

Outcomes of India's Food and Nutrition Security Reforms for Underprivileged Sections: A Study on Women and Children Health Status and Role of Women Empowerment in Gujarat

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Abstract

India, with its vast population and diverse resources is long time seen as a poorly struggling country to achieve its capability in ensuring ideal food and nourishment security to its impoverished population. As a mission to improve socio-economic status of poor and marginalized section of our country, nourishment is a basic demand that should be made available in affordable price to these backward people. To optimize nationwide unevenly produced agricultural resources, enhance its income and implement a balanced and affordable food distribution system, making it available even for the poorest urban/rural groups of the country, a number of schemes were launched by Food Corporation of India (FCI). Some important initiatives are Procurement and Distribution System (PDS) in 1964, Targeted Procurement and Distribution System (TDPS) in 1997, National Food Security Act (NSFA) in 2013 and furthermore. In this study, we have observed the changes that took place with improvement in Health and Nourishment status amongst women and children as a result of these Food and Nourishment Reforms. Our Study Area includes backward urban/rural regions of Gujarat, a State that has exhibited betterment in many ways for the past few decades from its geographic, social and political deficits. In our analytical fact based study, we have observed the improvement areas as well as parts that need further attention so that women and children from marginalized sections of this region get equal/more provisions, support and security of health and nourishment as an assurance of their empowerment.

Keywords: *India's food and nutrition security reforms, gujarat food insecurity, women and children malnourishment in gujarat, India's gender injustice in food and nutrition security*

1. Hypothesis

Food and Nutrition Security is now a global concern, where India has yet to go a long way for getting an appreciable global rank. It is even more crucial issue, when we talk about our poor, marginalized sections comprising of women and children who face regular household gender injustice for their minimum required nourishment. In this paper on India's Food and Nutrition Security Reforms, we conducted a zone based study on gender biased food and nourishment vulnerabilities that are largely present in some backward regions of Gujarat. We found the relevance, extent and consequences of this issue having a possibility to become severe if not monitored and corrected properly. This analysis is intended to furnish a few larger aspects where reforms are necessary to ensure women's right, food security and empowerment.

2. Introduction

India, although being an agricultural country is unfortunately a major food insecure country of the world. It is a big concern for our nation that has a huge economically diverse population residing in variable accessible zones. But, this is only a general overview, as there are many other difficult aspects connected with this issue to make it even more complicated. Anyhow, we've to begin with its outlining figures. According to United Nations of India, this country alone shares a quarter of global hunger having almost 195 million people who are affected with malnourishment. Number of stunting children in this country is around 47 million, which is a bad figure for a developing nation.

Now, on deeper survey, we find areas or even a complete state that is struggling hard with schemes and reforms for arranging, distributing food provisions so that right balance remains in food secure and insecure sections. In answer for the question 'How our country has this Food Security Crisis?', we get a number of factors responsible for this condition [4]. Major of them are, (1) Heterogeneous division in human community (poverty, caste discrimination, gender injustice, socially vulnerable groups, uneven human migration, etc.), (2) Climatic factors (natural disasters, rainfall fluctuations, wind, heat, etc.), (3) Soil type and quality (India has uneven distribution of soil with food crop growing capacity), (4) Food Production, Distribution, Availability and Accessibility (varies as per urban-rural disparity, food consumption basket, crop loss, food demand, etc.), (5) Weak Infrastructure (poorly implemented Government Schemes, irregularity in Food Supply and Distribution, discriminations, malpractices, etc.), (6) Land ownership (large crop producing land owners are food secure than small/landless farmers), (7) Food Market Competition and Price Differences (As per current trend, easy access of foreign food supply is damaging our national food market creating economic insecurity amongst small/landless farmers, loss of crops/poor infrastructure creates abrupt food price rise, etc.), (8) Availability of Health Care provisions (urban/developed rural areas have easy access to health centers than poor/remote/inaccessible zones, irregularity/unavailability/malpractices in health units, etc.), (9) Social Sensitivity and Awareness (gender harassment, women and child health ignorance, nutrition ignorance, unhealthy lifestyle, lack of social support, lack of education, etc.) and others.

India's Government has introduced Food Safety Schemes since 1960s, at the time Green Revolution of this country was initiated in the country. Although, these schemes were meant to bring stability in Food Security and eradicate hunger, there were various practical shortcomings, such as, poor beneficiary targeting mechanism, slow/faulty/malfunctioning enrolment policies, lack of food distribution centers, shortage of food supply, poor food quality and several others increasing displeasure, apathy and lack of trust for these schemes amongst the poorest and most food insecure groups. Among them, women and children were the most suffering portions who were deprived socially as well as in their household out of gender injustice.

Food insecurity problems amongst deprived women and children grew more in urban and even much severe in tribal rural areas of India. That led Women Rights Protection Institutions to raise their protests claiming equal food security rights for unprivileged females and kids [1]. These events altogether built the foundation for introducing National Food Security Act (NFSA) in 2013 as a reform of much faulty Targeted Procurement and Distribution System (TPDS) as Government's food support policy for the poorest. In this policy, women were given

the formal right as a Household Head for food preparation, distribution and utilization. Further, The scheme was a change from Welfare based to Right Based Food Security Policy.

India, among 107 nations of the world, stands at 94th position in 2020 Global Hunger Index (GHI) with an overall malnourished population score of 27.2 per cents (India's 2012 score was 29.3) [7]. The score falls in Serious Category and the computation has used four Food Security indicators, namely, (1) Undernourished population (14% in India), (2) Children wasting below 5 years (17.3 % in India), (3) Stunting Children below 5 years (34.7 % in India) and (4) Mortality below 5 years (3.7 % in India).

In this research on India's Gender Injustice in Food and Nutrition Security, we have observed regions of Gujarat, particularly, the remote areas that suffered the most in terms of women and kids' malnutrition, health discrimination and food availability, acceptability and utilization before NFSA 2013 was launched. The associated terms/policies that are included for the purpose of detailed explanation in Observation and Analysis part of this paper are briefly described below.

2.1 Connection of Women's Socio-Economic Status with Food Security [6]: In economically medium or poor households, that are usually the major portion to struggle in food insecurity, womenfolk, in general suffer ignorance and sometimes bitter humiliations to acquire their rightful share of daily food. It has been periodically recorded that female groups may even remain without food during the time of food crisis. Unfortunately, gender injustice is a serious problem in India along with various other parts of the world, where food insecurity is a big area to be strongly regulated. Even today, a boy child is given more priority in a household than a girl child, which is reflected in food sharing proportion. Same case holds true amongst male and female members daily food sharing instances.

Besides unpaid household labour, women and children in rural areas of India take part in paid work either in farming or other alternative sources to obtain their economic security. There too, they are deprived to utilize their earned money for procuring and utilizing it in their daily food intake or to nourish their children. In Gujarat and other parts of India, rural people are to migrate to earn their living during non-agricultural seasons, which increases food insecurity amongst women and children out of decrease or uncertain earnings.

Food security is a major concern for growing kids, adolescent girl child, pregnant/lactating mother or women engaged as labours in fields/other activities. This ensures their physical capability, potentiality and life expectancy. However, sufficient awareness/sensitivity is still absent in India's society to support for women and kids food and nourishment issues.

2.2 Role of Awareness and Development Initiatives for Women's Right and Empowerment [6], [4]: Food insecurity is predominant in the socio-economically lower category that takes a much fearful shape in the poor rural areas that lack in food availability, accessibility and utilization facilities. As identified, Government Schemes on Targeted Procurement and Distribution Systems (TPDSs) are more regular in urban areas than in the remote locations. Other problems, such as, social/gender discriminations, degraded food quality, malpractices, etc. are also more in those regions. Moreover, rural people are not sufficiently made aware to confront these problems. Consequently, that makes those parts more food insecure.

Initiatives and proactive efficiency in India's grass root governance, that is, *Panchayati Raj Institutions* (PRIs), comes in this connection. They are the local authorities to fulfil the fundamental responsibility of rural development, where food security for women, children deprived tribal groups, such as Scheduled Castes (SCs) and Scheduled Tribes (STs) take a considerable position. Food Security for women and kids is largely dependent on their economic stability, health/nutrition awareness and right of social participation/decision making. To achieve these objectives, Village *Panchayats* should adequately act to get their provisions for children/women education, health facilities, women empowerment options, women skill development opportunities for work, household management and decision making.

Contribution of some Self Help Groups, such as, SEWA and ANANDI, should be appreciated to bring significant good results in women empowerment and security in rural Gujarat. Another aspect, that is, creating Social Sensitivity towards women and children is also essential, which is being undertaken as a mission by some agencies, such as, World Food Programme (WFP).

2.2 Role of National Food Security Act (2013) for Women's Right in Food Security [9]: This food procurement and distribution reform, as launched by India Government in 2013 with the name National Food Security Act (NFSA) is a transformation from Support/Welfare Based Food Scheme to Right Based Food Scheme of food support for the poorest in this country, probably the biggest reform in the world. This policy bestows the eldest woman member (18 years or more in age) as the head of household in receiving the ration card for subsidized foodgrains.

Other important provisions include, (1) provision of FREE nutritious meal for pregnant/lactating women, children up to age group 6 years as under Integrated Child Development Services (ICDS), (2) FREE midday meal (MDM) facilities for children of age group 6-14 years, (3) INR 6000 as

Maternity Benefits for pregnant/lactating women, (4) Altogether 75% rural and 50% urban areas covered nationwide under PDS based on food insecurity level, (5) two-third of India's total population is included under two classifications of beneficiaries to receive NFSA provisions – *Antodaya Anna Yojana* (AAY) households getting 35 kg foodgrains per household and Priority Households (PPH) getting 5 kg per person (5) INR 3/2/1 per Kg as the subsidy for rice, wheat and coarse grains.

2.4 Indicators to Locate Food Insecure Zones in India [6]: Each Food Security factor of a region, as mentioned previously has indicator(s) to measure its risk that finally decides whether that region falls is Food Secure or Insecure. Usually, these indicators are almost same for every zones in India with variation in their values. Since we selected regions of Gujarat as our Study Area, as per World Food Programme, its most food insecure zones are (1) Households of Remote Areas, such as Kutch, Dahod, etc., (2) Landless/Small land owners with little assets, (3) Tribal areas, such as, Panchmahal, Dahod, etc., (3) Households with Incapable/Disabled Heads, (4) Women and Children, (5) Households doing perilous jobs.

To select these zones, they used these eleven indicators, (1) Number of SCs and STs, (2) Illiteracy percentage of the region, (3) Percentage of Stunted Children, (4) Natural Disaster prone areas, (5) Portion of regional population engaged in per unit cereal production, (6) Percentage of Women and Child Labourers, (7) Infant Mortality Rate, (8) Percentage of Farm labourers among total earning populations, (9) Sex Ratio under age group 0-9 years, (10) Availability of safe drinking water, (11) Damage in 2001 Earthquake.

3. Study Objective

In this paper, our aim was to cover national level reform measures that are being taken to ensure food and nourishment security for women to safeguard their dignity and equal socio-economic importance. To demonstrate this in clearly defined manner, we have selected regions of Gujarat, that is amongst the badly affected parts of our country in terms of Food Insecurity. Hence, based on this Study Area, we extended further to link together Gujarat Food Insecurity and Women and Children malnourishment in Gujarat to conclusively interpret the trends on problems, progresses and outcomes of India's reforms in food and nourishments for Women and Children..

4. Related Works

1. **Bindu Lohani et al. (2013) [1]**, presents the concern of complex food insecurity problems with which the vast areas of Asia is badly affected. On that subject, comes the much disturbing factor of gender injustice towards women, who are working even as food producers without adequate support and the desired status that they deserve from the society and their work area. The author identifies the seriousness of this globally existing problem, where women have limited authority to access, avail and utilize food market. This, ultimately throwing them in a situation to be food insecure and malnourished.
2. **Alyson Brody et al. (2015) [2]**, in this merged collection of articles, along with his co-authors presents the still persisting issue of gender injustice on household food distribution and sharing. As their reference, they give instances of Gujarat, India and Maya Chorti community of Gualemla, Honduras and El Salvador. In their short but, yet informative account, they tell us about the regular struggles and sufferings of womenfolk who are deprived of their rightful provisions, even after making their full contribution to their households. These articles seek Government and social support as well as necessary awareness to make an end of this biased system.
3. **M.S. Swaminathan et al (2013) [3]**, considers food security to be inseparably attached with the percentage of food production in a region. To meet the rising public demand for food, its demand changes and variety, the author emphasizes on improving crop productivity retaining ecological balance so that habitat remains unharmed. With this approach, as he suggests, sustainable supplies can be made available and improved to keep away food shortages.
4. **Sejal A. Dand et al. (2006) [4]**, has done a deep survey based research on Gujarat Food Insecurity in this paper with his comparative studies on tribal and non-tribal areas of this state to locate major reasons of this problem and their remedy. He provides sufficient historic evidences for this lasting problem of this area, such as, natural disasters, caste discrimination, gender biasses, agricultural loss, presence of competitive economy, etc. where he takes indicator based approach to predict the future consequences of food insecurity in this part of our country.
5. **Gautam K. Kshatriya (2016) [5]**, has conducted this multi-zonal India based research (West Bengal, Odisha and Gujarat) on food insecurity problems present in the tribal areas. In this research, he focussed on the young female groups, who are found to be the worst victim of this major problem due ot lack of food access, availability and utilization provisions open for them. Food insecurity is becoming a source of chronic

malnourishment of women's health, particularly in the poor tribal rural areas out of social discrimination as observed in this research.

5. Methodology Design

This analytical research on India's Reforms on Food Insecurity and Women and Children malnourishment in Gujarat is done based on the observations and qualitative/quantitative/predictive inferences made with the help of information and data as collected for this study. To converge our study from national Food Security issues to zonal (Gujarat, our chosen Study Area) consequences, our data collection was done in two parts – National level Food Security Facts and Study Area Food Security Facts. Further, we observed the nature of their impacts on women and children food and nutrition conditions from these Food Security Reforms. In this research, we made observation and analysis of India's Food Security Reforms and Women and Children Nourishment Rights in Gujarat covering the following sections to arrive to our conclusion.

Analysis on the past and present Food Security status of the Study Area Fact analysis on Food Security vulnerabilities linked with women and children food and nourishment injustice Progress statistics in Women and Children Food and Nutrition as identified after NFSA 2013. Here, we did our observation and analysis on these sections: Overall Household Status Women and Children Nutritions Status Women and Children Health Status Women Household Economic Participation Status Awareness Status on Food and Nutrition for Women and Children Future goals as set by Government and other institution's for Food Security and eradicating household/social gender injustice

6. Data Collection

For the purpose of observation and analysis in this research on Reforms on Food Insecurity and Women and Children malnourishment in Gujarat, we collected required information from Government and Authorized Agency portals as made available for public use. To acquire more details on the subjects, we interacted with the researchers, journalists and institutes engaged in relevant studies/activities on Gender Injustice and Sensitivity Programs, Food Security of India,

Women's Health, Dignity, Security and Participation in Household, Health, Security, Education and Nourishments of Children, etc. Also, we referred several online academic, research based libraries to enrich/evaluate information quality. Data and Information given in this research are considered to be authentic within the limit of correctness as declared in the respective source.

7. Study Area

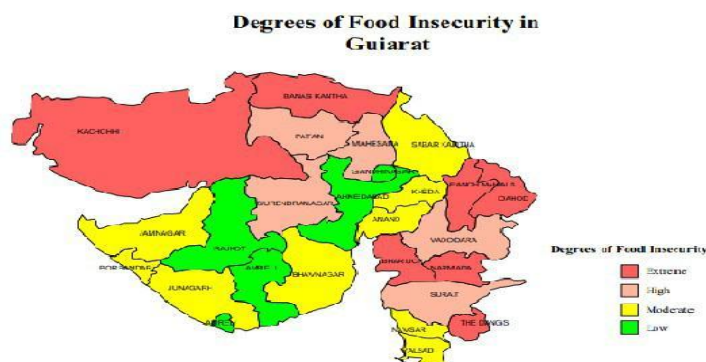


Fig 7.1: Gujarat Map Showing Food Insecurity and Vulnerability Profile

Source: World Food Programme Survey

Gujarat, the western State of India has shown good improvements in urbanization and industrial reforms. Yet, it is amongst the food insecure States under ALARMING Category (see Fig 7.1) as per the India State Hunger Index found in 2008 [10]. The primary factors for Food Insecurity in Gujarat are (1) Natural Disasters (earthquakes, floods, droughts, cyclones, etc.), (2) Poverty (urban-rural economic gap, caste problems, socio-economic gap between rural large farmland owners and landless/small farm land owners, rural workforce with poor potentiality, etc.), (4) Migration issue as happens in non-agricultural seasons, (5) Gender Injustice, (patriarchal households, domestic violence, social vulnerabilities, etc.) (6) Women and Children Health and Malnutrition problems.

General indicators (Table 7.1) based on which we selected Gujarat as our Study area [4], [6] for this research on India's food and nutrition security reforms and women and children malnourishment in Gujarat are given below.

Table 7.1: Gujarat Profile With General Indicators to Locate Food Insecure Regions
Source: Author's Compilation Information as obtained from Gujarat Official Website on Administration, Agriculture, Infrastructure, Climate Data, Census of India, IBEF, Economic and Statistical Organization

Gujarat – State Details	
Profile	Data
Administration – State Capital Gandhi Nagar	
Total Area	196024 sq km
Number of Districts	33
Geography	
Land Use	Net Sown (54.7%), Current Fallow (2.01%), Fallow other than Current Fallow (0.08%), Forests (10.1%), Land under Tree Crops (0.02%), Cultural Wasteland (10.5%), Permanent Pastures (3.64%), Land not available for Cultivation (18.63)
Soil Types	Black Soil – Mostly Available (three variations, low to high in fertility), Laterite Soil (good for forest), Alluvial Soil (three variations, low to high in fertility), Hill Soils (poor in fertility), Desert Soils (low in fertility)
Disaster Prone Zones (Types as mentioned above. Classification based on 100 years return period estimated mean)	Kutch, Saurashtra, Patan – Very Severe Intensity Zones, Ahmedabad, Baruch, Rajkot, Bhavnagar – Severe Intensity Zones, Bhuj, Jamnagar – Very Severe Intensity Zone, Eastern Gujarat – Low Intensity Zone

Water Resources	Total Water Availability – 50 BCM (Surface Water – 38 BCM and Ground Water – 12 BCM). 80% used for irrigation. High ground water dependency for drinking and industrial purposes. 3/4 th of the Area cannot access ground water. Surface water is limited causing consistent droughts in past history.
Major Farming Resources	Agricultural Produce: Cotton , Groundnut (peanuts), Sugar cane, Tobacco; Crops: Rice, Wheat, Jowar, Bajra, Maize, Pigeon Pea, Gram; OilSeeds: Castor, Groundnut, Mustard; Horticulture: Gir Kesar mango, Kuttchi Dates, Cumin, Potato, Onion, Banana, Papaya, Pomegranate, Sapota, Lime, Isabgul; Animal Product: Milk; Livestock: Cow, Camel, Horses
Climate (Annual Mean Records)	
Seasons	Winter – November to February; Summer – March to May; Monsoon – June to October
Temperature	Summer – 25 °C to 45 °C; Winter – 15 °C to 35 °C
Rainfall	300 mm (Western parts of Kutch) to 2100 mm (Southern Valsad and Dangs)
Population	
Urban (Total 25745083)	Male – 13692101; Female - 12052982
Rural (Total 34694609)	Male – 17799159; Female - 16895450
Adult Sex Ratio (Females/1000 males)	Urban – 880; Rural - 949
Child Sex Ration (0-6 years)	Urban – 852; Rural - 914
Literacy	
Urban (Net Average – 86.31 %)	Male – 90.98 %; Female – 70.26 %
Rural (Net Average – 71.71 %)	Male – 81.61 %; Female – 57.78 %
Economy	
Per Capita Income (PCI)	INR 195845 per annum (2018-19 record)
Sources of Income	Agro, Food Processing, Dairy, Chemicals, Petrochemicals, Textiles, Gems, Engineering, automotive, Oil, Gas, Pharmaceuticals, IT, Minerals, Port, Tourism
Below Poverty Line (BPL)	Urban – 10.14 % (PL – INR 1152); Rural - 21.54 % (PL – INR 932)

8. Sample Observation and Analysis

The general indicators of Gujarat that we have given in the previous section led us to locate the food insecure areas as those that were disaster prone areas, areas with frequent crop loss problems, zones with water scarcity, non-agricultural soils and poor tribal remote areas. Particularly, such regions are Gujarat's western parts (Disaster Prone, Infertile), such as, Kutch, Surendarnagar, Patan, Rajkot, Junagarh, etc. and eastern parts (Tribal, poor, Remote areas), such as, Panchmahal, Dahod, Bharuch, etc. Our data collection record shown higher range of Food Insecurity present in those areas that were being handled through various Government Schemes and Self Help Groups participations.

Our subject of research being India's Gender Injustice in Food and Nutrition Security [8], we made our deeper observation and analysis with the information connected with our subject of study.

8.1 Women's Status and Value of Getting the Right of Food Security in Gujarat:

These information were collected as a collective records based on each district of Gujarat. We recorded the information for our observation in tables as they come in the succeeding sections.

8.1.1. *Household Status in Gujarat Region:* As per National Family Health Survey-4 (NFHS) 2015-16, the household status of Gujarat with the Food Security Indicators as selected for our study were found as:

Table 8.1.1(a): Gujarat Household 2015-16 Source: National Family Health Survey

Gujarat Household Status (NFHS-4) 2015-16			(NFHS-3) 2005-06
Indicators	Urban	Rural	Total
Sex Ratio (Adult Female/1000 males)	907	984	934
Sex Ratio (0-5 years female/1000 males)	836	959	906
Population below 15 years (%)	23.7	27.8	31.6
Birth Registered Children below 5 years (%)	97.2	94.3	85.6
Availability of Electricity (%)	98.6	93.7	89.3
Availability of Improved Sanitation (%)	85.3	47	44.2
Availability of Safe Drinking Water (%)	92.7	89.4	89.2
Availability of Clean Cooking Fuel (%)	83.8	26.9	39.7
Availability of Iodized Salt (%)	97.7	93.7	72.1

Table 8.1.1(b): Gujarat Women Literacy and Empowerment 2015-16 Source: National Family Health Survey

Gujarat Women Literacy and Empowerment Status (NFHS-4) 2015-16			(NFHS-3) 2005-06
Indicators	Urban	Rural	Total
Girl Child below 10 years going school (%)	45.3	23.1	23.5
Women participating in household decision making (%)	86.9	84.2	83.8
Paid women workers working for more than 12 months (%)	31.8	28.9	33.3
Domestic violence on married women (%)	14.1	24.8	27.5
Domestic violence on pregnant married women (%)	0.4	3	NA
Women who are house/land owners (Independent/Joint) (%)	29.7	25.2	NA
Women having bank account (%)	56.5	42.2	19.9
Women having mobile phone (%)	63.5	35.4	NA

8.1.2. *Food and Nutrition Security Status of Women and Children:*

Table 8.1.2: Gujarat Women and Children Nutrition 2015-16 Source: National Family Health Survey

Gujarat Women and Children Nutrition Status (NFHS-4) 2015-16			(NFHS-3) 2005-06
Indicators	Urban	Rural	Total
Women with low body mass index (BMI)<18.5 kg/m ² (%)	18.1	34.3	36.3
Overweight women (BMI)>25 kg/m ² (%)	34.5	15.3	16.7
Stunted children below 5 years (height-for-age) (%)	31.7	42.9	51.7
Wasted children below 5 years (weight-for-height) (%)	23.4	28.5	18.7
Severely wasted children below 5 years (weight-for-height) (%)	8.6	10.2	5.8
Underweight Children below 5 years (weight-for-age) (%)	32	44.2	44.6
Newborn Care			
Children below 3 years breastfed within 1 hour of birth (%)	53	47.7	27.1
Children below 6 months breastfed (%)	48.7	60.2	47.8

Children 6-8 months breastfed and received solid semi-solid food (%)	55.4	44.4	54.1
Children 6-23 months breastfed with adequate diet (%)	6.1	5.6	NA
Children 6-23 months non-breastfed with adequate diet (%)	2.6	3	NA
Children 6-23 months altogether with adequate diet (%)	5.3	5.2	NA

8.1.3. Health Status of Women and Children:

Table 8.1.3: Gujarat Women and Children Health 2015-16 Source: National Family Health Survey

Gujarat Women and Children Health Status (NFHS-4) 2015-16			(NFHS-3) 2005-06
Indicators	Urban	Rural	Total
Anaemia			
Anaemia in children below 6-59 months(<11.0 g/dl) (%)	59.5	64.6	69.7
Anaemia in non-pregnant women of 15-49 years (12 g/dl) (%)	51.8	57.6	55.2
Anaemia in pregnant women of 15-49 years (11 g/dl) (%)	47.2	54.2	60.8
Anaemia in women in general of 15-49 years (12 g/dl) (%)	51.6	57.5	55.3
Blood Sugar (BS) in Adults (15-49 years)			
Women with High BS (> 140 mg/dl) (%)	6.3	5.3	NA
Women with very High BS (> 160 mg/dl) (%)	3	2.5	NA
Hypertension (BP) n Adults (15-49 years)			
Women with Little Above Normal BP (%)	8.2	6.7	NA
Women with Moderately High BP (%)	1.7	1.3	NA
Women with Very High BP (%)	0.7	0.8	NA
Maternity			
Women who took at least 4 antenatal care visits (%)	80.5	63	50.5
Women who took neonatal tetanus after last childbirth (%)	91.1	83.3	80.4
Mothers who tool iron folic acid fo r100 days or more (%)	44.1	31.3	25.3
Mother who were given post natal care in 2 days after delivery (%)	67.5	60.1	51.8
Children born at home who received medical care (%)	5.4	3.2	0
Children who receive medical care after birth (%)	15.7	15.8	NA
Child Immunization			
Children of 12-23 months who received full immunization (%)	50.4	50.4	45.2
Children of 12-23 months who received Hepatitis B (%)	40.5	37.2	NA
Children of 9-59 months who received Vitamin A (%)	69.9	72.2	12.8
Child Disease			
Children with Diarrhoea for 2 week who received Oral Rehydration Solution (ORS) (%)	49.7	44	26.3
Children with Diarrhoea for 2 week who received Zinc (%)	13.2	19.9	NA
Children with Diarrhoea for 2 week who received Health Care (%)	72.1	61.3	60.3
Children with fever or acute respiratory infection who received Health Care (%)	76.3	66.5	72.2
Infant Mortality (per 1000 live births)			
Infant Mortality Rate (IMR)	27	39	50
Health Facilities and Expenses			

Registered Childbirth with Mother and Child Protection Card (%)	84.7	92.3	NA
Financial assistance in pregnancy under Janani Suraksha Yojana (%)	4	12.9	NA
Pocket Expenses in child delivery in Public Health Facility (INR)	2331	2020	NA
Lifestyle Problems			
Women who smoke tobacco (%)	5.2	9.1	8.4

8.1.4. *Food and Nutrition Awareness Initiatives for Women and Children:*

Table 8.1.4: Awareness Programs in Women and Children Food and Nutrition in Gujarat 2015-16
 Source: National Family Health Survey

Gujarat Awareness Programs in Women and Children Food and Nutrition (NFHS-4) 2015-16			(NFHS-3) 2005-06
Indicators	Urban	Rural	Total
Women 20-24 years married before 18 years (%)	17.2	30.7	38.7
Men 25-29 years married before 21 years (%)	22	34.5	31.4
Women 15-19 years already mother/pregnant (%)	4.2	7.9	12.7
Women following hygiene in menstrual period (%)	70	53.5	NA
Households covered with Health Scheme/Insurance (%)	22.9	23.3	10.2
Family Planning Advices to Women NOT using any Modern Methods of Family Planning (%)	20.7	17.5	14.6
Awareness of Family Planning Modern Methods Used (%)	54.2	42.2	39.8
Birth assisted by skilled medical staff	92.2	83.6	63

8.1.5. *Contribution of Self-Help Groups in Gujarat [12], [13]:* We found the active involvement of Self-Help Groups, such as, Self-Employed Women's Association (SEWA), in various regions of Gujarat (6900 SHGs) to safeguard (1) women empowerment (support to self-employed and marginalized women), (2) food and nourishment awareness (market price information system for poor women farmers who cannot access market information and available storage facilities), (3) women skill development initiatives, (4) financial support (workers cooperatives) and environment protection and various other rural development activities to ensure adequate provision of health and resources.

8.1.6. *Women's Work Participation Status [11]:* As per Periodic Labour Force Survey (PLFS) 2018-19, we found that in Gujarat,

(1) Female work participation trend in industries was:

Urban Female Work Type: Agriculture (8.6%), Manufacturing (37.5%), Construction (2.2%), Trade, Hotel and Restaurant (9.1%), Transport, Storage and Communication (2.9%), Others (39.7%)

Rural Female Work Type: Agriculture (81.7%), Mining and Quarrying (0.4%), Manufacturing (5.1%), Construction (2.1%), Trade, Hotels and Restaurants (2%), Others (8.7%)

(2) Distribution of women workers by status of employment was found as:

PLFS (2017-18): Urban: Self-Employed (35.8%); Regular Work (49.7%); Casual Labour (14.6%)

Rural: Self-Employed (64.7%); Regular Work (9.4%); Casual Labour (26%)

PLFS (2018-19): Urban: Self-Employed (39.2%); Regular Work (49.8%); Casual Labour (11%)

Rural: Self-Employed (65.4%); Regular Work (10.4%); Casual Labour (24.3%) In Self-Employed groups, 68.2% women participated as helper in urban households, 45.5% women participated in rural households, as per PLFS (2018-19).

(3) We found that percentage of self-employed women, both in Urban and Rural areas of Gujarat in more than the rest work mode options. In this category, as per PLFS (2018-19), 68.2% urban females and 45.5% rural females were own account worker. That was an important trend showing willingness to be economically independent with sufficient provisions amongst females.

Table 8.1.6: Gujarat Male-Female Participation Comparison
 Source: Periodic Labour Force Survey, Ministry of Statistics and Program Implementation

Gujarat Male-Female Work Participation Rate		
Workforce	PLFS (2017-18) in %	PLFS (2018-19) in %
Urban Male	16.5	19
Urban Female	12.2	13.2
Rural Male	55.3	57.8
Rural Female	56.7	58.4

Female labour force participation rate (FLFPR) in Gujarat is lower than the National women's participation figure, which is present in both urban as well as rural areas. Gender gap in labourforce participation ration (LFPR) is also a big difference, both more than national margin.

In the above Work Participation Rate (WPR) data, we observed that both in Urban and Rural areas, female work participation rate was low and not significantly changing.

8.1.7 Government Further Reforms and Futures Schemes on Food and Nourishment Security [14], [15], [16]: There are certain important other reforms implemented by Government to enhance women right and security on Food and Nourishment. We observed them as the doors of better future for Gujarat in terms of its Food and Nourishment Insecurity issue, such as:

In 2016, it implementation of NFSA 2013

Gujarat Government implemented of Maa Annapurna Yojna, a National level food security programme covering 3.82 crore of the State's population, each receiving good quality rice at INR 3/Kg and wheat at INR 2/Kg.

Allowance of Land Right to women by State Government of Gujarat in Nari Gaurav Neeti-2006, with relaxation on land purchase, right on matrimonial home and property, etc.

India Government's agricultural Reforms to bring profits from farming, such as, in 2020 Farmers Produce Trade and Commerce Act, Farmers Agreement of Price Assurance and Farm Services Act, Essential Commodities Act., these acts are to help sell farm produce outside *Mandis*, Ease in Inter-State Trade and make easy E-Market place for farm produce.

Various Sustainable Development Goals to eradicate hunger by 2030, such as, zero Hunger, Poverty Removal, Women Empowerment, Sustainable Water Management System, Sustainable and Affordable Energy for All, Gender Equality, etc.

9. Findings and Conclusions

From our observations and analyses that were made in the previous section, the indicators supplied us these clear impressions (1) Positive Trend but somewhere unstable and slow in their forms, (2) Stagnancy for a long time that should be recovered, (3) Decrease Rate, which may give better possibility in future bringing further Food and Nourishment Security in Gujarat. From these implications, we arrived to our conclusions of this study as given below:

1. Households are receiving provisions of comfort, hygiene and security that were absent in past time, whereas, some social discriminations are still present, such as, girl child literacy, wages for women workers, gender gap, etc. Even social empowerment, although introduced, but did not achieved a significant level, such as, women land ownership, bank accounts, mobile use. **Refer Table 8.1.1 (a) and (b).**
2. Infant malnourishment is an existing problem of the State, although showing little improvement from past time, which should be improved to reduce lowering of health amongst children and women. **Refer Table 8.1.2.**
3. More provisions should be opened to handle newborn diseases, anaemia and infant mortality. As we found low number in availing any Government Support System that should be made more reachable to the dependant people. Awareness in maternity care in rural areas should be more emphasized. **Refer Table 8.1.3.**
4. Food and Nutrition Awareness Programs in Women and Children should be made more proactive in rural areas of Gujarat to reduce child marriages, hygiene sense, health awareness, etc. **Refer Table 8.1.4.**
5. Gujarat is showing signs of woman empowerment through female self-employment, but in its beginning phase with uneven trend and low/no income opportunity for women. Also, there is decrease in women's participation in household activities in rural areas, which may cause child/women food insecurity. **Refer Section 8.1.6.**
6. Government Schemes are implemented with much practical shortcomings to give their true fulfilment. Thus, they are creating displeasure amongst farmers, poor, dependent people who want some more transparency and regularity in these services. National/State implemented plans should be made successfully functional to bring Food Security stability in India. **Refer Table 8.1.7.**

10. Recommendations and Suggestions

1. Participation of Grass Root Governance is very important to give desired outcomes of India's national Food Safety Drive in rural areas of Gujarat. Local governance needs a thorough reform and fully equipped with options, such as, proper training, involvement of women PRI representatives, provisions of education and health systems, financial boosting, etc,
2. Gujarat has attempted and is receiving economic benefits out of high-cost agricultural activities, which is actually harming the unsupported poor small landowning farmers, who work on traditional farming means. For them, proper assistance, financial help, training, guidance of optimal land use, livestock utilization and managements, etc. should be sufficiently provided.
3. Woman empowerment, education and health systems should be made more available and regular in the rural areas, where ignorance and malpractices are much more active. Women and children should be made equipped and aware to defend themselves from discriminations, gain self-confidence, be economically steady and aware not to be treated ONLY as a tool of household or labour to earn money. They should be capable

to preserve their dignity and status as an equal identity of the society to enjoy every right and be honoured in the household as a chief contributor.

4. Food security should take into account the guarantee of food availability, accessibility and utilization for every individual without any discrimination or prejudice. To make it happen, affordable government schemes, such as PDSs and NFSA 2013, should ensure transparency, quality, quantity and price of the food that are procured and distributed to serve the purpose. Side-by-Side, it should consider the ecological impact of these schemes and preserve right balance to prevent any habitat imbalance.

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