

SAHYADRI SCHOOL
KRISHNAMURTI FOUNDATION INDIA

Native Seeds Conservation & Natural Farming Practices

At Sahyadri School (KFI, Pune)

For SS Assembly

21st July, 2022

Pro-environmental orientation personal values aligned with school philosophy



UN Decade on Ecosystem Restoration 2021 - 2030

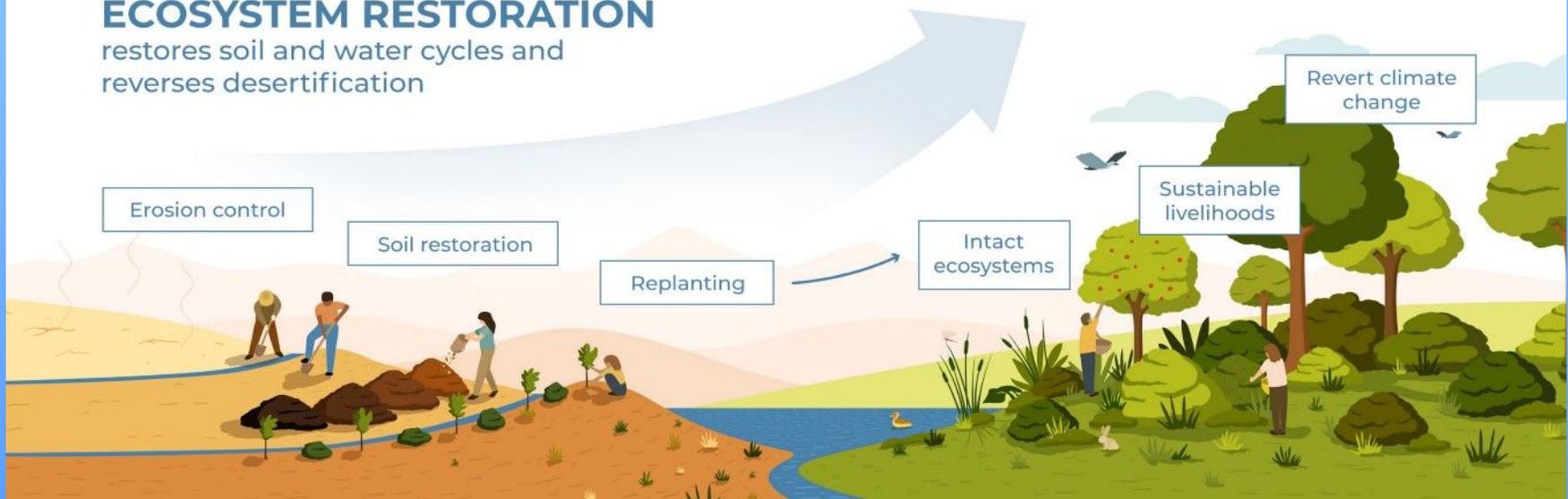
BAD LAND MANAGEMENT

leads to drought, soil erosion
and desertification



ECOSYSTEM RESTORATION

restores soil and water cycles and
reverses desertification



About Native (Open-pollinated) Seeds

Native (open-pollinated) Seeds are known to have following characteristics, they are -

- ❖ Nutritionally superior due to presence of micronutrients
- ❖ Many have distinct flavour and medicinal properties
- ❖ Adaptable to varying soil and climatic conditions
- ❖ Able to cope with climatic stress and resource constraints
- ❖ Have better resistance to disease and pest attack
- ❖ And reduced need for artificial inputs such fertilizers and pesticides
- ❖ Thus in addition to their nutritional and medicinal value, native seeds help to reduce farm input costs by reduction of purchase costs of seeds, fertilizers and pesticides



image, courtesy: depositphotos.com

Native Seeds Conservation @ Sahyadri School

- ❖ In 2016, the School undertook Native (open-pollinated) Seeds Conservation under the guidance of seed saver Shri Sanjay Patil of BAIF's Jawhar Centre
- ❖ In its 6th year now, seeds of a variety of grains and vegetables are to be shared with neighbouring farmers
- ❖ These include 90 varieties of rice, 7 of wheat, jowar, ragi, other millets and over 50 vegetables
- ❖ Data is collected in terms of yield and special characteristics
- ❖ This information is then shared with farmers and consumers at various forums
- ❖ Few of the neighbouring farmers have undertaken this programme in their fields



Establishing Linkages with Natural Grains Sale Counter

- ❖ A farmer based social enterprise was also set up to take the produce to consumers under a dedicated label
- ❖ Parents and visitors purchase these grains at the **Natural Grains Sale Counter** and are encouraged to give feedback
- ❖ Via this farmers get exposure to the retail market and changing urban preferences
- ❖ At the same time school canteen menu is improvised to include native and locally grown produce to the maximum extent possible



Farming Activities on Campus

- ❖ Student-participation forms an active component in which activities such as land preparation, sowing, tending, harvesting along with natural farming practices such as selecting seasonal grains and vegetables, multi-cropping, mulching and ensuring soil vafsa (=soil aeration)



Natural and Resource Conserving Farming Practices

- ❖ Rice farming is done by the water and seeds conserving System of Rice Intensification (SRI) technique following natural farming practices with desi cow dung based inputs such as jeevamrut (for fertigation) and dashparni arka (as disease and pest repellents)



Desi Seeds Conservation under School Landcare

- ◆ School has been successful in growing native crop varieties for the 5th consecutive year - with about 90 varieties of rice, 7 varieties of wheat, 50 varieties of vegetables, oil seeds and pulses combined



Enhancing Farm Output, Growing Medicinal Herbs

- ❖ The school farm plots are used to grow medicinal herbs such as tulsi, lemon-grass and common use vegetables that are supplied to dining hall on a daily basis
- ❖ This has increased the biodiversity of flora as well as fauna on campus
- ❖ Campus tree plantation is planned in a way to ensure flowering throughout the year to encourage a healthy population of bees, butterflies and birds on campus



Coordinating Training Programmes for Farmers

- ◆ Emphasizing the need for forest agriculture
 - Panchasthariya (5-level / 3-D farming),
 - Mixed Cropping and
 - Climate Change Resilient Farming Practices



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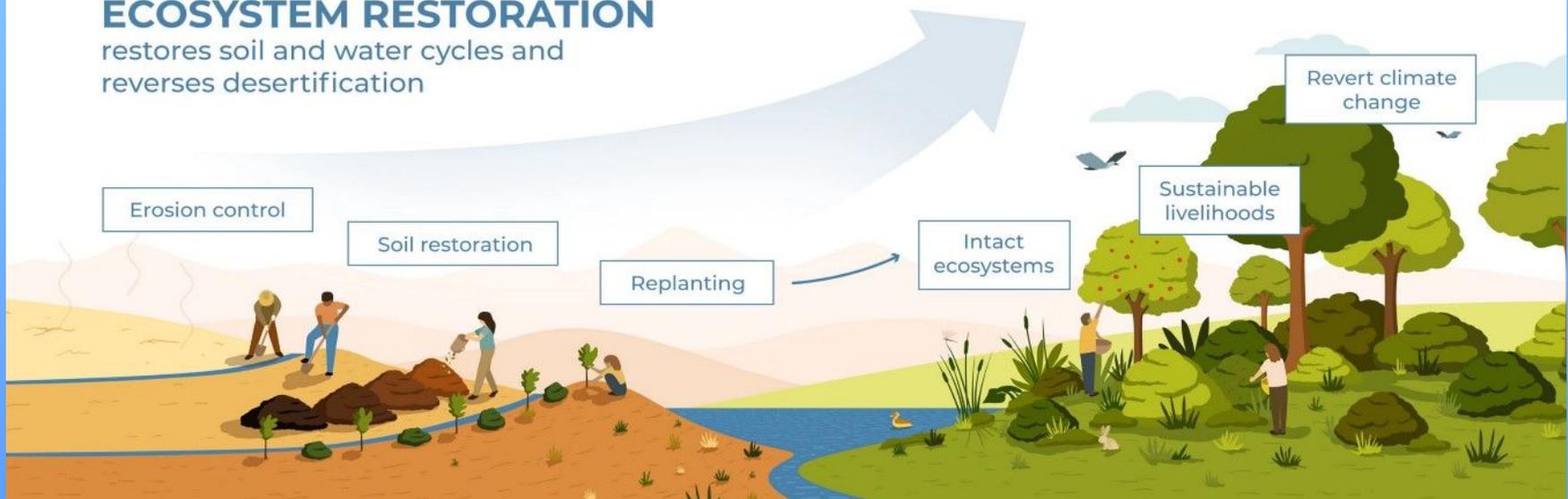
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Industrial Agriculture - Links with Biomagnification

- ❖ Reliance on purchased inputs such as laboratory created hybrid seeds leads to a vicious circle of use and overuse of industrial chemicals such as fertilizers, insecticides, pesticides, herbicides
- ❖ The leaching of these chemicals leads to increase in the concentration of chemical nutrients in the soil and water and enters our food chain via, tiny plants and small fish, poultry that feed on them. The concentration of these chemicals add up at every trophic level and result in huge doses when they climb to higher levels of mammals and other predators.
- ❖ This concentration in the animal bodies may result in complicated diseases such as cancer
- ❖ **IMP to Understand this - it is worth studying the natural food cycles observed in nature and trying to replicate those in agriculture for the safety of human and environmental health.**

Native (open-pollinated) Seeds Conservation

- impact on biotic and abiotic factors

- ❖ **Increase in diversity of crops grown in the farms**
 - **increases the diversity in insects and worms feeding on them**
 - **this results in an increase in the diversity of birds feeding on the insects**
 - **which in turn increases the dispersal of seeds of trees**
 - **which in turn increases the tree cover**
 - **which in turn controls soil erosion and increases the water retention in the earth**
 - **which improves the ground water availability in the region**
 - **through the extra vegetation, air gets further purified, dust is reduced**
- ❖ **Thus water, soil and air health is improved!**

Rice Diversity Plot at SS - Dhobighat





Rice Diversity on Campus Farms



Chakhao Kheer



Black Rice Pudding

Rice Preparations



Red Rice Idli



Black Rice Rainbow Salad



KHAPLI WHEAT 2021



KATIYA WHEAT RED HUSK 2021



KATIYA WHEAT WHITE HUSK 2021



SATU WHEAT 2021



BANSAL WHEAT 2021



BANSAL WHEAT SHORT 2021



KALI KUSAL WHEAT 2021



JONDHAWA GAHU PAIGAMBARI 2021



BLACK WHEAT 2021



PISI WHEAT 2021



Wheat Varieties



Student - Farm Interactions





Faculty - Farm Interactions





**School Farm & Outreach
Team - Thank You!**