Chapter 5
COMMUNICATING NUTRITION IN
COMMUNITY SETTINGS -
SOME APPROACHES IN PRACTICE
INSTITUTIONAL APPROACHES TO NUTRITION COMMUNICATION

Nutrition Communication and positive results, if any from it, are difficult to reproduce routinely on a large scale. Given the limited resources available in most settings, nutrition communication efforts are usually designed to have an impact on large sections of the population in a cost-effective way. From a review of literature, Smith (1997) identified the following factors as important for affordability, effectiveness, and reach, particularly for large-scale programmes.

**Programme design:** A plan for building commitment at all levels, planning for monitoring and evaluation are crucial in the programme design. Clear and achievable goals, objectives and strategies should ideally be based on an analysis of the factors affecting the target groups. Planning should be done for training and capacity building.

**Targeting:** Involves group customization of communication (Kreuter and Skinner, 2000). Targeting involves development of single communication approach for a defined population sub-group that takes into consideration the common characters commonly shared by the sub-group’s members. Appropriate group targeting can substantially reduce costs (Berg, 1987).
Duration: If demonstrated improvements in the nutritional status of large population groups are being aimed for, the programmes have to be sustainable. As communication has to deal with groups of audience who are at different stages of behaviour adoption, it has to be considerably long drawn, reinforcing and reiterative. New programmes must have sufficient lead in time to allow for detailed planning, consultation and field testing of education resources (Parlato et. al., 1992).

Community participation: Participation of the community and community leaders to promote solutions to nutrition problems is widely recognized. (Parlato et al, 1992; Cerqueira and Oslem, 1995; Whitehead, 1993). Participatory approaches see people as the nucleus and necessitates listening, and trust thus reducing the social distance between communicators and receivers, between teachers and learners, between leaders and followers as well as facilitate an exchange of ideas, knowledge and experiences (Servaes and Malikhao, 2005). Participation also stresses the importance of cultural identity of local communities and of democratisation and participation at all levels. It points to a strategy, not merely inclusive of, but largely emanating from, the traditional ‘receivers’ (Freire, 1983). Such participatory efforts are likely to address the needs of the people and achieve results that can be continued with minimal external inputs.

Strategies: They are usually descriptive of the audiences’ patterns of use and what they know as they have an interactional function of enabling a joint
negotiation of meaning between the sender and the receiver in order to achieve objectives of a set communication process (Tarone, 1981). Strategies usually try to define the suitable means, media and approaches to communication. Strategies are to be designed to create supportive environments to strengthen local ownership and to develop structural and institutional support.

There are many players in the field of nutrition communication, with a variety of programmes aimed at larger audiences. Today nutrition communication is part of many development and health programmes across sectors. As the National Nutrition Policy, 1993 recognizes that “...nutrition affects development as much as development affects nutrition...”, nutritional concerns are being integrated into various developmental policies and programmes being taken up at various levels by the Government. Non-Governmental Organisations (NGOs), international organisations and research institutes are also putting in considerable efforts in taking the message of nutrition to the community. Government Organisations engaged in nutrition education and communication activities would subscribe to the larger 'national priorities' laid down in the government policy documents, which in turn could have been aligned with the global priorities identified by the international organisations and/or UN agencies. The research organisations and civil society can play a very important role in the formation of public opinion through independent groups or associations. Successful
experiments in community settings carried out by research sector and public opinion through civil society groups can reach the government and have an impact on its policies and priorities, other than contributing to a change in the overall nutrition scenario of the public. These organizations are significant groups as the public often considers them as independent groups and holds their opinions as credible. Thus they remain to be powerful opinion leaders, educators and communicators for the public (Meshesha, 2008). It is a common understanding that in different nutrition communication programmes by different organizations, the extent of participation varies and accordingly the model adopted is likely to differ. A study was conducted with the following aims:

1. To document nutrition communication approaches being adapted by four different organizations in four different sectors (one each from a Government Department, a Research Institute and an organization in the Voluntary Sector).

2. to understand the notion of nutrition communication as perceived by these organizations (or the implementers in the organizations)

Methodology

‘Case study method’ was employed for the study. The ‘case study’ is a research strategy which focuses on understanding the dynamics present within a single setting while studying the particularity and complexity of a single case covering its activity within important circumstances (Eisenhardt, 2002; Stake, 1995).
For the present study, four different organizations from four different sectors were purposively selected for 'case studies'. The Food and Nutrition Board of Government of India was selected from the Government Sector, National Institute of Nutrition (NIN) from Research and Development Sector, and the Deccan Development Society (DDS) from the Voluntary Sector.

As suggested by Eisenhardt (2002), the case studies combined data collection methods such as information gathering from archives, in-depth interviews with the key people involved in nutrition communication in each organization and observations (wherever possible). Semi-structured in-depth interviews were also conducted with the food inspectors. These interviews are “speech events” closer to friendly conversation than the stimulus-response model found in a survey research interview. They involve asking questions, listening, expressing interest and recording what was said. Questions are open-ended with frequent probes and do not follow a specific order (Newman, 1994).

In preparation for the semi-structured in-depth interviews, a theme guide was prepared (Appendix-4). The theme guide listed the following topics around which the interviews would focus:

a. Various nutrition communication activities of the particular organization and its target audience

b. Whether nutrition communication was a planned effort with a monitoring and evaluation component, budget and specific objectives.
c. Indicators for success of the nutrition communication efforts – laid out in the programme and/or perception

d. Community participation

In summarizing each of the organizational case studies, a standardized format (Smith, 1997) of highlighting key aspects of the nutrition communication programmes was followed, by documenting the nutrition issues being addressed, objectives, target groups, sectors and/or settings involved, strategies used, duration of the project, results from evaluations (if available), and finally the conclusions of the case study from observations and inferences. Efforts were also made to identify funding resources in order to assess the possible effect of resource constraints. Each case study summary is followed by a brief discussion, which provides conclusions regarding the trends which emerge overall, how these compare with past reviews and what examples of best practices are provided by these studies to better inform similar projects in the future.

CASE STUDY-1:

FOOD AND NUTRITION BOARD, GOVERNMENT OF INDIA

The Food and Nutrition Board (FNB) was established in the Department of Food, Ministry of Agriculture in 1964 as a non-statutory ministerial wing with the objective of diversifying Indian diet for improving the nutritional status of the people. The functions of the Board included development and popularization of subsidiary and protective foods; nutrition
education; extension and food management; conservation and efficient utilization of food resources; and food preservation and processing (MoWCD, 2004).

After the Government of India adopted the National Nutrition Policy in 1993, FNB was transferred to the Department of Women and Child Development. The infrastructure of the FNB (Fig-11) comprises of a technical wing at the Centre, four regional offices and quality control laboratories at Delhi, Mumbai, Kolkata and Chennai and 43 Community Food Nutrition and Extension Units (CFNEUs) located in 29 States and UTs (FNB, 2008).

![Figure 11. Infrastructure of Food and Nutrition Board](http://wcd.nic.in/ar0304/chapter5.pdf)
The major activities of the Food and Nutrition board are as follows (DWCD Annual Reports, 2002-03 to 2007-08):

**Nutrition Education and Training:** Nutrition education of the people in rural, urban and tribal areas is carried out through its 43 Community Food and Nutrition Extension Units (CFNEUs) in different States/UTs in collaboration with State Governments, National Institutes and Social Organizations. Each CFNEU is equipped with a mobile van, audio-visual equipment and is manned by ‘technically trained’ personnel. FNB Headquarters, through its four Regional Offices, provides the logistic support for the functioning of these units (MoWCD, 2004).

In order to disseminate information regarding nutrition at community level, each CFNEU organizes five-day training programmes for Master Trainers comprising Child Development Project Officers (CDPOs), Assistant Child Development Project Officers (ACDPOs), Medical Officers, Lady Health Visitors, Senior Supervisors of ICDS/Instructors who in turn act as trainers for the grassroots-level ICDS functionaries such as Anganwadi Workers and the community at large. The five-day training programme usually covers various issues relating to nutrition of infants, young children, adolescent girls, pregnant and lactating women, and various forms of malnutrition, like undernutrition and deficiency of micro nutrients such as iron, folic acid, vitamin A and iodine. The programme lays adequate emphasis on community based
mechanism for monitoring and reviewing nutrition levels and communicating nutrition information utilizing all available channels (FNB, 2008).

Each CFNEU organizes a Training of Trainers (ToTs) Course for 15 master trainers in each quarter of the year (Fig-12). Each of these master trainers in turn organizes four Orientation Training Courses (OTCs) of two day duration for 30 participants comprising grass-root level functionaries and volunteers from community under the supervision of FNB staff.

Figure 12. Training of Trainers
Source: Annual Report of Department of Women and Child Development 2007-08

In addition, live demonstrations on various aspects of nutrition are organised by CFNEUs in rural and tribal areas, and urban slums to create nutritional awareness among the people. Cooking demonstrations of some low cost nutritious recipes is also a part of this (Fig-13).
Training of home scale preservation of fruits and vegetables and Nutrition:
This is a five-day training programme that is aimed at women (usually housewives) and adolescent girls. These programmes are organized by CFNEUs with a view to promote consumption of fruits and vegetables which are rich sources of micronutrients, fibre and antioxidants, and also to strengthen their skills in fruit and vegetable preservation so that it can serve as an income generation activity for the participants.

A Ready Recokner on Home Scale Preservation of Fruits and Vegetables printed by FNB in 12 regional languages is provided to each of the trainees. Apart from this, the processing facilities put up at various CFNEUs can be used by the community at nominal charges for preserving fruits and vegetables when available in plenty for glut season.
Monitoring of ‘Supplementary Feeding’ and ‘Nutrition and Health Education’ components of ICDS: The CFNEUs are also responsible for monitoring the ‘supplementary nutrition’ and ‘nutrition and health education’ components of ICDS in their respective areas of location. The staff of CFNEU generally spend a day, at the time of inspection at various anganwadi centres, and conducts nutrition education demonstration for the benefit of anganwadi workers as well as the community. The observations of the staff during the inspections are periodically reviewed at the headquarters and the States are requested to take appropriate corrective measures (NIPPCCD, 1992; Sarma et. al., 1992).

Mass Awareness Campaigns: Events like National Nutrition Week (1-7th September), World Breast Feeding Week (1-7th August), World Food Day (16th October), Global Iodine Deficiency Disorder (IDD) Day (21st October), International Women’s Day (8th March), Universal Children’s Day (14 November) etc, are organized by all the CFNEUs on a large scale in association with the State Governments, educational institutions, NGOs and the media (NIN, 2007). These events were marked by the organization of workshops, special nutrition education programmes, exhibitions and coverage through radio, TV channels (usually government owned) and the Press.

Mass Media: Video spots on various topics like ‘Infant and Young Child Feeding’, ‘Preparation of Instant Foods for infants at home’ and ‘Nutrition of
the Girl Child’ etc are telecast through Doordarshan. Audio jingles on a variety of nutrition related topics aimed at women are broadcast through All India Radio.

These mass media based education material are used by some state Governments for education of the functionaries and Self-Help Women Groups (SHGs) in training courses.

**Development, production and distribution of educational/training material:**
Popularization of low cost nutritious foods from locally available raw material is one of the mandates to the Board under the National Nutrition Policy 1993 (FNB, 1993; 1995a). The field units of FNB have been developing low cost nutritious recipes from locally available foods keeping in view the requirements of infants and pre-school children, and propagating the same through training courses and nutrition education programmes.

The preparation of ‘sattu’, ‘ragi and ground nut laddu’, like instant foods using locally available food grains and nuts/oil seeds and other nutritious preparations for children standardized by CFNEUs have been adopted by some State Governments in their nutrition programmes.

**Food analysis and standardization:** There are four Quality Control Laboratories (QCL) of FNB located at Delhi, Mumbai, Kolkata and Chennai. These QCLs analyze processed Fruit and Vegetable Products as well as
various supplementary foods used in ICDS and Mid-day Meal scheme. The samples of the supplementary foods used in ICDS and Mid-day Meal Programme are received from the State Departments of Social Welfare and Women & Child Development for analysis.

Apart from these, FNB also renders technical advice on food quality and standardization to various committees of Department of Health, including Codex, Bureau of Indian Standards (BIS) etc. (FNB, 2008).

One of the terms of reference of the National Nutrition Mission constituted under the chairmanship of the Prime Minister is to review the National Nutrition Policy (1993) and National Plan of Action on Nutrition (1995) with a view to facilitate setting nutrition goals for the next decade and effective policy direction and inter-sectoral collaboration. A Working Group for Review of National Nutrition Policy and National Plan of Action on Nutrition was constituted under the chairpersonship of the Secretary (WCD). A draft review document on National Nutrition Policy highlighting the mandate of the policy, achievements during the last one decade, constraints in fully operationalizing the policy, vision for the next decade and some macro and micro level strategies for achieving the national nutrition goals, was prepared for consideration by the Working Group. The first meeting of the Working Group was held on 17th February, 2004 under the chairpersonship of Secretary, WCD (FNB, 1993; 1995a, b; MoWCD, 2004, DWCW, 2006).
Inferences from in-depth interviews

Two in-depth interviews were conducted with the key communicators in Food and Nutrition Board. The first interview was conducted with the Assistant Technical Advisor, who was aged 60 years and a post-graduate in Sciences. He has been with FNB ever since its inception and served in different CFNEUS in north, east and south India before assuming office in Hyderabad. He is fluent in Hindi, English Tamil and his mother tongue is Telugu (the language spoken in Andhra Pradesh). The second interview was conducted with a 47-year-old Demonstration Officer, who was also a Post Graduate in Science and worked in Tamil Nadu before assuming office in Hyderabad about four years ago. He is fluent in Tamil and English and learnt Telugu after coming to Hyderabad. Now he is fluent in the language and carries out nutrition education programmes of the Board even in rural areas. The inferences from these two in-depth interviews have been categorized under the following topics interspersing relevant quotes from the interviews.

Nutrition Communication activities and targeting

When asked how the limited staff available in each unit would deal with training programmes for the middle level health functionaries, the Assistant Technical Advisor of Andhra Pradesh said,

We have a standardized training programme on nutrition and health. Since we ourselves cannot engage them through the training programme, we also source guest faculty from reputed home science colleges, social and preventive medicine departments of medical colleges or research institutes.
Nutrition education being the focus of these training programmes, the emphasis is more on Infant and Young Child Feeding Practices (IYCF), Nutrition for pregnant and lactating mothers as well as nutrition during adolescence. When asked how they address changing context of food and nutrition in their training programmes, the Demonstration Officer said,

While undernutrition and related programmes and strategies are our focus in training programmes, we are now covering topics like growing obesity and non-communicable diseases in our training programmes.

As mentioned above, the middle-level health functionaries are expected to act as master trainers and they are in turn expected to train the grassroots level health functionaries i.e., Anganwadi Workers. Of late, the mothers’ committee members, who have been helping running the Anganwadi Centres in various villages, are also being ‘trained’ as master trainers. There are a variety of reasons why a new group is being explored or experimented to act as master trainers. While the Demonstration Officer felt that the mothers are the ‘nodal agents’ to communicate to the others, the Assistant Technical Advisor had a different story to narrate. He said,

Earlier, say about 5 years back, FNB was funding the master trainers to organize second level training programmes for Anganwadi Workers, Mothers’ Committees and also Adolescent Girls. But there were instances of misappropriation of finances and hence we have started training the Mothers’ Committees and adolescent girls or the second-level.

As regards the direct-to-community programmes, which are aimed at three different groups of audience, viz., mothers of infants, pregnant and
lactating women, adolescent girls, the content usually cover locally relevant themes. They include ‘food fads and fallacies’, ‘nutritious food need not be costly food’, ‘benefits of traditional foods’ and other relevant topics based on the group.

When asked how the target audience for these direct-to-community programmes are reached, it was indicated in the in-depth interviews that the women and children are mobilized through Andganwadi Workers. The Assistant Technical Advisor indicated that there were often many problems at household level which hinder the participation of women in the rural areas and urban slums. He said,

There is often a problem of men discouraging women from taking part in our community awareness programmes as they (women) would have to forego their daily wages to attend such a programme.

Programme Design and Monitoring & Evaluation:

The programme design is uniform for all the CFNEUs. They work against a given target of conducting at least one Training of Trainers Programme per quarter, three orientation training courses per quarter, 10 Direct to the Community Programmes per month, 11 inspections of Anganwadi Centres and their training if needed. Each Centre is expected to meet this target.

When asked about the monitoring and evaluation of the programmes, it was informed that there is no inherent mechanism for monitoring or
evaluation. The Assistant Technical Advisor said that they have to send reports of the completed programmes along with documentary evidence like photographs etc to the headquarters in New Delhi. Sending Annual Report of Activities is also mandatory.

As regards evaluation of the programmes by an outside agency, he could hardly recollect any such effort except studies by the National Institute of Public Cooperation and Child Development (NIPCCD) in 1992-93 and 2000.

**Budget for Nutrition Communication**

Informing about the budget the Assistant Technical Advisor felt that it was too meagre to meet the set targets. There appears to be no separate budget for communication activities. The amount that is allotted to the centre has to be spent for all the activities that it has to carry out. To report in the words of the FNB official,

... the annual budget of entire Food and Nutrition Board was a little over 3 crore rupees in 2007-08. Now, can you imagine what will come to each unit, which is expected to organize about 4 trainings of trainers, 12 programmes for Anganwadi Workers and 120 direct-to-community programmes and almost the same number of inspections of Anganwadis. But we have to make do with what we get.

**Indicators of success of training programmes**

Answering a probe on how they usually find out whether their training programmes have had any impact on the target groups, he said that they
would informally talk to the participants of the training programmes and find out from them. According to him there is no other mechanism.

We informally find out from the Anganwadi Workers during the courses if they consider our programmes relevant to them. Since they have to undergo training once in six months or at least once a year, we get to interact with them. At that time we try to follow up with them and the response is usually good... I can say at least half of them seem to practice (what they learn).

However, even this kind of an informal follow-up is rarely possible in case of Direct-to-community programmes owing to the geographical area each unit has to cover.

Due to staff constraints, we cannot even go back to the same village once in many years. For instance, we are just five of us (technical staff), supported by five others. Our area of operation includes Telangana districts and Kurnool and Anantapur Districts in Rayalaseema of AP. With all the targets that we are expected to meet, we can hardly revisit less than 10% of all villages that we ever went to.

Yet another informal mechanism that the Demonstration Officer explained was as follows,

After conducting the training programmes for adolescent girls or the Mothers’ Committees, we usually ask them to get back to us the next day with a low-cost nutritious food preparation that we would demonstrate to them. But this may not be possible in all the centres.

Community participation

The approach in almost all the communication activities is didactic. When we asked the officials whether they took into consideration what their audience already know or how (through which media) they prefer to learn, the officials said that they ‘often’ undertake pre- and post-course evaluation
of knowledge by employing questionnaires during the training programmes for middle-level health functionaries.

As regards the media preferences it was reported that they do not have any such information, but the Technical Advisor explained saying, “from my experience, I think they prefer discussions where they can share ideas. But we are hard pressed for time and work with limited staff and shoe-string budgets.”

Community participation and community ownership of the programmes are almost unheard of for the Department. The level of participation is only limited to passing on the ‘nutrition knowledge’ to the others (middle-level functionaries to anganwadi workers and through them to the community). The only area where community participation is involved is in training programmes pertaining to fruit and vegetable processing. The women after they are trained are encouraged to practice them to build finances of the family or use the fruits and vegetables in ‘unseason’. The technical Advisor informed that,

We have some facilities at our CFNEU’s, where we have modest food processing equipment to make juices, pickles etc. We strongly encourage women to make use of the facilities free of cost. Women can make the fruit juices etc for their household use or for commercial use. We charge a nominal processing fee of Rs.2/- per bottle.
Comments

The nutrition education/communication approach adopted by FNB can be summarized as below (Fig-14). Whether it is training of the functionaries or training of the community itself or reaching the message of nutrition to the ‘beneficiaries’ through them, the organization’s approach seems to be didactic and hence can be summarized as ‘top-down’ approach with some emphasis on multiple-step flow of nutrition communication.

This model appears to be largely framed in the ‘opinion leader theory’ (Katz and Lazarsfeld, 1955), which postulated that interpersonal communication plays a crucial role in channelling and shaping the opinion. There are two or more steps in information flow viz., from the source to the opinion leaders, and from leaders to the ‘masses’.

Considering that the approach(es) chosen by FNB for communication of nutrition information is dominated by conventional educational approaches that emphasize knowledge transmission and acquisition with an inherent assumption that these would ultimately lead to change in attitudes or behaviours, it can even be categorized under the ‘Information dissemination’ approach of nutrition communication indicated by Valyasevi and Attig (1994). As there is intermittent use of mass media and additional educational material like posters, mass media etc., it partly adheres to the ‘Education Communication’ model as well.
Over all, the case study brings to the fore a number of issues like lack of systematic evaluation of the programme on the whole and the communication (rather education) component in specific, complete lack of planned communication effort and an almost elusive feedback mechanism. These make it impossible to assess the role of FNB in nutrition communication and thereby achieving nutritional improvements on a national scale. Furthermore, lack of knowledge of the staff on the importance of ‘learning from the community’ before ‘making the community learn’ coupled with large number of target programmes that they have to conduct and limited resource (both financial and infrastructure) allocation underline the need for a thorough relook at the approaches employed for nutrition communication.
CASE STUDY -2

DECCAN DEVELOPMENT SOCIETY (DDS) - A VOLUNTARY ORGANISATION

About DDS

The Deccan Development Society (DDS) is a Non-Government Organisation (NGO) based in Zaheerabad area of Medak district in the southern state of Andhra Pradesh, India. Incorporated in 1983, this grassroots organisation is working in over 75 villages with women's societies. With over 5000 registered members, the Society aims to bring the village groups (Sanghams) together into a strong pressure group for women, dalits (socially marginalized) and the poor, and to facilitate debate, discussion and educational activities that will encourage local governance and autonomy over local resources.

The organization’s goal is to convert the Sanghams into self-sufficient, self-reliant and self-provisioning in their regional areas. For more than 20 years, DDS' work has focused on regenerating rural livelihoods by combining indigenous farming knowledge, eco-friendly technology and gender justice.

The society claims to be promoting people oriented participative development in the areas of food security, ecological agriculture and alternate education. It is also trying to reverse the historical process of shift in food habits, degradation of environment and people's livelihood system in this
region through a string of land related activities such as perma-culture, community grain bank, community gene fund, community green fund and collective cultivation amongst others (Deccan Development Society, 2009). Listed below are the various initiatives the NGO is working on –

**Autonomous Communities**

The women of the DDS Sanghams have been actively working towards autonomy over food production, autonomy over seeds, autonomy over natural resources autonomous market and autonomous media. They successfully got control over their own food production, seeds, natural resources, healthcare systems, markets and media.

Since 1995, DDS Sanghams have been running what they call an ‘alternative public distribution system’ in over 50 villages (Fig-15). This is a self-provisioning food system based on the principles of local production of local foods, local storage and local distribution. By bringing cultivable fallow land under production, the women have been producing a basket of crops through a biodiversity-based, ecological food-production system. The focus was on knowledge-based farming, which underlines the importance of mixed cropping, cultivation of native varieties of grains and millets, soil and water conservation, organic agriculture and afforestation.
Community Gene Banks

Promoting food sovereignty being one of the important efforts of DDS, the local population has been working towards taking control over their food sovereignty by promoting village-level Community Gene Funds (Fig-16). Over 1500 women farmers of DDS Sanghams are engaged in growing diverse crops on their marginalized lands. They have established village level Community Gene Funds in 60 villages and have retrieved over 80 land races, which had been obliterated by so-called modern agricultural practices. The community gene bank is very dynamic. The seeds go back yearly to the fields and are offered back to the villages. The women consider seeds their "knowledge" and each farmer works typically with over 15 varieties of seed maintaining strong local biodiversity and promoting diverse, rain-fed, "ecological farming" with no external input.
The women map the surrounding villages to gauge families' entitlements depending on their levels of poverty. Instead of queuing up to plead with the government officials for their ration entitlements, the villagers have almost reached a position to control grain and its distribution. Since 1996, more than 3,000 women in 60 villages have increased productivity on their land; the extra food grain produced about 1,000 extra meals for each participating family per year.

Noteworthy in these efforts is the practice of "hunger mapping", which involves the Society in identifying marginalized sections and run community...
contributed food kitchens for them using resources from Community Grain Funds formed by women in these villages.

**Autonomy over Natural Resources**

The DDS women’s Sanghams have worked on the improvement of their natural resources in multiple ways. Since 1990, they have regenerated over 1000 acres of common land in and around their villages by raising neighbourhood forests. In 28 villages, they have planted over a million trees on the degraded village commons.

The DDS women have also created about 30 Village Medicinal Commons growing over 60 different species of medicinal plants on patches of village common lands.

**Autonomy over market**

Since 1999, the women of DDS have worked on creating a market with about 2,000 members, comprising ecological, self-produced food crops. The sales of their agricultural and other produce yielded profits as well as dividends for the women. A mobile van selling the locally grown food grains was introduced in 2001 to provide people easier access to the produce (Mazhar et. al, 2007). The Zaheerabad Consumers Action Group was also formed which brought out films on local cuisine and a cookbook using ingredients based on the crops that the women produce. It even runs Cafe Ethnic- a millet restaurant.
Cafe Ethnic is a restaurant in Zaheerabad run by a cooperative facilitated by DDS. The restaurant serves healthy, tasty food made with millets - indigenous grains - rather than rice or wheat.

**Household Food Security**

Through many of the above mentioned initiatives, DDS has been working towards ensuring household food security of the poor and the marginalized by encouraging them to work collectively on their marginalised lands towards its incremental upgradation. Through this programme, over 4000 members of the DDS women's Sanghams have improved their own patches of over 10,000 acres of degraded lands allotted to them by the government of Andhra Pradesh as a part of its land reforms programmes through efforts like bunding, trenching, top-soil addition etc. This has made them improve their crop production by over 300 per cent. Lands which hardly grew 20-30 kg of sorghum/acre sometime back, grow about 100-120 kg of the produce today. This indeed is a remarkable way in improving food grain security for the households in the region.

**Food Security for the Community of the Dispossessed**

Under this programme, the Sangham women work as collective cultivators and take charge of large pieces of land on lease from the land owners who were unable to utilise their land for food production. On an average, each Sangham woman member of the land lease group works on the
leased land for four to five days a season and in return earns enough food crop as remuneration. This food would last for their families for over a one month.

**Autonomous media - The Community Media Centre**

This is a significant communication effort of DDS that needs a special mention. The Society has conducted four-day video training workshops over a 10-month period starting in 1998 for about 10 dalit women in the age group of 16-35 years. Their motivation was varied. The seven women who completed all the workshops learnt about the different parts of a video camcorder, how to use a tripod and shoot, the principles of composing a picture, aspects like camera distance, angle and movement, sound recording and editing on a simple home video system.

Narsamma, one of the first batch graduates, did a dramatic report on the damage to crops caused by heavy rain. She told her story standing in ankle-deep water, surrounded by blackened, soggy crops and spoke eloquently about the destruction of "bajra" and "jowar." Her report was aired on the regional channel of the state-owned Doordarshan television network, as well as on the privately-owned ETV channel. Since then, the women have made more than 100 films on issues ranging from food and seed sovereignty to water and urban displacement.
**The community FM radio:** The community FM radio centre is yet another step in this endeavour. The operations of this centre began in 1996 with a 100-watt transmitter, which had a 30-km radius and can cover up to 100 villages. A community produced audio was narrowcast through tapes earlier (Pavarala and Malik, 2007). From 15th October 2008, the “Sangham Radio” went on air becoming the first community radio station in India (The Communication Initiative Network, 2009). This radio station broadcasts programmes on health, local foods, education, agriculture, health, tips for weeding and cropping.

All the initiatives of the society are run through Participatory Rural Appraisal [PRA]. This methodology ensures, all the programs will have total participation of the community, especially the women. The society only acts as a catalyst to guide the community into those activities that the community decides to pursue (Satheesh, 2002).

**Inferences from the in-depth interviews**

In-depth interviews were conducted with the Director and an Agriculture and Nutrition Scientist of DDS. The Director is aged about 55 years and has been one of the founder members of the Society. Basically trained in Journalism and Mass Communication, he has pioneered the participatory approach that the Society adopts in all its programmes. The Agriculture and Nutrition Scientist is aged about 45 and holds a doctorate
degree in Nutrition, was actively involved in the programmes related to restoring the traditional food and farming practices and creation of the alternative PDS.

The inferences from the in-depth interviews with them are listed under the following themes:

**Nutrition Communication activities and targeting**

When asked about the nutrition communication activities of the Society, the Director said that the approach of the organization is purely participatory and aims at learning from people and helping them spread the knowledge among themselves. Citing the example of their activities related to popularising the locally grown grains, he cited how they learnt from the community about their perceptions of the nutritional values of the local foods from the locally grown crops. He said,

The local classification of the nutritional status of crop was based on ‘heat’ and ‘cold’ elements. Based on these the local people recommend different kinds of foods for different human body types and for different seasons. For instance, finger millet is suggested for winter because it is considered a ‘hot’ food and similarly little millet is suggested during summers. Similarly, we learnt from them about 200 odd Green Leafy Vegetables that the local villagers use and most of them are unknown to us. We collected people’s views on how each one of these GLVs is good for health and our agriculture scientists have gotten them analysed for their nutritive values and they surprisingly matched with the virtues of the same listed by the women. For instance, if they said that by consuming ‘x’ variety of GLV, ‘raktam padtadi’ (increase the content of blood) we found that the particular GLV was indeed rich in dietary iron.
Several research papers reiterate these observations (Schmid, 2005; Schmid, et. al., 2006a,b; Salomeyesudas, 2004; Satheesh and Reddy, 2003). For instance, Salomeyesudas’s (2004: 18) article on the uncultivated greens, which the local populations consume in their daily diet, suggests:

To understand the contribution of these green vegetables towards the health of the poor, the uncultivated green leafy vegetables were subjected to scientific analysis... at the National Institute of Nutrition, Hyderabad, for the nutrient composition. The results revealed that Jonnachemcheli, one of the most common uncultivated green contains 3237 mg of calcium per 100g of edible portion and 111.3 mg of iron; Adavi Pullakura, which is available throughout the year, is also rich in iron and calcium, containing 139 mg and 331 mg respectively; and Tummikura, which is highly auspicious and consumed by every family, is rich in iron with 81.6 mg per 100 g of leaf. The results once again proved the knowledge and wisdom of our women is far superior.

When asked how they took back this kind of traditional nutrition knowledge to the others in the community, he said,

It was never done in an organized manner, but in an unorganized manner. Of course discussion and exchange of views and information is an important method of communication. Health workers also meet the women at least once in a month and food and nutrition covers a considerable part of the discussions.

The Nutrition and Agriculture Scientist informed, “Food festivals showcasing recipes with these millets and forgotten Greens went a long way in popularizing the local nutrition knowledge”

When asked how they targeted the communication related to food and nutrition, the Director said,

As you know, the community radio and film making are important sources of exchange of information. The issues related to food and nutrition and the forgotten millets and the less known
greens are also presented in their films and radio. ‘Patapantala Parichayam’ (An introduction to the forgotten crops) is an important film.

The Café Ethnic initiative in itself is a method of communicating the nutritional richness of the ethnic food preparations. A typical menu card at the restaurant clearly indicates the ingredients, method of preparation and the nutritive values.

The Agriculture and Nutrition Scientist showing a number of publications, photographs and other documentary evidence explained that a wide range of nutrition communication activities were carried out among diverse audience. She listed a number of nutrition communication activities especially to popularize the traditional foods and millet based preparations. The following are some such activities (Table-11):
### Table 11. Communication activities employed by DDS to popularise millet based foods

<table>
<thead>
<tr>
<th>Communication Activity</th>
<th>Media Used</th>
<th>Target Group</th>
<th>Key messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education on nutritional values of traditional food preparations of the region</td>
<td>Comparative charts depicting the nutritional values of traditional food preparations using local millets against the nutritional values of rice, wheat and refined wheat preparations were displayed in schools in villages</td>
<td>School Children</td>
<td>Traditional foods of the region (prepared with locally grown coarse millets, grains) are nutritionally superior to the ones prepared from rice or wheat</td>
</tr>
<tr>
<td>Education on uncultivated greens of the region</td>
<td>Specimens of the green leafy vegetables were displayed in the schools and colleges along with their nutritional benefits. Often these were accompanied by a talk by the scientist</td>
<td>School and College students</td>
<td>The uncultivated greens that are consumed in the region are rich in many nutrients as proven by scientific tests. Need to include them in day-to-day diet</td>
</tr>
<tr>
<td>Films shows on the traditional foods and their nutritional importance</td>
<td>Video Films made by the Sangham women made in Telugu (the local language):  - Mana vantalu Mana pantalu (Our Recipes and our Crops)  - AAku Kuralu (Leafy vegetables) – 4 versions</td>
<td>School children, college students and rural women</td>
<td>Traditional foods of the region (prepared with locally grown coarse millets, grains) – their preparation and nutritional advantages The uncultivated greens that are consumed in the region are rich in many nutrients as proven by scientific tests. Need to include them in day-to-day diet</td>
</tr>
<tr>
<td>Communication Activity</td>
<td>Media Used</td>
<td>Target Group</td>
<td>Key messages</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Programmes on community radio</td>
<td>Radio talks and discussion programme</td>
<td>Rural women</td>
<td>All the above points along side promoting bio diversity and cultivation of traditional food crops</td>
</tr>
</tbody>
</table>
| School visits                                  | - Inter-personal communication and group discussions, by the rural women, who go round the village and collect the uncultivated greens and explain their medicinal values and nutritive values  
  - Distribution of Menu cards  
  - Quiz programmes with traditional food systems as a theme | School children and rural women  
  Parents through School children | Less known green leafy vegetables and uncultivated greens which were being used in these areas earlier have medicinal values and nutrients  
 Recipes with millets and greens |
<p>| Scientific publications and position papers    | Dissemination through publications and presentations in conferences, seminars and other for a by the Board members or the scientists of DDS | Scientific community, policy makers and to the development agencies/ partners | All the above and related activities of the Society |</p>
<table>
<thead>
<tr>
<th>Communication Activity</th>
<th>Media Used</th>
<th>Target Group</th>
<th>Key messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jatras and community festivals (Pata Pantala Panduga – Traditional Crops Festival)</td>
<td>An exhibition and village celebration where biodiversity, traditional food festivals, local crops and medicinal plants and their uses are all exhibited at village sites. Discussions and inter-personal and inter-group interactions among the people of different villages in the area</td>
<td>All the villagers</td>
<td>All the above&lt;br&gt;Information sharing, exchange views and discussion/interactions on various issues like crop biodiversity, knowledge about traditional foods, recipes and their health benefits</td>
</tr>
</tbody>
</table>
Programme Design and Monitoring & Evaluation

One of the main aims of the Sanghams as well as DDS being achievement of food security through food sovereignty, the programmes are all aimed at establishing autonomy in local production, local storage and local distribution of foods. The programme design used is participatory in nature. ‘Learning from the community’ forms the basis for any programme. Perceptions of the local people on the nutritional values of the foods and traditional cooking practices have formed the basis for many an activity aimed at promoting food security through bio diversity and restoration of traditional food crops. The agriculture scientist quoting her/their studies (Satheesh and Salomeyesudas, 2003; Schmid et al, 2006a; Salomeyesudas and Satheesh, 2009) using participatory rural appraisal techniques carried out in late 1990s and early part of this decades claims,

We were surprised to note that when the farmer women of this region spoke about the nutritional qualities of the uncultivated greens or of the millets, there seemed to emerge a regular consensus among groups. For instance the feeling of strength in the body provided by consuming certain greens was associated by many women with the process of blood formation. To our surprise many of the greens that they were referring to proved to be rich in iron. Do they need any external ‘intervention’, we just tried to help them spread their ‘traditional’ knowledge to the others.

With autonomy over the media, the community identifies issues of importance and programmes are aired on the same. The communication process is participatory, involving documentation of the nutritional perceptions of the women and information on traditional foods; identification of the issues for action and dissemination of knowledge through group
interactions and autonomous media. The organisational involvement on behalf of the Society is limited to the extent of facilitating the activities related to media autonomy, food autonomy and sovereignty and promoting biodiversity. The society also helps the local women and sanghams in documenting their experiences and in identifying opportunities and avenues to voice their views and showcase their achievements. However, the discussions revealed that specific programmes are not planned out exclusively for food and nutrition communication. Food and nutrition forms an integral part of many broader issues. For instance, food festivals, screening of films on local foods and discussions about nutritional values of the local foods are all important part of the biodiversity festivals (Jatras) organised by the sanghams. The processions of the mobile biodiversity festivals typically involve collections and display of local seeds; the singers, dancers and drummers join in with their novel and creative compositions covering all these aspects; evenings are marked with food festivals and screening of films made by local women (Mazhar et al., 2007). These festivals, as the Secretary of DDS says, “attract unprecedented participation from the people engaging tens of thousands of villagers from over 60 villages”.

Referring to the specific activities carried out in villages, local schools and colleges, the agriculture and nutrition scientist felt that they were all planned communication activities involving inputs from her and other staff of DDS. Posters indicating comparative charts of nutritive values of traditional foods against rice or wheat preparations were prepared.
When asked whether there was any inbuilt mechanism as part of planning to monitor and evaluate the effectiveness, effects or impact of the food and nutrition communication activities, the Secretary of the Society said,

*Never in an organised manner! From the way the traditional crops are grown, foods are consumed and the alternative PDS that has been developed by women, the failure of intellectual, ‘tablet’ kind of communication and the success of participatory approach is reiterated.*

When asked whether there were any organised efforts to evaluate the success of specific communication efforts in the projects dealing with school/college students, the agriculture and nutrition scientist, who spearheaded the programme confessed, “No! we have never carried out any evaluation.”

**Budget for Nutrition Communication**

When asked about the budget for communication activities, the discussions revolved more around the efforts of the organisation towards financial empowerment of women. To quote the Secretary,

*The Sangham women identify the uncultivated lands in their respective villages, and their sanghams provide loans after wealth ranking is done by the women. The women grow millets and repay the loan. Jowar ration cars are also issued and that promotes consumption of the millets grown.*

When probed about specific budget allocation for the food and nutrition communication activities, he said that there is hardly any separate budget for nutrition communication activities. The scientist was also equally
unsure when she said, “Cannot tell! It could be about 5% of the total budget depending on the project”.

The autonomous media initiatives of the organisation have been funded by a number of agencies, including UNESCO, but the funding remains limited to providing equipment and training to the women. The issues on which programmes are made would be decided by the women.

**Indicators of success of food and nutrition communication efforts**

Answering a question related to impact assessment, both the respondents indicated that a number of qualitative changes in the community’s food habits were brought about by efforts of the Organisation and those of the Sanghams. They said that a large chunk of this success is attributable to communication.

The very initiative of the alternative PDS and the growing demand for the millets and traditional recipes in the DDS villages is an indication that the village women have articulated their concern on Nutrition and said emphatically that rice had destroyed their traditional food habits.

The sangham shops where the sales of millets have gone up can be seen as proxies to indicate that the consumption patterns and food preferences have changed.

**Participation in Communication**

As documented earlier, community participation is the basis of all efforts of the DDS activities. Women play an invaluable role in conserving traditional foods and transmitting knowledge about nutritional values of
these foods. This knowledge, passed on to them for generations, is being steadily relegated, marginalised and sometimes undermined by the popular media as well as the Government ‘welfare’ schemes (Salomyesudas and Satheesh, 2009). The participatory approaches employed by the DDS women in documenting this traditional knowledge and spreading it through a string of related activities seem to have established that food and nutrition issues are intertwined with a number of other aspects that relate to ensuring availability, accessibility and use of the foods.

**Comments**

Servaes (2002: 17) emphasises that the process of ‘participation’ in development or in communication involves considering the viewpoint of the local groups of the public. He goes on to observe, “in recognizing that rural people are at the heart of development, by seeking their views and involving them from the start, participatory communication has become what many consider to be the key link between farmers, extension, and research for planning and implementing consensus-based development initiatives”. The model being adopted by DDS falls very much into this category. The two very important characteristics which were observed in the current case study can be summarised as follows: firstly, it focuses on ‘learning from the people’ through a wide range of activities and incorporating these considerations into the programme design, be it to achieve food sovereignty, media autonomy or market autonomy. The intent obviously is not to confront the people (more
so, women) with their inappropriate beliefs, perceptions or resource constraints, but to use these beliefs to build food and nutrition (communication) programmes that engage them. The model also focuses on changing the environment in which people see themselves. Social mobilization is being achieved through creating a local need and demand for change. While doing so the model also seems to underline the understanding that "people" (for the process of food and nutrition communication) does not only mean vulnerable target groups as in most nutrition communication programmes, but involves a cross section of groups and villages. The role of Sanghams in engaging women, empowering them and making them autonomous by building a sense of belief and confidence in their traditional food systems, foods and recipes as against the ‘elite’ or ‘Government’ ones is significant. The alternative PDS (APDS) and the community media initiatives are very much helpful in facilitating the shift from the non-nutritious ‘elite’ foods or ‘Government’ foods to the more traditional millets and greens. The role of the NGO here is of mere facilitation. The role of the Society in substantiating the traditional nutritional perceptions of the local foods with validated scientific information on the nutritional values of these foods would have definitely gone a long way in building the confidence of the people in their traditional knowledge. While doing this, the NGO also helps effect a wider policy change as well as in mobilizing favourable opinions from various quarters (scientific community, donors, government etc).
Yet another observation that this case study brings to the fore is that the nutrition communication per se is not a planned effort by the NGO or by Sanghams, but it forms an integral part of the efforts to promote local agricultural practices and cropping patterns. A wider programmatic agenda is to encourage the biodiversity, which DDS says, was affected by the state agriculture and food policies over a period of time. In promoting the traditional food systems through concerted efforts like APDS, the Sanghams of the society are perhaps over emphasising their virtues, which may build animosity against or resistance to the so-called elite or government foods.

While the participatory approach allows for involvement of the people in programme planning and implementation, the mechanism for evaluation of the impact, effect or effectiveness of the food and nutrition communication programmes appears to be weak or almost non-existent. A mechanism for evaluation may help in understanding or analysing the extent of change the communication activities have prompted.

CASE STUDY -3:

NATIONAL INSTITUTE OF NUTRITION (NIN)

The National Institute of Nutrition (NIN) is India’s premier nutrition research institute, working under the aegis of the Indian Council of Medical Research (ICMR), Department of Health Research in the Ministry of Health and Family Welfare, Government of India. The Institute was founded by Sir
Robert McCarrison in the year 1918 as ‘Beri-Beri’ Enquiry Unit in a single room laboratory at the Pasteur Institute, Coonoor, Tamil Nadu. Within a short span of seven years, this unit became a Deficiency Disease Enquiry, and later in 1928, emerged as Nutrition Research Laboratories (NRL). It was shifted to Hyderabad in 1958. At the time of its golden jubilee in 1969, NRL was renamed as National Institute of Nutrition (NIN).

The following centres also started functioning at NIN in later years:

- Food And Drug Toxicology Research Centre (FDTRC) in 1971
- National Nutrition Monitoring Bureau (NNMB) in 1972 and
- National Centre for Laboratory Animal Sciences (NCLAS) in 1976

The emphasis of NIN’s research work is on problem-oriented research, with a view to discovering practical solutions to nutrition problems that can be applied within the existing socio-economic framework of the country (Narasinga Rao, 2005; Dube, 1993).

The vision of NIN is “to achieve optimal nutrition of vulnerable segments of population such as women of reproductive age, children, adolescent girls and elderly by 2020.” And the mission is “to enable food and nutrition security conducive to good health, growth & development and increase productivity through dedicated research, so as to achieve the
national nutrition goals set by the government of India in the national nutrition policy.” (NIN, 2009)

In order to achieve these, the Institute has set for itself the following objectives (NIN, 2009):

1. To identify various dietary and nutrition problems prevalent among different segments of the population in the country.
2. To continuously monitor diet and nutrition situation of the country.
3. To evolve effective methods of management and prevention of nutritional problems.
4. To conduct operational research connected with planning and implementation of national nutrition programmes.
5. To dovetail nutrition research with other health programmes of the Government.
6. Human resource development in the field of nutrition.
7. To disseminate nutrition information.
8. To advise governments and other organizations on issues relating to nutrition

The activities of NIN can broadly be categorized in to laboratory research, clinical research, community-based research, nutrition education and communication. NIN’s approach to nutrition research is multi-pronged encompassing diverse disciplines. For instance, lab-based research covers a
wide spectrum of areas like bio-chemistry, biophysics, molecular biology, endocrinology, food chemistry etc. Similarly, clinical research covers areas like maternal and child nutrition, microbiological studies and a range of pathology services alongside rendering nutritional rehabilitation services to malnourished children and pregnant women by providing in-patient treatment at the two major hospitals in Hyderabad meant for women and children. The Community-based studies include studies on prevalence of various nutritional deficiencies, operational research, programme evaluations and others. The other three centres on NIN campus – NNMB, NCLAS and FDTRC look into activities involving nutritional monitoring (NNMB, 2009), providing animal models for experimental purposes and food and drug toxicology studies respectively. The following figure gives a bird’s eye view of the Institute’s research areas and activities (Fig-17).

**Figure 17. Research areas and activities of National Institute of Nutrition**

Source: www.ninindia.org
As can be seen from the above figure, information, education and communication, capacity building through training activities are among the most important activities of the Institute. The main aim of these activities is to take the “fruits of nutrition research to the community” (Dube 1993:6). The Department of the Institute that spearheads this activity is the ‘Extension and Training Division’ (Fig-18). The Division’s activities are multi-pronged encompassing the following:

- **Nutrition communication research**
  - community-based research involving both quantitative and qualitative research techniques.
  - media research including target audience segmentation, content analysis, message designing, monitoring and evaluation.
  - use of social marketing strategy
  - networking with international organizations and other NGOs.

- **Human resource development through training programmes**
  - **M.Sc (Applied Nutrition)**: The course is currently being revamped to a two-year programme. This was earlier a 9 month specialization programme in nutrition affiliated to the Andhra Pradesh University of Health Sciences for graduates in medicine or postgraduates in Biochemistry/ Food Science & Nutrition/ Home Science etc. The course drew a number of health professionals, practitioners and academics from Government
Departments, Hospitals, Universities and Institutes as well as self-funded private individuals. The Course combined classroom training with clinic, community and lab-based training. The MSc Programme also had problem-based learning in real-life community settings, task-based learning and seminars. At the end of two years, the students were to come up with a dissertation on a topic of their choice (Mohanram, 2003).

- **PG Certificate Course in Nutrition**: The Post-Graduate Certificate Course in nutrition is one of the short-term intensive training programmes in nutrition offered by the National Institute of Nutrition, Hyderabad, India, for persons involved in medical education and public health. The course aims to provide the participants an exposure to the latest developments in nutrition science with particular reference to nutritional disorders and strategies for their prevention and control, including allied aspects which are relevant to developing countries; to enable them to develop the necessary skills to plan, implement and evaluate nutrition programmes; and to provide necessary background to help strengthen the nutrition component in teaching in medical colleges and enhance the capabilities of personnel involved in nutrition and health intervention and training programmes. The course extends over a period of 10 weeks, from January to March every year.
- **Annual Training Course on Endocrinological Techniques and their Application:** This 45-day training programme is meant for medical graduates and post-graduates in Biochemistry employed in Universities and Research Institutes.

- **Training Course on Assessment of Nutritional Anaemias:** This is a 10-day long capacity-building programme aimed at medical graduates and Post-graduates in Biochemistry who teach in Universities and Research Institutes.

- **Other Adhoc programmes:** These are the training programmes on any related subject tailor-made for in-service candidates on request from various national, international and voluntary organizations.

- **Information dissemination by**
  
  - publishing periodicals and books
  
  - conducting integrated nutrition education camps in villages, slums, industrial organizations and other community settings
  
  - producing educational aids (multicoloured posters/ charts), Instructional CDs, TV films and regular updating of Nutrition Museum.

  - using print, radio and TV as channels of nutritional communication.
- optimal utilization of traditional folk forms (Street play, Burrakatha etc.) for nutrition education
- commemoration of special events like National Science Day, World Food Day, National Nutrition Week, Breast Feeding Week and National Technology Day.
- information posters and lectures in the modestly stocked nutrition museum on NIN campus (NIN, 2001a; 2009).

Figure 18. A Collage of Nutrition Education Activities of Extension and Training Division, NIN
Inferences from In-depth interviews

In-depth interviews were conducted with two staff members of the 
Extension & Training Division - one is a Scientist ‘D’ and the other was 
‘Communicationist’. The Scientist is a PhD in Sociology and has been actively 
working in the area of nutrition communication research for over a decade. 
Her research studies in the recent past have involved communicating 
nutrition information to school children (Vijayapushpam et.al. 2003, 2008; 
Raghunatha Rao, 2007; NIN, 2002) and to rural women as well as using the 
Student Volunteers from Universities as agents of change. She is aged about 
50 years and the interview with her was conducted in English.

The Communicationist is aged about 51 and holds dual Masters Degree 
in English as well as Journalism and Mass Communication. He has been with 
NIN for over 25 years and is actively involved in many activities like 
delivering nutrition talks, conducting awareness programmes and 
exhibitions. He also edits NIN’s popular quarterly periodical ‘Nutrition’ (in 
English) and Poshan (Hindi) and several other communication materials like 
brochures, leaflets and films. In-depth interview with him was also conducted 
in English.

Inferences from these two interviews have been coded and categorized 
under the following themes;
Nutrition Communication activities and targeting

Speaking about the nutrition communication activities, the Scientist said that her activities are multi-pronged involving simple information dissemination on dietary guidelines, cooking tips and nutrition to various groups of people in community settings like educational institutions, villages, women’s groups, urban slums etc.

I can divide the nutrition education and communication activities that I undertake into two categories - structured and unstructured. Structured Communication activities are those done as part of our research projects, which involve planning, collecting baseline data, communication material preparation, pre-testing and communicating etc., the unstructured ones are like the community awareness programmes, lectures, radio talks, conducting exhibitions etc. in different community settings.

The Communicationist too listed all the above nutrition activities and added,

... we also bring out a string of informative and low-priced books and journals in English as well as in some regional languages. These publications contain the essence of Institute's research over the years. And, we also bring out quarterly periodicals called ‘Nutrition’ (in English), Poshan (in Hindi) and Poshana (in Telugu) which contain simple articles and easy tips on a wide range of nutrition topics.

When asked about the audience to whom these activities are targeted, both of them said that the unstructured nutrition education/ communication activities are meant for diverse groups.

For instance, when community awareness lectures are carried out say in villages or slums, there is likelihood that men, women and children from different sections are there. If these activities are organised in co-ordination with NGOs or Universities or government departments, then the audience are from particular groups like, women, students, health workers etc.
Speaking about the nutrition education and communication activities in the research projects, the Scientist said,

This communication is usually structured and targeted. For instance my earlier research projects dealt with school children, then, obviously their teachers and school children themselves were our target audience. When I dealt with the University student-volunteers, though our focus was to reach the rural and slum dwelling-women, our primary target was student volunteers who in turn were expected to take the message of nutrition to the women. So it varies from project to project.

When probed about the messages for different target audience and the media, the Scientist said,

My emphasis in all IEC programmes is on the need to eat a variety of foods to get all nutrients. Then I also cover the food groups, functions of food and the need for balanced diet as well as the foods that are rich in micronutrients. If the target group is women of reproductive age, then I emphasise on iron deficiency anaemia.

Adding about the media she often chooses to ‘convey’ the messages to different target groups, she said,

I try to use suitable media to different target groups. It usually depends on the education level of the target groups. For example, for school children I have been using CDRoms, slides and charts coupled with lectures. For student volunteers I used, folk art form in a recent project, otherwise I use folders, charts and flip charts. When dealing with women I use flex sheet charts and flip charts as support to the interactive discussion method of information sharing.

Alongside the above mentioned nutrition communication research and extension programmes, both the respondents indicated that human resource development through nutrition education in structured training programmes as one of the important activities of their Division.
Our training programmes, be it the PG Certificate Course or other short-term courses are aimed at capacity building in nutrition sciences. Ours being a research Institute, the participants of these programmes get to interact with the scientists working in the field in the classroom sessions which promote interactive learning. Apart from these a number of seminars, field visits, lab work and task analyses give them a practical understanding of ‘applied’ nutrition.

Speaking about the MSc (Applied Nutrition) Programme that is being revamped, he said “...our MSc (Applied Nutrition) programme is being revamped now to build young force in nutrition. We are now targeting the programme at fresh graduates also. It will be a two-year programme with affiliation from NTR University of Health Sciences, Vijayawada, A.P.”

He also spoke about a variety of other communication strategies that they adopt to disseminate the nutrition messages, like writing articles in health columns of popular dailies where readers from a cross section of the society become their target audience. He added,

Similarly, our quarterly bulletin ‘Nutrition’ has wide readership ranging from like students, faculty from Universities, women, senior citizens and general audience. ‘Nutrition News’, yet another periodical from the Institute, lucidly summarizes recent research studies and is aimed mainly at students of Nutrition, University faculty and researchers.

**Programme Design, Monitoring and Evaluation**

Commenting about the programme design both the participants of in-depth interviews indicated that there was no specific programme design for the Institute’s ‘routine extension activities’, which involve community awareness programme, radio talks, extension talks, exhibitions etc. The
celebration of special events like the National Nutrition Week, World Food Day, National Science Day, Breast Feeding Week etc involve some planning.

However, nutrition communication research studies have a specific programme planning and they differ from project to project. The study protocols are usually approved by a group of experts in the Scientific Advisory Committee (SAC), which meets every year and reviews the future, on-going and completed research studies. The committee usually analyses all the projects at all stages very critically from various points of view such as study design, rationale, methods, proposed statistical analyses and expected outcome. The research studies can be carried out only when they are cleared by the SAC.

When probed about specific programme planning in her recent studies, the scientist said,

The study design was in a way similar in some of my recent studies. They all involved baseline data collection, (usually) based on knowledge about the nutrition topic of interest, identifying lacunae in knowledge, development of communication material, using it as an intervention and assessing its impact in terms of knowledge improvement.

She admitted that all her recent studies have more or less dealt with knowledge dissemination using different media and assessing the impact of such nutrition education/communication on knowledge levels of the ‘study subjects’. As regards monitoring and evaluation components, she said that
they are built-in components of any research study that they take up. While speaking about the evaluation process by SAC she rued,

There is hardly any expert from Social Sciences in the SAC. Having some social scientists in the Committee I think will further enhance the external evaluation of our projects.

Talking about the nutrition education (training) programmes of the Institute, the Communicationist said that they have an in-built mechanism for periodic evaluation of course structure, content, utility, perceived benefits etc. It is usually carried out using ‘appropriate’ instruments like questionnaires, which are administered to the participants at entry and at immediate post-training period. He said the faculty evaluation forms filled up by the trainees help them assess the quality of teaching. He also referred to some earlier follow-up evaluation studies (by Mohanram et al., 1997) that looked into the perceptions of the trainees on relevance of the course in their day-to-day functioning after joining their official positions. He, however, said,

Such follow-up evaluation has not been done for a long time now. However, the pre and post-training evaluations are still on. We make use of them for improving or altering our programmes.

Budget for Nutrition Communication

Funding for the research projects is either from “intramural (from ICMR or NIN sources) or extramural sources (other external funding agencies)”. The scientist said,

So far all my research projects, for that matter almost all the research work done in the last decade was funded from intramural sources. Ones the SAC approves a study protocol; it will get some sanction from the Institute’s funds. However, if the amount is
really high, then they (SAC members) suggest that we should try out elsewhere. For my studies, although I faced some problems of inadequate funding I resolved them with the help of my superiors.

She added saying that for projects that have duration of more than a year, the inflow of funds is based on the SAC’s recommendations after assessing its progress every year.

When asked about funding for their extension activities, the Communicationist said that the printing of many communication materials such as the journals, periodicals and other popular publications is done at the Institute using the ‘modest’ printing facility. For the celebration of special events, the Institute provides funds. The communication material prepared under various research projects is also used during extension activities. He added,

There was a proposal to revamp the nutrition museum at the Institute and a budget of about 16 lakh rupees was drawn up quite sometime back, but we never got the sanction so far.

**Indicators of success**

When asked how they measured the success of their extension programmes, the responses were varied.

It’s often difficult to estimate success of an extension activity like a lecture or an exhibition or community awareness programme. If such programme can result in a positive change in their behaviour or lifestyle, then I consider it successful... when we seldom get an opportunity to visit the same place or meet the same group, it would be extremely difficult to estimate what impact such knowledge dissemination has made.
When I happen to back to the same village or the slum, people recognize me and some and tell me that they are following my advice, then I consider nutrition education had been successful. I think interactive discussions coupled with visuals will have a great impact among women.

Speaking about the structured communication research projects, she said, “each study has a set of indicators, which help us assess the success of our communication efforts. Usually it is the knowledge improvement. We usually analyse using knowledge scores and if there is statistically significant improvement (in scores) after the education/communication intervention, we conclude that it has been successful.”

When probed if behaviour change or shift in dietary habits were ever considered as indicators of success, she said that their research studies in the recent past have only measured knowledge improvement, but not change in dietary habits or behaviours.

Community Participation

It was obvious from the discussion that the scope for community participation was limited or non-existent. Since most of the extension activities are meant for information dissemination, there is extremely limited scope for community participation. Both the respondents informed the interviewer that they would try to make even these sessions interactive, thus encouraging at least minimal participation from the audience. Citing some examples of how she tried to make the education programmes interactive and relevant to the audience that she was addressing,
For instance, while going for an extension programme at Rajapalyam (in Tamil Nadu), I saw vast fields of Bajra around the highway. Before starting my talk in a nearby village, I started by asking them whether they eat Bajra, which is so widely grown around their village, I was surprised to learn from the people that they do not consume what they grow, but sell it in the market. Then my talk revolved around the importance of traditional foods, how millets are superior to rice or refined wheat flour etc. It was very well received.

After citing a few similar examples she said,

In fact community participation is limited to interacting with them. From my side, I try to do need based communication. Most of them (audience) are illiterate, they hardly have any knowledge of nutrition, how can we involve them?

When asked about the extent of community participation in the research projects, she said it was limited to participating in pre and post-intervention assessments. To a question on whether they ever tried to at least understand the media preferences of their audience, she replied in the negative but said,

In the current project dealing with student-volunteers and rural women, we made efforts to understand their media preferences and design the communication material accordingly.

Referring to the other research studies carried out by some of his colleagues in the Division, the Communicationist said,

In some school-based nutrition education studies, we involved teachers right from the beginning, teachers were trained in the media they preferred, they were involved in preparation of educational material and they were actually asked to adopt the same material to the school children.
Comments

From the in-depth interviews conducted at NIN, the point that came up front was that the Institute's research projects are only directed at understanding the uses of different media/approaches to disseminate nutrition messages to the community. There is hardly any scope for repeating these experiments in many social settings or for making them self-sustaining. The successes or failures of employing certain approaches, methods or communication material documented by the researchers of the Institute were being disseminated to various organisations, policy makers, media etc from time to time, with the hope that this research is put into action by the other stakeholders. Although effective approaches and media and communication tools identified through the research projects carried out at NIN are being disseminated through various in-house journals, conferences etc., these are still scattered efforts.

Over all analysis of the nutrition communication or education efforts of NIN appear to in the ‘communication–effects’ perspective predominantly with an implicit assumption that isolated individuals are relevant behavioural units. Many communication efforts of NIN seem to be viewing the effects (in terms of knowledge gain or behaviour adoption) from the ‘Sender’s’ perspective and do not seem to have examined the unintended consequences of communication especially given the fact that the individuals are not atomized units unconnected and uninfluenced by the context. On the other hand, it can be argued that this perhaps is a valid approach given the fact that
most studies by NIN have aimed to look at short-term effects of communication and education activities. In fact, Yarbrough (1981) in his review of ‘Communication Theory and Nutrition Education Research’ argues, “despite the limits of communication effects approach, it is probably unexcelled for evaluation of relatively short-term communication and education campaigns. This approach provides a relatively simple way to determine what type of people have responded in what way to our efforts”.

The other term that repeatedly occurred during in-depth interviews, and was not documented in the inferences earlier was the Information, Education and Communication (IEC) approach. There are three underlying components that seem to be promoting awareness and understanding of nutrition issues among the ‘common people’. Firstly, by providing information ie., facts and issues to the attention of audience in order to stimulate discussion in extension and awareness programmes. Next, the education component which aims to foster knowledge and thorough understanding of problems and possible solutions through formal and non-formal education. Finally, the ‘communication’ component by way of smaller research efforts, with an ambition to influence attitudes, disseminate knowledge and to bring about a desired and voluntary change in behaviour.

The nutrition education/communication programmes are still grounded in the ‘extension’ mode of activities and do not seem to address issues beyond mere sensitization or awareness creation. The larger
perspective of understanding the context of the audience and advocating for creation of enabling environment for bringing about the desired behaviour change seem to be lacking. Since capacity building and extension activities use inter-personal communication, face-to-face communication coupled with other communication tools such as posters, brochures, flip charts and films, they can be broadly characterized under the ‘Education Communication Approach’ mentioned by Valyasevi and Attig (1994) (detailed in earlier chapter on trends in nutrition communication). Some of the research projects of NIN (Subba Rao et al, 2007; Raghunatha Rao et al, 2008; Vijayapushpam et al., 2009 (on-going); NIN, 2001b, 2002, 2003, 2004, 2005, 2006, 2007) that adopted limited participation of the community for understanding the media preferences and involving them in adopting the communication material for further dissemination of knowledge, can be categorised under “Participatory Action” approach. Other projects (Vijayapushapm et. al., (unpublished), Subba Rao et al., 2007, Ramadasmurthy et. al., 1973, 1992a &b; Rau, 1991) seemed to be subscribing to the two-step/multi-step flow of communication approach by attempting to reach the primary target through ‘agents of change’ – like school teachers or student-volunteers as the case may be.

To sum up it appears that the selection of specific communication approaches is not primarily based on their analytical or normative value, but rather, on institutional factors and expectations such as the number of projects one handles, logistic compulsions, limited manpower, prospects of getting financial support, clearance from SAC, and career upgradation.
Discussion and Conclusions

The three case studies presented different institutional perspectives on nutrition communication. One obvious conclusion that can be drawn from all the three case studies is that they adopt not one method but different methods for nutrition communication. Although nutrition communication is one of the primary activities of both FNB and NIN, the methods adopted are predominantly rooted in top-down approaches with information dissemination as an important objective. The capacity building and community oriented extension activities of NIN or the awareness programmes and demonstrations of FNB largely adopt inter-personal or face-to-face communication aided with a range of small media (like folders, charts, folk dance forms in local languages). Many researchers have concluded that inter-personal or face-to-face communication is widely used and plays a key role in health communication (Piotrow et al, 1997). Smith (1997) who analysed nine case studies on nutrition communication approaches in different countries concluded that “it is generally agreed that interpersonal methods conducted in local communities are appropriate to address the common problems of nutrition, and no doubt will continue to be, a major focus for nutrition education programmes”.

Although DDS adopts a participatory approach, its primary focus is not food and nutrition. The organisation views food and nutrition communication as a tool to engage women in achieving food autonomy among many other aspects towards attaining the broader goal of women
empowerment. The food and nutrition communication efforts are largely concentrated in reviving the traditional agriculture practices and thereby the traditional food habits in the region. This model truly meets the participatory approach, as described by Ad Boeren (1992), by stimulating critical analysis, to develop confidence and awareness by organizing groups and communities. Likewise, Servaes (1996) comments that participatory development requires the acknowledgement that the 'receiving community' has the knowledge and ability to develop themselves and their environment. But others (Dudely, 1993; Brownlee-Greaves, 1999) have raised concern about placing a great amount of knowledge and capacity within the hands of the 'community', which sometimes needs external inputs for right awareness.

It is possible that the participatory approach adopted by DDS is successful because of the limited area of operation of the NGO and its Sanghams. But this evidence is barely enough to conclude its effectiveness on a broader canvas. This seems to be an inherent limitation of participatory approaches to development communication. In this context it would be appropriate to quote Waisbord (2005: 84), who says “having successfully challenged old conventions, participatory approaches have not devoted sufficient time to the consideration of several questions. Under what conditions is participation possible? What happens when participatory ideals run counter to community norms or are rejected by local authoritarian practices? How is participation possible at different stages of development programs (e.g. funding, planning, instrumentation, evaluation,
sustainability)? How is community empowerment and participation measured?"

Yet another important observation is that the nutrition communication activities of all the three organizations lack evaluation in the planning. This makes it difficult to attribute any change be it in behaviour or in improvement of nutritional status to a particular communication process. The necessary evaluation component present in the research projects of NIN in a way make it possible to attribute change in the identified variables to a particular communication process in empirical terms, but this is obviously absent in the approaches adopted by other two organizations.

From these case studies, it can be concluded that the institutional goals and dynamics and budgetary constraints determine the use of communication approaches. The selection of specific communication approaches is purely based on institutional factors and expectations. The bureaucratic requirements and target-oriented tasks favour the use of informational models in FNB leaving no scope for participatory approaches to communication. The Standard institutional procedures of NIN in a way are based on the understanding and use of communication as a set of technical skills to disseminate messages. In case of DDS nutrition communication is only a support activity in achieving a broader goal of social change and development by lifting up the spirits of a local community to take pride in its own culture, intellect and environment.