FOOD AND NUTRITION NEWS

Acharya N.G. Ranga Agricultural University

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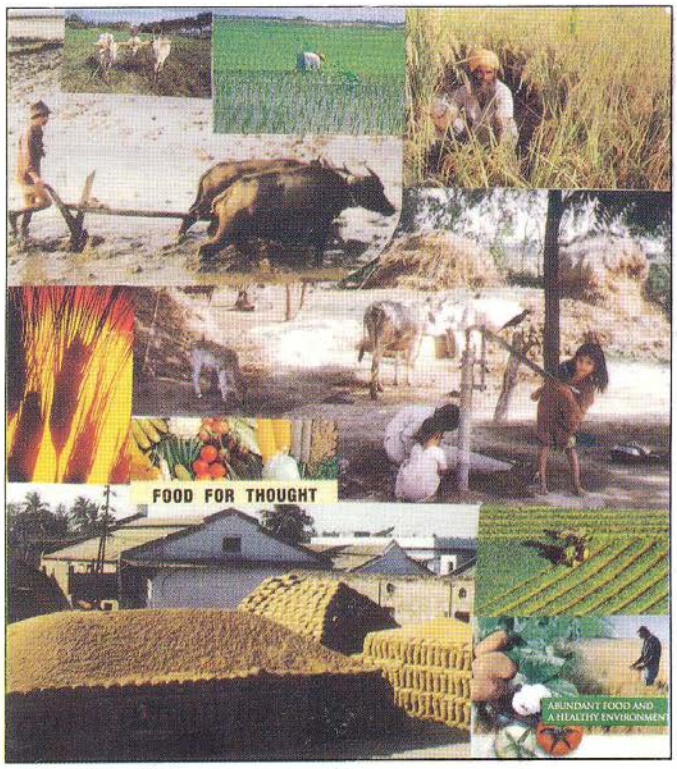
FOOD SECURITY



"Hoping in the coming years of decade the starving stomachs and thirsting throats may be pacified and glee on their mute faces"

Food security is envisaged as a basic social objective and a sensitive policy issue and is been given renewed importance. FAO (1983) defined food security as access by all people at all times to the food they need to live healthy lives. It is further described as physical and economic access to food to all children, women and men at all times.

The term household food security is defined as access to culturally acceptable food, that is adequate in terms of quantity and quality for all the household members (Gillespie and Masa, 1991). At the household level, food security is the ability of the household to secure enough food to ensure an adequate dietary intake for all its members (Van Braun et. al., 1991).

Food security is achieved only when all people at all times have access to sufficient food for a healthy and productive life, and has three main components; (i) food availability, (ii) food access and (iii) food utilization. Food availability refers to the need to produce sufficient food in a way that generates income without depleting the natural resource base and to the need to get this food into markets for sale at prices that consumers can afford. The second component relates to people's ability to get economic access to the food. The final component concerns with an individual's ability to use food for growth, nutrition and health.

The last two decades have witnessed phenomenal progress in the sphere of agriculture, the mainstay of India's economy. The Green Revolution has boosted production of food grains from 50.9 million tonnes in 1950 to 198.2

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million tonnes by 1999 and the per capita food grain availability was maintained despite population growth (Table-1)

No matter, how much increase in the food production and how far people and their families, as a nation's food security situation is the summation of the prospects of individual households. It is the households' ability to obtain food that is critical in ensuring household food security.

availability and to continue with other strategies of economic growth.

The ill effects of bad weather, particularly droughts and resulting acute and chronic food insecurity have been a major source of concern for developing

Table 1 : Production and per capita availability of food grains

Year	Population* (Millions)	Production** (Million tonnes)	Per capita availability (kgs/yr)
1951	361	50.8	140.0
1999	950	198.2	209.8

Source : * Registration general, census commissioner of India, (1998).
** Agricultural statistics at a glance, Ministry of Agriculture, Government of India, (1999).

reaching or effective government's intervention in the food sector may be, the ultimate responsibilities and penalties in the food system fall on

One need not, of course, overlook the overwhelming importance of population control which is the major corrective measure to improve food

countries for many years. Although the physical and agricultural impacts of drought have been well documented, the policy responses to reduce food

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RESEARCH HIGHLIGHTS

Coping mechanisms adapted for food security at household level in drought prone areas of Ananthapur district, Andhra Pradesh:

A study was carried out to assess the coping mechanisms adapted by large, medium, small farm and landless labour households for food security in a drought prone area. The study was carried out in eight villages of four interior mandals having low rainfall (500-700mm) in Ananthapur, a drought prone district of Andhra Pradesh. A total of 300 families were covered and two rounds of survey was conducted to understand the difference in mechanisms operating between peak and lean seasons.

The study centered around the empirical examination of eight major groups of coping mechanisms adapted by the families. The coping mechanisms reported were as follows.

The land based coping mechanisms reported were of intercrop adjustments of cropped area, use of farm yard manure, fertilizers, pesticides, weedicides, applying seed treatment procedures, use of hybrid or improved seeds, use of canal or tank or well or borewell water for irrigation, use of lift irrigation method, deepening of wells, digging well or borewell, seeking support from State agricultural department and shrinking of net sown area.

Livestock based coping mechanisms constituted of animal rearing, carpet weaving with sheep wool, seeking

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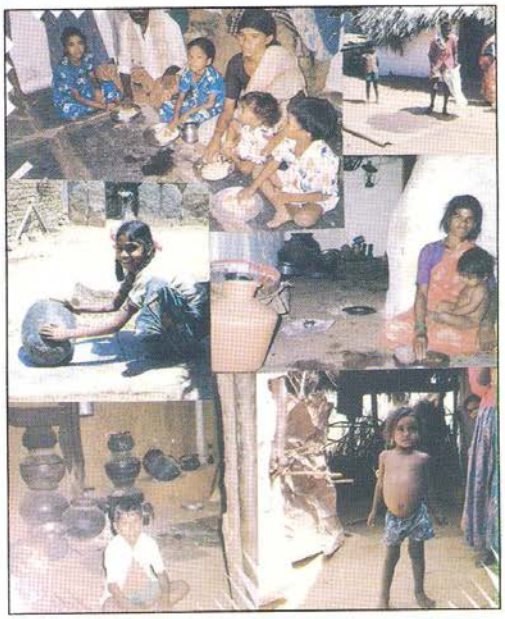

No right has meaning or value, once starvation strikes. It is an ultimate deprivation of rights, for without food, life ends and rights are of value only for the living

Gorovitz (Food Policy, 1977)

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insecurity caused by drought continue to be poorly designed. Coping and survival strategies of drought-affected household's have not been understood by planners and policy makers. Most of the responses to drought - induced food insecurity remains emergency and food-aid oriented. Therefore policies and programmes should focus on providing a package of these services to yield rich dividends in the near future.

On the other hand policies affecting global food security are among the world's most critical policies. A few missteps now could spell severe, long-term suffering for future generations, whereas right actions could put the world well on the way to food security for all. Therefore developing holistic policy approaches is fundamental for increasing food security in drought prone environments.

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support from State Veterinary Department, foraging in common property and reduction in the livestock owned by selling, gifting, mortgaging or abandoning.

Curtailment in fresh acquisition and liquidation of both farm and non-farm assets by mortgaging or selling was another method of mitigating the extremities created. The onset of dryspells altered the source wise income composition and made the families to work on non-farm occupations, small trades during off-season, deriving the benefit of welfare programmes, call from remittance from relatives, postponement of acquisition of consumer durables, curtailment in the expenditure on all food and non-food items, obtaining loans, accepting to work for low wages and employing children to borrowing money.

The families resorted to opting to work for kind, sending children to Anganwadi centre for food, procuring cheaper quality foods, collecting forest produce, procuring unconventional foods, decreasing purchase of foods by paying cash or from PDS and purchasing foods on loan, to circumvent the ill effects of dryspells.

The food storage based coping mechanisms adapted were storing the staple, in peak season, storing tamarind and red chillies, and major crop produced and selling them during economic crises. The production, consumption and distribution based coping mechanisms included substitution of millets to rice and horsegram or cowpea to redgram, cooking only once in a day, curtailment in number of meals from 3 to 2 by adults, selling the grains stored for seed purpose, reducing the quantity of food intake, curtailment in consumption of coffee and tea and diluting the milk or giving coffee/tea to children instead of milk, preparation of chutneys in place of vegetable or dhal preparations, use of more puffed rice, curtailing work and activities to supress hunger and forceful starvation.

Curtailment in the use of intoxicants, cigarettes and pan, postponement of family functions; postponement or avoiding travel or travelling by walk to avoid transport charges, sending daughter-in-law along with children to parents house or sending children to grandparents house, avoiding guests, relatives, friends, gifts and beggars, maintaining the secrecy of food resources in the forests and all the other social activities involving expenditure got considerably reduced, minimising the social arena of life cycle itself, giving rise to life at low equilibrium of living to let the dry spell periods pass.

The health based coping mechanisms adapted were decrease in seeking health services from private clinics, increase in seeking health services from Government hospitals, Anganwadi centres, community health centres, undergoing family planning operations at Government hospitals, seeking health services from native practitioners, taking home remedies, seeking health directly from medical shops, postponement or avoiding operations, and postponement or avoiding seeking medical services.

It was observed that a few of these mechanisms are found to be beneficial and can be encouraged whereas others are very harmful and necessary policy implications and immediate Government interventions are required.

K.Uma Maheswari & Vijaya Khader (1996)

Effect of cropping systems on food security

A study was carried out to assess the effect of cropping systems viz., (I) Jowar + pulse, (II) Rice + pulse; (III) Rice (one crop) + jowar + pulse and (IV) Rice (two crops) + jowar + pulses, on the nutritional status of medium farmers holding (5-10 acres) families in Mahaboobnagar district, A.P. The results showed that the intake of food by the four groups of families were not significantly different, except for milk and milk products and sugar and jaggery. Families of all the four groups failed to meet the RDI for all food items except for cereals. Differences were not observed in the nutrient intake, except for vitamin 'C', in the four groups. Calorie intake was adequate in groups I, II and III. In group IV it was nearer to 95% of RDA. The percentage RDA met for protein, calcium, iron, thiamine and niacin was satisfactory. The diets of all the groups were found to be deficient in vitamin 'A' and vitamin 'C'. According to Gomez and Waterlow's classification group I had more normal children followed by group III, IV and II. The study showed that the cropping systems followed had no significant impact on the nutritional status of farm families. However, it was observed that cropping systems had effect on the expenditure pattern of the farm families. By adapting a better cropping system the farmers of group IV had enough money to spend on non-food items even after meeting their food requirements.

Padmaja Kumari & Padmavathi P (1990)

Food and non-food expenditure - as an emergence of household food security

Emergence of household food security is a concern with the emphasis that 60-80 percent of the expenditure of the poor is for food. The expenditure pattern of the people is the best yardstick

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"Production of 250 million tonnes of food grains to ensure food security" is one of the nutrition goals to be reached by 2000 AD as set by National Nutrition Policy and Plan of Action, Government of India.

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to measure the living standards. Therefore food and non-food expenditure pattern of four categories of families i.e., large, medium, small farm and landless labour families during peak and lean seasons in a drought prone area was studied. The study revealed that a significant decrease in both food and non-food expenditure in lean period, over the peak season was observed in all the categories of families studied. Food and non-food expenditure pattern in both seasons, was directly related to the land holding size of the groups. Decrease in both food and non-food expenditure in lean season over the peak season was indirectly related to the landholding size of the families. The percent distribution of total expenditure between food and non-food items in peak season was 68 and 32 respectively whereas in lean season it was 70 and 30 respectively. Within food items, except for millets, expenditure on all other food items (viz., cereals, pulses, vegetables and fruits, milk, fleshy foods, edible oils, nuts and oilseeds, sugar and jaggery, salt, spices and condiments and beverages) decreased significantly during lean season compared to peak season in all the four categories of families studied. The expenditure on all the non-food items in lean season was significantly lower compared to peak season and the expenditure was directly related to landholding size except for the medicines. The expenditure on non-food items, by all the categories of families, in both seasons was very low, hence one can conclude that these families were leading subsistence level of living.

K.Uma Maheswari & Vijaya Khader (1996)

Contribution of welfare programmes for economic security during lean season

Contribution of welfare programmes for economic security during lean season, was assessed by conducting a study on the effect of provision of additional income in lean season through Jawahar Rojgar Yojana scheme (JRY) on the food and non-food expenditure pattern of JRY beneficiary families and the same was compared with Non-Jawahar Rojgar Yojana (NJRY) families. The increase in total expenditure of JRY families over NJRY families was significant indicating a better economic position of the JRY beneficiary families. Both, food and non-food expenditure was significantly higher in JRY families compared to NJRY families. Except for the expenditure on millets and medicines, the expenditure on all the food items (viz., cereals, pulses, roots and tubers, green leafy vegetables, other vegetables, fruits, milk, livestock products, sugar and jaggery, fats and oils; and nuts and oilseeds) and non-food (clothing, bedding, footwear, electricity, fuel, housing, durable goods, education, transportation, and recreation) items by the JRY families was significantly higher over NJRY families. Hence, it can be concluded that JRY families were able to lead a subsistence level of living than the NJRY families.

K.Uma Maheswari & Vijaya Khader (1996)

Food prices - food security during lean season in drought prone areas

A study was conducted to analyse the prices of major food crops grown and the prices of foods available in the local markets of the eight selected villages in a drought prone area i.e., Ananthapur district, Andhra Pradesh during peak and lean seasons. From the data obtained it was clear that the price of even the major crops grown in the area such as groundnuts, redgram, jowar, ragi and paddy increased significantly during lean season, compared to peak season. The price of Korra (Italian millet) also increased during lean season, over peak season, but the increase was not significant. The mean price of almost all the foods available in the local markets of the selected villages was higher during lean season compared to peak season, except the price of tomatoes and onions which decreased significantly during lean season compared to peak season. Except groundnut oil, other edible oils such as sunflower oil, palm oil etc., were not available in the local markets during the both seasons. Thus, it was clear that the price of all the foods i.e., the major food crops grown and the foods available in the local markets of the selected villages was increased during lean season compared to peak season. Thus, increase in prices of food during lean season resulted in a significant reduction in food expenditure pattern of four categories of families i.e., large, medium, small farm and landless labour families in the drought prone areas studied.

K.Uma Maheswari & Vijaya Khader (1996)

Food & nutrient security in women and preschool children of drought prone area during lean season:

The primary effect of drought is on agriculture, hence its worst victims from the stand point of nutrition are the rural landless labourers, small and medium farmers. Even in normal times (i.e., where the rainfall is normal) their diets are deficient in nutrients and drought imposes additional stress on them. Among these communities, within the household it is the women and preschool children who suffers most from dietary deficits. These categories are usually referred as vulnerable groups even under normal conditions. Therefore food and nutrient intake and nutritional status of women and preschool children (1-5 years) was analysed. Diet survey was carried out in two seasons i.e., "peak" and "lean" seasons among the four categories of farm families i.e., landless labourers, small, medium and large farm families in drought prone areas of Ananthapur district. The study indicated that the mean intake of all foods, except millets, green leafy vegetables and roots and tubers were lower during lean season over the peak season in all the categories of families. Significant difference was observed between the seasons in the consumption of all the foods except in the fruits and nuts & oil seeds in both women and preschool children of four categories of families. This was because fruits were virtually absent in their diets and groundnut is the predominant crop grown in the area. Only the intake of cereals and millets was meeting recommended dietary allowances and the intake of all other foods was much below the requirements for both women and preschool children in both the seasons in all categories of families studied, indicating the fact that the families with past experience made a hard option of coping with dry spells of food shortages and were maintaining atleast the consumption level of staple at the cost of all other non-cereal consumables. The nutrient intake showed that except calorie, protein and

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thiamine all the other nutrients i.e., fat, calcium, iron, riboflavin, β -carotene and ascorbic acid were deficient in both women and preschool children in both seasons across all farm size groups, mainly due to poor consumption of protective foods. In preschool children even the calorie and protein intake was below the requirement. Protein, fat and calcium showed significant difference across the seasons showing a decline in lean season among women and preschool children.

The nutritional status of both women and preschool children across the two seasons as assessed by anthropometry (weight, height, mid-upper arm circumference (for preschool children), BMI (for women) and Gomez classification (for preschool children) and clinical observation (PEM, anaemia, riboflavin deficiency and vitamin 'A' deficiency). The percentage of women and preschool children suffering from malnutrition was higher than the figures obtained by NNMB (1990-98) for the same age group of rural Andhra Pradesh, showing effect of dry spells on the nutritional status of preschool children in these dryland areas.

K.Uma Maheswari & Vijaya Khader (1996)

Food security for tribals

Tribals living as part of nature, exploited nature to meet their food demands. Some of their foods are uncommon to use, may be nutritionally different and can be selectively used for bringing about better varieties. Several varieties of green leaves and tubers are collected from forest and eaten. In this regard a study was undertaken on the tribal population living in two agency blocks of Vizianagaram district in A.P. Tribals cultivate diverse food crops like cereal/millets, legumes, oilseeds etc. A few uncommon foods like judumulu (Vigna sp), dukka chikkudu (Mucunapr uriens) and rajkeera seeds (Amaranthus panicultus) are also grown by the tribals. Millet is the staple food of the tribals and consumption of rice in combination with millet is also widely practiced. Pulses are included in their diets occasionally. Among the flesh foods, dry meat and cattle meat are consumed frequently. The diets of women and children are satisfactory with regard to intake of cereal/millets and vegetables. Consumption of milk and milk products, fats and oils, fruits, spices and condiments is found to be negligible. The diets of women met 79 percent of the requirements of calories. The requirements of protein, calcium, iron, thiamine and niacin are adequately met. The diets are deficient in β-carotene, vitamin C and riboflavin. In the case of preschool children, the diets met 56 percent calories and 74 percent of protein. Their diets were found to be grossly inadequate in β-carotene, vitamin C, riboflavin, calcium and niacin to meet the food demands of the tribals.

P.Rajyalakshmi and P.Geervani (1986)

Contribution of Jawahar Rojgar Yojana Scheme for food security of women and preschool children in lean season

The emphasis in the 1980s shifted from a focus on food production policies to a focus on income generating policies. Jawahar Rojgar Yojana (JRY) scheme is one such programme. It is generally presumed that developmental programmes help to improve the food security situation of the population. However, it cannot be presumed that income derived through such programmes will be utilized to improve the food security situation in rural areas, where food habits and socio-cultural practices play an important role. Therefore a study was conducted to know the contribution of income generated through Jawahar Rojgar Yojana scheme for food security in lean season in a drought prone area. Food and nutrient intake of women and preschool children of landless labour families where, atleast one member of the family was being employed by JRY scheme was compared with those families who were not participating in JRY scheme.

It was observed that the intake of almost all foods, except millets, green leafy vegetables and roots & tubers was higher in both women and preschool children of JRY families compared to NJRY families. Consumption of foods such as pulses, milk, sugar and jaggery and fats and oil was significantly higher in the JRY families. The mean nutrient intake, indicated that intake of protein, fat, calcium, iron and β-carotene was significantly higher in both women and preschool children of JRY families over the NJRY families. However, the intake of calories, thiamine, riboflavin and ascorbic acid was slightly higher in JRY group without any significant difference. Hence it was concluded that JRY families were able to lead more subsistence level of living than the NJRY families.

K.Uma Maheswari & Vijaya Khader (1996)

Contribution of Jawahar Rojgar Yojana for the nutritional status of women and preschool children in lean season

A study was conducted to know the effect of provision of additional income in lean season through Jawahar Rojgar Yojana scheme on the nutritional status in women of landless labour families. Nutritional status assessment comprising anthropometric measurements and clinical deficiency symptoms of women and preschool children of JRY beneficiary families were compared with NJRY families during lean season. Significant difference was not observed in the anthropometric measurements of JRY and NJRY families. The mean body weight of preschool children of both JRY and NJRY families expressed as percentage of NCHS (1976) standards and the distribution of the preschool children according to different nutritional grades as per Gomez classification was studied. The percentage of preschool children with "normal" nutritional grade (weight for age >90%) was nil in both JRY and NJRY families. The proportion of "mild" malnutrition children (weight for age 75-90%) was 28% and 17% in JRY and NJRY families respectively. The highest proportion of "moderate" form of malnutrition (weight for age 60-75%) was observed to be 61% and 72% in JRY and NJRY families respectively. The proportion of preschool children with "severe" malnutrition (body weight less than 60% of standard) was observed to be 11% in both the groups. Though not significant, the proportion of preschool children with "moderate" malnutrition was slightly lower in JRY families, compared to NJRY families and the proportion of "mild" malnutrition was more in JRY families, over NJRY families. The mean weight of the women of JRY

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families was significantly higher compared to the NJRY families whereas, no significant difference was observed in the mean height of the women between the groups, indicating past malnutrition. Prevalence of chronic energy deficiency (BMI<18.5) was 17% in both JRY and NJRY families. The proportion of women with normal BMI values (18.5-25.0) was around 78 percent and 83 percent in JRY and NJRY families respectively. The proportion of over weight and obese population (BMI >25) was 6 percent in JRY group. Over weight and obese population were not found in NJRY families. With regard to clinical assessment, it was found that the prevalence of nutritional deficiency symptoms observed (protein energy malnutrition - in preschool children, anaemia, riboflavin deficiency and vitamin A deficiency) were slightly lower in JRY group compared to NJRY group, though not significant. It was concluded from the study that, the effect of additional income had no effect on the nutritional status as assessed by the anthropometric measurements and clinical symptoms of JRY beneficiary families, indicating past malnutritional status of the population in the study area, because of repeated and prolonged droughts. This may also be because of the duration of the implementation of the programme was not long enough to show the difference in nutritional status, specially in preschool children.

K.Uma Maheswari & Vijaya Khader (1996)

Use of Non-traditional leafy vegetables - for food security

There are many leafy vegetables growing wild, which are known to be edible. Even some leaves growing as weeds in the field are also edible. In this era of ever-increasing population, newer food and food crops that have been hitherto neglected are gaining recognition. Non-traditional leaves belong to such category of lesser known food crops. These are usually looked upon as poor man's food and people from well-to-do families feel below their prestige to eat these non-traditional green leafy vegetables. Even the societies who are the major consumers of the non-traditional leaves are not utilising them to the maximum potential. Some food fallacies are associated with the usage of non-traditional leaves (such as consuming non-cultivated greens leads to disease and they are toxic). This hinders the people to include such type of non-traditional leaves into the normal diets. However these are the major sources at the times of low production and as an alternative during acute food shortage periods.

In order to know the contribution of non-traditional green leafy vegetables for food security a study was conducted to know the consumption pattern and nutrient composition of ten selected non-traditional leafy vegetables available in Nellore and Prakasham Districts of Andhra Pradesh. The ten selected non-traditional leafy vegetables were Chenchalaku (Digera arvensis), Elukajemudaku (Merrenia emarginata), Avisaku (Sesbania grandiflora), Gurugaku (Celosia aregentia), Duradagundaku (Ischemone indica), Thummikura (Lucas aspera), Payilaku (Trianthema cordifolia), Atikamamidi (Boerhavia diffusa), Boddakulu (Tinopspora cordifolia) and Pippintaku (Acalypha indica).

The data on the awareness of the non-traditional leafy vegetables indicated that 51% of the respondents were aware of the selected leaves but the consumption of the same by the respondents was only 40%. Duradagundaku (Ischnemone indica), boddakulu (Tinospora cordifolia) and pippintaku (Acalypha indica) were the most unfamiliar, which might be due to their limited use and often neglected/ under exploited. None of the respondents consumed the selected leaves daily and none consumed boddakulu and pippintaku at all including the respondents who were aware of them. Gurugaku (28%, 15%) and payilaku (47%, 53%) were the two leaves consumed weekly by the respondents both in Nellore and Prakasam districts. Avisaku (37%) was consumed weekly by the respondents of Prakasam district only. None of the respondents in Nellore district consumed the selected leaves monthly except atikamamidi (10%). Chenchalaku (43%) and payilaku (9%) were the two leaves consumed monthly once by the respondents of Prakasam district. The reasons for lower consumption or for not consuming the selected leaves were many such as lack of awareness, bad smell, treating them as a poor man's food and regarding them as useless weeds growing wild. The nutrient composition of the ten selected leaves is given in Table-2.

Among the selected leafy vegetables atikamamidi was considered

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Table-2: Nutrient composition (Range) of the ten selected non-traditional green leafy vegetables per 100g edible portion (fresh weight basis).

Sl.No.	Nutrients	Range
1.	Moisture (g)	62.9-90.17
2.	Protein (g)	2.17-6.89
3.	Fat (g)	0.48-1.57
4.	Crude fibre (g)	0.58-2.69
5.	Ash (g)	1.78-4.56
6.	Vitamins (mg)	
	Total carotene	12.19-47.08
	β-Carotene	3.9-17.05
	Ascorbic acid	22.24-151.91
7.	Minerals (mg)	
	Zinc	0.95-19.38
	Iron	5.56-35.13
	Calcium	198.26-853.38
	Magnesium	127.29-262.35
	Phosphorus	0.28-14.76
	Copper	0.60-2.84
	Manganese	2.08-15.43
8.	Oxalic acid (mg)	58.25 355.81

Impact of dairy programme on the nutritional security of women and preschool children in Vihiga district, Kenya

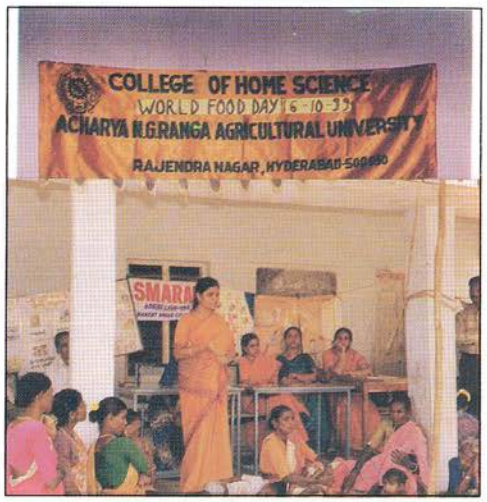
A cross sectional survey with a case control model was carriedout to assess the impact of dairy programme on the nutritional status of women and preschool childrend in Vihiga district, kenya. Women participants in the dairy programme were identified and compared with women non-participants in the dairy programme of the same age range, socio-economic status and residing in the same locality. Mean intake of fleshy foods, other vegetables, milk & milk products , fats & oils was lower than the RDI in the preschool children from non-participant households. Mean intake of other vegetables, milk and milk products, fats and oils and sugar was lower than the RDI in both women and preschool children(3-5 years age group) from participant households and non-participant households. Mean nutrient intake was adequate for all nutrients except energy, niacin and riboflavin in both women and preschool children of participant and non-participant households. The nutritional status of women and preschool children of the participant group improved over the non-participant households though not significant.

Mary Khakoni Walingo & Vijaya Khader (1998)

Overseas study tour

Dr.Vijaya Khader, Director, Centre of Advanced Studies and Professor & University Head, Dept. of Foods & Nutrition, P.G. & Research Centre, (Home Science), under went on a study tour to University of Maryland, Iowa State University, Ames and Texas A&M University at U.S.A. andUniversity of Wales, Bangor; University of Nottingham; University of London, Wye College at U.K. under AHRDP from 2nd to 20th November, 1999, with an objective of studying educational programmes at undergraduate and postgraduate level, the syllabi, curricula etc., the latest research projects undertaken and innovation made at postgraduate level and also the administration so as to improve and implement in the department at ANGRAU.

WORLD FOOD DAY



The Department of Foods & Nutrition, College of Home Science has celebrated "World Food Day" on 16-10-99 at Kappapahad village, Ibrahimpatnam Mandal, in association with the Non-Governmental organisations 'LIFE' and 'SMARAN'. About 200 people including women, men and school children attended the function. Importance of food and different nutrients in the maintenance of health and nutrition of population, role of youth in promoting nutrition with an emphasis on selection of right type of food within the available budget, methods of prevention of nutrient losses and the nutrition challenges facing the country were explained to the group. Certain questions raised by the group regarding nutritional deficiency diseases were clarified by suggesting them appropriate dietary management methods using low cost locally available foods. An interactive session was conducted involving the school children of the village regarding their nutrition knowledge. An exhibition on sources of various nutrients, different types of nutritional deficiency disorders, methods of preventing nutrient losses and health & hygiene was organised for the benefit of participants. Dr.S.Sumathi, Dr.Kamini Devi, Dr.K.Uma Maheswari and Dr.N.Lakshmi Devi from the Dept. of Food & Nutrition participated in the function. An article written by Dr.Vijaya Khader, Professor & University Head, Department of Food & Nutrition on "Rythu Rajyam" was published in "Eenadu", Telugu daily on 16-10-99.

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as the best leafy vegetable as it had higher mineral content and lower amounts of oxalic acid content, thereby indicating safe use in the human diet.

Encouraging the cultivation of non-traditional leafy vegetables helps in meeting the demands of food shortage of the increasing population and combating micronutrient deficiencies such as anaemia and vitamin 'A' deficiency.

R. Bharathi & K.Uma Maheswari (1999)

WORLD DIABETIC DAY

Staff and students of Department of Foods & Nutrition celebrated World Diabetic Day on 14th November 1999 at Osmania Medical College in collaboration with Juvenile Diabetic Foundation. In this connection a diet exhibition was organised and several diets suitable for different age groups and activity were displayed. The exhibition was inaugurated by Dr.G.Shyam Sunder, Vice Chancellor, NTR University of Health Sciences. More than thousand people have visited the exhibition. Dr.Kakarla Subba Rao, Director, NIMS; Dr.C.Chandrasena, Director, Medical Education and Dr.M.M.Reddy, Principal, Osmania Medical College also participated in the programme. Insulin packages were distributed to juvenile diabetic children. An exhibition on hypoglycemic drugs, insulin, insulin syringes, clothing and foot wear for diabetics was displayed by various pharmaceutical companies.

FOOD AND NUTRITION NEWS

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