



## 11 MEET BREADFRUIT: 5 REASONS TO PAY ATTENTION TO THIS HUMBLE TREE

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The global health and wellness market is estimated to break \$1 trillion by 2017. The organic, health and allergen-free category is outperforming the mainstream food industry, and consumer bias towards choosing socially-responsible (if pricier) products continues to grow. With these trends in market awareness showing real stamina, it's worth paying attention to a little-known but potentially powerful player that meets criteria for both market enterprise and social impact. Meet breadfruit.

This flowering tree of the mulberry family has diversely benefited the indigenous people of the Pacific Islands for over 3,500 years. Studies by botanical, agricultural and food scientists from the National Tropical Botanical Garden, the University of Hawaii and other top research centers have recently validated what indigenous peoples have known for millennia: breadfruit is a great source of gluten-free food, medicine, insect repellent, and building materials. In the past six years, diverse stakeholders have been seriously assessing the social and economic potential of commercializing breadfruit to create a sustainable source of social, economic and environmental benefit.

Here are five reasons why the social impact minded should pay attention to breadfruit now.

### 1. Breadfruit is a True Superfood With Numerous Product Potential



As its name suggests, breadfruit tastes and smells of freshly-baked bread when cooked at medium ripeness. But this "bread" is superior in many ways. Unlike foods that are merely very nutritious, breadfruit is a true superfood: gluten-free, high in protein and carbohydrates, low in fat, loaded with omegas, bursting with antioxidants and overflowing with folate, fiber and phytonutrients. Breadfruit also enriches with calcium, carotenoids, iron, magnesium, copper, phosphorus, thiamine, vitamin A, vitamin C, potassium and niacin. It contains more potassium than bananas by weight; more amino acids than soy; and more niacin than most other nuts. With a low glycemic index, breadfruit is also an excellent food to prevent hyperglycemia and deter diabetes. Edible throughout the entirety of its growth cycle, this "tropical potato" can be baked, boiled, candied, fried, pickled, roasted and steamed. Think of breadfruit as a canvas for various cuisines and flavors, and its application possibilities are endless. Pasta, cereal, chips and beer are only a few of breadfruit product possibilities.

### 2. Breadfruit is the Best Source of Gluten-Free Flour



Breadfruit also lives up to its name as a source of gluten-free flour that is "far superior in taste, nutrition, and structure to any other GF flour alternative." The gluten-free market is currently estimated at over \$10 billion annually, and it is projected to rise in 2016 to \$15.6 billion.

With 21% of Americans currently incorporating gluten-free foods into their diets and more people discovering its advantages daily, commercial production of breadfruit flour can benefit almost one fourth of all Americans. In addition to improving the health and lives of millions, the Pacific Islands and other suitable growing areas will economically flourish as the gluten-free breadfruit flour industry creates thousands of jobs.

### 3. Breadfruit Offers Other Valuable Eco-Friendly Products



The breadfruit tree has value added by-products that can be used for modern applications and commercial purposes. Aside from its nutritious fruit, the breadfruit tree provides valuable resources from root to tip. Its bark can be processed into organic fabric and paper without harming the tree; its roots provide an analgesic; its fallen fruit and leaves provide nourishing animal feed or biomass for green energy systems. Medical researchers are intrigued by breadfruit's "potential chemopreventive abilities," as they have seen it dramatically reduce inflammation in lab testing. The breadfruit tree also offers organic alternatives to plastics and pesticides. Indigenous peoples have long burned the dried male flowers of the breadfruit tree to ward off insects. Scientists from the USDA's Agricultural Research Service (ARS) and the University of British Columbia now find that the "natural chemicals [in the male breadfruit flower] were significantly more effective at repelling mosquitoes than DEET, the primary insecticide against biting insects." The latex in breadfruit sap can be used as waterproof caulking or transformed into biodegradable plastics for packaging that will help reduce the use of plastic synthesized from fossil fuels. Likewise, organic pesticides derived from breadfruit can also reduce the harmful production and application of oil-based chemical pesticides that are toxic to humans.

### 4. Breadfruit Can Massively Reduce World Hunger



As a nutritional powerhouse, breadfruit can improve diet and food security. If "more than 80% of the 925 million people afflicted by hunger live in an area suitable for the cultivation of breadfruit"—tropical and subtropical regions with temperatures ranging from 60°–110°F, then breadfruit provides a solution worth examining. Breadfruit not only adapts to a wide range of climates, it is also prolific. These extraordinary trees only need two to three years to start bearing fruit (thanks to propagation breakthroughs made by the Breadfruit Institute), and will continue to do so for up to a century. A mature breadfruit produces roughly 450lbs of fruit a season (and up to 700lbs), making breadfruit one of the earth's most productive trees. This high-yield, low-maintenance tree is robust enough to withstand extreme conditions: salt-spray, typhoon winds and constantly wet soil. Breadfruit also happens to be termite and marine worm resistant. The fruit can even be cached up to twenty years underground, providing food security and protecting communities from food shortages during natural disasters, droughts or other crop disruptions. Organizations like the Alliance to End Hunger and Trees That Feed Foundation have looked to this mighty tree to relieve hunger in several countries as breadfruit proves to be a viable, local solution that boosts community self-reliance.

### 5. Breadfruit Farming Will Boost Local Economies



Expanding breadfruit agroforests can create amazing opportunities for economic development in Hawaii, the Caribbean, the Pacific Island Region and beyond. Developing the breadfruit industry would stimulate local job opportunities, health improvement, food security and a significant measure of self-reliance. Commercialization of breadfruit not only presents major potential for profit, it also energizes communities socially and culturally. A breadfruit industry would empower local communities by stimulating social enterprise and positioning local stakeholders as central players in an emergent industry.

The remarkable breadfruit tree has the potential to solve several of our planetary crises. Breadfruit could generate major regional economic opportunities, health, food security, environmental stability and community resilience that will benefit the Pacific Island Region and people around the world. Breadfruit cultivation allows even the smallest communities to participate in a global market opportunity. With groundwork laid by the collaborative efforts of community leaders, researchers, scientists, business experts and government organizations, mass production of breadfruit can improve the lives of billions. As part of traditional agroforestry systems, or multi-crop planting, breadfruit farming can help replenish soil, prevent erosion, and provide microclimates for lower-living plants. It's hard to ignore a crop that is environmentally-friendly, socially-conscious and presents huge opportunities for economic impact.