### **Operation 2015: An Integrated Approach to Achieving UN MDG 1 in the Koraput Region of Odisha**

**Concept Note** 

M. S. Swaminathan Research Foundation

Biju Patnaik Medicinal Plants Garden & Research Centre At Makaput, Koraput District, Jeypore

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The latest report on hunger in South Asia (UNDP, 2010) states hunger in the region is increasing and the region is drifting away from the UNMDG-1 goal of reducing hunger by half by 2015. It is a well established fact that a great majority of the undernourished persons in the world are in developing countries. In 2004-06, there were 873 million undernourished people in the world, of whom 858 million were in developing countries. In the case of India, it is a worrisome fact that not only has there been no reduction in the number of undernourished persons during 1990-92 to 2004-06, but there is an absolute increase in undernourished persons from 210 million to 252 million (FAO, 2009)<sup>1</sup>. Moreover, half of world's undernourished children live in India and according to the Global Hunger Index of 2008, India is ranked 66 out of 88 countries. The National Family Health Survey, 2005-06<sup>2</sup>, highlights some very disturbing truths about the prevailing situation in India: 56 percent of women are anaemic; 22 percent of new born babies are of low birth weight (LBW); and 43 percent of the children are underweight. This alarming nutritional status is a result of widespread prevalence of chronic food and nutrition insecurity where people regularly subsist on a very minimal diet that has poor nutrient (including micronutrients) and calorific content as compared to medically prescribed norms. Government of India has different estimates of poverty. Its National Commission for Enterprises in the Unorganised Sector (NCEUS) in 2007 counted 836 million people living on less than Rupees 20 (USD \$0.44 nominal; \$ 2 PPP) per day. The Planning Commission of India which uses a calorie intake-based poverty line (2400 KC for rural and 2100 KC for urban areas), had estimated, in 2004-05, that about 27% of 1.14 billion are poor. According to the Report of the Expert Group on the Estimation of Poverty (Tendulkar Committee Report) in 2004-05, 41.8% in rural India and 25.7% in urban India were estimated to be poor. In this context, India's progress towards achieving the quantitative benchmarks set by United Nations' Millennium Development Goals (UNMDG) on eradication of extreme poverty, hunger, illiteracy and diseases apart from achieving gender equality, empowerment of women, environmental sustainability etc. by the dead-line set, namely 2015, appears to be problematic. Tracking India's performance with

<sup>&</sup>lt;sup>1</sup> Food and Agriculture Organization (FAO). 2009. *The State of Food Insecurity in the World: Economic Crises Impacts and Lessons Learned*. Rome. http://www.fao.org/docrep/012/i0876e/i0876e00.htm

<sup>&</sup>lt;sup>2</sup> National Family Health Survey (NFHS). 2007. *NFHS* 3, 2005-06. Mumbai: Indian Institute of Population Sciences.

respect to UNMDGs, shows progress in respect of certain goals such as 2 and 8 pertaining to universal primary education and global partnership for development respectively. However, with respect to the target, 'Halve between 1990 and 2015 the proportion of people who suffer from hunger' pertaining to Millennium Development Goal-I, 'Eradicate extreme poverty and hunger,' India's performance is clearly inadequate and off-track (GoI, 2010).<sup>3</sup> India's inability to achieve even the very modest goal set by United Nations, pertaining to reducing the number of hungry people, reiterates the importance of trying out new approaches in addressing food and nutrition security concerns in India.

The State of Odisha, covering a geographical area of 155707sq.km., with a population of nearly 41.9 million in 2011, is considered to be one of the less developed States of India with regard to agriculture, industry as well as social sector development. About one tenth of the tribal population in India resides in Odisha State. The State of Odisha is one of the poorest in the country with 46 percent of its population estimated to be poor. This accounts to nearly 15 million poor in rural Odisha and 3 million poor in urban Odisha in 2004-05 (GoI, 2007)<sup>4</sup>. With high levels of malnutrition and mortality, the State of Odisha has not progressed satisfactorily with regard to Millennium Development Goals as is clear from table-1.

Given this context, M.S. Swaminathan Research Foundation (MSSRF) proposes to design an integrated approach to address UNMDG-1 (Eradicate Extreme Poverty and Hunger) in the Koraput region of Odisha. Koraput district is one of the most backward districts of Odisha and is part of the Eastern Ghats agro-climatic region. The district spreads over 8379sq.km. with undulating tableland scattered with hundreds of hills. The district has a very high percentage of Scheduled Tribe population, nearly 50 percent as against 22 percent in the State as a whole, in 2001. The majority of the population is dependent on forest and subsistence agriculture. Agriculture is mainly rainfed and poorly developed. Koraput is considered as one of the most food insecure districts of Odisha with very high levels of malnutrition among children and women (IHD-WFP, 2008)<sup>5</sup>.

<sup>&</sup>lt;sup>3</sup> Government of India. 2010. *Millennium Development Goals-India Country Report 2009, Mid-Term Statistical Appraisal*. New Delhi: Central Statistical Organization, Ministry of Statistics and Programme Implementation.

<sup>&</sup>lt;sup>4</sup> Government of India. 2007. Poverty Estimates for 2004-05. New Delhi: Planning Commission of India.

<sup>&</sup>lt;sup>5</sup> IHD – WFP. 2008. Food Insecurity Atlas of Rural Orissa. New Delhi: World Food Programme.

MDG goals	MDG indicators	1990	Target 2015	Expected achievement in 2015	Expected status in 2015
1) Eradicate Extreme	The poverty Headcount				
Poverty and Hunger	Ratio (PHR) (percentage				
	of population below the				will <b>not</b> be
	national poverty line)	52.38%	26.19%	40.98%	achieved
	Proportion of				
	underweight children				will <b>not</b> be
	below three years	57.13%	28.56%	39.09%	achieved
4) Reduce Child	U5MR (per 1000 live				Will <b>not</b> be
Mortality	births) 135.7		45.26	67.2	achieved
	IMR (per 1000 live				Will <b>not</b> be
	births)	122	40.67	55.86	achieved
5) Improve Maternal	MMR (per 100,000 live				Will <b>not</b> be
Health	births)	482.04	120.51	244.53	achieved
	Proportion of births				
	attended by skilled				Will <b>not</b> be
	health personnel	17.81	100	88.01	achieved

#### Table 1: Status of Millennium Development Goals, Odisha

Source: Data made available by Ministry of Statistics and Programme Implementation, GoI through personal communication in October 2010.

The Jeypore tract in Koraput region is considered to be an independent centre of origin of cultivated rice. During 1955-60 more than 1750 cultivars of rice was reported from the region. Sharma, Smita and Biswal (2000) concluded that this area could be a centre of origin of the *aus* (early maturing upland varieties) ecotypes of rice, grown only under rainfed conditions<sup>6</sup>. MSSRF has been working with the tribal communities in the Koraput district of Odisha, over the last one decade. Several successful initiatives in the area of food and nutrition security, biodiversity conservation and promotion of sustainable livelihoods through micro-level interventions have been undertaken with the active participation of the local communities. The activities of the

<sup>&</sup>lt;sup>6</sup> Sharma, S.D., Smita Tripathy and J.Biswal (2000). *Origin of O.Sativa and its ecotypes. In: Rice Breeding and Geneitcs – Research priorities and challenges* (Ed.J.S.Nanda). Oxford and IBH Publishing Co.Pvt.Ltd., New Delhi. pp.349-369

Foundation are spread across 29 hamlets, spread over three administrative blocks – Jeypore, Kundura, Boipariguda- of Koraput district. In 2002, the tribal families of Koraput received the Equator Initiative award of the United Nations at the UN Conference on Sustainable Development held in Johannesburg. In 2007, MSSRF facilitated the tribal communities of Koraput to receive the Genome Saviour Award constituted by the Protection of Plant Varieties and Farmers' Rights Authority (PPVFRA) of the Government of India. The Award was presented for the outstanding selfless services in conserving, improving and making available paddy genetic resources for the development of new plant varieties. The collections from the region were used in breeding programmes for developing new varieties namely *Padma*, *Jayanthi*, *Vijaya*, *Pooja CR 104* and *Ketaki Joha* and subsequently made available to farmers<sup>7</sup>. Participatory breeding efforts involving tribal families and MSSRF scientists led to the development of the strain *Kalinga Kalajeera*.

Important elements of our integrated approach to accelerate progress in achieving UNMDG 1 titled, **Operation 2015**, are detailed below:

#### 1. Goal

Given the state of food insecurity in India, it is important to seriously pursue the United Nations Millennium Development Goal of halving the number of poor and hungry by 2015. The goal of the project is to achieve the UN Millennium Development Goal of reducing hunger by half by 2015 and achieve total elimination of hunger by the end of this decade.

#### 2. Project Area

The Koraput region in the State of Odisha, which is known for the widespread prevalence of endemic and hidden hunger, has been chosen for developing a community centered approach to the hunger elimination programme.

#### 3. Methodology

- A well-designed baseline survey on the extent and nature of malnutrition prevailing in the Koraput region will be the first step towards planning for appropriate interventions undertaken. Such benchmark data are essential to measure progress;
- Nutrition education, social mobilization and capacity building of the community to enable them to actively participate in the interventions planned in the project;

<sup>&</sup>lt;sup>7</sup>Based on the citation provided by the PPVFRA , 28<sup>th</sup> February, 2007

- Preparation of household level 'Entitlement' pass books that provide details of various government schemes related to food, nutrition, health, drinking water and sanitation that are being implemented by different departments in Orissa and to which the tribal families are entitled.
- Assessment of access to existing government schemes related to food, nutrition, health, drinking water and sanitation among the community and facilitate access as per requirement and entitlement.

Execution of catalytic interventions in an integrated manner in the project area as detailed below:

#### **3.1** Governance and Implementation Issues

- a. Reform the system of delivery of nutrition support schemes like ICDS, School Noon Meal Programme, Annapoorna etc, on a life cycle basis, beginning with pregnant women and extending up to old and infirm persons. For achieving synergy among programmes relating to food availability, access and absorption in the body, it will be necessary to foster a "deliver as one" approach among different government departments. This is a governance issue and the support of the local authorities will be sought. (see Annexure-1)
- b. Redesign ICDS into two time segments:
  - i. First 1000 days in a child's life starting with conception and extending upto 2 years of age (when the child has to be reached through the mother);
  - ii. Next 1000 days in a child's life (when the child can be reached through Anganwadi)<sup>8</sup>;
- c. Mainstream nutritional goals and criteria in on-going schemes like the National Horticulture Mission, the National Food Security Mission and Rashtriya Krishi Vikas Yojana. Implement the National Horticulture Mission in such a manner that for every nutritional malady, an appropriate horticultural remedy is introduced.
- d. Adopt a food-cum-fortification approach in relation to micronutrient malnutrition, with emphasis on diets involving nutritious millets and *moringa* (drumstick) and multiple fortified salt.
- e. Introduce nutrition support programmes at the sites where large numbers of labour are employed under the National Rural Employment Guarantee Programme.

<sup>&</sup>lt;sup>8</sup> In the Union Budget 2011-12, the Finance Minister announced an increase in the remuneration of Anganwadi workers from Rs.1,500 per month to Rs.3,000 per month and for Anganwadi helpers from Rs.750 per month to Rs.1,500 per month to be effective from April 1, 2011.

#### 3.2. Eliminating Hidden Hunger

As emphasized earlier, along with efforts to eliminate protein-energy malnutrition, introduce a well planned food cum fortification approach (eg. Nutri-millet together with *moringa*, double fortified salt etc.) to the eradication of iron, iodine, zinc, Vitamin A and Vitamin B 12 deficiencies in the diet. Calorie deprivation will have to be overcome, if the micronutrient supplementation is to confer the desired benefit.

#### **3.3.** Community Involvement

Promote in every village the establishment by the local community seed, grain and water banks; also, in agro-biodiversity rich areas, promote *in situ on farm conservation* of land races and local level field gene banks. The Gram Sabha can provide oversight to the establishment and operation of local level gene, seed, grain and water banks. This will help to enlarge the food basket and to preserve local grains and tubers. Also, at the community level, conservation, cultivation, consumption and commerce will have to be promoted as an integrated nutrition and income security system.

#### 3.4 Convergence and Synergy: 'Deliver as One' approach among Departments

Among the food and non-food factors relating to nutrition security at the level of every individual, the following schemes are particularly relevant.

- a. Rajiv Gandhi Drinking Water Mission
- b. Total Sanitation Programme
- c. National Rural Health Mission

Clean drinking water, sanitation and environmental hygiene and primary health care including immunization are particularly important.

#### **3.5. Educational Tools**

Education is a prime mover of social and technological change. For ensuring the sustainable end to hunger in the region, it is important to create awareness on the population supporting capacity of the ecosystems. For this purpose, Panchayati Raj leaders can be persuaded to take to the preparation of a local level **socio-demographic charter**, with assistance from the VKC/VRC. Such a charter will deal with

- a. Incidence of Low Birth Weight children, to estimate the extent of prevalence of maternal and foetal undernutrition
- b. Male-female ratio, in order to understand whether female foeticide is prevalent

- c. Food and water availability in relation to the needs of the population
- d. Family Planning Services

Such socio-demographic charters will serve as useful training material for achieving the sustainable end of hunger as well as the desired demographic transition to low birth and death rates. Quality and safety aspects should form part of the **Nutritional and Quality Literacy** Programme which should be launched in this region, with the help of Village Resource and Village Knowledge Centres (VRCs and VKCs). Food safety should cover all food items including milk, meat and fish.

#### **3.6. Institutional Structures and Capacity Building:**

- a. Establish with the help of NABARD and State Governments a **Nutrition Clinic** in every block, preferably managed by a Home Science Graduate.
- b. Create a cadre of Community Hunger Fighters well trained in addressing the major causes of malnutrition (ie. food availability, access and absorption). The Nutrition Clinic can train one woman and one male from every village as **Community Hunger Fighters** (**CHF**). Such CHF volunteers can work with *Ashas* belonging to the Rural Health Mission and other relevant staff of Government programmes such as MGNREGA to ensure that the Nutrition support programmes reach the unreached. In particular, CHFs will be trained to address issues of adequate nutrition for pregnant mothers, in order to ensure that the new born child has adequate birth weight. Above all, the Community Hunger Fighters will be trained to promote a **deliver as one** approach with reference to the numerous nutrition and health support schemes
- c. Initiate Catalytic Interventions, such as creating facilities in every village for institutional delivery, which would help in reducing maternal mortality rate (MMR).

#### 4. Monitoring and Evaluation:

A system of continuous monitoring of the implementation of the Hunger elimination programmes as well as an annual evaluation of the impact of this programme would be undertaken with the active participation of the local community. A multi-disciplinary and multi-institutional Technical Support Group will be established in every block for the necessary technical monitoring and backstopping.

#### Training module for the course on "Community Hunger Fighters"

M S Swaminathan Research Foundation (MSSRF) is launching an integrated approach to address United Nations Millennium Development Goal-1, Eradicate Extreme Poverty and Hunger, in one of the most backward districts of Odisha, viz. Koraput. This district has been chosen for developing a **community centred approach** to the hunger elimination programme given the widespread prevalence of endemic and hidden hunger in the region.

An important component in implementing the programme is to create a cadre of **Community Hunger Fighters** (CHF), well trained in addressing the major causes of malnutrition. Community Hunger Fighters can work with *Ashas* belonging to the Rural Health Mission and other relevant staff of Government programmes to ensure that the Nutrition support programmes reach the unreached. In particular, Community Hunger Fighters will be trained to promote a **deliver as one** approach with reference to the numerous nutrition and health support schemes.

**Selection** of Community Hunger Fighters : Community Hunger Fighters should be chosen by the Gram Sabha or the Village Council, so that they derive their authority from the people of that area. CHF volunteers should be recognised by the different departments of government and should have access to the concerned local officials.

**Training** Community Hunger Fighters: Once the community hunger fighters are identified MSSRF shall provide appropriate training to them. A course shall be designed to inform the CHFs on various aspects of ground reality pertaining to hunger and malnourishment. Attending this course shall be made mandatory for the CHFs.

The course content would include the following:

1. **Extent of prevalence of endemic hunger** caused by protein – calorie deficiency, and of hidden hunger caused by the deficiency of iron, iodine, zinc, vitamin A and vitamin B12

#### 2. Causes for the persistence of hunger

a. Endemic hunger : this is related to lack of purchasing power and poverty

 b. Hidden hunger : lack of economic access to balanced diet as well as lack of awareness of nutritional requirements lead to micro-nutrient deficiencies in the diet.

#### 3. Cures for overcoming hunger

- a. Availability of food which is a function of production. Improving the productivity and profitability of small scale farming will help to both increase availability as well as improve the purchasing power.
- b. Access to food which is a function of income and jobs. Here special efforts will include improving on-farm income and generating opportunities from market linked non-farm income. The other sources of employment like MGNREGA should be harnessed. An Entitlements Passbook should be given to every family indicating the nutrition support systems available to the Community.
- c. Absorption of food in the body, which is a function of clean drinking water, sanitation, primary health care and nutrition education. Here schemes like the Rajiv Gandhi Drinking Water machine and the total sanitation programme should be mobilized.

#### 4. Monitoring and Evaluation

- a. Indicators of malnutrition such as IMR, MMR, BMI, stunting and wasting etc. should be included in the monitoring process.
- b. Monitoring of the incidence of children with low birth weight should receive special attention. LBW children indicate the occurrence of maternal and foetal undernutrition. The need for attention to pregnant mother should be highlighted.

#### 5. Governance and Delivery :

- a. Convergence and synergy should be achieved in the delivery of various nutrition safety net programmes. A "deliver as one approach" will have to be fostered.
- b. ICDS will have to be restructured in such a manner that the first thousand days in the life of the child (starting with conception and extending upto two years)

receive particular attention. Malnutrition in this period affects the child adversely in many areas, including cognitive abilities.

The course for Community Hunger Fighters would use different teaching methods such as structured class room lectures supported by well designed modules, posters, audio and video tools; interactive discussions with government officials/resource persons; street play etc.

#### 5. Expected Outcome

Implementation of **Operation 2015** is likely to result in reduction of hunger and malnutrition in the Koraput region. The process of implementation of Operation 2015 shall provide us with a package of solutions for a hunger-free Koraput. Detailed district and village implementation plans shall be available at the end of Operation 2015 which may be used as a 'prototype' for adoption and scale-up across the State, resulting in hunger-free Odisha.

#### 6. Financial Outlay

The Operation 2015 programme will be largely based on the effective delivery of the numerous existing programmes in the fields of nutrition and poverty reduction. New interventions like distribution of multiple fortified salt as well as educational and capacity building programmes, such as training Community Hunger Fighters will need some additional outlay. Fresh interventions will be based on a gap filling approach and not on duplicating ongoing programmes.

Basis			
Classification	Name of Existing	Eligibility Criteria	Benefits
of Population	Scheme		
by Life Cycle			
categories			
Pregnant	Janani Surakshya	The mother should be	Provisioning of Rs.1400/- in the rural
Women and	Yojana: For	between 18 to 35 yrs of	areas and Rs.1000/- in urban areas for
Babies	promotion of	age. She is eligible to get	mothers. If a delivery done through a
	institutional delivery.	up to two children. She	trained dhai in a village then the dhai is
		must register her name in	also eligible to get up to Rs.500/-
		the nearby registration	
		centre	
	Delivery under IMR		If the medical centre is at a distance of
	mission.		8kms. then she is entitled to get Rs.150/-
	(Transportation		and if more than 8kms. then Rs.200/-
	support to mothers for		
	institutional delivery.)		
	Provision of food and		1) 6 months to 6 years child - 300
	various services being		calorie, and 10gm carbohydrate
	provided through		2) Under nutrition child (up to 6months)
	ICDS for children up		- 600 calorie and 25gm. Carbo hydrate
	to 6 years of age,		3) Pregnant and nursing mother-500
	pregnant mothers,		calorie and 20-25gm carbo hydrate
	nursing mothers,		4) India Mix - 80gm. per day to each
	adolescent girls.		child from 6 months to 6 yrs., 160gm.,
			160 gm. per day to each mal nutrition
			child from 6 months to 6 years age, 160
			gm. to each pregnant and nursing mother
			for 25 days in a month.
			5) Immunization for pregnant mothers,
			nursing mothers and children
			6) Pre school free education for children
			from 3 years to 6 years age
	Girl Child		Rs.500/- will be given to the mother of a
	development scheme		new born girl child in a BPL family. The
			mother is eligible to get up to two
			children. This amount deposited by the
			name of the girl child in a bank and will
			get with interest at the girl become 18yrs
			<i>c i</i>
	Family -1		old.
	Family planning		
	scheme		

Annexure 1: An illustrative list of Existing Government Schemes arranged on a Life Cycle Basis

Classification	Name of Existing	Eligibility Criteria	Benefits
of Population	Scheme		
by Life Cycle			
categories			
Children	Upper Primary school – Mid day meal scheme Provision		Provisioning of Rs.2.22/- for each student to spend in a day (100 gm. Rice, 20gm. Dhal, 16 paisa for vegetable, 76paise for egg/banana twice in a week and 47 paise to purchase other things). Each child is to get 300 calorie in take and 20 gm. Carbohydrate.
			Handicap student will get Rs.100/- per month as scholarship.
	Middle School Provisions		Free education up to 7 <sup>th</sup> standard. Handicap students to get Rs.140/- as scholarship. Rs.2.74/- for each student each day for each meal (150gm. Rice, 30gm dhal, 21paise for vegetable, 76paise fro egg/banana twice in a week, 47 paise for other things.
	High school Provisions		Free education up to 10 <sup>th</sup> standard. All SC/ST students to get scholarship. Handicap students to get Rs.140/- per month
Adolescents	Kishori Shakti Yojana The scheme is meant for nutritional enhancement of adolescent girls.		If the girl's weight is below 35kg. then she is entitled to get 6kg. rice per month.

Classification of Population by Life Cycle categories	Name of Existing Scheme	Eligibility Criteria	Benefits
Elderly	National old age pension scheme	65 years or more aged old man and woman comes under BPL category are eligible to avail the scheme. Beneficiaries identified through gram sabha /palli sabha/panchayat.	Monthly Rs.200/- , it distribute at the Gram Panchayat office on 15 <sup>th</sup> of every month.
	Annapurna Yojana	65 years old aged men and women without any family support and live without any income source are eligible to avail this scheme. Beneficiaries are identified through gram sabha/palli sabha/Panchayat. The beneficiary must not be registered under the old age pension scheme.	10kg. Rice support each month without any price for it.
	Madhu Babu pension scheme	Oldman/woman/widow/ha ndicap is eligible to avail benefits under the scheme. Family income must not exceed Rs.12, 000/- per annum and must comes under BPL category. Age must be 60 years or more and should not avail any other pension scheme. In case of widows age should be between 18 to 60 yrs. Handicapped and HIV infected persons are eligible to get the scheme but in case of handicap age must be 5yrs or more than 5yrs	To be filled up

ClassificationName of ExistingEligibility Criteriaof PopulationSchemeby Life Cycle	Benefits
-	
categories	
General BPL (Below poverty Family income should be	be 25kg. rice per month @Rs.2/- , 5lt. kerosene
line) card below Rs.11,000.00/-	@Rs.10.50/-, Refined oil @ Rs.50/
annually and land holding	
should be below 2.5acre	•
family/beneficiaries	
identified through Gram	n
sabha / Panchayat.	
APL card Families with land hold	ling of In KBK districts same provision/facility as
more than 2.5acre.	
family/beneficiaries	
identified through	Gram
sabha / Panchayat	
Antodaya Anna Yojana Very poor families iden	tified 35kg. Rice @Rs.2/- each month and 5lt.
(AAY) through gram sabha / pa	alli kerosene per month @ Rs.10.50/-, refined oil
sabha/Gram panchayat.	
G.R. Card Family without any food	d, in Up to 10days through Gram Panchayat/Block
scarcity period, will get	food office.
support.	
Indira Awas Yojana BPL families, those	11
have no house, are eligi	
	cheme. repairing a house.
	ntified
through Gram sabha	-
sabha/panchayat.	This
scheme allots by the na	ame of
women beneficiaries.	-11
NREGS Both BPL and APL fa	
in rural areas those	
depend upon wage lab	
entitled to get 100 days	
Any such family can through Gram Panchay	
directly at concerned	•
office.	DIOCK
Financial support to the	Village welfare committees promoted under
village welfare	the National Rural Health Mission will get
committee.	Rs.10, 000/- to conduct any health related
	activities in the village.
Widow pension scheme The widow income sho	-
below Rs.3200/- and s	-
be between 18 to 60 yrs	
	lentify
	Gram
sabha/pallisabha/ panch	ayat.

## Annexure 2: Operation 2015 - Training module for the course on "Community Hunger Fighters"

- 1. There was great enthusiasm among tribal women and men in Koraput to the idea of getting trained as Community Hunger Fighters. We should therefore proceed with the development of the course which will have to be organized on the model adopted by the Community College, i.e. a hub and spokes model in selecting the locations for the training.
- 2. The course content should include the following
  - 0. **Extent of prevalence of endemic hunger** caused by protein calorie deficiency, and of hidden hunger caused by the deficiency of iron, iodine, zinc, vitamin A and vitamin B12

#### 1. Causes for the persistence of hunger

- a. Endemic hunger : this is related to lack of purchasing power and poverty
- b. Hidden hunger : lack of economic access to balanced diet as well as lack of awareness of nutritional requirements lead to micro-nutrient deficiencies in the diet.

#### 2. Cures for overcoming hunger

- a. Availability of food which is a function of production. Improving the productivity and profitability of small scale farming will help to both increase availability as well as improve the purchasing power.
- b. Access to food which is a function of income and jobs. Here special efforts will include improving on-farm income and generating opportunities from market linked non-farm income. The other sources of employment like MGNREGA should be harnessed. An Entitlements Passbook should be given to every family indicating the nutrition support systems available to the Community.
- c. Absorption of food in the body, which is a function of clean drinking water, sanitation, primary health care and nutrition education. Here schemes like the Rajiv Gandhi Drinking Water machine and the total sanitation programme should be mobilized.

#### 3. Monitoring and Evaluation :

- c. Indicators of malnutrition such as IMR, MMR, BMI, stunting and wasting etc. should be included in the monitoring process.
- d. Monitoring of the incidence of children with low birth weight should receive special attention. LBW children indicate the occurrence of maternal and foetal undernutrition. The need for attention to pregnant mother should be highlighted.

#### 4. Governance and Delivery :

- c. Convergence and synergy should be achieved in the delivery of various nutrition safety net programmes. A "deliver as one approach" will have to be fostered.
- d. ICDS will have to be restructured in such a manner that the first thousand days in the life of the child (starting with conception and extending upto two years) receive particular attention. Malnutrition in this period affects the child adversely in many areas, including cognitive abilities.
- e. A life cycle approach will be adopted for ensuring nutrition security from birth to old age.
- 5. Selection and Functions of Community Hunger Fighters (CHF): CHF volunteers should be chosen by the Gram Sabha or the Village Council, so that they derive their authority from the people of that area. CHF volunteers should be recognised by the different departments of government and should have access to the concerned local officials.

Kindly develop the training module with the help of a suitable expert in this field soon, so that we can launch the training programme with help from FOSA by July this year.

M S Swaminathan

#### PROF M S SWAMINATHAN

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Member of Parliament (Rajya Sabha) Chairman, M S Swaminathan Research Foundation Third Cross Street, Taramani Institutional Area Chennai - 600 113 (India) Tel: +91 44 2254 2790 / 2254 1229; Fax: +91 44 2254 1319 Email: <u>swami@mssrf.res.in</u> / <u>msswami@vsnl.net</u>