

# Mind Empowerment and Perennial Crops Cultivation

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## Abstract

Agriculture is the backbone of Indian economy. 50% of the Indian population is depending on Agriculture and it contributes 17-18% to the country's Gross domestic product (GDP). Among Indian states Tamil Nadu occupies the second position by producing Agricultural produces in a large scale basis. A country not only depends on physical factor alone for its economic development but also human development especially mental development. Scientific developments changed the traditional food habits and life style. The contaminated soil is poisoning the Agricultural products which intern poisoning human being especially human mind. Poor mental health weakens human's capability & productivity which ultimately results in economic backwardness. Different methods are used to develop the mind power. This study demonstrates the empowerment of mental health through Agriculture, especially through the cultivation of Perennial crops like Mango & Banana.

**Keywords** – Agriculture, Perennial crops, Economic development & mental development.

## Results

Mental health improvement can be done by improving the gut. Gut is being considered as the second Brain. Mango helps in boosting the power of gut. Bananas are naturally free of fat, sodium and cholesterol. Bananas are high in potassium, which helps the brain to transmit messages.

## Introduction

Literally agriculture is the back bone of an economy whether it is developed or developing economy as its feeds the mankind and animals. Food is the major source of survival as well as growth of human body. Food not only facilitates the growth of human body but also it is detrimental to growth of human body if the food is excess, inadequate or in appropriate. Agricultural surplus not only leads to the development of trade and commerce but also it is a way of our lives and it is directly and indirectly facilitating the growth of human development physically and mentally. The crops that we cultivate bring harmony and ensure overall development of human body<sup>1</sup>. That is why the authors made an attempt to analyse the significance of mango and banana cultivation on human development.

## Research Objective

To analyze the role of Perennial crops in the development of mental health, in order to accelerate healthy Economy through mango and banana cultivation.

## Review of literature

**Kavitha.P<sup>2</sup>**, (2017) in her study stated that the Mangoes promote brain health and improve the concentration of mind. According to a study published in the journal Oxidative Medicine and Cellular Longevity, there are several components in mangoes that help increase cholinergic function and decrease oxidative stress. This, in turn, enhances memory. The glutamine acid provided by mangoes is also known to boost memory and promote mental alertness and mangoes contain vitamin B6, which is vital for maintaining and improving brain function.

**Kanathur Smitha, B. Ramya Prabhu, Seranthimata Samshuddin and S. Dhiraj Kamath<sup>3</sup>** concluded that the regular consumption of the standard recommended daily intake levels of the vitamins, mineral and other nutrients for our body needs is the first step in keeping a healthy physic and mind. Banana is an edible fruit which is rich in minerals and vitamins. Hence this report presents a comparative study of mineral

contents in variety of bananas cultivated in coastal belt of Karnataka, India. Calcium (47.19 mg per 100g fresh weight), sodium (6.02 mg per 100g fresh weight) are found to be the most abundant in Galhi variety of banana and potassium (397.01mg per 100g fresh weight) is found rich in Cavendish variety of banana. These minerals are indispensable for the development of human brain.

### Statement of the problem

Today's generation is very much in need of Brain & Mind power to compete in this World. To improve the power of Brain students are learning lot of things, undergoing activities which provoke their thinking abilities. The physical part of the body i.e. brain is taken care to an utmost extent leaving the Psychic part i.e. mind which operates and has a greater impact on the whole system of body.

Mental health disorders are the most important challenge to the mankind in the present World as it is also true to India. Research shows that response time of students has reduced due to the scientific advancement and modern facilities in television, computer, telephones etc. Lot of mental problems like pressure, stress, depression, anxiety, anger occupies human's day to day life. Especially adults suffer physically and mentally to a greater extent.

Economic development of a country depends upon the economics of human health. Human health is determined by both physical and mental health. Physical health is being taken care in a greater extent, whereas mental health is being neglected totally. This ends up in a pathetic condition of our country having child abuse, rape, murders, thefts, suicides etc in a larger scale. Healthy relationship between Mind and Brain will definitely have an extraordinary output and also will improve the economy of our country in a greater extent.

### Mind and brain relationship

Generally brain is considered as Mind. Actually it is not so. Brain is physical object and Mind is psychic object. Mind is what makes us human. Brain is one of the parts of human body. We can see the brain with our eyes, we can take photographs of brain and the same can be operated to rectify the diseases. Whereas Mind cannot be seen directly, we cannot take photographs and the same cannot be operated for its defects. We

can keep our body in a relaxed condition without any movements. But at the same time Mind cannot be kept in a relaxed position, it will be always wandering, will be moving from one object to another continuously. Hence Brain and Mind are different entities and Brain acts as a utensil to hold the Mind until the end of human lifetime and Brain is a guesthouse to accommodate Mind for a specific period of time.

Brain is a nonphysical continuum which does not have a form, functions to understand and perceive the objects. In general our Mind is conveyed by our brain like a light is conveyed by a glass. The Brain acts like a CPU – Central Processing Unit of the body. It translates the contents such as feelings, thoughts, beliefs, memories, imaginations, emotions, attitudes etc; of Mind into complex patterns of nerve cell firing and chemical release.<sup>4</sup> Mind is the complete set of activities being performed in the body with the help of Brain. Hence healthy Brain leads to healthy Mind. Unhealthy Mind leads to physical as well as mental sufferings. All our sufferings are not because of other aspects; it is purely of our own state of Mind. Purifying of Mind leads to healthy Mind in turn results in liberation from sufferings and gaining happiness and peace forever.

### Mental illness

Mental illness is a disease where a person finds difficult to cope with demands & routines of daily life and also having thought & behavior disturbance. Difficulty in facing daily problems, inability to cope with demanding activities, confused thinking, high & low feelings, delusions, hallucinations, suicidal thoughts, social withdrawal are mostly faced by the adults with mental illness.<sup>5</sup> Depression, stress, fear, anxiety, worries, changes in sleeping & eating habits and physical ailments are common mental problems faced by both adults & children to a greater extent.

In addition to the general mental problems children are facing additional mental illnesses like poor performance in education, poor grades in spite of hard work, aggressive behaviors, lack of obedience, nightmares, poor pattern recognition, poor response time, lack of alertness and hyper activity which are challenging demands to be taken care to establish an healthy economy.

Mental illness is said to be the main reason for the current problems that India is facing nowadays like

suicides, child abuse, murders, thefts, fights and wars.<sup>6</sup> NIMHANS (The National Institute of Mental Health And Neuro Sciences) reveals that 13.7 percent of India's general population has various mental disorders due to experiencing stress, life style complexities, economic instability and poor dietary habits.

### Nutrients for Mental health

Nutrients are a substance that provides nourishment required for growth, repair and proper functioning of human body.<sup>7</sup> There are 13 essential vitamins: vitamins A, C, D, E, K, and 8 B vitamins. Vitamins play many important roles in our body, such as maintaining skin, acting as antioxidants to protect our cells from damage, and contributing to healthy reproduction & growth, strong bones and normal blood clotting.

There are 16 essential minerals - calcium, phosphorus, potassium, sulfur, sodium, chloride, magnesium, iron, zinc, copper, manganese, iodine, and selenium, molybdenum, chromium, and fluoride, **play important roles in maintaining blood pressure, fluid & electrolyte balance, and bone health; making new cells; delivering oxygen to cells; and contributing to normal muscle and nerve functioning.**

The following nutrients protect the Brain from ageing and preserves the cognitive functions and keep the mental health intact.

- Omega-3 fatty acids –
- B-Complex Vitamins – Vitamin B1,B2,B3,B5,B6,B7,B9,B12
- Vitamin C
- Vitamin D
- Vitamin E

### Nutrients available in Mango are:

- Vitamin A - Antioxidant needed for immunity
- Vitamin B6 - Needed for growth and maintenance
- Vitamin B9 – Folate or Folic acid - Important in genetic, metabolic and nervous system health
- Vitamin C - Antioxidant needed for immunity
- Vitamin E - Antioxidant that protect against Alzheimer's disease (progressive mental deterioration).

- Minerals - Calcium, Magnesium and Zinc
- Amino acids
- Microbiotics
- Proteins & Choline
- Carbohydrates
- Fibre
- Iron

### Mango - perennial crop for mental health

Perennial crops means that the crops which are alive throughout the year and harvested multiple times before the death. Mango is the national fruit of India and also it holds the title of "King of fruits". India is the World's major producer of Mango. India's share is around 50 to 52% of world's mango production. India produces 1000 varieties of mango. Since it is originated between 4000 and 5000 years ago, it has become part of all religious ceremonies, wedding celebrations and community festivals. The leaves of the mango tree are being used to decorate during festivals. In Indian mythology, many stories mentioned the mango tree. Mango is one of the fruit which is cultivated mostly in tropical areas. Mango's nativity is South and Southeast Asia.

### Mango for Mental health

Mango is one of the richest brain foods and which improves the mental health by enhancing the brain neurotransmitters through vitamin B6. It supports in achieving healthy mood and sleep patterns, develops immunity power, protects brain from aging and protects from constipation problems. Mental health improvement can be done by improving the gut. Gut is being considered as the second Brain.<sup>8</sup> Mango helps in boosting the power of gut.

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- Vitamin K - Helps in bone formation and bone repair.
- Calcium - Essential for strong bones.
- Iron - Essential to blood cell production, growth, immune health and energy.
- Magnesium - Balances calcium , improves cardiovascular and bone health.
- Copper - Helps to build blood cells, bone and collagen.
- Proteins - It is major source of energy, helps in body building, repair & maintenance, produces some hormones & enzymes, develops immunity and transports oxygen.
- Carbohydrates - provides energy and helps for digestion.
- Fibre - Keeps the digestive system healthy.

**Usage of Mango tree**

Nowadays most of the people are suffering from diabetic due to life style and emotional disorders. This is not only common among the adults but also the children. Medical expenditure has become the major item in the monthly budget. This is again results in mental tension, whereas in the conventional treatment this is not at all expensive if we take the decoction of mango leaves over a period of 48 days for reducing sugar level. Hugging Mango tree for 20 minutes also will reduce blood pressure and sugar level in the blood. Taking rest under Mango tree also will help the people normalize the BP and blood sugar. Therefore planting one or two Mango trees or a Mango orchard and consumption of mango fruits will improve the individuals financially, physically and mentally.

**Banana**

Banana is a perennial plant that replaces itself. Bananas do not grow from a seed but grows from underground stems called rhizomes. Banana is the only plant in which all the parts of it are used fully. Banana is one of the oldest fruits known to mankind and also being consumed widely all over the world. India is the topper in Banana production in the World. It ranks fourth among the World's food crops.

Bananas are naturally free of fat, sodium and cholesterol. Bananas are high in potassium, which helps the brain to transmit messages. Banana is the most perfect Brain food. It supplies nutrients essential for proper neurological functions. It also helps the Brain to regulate moods & appetite and also supports cognitive functions like focus & memory. It produces chemicals which promote good mental health.

**Nutrients available in Banana are**

- Vitamin B6 - Prevents from neurological disorders. Helps to grow new cells
- Vitamin B9 – Folate or Folic acid - Important in genetic, metabolic and nervous system health
- Vitamin C - Boosts immune system & cell health. Improves the absorption of other nutrients
- Magnesium - Promotes proper electrical activity between nerve cells in the brain.

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- Manganese - Necessary for bone health and metabolism.
- Pottasium - Provides good nerve & muscle function. Maintains balance of fluid in the body
- Proteins - It is major source of energy, helps in body building, repair & maintenance, produces some hormones & enzymes, develops immunity and transports oxygen.
- Carbohydrates - provides energy and helps for digestion.
- Fibre - Keeps the digestive system healthy.
- Dopamine, Serotonin -Neuro transmitters enhances brain function and helps to keep the mood stable & bright

**Conclusion**

Our ancestors had healthy food and systematic lifestyle which in turn resulted in healthy brain and mind with peaceful life pattern. But present diet and lifestyle in this modern era differs significantly. Busy lifestyle paved a path for the processed food which affects the generation in all aspects. The healthy genetic and environment handed over by our ancestors, may not be the same quality when we leave it to our future generation. Hence whatever we eat today not only affects our own health but also have impacts in our next generation. This can be counteracted by taking the help of Agriculture in getting healthy food to empower the Mind which can improve the Economy of India by improving the minds. Mental health improvement can be done by improving the gut. Gut is being considered as the second Brain. Mango helps in boosting the power of gut. Bananas are naturally free of fat, sodium and cholesterol. Bananas are high in potassium, which helps the brain to transmit messages. At this juncture, it is pertinent to contemplate that farmers should go for perennial crops like mango and banana cultivation as they are indispensable for human development, physically and mentally, which in turn accelerates the economic growth at a rapid rate.

**Discussion**

As the quality and the purity of the food determine healthy life, people are sensitive now-a-days as well as smart to differentiate the organic and in organic crops. The advanced technologies especially, genetically modified technology in agriculture makes hue and cry among the people. Therefore, the traditional cultivation

of perennial crops and its impact on human development may be a solace to the present generation.

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