

## Research Article

### A PERSPECTIVE FROM A COMMUNITY ON FOOD & NUTRITION- AN EXPERIENCE FROM THE FIELD

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#### ABSTRACT

The current article is about the health & nutrition aspects of a community in the state of Andhra Pradesh in 2004. This article is from a field visit to the south by a team from the program of Catholic Relief Services (CRS), Lucknow during 2004. Through the article, the food habits of the local people are also reflected. The use of food ingredients by the community gives us an idea about the food & nutrition security status of the community. The program of CRS, Lucknow was food aid based through the Indo-US agreement where CRS implemented the program through its Non-Governmental Organization (NGO) partners in Lucknow. During the period 2003 to 2004, CRS, India implemented a project supported by Academy for Education & Development funded Linkages project which focused on integrating the nutrition component in the health program of CRS, India. The health program of CRS, Lucknow also implemented the nutrition intervention with one of its NGO partner in Shivgarh block of Raebareilly district of Uttar Pradesh. The lead author of the article led the team from the NGO partner to the program areas of CRS, Hyderabad in 2004. The article details out the outlines of the food & nutrition through the various food & nutrition revolutions in India while reinforcing the various ministries related to food & nutrition both at central & state level in India. Thereafter, it delves into the details of the food & nutrition components observed during the field visit of the team. The article is a reflection of how far the state of Uttar Pradesh has moved ahead in the field of Maternal Neonatal Child Health & Nutrition (MNCHN) that is reflected through the data of Comprehensive National Nutrition Survey of 2019. A clear path has been laid out since the last decade & another 6 years.

**Keywords:** ICAR, Green revolution, White revolution, Pink revolution, Golden revolution, SMCS, CRS, BCC, ICMR

#### INTRODUCTION

The food situation in India was marked by severe shortages in early 1940s<sup>1</sup>. One of the earliest interventions in the field of human nutrition was in 1918 when the Nutrition Research Laboratory (NRL) was established in Conoor in Tamil Nadu. The nutrition research was further funded by the Indian Council of Agricultural Research (ICAR) & gradually in 1969 i.e. in its golden jubilee year the NRL was renamed as National Institute of Nutrition (NIN)<sup>3</sup>. Sir Robert McCarrison, the founder director of NIN had started the NRL & was instrumental in persuading the ICAR & Indian Council of Medical Research (ICMR) to establish NIN. He is credited as the father of nutrition research in India<sup>3</sup>. Meanwhile in the same decade i.e. in the mid-1960s the green revolution started in India to increase food production using high yielding varieties of seeds & associated agricultural techniques<sup>4</sup>. The triad personalities responsible for the green revolution were Bharat Ratna Chidambaram Subramaniam, the food & agriculture minister of India, Dr. M.S. Swaminathan, Director of ICAR during that time & Noble Laurate Norman Borlaug of Mexico who introduced the high yield variety of wheat in India<sup>4</sup>. After independence, from 1948 to 1980, the focus in India was to increase the production of cereals & pulses as mentioned above through the green revolution. The current article is from a community perspective where the use of cereals & pulses other than wheat & rice are mentioned. The article is from the year 2004 which means 35 years after green revolution when the food habits of people also included alternative cereals that are nutritious.

#### Other revolutions in the field of food & nutrition in India

Besides green revolution, the other food & nutrition security related revolutions in India were the white, pink & golden revolutions.

The bi-pillars who pioneered the white revolution were Bharat Ratna Chidambaram Subramaniam, the food & agriculture minister of India who established the National Dairy Development Board (NDDB) & the next person was Dr. Verghese Kurien who was the chairman of the NDDB<sup>5</sup>. The white revolution also known as operation flood was launched in 1970 & made India self-sufficient in milk & currently India is the world's largest milk producer. The effort was achieved not merely by mass production but by production by the masses<sup>5</sup>. The pink revolution also added strength to the food & nutritional security of the country. It is a term used to denote the technological revolutions in the meat & poultry processing sector that picked up in the eighties. The poultry sector was started in the south by Dr. B.R. Rao who is the father of poultry sector in India<sup>6</sup>. In the 7<sup>th</sup> five-year plan (1985-1990), the Neel Kranti Mission or the Blue revolution was initiated. The blue revolution focused on increasing the production of fisheries in India. There are four types of fisheries in India & these are marine, fresh water or inland, estuarine & pearl fisheries. Fisheries help in augmenting food supply, generating employment, raising nutritional level & earning foreign exchange. Fish forms an important part of diet of many people living in the coastal areas of Kerala, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Goa & Maharashtra states<sup>7</sup>. Recently, the draft national Fisheries Policy, 2020 was initiated in the country<sup>7</sup>. The period between 1991 to 2003 is the Golden Revolution period in India that focused on production of honey & horticulture. Nirpakh Tutej is known as the father of golden revolution in India. Further, the National Horticulture Mission was launched in the year 2005-06<sup>8</sup>.

#### ICAR- the pivot

The Indian Council of Agricultural Research was the pivot institution behind these revolutions that were shaped by visionaries to address food & nutrition security in the country. The institution was established on 16<sup>th</sup> July 1929. The institute enabled the country to increase the production of food grains by 5.6 times, horticulture crops by 10.5

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times, fish by 16.8 times, milk by 10.4 times & eggs by 52.9 times since 1950-51 to 2017-18 there by impacting on food & nutrition security<sup>9</sup>.

### Indian Government's efforts

On tracking the progress of India through its nutrition-based policies and programs, it is evident that Integrated Child Development Scheme (ICDS) was launched in 1975 by the ministry of Women & Child Development (WCD). Thereafter, the nation had its National Nutrition Policy in 1993. This was followed by Mid-Day Meal Scheme for school children in 1995 by Human Resources Development (HRD) ministry where through nutrition, attendance in school is linked to improve. Add to that, the National Food Security Act was passed in 2013<sup>11</sup>. The National Nutrition Mission or the Poshan Abhiyan was launched in 2017 with more focus although the nation initiated the program in 1970 to prevent nutritional anaemia in Maternal and Child Health program beneficiaries<sup>12</sup>. The mission aims to reduce anaemia in young children, women and adolescent girls by 3% per annum from 2017 to 2022. Similarly, the UNICEF targets is to reduce anaemia among 15-49 years of women by 50% from 2012 to 2030<sup>11</sup>. To address the issue of anaemia, the National Nutritional Anaemia Prophylaxis Program was launched in 2014 at national level to achieve Anaemia Mukht Bharat or anaemia free India<sup>12</sup>. To reduce the impact of Soil Transmitted Helminths (STH) that causes anaemia, the National De-worming Day (NDD) was launched in 2015 at the national level that is celebrated every year on 10<sup>th</sup> February<sup>13</sup>. The issue of de-worming is also touched upon in this study as food & nutrition related intervention at community level is linked to deworming as it hinders the utilization component of food security<sup>13</sup>.

### A peep into the article

The current article has the details of the application of all these learning related to nutrition in a community of CRS, Hyderabad. The staffs of partner GVS along with the health team from CRS, Lucknow had this exposure visit to CRS, Hyderabad where the Linkages project was operational with the NGO partner based at Ongole, Andhra Pradesh. Given below is the details of the visit in which the community level aspects of food & nutrition are reflected. The exact language of the lead author written 16 years ago is retained as such.

### About the visit (Source-the author)

The places of visit were Ongole and Hyderabad cities of Andhra Pradesh. The dates of visit were from 24<sup>th</sup> March 2004 to 26<sup>th</sup> March 2004. The objective of the visit was to accompany staffs of NGO partner GVS of CRS, Lucknow on an exposure trip to learn about the Behaviour Change Communication (BCC) activities of the NGO partner of CRS, Hyderabad based at Ongole who worked in partnership with another NGO based at Vijayawada of the state of Andhra Pradesh.

### Proceedings of the visit (Source-the author)

The team visited program villages and talked to people to learn about the behaviours they are adopting. The adopted behaviours were about the feeding of children, pregnant women and Ante Natal Care (ANC). The health workers of NGO partner GVS took a keen interest in talking to their colleagues of these villages. The staff also had a look in to the Management Information System (MIS) of the SMCS program. The visit focused on the activities and the existing system of the programmatic components. The visitors saw that the establishment of rapport and linkages with the public health system is a very active and functional component of the program. A village

health committee members training on the activities of the committee was witnessed. The cluster supervisor of the SMCS program was the trainer. The committee collects two rupees per family per month. This fund acts as the emergency fund to be used as loans for health needs of the families at an interest rate of 1% per month. The committee acts as a sustainable strategy to run the health program after the SMCS program is withdrawn from the community. Details of the Phase Out Plan (POP) of the program has been mentioned in the introduction section. The visitors also witnessed one food festival arranged at the community level. The mothers were requested to participate in the food festival contest. The Auxilliary Nurse Midwife (ANM), ANM supervisor, Panchayat members were also present. The SMCS program staffs of the NGO based at Ongole were coordinating the event. The program budget had borne the expenses of the fuel, lunch and logistics like the tent. The mothers had brought the cooking medium, vessels and the ingredients to be cooked. The ingredients were mostly the locally available items like Millets that included Ragi or Finger Millet, Bajra or Pearl Millet & Rice. All the recipes were made of these three items. The mothers prepared about 25 recipes enthusiastically. There were two prizes for the contestants. The lead author was requested to choose the best two recipes. The one that the lead author chose as the best was a roti made up of Millets like Ragi, Bajra, Jaggery and Green Leafy vegetables. The mother had cooked it in steam. The second prize went to a recipe made up of the malt prepared from the germinated Millets like Ragi and Bajra mixed with Jaggery.

The visitors also had a meeting with the NGO partner at the office of the NGO. The administrative capabilities of the NGO partner needed to be commended. The visitors could judge the capacity of the NGO to develop linkages with the Government when the visitors saw a documentary film on his work in a child labour project run with the assistance of International Labour Organization and Department for International Development. During the meeting, the NGO partner staffs liked the visitor's concept of capacity building initiatives for the NGO partners of CRS, Lucknow and their staff. The NGO partner of Ongole also liked the concept of working with the secular NGOs and upgrading them as NGOs with more capacity. The Ongole NGO partner could know about all these and the program of CRS, Lucknow when he talked to Mr. Ataulah (manager of NGO partner GVS) and the staffs of GVS. The visitors told the Ongole NGO partner that the villages of program areas are much cleaner than other villages not covered by the program. The visitors appreciated the degree of involvement of the program staff and the Government staff in the program activities. The visitors told the local NGO that unlike their system of working with the Village Health Committees for program sustainability, CRS, Lucknow works with Self Help Groups to address the issue of sustainability of the SMCS program. The visitors could learn about the integration process of Behaviour Change Communication into the SMCS program, linkages with the Government, mobilisation of the community & how it has helped people to adopt the SMCS program components effectively. The visitors invited the Ongole NGO staffs to visit the SMCS program of CRS, Lucknow. As part of follow up strategies, with the learning from this exposure trip, the staff of NGO partner GVS would be in a position to integrate the BCC strategy in the health program that they implement in Raebareilly district. The staffs could compare the activities that they do in UP with that of the Ongole NGO partner's program area and learnt about community mobilization especially of women.

### Current health program of CRS, Lucknow

After the Phase Out Plan of SMCS program in 2010, CRS, Lucknow continued to work in the field of Maternal & Child Health. Since April 2011, CRS, Lucknow is operating the project named Reducing

Maternal & Newborn Deaths (ReMiND). The strategy of the project is entirely different from that of the SMCS program. The details of the project can be obtained from the site given in the reference<sup>2</sup>. The SMCS program can be called as the precursor of the current project.

### Nostalgic Acknowledgement

The lead author was an employee of CRS from 1997 to 2012. The SMCS program taught the lead author the basics & intricacies of public health & community medicine. All the learning & activities were part of augmentation activities of SMCS program in which the lead author worked. The author duly acknowledges CRS, Lucknow for the contents of the article. The author thanks all the colleagues of CRS, Lucknow for their support. Ms. Anjali Tripathy, the co-author of the article was a colleague at CRS, Lucknow who also worked in the SMCS program.

### Concept of Food & Nutrition Security

Food security includes a triad. The triad is availability, accessibility & utilization. That means food is not only available & accessible to all people but also the food is also utilized by the bodies of the individuals who are in a position to optimize the benefits from the food items<sup>10</sup>. Nutrition security is the intake of a wide range of foods which provides the essential & needed nutrients<sup>10</sup>. Through the efforts of the community, the article brings out the benefits of the food & nutrition revolutions that have percolated to the community & household level in India.

### Declaration

The authors declare that the contents are as of 16 years ago. There have been changes in the food & nutrition guidelines & strategy both at state & center level since then. Currently, the nation has the

Mission Poshan & the Anaemia Mukht Bharat Scheme. The contents can be categorized as a small step towards development of future strategies in Maternal, Neonatal & Child Health Nutrition (MNCHN).

### References

1. Bhatia B M, Famines in India, Analysis of food situation in India after independence, 1860-1965, Bombay, 1967, p 340 f.
2. CRS, UP, Lucknow: The ReMiND Project: Reducing Maternal & Newborn Deaths; Implementing the Principles for Digital Development, 2017. [https://www.crs.org/sites/default/files/tool\\_research/a4\\_case\\_study\\_remind\\_final\\_online.pdf](https://www.crs.org/sites/default/files/tool_research/a4_case_study_remind_final_online.pdf).
3. Subbarao M G; Hemlatha R, National Institute of Nutrition: 100 years of empowering the nation through nutrition, Indian Journal of Medical Research, 148(5), pp477-487, November 2018. <https://www.ncbi.nlm.nih.gov/pmc/articles/pmc6366263>.
4. <https://geographyandyou.com/a-critical-review-of-the-green-revolution-in-India>, May 22, 2018.
5. <https://www.jagranjosh.com/general-knowledge/white-revolution-in-India-history-and-facts-1482317600-1>, 2015.
6. <https://www.manifestias.com/2020/05/26/pink-revolution-in-India/>, May 2020.
7. <https://www.yourarticlelibrary.com/geography/4-major-forms-of-fisheries-found-in-India-2/42289>. 2020.
8. <https://byjus.com/free-ias-prep/golden-revolution>.
9. <https://icar.org.in/content/about-us>.
10. <https://www.ifpri.org/publications>
11. Lancet, Global burden of disease study, the burden of child and maternal nutrition and trends in its indicators in the states of India, 1990-2017, September 17, 2019.
12. NIHFw, NHP, NNAPP, 2014. [www.nihfw.org/nhp/nnap.html](http://www.nihfw.org/nhp/nnap.html).
13. GOI, NDD, operational guidelines, national de-worming day, MOHFW, 2015. [www.mohfw.nic.in](http://www.mohfw.nic.in)

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