

Government College of Engineering Karad

Unnat Bharat Abhiyan

Core Areas:-

- Organic Farming
- Water Management
- Renewable Energy
- Artisans, Industries and Livelihood
- Basic Amenities

Organic Farming

- Protecting the long term fertility of soils by maintaining organic matter levels, encouraging soil biological activity, and careful mechanical intervention
 - Providing crop nutrients indirectly using relatively insoluble nutrient sources which are made available to the plant by the action of soil micro-organisms
 - Nitrogen self-sufficiency through the use of legumes and biological nitrogen fixation, as well as effective recycling of organic materials including crop residues and livestock manures
 - Weed, disease and pest control relying primarily on crop rotations, natural predators, diversity, organic manuring, resistant varieties and limited (preferably minimal) thermal, biological and chemical intervention
 - The extensive management of livestock, paying full regard to their evolutionary adaptations, behavioural needs and animal welfare issues with respect to nutrition, housing, health, breeding and rearing
 - Careful attention to the impact of the farming system on the wider environment and the conservation of wildlife and natural habitats
- Organic farming system in India is not new and is being followed from ancient time. It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (bio fertilizers) to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment. As per the definition of the United States Department of Agriculture (USDA) study team on organic farming “organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection”.

Water Management

Water resource management is the activity of planning, developing, distributing and managing the optimum use of water resources. It is a sub-set of water cycle management. Ideally, water resource management planning has regard to all the competing demands for water and seeks to allocate water on an equitable basis to satisfy all uses and demands. Water is an essential resource for all life on the planet. Of the water resources on Earth only three percent of it is fresh and two-thirds of the freshwater is locked up in ice caps and glaciers. Of the remaining one percent, a fifth is in remote, inaccessible areas and much seasonal rainfall in monsoonal deluges and floods cannot easily be used. As time advances, water is becoming scarcer and having access to clean, safe, drinking water is limited among countries. At present only about 0.08 percent of all the world's fresh water is exploited by mankind in ever increasing demand for sanitation, drinking, manufacturing, leisure and agriculture. Due to the small percentage of water remaining, optimizing the fresh water we have left from natural resources has been a continuous difficulty in several locations worldwide.

Much effort in water resource management is directed at optimizing the use of water and in minimizing the environmental impact of water use on the natural environment. The observation of water as an integral part of the ecosystem is based on integrated water resource management, where the quantity and quality of the ecosystem help to determine the nature of the natural resources.

Renewable Energy

Solar Energy

This is the energy which the earth receives from the Sun. This is one of the most promising alternative energy sources, which will be available to the mankind for centuries to come. The only challenge remains to tap the solar energy in the most efficient way. The solar power generation is done by using a series of photovoltaic cells where the solar rays are converted into electricity. Apart from electricity production solar energy is also being used for heating water, cooking food etc.

Wind Energy

The power of the wind is harnessed to propel the blades of wind turbine attached to an electric generator to generate wind energy. Wind energy is an effective alternative source of energy in areas where the velocity of wind flow is high.

Biomass Energy

This is the energy developed from the wastes of various human and animal activities like the by-products and wastes from timber industry, agricultural yields, municipal solid waste etc. Out of the many alternative sources of energy this is the one which takes into account the utilization of waste material to develop energy thereby disposing them off in a profitable and effective way.

Hydroelectric Energy

The potential energy stored in the water held in dams by is made to drive a water turbine and generator which in turn produces electric power. This form of energy generation is called hydroelectric power. Out of all the alternative energy sources, this one has been most commonly adopted in the current time.

Artisans, Industries and Livelihood

One of the blunders that India has committed is to ignore her artisans and rural industries in planning process for development. No country, particularly the industrialized ones, has achieved that status without making their artisans as an important part of the process and making their rural industries as the base for modern industrialization. Modern industrialization is phenomenon of development and application of science and technology in production. Science and technology develops in research institutions and universities by scientists and academicians. However the application of the same happens in industry through the practitioners who are none other than the artisans and the technicians coming from the traditional sector. There has to be a proper synergy and complementariness of the two. This is really missing in India. There is a huge scope to bring that in through start-ups and entrepreneurship. The power loom sector, the automobile sector, the repair and maintenance sector and in fact the “Jugaads” technologies seen all-around are demonstrative of what this kind of interphase can do in the industrial sector. It needs to be carried out in a more formal and organized way in order to bring out the best of the both, the modern sector as well as the traditional sector.

Basic Amenities

Rural education in India

Use of technology in rural education of India

Rural Connectivity

Rural Sanitation

Rural Health

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