

ROLE OF MILLETS IN SUSTAINABLE DEVELOPMENT.

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Abstract :

Millets have high nutritional status and are strong enough to withstand diverse climatic changes. They require fewer resources as compared to the popular grains such as wheat and rice and are now regarded as nutri-cereals or super food. Millets (superfoods) can bring about a boost in sustainable agriculture. Despite the benefit of millets and their historically bigger share in diets across the geography the cultivation and consumption of millets is sharply declining, millets can ensure food and nutrition security, resource sustainability and economic empowerment. Therefore, along with the United Nations we have declared 2023 as the International year of millets. This super food can be brought to us as an important grain for the dietary habits of humans .

We resolve to reverse the Global Trends of decreasing consumption and production of millets and enhance consumer awareness of the nutritional status and the health benefits given by millets. In these unprecedented times Where our food demands are ever changing , climate is under stress rainfall patterns are putting extensive stress on environmental balance and agricultural land are becoming Barren this is evident in events like more intense and frequent drought floods and erratic rainfalls the ultimate balance between agriculture ,climate, and crop production can lead to future deficits in global food stocks therefore we have to change the patterns and change the cultivation of crops to provide nutritional security for the growing population and generations ahead.

Keywords: *Sustainable consumption, superfood, nutritional security.*

Introduction :

In these unpredictable times were calamities are occurring even now and then due to overexploitation of natural resources we will have to find out a sustainable alternative to it and in agriculture and food industry it's Millets now also regarded as superfood. We often deal with climatic water stress groundwater level depletion, rainwater reduction one of the alternative is agricultural production of millets, compared with commonly grown cereals millets can grow underdot and non irrigated conditions as they have low water footprint for example while sugarcane requires 2100 mm of water during the growth period and rice requires 1250 mm millet require less than 500 mm finger millet and pearl millet can be grown with 350 mm of water while sorghum requires 400 mm... so significant reduction in requirements of water .

Production of millets will also ensure the diversification of crops in the context of Persistent poor nutrition and food insecurity despite the growth in global food production,

supply and distribution. Millets are very good providers of vitamins and that can take care of the nutritional requirements of populations of the dry land areas they also are a very rich source of nutrients such as Carbohydrate protein fiber good quality fat and also contain a significantly higher amount of mineral such as calcium potassium magnesium manganese zinc and amount of B complex vitamins.

Millets are and far better source of slow digestive starch and fibers they also have 1.5 to 5% fat and 65% of Carbohydrates along with 6 to 12.5% of protein makes them energy Dense and an excellent choice for fortification against malnutrition also millets also have other dietary qualities that can also help the patients of anemia celiac disease and diabetes mellitus. Therefore we should progress towards creating awareness on consumption and production of millets on a large scale.

Objective:

1. To create awareness regarding consumption and production of millets
2. Assess the Sustainable benefits of Millets over cash crops (eg, wheat, rice.)
3. To recognize the challenges and to evaluate the impact of millets on overall health and well being.

Apart from the above mention direct benefits of nutrition , food security and low water footprint millets also have certain indirect benefits they include helping farmers in efficient crop rotation as the required only about 60 to 90 days to mature while other grains take 100 to 140 days millets also efficiently respond well to improved Agro land conditions they thereby reduce the dependence of synthetic fertilizers, also millets provide forage for livestock this secures the farmers income by reducing fodder costs and other gain is by newer livelihood opportunity across the millet value chain.

The high nutritional status along with the hardiness of small millets makes them a desirable food security crops as well as a good source of order and field in mixed crop and livestock system.

Challengesfaced:

- Due to the increasing urbanization and per capita income our consumer taste and preferences are drastically changing.
- Due to the lack of traditional knowledge in preparing millets, people don't prefer it.
- Millet grains have lower shelf life.
- The share of rice and wheat in the Public Distribution system is larger compared to millets.
- The causes also include the lack of industrial demand for value added millet products and the favored production of rice and wheat during green revolution has discourage farmers from cultivating millets.
- Inadequate Infrastructures and processing technology not present therefore the

production of millet and consumption patterns have changed.

However we have started to recognise that millets are a sustainable alternative to cash crops; they are also a gluten free alternative to wheat and other grains. The millet products are now being marketed as the new health food to increase the utilization of small millets in popular food for example small millet based, food value added products include traditional recipes Bakery product ,pastas, and instant food mixes because people have been growing their interests in millets recently,and rediscovering the benefits of consuming Millets. Besides its use as a food crop millets are also used for animal feed biofuel and industrial application

Next steps to be taken include Popularising millets and spreading awareness regarding it. Educating farmers on the benefits of millet cultivation including its high nutritional status, its resilience through drought and its sustenance without or with less water, we will have to ensure and trend the farmers on the best practices of millet farming including planting irrigation and pest control.

We will have to make sure that millets are also included in mid day meal program that would have Bajra Ragi Jawahar and also the Public Distribution systems should include millets distribution we will have to increase the production and productivity so we have to produce policies focusing on the yield growth of millet production and area expansion we have to encourage practices of mixed farming mixed cropping besides providing financial support for processing storage and marketing we will also have to ensure high quality millet seeds and equipment such as threshers and harvesters to be installed to increase the production of the crop.

Conclusion:

Millets are surely a sustainable alternative to the cash crops therefore now it is high time that we pay attention on directing policies towards improving the value chain of the Millets production , including value added products , conducting post production with credible market linkage which will also benefit farmers and increase the nutritional security of the consumer. providing developing Research and Technology for buy product utilization which will prove to be profitable. Ensuring significant awareness in the masses regarding the nutritional benefits and global benefits by usage of Millets. We should focus on Agro industries and provide technological support. Millets are highly useful for people with gastrointestinal disorders such as constipation as they have high fiber content and are also beneficial for people with diabetes. Therefore millets are a healthier and sustainable alternative.

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