

Potential of Organic Farming to Alleviate Poverty in Pakistan

By

Prof. Dr. Abdulrauf Farooqi

Professor and Chairman Department of Environmental Science
Allama Iqbal Open University

Organic Farming Defined:

As defined by FAO (1999)

“Organic farming is an environmental friendly ecosystem management in which, use of all kinds of synthetic inputs are eliminated”.



The area delineated for “organic farming” forbids use of synthetic fertilizers, pesticides, veterinary drugs, hormones, Genetically Modified Seeds (GM seeds) and breeds, additives, preservatives etc.

These are replaced with site specific management system that maintain and increase long term soil fertility and prevent pest and diseases

Present Status. . .

- Organic farming is used on less than 1% of the world's crop land (0.2% in USA) and 6-10% in many European countries. However, this farming is growing rapidly. In 2002 it was a \$25 billion global market and a \$12 billion market in USA.
- Cuba is now world leader in low-input sustainable agriculture based on organic farming practices using indigenous renewable resources:
 - Livestock manure,
 - Green manure crops,
 - Composted municipal garbage
 - Industrial scale cultivation of high quality humus in earthworm farms
 - Worms compost
 - Oxen and mules



Threats



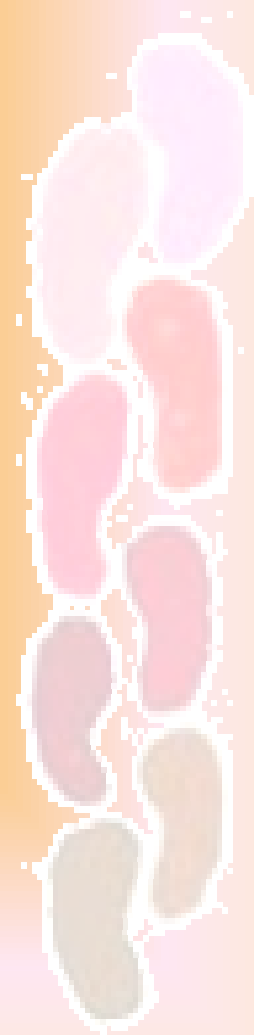
- Pakistan is facing the threat of loosing many international markets after the introduction of World Trade Organization (WTO).
- Recent trends indicate that Pakistan now exports fruit mainly to Middle East, Sri Lanka and Central Russian States, where quality standards are not as stringent as compared to the developed countries.
- The current export of Kinnow to European countries is almost nil. Pakistan has, therefore, decided to introduce Euro Good Agricultural Practice (Euro GAP) to upgrade its farming standards in line with International standards.

Potential for Organic Farming in Pakistan

- If proper planning and fore sighted measures are timely taken, Pakistan has one of the greatest potential among the developing countries.
- Millions of acres of highly fertile and productive-virgin lands under the command of five mega dams *Akhori, Bhasha-Diamer, Kalabagh, Kuramtangi and Munda* to be built by 2016 at a cost of \$ 25 billions can be the potential areas for delineation as 'organic farming' areas.
- The 'organic farming' will have a direct impact to alleviate poverty by providing large scale employment to unskilled semi-skilled labor

Steps to Follow. . .

- GoP may initiate **soil survey** to delineate the potential areas to delineate most productive and fertile area under the command of mega dams to be built
- To convince the producers/farmers, large or small, to agree to follow the guidelines of organic farming to pursue high income multi faceted crop /animal husbandry.
- A vigorous **education campaign** must be initiated in the entire survey area to appraise the population and land owners about the huge income returns.
- GoP may offer to bear the **initial certification and soil fertility survey costs** provided all stakeholders in the area agree to follow and abide by strict rules
- Strict surveillance by the **International Organic Certifying Agency**
- Creating a **think tank**

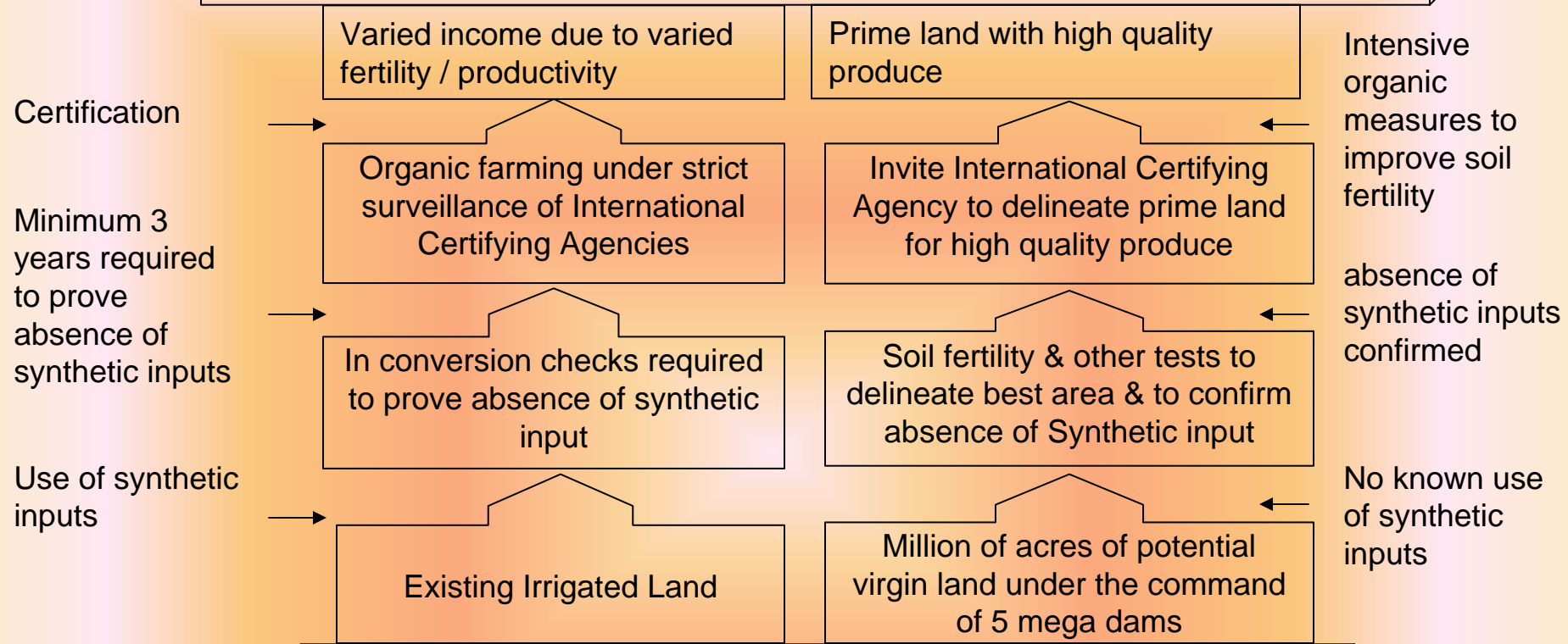


Think Tank

GoP may facilitate creating a think tank comprising of lawyers, economists, academics, relevant experts such as agriculturists, horticulturists, etc, and key stakeholders such as farmers, exporters, etc.

- This think-tank will serve as a platform for ingenuous and imaginative guidance on issues such as
 - Changes in legislative instruments to commensurate with WTO rules and regulations,
 - Continuous maintenance of distinction in quality
 - Identification of diverse efforts for sustained and escalating economic growth
 - Minimizing the role of intermediaries to the extent possible.
- Consequently, organic farm labor could be involved in the post-harvest operations of grading, washing, packing, labeling, bar-coding and loading because such measures will further help in increasing farm income and in maintaining freshness as part of high quality produce leaving transport and consumers market between the farm and the dining table

Agricultural produce from organic farms fruit, vegetable, milk, eggs, honey, etc. are exclusively high priced



Targeted capacity building of unskilled and semiskilled labor

Educating farmers regarding huge profits and seeking their consent to follow the regulations, control measures and standards

15.13 Million hectares potential land (cultivable waste + current fallow) *
22.12 Million hectares irrigated cultivated land *

The Road to Organic Farming in Pakistan

We expect a three to fourfold increase in the revenue provided all the measures proposed above are seriously taken into account

Item / Unit	Prices in US Dollars			% increase/decrease in cost compared to price of non organic food in Pakistan	
	Organic Food (UK)	Non Organic Food (UK)	Non Organic (Pakistan)	Organic Food	Non-Organic
Milk / Liter	1.39	0.97	0.56	+148	+73
Eggs / Dozen	5.14	2.79	0.76	+ 438	+ 267
Carrots/ kg	2.37	1.24	0.58	+ 193	+ 114
Loaf of Bread (400g)	1.60	1.07	0.29	+ 376	+ 269
Oranges / dozen	8.25	3.36	0.99	+ 733	+ 239
Apples / kg	4.52	2.19	0.99	+ 357	+ 121
Mangoes / kg	8.25	4.25	0.99	+ 733	+ 330
Beef (with bone) / kg	54.19	26.35	2.31	+ 1073	+ 470
Beef (boneless) / kg	60.48	30.24	2.80	+ 980	+ 440
Chicken / kg	15.06	5.68	1.22	+ 517	+ 133
Lamb / kg	17.40	12.47	4.30	+ 102	+ 45
Rice basmati white/ kg	4.20	3.48	0.76	+ 453	+ 358
Average				+509	+238

Besides the economic gains and the potential to alleviate poverty, organic farming proves to be beneficial in a number of ways. These may be:

- **Improved Nutritional Status**

Organic food tends to have in it, significantly higher levels of all 21 nutrients analyzed compared with conventional produce including vitamin C (27% more), Mg (29% more), Fe (21% more) and 14% more Phosphorus



- **Environmental Friendly**

Organic farming uses environmental friendly inputs and therefore generates environmental friendly foods and services. Such farming, therefore, positively contributes to marked reduction in air, soil and ground water pollution. Moreover, it is a solution to the problem created by nitrate pollution, improves soil structure, fertility and soil fauna



Capacity Building

In order to follow strict code of 'organic farming' the system will engage large unskilled / semi skilled and skilled labor force requiring specific tasks to be performed

All pursuits of farming such as planting, rearing, sowing, cultivating, after-care, maintenance, harvesting, washing, cleaning, grading, labeling, bar coding, packing, transporting and marketing

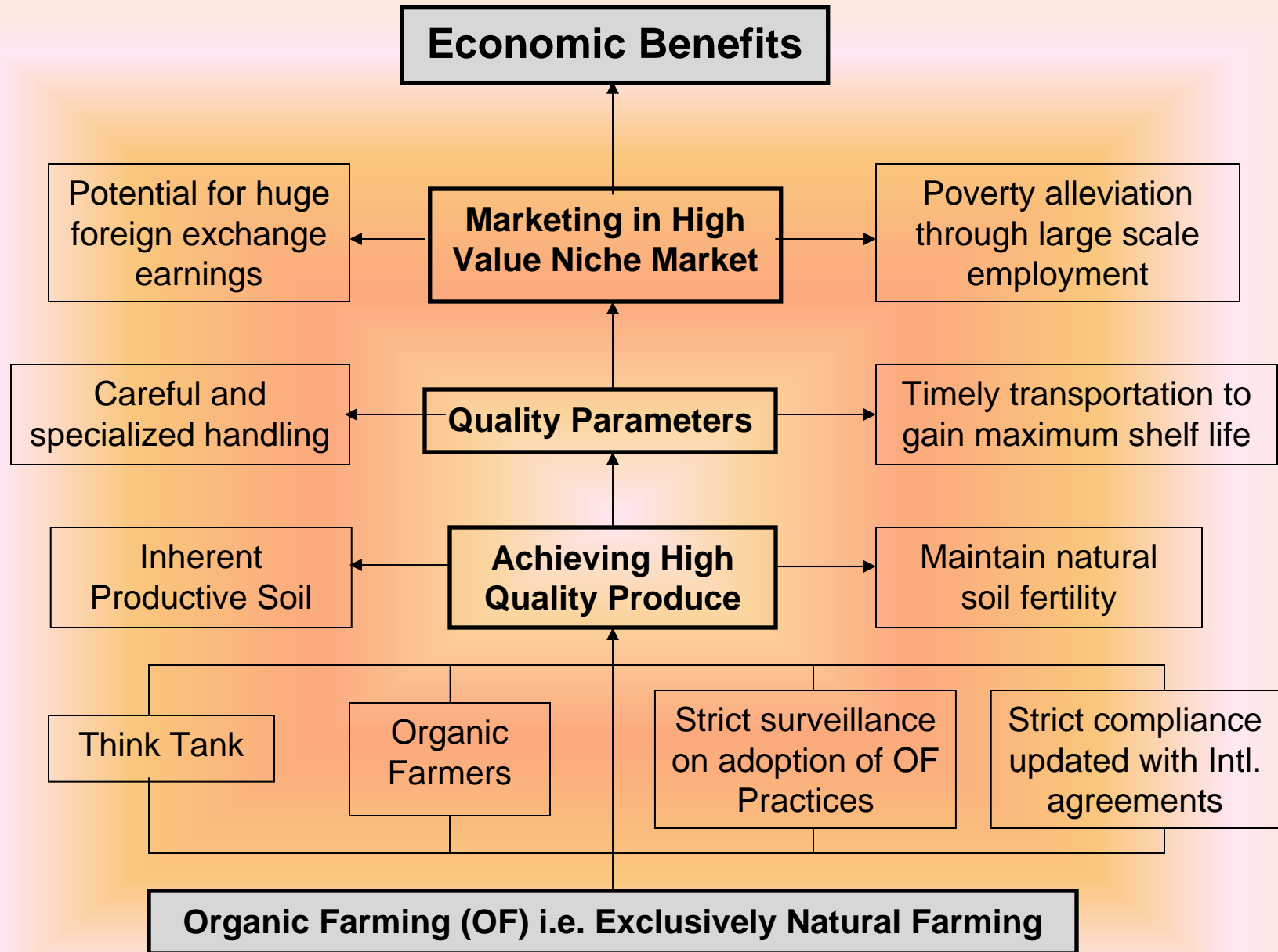


Boon for Biodiversity

Organic farming saves environment from harmful effects of the use of synthetic inputs especially fertilizers and pesticides, hormones etc.

Pesticides and fertilizers release harmful toxic chemical in water and soil







Pakistan being bestowed with excellent and diverse crop/animal husbandry growing conditions is best placed to pursue organic farming. The organic produce will increase the farm income threefold depending on quality and adoption of strict discipline for quality.

It is, therefore, imperative for Pakistan to seriously consider opting for organic farming and to follow suit of our mighty neighbors China (currently, has 5.7 million acres under certified organic farm) and India (5660 certified and uncertified organic farms). The organic farming offers multi-faceted advantage of creating large scale employment opportunities as part of alleviating rural poverty, to capture niche market, diversifying economy besides reaping foreign exchange.



Thank You