

Extract from:

Gates to a Global Empire



**OVER SEED, FOOD, HEALTH, KNOWLEDGE
...AND THE EARTH**

A GLOBAL CITIZENS' REPORT

Coordinated by

 **Navdanya**
international

BANANA BIOPIRACY THROUGH GMO BANANA

Vandana Shiva

There persists a 'creation myth' that is blind to nature's creativity and biodiversity, and to the creativity, intelligence, and knowledge of women. According to this 'creation myth' of capitalist patriarchy, rich and powerful men are the 'creators' and can pirate our knowledge and biodiversity. They can own seeds, plants, life through patents and intellectual property. They can tinker with nature's complex evolution over millennia and claim that their trivial, yet destructive acts of gene manipulation 'create' life, 'create' food, 'create' nutrition.

GMOS have been the means to own and control life through Patents. When Patents are taken on Biodiversity and Knowledge, evolved and conserved over millennia by indigenous cultures, it is called Biopiracy.

In the case of GM bananas it is one rich man, Bill Gates, financing one Australian scientist, Dr. James Dale at Queensland University of Technology, Australia, who knows one crop, the banana, to impose inefficient and hazardous GM bananas on millions of people in India and Uganda who have grown hundreds of banana varieties over thousands of years in addition to thousands of other crops. The Mantasa piece which follows is an excellent account of how "Dr Dale's globe-trotting GMO bananas are a globe-trotting case of biopiracy and biocolonialism".

Gates funded Dr. Dale to push iron enriched GMO bananas on India for reducing iron deficiency in anemic women in India and prevent death in childbirth.

Nature has given us a cornucopia of biodiversity, rich in nutrients. Malnutrition and nutrient deficiency results from destroying biodiversity, and with-it rich sources of nutrition. Pushing the Green Revolution in the name of increasing farm outputs for a burgeoning population of consumers has spread monocultures of chemical rice and wheat, driving out biodiversity from our farms and diets.

What survived the onslaught were uncultivated wild crops like the amaranth greens and chenopodium (bathua), which are rich in iron, despite being sprayed with poisons and herbicides, while optimizing growth of other crops. Instead of being seen as iron rich and vitamin rich resources, they were treated as 'weeds'.

As the 'monoculture of the mind' took over, biodiversity disappeared from our farms and our food. The destruction of biodiverse rich cultivation and diets has led to a malnutrition crisis, with 75% women now suffering from iron deficiency.

India's indigenous biodiversity offers rich sources of iron: Amaranth has 11.0 mg per 100 gm of food, buckwheat 15.5, neem 25.3, bajra 8.0, rice bran 35.0, rice flakes 20.0 bengal gram roasted 9.5, bengal gram leaves 23.8, cowpea 8.6, horse gram 6.77, amaranth greens have up to 38.5, karonda 39.1, lotus stem 60.6,

coconut meal 69.4, niger seeds 56.7, cloves 11.7, cumin seeds 11.7, mace 12.3, mango powder (amchur) 45.2, pippali 62.1, poppy seeds 15.9, tamarind pulp 17.0, turmeric 67.8, raisins 7.7¹.

The knowledge of growing this diversity and transforming it to food is an integral part of women's knowledge, the reason for Navdanya creating a network for food sovereignty and putting it in women's hands – Mahila Anna Swaraj.

The solution to malnutrition lies in growing nutrition, and growing nutrition means growing biodiversity. It means recognizing the knowledge of biodiversity and nutrition among millions of Indian women who have received it over generations as "grandmothers' knowledge".

There is a curious urge among the biotechnology brigade to declare war against biodiversity in its centre of origin. An attempt was made to introduce Bt brinjal into India, which is the centre of diversity for brinjal. GM corn is being introduced in Mexico, the centre of diversity of corn. The GM banana is being introduced in two countries where banana is a significant crop and has large diversity. One is India, the other is Uganda, the only country where banana is a staple. The women of India succeeded in stopping the Gates GMO banana from being imposed on India, which falsely claimed it would save women's lives. It is still under field trials in Uganda after 10 years and millions of dollars to complete the research².

Not only is the GM banana not the best choice for providing iron in our diet, it further threatens the biodiversity of bananas and iron rich crops, and, as recognized by Harvest Plus, the corporate alliance pushing Biofortification, there could be insurmountable problems with the biofortification of nutrients in foods as they '...may deliver toxic amounts of nutrients to an individual and also cause its associated side effects (and) the potential that the fortified products will still not be a solution to nutrient deficiencies amongst low income populations who may not be able to afford the new product and children who may not be able to consume adequate amounts'³.



¹ Navdanya, "No to GMO Bananas - Protect Indigenous Biodiversity and Knowledge", http://www.navdanya.org/attachments/banana_booklet_30-4-2013.pdf

² Queensland University of Technology. "Golden bananas high in pro-vitamin A developed: Research has produced a golden-orange fleshed banana, rich in pro-vitamin A." ScienceDaily. ScienceDaily, 7 July 2017. <https://www.sciencedaily.com/releases/2017/07/170707095806.htm>

³ Quoted in *Food Biofortification: no answer to ill-health, starvation or malnutrition* By Bob Phelps <http://www.freshfruitportal.com/opinion-biofortification-is-an-obstacle-to-food-justice>

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