

Promoting and protecting traditional food products

S H Azam-Ali and M J Battcock

Through their impact on food and livelihood security, social and cultural well being, traditional food products are set to play an increasingly important role in food security, sustainable growth and poverty reduction in developing countries.

Conclusions and research needs

- Traditional food products have the potential to contribute to poverty elimination through employment opportunities, household food security, improved diets and cultural identity.
- With changing consumption patterns, globalisation of trade, increasing migration and urbanisation and demographic changes, some of the traditional food products are being lost from the diet.
- The future for small-scale food processing and of traditional food products in particular is optimistic. The small-scale food processing sector is a thriving growth area with huge potential for further development.
- A co-ordinated research effort directed at the development, documentation and improvement of the processes, supported by improved government policies, is required for the promotion and protection of traditional food products.

Traditional food products

Most traditional food processes have stemmed from the need to preserve food for the off season or to make the food safe for consumption. The technologies involved – including drying, fermentation and pickling - have been known to mankind for centuries and have been passed from one generation to the next. Some of the practices have been modified and the technologies have evolved to use more sophisticated equipment, while others have been lost along the way. Within each country, traditional food products (Box 1) are produced from indigenous crops and raw materials and are therefore typical to a certain region or area. Consequently, there are many similarities, especially in areas with similar climate and terrain, but numerous regional specialities are also evident. The variation in taste and appearance add to the complexity and value of this vast treasury of knowledge. Box 2 gives an example of the traditional food products of Peru.

Box 1: What are traditional food products?

Food is valued for more than its sustenance role. It is linked with ritual, superstition, folklore, cultural identity and civilisation. Traditional food products have evolved over centuries and are steeped in history and cultural heritage.

The preservation techniques and the traditional food products vary from one place to another, but the one factor they all have in common is their dependency on local resources and social and environmental conditions.

While the basic processing technologies are widely known, it is almost certain that the local refinements and specialities have never been documented. As a result they have received very little or no research attention and are absent from most policies and country strategies. Exceptions to this include the traditional food products that have been popularised and commercialised. The process details for *kimchi* – a traditional fermented staple from Korea – have been extensively researched to enable commercial production. Likewise beer, bread, soy sauce and vinegar are all commercially important traditional products that have benefited from research.

Box 2: Traditional food products in Peru.

Peru has a diverse range of traditional food products that reflect the changing terrain and climate of the country. However, the popularity of products varies widely according to the availability of alternatives and local taste and perception.

Charqui, a preserved meat product made from llama or alpaca which dates back to the pre-Incan period is still produced in some areas using the traditional hand-made methods, but its popularity is declining due to the availability of alternative sources of protein.

Other traditional products have witnessed a revival and their production has been increased and modified to enable commercialisation of the product. *Chiffes* – a local version of the potato crisp are made from under-ripe bananas and are growing in popularity throughout Peru. Traditionally they were hand made, but in recent years the process has been commercialised and is now a very profitable snack food business to rival the imported potato snacks.

Source: Rodriguez, 1999

The importance of traditional food products

Traditional food products are important for a number of reasons:

- they have the potential to contribute to poverty elimination through employment opportunities and income generation in both rural and urban environments (Box 3);
- they can contribute to sustainable livelihoods through household food security and improved home processing and storage;
- they add nutrients and variety to the diet and are an ideal convenience food for low-income urban people; and,
- they have a strong cultural identity and are associated with traditional customs and beliefs.

The Role of Traditional Food Products in Poverty Elimination

Over the past forty years our understanding of the causes of poverty has moved away from a purely economic definition to include the numerous other factors which the poor themselves consider to be important (Maxwell, 1999). These include the following: access to opportunities and services; access to information, goods, health and education; family and community support; cultural identity; feelings of worth and self-esteem.

Traditional food products provide potential for income generation and employment opportunities

Traditional food products are often made at the small-scale and thereby have the potential to provide income and employment opportunities for all sectors of the population, in particular women who are amongst the most vulnerable and susceptible to poverty. The food processing sector is probably the most important source of income and employment in Africa, Asia and Latin America.

In sub-Saharan Africa it is estimated that more than 60% of the workforce is involved in the small-scale food processing sector and between one and two thirds of value added manufacturing is based on agricultural raw materials. This is in comparison to the textile sector which only accounts for 14% of production value (Anon, 1989; Conroy *et al.*, 1995; Dietz, 1999). In rural areas, small-scale food processors play an important role in generating and securing income and employment. This is becoming increasingly important as agriculture and the formal sector are unable to absorb the growing labour force in many countries.

Box 3: Employment and income generating opportunities

Several traditional food products are produced at the household and small-scale level, offering opportunities for income generation and employment.

In Zimbabwe, the production of *rapoko*, a traditional beer, can contribute up to 30% of the family income (ITDG Zimbabwe, 1999).

In Nepal, it is estimated that around 50% (about 26,000 people) of those engaged in small-scale food processing are producing traditional food products. Here, the majority of traditional food products are made at the household level for direct consumption or for sale, with very little in the way of commercialisation. However, there is a huge potential for increasing and improving the level of production and providing much needed employment and income in rural areas.

In Bangladesh traditional food production is a suitable form of employment in both rural and urban areas. For instance, in Manikganj, a town of 40,000 inhabitants close to the capital Dhaka, traditional street food businesses have a turnover of 2 million US dollars per year. Establishment of small food outlets has increased by 445% within the last five years in response to the rising demand for processed food products.

Traditional food products and food security

It is estimated that approximately one fifth of the world's population, around 1.2 billion people, do not have sufficient food to meet their daily requirements. A further two billion people are deficient in one or more micro-nutrients which seriously undermines their productive capacity. Influential organisations, amongst them the Food and Agriculture Organisation of the United Nations (FAO), have recognised that the problem of food security cannot be tackled in isolation and, moreover, that it is an integral component of other development issues. They highlight the fact that the world insecurity problem is a result of undemocratic and inequitable distribution of and access to resources rather than a problem of global food production (Anon, 1995).

In developing countries, it is estimated that post-harvest losses account for up to 20% of all cereals and in some instances up to 100% of fruits and vegetables. Post-harvest research has previously focussed on helping small-scale farmers to preserve their harvest and thus ensure food security for the household. With the development of new innovative post-harvest systems, the focus has now shifted to enable farmers to add value to their crops, through processing. This change has been assisted by the surge in consumer demand for more high quality, low-cost processed foods (Anon, 1999).

Through the preservation of foods, either for out-of-season household consumption or for sale or exchange, the production of traditional food products plays a central role in ensuring the food security of millions of people worldwide. Food processing has the potential to increase the range of raw materials from which edible foods can be produced and increases food safety through the removal of anti-nutritional components.

Traditionally processed foods make a significant contribution to the diet of a rural household, particularly during droughts, famine and the dry season (Campbell, 1987).

Box 4: Traditional food products and food security

Traditional fermented foods are the mainstay of the Nepalese diet. This includes pickles (*gundruk*, *sinki*, *khalpi*), milk products (*dahi*, *chhurpi* and *durkha*), bean products (*masayura*, *fuloura*, *kinema*) and alcoholic beverages (*jaand*, *raksi* and *chhang*). Although the data regarding their production, processing and consumption is scarce, there is no doubt that they make a significant contribution to the diet and wellbeing of numerous under-privileged and economically deprived people. Because of the importance of these foods in the diet, there are efforts to modernise the processes and to make the products more widely available.

Gundruk is a fermented and dried vegetable product, essential in the diet of Nepalese for centuries. It is produced by fermenting the shredded leaves of mustard, radish and cauliflower in an earthenware pot for up to seven days. After this time they are removed, dried in the sun and stored for use over the winter period. The dried product is rehydrated and prepared as a side dish with the main meal and also as an appetiser in the bland starchy diet.

Gundruk is crucial to many remote communities for ensuring food security and is a valuable source of minerals during the winter months when few fresh vegetables are available. The annual production of *gundruk* in Nepal is around 2000 tonnes, with the majority being produced at the household level (Karki, 1986).

Source: Karki, 1999

Improving Health and Nutrition

In most cultures, women and children tend to be the most nutritionally disadvantaged. For example, it is estimated that approximately 30% of women consume less than their daily energy requirement and at least 40% of women world-wide suffer from iron deficiency anaemia. Having access to sufficient calories alone is not the solution. A balanced diet must contain all the essential major and micro-nutrients. This is where the role of traditional food products is valued. Traditionally the basic diet is based on a starchy staple – rice, cassava, maize meal, wheat or potato, but lacks essential vitamins and minerals. The addition of side dishes such as pickles, soups and sauces, not only increases the palatability, but also adds essential micro-nutrients. See the examples of *gundruk* (Box 4) and sorghum beer (Box 5).

Box 5: Nutritional value of traditional food products

Sorghum beer, a popular traditional drink in Southern Africa, makes an important nutritional contribution to the diet. The fermentation process greatly enhances the levels of riboflavin and nicotinic acid, two important B group vitamins. These vitamins are essential in the diet, but even more so in those who consume a high maize diet. Pellagra, a vitamin deficiency disease associated with the consumption of a high maize diet, is relatively uncommon in communities that drink sorghum beer. Even the children benefit from drinking the dregs which contain very little alcohol but are high in vitamins.

Cultural well-being

In many communities, celebrations and festivals are closely linked with specific food products. The birth of a child, a marriage, a death, the end of harvest and numerous religious and non-religious festivals are all occasions that call for the preparation of traditional food products.

There are many traditional beliefs about the medicinal properties of traditional food products. The Fur ethnic group in Sudan strongly believe that the consumption of traditional fermented foods protects them from disease (Dirar, 1992). *Koumiss* – a fermented milk product in Russia - has been used to treat tuberculosis and *pulque* – a fermented fruit sap drunk in Mexico – is said to have medicinal properties. There is underlying scientific reason to believe these allegations. Many fermented foods contain the beneficial lactic acid bacteria. However, it is only in recent years that the beneficial health effects have been researched and documented.

Traditional food processing can be used to improve the flavour and appearance of food products. Over the years, Sudanese women have developed techniques to produce meat substitutes from plant material, thus enhancing the taste and value of the diet.

Traditional foods under threat

Disappearance of Traditional Food Products from the Diet

The trend today, particularly for many developing nations in Asia, is towards declining consumption of traditional staples and increasing consumption of other foods. The changes in diet are largely linked to changes in income and wealth, the wider availability of a range of alternative foods, changing perceptions and values of foods, changing demographics and globalisation of trade.

For people with very low incomes, appeasing hunger is the major factor determining type of food consumed. As incomes rise, so does the desire for variety in the diet, for example meat and vegetables to mix with the staples. As economic development proceeds, the demand for variety and quality in the diet increases and non-staples become increasingly important in the diet. With further growth in income, cereals reach a peak, root crops decline further and non-traditional foods expand.

The underlying causes for the decline in consumption of traditional food products are complex and varied and are often interlinked. The various factors responsible are discussed individually below.

Causal factors of the decline in consumption of traditional food products

Perceptions

Although traditional foods may be regarded as a source of heritage and cultural wealth that deserve to be protected, opinions often differ. Traditional food products are regarded by some as inferior goods, or foods of the poor. Several reports associate traditional food products with poor quality, lack of hygiene and outbreaks of food poisoning (Karki, 1999). Packaging, if it is present, is very rudimentary and unable to protect the food from damage or infestation. The processing methods used at the household level are very simple, appropriate to the immediate situation of providing household food security, but are impractical for production at a larger scale. On the positive side, some are perceived to have additional health benefits and are saved for special occasions.

There is a strong correlation between generation and perception of traditional foods. The older generation often prefers to consume traditional food products but for the younger generation, non-traditional foods hold a certain attraction. They view the traditional food products as old-fashioned and equated with poverty whereas the Westernised foods are associated with wealth and success. The older generation, in particular the women, are also the custodians of the methods of production of most traditional foods. For centuries this information has been exchanged by word of mouth, with no documentation.

Competition from convenience foods

With improvements in marketing links, the market for processed foods is becoming fiercely competitive. Large companies are marketing attractively packaged goods throughout the developing nations, thereby squeezing out the originality and the small-scale processor. Traditional foods find it difficult to compete with the imported products. Box 6 gives examples from Asia.

Box 6: Competition from convenience foods

Many producers of traditional food products are facing severe competition from mass produced products and imported goods. Coca cola is more popular than traditional fruit juices in many countries. *Muri* - puffed rice - is being replaced by potato chips in Bangladesh. In recent years there has been a huge increase in the consumption of instant noodles in Nepal.

Noodle manufacturers have targeted consumers with slick advertising, attractive packaging and free samples. The noodles are slowly replacing the traditional *dhal bhat* (lentil and rice mixture) and products such as *gundruk*. There are obvious advantages of the instant noodles - such as reduced cooking times, savings on fuel, water and time for preparation and variation in the diet, but the noodles are nutritionally inferior to the traditional meals. There is concern that there could be an increase in the levels of malnutrition as a result of this change in eating habits

Source: Khanai, 1991

Changing consumption patterns

Food consumption patterns in developing countries are influenced by a number of factors, one of which is urbanisation. The diet of rural consumers tends to contain a higher proportion of starchy staples, reflecting the higher physical energy demands. Urban consumers use a higher number of processed and convenience foods. Changes in food consumption patterns also arise from the ageing of the population and the proportion of immigrants in the population (see Box 7).

Box 7: Changing consumption patterns

In fast developing countries in Asia, direct per capita consumption of traditional foods is in decline while higher valued and processed foods is increasing. In Africa, millet, sorghum and starchy roots remain the major source of calories, but the per capita intake and their dietary share have declined in most economies while consumption of non-staple cereals (rice and wheat) has steadily increased. In high-income economies on the other hand, consumers are looking for healthier foods and are reducing consumption of red meats and animal fats

Source: (Mitchell *et. al.*, 1997).

Demographic and economic changes

With the failure of agriculture to support the growing population and the lack of appealing jobs in rural areas, there is a rapid migration to the cities and peri-urban areas for employment. With increasing urbanisation, the issues of storage, quality, convenience and safety characteristics of food products gain importance, while at the same time new opportunities for traditional food products are created.

Box 8: Opportunities for traditional food products

In Zimbabwe, dried vegetables (*mufushwa*), a traditional product consumed in all rural households, is finding a ready market in urban areas. This is attributed to the low cost, high nutritional content and increasing drive towards the consumption of traditional food. The idea of producing *mufushwa* is as old as the Shona tradition itself and was developed as a convenient way of dealing with post harvest losses during the summer season and to preserve them for use in times of scarcity. Despite *mufushwa* being a 'poor mans' food, it is highly valued for its cultural identity and therefore finds a ready market in urban centres.

Source: ITDG Zimbabwe, 1999

Changing roles and household structure

The production of traditional food products is often arduous and time consuming. Hence their decline in popularity in the diet, especially in households where the person responsible for food preparation has another form of employment. As women in developing countries become increasingly involved in the labour market, the opportunity cost of time used for food preparation also increases. As incomes increase, so does the demand for food that requires less preparation time. Indian researchers have capitalised on this opportunity by

directing research efforts at the improved preparation and conversion of traditional foods into convenience foods (Devadas, 1998). In Zimbabwe, traditional leafy vegetables have found a market in urban areas (Box 8).

Protecting traditional food products

Because of the important role they play in food preservation and their potential to contribute to the growing food needs of the world, it is imperative that the knowledge of production of traditional foods is not lost. Moreover, it is essential to increase knowledge and understanding of the methods of preparation to improve the efficiency of the processes and the quality and safety of the products. To enable these traditional products to compete effectively with imported and large-scale goods it is essential to develop a strategy for their protection and promotion. Research to date has been rather scant and uncoordinated, with individuals and interested groups carrying out their research in isolation. There is a need for a co-ordinated effort, directed at the promotion and protection of traditional food products. Box 9 highlights the main steps that need to be undertaken.

One of the first steps in promoting and protecting traditional food products is that local consumers and policy makers themselves recognise the value of the products and are actively interested in preserving the culture and tradition. It is encouraging to report that there are several examples of the commercialisation of traditional food products in developing countries, providing a real alternative to globalised products. Examples include *dadwa* – a fermented legume product made by Cadburys in Nigeria; *lacto*, a traditional fermented milk drink produced in Zimbabwe (Okafor, 1992) and traditional candies in Ecuador (Mangurian, 1999).

Box 9: Research to promote and protect traditional food products

- Develop an understanding of the processes involved.
- Refine the processes.
- Document and disseminate the refinements.
- Create a conducive policy environment.

Understand the Processes Involved

The knowledge of the production of traditional food products has been passed down from mother to daughter and belongs to the undervalued body of 'indigenous knowledge'. Most of this knowledge is held by processors themselves, has never been documented and is in danger of being lost as technologies evolve and families move away from traditional food preservation practices.

The lack of information on these processes means that traditional food products have received very little or no research attention and are absent from most policies and country strategies. Collecting and documenting this information is the starting point towards promoting traditional products.

An inventory of the traditional food products specific to each region is required. This should contain information on the method of production, traditional beliefs and customs associated with the product and the cultural and economic importance. Once this information is collected it will allow further research into refining and improving the processes.

Refine the Processes

One of the main criticisms of traditional food products, and one of the constraints to them gaining wider appeal, is that they are of poor quality and may be unfit for consumption. To compete with mass produced goods, traditional products must be of consistent quality, be attractively presented and free from adulteration. To promote the traditional products amongst a wider consumer base, their production processes need to be refined to incorporate objective methods of process and quality control. Production needs to be standardised while at the same time maintaining the desirable attributes, such as improved keeping quality, taste and nutritional qualities that are unique to the products.

Research is required to determine the most suitable traditional foods for production at a higher level, taking into consideration the resources required and the practicality of production. There is the danger that research into the methods will result in the processes being unsuitable for the small-scale processor. To avoid this, it is essential that they participate in any developmental research.

Document and Disseminate the Refinements

Collection and documentation of the processes and their potential improvements are only useful if the outcomes are disseminated to the end-users. This includes a wide audience, from field workers through to government policy makers. Thus, a range of dissemination literature is required, in various forms that are suitable for the different audiences.

Several influential organisations including the European Union and Indian Government (see Box 10) have recognised the value of indigenous knowledge and traditional food products and have initiated programmes to collect the information. However, there is no co-ordination or incentive for collection. What is required is a more concerted and co-ordinated effort, backed up by supportive government policies and external funding.

Box.10: European Euroterroirs project.

A recent policy issued by the European Union is aimed at the promotion and protection of traditional food products and their protection from commercial dilution, intellectual fraud and dishonest imitation. The policy is particularly concerned with the quality and origin of foods and allows food producers to register products with geographical names if they can indicate that the region of origin gives the food special characteristics.

The Euroterroirs project was formed to enable the European Parliament to identify the foods that would be eligible for registration and protection under the scheme. Lists of regional foods were compiled and published in 1996. Two books – 'Traditional Foods of Britain' and 'Ireland's Traditional Foods' are the first publications of this project.

One important issue highlighted by the research is that memory is very fragile – there is an urgent need to collect and preserve information before it is too late.

The Indian Traditional Food Products Panel

The Asian sub-continent has a wealth of traditional food products that are highly valued for their cultural significance. In recognition of their value and importance, and to support and upgrade these products, the Ministry of Food Processing Industry has established a panel dedicated to the sector. The panel will study the problems faced by the producers of traditional food products and make recommendations for improvements and development of the sector. To collect information and promote interest in the subject, workshops have been held in several locations including Coimbatore, Ludhiana, Hyderabad, Mumbai and Calcutta.

Creating a Supportive Policy Environment

One of the major constraints faced by traditional food products is the perception that they are inferior and considered as poor man's food. However, not all traditional products are regarded in this way and those that have strong cultural ties are unlikely to have an image problem. As a consequence of their popularity, they are probably quite well developed.

To support the production of traditional food products by the small-scale processor, government policies need to be sympathetic to and supportive of this sub-sector. Removal of trade barriers, improved access to financial support, the provision of training and technical support are all areas that could help small-scale processors to become established and to compete with the large processors.

The future

The future for small-scale food processing and of traditional food products in particular, is optimistic. The small-scale food processing sector is a thriving growth area with huge potential for further development. In Bangladesh, for example, traditional food products presently make up around 2% of the food processing sector, accounting for almost 1.6% of the total GDP. There is, however, enormous potential for development of these products for export to Europe, America, the

Middle East and the Indian subcontinent, where the potential for success seems more promising than the garments industry.

Presently in Nepal, the majority of traditional food products are made at the household level for direct consumption or for sale, with very little in the way of commercialisation. With a little technical assistance and attention to hygiene and quality, many of these products could be made on a larger scale, thus generating employment and income in the rural areas. There is an urgent need for research and development into the production of these food products in order to understand the processes involved and to enable scaling up to take place.

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Contacts:

S H Azam-Ali
ITDG
Schumacher Centre for Technology and Development
Bourton Hall
Bourton on Dunsmore
Rugby, CV23 9QZ
UK
sueA@itdg.org.uk

Mike Battcock
DFID Civil Society Department
Abercrombie House
East Kilbride
Glasgow
UK
m-battcock@dfid.gov.uk

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t.donaldson@gre.ac.uk

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