman, Maharashtra Council of Agricultural, Education and Research, Pune. former Vice-Chancellors, Honorable Members of the Executive Council, Academic Council, Board Studies, all dignitaries, candidates received Degrees and Honors, Faculty, invitees, farmers, Journalists, Media Core, Ladies and Gentlemen.

It is a great honour for me to be with you at the 25th Convocation of the Dr. Panjabrao Deshmukh Krishi Vidyapeeth, particularly with the graduates and post graduates who are receiving their degrees today. I wish to congratulate all these successful students who are entering a new phase in their life. You are indeed very fortunate that inspite of severe competition, you were able to receive admission at this prestigious Krishi Vidyapeeth and pass out with flying colours. You also deserve appreciation for selecting a very important subject for your higher education and for your desire to serve the nation, through excellence in agriculture and allied subjects which are essential for ensuring food security and sustainable rural livelihood. I also wish to compliment your parents, who groomed you well, to take admission at this University and supported you financially and emotionally to enable you to complete your studies. Today is an important day in your life, where you will be achieving another milestone in your life. Today is also the day to think aloud and plan for your future.

I consider Agriculture as an important sector for achieving success. Agriculture is the backbone of our national economy. Progress in agriculture is essential, not only because it takes care of our food security but also because it generates livelihood for over 700 million rural people. However, most of them being small and marginal holders, they will not be able to generate gainful self-employment. As a result, over 40% of the rural families are living in poverty. As per a recent estimate, over 800 million Indians representing over 65% of the total

population, are earning less than US \$2 per day and most of them are either living in rural areas or have migrated to urban areas in search of employment. In the absence of assured livelihood, they neglect their health and education of their children.

With rampant poverty and illiteracy, most of the farmers are not able to invest in modern technologies and infrastructure required for enhancing agricultural production. In the absence of effective extension services, farmers are unable to conserve and make judicious use of our precious natural resources. This has resulted in high cost of crop production and low crop yields, often rendering agriculture uneconomical. Farmers in Vidarbha region are the unfortunate victims and need immediate attention to make agriculture reliable and risk free. Unsustainable agricultural practices not only affect the crop production, but also cause denudation of the natural resources, accelerating environmental pollution and loss of bio-diversity, which contribute to global warming and climate change. This further leads to crop failure.

A developing country like India, hoping to become one of the super powers in the world, cannot succeed unless the rural poor come out of poverty. Most of our crop yields are far lower than the average yields of Asia. We rank very low in our economic index, health index and even in the transparency index. We cannot become a developed nation, unless we reverse this situation. Such a change can come only when our rural people become literate and prosperous and Agricultural Development is the most powerful tool to eradicate poverty from India.

We need to include the poor in the process of development. As emphasized by the Father of our Nation, Mahatma Gandhi, the process of development should focus on the upliftment of the poorest, which will naturally bring prosperity to all. As experts in agriculture and allied areas, you are the most powerful professionals to solve this problem. We need another Green Revolution, with a new focus on sustainable development.

As you may recall, in the 70's, India was successful in creating a Green Revolution by giving a boost to the yields of major agricultural crops such as wheat, paddy, cereals and millets. We need to create a similar revolution with a paradigm shift. The first Green Revolution was launched to ensure food security as there was a severe shortage of food grains in the country. We were depending

on imported food grains to feed our population. Today, our food supply is fairly secure. Fulfilling the growing needs is well within our reach. Therefore, the Second Green Revolution should aim at promoting sustainable livelihood for the poor, by generating gainful self-employment all round the year. While the First Green Revolution aimed at mass production, the Second Green Revolution should aim at production by masses. We should strive to include farmers from rain-fed areas and backward regions in the programme. This can ensure equitable and inclusive growth where the poor will be a part of the solution. For achieving this goal, we need to identify suitable technologies which can be adopted by small farmers who are engaged in rain-fed farming in arid and semi-arid regions.

As most of the small and poor farmers own degraded and wastelands which are low fertile and deprived of irrigation, the priority should be to make sustainable use of these marginal lands. Presently, these lands are not used for growing high value crops. In fact, farmers often incur heavy losses by farming on such lands. These lands can be profitably used for establishing drought tolerant tree crops, under the agri-horti-forestry system. Tree crops have the ability to withstand the vagaries of nature. Tree-based farming can provide year-round employment, while conserving soil moisture and fertility. This in turn can enhance the green cover for carbon sequestration and recharge the ground water table. The inter-space in the orchard can be used for cultivating food grains, vegetables, forage and a wide range of cash crops. The woody biomass can meet the needs of domestic fuel, while foliage can support livestock husbandry. Fruit crops like mango, cashew, tamarind, Indian gooseberry, custard apple, ber, etc. can generate substantial income and farmers maintaining even 0.5 ha under such crops, can come out of poverty.

Such an agri-horti-forestry programme promoted by BAIF Development Research Foundation for rehabilitation of the tribal on their degraded lands in Maharashtra, Gujarat, Karnataka, Madhya Pradesh and Rajasthan, has demonstrated the feasibility of providing sustainable livelihood, while conserving the biodiversity and the environment. This programme popularly known as 'Wadi' has enabled over two lakh tribal families to settle on their farms and enjoy better quality of life.

Neglect of rain-fed areas is the major concern in the country which has direct bearing on the rural economy. We receive plenty of rainfall but we are unable to make good use of it. With regard to efficient use of our water resources, we are in a paradoxical situation. It is a well known fact that only 35% of the rain water is efficiently used, while the rest reaches the sea causing heavy soil erosion, silting of river beds and reservoirs and flooding across the country. Every year, over 1-2 crore people are affected by floods, which cause huge losses to our resources and lives. On the other side, our precious irrigation facilities, which cover only about 30% of the cropping area, are heavily misused by the powerful as well as the ignorant farmers. Excessive use of water for irrigation has not only reduced the area under irrigated crops but also damaged the fertile soils turning them into saline and sodic wastelands. Today, we have about 8-9 million ha of sodic wastelands lying idle, which have the potential to produce 50-60 million tons of food grains per annum, while generating employment for 8-10 million people.

In addition to sodic wastelands, we have about 35-40 million ha of degraded wastelands and 30-40 million ha of denuded forest areas, which contribute to soil erosion, floods and global warming. While the forest lands can be brought under reforestation, private and revenue wastelands can be brought under farming systems, through suitable soil and water conservation techniques, sustainable land use plan and introduction of eco-friendly production and post harvest technologies.

Watershed development plays a very significant role in improving agricultural production. Fortunately, the Government of India has given high priority to this programme. However, there is a need to adopt local-specific innovative strategies to ensure efficient use of rain water. It is also necessary to converge this programme with other schemes for maximizing the benefits. Generally, the budget provided under various Government-sponsored watershed development programmes, enables the villagers to facilitate harvesting of rain water through contour bunding, gully plugging and construction of percolation tanks. These activities in isolation will not help small farmers to enhance their crop production, as they need additional support for investing in various inputs and technologies. Thus, facilitation is needed to link small farmers under the watershed with other schemes such as National Horticulture Mission, MGNREGA, etc., to mobilize additional resources and to avail suitable

technologies which are needed for enhancing their crop production. Promotion of eco-friendly inputs such as green manure, farmyard manure, vermicompost, biofertilisers, biopesticides and micro irrigation technologies with well tested crop varieties, can further enhance the agricultural production.

Livestock development is another important programme to provide sustainable livelihood, even for the landless. Presently, a majority of the small farmers are dependent on livestock for their living. Among various species of livestock, maintaining cattle and buffaloes for milk production can provide regular income. During the last 4 decades, India has made significant progress in this sector to become the highest milk producer in the world. However, we need to enhance the production by 80% during the next 15 years, as our demand for milk is expected to rise from the present production of 110 million tons to 180 million tons per annum. This is a challenge, but we can convert this into an opportunity for the small farmers, by delivering critical breeding and health care services at the doorsteps of small farmers. Our challenge is to include small and landless farmers in this sector instead of allowing large business houses or multinationals to engage in large scale production and imports.

I am happy to inform you that BAIF has demonstrated the feasibility of promoting dairy husbandry as a programme for poverty alleviation in Rural India. The programme to breed low yielding non-descript cows and buffaloes to produce high yielding milch animals, can be an ideal programme without involving any risk or capital investment. The crossbred cows born under such a programme, each worth Rs. 30,000 – 40,000, can generate Rs. 9,000 – 10,000 income per annum. With 3 such cows, a family can easily come out of poverty. Small holders and landless who are unable to maintain cattle and buffaloes, can maintain goats, sheep, pig or poultry based on their choice and earn substantial income. With genetic improvement of livestock, owners tend to adopt stall feeding, reducing the pressure on the ecosystem. Stall feeding also enhances the collection of dung by 3-4 folds enabling cattle owners to adopt organic farming and biogas production. The bullock can be used for tillage and rural transportation. Thus, livestock development, particularly dairy husbandry, should be an integral part of the Second Green Revolution.

The other important aspect of Second Green Revolution is capacity building of the participants, particularly women. It is well known that about 65-

70% of the labour in agriculture, particularly in non-irrigated areas, is contributed by women. Thus, we need to address their problems and empower them to be healthy to ensure timely and efficient management of various operations. Women empowerment includes hygiene, sanitation, maternal and child health care, development of safe drinking water sources, establishment of Anganwadis, awareness about the education of girls, skill-oriented training and their linkage with financial institutions and other development agencies. Sensitisation of the community particularly men, about the need to build the capabilities of women should be the primary step. Development of women-friendly agricultural tools and technologies also deserves serious attention.

Capacity building of the community with regard to backward and forward linkages is also necessary, as our villages lack basic infrastructure for providing critical inputs and technologies to take up various on-farm and off-farm activities. Farmers in backward regions do not have any linkage with research institutions, financial institutions, processing facilities and market outlets. Most of the cooperative institutions, which were expected to serve farmers, are either defunct or under the control of the vested interests. Therefore, it is necessary to promote alternate people's organisations such as common interest groups, self help groups and their federations to provide various services to small farmers and protect them from exploitation. These organisations are effective in dissemination of technologies, procurement, grading and marketing of agricultural produce, while motivating all their members to take active part in various socio-economic development activities.

Agricultural development in non-irrigated areas has not been fully tapped in India. To encash this opportunity, we need dedicated youth, who have skills and technologies and commitment to work with the poor. Fortunately, you have the necessary knowledge and skills. Your motherland is calling you and I am sure you will encash this opportunity.

I wish to share with you the Mission of the Founder of BAIF, late Dr. Manibhai Desai, who joined Mahatma Gandhi in the freedom struggle. He came to Urulikanchan, leaving his prosperous family and a lucrative career. He studied the problems of the farmers and found suitable solutions. Based on this experience spread over 20 years, he established BAIF in 1967 to help the needy rural poor to earn their livelihood. He neither had financial resources nor

assurance from any donor. He only had strong conviction and firm commitment. His dedicated leadership attracted many talents. Various Government and Non-Government donors came forward to support BAIF. Over the last 44 years, BAIF has been serving over 4 million families spread over 65,000 villages in 15 states. We have developed a professional approach to diagnose the problems of the poor and prescribe suitable solutions.

Four years ago, a consortium comprising of BAIF, PDKV and other partner institutions initiated a project for the development of backward villages in Vidarbha, under the National Agricultural Innovation Project, supported by ICAR and the World Bank. The project has made a significant contribution to the upliftment of the rural poor in several village clusters and this model is ready for wider replication. This approach can transform the economy of this region. This is an opportunity for you to build your career while helping your community.

Before I conclude, I wish to remind you about two important principles for your success. Firstly, there is no short-cut to success. We need to follow the path of hard work and sincerity. Your distinguished Vice Chancellor Dr. Mayande, is a good example before you. I have seen him as a young engineer who was prepared to do any work at any time. He did not hesitate to drive a tractor or repair an implement. But his goal was to excel in his job and his mission. Today, he is an excellent scientist and an able administrator. He is a role model for our youth!

Secondly, we have drawn a lot of support from our society for our self development. Therefore, it is our moral duty to pay back to the society. It is an obligation and not charity. We should have concern for our society and our country.

Let me end by narrating a story.

There was a boy named Peter who was very fond of pets. He had been begging of his parents to buy him a small dog. Finally, they agreed and went with Peter to a pet shop. The salesman showed them many good looking, playful pups. Peter's attention was caught by a small pup sleeping quietly in a corner. He asked the salesman to bring it to him. The salesman told Peter that as this pup was sickly, he would be happy to give it away at half the price. However,

he advised Peter not to buy this sickly animal as it could die soon. Peter felt very sad on hearing this, and watched the pup silently. He then told his parents that he wanted to buy this pup only. The salesman curiously asked Peter why he wanted to buy a sick pup. Peter replied, 'I will get more pleasure in treating a sick pup, than playing with a healthy pup!'

You have many options in life. You need to select an option which will bring you happiness. I am sure with your hard work and dedication; you will excel in your career and make your family and the University proud. I wish you all the best in your endeavours.

Thank you!