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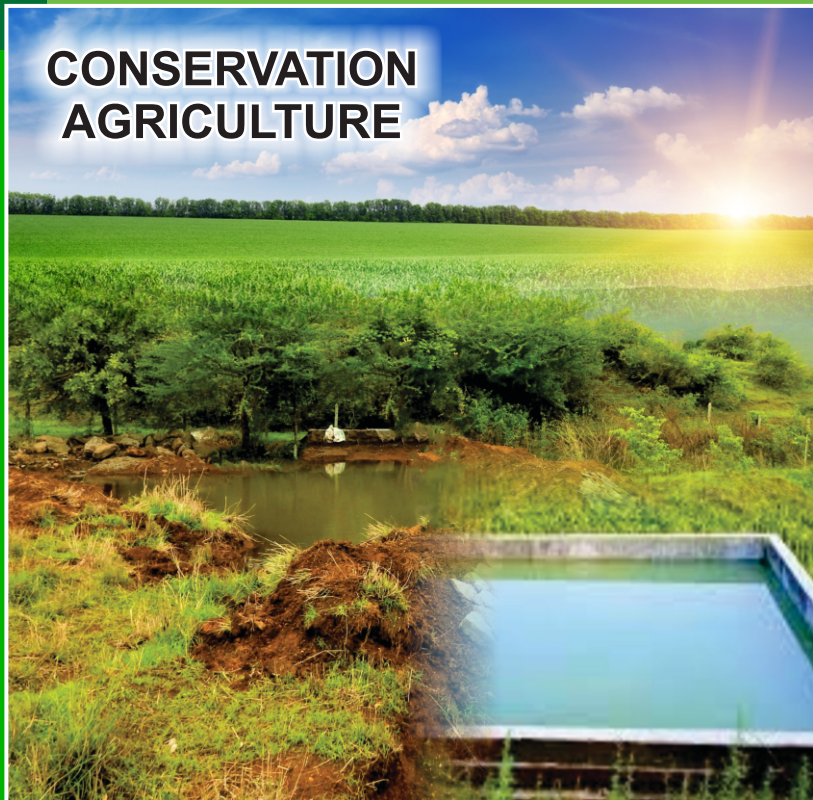
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Green initiatives: Role of Indian farming and Farm Universities

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Global agriculture has transformed into a more efficient enterprise with improvements in crop and livestock breeds and their production practices to achieve significant increase in food production and feed ever increasing population. Similarly, India, all through and post Green Revolution period, drastically increased its production and productivity of major food grain crops to save us from widespread hunger and deaths. This was achieved through heavy dependence on chemical inputs and energy consumption, thus lead to increased Green House Gas (GHG) emissions from farm lands contributing directly to global warming. This period also witnessed significant increase in population and farm related problems which include widespread land degradation, chemical contamination of soil and water bodies, fast decline in ground water status, increased energy consumption and cost of production adding to Carbon foot-print of our farming, unreliable market prices, and loss of biodiversity, among others.

This situation is further threatened by climate change and climatic variability projected in coming decades. Therefore, more productive and resilient agriculture requires transformations in the management of natural resources (e.g., land, water, soil nutrients, and genetic resources) and higher efficiency in the use of these resources and inputs for production. In this context, the **Green Initiatives** has the potential to offset GHGs emitted by farm activities and minimize environmental impact of an enterprise of a region.

Widespread adoption of soil and water conservation practices go a long way in effective rain water harvesting, storage and reuse as life saving or supplementary irrigation to enhance both water and crop productivity. Ground water table across Indian states is dropping fast and the replenishment rate is worryingly too slow. Therefore, water is used efficiently and effectively across farm to enhance WUE while maintaining higher productivity. This will also help expand area under irrigation to produce more but with less water. Govt. of India, rightly so, has given its highest priority with a mission statement "**per drop more crop**". Use of farm organic waste and crop residues as compost and soil mulch material will reduce dependence on chemical inputs. Another practice that has caught the attention is Zero Budget Natural Farming (ZBNF) which encourages animal based resource and diversified cropping practices to get rid of chemical inputs in the farming.

We should encourage Green Universities in India. Farm Universities across India can take a lead on Green Initiatives and transform our farms and campuses environment friendly with roof-top rain water harvesting, solar energy, increased recycling and reuse of farm as well as kitchen waste produced on the campus, depending more on renewable energy sources to reduce Carbon foot-print on the campus and increase greenery on the campuses. UAS Dharwad has received funding ICAR, New Delhi through World Bank aided Institution Development Plan of National Agricultural Higher Education Project (NAHEP). The project is already set in motion with many goals to take UAS, Dharwad at par with the best of the International Universities. Separation and management of E-waste from organic and recyclable waste is also equally important. Besides these, faculty and students need to be sensitized on judicious use of resources which include E-correspondence to reduce paper usage and on saving energy consumption in office, hostels, classrooms, laboratories on daily basis. Overall idea is to make students energy conscious in their routines and the way they live their life.

Overall, the outlook in adoption of green initiatives is expected to pick up fast in coming years and thus make India a compliance country to UN resolutions on Sustainable Development Goals set for 2030.

***Dr. M.B. Chetti**, after getting his Ph.D. in Plant Physiology from IARI, New Delhi, did his Post Doctoral Studies at University of California, Los Angeles, USA (1987) and Certificate of Training in McGill University, Canada (2005). He served as Professor and University Head of Crop Physiology (1996-2008); Registrar (2006-07); Dean (Agri.), College of Agriculture, Dharwad (2008-13); Director of Education (2013); Director of Extension (2013-15) of UAS, Dharwad; Assistant Director General (HRD), ICAR, New Delhi before assuming the current position of Vice-Chancellor, UAS, Dharwad (20.09.2018 to till date). He is recipient of Bharat Ratna Dr. C. Subramanian Best Teacher Award (2001), Sir C. V. Raman Award (2001), Dr. A. P. J. Abdul Kalam Award for Excellence (2018), Leading Educationist Award (2018), Rajiv Gandhi Excellence (2007) and many such awards and distinctions. He has already guided 16 Ph.D. and 28 M. Sc. Students for Post Graduate Research in Agricultural Sciences. He has nearly 500 publication to his credit and authored 11 books.

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