

# Nurturing Women's Health through Development

Lipi Mukhopadhyay

**Abstract:** *Health encompasses various dimensions, deeply influenced by environmental, social, cultural, and biological determinants. Crucially, investing in women's health not only combats poverty but also averts maternal and infant mortalities. Given the pivotal role women undertake in preserving the health and vitality of their communities, it is imperative to analyze policies and issues intersecting with agriculture and trade that bear consequences on women's health and nutrition, especially in developing countries. This research critically evaluates agricultural policies, the implications of subsidies, crop selection decisions, and pesticide utilization. Such factors, whether directly or indirectly, exert significant impact on the health and welfare of women, predominantly in underdeveloped and rural regions. Through a comprehensive examination, this paper underscores the necessity to nurture women's health as a cornerstone for sustainable community development.*

**Keywords:** Women's health, Agriculture, Trade, Developing countries

## 1. Introduction

Health is no longer defined simply in physical terms as the absence of disease or disability, but now includes mental and social dimensions. It is recognized that human beings are responsible for their social health to be able to live in peace and contribute to the welfare of other people.<sup>1</sup> Health is multi-dimensional. It is influenced by environmental, social, cultural and biological factors: "A woman's health is her total well-being, not determined solely by biological factors and reproduction, but also by effects of work load, nutrition, stress, war and migration, among others".<sup>2</sup> It is known that investment in women's health reduces poverty and prevents maternal and infant deaths that cause a \$15 billion loss of productivity every year worldwide.<sup>3</sup> The slogan, "Healthy Women, Healthy World" embodies the fact that as custodians of family health, women play a critical role in maintaining the health and well-being of their communities.

The present paper examines the policy issues on agriculture and trade as well as their impact on the health and nutrition of women in developing countries. It also reviews the economic and social development in a cross-cultural population; like south Asia and the role of governance in facilitating the impact' necessary for creating space for women's empowerment and sustainable development. In this context we would examine the new international policy on agriculture, trade in relation to women's role in subsistence economy with its impact on women's health and how existing norms and rules should be amended to achieve WHO's MDG 4 & 5 (World Health Organization, Millennium Development Goals).

## 2. Discussion

About three fourth of India's population lives in villages and are engaged in agricultural work. Food is the most basic need of people and farming is their livelihood which is dictated by international agreements and policies affecting food sovereignty, agribusiness, export subsidies, dumping and most importantly the environment.

### Women in Agriculture

Women's health and agriculture are closely linked. Women play a significant role in agriculture the world over. They constitute about two thirds of the workforce in agriculture

production.<sup>3</sup> It is found that around the globe, the typical farmer is a woman. This is especially true in poor countries, where agriculture is mostly women's work. In parts of Africa, some of the poorest regions in the world which have the most potential for agricultural development, women produce 80 per cent of the food supply.<sup>5</sup> Yet they receive less than 10 percent of the credit given to farmers and own an estimated two percent of the land. It is a well-documented fact reported in various researches that when women earn extra income, they are more likely than men to invest it in education, food and health care of their children, thus creating a positive cycle of growth that lifts entire generations out of poverty.<sup>6</sup> It is found that although women produce much of the food in the developing countries, they are more malnourished than most men.<sup>7</sup>

Women's health, given that they produce most of the food, is not only mandatory for development but also survive as well. WTO rules in agricultural policies have varied impacts on women's health. Women have been the primary seed keepers and processors. They have been both the experts and producers of food from seed to kitchen and undertake sixty to ninety percent of the rural marketing.<sup>8</sup>

In Africa and Asia, it is estimated that women work about 13 hours more than men each week.<sup>9</sup> About 70% of the agricultural workers, 80% of food producers and 10% of those who process basic food stuff are women and they also undertake 60 to 90 per cent of the rural marketing, thus making up more than two-thirds of the workforce in agricultural production. In China, women constitute about 70% of the agricultural labor force and perform more than 70 percent of the farm labor. The pattern is, the poorer that area, the higher is the contribution of women, primarily as subsistence farmers who farm small pieces of land, 0.2 hectares.

### Agriculture Policy and Subsidies

Agricultural policy subsidies come at a cost as a tradeoff to public health. The system provides all consumers with excessive fats and sugars, which especially make the children and the poor vulnerable to health complaints. Poor families who live in low-income communities often find themselves living in food deserts, where healthy food options are unavailable but fast food is abundant.

It is well known that the agriculture policy influenced the health of the citizens in America in two ways-

- Rising obesity,
- Food safety and environmental health impacts especially due to exposure to toxic substances and pesticides.

Farmers' crop choices are influenced by a portion of the Farm Bill that rewards certain crops over others<sup>21</sup>. The previous 1970s-era farm policy shifted away from maintaining stable prices to maintaining low prices and maximizing production of certain crops that could be bought and sold in the international market. Farmers rely on government payments for economic stability, so they plant the crops that the farm policy encourages them to grow. Seventy to eighty percent of all farm subsidies are directed toward the eight commodity crops, which together cover 74% of the US cropland. Farmers growing special crops such as fruits and vegetables are not eligible for direct subsidies and are penalized if they have received federal farm payments for other crops. In addition, large farms, which make up only 7% of the total, receive 45% of all federal payments. Meanwhile, small farms, which are 76% of the total, receive just 14% of the payments<sup>22</sup>. As a result of government structured food supply that heavily favors just a few crops, grown by large scale farming operations fail to satisfy the healthy dietary needs of the community. It is found that the American food supply contains too many fats and sugars and not enough fruits and vegetables.

The Agreement on Agriculture of the World Trade Organization (WTO) that began to be debated in India as increasing agricultural productivity and improving food quality are being tossed as the only solutions for the farmers' survival. It has emphasized the need for increasing productivity and reducing the cost of production. Andhra Pradesh, dumped cartloads of tomato on the streets. Excess production had resulted in a crash in prices for tomato and potatoes in Maharashtra, Uttar Pradesh and Punjab. The farmers demonstrated their anger by throwing Tomatoes and potatoes on to the highways. There were no takers for the excess production. Not only crop failures, even bumper harvests begun to push farmers into a vicious cycle of mounting debt and distress. Farmers became a victim to the new emerging phenomenon of 'produce and perish'. Farmers have been misled to believe that diversification from staple grains to cash crops is the only way out to escape an uncertain future<sup>23</sup>.

### Women and Health

Archaeological research has shown that, in general, the shift to agriculture caused a global decline in human health due to two broad phenomena:

- Larger sedentary communities led to poor sanitary conditions and the spread of communicable diseases.
- Significant changes in diet led to nutritional deficiencies, developmental problems and diminished immune responses<sup>11</sup>.

Demands of reproductive biology have long been recognized to add an additional health burden to women's bodies (i.e., osteoporosis), and oral health is no exception. The vast majority of hormonal changes in women are associated with the female reproductive cycle. Clinical research indicates

that pregnancy-related changes to the oral environment can affect dental health. It confirms that without proper care, oral health can decline leading to prolonged health problems specific to women<sup>12</sup>.

A study conducted in different States of India found that 39 per cent of all rural patients in Himachal Pradesh, 34 per cent in Madhya Pradesh, 31 per cent in Tamil Nadu and 26 per cent in Karnataka had to travel more than 10 kilometers to reach the nearest hospital for Out Patient (OPD) facilities from remote and undeveloped areas without any means of transportation<sup>13</sup>. According to recent statistics, Punjab, Kerala and Maharashtra had one primary Health Centre (PHC) for a population of 6,928, 23,442 and 29,243 persons respectively. So far, the requisite government ratio is one PHC for a population of 30,000<sup>14</sup>. In many of the less developed states, a single PHC takes care, of the needs of 1,20,000 individuals. Again only 15 per cent of such centers had the required number of health personnel and there was an acute shortage of Lady Health 'Visitors'<sup>15</sup>. Distance of facilities, difficult terrains and inadequate transport facilities further exacerbate a reluctance to use the formal network resulting in deaths from untimely medical attention or worse from no treatment at all<sup>16</sup>.

A study of women's access to health care in the economically backward Visakhapatnam district of Andhra Pradesh, which had a substantial tribal population showed that maternal and child health services, were, at the time, almost non-existent in the tribal areas of the state.<sup>17</sup> Ahmednagar district of Maharashtra established that the overall coverage by maternal health services such as ante-natal care, deliveries by Trained Birth Attendants (TBAS) and immunization services was much higher in PHC headquarter villages. Such villages are few and far between and Community Health Centers are inadequate. Even when the physical structures are present, staff shortage is endemic. Often the Auxiliary Nurse Midwife (ANM) is the only staff member present and it becomes difficult to recruit women physicians in the rural areas. Not surprisingly then, in order to meet the shortage, the government is planning to contract private practitioners<sup>18</sup>.

### Health and Nutrition

There exists a definite nexus between forests and nutrition. It has been noted by many that tribals living in remote forest areas have better overall health and eat a more balanced diet than tribals living in less remote, forest-free areas<sup>19</sup>. It was discussed in the Parliamentary Food and Health Forum that there is link between diet, nutritional supplements and mental health. It was observed that most doctors today have virtually no training in this area and simply ignore that improving diet and supplementing specific nutrients often works as well, if not better than drugs for treating depression and mental illness<sup>20</sup>.

### Plight of Indian Farmers

Agriculture is the primary source of income for farmers in rural India. With the onset of liberalization and the economic reforms enforced by the government, farmers were buying highly priced hybrid seeds and pesticides (not suitable to local conditions) worth 2 years of their regular income expecting increased production and profit. The payment for this was often made by the farmers taking huge loans against

agricultural land or property owned by them. When these crops failed, they were unable to pay the huge debts levied on them resulting in a high number of suicides primarily in the region of Andhra Pradesh, Maharashtra, Tamil Nadu and Karnataka. The helplessness of the farmers with the government turning a deaf ear to their concerns triggered them to take their own lives.

- Due to failure in cotton crops and huge debt on Indian farmers there have been more than 25000 cases of suicide.
- Over a decade in India bad seeds, costly pesticides and drought have triggered debt on Indian farmers. There have been 4500 suicides of farmers recorded in Andhra Pradesh alone.
- Native seeds have been displaced with new hybrids which cannot be saved and have to be purchased every year at high cost.
- Hybrid seeds are also very vulnerable to pest attacks.
- Spending on pesticides has shot up by (Warangal, Andhra Pradesh) 2000 per cent from
- \$ 2.5 million in the 1980s to \$ 50 million in 1997.
- The drought is not a 'natural disaster'. It is 'man-made'. It is the result of mining of scarce ground water in arid regions.

A gender gap in ownership and control over property is the single most critical contributor to the gender gap in economic well-being. The 'technology induced' growth of agricultural production in India, has marginalized women from their traditional knowledge-based management of natural resources (NRs).

### Impact of Globalization and Trade

Livelihood of the agricultural community in India is at a critical state due to international trade policies and internal conditions relating to soil, fertilizer, seeds and water problems. For the past few years, the farming community has committed suicide due to an overburden of debt, high production cost and low yields<sup>24</sup>

Agreement on Agriculture (AoA), which is part of the WTO agreement, is unequal and unfair as it allows massive subsidies to the farm sector in the rich North, leading to the artificial dumping of cheap products on the poor South, destroying livelihoods and incomes<sup>25</sup>.

Most farm agricultural operations in India are traditionally women-centered; our food security depends mainly on the work of women. They have knowledge and skills in varied operations like seed-saving, agricultural production, food processing, local marketing and cooking. They are the providers of food and custodians of crop biodiversity heritage and food diversity<sup>26</sup>.

Trade Related Intellectual Property Rights (TRIPs) agreement would transfer control over knowledge of seed and biodiversity from rural women to global corporations, while the corporatized agriculture promoted by the AoA would deprive women of their livelihoods in food production and food processing. It has been noted as an impact of WTO and globalization of agriculture in Punjab, West Bengal, Karnataka and Bundelkhand<sup>27</sup>.

The traditional central role of women in the food chain, from seed-keeping to food-making, is being broken with the onset of the globalized food industry led by multinational giants. This has been ensured through three major WTO agreements -- the TRIPs, the AoA and the Sanitary and Phyto Sanitary agreement (SAP). This is in violation of the human right that all people have the fundamental human right to fulfilling, dignified work and livelihood, including equal access to land and productive resources and to basic labor protections including land, credit and technology<sup>28</sup>.

As globalization shifts agriculture to a capital-intensive, chemical-intensive system, women bear the disproportionate costs of both displacement and health hazards. Women carry the heavier work burden in food production, but because of gender discrimination they get lower returns for their work. India has had some success in expanding its agricultural exports. OECD countries should liberalize their markets in agriculture, including a substantial reduction in their subsidies, prospects for India to raise its share in the world market for agricultural products to 2 to 3 per cent are excellent. India has a comparative advantage in unskilled-labor-intensive products and therefore has the potential for exploitation in the vast international markets for the same. As women constitute a high percentage of unskilled labor, they will be worst affected<sup>29</sup>.

Studies establish that, in the past five to seven years, there has been a steady decline in employment opportunities in the rural sector ranging from 20% to as much as 77%. This has resulted in men migrating to other areas in search of work, leaving a lot of the farm operations to women who are paid much less for their work, often less than half of what men get<sup>30</sup>. A study on women's land rights in West Bengal found that 39.9% of households surveyed had sold land to raise money to pay dowry.<sup>31</sup>

Introduction of herbicides and weedicides, as part of commercial farm operations, has badly affected women, as they have a monopoly over weeding and hoeing. Women farm workers are also more exposed to health hazards like gynecological infections, arthritis, and intestinal and parasitic infections, with no medical allowances for treatment, due to the increased use of agro-chemicals.

### Impact of Chemicals and Pesticides

Pesticides have been implicated in human studies with leukemia, lymphoma, aplastic anemia, soft tissue sarcoma and cancers of the breast, brain, prostate, testes and ovaries. Studies have shown a link between a variety of reproductive health problems in women with pesticide exposure. Studies have documented an increased incidence of miscarriages, stillbirths and delayed pregnancy among women agricultural workers and wives of men employed in pesticide mixing and spraying<sup>32</sup>.

DDT has been proven to cause cancer in laboratory animals; therefore the U.S. Department of Health and Human Services has determined that DDT may reasonably be anticipated to be a carcinogen<sup>10</sup>. The analysis of links between breast cancer and pesticides has been found by Israeli scientists. Along with a drop in breast cancer that took place between 1976 and 1986 after a ban of DDE, a derivative of DDT.

Many studies worldwide have reported the presence of DDT and its metabolites in samples of breast milk. In Delhi, a breast-feeding infant receives a 12 times higher value than the acceptable limit of DDT and in Brazil 4 times the limit. In Zimbabwe, studies in some regions have found all the samples of breast milk contaminated with DDT. In China for example, most children take in DDT from breast milk about 5 to 10 times higher than internationally accepted standard, even though these chemicals have not been used or produced in that country since 1983. Low birth weight and premature babies have been found to have higher levels of DDE in their blood compared to normal, full-term babies. Higher levels of DDT have been found in mothers of premature babies<sup>33</sup>

Much of the dental decay experienced among agriculturalists has been associated with the consumption of softer, processed domesticated plants, which tend to stick to tooth surfaces and between teeth and gums.<sup>34</sup>

In the face of extreme weather conditions, more intense and frequent variable temperature, rainfall, cyclone, drought and desertification attract the attention of the governance worldwide recognizing the need to mitigate and adapt to climate change vulnerability. Climate change is a global problem that needs a global solution. It cannot be denied that the 10 per cent of richest people in the world are responsible for greenhouse gas and CO emissions. And the poorest people in the developing countries will suffer the worst impact of climate change due to lack of resources to protect themselves against it. Climate change affects agriculture adversely due to shifts in the timing of the rainfall. In Rajasthan the rise in temperature will reduce production of pearl millet. The temperature variability not only affects crop yields but also the soil bringing pests and weeds. It also affects fresh water and human health.

There is a growing concern about recurring incidents of some of the diseases across India, for example, malaria, dengue a vector-borne disease.

In Jhalawar of Rajasthan crop yields have been substantially reduced. About 94 per cent of farmers have small or marginal landholdings, lack irrigation facility etc. A very small percentage of farmers are able to cope with adverse climatic conditions. Landless farmers resort to seasonal migration. In Vidarbha, disruption in regular rainfall cycle since 2001 is reported along with long dry spells and deficient monsoons. There is a single crop a year, cotton being the dominant crop. Ninety three percent of land was rain fed and 98 per cent of the farmers who committed suicide had no irrigation facility. Health problems are reported as additional burden to poverty.

### Environment and Development

Certain environmental conditions affect human health causing lung and skin diseases. It is reported by a leading newspaper in India that red dust brings early death to the indigenous community of West Singhbhum in Jharkhand, India due to mining of 'Iron ore'. The study reported that prolonged exposure to red dust has caused lung and skin diseases.<sup>35</sup>

### Sanitation and health

The experiences of an eco-sanitation project in Malawi; Africa is reported to be successful. When soil and ash are added to feces, it rapidly breaks down to produce compost that is an asset to any farm or garden. Forty seven percent of households said they planted banana trees on their old latrine pits.

When people saw the power of human waste as a fertilizer, they quickly made the economic link with increased crop production and the economic benefits that this would bring. The community demonstrated an effective communication and learning processes as word quickly spread within the project area<sup>37</sup>.

### Development Implications on Health

In the core areas of human development, such as health, education and basic resources the governance has not achieved the expected results. India has an extensive health system in place. But there is a serious deficiency in the public health system and in the delivery of reproductive health services that cause a high degree of maternal mortality and morbidity.

It is apparent that there are strong divergent patterns of female inequality. Women's life expectancy is approximately one-fifth higher than that of men. Life expectancy in the Middle East and Asia is slightly lower than the United Nations calculated rate<sup>38</sup>.

The sex ratio results follow the pattern identified by the demographers: in most regions, women outnumber men<sup>39</sup>. The sex ratio reveals an alarming asymmetry to the disadvantage of women in the Middle East and to a lesser extent, Asia. This, in part, can be attributed to the below parity scores in life expectancy and child mortality ratios. In addition, several scholars note that the Middle East experiences high rates of male labor emigration, both from intraregional movements (Egyptian, Yemeni, and Sudanese workers) and from influxes of interstate migration (primarily Indians, Pakistanis, Thais, Chinese, and Filipinos)<sup>40</sup>. This represents an estimated 4 to million foreign workers, with the vast majority of these emigrants being male<sup>41</sup>. While the loss of 4 million mostly male, Emigrants will not skew the sex ratio of the densely populated Asia region, the loss does have an impact on the sex ratios of the more sparsely populated Middle East.

### Strategies for Sustenance and Development

Home gardens can make valuable contributions to the family food supply and income as well as providing a welcome complement to relief rations. Cassava and sweet potatoes are substituted for rice and maize. Roots and tubers are easy to grow, mature quickly and provide energy. Since they are kept underground, they are less vulnerable to destruction and raiding. Education of people about the appropriate storage methods and the proper processing for preparing tasty meals is required. Special support may be needed to enable women to prepare their land and to produce food. Where possible, women should be encouraged to work in groups to take advantage of inputs and to share responsibilities and labour for food production and income generation.

Gender disaggregated data on levels of malnutrition, micronutrient deficiencies, mortality, outbreaks of disease and threats to health should be collected. These data can be compared with data from normal years (if they are available) to determine whether there has been a significant change in acute malnutrition. An increase in levels of malnutrition of more than 10 to 20 percent is likely to be a result of food insecurity, especially if the increase occurs in the absence of a major disease epidemic and the change affects the entire population<sup>42</sup>.

### Nurturing Development

Agriculture is an essential sector in developing countries both for promoting growth and for reducing poverty and hunger. Agriculture is the area where the interface between human activity and the environment is most pervasive, for both good and ill. Bad agricultural practices lead to soil erosion.

Deforestation, pollution and impoverishment. Good agricultural practices can conserve biodiversity, protect the natural capital and ecosystems and reduce poverty and hunger. The key is strong agricultural research and extension service. Research is important because agricultural activity is highly localized and requires adapted varieties and farming practices, and extension because the best research will be useless if it does not reach and become accepted by the millions of small farmers throughout the developing world<sup>43</sup>.

But agricultural research is a very long-term enterprise. It takes about eight to twelve years of research to produce a new crop variety. It requires continuity of funding. It is not always easy to get this sustained long-term commitment of donors that would benefit the very poor in the world.

The Consultative Group on International Agricultural Research (CGIAR) represents a model of voluntary international cooperation for pursuing important research goals for humanity. It is apolitical, dedicated to excellence and well-focused on promoting sustainable agriculture for food security. It deals with the orphan crops that are of primary interest to the poor, not the cash crops that governments and the private sector have supported. It addresses the problems of agriculture in ecological zones where the poor tend to reside (tropical, semi-arid, arid, and mountain zones).

### 3. Conclusion

Human health is a state responsibility. Providing standard minimum common facilities for health and welfare of the citizens is the State's primary responsibility. If the State fails to provide these services, it contributes to economic under performance and poverty. State failure of one nation is interlinked with other government's failure because of interdependence. The indicators of good health as discussed in this paper are influenced by local social, economic and cultural factors. Keeping this in mind international governance in parity with national and regional governments should work out strategies for sustainable development that make everyone happy and benefited. Women's health should be the top most priority of all governments in their policy implementation. Understanding the regional disparities, a

viable policy may be formulated to reach the poorest of the poor for humanity and peace.

In the face of hard realities of globalization, industrialization and capitalism a careful, sensible and workable remedy may be thought by all stakeholders responsible to provide health services to citizens. Helping women farmers access the resources they need to grow food and other crops such as land and water, fertilizers, seeds, credit and training is crucial to ending hunger improving child nutrition and helping poor economies grow.

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## Author Profile

**Lipi Mukhopadhyay**, Ph.D. Professor of Behavioral Sciences (Retd) Senior Fellow Indian Council of Social Science Research (ICSSR)

Email: [lipi.mukhopadhyay@gmail.com](mailto:lipi.mukhopadhyay@gmail.com)