Raising Standards: Food for Thought

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On a last count the PFA had about 342 standards tucked under the chapter Appendix B – an appendage that increases every year. It is not the number of standards that matter but its genesis. Appendix B has become the doctrine of legislation under the erstwhile system – that was dedicated to 'adulteration'. This set the precedence and dominance of the legislative system in India for the past 60 years, expressing it in several ways.

For example if you applied for a food additive to be used in chutney – the regulator would first address the specifications for chutney and then the technological justifications for the additive. The primary concern was how to provide an iron clad recipe to prevent any addition, subtraction, substitution in the product so designated. That chutney is a generic descriptor of perhaps over a 100 varieties combining fruits, vegetables, and spices and with sensory expressions of sweet, sour, pungent or aromas so exotic did not enter the deliberations. It was easier to download a Codex specification for chutney without reflecting that the product is an expression of our cultural diversity and the task was one of providing safety with variety.

Modern Food Legislation: Practice and Procedure

FSSA 2006 is a modern food law. Therefore an imperative need is to develop its character – prefaced by overcoming the indoctrinated agenda of adulteration and balancing it with safety. The next question is what will shift the character of the Indian regulations to encouraging product diversity and innovation – the growth engine of the food industry while simultaneously providing the highest levels of consumer safety and health? Its challenge lies in balancing the two.

This article is an exploration of the principles of rulemaking that should be laid down in procedures when a standard is sought to be made. Chambers of Industry and its members as implementing stakeholders of food regulations have a significant role to play in forging the character of rulemaking if rules are to be transparent, evidenced based and predictable.

General and Specific Standards:

The first step is the recognition that standards are to be distinguished and separated in accordance with the extent of their application. That is whether they apply to all products in general or a single product or type of product or to all those aspects under which a product is amenable of standardization. A General Standard is one which applies to all products or to a very large group of products i.e. prepackaged foods and relates to matters common to all of them; for example the principles governing use of food additives, labeling, and food hygiene among others. This distinguishes the General Standard from the Specific Standard.

By contrast a specific standard is one which applies either to a single product or type of product [e.g. dietary supplements] or deals with specific characteristics of a product [e.g. identity standards].

When is a Specific Standard Developed

Before developing a standard – the need for one is to be determined and impact assessed [Figure 1]. This stage involves evidential support, market disturbances, consumer safety and risk assessment, risk management to evaluate all regulatory and non regulatory [including none or self regulatory] options. Regulatory Impact Assessment is a tool to improving decision making thereby providing a sound framework for assessment of potential or actual impacts of the regulatory measures being sought. It also brings about regulatory accountability that is woefully lacking in the old system under PFA 1954.

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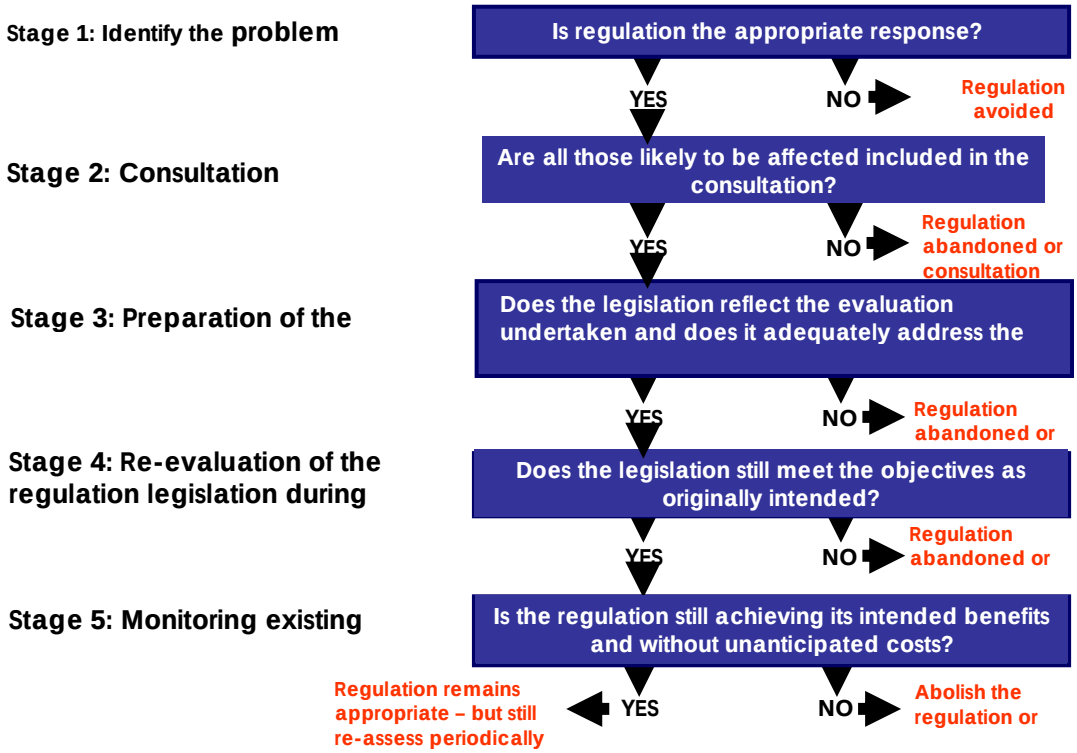
Fig 1: Regulatory Impact Analysis



By definition a Standard should be set only when a set of stringent conditions are evident in the product, verifiable by measurement, easily compliant, corrects market distortions, or consumer compromises and not remediable by other means. Several criteria emerge from these conditions requiring that evidential support precede the setting of standards. The question the Food Authority must ask when an application for a standard is made – what issue the standard seeks to address? And then look at the substantive case being made thereof.
The second question to ask - when is a product a candidate for a standard. When a product has readily identifiable characteristics and is open to exact description, and does not stifle variations [as in chutney] then it is possible to lay down in clear terms the requirements which that product must satisfy.
Thirdly these requirements should themselves be verifiable in an objective and by reference to measurable elements that reflect identification or quality then it is possible to 'standardize' the product. 'Standardization' being defined as the laying down, by a legal instrument of precise requirements against which product conformity can be checked. The sum of these requirements constitutes the 'standard'.

Standardized and Non Standardized Products:

Many regulators as a consequence of the indoctrination of adulteration frown on general standards because they feel that if provisions such as labeling or hygiene are so general [horizontal] so as to apply to all foods then how can they be called a standard which by precept is expected to be more defining in nature. This belief is blatantly experienced in the case of non standardized foods, also known as proprietary foods. The adulteration doctrine under the PFA regime is expressed in regulatory postures that all non standardized foods must state the name and category of the food – a contradiction in terms to the premise that in standardized foods the appellations are often reserved and a reference to the name on the label is an offense. If a fruit spread is made that is not of the brix specified for jam – should the label of the spread also contain the appellation jam? The anxiety for such a labeling rule is based on the invalid presumption that 'standardized' products are necessary to ensure quality or that enforcement agencies do not know how to analyze or interpret the product. The latter is a matter of education not legislation. Products in the non standardized sector are equal in quality to standardized products and legislative postures should be based on facts rather than feeling.

Types of Standards:

Broadly one can look at specific standards to mean; standards of identity, quality and fill-of- container.
Standards of Identity typically are of minimum requirements with prescribed names [i.e. they cannot be used without compliance to the standard] and are the legal standard of the named product. These standards govern appellation and specification and are the most restrictive of all standards setting procedure. Many traditional foods come under such standards such as margarine, butter, jam etc.

A conflict arises when many of these foods, especially dairy products contain nutrients in amounts that consumers seek to reduce in their diets. Many of these standards were issued decades ago when nutrition concerns and dietary goals were different than what they are today. Further technology has advanced to render product texture, sensory and nutritional attributes similar to the original standard except for defining or compositional ingredient. What should take precedence

consumer health or the need to adhere to a standard of identity for market conformity? Should not the general standard regarding nutritional labeling provisions such as content claims apply to standardized as well as nonstandardized foods? The second type of standards are Commodity Standards which is wide in its interpretation but largely associated with traded commodities as oils, grains, wheat flour, and other such products. Most often they reflect quality standards with range values of identity indices [e.g. Iodine value, etc] or a minimum nutrient [e.g. protein in flour]. These are generally processed only for quality, shelf life or safety which should be the focus of legislative attention.

Fill – of- Container Standards are defined how full the container must be and how to measure it. There are several ways of expressing fill – of – containers, such as requiring a minimum of 90% fill or a minimum drained weight, or a percentage of drained weight. In the case of fruits and vegetables under PFA 1954 many of the standards are redundant where only the drained weight is required [Table 2] as an essential specification, all other descriptions being general compliance to good manufacturing practice. When Labeling rules cover this specification the only need is a code of practice to cover GMP. If standards must be set they should follow a specified format, that reveals the essential characteristic or ingredient that constitutes the standard. For example the Codex standards for a given product or group of products are normally be presented in a format containing the following heading

- Name of the standard
- Scope, description
- Essential composition
- Quality factors
- Food additives
- Contaminants
- Hygiene
- Weights and measures
- Labeling
- Methods of analysis and sampling.

Procedures for Rulemaking:

FSSA has an opportune time to relook at the way standards are set: The way forward is:

- Set down rulemaking process – like a decision tree
- Reexamine all standards enacted under Appendix B.
- Amend, remove or develop standards.

The decision making to be followed is:

- Establish the Problem: Analyze evidential data, for particular market distortions of unfair trade practice that affect consumer choice, safety or health exists and
- Determine actions options [no action, non regulatory action or regulatory action] through risk impact analysis.
- Is a determination for a standard imminent – can this be addressed by a General Standard?
- Does the Standard have to be Mandatory or Recommendatory
  - Code of practice and/or GMP/or definitions or
  - Identity specification only or
  - Quality specification only
  - Or a full specification since the product is significant in trade and commerce.

As an example a brief observation of standards of Fruits & Vegetables specified under Appendix B brings out inconsistencies and relevance of a decision tree.

1. **Standards for Food Additives:** listed under a separate chapter similar to Food Chemical Codex.
   - A. 07.10 Acesulfame Potassium
   - A. 15.01.01 Potassium Iodate
2. **Labeling Rule**: When a labeling rule may exist the standard may be removed. For example the following standards where a positive ingredient [protein, fiber, mineral, and vitamin] or removal of a negative ingredient [fat, etc] is a function of nutritional labeling.
   - A. 18.01.02 Protein Rich Atta – nutritional labeling
   - A. 11.02.17 Yogurt – labeling [low fat, full fat etc]
   - A. 11.02.02 Cream – labeling for low, medium, high.
3. **Codes of Practice**: where raw primary products of agricultural or animal produce and subjected to processes that ensure safety or GMP.
   - A. 11.01.02 Pasteurization of Milk
   - A. 16.36 Dehydrated Vegetables.
4. **Definition of terms**: these are not standards and merely define the product.
   - A.03.01. Arrowroot
   - A. 11.02.04 Curd or Dahi
5. **General Standards**: governed by standards for food additives, labeling, and pesticide residues etc.
   - A. 16.37 Frozen Fruits or Fruit Products
   - A. 16.42 Pickles

    - A. 16.41. Fruit & Vegetable Chutney.
6. **Fortification:** specifies the procedure of fortification; list of vitamins, minerals that are nationally important etc. Not a standard
    - A. 18.01.01 Fortified Atta
    - A. 18.02.01 Fortified Maida.
7. **Duplication:** Many standards are duplicated arising from adoption without deliberation.
    - A.16.26 Mango Chutney
    - A. 16.41 Fruits & Vegetable Chutneys
8. **Commodity Standard** – These are standards and provide tradable quality
    - A.07.01 Plantation Sugar.
9. **Identity Standard** – These are standards and provide identity standards
    - A. 16.31 Jam
    - A. 12 Margarine

In 1991, almost 15 years back the FAO/WHO reviewed the work and procedures of Codex and recommended that Codex should strengthen the horizontal work [read General Standards] of its general subject committees such as labeling, additives, contaminants and methods of analysis and sampling. Most countries for example EU, Australia and New Zealand lay emphasis on general standards. It is important that bodies so constituted under the Act engage under a predetermined policy and procedure to provide scope for food innovations coexisting with consumer safety and health.

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