



Health & Environmental Benefits of Organic Food Consumption than Conventional Food: An Exploratory Analysis

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Abstract

The study aims to identify and understand the benefits of the organic food over the human health and the environment. It also focuses on the differences between the organic food and conventional food. The paper has been prepared based on primary and secondary information collected through observation method and reviewing literature, previous studies & interviews. The study finds out that organic food process is a new concept in the agricultural system of the countries all over the world. With the help of this study, both the farmers and the consumers will be able to learn about the benefits of organic food than the traditional food and, therefore they can make the right decisions for them.

Keywords: Organic food, Nutritional value, Conventional food, Food habit, Health, Environment.

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1. INTRODUCTION

In today's global world, the people live in a fast food oriented society where everything, including food, often needs to be convenient due to their busy work schedules. Instead of eating healthy nutritious food, the people often consume whatever is expedient that is often preservative and chemical-laden food which has little to no nutritional value. It is vital for everyone's and even his/her family's overall health and well-being to make healthy food choices. In such a case, organic food is one of the healthiest choices one can make for oneself, one's family as well as the environment. One of the best way to do this is by transforming what consumers keep in and around their living and working spaces- from healthy organic breakfast foods to organic late night treats- because if consumers have healthy options available, consumers are less likely to consume the high-fat, high fiber and high-sugar stuff with full of chemicals. (<http://www.organic-food-for-everyone.com/healthy-food-choice.html>)

Organic foods are produced using methods of organic farming that is a form of agriculture that relies on techniques such as crop rotation, green manure, compost, and biological pest control. Recently, the United States, Canada, Mexico, the European Union, Japan and many other countries require producers to get special certification (for seed suppliers, farmers, food processors, retailers and restaurants) in order to market organic food within their borders. In the context of these regulations, organic food is food produced in a way that complies with organic standards (for growing, storage, processing, packaging and shipping) set by national governments and international organizations. As a result, organic food production is a heavily regulated industry with government oversight in some countries, distinct from private or kitchen gardening. (http://en.wikipedia.org/wiki/Organic_food). Many developing countries have no standards for certifying food as "organic."

Consumers purchase organic foods that are produced without hormones, antibiotics, pesticides, irradiation or bioengineering. This study is conducted for identifying and understanding the health and environmental benefits of the organic food consumption rather than traditional or conventional food consumption. The factors affecting the health benefits of organic food are nutrition, not genetically modified ingredients, healthier environment, reduction & prevention of allergies & some diseases, reasonable price and saving wildlife.

2. LITERATURE REVIEW

Researches on organic food have advanced significantly during the last decade. New studies and programs are conducted on a regular basis to examine the benefits of organic food production and consumption that have much effect on the environment and the health of the consumers. Most of the studies have firstly defined organic food, then identifies organic food trends and disclosed organic food facts. Some of these are summarized as follows:

Experts of www.menshealth.com site have opined that "Walk into an average grocery store and you face a choice—47,000 choices of products, actually. And their labels advertise terms such as low fat, high fiber, free range, and organic. Some matter, some don't. But those labels aren't even the most confusing part: Many scientists say organic is more nutritious than conventionally grown food, while others say it's not." (<http://www.menshealth.com/mhlists/organic-foods/index.php>).

Rodale (2011), CEO and Chairman of Rodale Inc. has opined in her new book titled 'Organic Manifesto: How Organic Farming Can Heal Our Planet, Feed the World, and Keep Us Safe': "Eat what's available when we're hungry and try not to think too much about it because it's all so disheartening and confusing." Rodale Inc. was founded on the belief that organic gardening is the key to better health both for human and for the planet, and never has this message been more urgent. Rodale has given shed as a new light on the state of 21st-century farming and has explained in Organic Manifesto, why demanding organic is a much-needed solution to protect the health of human and heal the planet examining the unholy alliances that have formed between the chemical companies that produce fertilizer and genetically altered/modified seeds, the agricultural educational system that is virtually subsidized by those same companies, and the government agencies in thrall to powerful lobbyists, all of which prolong dangerous farming practices and deliberate misconceptions about organic farming and foods. Interviewing government officials, doctors, scientists, and farmers from coast to coast, she has also strengthened her position that chemical-free organic farming may be the single most effective tool that can protect the natural environment of the planet and even more important, the health of human. (<http://www.rodalenews.com/maria-rodale-organic-manifesto?siteID=TnL5HPStwNw-hVgzFo.vrCkfiGCrpyZwPQ>). In Organic Manifesto, Rodale has suggested doing just one thing to change the world, 'go organic' and 'buy organic food' replying firmly against the question "What can I do?" in case of protecting and stopping the environmental crisis in the planet. She has also revealed the truth about modern organic farming which is a real, attainable solution to the present global climate crisis. She has argued that organic farming can actually remove greenhouse gases from the air helping to reverse the climate crisis. However, organic farming can help reduce diseases like autism, asthma, ADHD, and even cancer—all of which are connected to farm chemicals. She has also pointed out that the chemical companies have used advertising, lobbying, and money to mislead and betray us all. Rodale has countered them with five solutions that could save the planet and human. What it will take—from government, farm, industry, organic standard measurement & testing authority and all of us—to shift away from harmful chemicals and embrace healthier, organic ways of growing food. (http://www.organicconsumers.org/articles/article_20968.cfm)

Experts of 'Organic Food for Everyone' site (<http://www.organic-food-for-everyone.com>) have focused on the organic trend that needs to become a lifestyle. They have opined as follows:

"Extensive research over the past decade on the benefits of organically produced food and the risks of chemically grown food, and publication of that research, has created a steadily growing interest in organic products. Over the past ten years, sales of food grown organically increased by about 20% per year. This growth rate could reach as much as a 50% increase in some countries, while continuing to steadily rise around the world. Such a growing market, with growing profit potential, has created a need for regulations and restrictions to protect both consumers and genuine organic farmers."

(<http://www.organic-food-for-everyone.com/organic-foods.html>)

The UK based Soil Association founded in 1946 has made a collaboration among scientists, farmers, and nutritionists with a common desire to improve the plant, animal, human and environmental health through organic practices. The collaboration has been dedicated to educate

the people about the benefits of organic farming, providing the public with the latest organic food research and a variety of other resources. They campaign for healthy, human and sustainable food, farming and land use. (<http://issuu.com/soilassociation>).

Organic Centre Wales (OCW) (<http://www.organiccentrewales.org.uk/>) founded in 2000, has combined the expertise of four Wales based organic research organizations and aimed to deliver research findings regarding organic industry to the whole public. The OCW is a hub of information for organic news and developments including reports on genetic modification, economic and financial outlooks for organic farming and examinations of animal welfare in organic farms.

Washington State University (WSU) has completed a 6-year research program on the profitability of growing apples organically in 2001. The conclusion of the study is as follows that has been highly significant.

...*"Our results," said Reganold, "show that organic and integrated apple production systems in Washington State are not only better for soil and the environment than their conventional counterpart, but have comparable yields and, for the organic system, higher profits and greater energy efficiency."*

(<http://www.organic-food-for-everyone.com/benefits-of-organic-foods.html>)

Organic research information from around the world is archived in one convenient place at Organic E-prints; the archive has been created in 2002 by the Danish Research Centre for Organic Farming (DRCOF). It is a public website designed to compile papers and reports from various sources to aid the continuing development of organic studies. The information is easily searched or browsed and is accessible to the general public.

Food Quality and Health (FQH) has been organized in 2003 by four European research institutes with the aid of representatives from the organic industry. This international research agency sponsors a variety of workshops, conferences, and research projects. Recent workshops have also discussed the health effects associated with food quality including the results of research into bio-active compounds in farming.

A study by Newcastle University has found that organic food has a higher nutritional value than ordinary produce (http://news.bbc.co.uk/2/hi/uk_news/england/tyne/7067226.stm). According to the report of Sample (2007), a science correspondent, the preliminary study results have been published in The Guardian as follows:

"Some organic foods, including fruit, vegetables and milk, may be more nutritious than non-organic produce, according to an investigation by British scientists. Early results from a £12m study showed that organic fruit and vegetables contained up to 40% more anti-oxidants than non-organic varieties, according to Professor Carlo Leifert at Newcastle University, who leads the EU-funded Quality Low Input Food project. Larger differences were found in milk, with organic varieties containing more than 60% more anti-oxidants and healthy fatty acids, he said."

(<http://www.theguardian.com/science/2007/oct/29/organics.sciencenews>)

Huber, et al. (2006), researchers of *Louis Bolk Institute* have shown that organic food and vegetables are no way better than the conventional foods and vegetables. This discussion is about ingredients, isolated substances of products which are beneficial for health of consumers. (http://orgprints.org/7657/1/Challenges_for_an_organic_food_quality_concept-Huber-060301.pdf)

Experts of 'Organic Food for Everyone' site (<http://www.organic-food-for-everyone.com>) have defined, "Organic foods are those that are produced without the use of chemicals, including pesticides and fertilizers commonly used in cultivation and drugs, such antibiotics and hormones given to commercial livestock. Moreover, foods are held to be organic when the methods of production encourage environmental health and avoid environmentally damaging and destructive actions." (<http://www.organic-food-for-everyone.com/definition-of-organic-food.html>)

3. OBJECTIVES OF THE STUDY

The objective of the study is to identify and understand the benefits of organic food over the human health as well as environment. Other than the main objectives, the study also aims at the following specific objectives:

- To aware consumers about the advantages of consuming the organic food.
- To identify the difference between the conventional food and the organic food.
- To make recommendations for policy formulation so that the food habit and consumption of consumers can be changed with right buying decision.

4. METHODOLOGY OF THE STUDY

The study is mainly exploratory in nature. The paper is prepared based on secondary information. Primary data and information have been collected through observation method. As a result, researcher's personal observations have been taken into consideration for insight vision of the study. Researchers have also consulted with few consumers, doctors (heart specialists), retailers, representatives of organic and conventional food companies conveniently for the purpose of the study. However, secondary data and information have been gathered through reviewing and analyzing existing literature, reports & interviews of different experts published in relevant books, journals, magazines and websites. Collected data and information have been processed with coding, cross checked with justification, cleaned, and utilized wherever necessary to prepare the article conducting whole study following qualitative research design.

5. CONVENTIONAL VERSUS ORGANIC FARMING

According to The United States Department of Agriculture (USDA), "The word 'organic' refers to the way farmers grow and process agricultural products, such as fruits, vegetables, grains, dairy products and meat. Organic farming practices are designed to encourage soil and water conservation and reduce pollution. Farmers who grow organic produce and meat don't use conventional methods to fertilize, control weeds or prevent livestock disease." (<http://usda-fda.com/organic-nutrition.htm>)

However conventional farming and organic farming can be differentiated as follows:

- Conventional farmers apply chemical fertilizers to promote plant growth. On the other hand, organic farmers apply natural fertilizers, such as manure or compost, to feed soil and plants.
- Conventional farmers spray insecticides to reduce pests and disease but organic farmers use beneficial insects and birds, mating disruption or traps to reduce pests and disease.
- Conventional farmers use chemical herbicides to manage weeds whereas organic farmers rotate crops, till, hand weed or mulch to manage weeds.

- Conventional farmers provide animals antibiotics, growth hormones and medications to prevent disease and spur growth, but organic farmers provide animals organic feed and allow them access to the outdoors. Use preventive measures – such as rotational grazing, a balanced diet and clean housing – to help minimize disease.(<http://usda-fda.com/organic-nutrition.htm>)

6. ORGANIC VERSUS NON-ORGANIC FOOD

On July 11, 2014, Carrington and Arnett have reported in the Guardian titled “Clear Differences between Organic and Non-organic Food, Study Finds”. In this report, they have shown the differentiation between organic and non-organic food based on various research findings. In a research conducted at Newcastle University, the team leader Prof. Carlo Leifert has concluded that there are "statistically significant, meaningful" differences, with a wide range of antioxidants being "substantially higher"- between 19% and 69%- in organic food. This research is the first to find clear and wide-ranging differences between organic and conventional fruits, vegetables and cereals. The researchers have also said that the increased levels of antioxidants are equivalent to "one to two of the five portions of fruits and vegetables recommended to be consumed daily and would, therefore, be significant and meaningful in terms of human nutrition, if information linking these (compounds) to the health benefits associated with increased fruit, vegetable and whole grain consumption is confirmed". The results are based on an analysis of 343 peer-reviewed studies from around the world, more than ever before, which have examined differences between organic and conventional fruit, vegetables and cereals. Helen Browning, Chief Executive of Soil Association which campaigns for organic farming said, "The crucially important thing about this research is that it shatters the myth that how we farm does not affect the quality of the food we eat,"(<http://www.theguardian.com/environment/2014/jul/11/organic-food-more-antioxidants-study>)

7. LEVEL OF PESTICIDES IN FRUITS AND VEGETABLES

Highest Level	Lowest Level
Peaches	Onions
Apples	Avocados
Sweet bell peppers	Corn, sweet, frozen
Celery	Pineapples
Nectarines	Mango
Strawberries	Peas, sweet, frozen
Cherries	Kiwi
Pears	Bananas
Grapes, imported	Cabbage
Spinach	Broccoli
Lettuce	Papaya
Potatoes	Blueberries

Source: Developed by the Environmental Working Group. (<http://www.answers.com/topic/organic-food>)

8. WORLD SALES GROWTH OF ORGANIC FOODS

Demand for organic foods is primarily driven by concerns for both the human health and the environment (Filho, 2004). Global sales for organic foods has increased by more than 170% since 2002 reaching more than \$63 billion in 2011 (AG Professional, 2013) while certified organic farmland remained relatively small at less than 2% of total farm-land under production increasing in OECD and EU countries, which account for the majority of organic production, by 35% for the same time period (OECD, 2013). Organic products generally cost 10% to 40% more than similar conventionally produced products, to several times the price (Winter and Davis, 2006). Processed organic foods typically vary in price compared to their conventional counterparts.

While organic food accounts for 1% to 2% of total food production worldwide, the organic food sales market is growing rapidly with between 5% and 10% of the total food market share in the United States (Organic Trade Association, 2010), significantly raising the volume of sales growth in dollars of conventional food products. World organic food sales have leaped up from US \$23 billion in 2002 (Organic Monitor, 2003) to \$63 billion in 2011 (AG Professional, 2013).

9. PURPOSES OF ORGANIC FOOD MOVEMENT

The organic food movement has the following goals:

- To improve human health by decreasing the level of chemical toxins in food.
- To reduce the level of agricultural chemicals in the environment, especially in groundwater.
- To promote sustainable agriculture.
- To promote bio-diversity.
- To promote genetic diversity among plants and animals by rejecting genetically modified organisms (GMOs).
- To provide fresh, healthy, safe food at competitive prices.

10. FACTORS TO BUY OR BYPASS ORGANIC FOODS

There are several factors that may influence a consumer's decision to buy or not to buy organic foods. These considerable factors are:

- **Nutrition:** There is no conclusive evidence and scientific research findings that organic food is more nutritious than conventionally grown food. Even the USDA, a certification authority of organic food, does not claim that organic foods are safer or more nutritious.
- **Quality and appearance:** The methods of production, way of processing and handling of organic foods are different than conventional foods though organic foods meet the same quality and safety standards like conventional foods. Organic fruits and vegetables spoil faster because of not treating with waxes or preservatives. Also, less-than-perfect appearances are shown in some organic produce like odd shapes, varying colours and perhaps smaller sizes. However, in most cases, organic foods look identically similar to their conventional counterparts.
- **Pesticides:** Conventional food growers use pesticides to protect their crops from molds, insects and diseases. Most experts agree, however, that the amount of pesticides found on fruits and vegetables poses a very small health risk.
- **Environment:** Some people buy organic foods for protecting environment. Organic farming practices help the environment by reducing pollution and conserving water and soil.

- **Cost:** Most organic food costs higher than conventional food products. More expensive farming practices, restricted government regulations and lower crop yields make the prices of organic foods to be higher. Organic farmers do not use herbicides or pesticides for their production. So different management tools control weeds and pests that are labor intensive.
- **Taste:** Some people find the difference in taste between organic and non-organic food though others do not find any difference. Taste is a subjective and personal consideration, so consumers will have to decide themselves to buy organic food or not. But whether consumers buy organic food or not, finding the freshest foods available may have the biggest impact on taste. (<http://usda-fda.com/organic-nutrition.htm>)

11. HEALTHY EATING FOOD FOR CHILDREN AND ADULTS

Making a healthy eating food for consumer like children, family and anyone is easier than they think; it is about making sure that they have healthy ingredients and foods in their kitchen. However, if they want to use up what they have and replace one or two items at a time, they can do that too. Here, few examples of healthy eating food are mentioned below:

- Organic nuts (salt free is best),
- Organic nut butter,
- Organic whole wheat or whole grain snack crackers,
- Yoghurt,
- Organic cheese (cut into slices in the evening or morning and wrap up tightly - use with the crackers when you need a quick snack),
- Unbuttered popcorn (try to find organic popcorn)- but spice it up after you've popped it with spices from your cupboard,
- Soy products (for example, mango, orange, soy, pudding cups - delicious! Or chocolate soy pudding),
- Organic vegetable sticks (cucumber, carrots, celery, cherry tomatoes, broccoli and cauliflower florets - make a yoghurt and dill dip and have it ready to go in a couple of small containers),
- Fresh organic fruit (wash and dry grapes to be easily ready to eat; peel and cut oranges and keep in a container for easy snacking; and so on),
- Organic salsa- Anyone can make it oneself in a big batch for the week or buy at his/her local grocery store and use with organic, low-salt, low-fat nacho chips.

However, fresh organic salsa can be made at home very easily by mincing tomato, hot peppers, cilantro, onions, and a bit of lime juice. So there is no additive or preservative, and it encourages healthy eating for consumers- both children and adults too.

(<http://www.organic-food-for-everyone.com/healthy-food-choice.html>)

12. BENEFITS OF ORGANIC FOOD CONSUMPTION

Organic food is better, healthier and tastier than conventional or non organic food. Of those three attributes, the healthier attribute is the most important from an environmental perspective. So what is healthier for the environment is also healthier for humans, animals, vegetation, and the planet. However, without the synthetic pesticides and fertilizers, organic fruit and vegetables may look more blemished but have much more flavor and taste. Consumers need that flavour and

taste when they cook, freeze, can or put food by, and eat their home grown food. By preserving organic food, consumers and their families can eat healthy foods all year long. The benefits of organic food are numerous though organic foods will cost more to produce at least initially as producers go through the organic process. However, according to new studies, eating organic foods can help anyone to build more muscle and burn more fat, not to mention protect the environment from harmful pesticides and increase anyone's chances of siring healthy offspring (sons in particular) (<http://www.menshealth.com/mhlists/organic-foods/index.php>).

The hypothesis used in this study asks whether organic food is health and environment beneficial. To proof the acceptance and rejection of the hypothesis, all the factors are analyzed. On the basis of the prior knowledge and analyzing various studies and secondary information, the findings show the proof of the acceptance and rejection of the hypothesis.

Here are a few samples of organic food research that has been carried out asking the same question- is organic food better? The answer is clear: 'yes'. As a result, the following specific benefits of organic food consumption over human lives, health and environment can be outlined than conventional food.

i. According to the report of Kirby for BBC News titled "Organic Food is Healthier" in 2000, Patrick Holden, Director of the Soil Association told the BBC Radio as follows:

"Researchers say there is now firm evidence that organically-grown produce is healthier to eat than conventional crops ...research has shown that they contain more secondary metabolites than conventionally-grown plants. Secondary metabolites are substances which form part of plants' immune systems and which also help to fight cancer in humans. Mr. Holden said organic crops also have a measurably higher level of vitamins, and that this can benefit people who eat them. By contrast, he said, "intensive farming is devitalising our food"." (<http://news.bbc.co.uk/2/hi/science/nature/588589.stm>)

ii. In 2001, the Journal of Alternative and Complementary Medicine, internationally acknowledged as the leading publisher in biotechnology, has published a study by Virginia Worthington, MS, ScD, CNS - Nutrikinetics, Washington, DC.

This study found that

...Organic crops contained significantly more vitamin C, iron, magnesium, and phosphorus and significantly less nitrates than conventional crops. There were non-significant trends showing less protein but of a better quality and a higher content of nutritionally significant minerals with lower amounts of some heavy metals in organic crops compared to conventional ones.

(<http://www.organic-food-for-everyone.com/is-organic-food-better.html>)

iii. In 2006, the University of Liverpool has found that-... Organic milk had higher levels of polyunsaturated fatty acids throughout the year, compared to non-organic milk. In particular, average levels of omega-3 fatty acids were 68% higher in organic milk ... Organic milk also contains a much lower omega-6:omega-3 fatty acid ratio, which is considered beneficial, than non-organic milk:

"The n-6:n-3 FA ratio each month in organic milk ranged from 1.27 to 1.90, and in conventional milk, ranged from 1.99 to 3.66." According to Simopoulos (2002), "a lower ratio of omega3/omega6 is more desirable in reducing the risk of many chronic diseases of high prevalence in Western societies".

(<http://www.organic-food-for-everyone.com/is-organic-food-better.html>)

iv. In 2004-2005, the Danish Institute of Agricultural Sciences (DIAS) has conducted a study and the report has found that-

... Organic milk in 7 out of 10 samples contained significantly higher levels of vitamin E (alpha-tocopherol) than non-organic milk. There was less synthetic vitamin E in organic milk which indicates less was added to the organic milk.

Despite this, the vitamin E content of organic milk was higher than non-organic milk. - The beta-carotene content was two to three times higher in organic milk than in non-organic milk.

(<http://www.organic-food-for-everyone.com/is-organic-food-better.html>)

- v. Organic tomatoes, peaches and processed apples all have higher nutritional quality than non-organic- scientists conclude "organic cherry and standard tomatoes can be recommended as part of a healthy diet including plant products which have shown to be of value in cancer prevention," and organic peaches "have a higher polyphenol content at harvest," and, finally organic production has "positive effects ... on nutritional quality and taste".
- vi. Very little data actually exists regarding the safety of genetic modification and there are grave concerns that the negative effects are being ignored because of the huge profits.
- vii. For the most part, organic farming is extremely beneficial to the environment. Organic farms make a significant contribution to encouraging and maintaining a balanced and diverse ecosystem. The lack of chemicals and toxins improve the welfare of surrounding wildlife and decrease air and water pollution.
- viii Organic food is safer for the entire planet. The procedures and methods used in organic farming protect the structure and the nutrient content of the soil and preserve its worth over time.
- ix. Organic farming saves the wildlife. The synthetic, toxic chemicals used can be deadly to birds and other wild animals that depend on the land for food.
- x. Growing foods organically also increases the natural nutrient levels within the soil and uses significantly less energy and water than commercial farming methods. Organic farming also helps sustain land, wildlife, and natural resources, unlike intensive farming that often destroys areas of land over the years and then moves on.

Now again the question is 'Is organic food better?' The overall answer is, 'yes'. As a result, organic food is better than most commercially produced conventional foods. Consumers can grow their own organic food, or purchase products from organic food companies, from online organic food stores, from local markets of farmers, and more. Organic food is more easily accessible than ever before.

13. LIMITATIONS OF THE STUDY AND OPPORTUNITIES FOR FUTURE RESEARCH

The study is not free from some flaws. The limitations of the study will encourage others for further study in future in order to overcome them. Followings are the limitations of this study:

- As the numbers of organic food consumers are very small in Bangladesh, the objectives of findings may not achieve properly.
- The people of Bangladesh are not affiliated with the concept of organic food. Thus, the result may not reflect their actual perception in the absolute sense.
- The article is prepared focusing on the observation method and qualitative research. The issue needs more depth research and quantitative analysis.

14. RECOMMENDATIONS

The factors that organic food provides to influence the health benefit of human are analyzed. With the help of the findings of the study, the following recommendations can be applied:

- Organic food has high nutritional value than the conventional food. The people of Bangladesh as well as the people of other countries should be aware of the nutritional value of the organic food.
- Organic food should be produced and available locally. This means that it is fresh and will, therefore, taste even better. The absence of toxic chemicals in the produce contributes to the improved taste too. The higher nutritional value of food produced organically may also contribute to the taste of it.
- Organic farming should use natural, synthetic chemical-free methods that produce foods much safer for humans, as well as animals that consume them.
- Consumers should buy organic food from local organic food retailers, organic food stores, and organic food mail order. If consumers buy online, they should choose from a list of healthy food (organic) and then their order will be delivered to their doors.
- Organic food should use farm land that has been free from chemicals for a number of years (often, three or more) and that has been tested to prove 'clean' soil.
- Procedures of Organic food certification should require that the food marketer keeps detailed written records (of where, when, and how the food was produced) and keeps the organic food segregated from non-organic food if working with both foods.
- Organic certifiers like the Soil Association and Organic Growers and Farmers in the UK, and USDA designated certifiers in the US, should be developed in the country both in public and private sectors to ensure that what makes food organic has actually taken place. Government should take initiative in this regard making necessary law, rules and regulations.

15. CONCLUSION

At present, world wide, millions of consumers have already made their mind up, and are buying organic food to the tune of \$40 billion per year. Consumers buy organic food to provide them and their family with more nutritious food. Organic foods can be bought directly from farmers markets, through an organic food supplier near consumers (often these suppliers offer home delivery box programs), or can be bought organic food online (although be careful and check out the site thoroughly before buying and paying). Affordable organic food is available, consumers need to plan their shopping and should buy affordable organic food in a smart way that ensures no waste and that stretches their food budget, while providing them with healthier and tastier food. (<http://www.organic-food-for-everyone.com/buy-organic-food.html>)

The organic industry is booming day by day, and the predictions are that demand will keep on growing. To make a difference in consumers' health, their family's health, and the planet's health, consumers need to take a stand against the unhealthy and unsustainable practices of conventional, intensive food production and look at the bigger picture; organic products are a benefit to the human health and environment of a country as well.

Organic food is completely new concept in Bangladesh and many other countries of the world. Though some people are aware of it, majority of the whole population are still far from this phenomenon. These people are needed to be motivated and engaged in organic food

consumption. To make a people organic food consumer, it is necessary for him/her to know the food facts of each food, nutritional value of both conventional food and organic food. Thus, it can be said that, if the proportion of organic food consumer can be increased, the overall health and environmental development of the nation can be possible.

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