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Leveraging Agriculture for Nutrition in South Asia (LANSA): A UK AID funded Research Programme Consortium for South Asia

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Good nutrition is the essential prerequisite for thriving economies, resilient livelihoods and healthy populations. Countries with well-nourished healthy populations are the outcome of successful economic and social development. Poor nutrition, on the other hand, is a barrier to achieving the full potential for intellectual and cognitive development. It increases the risk of illness and poor health, and impedes the social development and economic growth of populations. The achievement of food security alongside good nutrition is thus central to the global sustainable development agenda.

Although poor nutrition affects most countries in the world, the situation is worse in countries in the sub-Saharan African and in South Asian region. According to UNICEF's Global Nutrition Database in 2012, the prevalence of moderate to severe stunting in children under 5 years of age was highest in these two regions. Among the 14 countries which together account for 80% of the global incidence of stunting in children, India, Pakistan and Bangladesh, (all three being countries of the South Asian region with large populations) were among the top 6[1]. Not only is the prevalence of all forms of child under-nutrition high in the region, poor nutrition among adolescents and young mothers is also at unacceptably high levels. In the past decade, despite the relatively rapid economic growth, the rate of progress in reducing under-nutrition has slowed down in the South Asian region.

Accelerated improvements in food and nutrition security are possible only through a combination of direct nutritional interventions and indirect interventions such as agricultural growth. Since agriculture is the primary source of livelihood for half of the South Asian region's population, it has the potential to be a strong driver of nutritional improvement. This potential is, however, not being realised. This is because agricultural growth rates in the South Asian region are slowing down, both in absolute and relative terms, as compared to non-agricultural growth. This is a matter of concern, given that agricultural growth tends to enhance poverty reduction more than other forms of economic growth.

Agriculture - Nutrition linkages

Gillespie et al.[2] describe seven key pathways that exist between agriculture and nutrition. Agriculture is a source of food and also of income. Agricultural income is determined by food and non-food prices and by policies related to these. The extent to which the family income is allocated to nutritionally relevant inputs such as health and education is also important. Another relevant factor is the role of women. The contribution of women towards earning agricultural income, the extent of their empowerment as regards decision-making and control of resources, and their ability to look after their own nutrition and health as well as those of their children are crucial. In the South Asian region, the apparent disconnects between agriculture and nutrition are causes of concern. Agriculture plays a key role in increasing food availability and improving household incomes by supporting livelihoods and contributing to the overall economy. Agriculture is, thus, central to improving food and nutrition security. Agriculture can sustainably contribute to improving dietary diversity and nutrition outcomes if it is supported through a policy of:

- agricultural extension services that offer communities information and improved inputs such as seed and cultivars for better crop diversity and biodiversity;
- integrated agro-forestry systems that reduce deforestation and promote harvesting of nutrient-rich forest products;
- aquaculture and small livestock ventures that include indigenous as well as farmed species;
- education and social marketing strategies that strengthen local

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food systems and promote cultivation and consumption of local micronutrient rich foods;

- cultivation of biofortified crops and livestock selectively to enhance nutritional quality; and
- reduction of post-harvest losses. Post-farm-gate food preservation, storage, preparation and processing can promote food and nutrition security for the farmer family directly and also, by value addition and marketing of locally processed foods, contribute towards household incomes.

The Agriculture - Nutrition disconnect

In the South Asian region, there is an apparent disconnect between agriculture and nutrition. In a region already vulnerable to the effects of climate change and conflicts, the slowdown in agricultural growth and the agriculture – nutrition disconnect threaten to worsen the situation.

In an effort to bridge the gap, several research and development programmes in the region are active in promoting better nutritional outcomes through nutrition-specific and nutrition-sensitive interventions, while others work via changes and improvements in the enabling environment. There are also programmes that address more specifically the agriculture - nutrition disconnect. These include Transform Nutrition (TN, funded by UK Aid), South Asia Food and Nutrition Security Initiative (SAFANSI, funded by the World Bank), Tackling the Agriculture-Nutrition Disconnect in India (TANDI I & II, funded by the Bill and Melinda Gates Foundation), and the more recent UK Aid-funded initiative, Leveraging Agriculture for Nutrition in South Asia (LANSA). It is this latter programme that is described in this article.

Leveraging Agriculture for Nutrition in South Asia (LANSA): A Research Programme Consortium

Supported by the Department for International Development (DFID) i.e. UK AID of the UK Government, LANSA is a six year multi-institutional research programme consortium (RPC) in South Asia focusing on India, Pakistan, Bangladesh and Afghanistan. LANSA is led by the MS Swaminathan Research Foundation (MSSRF) in Chennai, India with regional partners from South Asia in Bangladesh (BRAC), the Collective for Social Science Research (CSSR) in Pakistan, and international partners - the Institute for Development Studies (IDS) and Leverhulme Centre for Integrative Research on Agriculture & Health (LCIRAH)) in the UK and the International Food Policy Research Institute (IFPRI) in the USA. LANSA's new partnerships for work in Afghanistan are with the Afghan National Agriculture Science and Technology University (ANASTU) in Kandahar and the Afghanistan Research and Evaluation Unit (AREU), an independent research institute in Kabul.

The core question that the LANSA programme attempts to address is: 'How can South Asian agriculture and related food policies and interventions be designed and implemented to increase their impacts on nutrition, especially the nutritional status of children and adolescent girls?' Research under LANSA consists of three 'research pillars' which will map fundamental, underlying and immediate determinants of nutrition, and address several key questions. The key focus during the first two years of LANSA has been on the foundational work stream which provided the groundwork for future research within its three core research pillars. This involved a series of landscaping, review and political economy analyses across the region; these were aimed at describing the current evidence base, relevant policies, programmes and initiatives, and key stakeholders with regard to the links between agriculture and nutrition in the countries from the South Asian region. Evidence Reviews for India, Pakistan and Bangladesh have been completed and published for India[2] and Pakistan[3] with the Bangladesh review being finalised for publication as an IFPRI Discussion paper.

Key actors and stakeholders engaged in agriculture-nutrition have been comprehensively mapped for India, Pakistan and Bangladesh and a series of political economy analyses undertaken based on structured interviews with key stakeholders. Stakeholder consultations were undertaken in India, Bangladesh and Pakistan to discuss the findings from the reviews and political economy analyses, and to generate research priorities and address research gaps for further study to be undertaken under the Responsive Window (described later in the article). The findings from this process have been written up as a regional review that will be appearing in the June 2015 issue of Food and Nutrition Bulletin[4]. The policy and stakeholder mapping exercise in Afghanistan has commenced and will be completed this year. An overview of the ongoing work of LANSA under the three research pillars is highlighted in the following section.

Research Pillar 1: Agriculture and the Enabling Environment

This will address issues related to the importance of an enabling environment for the reduction of undernutrition, as described in the Lancet series recently,[5] and explore how agriculture and food systems can be strongly linked to the underlying determinants of

nutrition such as women's status, poverty-induced food insecurity and poor sanitation. Research under this pillar, which includes empirical work on available large secondary data sets, will allow better analysis of the role of agri-food systems in nutrition security, elucidate the pathways through which they operate and provide insights into the types and degrees of interaction with other non-food drivers. Evidence of strong connections and disconnects within pathways between agriculture and nutrition will also be highlighted, thereby providing better understanding of the relative roles of the underlying factors. It will seek to locate the agriculture sector and the agri-food system within the constellation of factors and processes that determine nutrition outcomes in different contexts and in different countries in the region. It will also address the question of whether the role and potential of agriculture in promoting nutrition security is being attenuated by other factors such as poor water and sanitation, non-empowerment of women, and unmet social welfare needs.

Research Pillar 2: Agriculture Beyond the Farm-gate

This will examine agriculture policies and value chains post-farm-gate. It will gather evidence to provide pointers to improving the nutrition sensitivity of agricultural strategies and policies in areas such as food storage, markets and trade. The studies under this research pillar will document the type, extent and level of connections or disconnects between agriculture and nutrition across the broad policy sphere in the study countries in the South Asian region. It will attempt to identify where and how changes in government or state policies and strategies would lead to agriculture having a positive impact on nutritional outcomes of the population. These studies will critically examine choices exercised by governments in the region in the agriculture sphere, and the intended or unintended impacts and consequences these policies may have on nutritional outcomes. The final objective will be to promote evidence-based policies which can positively impact nutrition in the countries of the South Asian region.

In improving the evidence based on the nutritional impacts of past or existing agricultural policies, it is important to consider in what ways policies impact production, distribution, marketing and consumption of nutritious food. Diversity in production, particularly of micronutrient-rich foods such as horticultural and animal-source food products, is widely acknowledged to be a key promoter of dietary diversity, leading to better nutritional outcomes. However, diversifying the production base is critically constrained by investments and strategic choices that the State makes with regard to specific agricultural commodities and sectors. Farm credit and commodity-specific investments are two important elements in the portfolio of agriculture and food policies with nutrition implications. Farm credit requires significant financial outlays. However, outlays in this sector are known to have been constrained by credit market failures in rural South Asia. Non-availability of sufficient farm credit can have serious nutritional implications. LANSA expects that these studies, covering some of the most critical areas impinging on the nutrition sensitivity of agriculture, will point towards the need for a positive change in farm credit policy in the South Asian region.

This research pillar also encompasses examination of the links between agriculture and nutrition through food markets. With particular attention to markets for nutrient-rich foods for mitigating micronutrient deficiencies, it employs a value-chain approach to examine different ways in which food might move from 'farm to finger'. The focus is on dietary and nutritional impacts all along the food chain beyond the farm-gate. The aim is to identify effective and innovative value-chain-based interventions that are demonstrably capable of bringing about significant dietary and/or nutritional improvements, and that are amenable to up-scaling. These studies have been designed as an integrated set of case studies across the region in Bangladesh, India and Pakistan (and soon in Afghanistan as well). Research will be conducted on markets for nutrient-rich foods that can achieve improvements in the micronutrient status of undernourished populations. Studies under this research pillar complement LANSA's work under other research pillars, in that it recognises the importance of markets for accessing food, not only in urban areas (where rates of undernutrition are often high among the poor), but also in rural areas. Both non-farming and farming households will depend upon market purchases of food for some or all of their household's food requirements, at least seasonally if not year-round. The market challenge for ensuring access to food for all will increase as levels of urbanisation continue to rise in the South Asian region.

Research Pillar 3: Agricultural Interventions for Nutrition

This will focus on how agricultural interventions in the field can be designed to improve nutritional outcomes whilst ensuring livelihood security. This research will assess the feasibility of a suite of potential large-scale interventions to improve nutrition outcomes, especially in women and children. The studies have been designed in each partner country because of the scale and potential for significant impact of the interventions undertaken. For example, in India, the Farming System for Nutrition (FSN) intervention will explore the feasibility of tailoring agricultural support to resolve defined nutritional problems in rural communities in two different agro-ecological zones; in Pakistan, it will explore the feasibility of agricultural asset transfer programmes to women to support

nutritional outcomes. Under this research pillar, a study on the feasibility of using digital technologies to spread agricultural and nutrition knowledge has been conducted in Nepal/India[6].

The LANSA research programme consortium is uniquely placed to capitalize on these on-going interventions led by consortium partners to build an innovative, robust and large-scale evidence base for agriculture and nutrition linkages in South Asia. As the consortium develops, new initiatives and funding streams will be sought to extend the intervention research conducted under research pillar 3. This will also include an open call for research proposals under LANSA's Responsive Window programme, described in the next paragraph. By bringing together these diverse interventions under LANSA leadership, a major opportunity is created for the use of shared metrics and evaluation methods to allow cross-study and cross-country learning.

LANSA's cross-cutting themes

Dynamic innovation systems and networks in research pillar 1, inform policy design in research pillar 2 and intervention design in research pillar 3 of the LANSA RPC. Cutting across the three research pillars of LANSA are three prominent themes — gender, fragility and innovation systems. These three themes that cut across the research pillars of LANSA also define the agenda and provide a strategic context to policy and intervention design.

Gender

In South Asian region, the majority of people are dependent on land and agriculture for their livelihoods. Women are an important part of the workforce in the rural areas. They are key actors within the food system but are chronically disempowered in some parts of the region, thereby weakening the links between agriculture and nutrition. Given the central role of women in caring for children, their roles and expectations are crucial in either enabling or limiting their capacity to make decisions and exercise control in order to eliminate the problem of undernutrition. Hence, understanding local, context-specific differences in allocation of resources and relationships within households, including the divisions of labour are fundamental to achieving progress in tackling poor nutrition of children. This is a gap that LANSA research seeks to fill in order to better inform policies and programmes.

Fragility: State capacities and political willingness

From LANSA's perspective, major factors that influence agriculture - nutrition pathways and disconnects are the State's capacity and political willingness to cope, respond and adapt to the stresses and shocks of fragile contexts. Contexts might be characterised as fragile as a result of pre-existing environmental conditions, long-term stresses brought about by climate change, and/or violent conflict. Such shocks and stresses directly impinge on the ability of governments to deliver their core functions and basic services.

Innovation Systems

A system of innovation is a network of organizations, enterprises, and individuals – formal or informal – focused on bringing new products, new processes, and new forms of organization into economic use, together with the institutions and policies that affect their behaviour and performance. The research under LANSA attempts to show that the innovation system framework provides a more realistic picture of how changes in agriculture come about and can be sustained. The central belief is that all actors are capable of innovation, and that change by one often requires changes by others if positive impacts are to be shared and spread. Interactive learning and an enabling policy are key for such coherent innovation. A better understanding of where this is or is not taking place can throw light on the pace and extent of technological change in relation to location, gender, wealth, political influence and other dimensions of exclusion, and is relevant to innovation that can enhance the contribution of agriculture to nutrition.

LANSA's Responsive Window

LANSA's Responsive Window is a programme within the LANSA RPC since its inception. It seeks to engender a wider sense of engagement among national and regional stakeholders in the challenge to improve the nutrition sensitivity of agri-food systems, policies, programmes and interventions. LANSA has set apart funds to launch two open calls for research proposals from the region. The first wave of this call made in mid-2014 focused on policy-relevant research to identify options for promoting an enabling policy and institutional landscape for nutrition-sensitive agriculture in South Asia.

The second wave under the Responsive Window of LANSA will be oriented toward measuring success in integrated interventions, including issues of scaling and replicability, to show how policy can draw upon, and thus support, grassroots success. The call for proposals under the Second Responsive Window will be available on the LANSA website (www.lansasouthasia.org) later this year, by about June/July of 2015.

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LANSA in India

Studies in India under LANSA research encompass all three research pillars. Under research Pillar I, a study led by Leverhulme Centre for Integrative Research on Agriculture and Health (LCIRAH) examined the heterogeneity in the correlates of child nutrition across several States in India[7]. Height-for-age (HAZ) distributions vary substantially across Indian states. The paper explores the relative importance of covariate and coefficient effects by comparing a set of States with poor nutrition outcomes (Bihar, Madhya Pradesh, Uttar Pradesh, Odisha and Gujarat) against the benchmark of Tamil Nadu, a good performer. Using NFHS-3 data from 2005-06, the paper examines the predominant drivers of the large contrasts in the height-for-age distribution between these poor performers as compared with States at the other end of the spectrum. Previous public policy research from India suggests that there are strong cross-State variations in governance and institutional quality.

Interpreting the strong coefficient effects as reflections of these variations and their influences on the nutrition sensitivity of policies, the results are discussed in light of the superior track record of implementation of food and nutrition programmes such as the ICDS programme and the public distribution system in Tamil Nadu. Other State-specific insights that arise from the results include the particular importance of improved sanitation in Gujarat, and the strong association between agricultural land ownership and height-for-age in Tamil Nadu, Bihar and Madhya Pradesh, particularly at the bottom tail of the HAZ distribution representing the nutritionally vulnerable sections. The driving conclusion is that a targeted approach for tackling malnutrition in India will require special focus on large States with poor nutritional performance. A forthcoming Institute of Development Studies led study on nutrition and agriculture in public policy debate in India views the subject from a historical perspective and aims to critically assess national-level framing of nutrition and agriculture policies in India since 1949.

Work carried out at MSSRF, using State, district and household level data on different aspects of 'enabling environment of women's agency, water, sanitation and health' and their effects on agriculture-nutrition links in India has resulted in five recent publications. One of the early papers[8] explores the possible linkages between agricultural prosperity and rural child nutrition at the macro level of the States, using panel data fixed effects and random effects models controlling for sanitation and safe drinking water. The four indicators of agricultural prosperity, viz., agricultural growth, worker productivity, land productivity and food grain production per capita, used alternatively, lead to the conclusion that a negative influence of agricultural prosperity on child undernutrition exists and that agricultural prosperity reduces child undernutrition, though the influence of various aspects of prosperity on underweight and stunting differ. Other aspects such as wages of women agricultural workers help to reinforce the negative influence of agricultural prosperity on underweight in children and the land operational inequality dampens the impact of agricultural prosperity as it increases the incidence of stunting . Higher wages for women workers, as a component of agricultural prosperity, is associated with reducing the incidence of underweight in children. On the other hand, land operational inequality dampens the impact of agricultural prosperity as it increases the incidence of stunting in children. Different variables seem to influence stunting and underweight to different extents. For instance, clean water supply and sanitation help reduce child undernutrition overall, albeit to different extents as regards stunting and underweight. The study reveals that Indian agricultural growth through higher food grain production and productivity, when it percolates through in the form of better labour productivity and higher wages, can reduce child undernutrition in rural India. However, public policy has to promote social provisioning of sanitation and health and make sure that agricultural growth is consistent. Public policy should ensure that growth translates into higher labour productivity and higher wages.

Another publication based on household level data from the India Human Development Survey (IHDS) tries to understand the relevance of diversity in crop production and livestock ownership in reducing undernourishment by focusing on women's BMI in rural areas[9]. The focus of the study is on women in households that cultivate at least one crop, and aims to assess the impact of production diversity both in terms of crops and livestock, along with household variables that capture economic status (income and assets), dietary diversity, socio-demographic features (education, religion, caste, household size and composition), the woman's work status (participation in the type of economic activity), her status within the household (eating along with household members, practice of purdah), quality of basic amenities (water, sanitation, cooking fuel and electricity) and health status/access to health infrastructure. The study finds that the influence of agriculture on diets/BMI is better captured in a dietary diversity model than in the BMI model. This could be because the information on agriculture and diets is at the household level while BMI is for an individual.

A more diversified agriculture and livestock holding as well as larger proportion of sale of crops has positive influence on dietary diversity after controlling for income and wealth effects. A woman's BMI is influenced by dietary diversity, her own economic activity, her status within the household, access to basic amenities and short-term morbidity status. Socio-demographic variables like caste and

religion affect both the first-stage dietary diversity regressions and second-stage nutrition regressions. The results of this study also show a differential impact of these determinants of BMI across the BMI distribution using a quantile regression model for the second stage.

A third study[10] examines the effectiveness of women's agency in reducing the proportion of underweight children in the context of agricultural prosperity and enabling factors such as sanitation and health. Using District Level Household Survey (2002-04) data for 521 districts across 29 States and Union Territories, the paper examines the association of female work participation and women's education above secondary level - components of women's agency- with child underweight, separately for the district as a whole and for the rural population of the district. Triennium average per worker GDP in agriculture and triennium average per capita food grain production in the district are taken as proxies for agricultural prosperity, the proportion of population with access to toilets represents sanitation, and prevalence of anaemia among pregnant women that captures the general health status of the expectant mother is the health variable.

Using ordinary least squares regression estimates compared with quantile regression estimates, it is found that women's agency impacts of education and work participation appear significant and negative on underweight children for most part for 60 percent of the districts for rural population and 80 percent of the districts for total population. Women's education above primary level has a positive influence on reducing the proportion of underweight children in all quantiles both for the rural population of the district and total population of the district. However, in the lowest quantile at the district level and 20th and 40th quantiles at the rural population level, female work participation does not seem to help underweight children. Agricultural prosperity seems to have a weak link to child undernutrition in the presence of female work participation and sanitation. A lower prevalence of anaemia in pregnancy was shown to be associated with a lower incidence of underweight in children in the district. The overall findings of the study indicate that women's agency factors have an impact on child undernutrition only in districts where some progress has been made in reducing the proportion of underweight children. The government will need to promote female education more vigorously along with enabling factors such as sanitation to reduce underweight rates in India.

Another study examined, within the limitations of the data available, the characteristics of a district in terms of agricultural productivity, public provisioning of sanitation, water supply, and health services that would make it a district with a high burden of malnutrition. In addition, the study examined the relationship between child underweight and this same set of factors to understand how the districts that fall within different quintiles are associated with these factors[11].

A fifth research publication attempts an empirical explanation of slow welfare outcomes such as lower incidence of underweight in children, both from the capitalistic aim of achieving higher land productivity in agriculture and the social provisioning aim of achieving better nutrition and public health. The study was carried out across 430 districts in India after excluding 100 percent urban and metropolitan districts[12]. Women's literacy and its interaction with work participation and pregnant women's health status was shown to influence the incidence of child underweight. A simple Ordinary Least Square equation and quantile regression analysis, alternately using either land productivity or worker productivity in agriculture along with women's agency aspects show stronger influence on outcomes than the public provisioning of health and water supply. While agricultural land productivity and women's agency impacts are clear at all levels, public provisioning works only in some quantiles, probably due to poor quality of the service or limited coverage of services.

Some of the broad conclusions emerging from all the studies help in understanding the nature of agriculture-nutrition linkages and the enabling conditions that impact positively on child nutrition, especially, in the context of the agricultural transformation under way in India.

- The link between agricultural GDP growth and child nutrition outcomes are weak, but the links between agricultural land productivity and child nutrition are stronger, albeit nuanced. They appear to relate to both agricultural and non-agricultural work opportunities and to increase in productivity of both food and non-food crops. Links exists at all levels, State, district and household, wherever the benefits are spread across all income classes.

- The availability of health and sanitation services is very relevant. Services such as full vaccination and administration of ORS have stronger links to child nutrition, though it is not clear whether the services are provided by the public sector or private sector. The availability of public water supply does not seem to have an association with child nutrition.

- Production diversity along with livestock ownership at the

household level leads to better dietary diversity of the household and is associated with higher BMI for women in the household.

- Women's education together with women's work participation at the district level seem to be associated with reduction in the incidence of child underweight, though it is not clear how far it helps within the agricultural sector.

Under the research Pillar 2, which pertains to downstream post-farm gate activities, the studies involve both the policy sphere and the agri-food value chains. Focusing on policies, there are currently two studies on the Public Distribution System (PDS) - one on farm credit and its impact on agricultural productivity and nutrition outcomes and the other on assessing the impact of rural public investments on nutritional outcomes. Under the second component of research pillar 2, focusing on agri-food value chains, a country review of pro-nutrition value chains in India is being followed up with case studies under three categories - naturally nutrient-dense foods (e.g. millets), foods with increased nutritional value (e.g. some brands of fortified biscuits) and food distribution (e.g. food delivery under the ICDS).

Intervention studies under Pillar 3 are being conducted in two distinct agro-ecological zones in India – one in villages in Wardha district of Maharashtra and the other in Koraput district of Odisha. The interventions are aimed at evaluating the feasibility of a Farming System for Nutrition approach[13,14]. Detailed baseline household surveys of socio-economic, occupation profile, nutrition status, time use and access to resources and decision making have been completed. Field trials and frontline crop demonstrations on farmers' fields with technical guidance have been undertaken. Household and community nutrition garden demonstrations and poultry and fish farming activities have also been initiated.

At each site, stakeholder platforms of NGO and government officials and technology platforms of research institutes and private sector entities have been set up for leveraging intervention and knowledge partnerships for the successful conduct of the study. Based on the local agro-ecology, nutritional status assessment of the community, and experience with crop demonstrations, the intervention designs for nutrition-sensitive farming systems are being drawn up and will be implemented from the forthcoming agriculture season. In addition, research under Pillar 3 also includes a pilot feasibility study in two blocks of Keonjhar district in Odisha on the potential for community-led educational videos to promote better nutrition. This study was carried out by International Food Policy Research Institute(IFPRI)[15].

Relationship building is priority for acceptance of LANSA research and to influence public policy. Keeping this in mind, LANSA researchers continue to present research findings to different sets of stakeholders at every opportunity. Stakeholder engagement plans in India as part of research uptake range from interviews to periodic consultations, round table interactions and efforts in the form of online rapport. Research under LANSA was presented in August 2014 at the International Year of Family Farming Conference hosted by MSSRF in Chennai and at several other conferences, both national and international, under the broad theme of 'Nutrition and Agriculture'. In October 2014, as part of capacity strengthening activities, a three-day workshop was conducted for nutrition scientists on using the Optifood Tool for diet analysis.

The goal of the LANSA RPC

Nutrition-sensitive programmes have an impact on the underlying determinants of poor nutrition through closer interaction with complementary sectors such as agriculture, health, education and social protection, as well as with clean water supply and sanitation. Many programmes in these sectors are essentially nutrition-sensitive as they address many of the underlying determinants of nutrition. They are often implemented on a large scale and thus can be effective at reaching large vulnerable populations[16]. Nutrition-sensitive programmes can also be leveraged to serve as delivery platforms for nutrition-specific interventions by increasing the effectiveness, coverage and scale of these interventions and thereby helping to accelerate progress towards improving the nutrition of the community. The importance of nutrition-sensitive programmes is also seen in their potential impact on changes in food and non-food prices the consequent increase in household incomes, and women's empowerment. From a global perspective, nutrition-sensitive programmes can help protect poor populations from the negative consequences of global food security threats and mitigate the effects of economic, weather-related, and man-made shocks and conflicts. They help to protect the assets and welfare of poor people and their investments in the health, nutrition, and education of their households.

LANSA's goal is to ensure that policy-makers and practitioners in the countries of the South Asian region use the highest quality evidence on effective policies, strategies, interventions and actions to accelerate nutrition security and to make agriculture more 'pro-nutrition'. For LANSA's research to be transformational, it needs to generate multiplier and catalytic effects over time. Hence, the RPC will focus on large-scale operations such as micro-credit, social protection, land grants, etc. and not so much on small-scale interventions such as homestead food production and kitchen

gardens alone. Policy itself is, of course, large-scale and LANSA has a strong focus on improving the nutrition-sensitivity of agriculture and agri-food systems, policies and programmes. Given that large-scale agricultural initiatives cover large sections of the population, many people are invested in, or affected by, the success or failure of such programmes. Hence generating new, high-quality and actionable evidence to inform policy will be LANSA's core contribution.

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FOUNDATION NEWS

- Gopalan Oration Trust has honoured Dr Prema Ramachandran (Director, NFI) by requesting her to deliver Thirty Ninth Gopalan Oration during the Annual National Conference of Nutrition Society of India to be held at the National Institute of Nutrition, Hyderabad on 9th and 10th of October 2015.

- Dr Prema Ramachandran attended the National Thematic Workshop on best practices for Women and Child Development organised by the Ministry of Women and Child Development at Panipat on 20th January 2015 and co-chaired the session on Addressing Anaemia

- Dr Prema Ramachandran attended the meeting of the Expert Committee organised by the Ministry of Women and Child Development on 23.3.2015 for finalisation of the draft rules framed under the National Food Security Act pertaining to ICDS.

- Dr Sarath Gopalan, Deputy Director, NFI, participated in a two-day seminar on "Missed Opportunities in Nutrition" on 30th-31st January, 2015 and made a presentation on "Strategies to improve maternal and child health and nutrition – what did we not do? What can we do now?

NUTRITION NEWS

The 47th Annual National Conference of the Nutrition Society of India is scheduled to be organised at National Institute of Nutrition, Hyderabad between 9 and 10th October 2015 along with two pre-conference workshops on 8th October 2015. The theme of the Annual conference is "Nutrition and agriculture – the connect and the disconnect". The details of the conference will be uploaded on www.nutritionsocietyindia.org soon.

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