Edible oil consumption: Need for change in rural India

aneeja guttikonda
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percentage of Muslim population in the relevant age group attending madrasas is available, yet it may be estimated between 5 to 10 per cent of the total population of Muslim students in the country.

A large section of the Muslim intelligentsia advocates Urdu as medium of instruction for Muslim students in the country without having a long-term vision of Muslims going on higher or professional education and ultimately securing a good position in the job market. As higher or professional education is not available through Urdu medium, the students have to switch over from one medium to another and in majority of cases they fail to achieve a command over the new medium. English is recognised as the main international language and the English press in India as well as on global level, provides standard information literature through books, periodicals, newspapers, etc. Other forms of media like internet or television also provide standard information through English language. Urdu as medium of instruction may help in increasing literacy percentages among socially and economically backward classes of Muslims, yet it fails to bring excellence as well as in grooming young generation for the job market.

Ineffectiveness of Urdu medium as a success factor in the civil services examination may be gauged from the fact that out of 8,098 candidates who qualified for IAS(main) examination 1996, 5,000 (61.74 per cent) took English as medium of examination, 2,824 (34.87 per cent) adopted Hindi medium, 271 (3.35 per cent) did it through regional languages and only four candidates offered Urdu as medium.

The data relate to the number of candidates who appeared in the examination, while mediumwise break-up of the candidates who qualified and were finally selected after personality test was not available in the report.

Conclusion

Mere repetition of fact/data about under-representation of Muslims in public services, or making it a ground for demand of reservation quota for Muslims as a community, appears to be a futile exercise and may not solve the problem as has been the case since independence. For correcting the malady, Muslims need a mass movement in which basic thrust should be on qualitative aspect of education. The movement is to be started from grass roots level of education. As schools, run or aided by the government have utterly failed to provide quality education, Muslim NGOs should come forward to take up the task. A responsible behaviour of school management should be the starting point of the movement and the appointment of principal/teachers should be strictly on the basis of merit rather than on extraneous considerations. Principals should maintain strict discipline for which some missionary schools are known. Teachers should take their job as a challenge, as a part of a larger movement rather than as merely a service to school. An environment conducive to good education is to be maintained at family level and here the role of parents becomes important. The basic responsibility of schools as well as of families is to groom students to make them capable to enter higher education, especially in professional courses. The right approach will be to secure a professional degree followed by rigorous efforts to enter the civil services or other public service examinations.

Edible Oil Consumption

Need for Change in Rural India

In India, edible oils are a significant source of essential fats. However, fat intake is almost absent among the rural poor, for whom edible oils are largely unaffordable. Edible oil consumption should be encouraged among the rural poor by supply via PDS at low cost. Steps to boost cultivation and lower the cost of production and import will also help to meet requirements.

G. Aneeja

The fat content of a normal diet is made up mostly of pure fats and oils consumed as such. Fat is necessary for the health of the skin, brain, hair, nails, mucous membranes, digestion, immune system, heart, reproductive function and nervous system. The food items that contain fats are butter, ghee, hydrogenated oils, cooking oils such as groundnut, rapeseed and mustard, soybean, coconut oil and sunflower oil. The main nutrients in fats are: energy, fat and essential fatty acids (EFA). Some fats, especially vegetable oils, provide the EFA – linoleic, linolenic and arachidonic acids – for the body. These EFAs are also important for the structure and function of cells. Like vitamins, the essential fatty acids also play a role in several metabolic reactions, and a deficiency of these acids in the diet leads to ailments including a skin condition known as phrynoderma (toad skin).

Though studies strongly recommend the fat requirement and its importance to the human body, is it actually consumed in sufficient quantities? This is a question of national concern. As per diet practices among all groups of the society, fat requirement is met through invisible fats in cereals and pulses, and also by consumption of edible oils.

The quantity and quality of edible oil consumption is known to vary across income groups. Only the diets of high income and middle income groups in urban areas can be said to be satisfactory. Surveys carried out by the National Nutrition Monitoring Bureau (NNMB) over the past decade in rural and urban areas of 10 states in the country have brought out this fact clearly (Table 1). The intake of fat among the rural poor is virtually nil. This is very alarming in terms of the health of rural poor people as they require high energy for working in agriculture and allied sectors.

The fat requirement by the human body has been examined in great detail, and more realistic estimates of minimum intakes have been suggested. The total invisible fat content of the cereal-based diets of various groups were considered, and the recommended fat allowances were given (Table 2). The EFA requirement has been estimated at 3-6 per cent of total energy intake depending on age and physiological state. To obtain this level of EFA in the diet, the minimum visible fat intake should be 15-25 g/day by way of oils. This amount of visible fat would not only provide the required amount of EFA, but also help in
absorption of fat-soluble vitamins. The upper limit of fat in the diet should not exceed 30 per cent of calories, that is, less than 80 g/day.

The suggested balanced diet pattern, for a vegetarian adult male with sedentary work is fats and oils 40 g, cereals 400 g, pulses 70 g, green leafy vegetables 100 g, other vegetables 75 g, roots and tubers 75 g, fruits 30 g, milk 200 g, and sugar and jaggery 30 g per day. But the actual intake among the poor is well below the national average [Gopalakrishnan et al. 1997]. Fat intake is no exception. Even a low-cost balanced diet (Table 3) requires intake of at least 40 g of oil to increase energy and EPA intake.

Among oil consuming groups, that is, urban middle and high-income groups, the consumption pattern is ever changing. There are many reasons for this, including price of oil, taste, health reasons and awareness. The main oils consumed are groundnut, sunflower, sesame, rapeseed and mustard oil. Niger, safflower, castor and linseed and soybean oils are of limited use. Thus there has been a remarkable change in the types of oils available in the country, and thereby, a shift in consumption of edible oils.

Being a traditional crop, groundnut oil has been quite popular. The total domestic supply of groundnut oil was 2.12 million tonnes in 1997, meeting about 23 per cent of the total domestic demand for oils. It is popular among the urban slum dwellers and is sold in small loose quantities.

Sunflower has helped a great deal in augmenting edible oil production and supply in the recent past. Due to its wide adaptability to different seasons and types of soils, the sunflower crop has been adopted by farmers on a large scale in many parts of the country. The availability of sunflower oil in 1998 was 4.85 million tonnes. The indigenously produced sunflower oil contributes 6.73 per cent of total domestic supply of vegetable oils.

Sesame seed is a good source of edible oil. More than 82 per cent of sesame oil is utilised for edible consumption in India. The availability of sesame oil in 1998 was 1.85 million tonnes and accounted for 3.88 per cent of total domestic oil supply. Over time, area under sesame has decreased but production is up due to improvement in overall productivity.

Rapeseed and mustard oil have high consumption in India. They are not only an important source of oil, but as spices widely used for seasoning of food in India. About 2.02 million tonnes of rapeseed and mustard oil supply meets around 22 per cent of total domestic demand for vegetable oils.

Because of its low cholesterol content, safflower oil is important. The safflower oil market is dominated by one brand. The total area and production of safflower has decreased over the years. It supplies about 0.99 per cent of total domestic oil supply.

Soybean is one of the major crops in India. It is cultivated in various parts of the country during the past decade, but soy oil is not very popular among oil consuming groups.

Due to reasons like adaptability of the crop, production, and climatic conditions, oil production has increased tremendously. Accordingly, oil consumption patterns have also changed. But studies indicate that the high-income groups prefer sunflower followed by safflower oil in view of their health consciousness, purchasing capacity and aggressive marketing by certain branded oils. Apart from the quantity of fat, the quality of fat in the diet also determines the blood cholesterol levels. The popularity of oils such as groundnut oil, sesame oil or safflower oil is because of the high proportion of polyunsaturated fatty acids, which do not increase blood cholesterol level much even if consumed in large quantities.

The total availability of vegetable oils in India has increased from 6.56 million tonnes in 1990-91 to about 10.37 million tonnes (estimated) in 1998-99, which can be mainly attributed to consumption demand. In spite of reaching self-sufficiency in the 1990s, the import of vegetable oils is also now increasing at a significant rate of 6 per cent.

### Table 1: Nutrient Content of Rural and Urban Diets

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Rural</th>
<th>Urban MIG*</th>
<th>Slum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein (g)</td>
<td>60.5</td>
<td>66.74</td>
<td>57.77</td>
</tr>
<tr>
<td>Fat (g)</td>
<td>6</td>
<td>61.76</td>
<td>28.32</td>
</tr>
<tr>
<td>Calories (K Cal)</td>
<td>1994</td>
<td>2140</td>
<td>1825</td>
</tr>
<tr>
<td>Calcium (mg)</td>
<td>368</td>
<td>941</td>
<td>546</td>
</tr>
<tr>
<td>Iron (mg)</td>
<td>30.1</td>
<td>31.7</td>
<td>29.3</td>
</tr>
<tr>
<td>Vitamin A (ug)</td>
<td>470.0</td>
<td>902.0</td>
<td>592.0</td>
</tr>
<tr>
<td>Thiamine</td>
<td>1.69</td>
<td>1.76</td>
<td>1.76</td>
</tr>
<tr>
<td>Riboflavin</td>
<td>0.91</td>
<td>1.31</td>
<td>0.97</td>
</tr>
<tr>
<td>Nicin</td>
<td>15.2</td>
<td>12.70</td>
<td>12.77</td>
</tr>
<tr>
<td>Vitamin C (mg)</td>
<td>42.6</td>
<td>103.08</td>
<td>43.05</td>
</tr>
</tbody>
</table>

* middle income group.

Source: NIN (ICMR), 1998.

### Table 2: Recommended Fat Allowances for an Indian

<table>
<thead>
<tr>
<th>Group</th>
<th>Body wt (kg)</th>
<th>Fat (g/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>Woman</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Child</td>
<td>12.2 to 49.9</td>
<td>22.25</td>
</tr>
</tbody>
</table>

Source: NIN (ICMR), 1998.

### Table 3: Low-Cost Balanced Diet in g (Sedentary Man)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>460</td>
</tr>
<tr>
<td>Pulses</td>
<td>40</td>
</tr>
<tr>
<td>Leafy vegetables</td>
<td>50</td>
</tr>
<tr>
<td>Other vegetables</td>
<td>50</td>
</tr>
<tr>
<td>Roots and tubers</td>
<td>50</td>
</tr>
<tr>
<td>Milk (ml)</td>
<td>150</td>
</tr>
<tr>
<td>Oil and fat</td>
<td>40</td>
</tr>
<tr>
<td>Sugar and jaggery</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: NIN (ICMR), 1998.

### Rural Consumption Scenario

Those living below the poverty line cannot spend on oil to meet their energy requirements. India is a protein, energy and vitamin deficient country. In India, 53 per cent of the population lives in absolute poverty [WHO 1999]. Poverty is defined as income per capita of less than or equal to $1 per day, expressed in dollars adjusted for purchasing power. The problems of poverty, food insecurity, hunger and malnutrition are acute in countries that are pre-dominantly agrarian economies.

Even though fats are essential for the human body, the price of vegetable oil is not in tune with the purchasing capacity of these deprived people. They are even unaware of the nutrient value of the oil itself. At this juncture, the basic energy requirements can be met from sources other than oil consumption. Rather, they depend mostly on rice, wheat-based products like bread, roti, and other cereal products to meet the fat requirement of the body. Cutting down drastically on fat may actually make one more prone to heart disease. “You run grave risks by cutting out fat, particularly if you substitute simple carbohydrates like pasta and sugars”, says
Bruce McDonald, a Canadian expert on fat. Simple carbohydrates are digested very rapidly, and since the body cannot use all that energy at once, it turns into blood fats called triglycerides. Therefore, measures need to be taken to improve fat intake.

Like protein, fat is a necessary ingredient in the diet and is of value to the human body in a number of ways. It is a concentrated source of energy and it supplies per unit weight more than double the energy furnished by either protein or carbohydrate. This concept must be popularised through an effective network extension system and the rural people must be encouraged to use oils. Besides, the government should take steps to fill the gaps in oil consumption through effective and efficient means of distribution.

If the government looks at food consumption patterns and health in a holistic manner, the present level of oil crop production is sufficient enough to meet oil consumption. The study on “Technological Forecasting Future Oilseeds Scenario in India,” an ICAR- AP CESS project (2000), also suggested that with proper policies, the oilseeds sector has the potential to meet domestic demand in the coming decade. The main constraint is price. By cutting down drastically on the import cost, the price per litre available for domestic consumption can be lowered. If distributed effectively and efficiently at economic rates through the public distribution system, the basic fat intake requirement of millions of poor people will be met.

Moreover, the ever-shrinking financial budget for agriculture also prevents more basic research into some of the oilseeds. The R and D organisations whose budgetary allocations are mostly from the central government are facing a financial crunch due to globalisation, privatisation and localisation. Under the high dynamic global economic scenario, the government is unable to allocate more financial resources to R and D organisations in general and agriculture in particular. It is advocating these institutions to rely more on self-funding. Under these circumstances, it would be wise to popularise the hybrid varieties in the technology mission on oilseeds during the 1980s and 1990s. Moreover, the oilseed R and D institutions can be funded through the wider dissemination of oilseed varieties.

If we take an overall view of the constraints in oilseeds cultivation, lack of quality seed availability is seen as one of the major causes of lower productivity of groundnut crop in India compared with other countries. The production and productivity in 20 major groundnut-growing districts of India should receive special attention through implementation of technologies developed. Both scientists and extension personnel connected with the crop should take it as a challenge to boost groundnut production.

It is possible to expand the cultivation area for rapeseed and mustard in some non-traditional areas in the north-east and also to tap post-cotton areas in northern India, and post-soybean areas in central India. Suitable varieties for such areas are lacking at present. Therefore, location-specific varieties need to be evolved for this purpose. In case of safflower, government intervention is needed, to increase the total area and production. At present the soybean farming and industry in India is by and large dependent on export of soybean to other countries. New technologies in soy oilseed have to be developed for better yields. The reluctance of domestic consumers towards use of safflower oil and soyoil is mainly due to the odour. Measures to overcome this need priority in oilseeds research. In the oilseeds sector, research efforts should include improved crop production and protection technologies, breed seed production and organisation of frontline demonstration.

The edible oils that can be popularised among urban and middle income groups are safflower and soyoil. The domestic demand for vegetable oils by 2010 is estimated at around 10 million tonnes, of which safflower has a share of 1.7 per cent. That means the demand for safflower in the country would be around 1,70,000 tonnes. But it is estimated that safflower oil production would be around 1,92,000 tonnes by 2010, that is 22,000 tonnes higher than the average production during 1995-97. So, safflower oil should be popularised among the high and middle-income groups.

At present, soybean farming and industry in India is by and large dependent on export to other countries. This can be reduced by enhancing domestic consumption, among the high oil consuming health-conscious groups. Soy oil needs to be popularised in states other than Madhya Pradesh. Nutrient value of soyoil needs to be popularised. Bringing about consumer awareness on the nutritive value of soyoil is important.

In view of the nutrient value of fat, oil intake should be encouraged among the rural poor by supplying oil through PDS at low cost. In order to achieve this, the cost of production and import price of certain oils can be cut down, and area and production of oilseeds like groundnut, sesame, sunflower and safflower, rapeseed and mustard can be increased. Moreover, vegetable oils like soyoil and safflower should be popularised among high-income health-conscious groups. Thereby, the interests of the rural people can be met, both in terms of supply of edible oil and prices.

References

A Book on ‘Caste’ question
For the solution of the ‘Caste’ question
Buddha is not enough, Ambedkar is not enough either,
Marx is a Must
By Ranganayakamma

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