

## CONCEPT NOTE

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### 1. Nutritional Deficiency Anaemia: A Public Health Problem

Malnutrition is a major cause of lowered immunity, illness and deaths in India. Nutritional deficiency anaemia, i.e. nutritional anaemia, is widely prevalent in India. Anaemia in more than 40% of the population is considered a serious health problem by the World Health Organization (WHO). The population groups most vulnerable to anaemia include children under 5 years of age, particularly infants and children under 2 years of age, adolescents (10-19 years), women of reproductive age (15-49 years) and pregnant women. Anaemia is associated with poor cognitive and motor development outcomes in children, can cause fatigue and low productivity and, when it occurs in pregnancy, is associated with poor birth outcomes (including low birth weight and prematurity) as well as maternal and perinatal mortality<sup>1</sup>. About 20% of our maternal deaths are directly linked to anaemia and another 20 to 30% are indirectly linked to it. The developing fetus and the breast-feeding child are adversely impacted. NFHS-5 data shows that in India 67 % of children (6-59 months), 57% of adult women (15-49 years), 59% of adolescent girls and 31% adolescent boys are anaemic, which impacts health and development. Mild and moderate anaemia is usually due to deficiency in nutrition consumed or absorbed. To address the multi-factorial causes of nutritional anaemia effectively, close coordination and cooperation between the multiple relevant sectors is needed. Food-based strategies (dietary diversification), food supplementation and improvement of health services are all required to reduce the burden of nutritional anaemia.

### 2. Organic Kitchen Garden for Nutrition (OKGN): A Simple and Sustainable Solution

Based on its own experience, as the Knowledge & Training Partner of the Anaemia Free India Forum (AFIF), and the experience of AFIF's Implementing Partners, The Sahayak Trust has found that developing an OKGN at household level ensures a continuous and sufficient supply of nutritious, healthy, pesticide free food and the entire family benefits from the OKGN. The role of consumption of a diverse mix of vegetables and fruits for curing nutritional anaemia is well known and has been scientifically established in many studies. School going children need a nutritious and balanced diet in order to develop and grow well, to study, build immunity as protection from disease and to have the energy to get through the day. For the sake of their present and their future, they need to not only eat well, but also to learn how to eat appropriate nutrition rich food and how to grow it without chemical toxins. Vegetables, not only at home but from the OKGN in the school can provide them these skills along with enhancing school meals with micronutrient-rich vegetables. The Sahayak Trust constantly seeks to evolve methods for addressing any constraints. Vertical gardens where space is a constraint and growing of microgreens as a simple and quicker endeavor are also taught, for those in rural and urban areas who cannot develop a full-fledged OKGN.

In order to understand the impact of an Organic Kitchen Garden for Nutrition (OKGN) to address nutritional deficiency anaemia, a correlation study titled 'Correlation of Organic Kitchen Garden for Nutrition, Awareness of Consumption of Vegetables and Nutritional Deficiency Anaemia' was conducted by Aamhi Aamchya Aarogyasathi (AAA), implementing and health partner of AFIF, with the support of The Sahayak Trust, in 2018. The analysis shows a noticeable increase of 1.25gm in the level of Hb after consistent consumption of organically grown vegetables from OKGNs. This is a significant and sustainable improvement and it was also found that OKGNs are a more acceptable and effective way to combat nutritional deficiency anaemia than the standard administration of Fe+Folic acid tablets, which are often not consumed due to unpleasant side effects. AAA had also documented the Hb of 906 women over a period of 18 months and found an increase of 1.1 to 2 gm in Hb in 33.44% and slightly less than 1 gm Hb improvement in 39% of women growing OKGNs. Awareness on anaemia and regular consumption of vegetables was a vital starting point for this.

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<sup>1</sup> Nutritional Anaemias: Tools for effective prevention and control, WHO

Growing an Organic Kitchen Garden for Nutrition (OKGN) is thus a simple, replicable, economically viable and sustainable solution for combating nutritional anaemia. It is a model which can be easily adopted in rural areas, since growing a kitchen garden is often a traditional practice which fell into disuse. It is a cheaper and healthier option than buying vegetables from the market, since the input cost is low and a sufficient quantity and variety of toxin-free vegetables is obtained. A 'sufficient' supply is important for women, as the family's vegetable purchase is often constrained by their lack of finances. In the prevailing patriarchal society, the women often eat last, when the limited vegetables that have been cooked are over. The far higher level of anaemia incidence in women compared to men reflects this. An OKGN assures adequate and consistent supply of fresh vegetables for all, improving the Hb of women and children. Beneficiaries reported that it also saves the family at least Rs 5000 per annum for vegetables and a reduction of about Rs 6000 per family per annum in medical expenses.

### 3. The Sahayak Trust (TST)

The Sahayak Trust was established to provide support through education on low cost and sustainable technologies, particularly in the fields of health, agriculture, livelihoods and ecology, to economically disadvantaged rural populations. The Trust believes that education can transform lives and livelihoods - most of all for the poorest and most disadvantaged. TST is wholly funded by its Trustees. Within its limited funds it seeks to make relevant education accessible at the doorstep of people in need of it, helping them to use their own locally available resources. It does so largely through training of partners who share its belief and are already working effectively in local communities. The Sahayak Trust's Institute for Nutrition Education has set up a Centre in Bhopal. As a knowledge and training partner for a growing number of NGOs, TST has developed training modules, manuals, videos and methodology to impart knowledge and skill on OKGN and capacitate partners to reach out to communities. Like minded Government officials have supported this effort. Much has been achieved already by this model of cooperative working.

### 4. Anaemia Free India Forum (AFIF)

AFIF is a platform of likeminded NGOs who share a common vision and spirit to combat nutritional deficiency anaemia in India. It facilitates sharing of information, knowledge and experiences among AFIF partners who carry forward the program in their respective areas by developing an OKGN in Schools, Anganwadis, Ashramshalas and Communities. Any GOs, NGOs and CBOs working in the field of health, community development, women's empowerment, livelihood etc., as also SHGs, Youth Groups, Spiritual Groups and whoever shares this vision, can join hands to take this mission ahead. TST has been providing educational inputs/training to the AFIF's partner organizations to secure convergence of health, nutrition and savings through OKGNs. This has shown positive results by increasing Hb levels. To ensure the coverage of OKGNs in Schools, Ashramshalas, Anganwadis and Community/SHGs in a timely manner, TST is developing a pool of OKGN trainers across the country and welcomes new partners for this.

**VISION:** To help people recover from nutritional deficiency, mild and moderate anaemia, with Organic Kitchen Gardens for Nutrition developed by their own efforts and primarily for consumption by the family.

**MISSION:** To reach out to women and children through joint efforts of GOs, NGOs, Educational, Spiritual and other organizations who work with rural poor, in order to reach all those rural families who need to overcome Nutritional Deficiency Anaemia.

**PRINCIPLES & METHODOLOGY:**

- Create awareness on Nutritional Anaemia
- Convergence of Health and OKGN
- Developing OKGN in different verticals
- Promote diversity of food grown
- Get OKGNs grown organically without chemicals
- Ensure OKGNs are firstly for family consumption
- Monitor Hb levels of beneficiaries at regular intervals
- Research, Documentation and Dissemination.

**WE ARE COMMITTED TO MAKING INDIA FREE OF NUTRITIONAL DEFICIENCY ANAEMIA!**

**KNOWLEDGE & TRAINING PARTNER AND THE COORDINATOR OF ANAEMIA FREE INDIA FORUM**

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