In this discussion, participants suggested ways to tackle food safety challenges and shared the current situation of food safety legislation and regulations in their respective countries.

I. GENERAL SUGGESTIONS

- It’s essential to have a well-drawn-up and comprehensive “Food Safety Policy” that evokes national commitment and ownership of the policy implementers from various sectors. Clear mechanism, structures and institutional arrangements for implementing food safety plans of action and activities are needed as part of policy implementation (H. Yusuf, L. Bhattacharjee)

- Providing consumers with a system to easily recognise safe food items is an effective way to improve food safety (K. Chatterjee, E. O. Edwards). NAFDAC registration number on packaged food items in Nigeria or the smiley scheme in Denmark are success stories in this area.

- At the international level, the Codex Alimentarius (http://www.codexalimentarius.net/web/index_en.jsp) plays a major role in achieving food safety. It is a collection of standards, codes of practice, guidelines and other recommendation regarding food safety. The Codex Alimentarius commission works on protecting health of the consumers, ensuring fair trade practices in the food trade, and promoting coordination of all food standards work undertaken by international governmental and non-governmental organizations (S. Ghatak)

- Food safety is essential to ensuring adequate nutrition (K. Chatterjee, G. Kent). Discussions of food safety mechanisms should consider ways to apply the human right to adequate food (G. Kent).

- For an accepted level of pesticide and heavy metal residues in food, good agriculture practices (GAP) should be strictly enforced, especially in developing countries (S. Mehta). The issue of pesticide and drug residues in food requires a joint effort by the agriculture as well as food safety and quality sector (P.C. Wasti).

- Taking advantage of the organic farming system with local knowledge on production of seed and planting material, low cost on-farm production of soil and plant protection formulations is a good strategy to improve the safety of agricultural products (S. Mehta)
- Food safety is difficult to achieve especially regarding sub-standard and fake products as well as the unorganized sectors where no attention is paid to standards. Therefore it’s most important to tackle the issue of substandard/fake products and institutionalizing street food vending/open markets (E. O. Edwards).

- Food safety is very much related to personal and community hygiene. In developing countries, hygienic practices matter a lot to prevent water borne diseases. Some practices such as cleaning of hands with soap after excreting and before eating can be imbibed among the people through education, adult literacy missions and via interventions by the NGOs and the media (S. Ghatak)

- Research and Development (R&D) for safer food technologies is important for improving food safety (S. Ghatak).

- An useful food safety indicator would be accurate data on food borne illnesses. Consumer complaints also indicate necessary regulatory actions in food industry sectors (E. O. Edwards)

II. NATIONAL FOOD SAFETY MECHANISM AND REGULATIONS

Discussants shared information of food safety legislation and mechanisms in the following countries: Armenia, Cameroon, Denmark, Ghana, India, Nepal, Nigeria, South Africa and Syria.

A. Legislation on food hygiene and HACCP systems

Most countries have included HACCP systems in their legislation or have been working towards making HACCP-based systems mandatory.

- Armena (A. Yeghoyan)
  The law on “Food Safety of the RA” enforces food hygiene requirements. It also states that the Government of Armenia is responsible to decide the deadline for food producers to include HACCP systems in their factories. Government Decree No 531 says that January 1st 2011 is the deadline for mandatory inclusion of the system in the food production. Some of the key food producers already have the system in their production chain.

- Cameroon (A. Issi)
  The legislation on food hygiene and HACCP is being implemented by the National Committee for Codex Alimentarius and Food Safety established by the Government. This committee includes representatives of public services interested in food safety, representatives of the private sector in the food industry and consumer organizations, who represent civil societies.

- Denmark (P. Hansen)
  Denmark follows the EU Food Safety Regulations common to all its 27 member countries. The Danish Veterinary and Food Administration (DVFA) [http://www.uk.foedevarestyrelsen.dk/forside.htm](http://www.uk.foedevarestyrelsen.dk/forside.htm) is responsible for food safety and health from farm to fork in Denmark.

- Ghana (R. Omari)
  The Food and Drugs Board (FDB) under the Ministry of Health is the regulatory body responsible for licensing monitoring and quality assessment of food products, manufacturing, importation, exportation, advertisement and distribution. The FDB currently assists local food manufacturers/processors in the implementation of food safety management system such as the GMP and HACCP system, conducts Food Safety Audits,
training programmes for manufacturers or processors, staff of the hospitality sector, catering, schools.

- **India (N. Singhal, R. Sinha)**
  
The current law regulating food safety is the Food Safety and Standards Act (2005). The Food Safety and Standards Authority of India has been established under this Act. The Bureau of Indian Standards (BIS) has developed a code of hygienic conditions for various food industries and has adopted CODEX HACCP and Food Hygiene Guidelines as Indian standards.
  
  In September 2008, the Government of India, under the Prevention of Food and Adulteration Act issued notification for labelling of food. This notification includes for the first time labelling for nutrition and health claims.

  However, the various laws/regulations passed by the government have not been effectively implemented.

- **Nepal (P.C. Wasti)**
  
  Nepal has realized the importance of incorporating the principles of HACCP although HACCP have not been mandatory for any sector yet. At the first steps, some of the very high risk areas (such as milk, water and others) should have HACCP-based regulations applied to. Otherwise, first the GHP (Good Hygienic Practices) and GMP (Good Manufacturing Practices) should be made mandatory for some priority sectors, then step by step proceed to HACCP.

  Nepalese legislation is based on the inspection and testing of food product sold in the market. It has been realized that it is important to move to the system inspection in addition to product testing.

- **Nigeria (S. Denloye, E. Edward)**
  
  The implementation of food safety is ensured by the three tiers of government: federal, state and local government.

  The Federal Ministry of Health is responsible for formulating the national policy on Food Hygiene and Safety (under the Nigerian National Health Policy) and control of food borne disease, as well as other national and international matters relating to food.

  The National Agency for Food and Drug Administration and Control (NAFDAC), a parastatal organisation under the Federal Ministry of Health is responsible for the formulation of guidelines and regulations on food hygiene, safety, and nutritive value, as well as of now for dairy, seafood, water and drinks production.

  The Standards Organisation of Nigeria (SON) establishes standards and codes of hygienic practices for food and food products in Nigeria.

  The States and Local Government Authorities (LGA) in collaboration with the National Primary Healthcare Development Agency are responsible for street food vending, catering establishments and traditional markets, environmental sanitation, prevention and monitoring of food environments and handlers and the quality of public water.

  The Ministry of Agriculture and Water Resources is responsible for good agricultural practices and monitoring and development of new technologies.

- **South Africa (D. Pretorius, V. De Klerk)**
  
  South Africa is a member of the Codex Alimentarius. The National Health Ministry is responsible for developing legislation related to food hygiene, HACCP and Good Manufacturing Practices (GMP). These regulations are enforced by municipalities at a local government level.

  Regulations have been published by the Minister of Health on food hygiene and HACCP. The Minister has the authority to list specific sectors/food handling enterprises to ensure that HACCP becomes mandatory regarding those situations. The first listings are currently in the process of
being finalized. Details of the application of HACCP in South Africa can be found at http://typo3.fao.org/fileadmin/user_upload/fsn/docs/HACCP.doc.

A Certificate of Acceptability is required before food can be handled on a food premises.

- **Syria (A. Baroudi)**

  Syria launched a new food safety Law (No 19 of 28/10/2008) which will start its implementation soon on 28/10/2009 and was issued in cooperation with legal experts of FAO in order to be in line with international requirements. The mentioned Law covers all food hygiene issues.

  HACCP systems are implemented by some food manufactures, but this issue will be managed by special authority after establishing the national council for quality which will be issued by presidential act and it will belong to the public sector. It will regulate the infrastructure of food quality (standardization, metrology, accreditation conformity assessment, and marketing surveillance including monitoring the procedure of certification).

B. **Food safety monitoring mechanism**

- **Armenia (A. Yeghoyan)**

  Protection of Consumers’ Rights NGO (PCR) independently carries out monitoring of shops and supermarkets to identify dangerous food products there. PCR’s work is to check the temperature conditions, not labelled and expired products sold there.

- **Cameroon (A. Issi)**

  Within the National Committee for Codex Alimentarius and Food Safety, there are thematic working groups. The main mechanisms for monitoring food quality are the government’s control mechanisms. The indicators for food safety are being developed.

- **Denmark (P. Hansen)**

  The Danish Food safety mechanism is based on the own-check principle. The companies and producers must have self-inspection programmes with systematic action plans to ensure that regulations are observed in the handling of food products and livestock. The governmental food authorities inspect that the relevant HACCP regulations are observed.

- **Ghana (R. Omari)**

  The Food and Drugs Board (FDB) has put in place certain guidelines which must be followed by persons engaged in formal food businesses. There are guidelines or requirements for: Importation of Pre-packaged Food; registration of pre-packaged Food; regulation of animal feed; Registration of livestock products; export of palm oil; abattoirs and slaughter slabs; labelling pre-packaged food; regulation of meat markets/shops; food adulteration; food advertisement.

  Products which have been successfully registered by the FDB are issued with the FDB registration numbers. Failure to comply with the above requirements will compel the FDB to take action.

- **India (N. Singhal, R. Sinha)**

  The Central Committee for Food Standards and sub-committees on specific subjects under the Ministry of Health and Family Welfare give approvals for and oversee the overall implementation of food regulation. The monitoring mechanism has been laid down under the PFA Act and Rules. Under this legislation, the Government of India has set up food testing laboratories known as Public Analyst (PAs) Laboratories in each State. They can initiate prosecution when detecting irregularities.
The food inspectors check whether an industry is complying with mandatory regulations. Inspectors of the Bureau of Indian Standards (BIS) carry out checks only if someone has taken BIS certificate.

- **Nepal (P.C.Wasti)**
  Nepal has market inspection, industry inspection as well as import inspection so that the safety is ensured. It's very difficult to set the monitoring indicators to determine the effectiveness of the implemented programmes. Proxy indicators still need to be identified and a national system set up.

- **Nigeria (S. Denloye, E. Edward)**
  Registration is a requirement for production, distribution, sale and use of imported and locally produced packaged foods. Inspection is a requirement for registration. Therefore the bearing of NAFDAC registration number is a food safety indicator for packed foods.

  There are still many challenges facing adequate monitoring especially on the part of the State/LGAs and implementation of development programmes by the Ministries of Health and the agriculture sector.

- **South Africa (D. Pretorius, V. De Klerk)**
  Food safety related monitoring, namely inspection of food premises/foodstuffs and sampling of locally sold foodstuffs, are the responsibilities of the municipalities as part of Municipal Health Services (MHS). The nine provincial health departments are responsible for imported foodstuffs as part of their Port Health Services (PHS). Monitoring is based mainly on compliance with the regulations. Food samples should be taken to ensure compliance with the Foodstuffs Act but this is not done as effectively as it should be. If micro surveys are conducted, this information is not published outside of the ministry.


  **Indicators of food safety**: the indicators for MHS and for PHS related to Food Control can be found at [http://typo3.fao.org/fileadmin/user_upload/fsn/docs/EHSindicators.xls](http://typo3.fao.org/fileadmin/user_upload/fsn/docs/EHSindicators.xls). Those are currently in the process of being implemented as part of the District Health Information System (DHIS), of the Department of Health.

- **Syria**
  Monitoring mechanisms are put in place by several Ministries: Economy & Trade, Health, Local Affairs, Industry, and Custom Administration. New mechanism will be put in practise and will be operated by the Syrian Food and Drug Administration or by two ministries (Economy & Trade for processed & semi processed products, and Agriculture for raw agriculture's products). The key food safety indicators used in monitoring are the maximal limits of contaminants (chemicals, microbiological, fiscal).

**C. Mechanisms for collecting/sharing food safety data across sectors and organizations**

Lack of coordination and lack of a clear mechanism for collecting/sharing food safety data is a common challenge in most concerned countries. Discussants recognise the need for a central national point which collect then share data and also research work on food safety.

- **Armenia (A. Yeghoyan):**
  The first hand information Protection of Consumers Right (PCR) receives comes from consumers. Meantime PCR works with the Food Security and Veterinary Inspectorate of the
Ministry of Agriculture of Armenia. PCR periodically shares the information on monitoring results. PCR independently carries out monitoring of shops and supermarkets to identify dangerous food and notifies about it the Inspectorate. PCR also takes part in destruction of dangerous food recalled from the market of Armenia together with the Inspectorate.

- **Cameroon (A. Issi)**

These mechanisms are currently being developed. The first meetings of the National Committee for Codex Alimentarius and Food Safety are to develop the procedures manual. Mechanisms for gathering and sharing data on food safety between sectors and organizations will be soon implemented.

- **Ghana (R. Omari)**

Lack of coordination and collaboration has been a major drawback. In Ghana there are several other agencies involved which are all under different ministries and playing one role or another in ensuring food safety. The National Food Safety Task force was formed with members from various agencies and departments. The Task Force drawn a national Food Safety Action Plan and proposed, among others, that the FDB be made the central food safety agency to coordinate all activities related to the regulation of food safety- the proposal is yet to be officially accepted.

- **India (D. A. Jani)**

A copy of Annual Work Report of various Public Health Laboratories functioning across the country is circulated to concerned Government Departments and also to Consumer Associations.

- **Nepal (P.C.Wasti)**

In Nepal food safety and quality monitoring system falls under the mandate of the Ministry of Agriculture and Cooperatives, while the epidemiological data can be obtained from the Ministry of Health and Population, leading to coordination problems. In the mean time, some issues such as avian influenza have brought some of the sectors (such as health and agriculture) together. An integrated bio-safety approach with integrated legislation as well as monitoring mechanism would be the ideal solution.

- **Nigeria (S. Denloye, E. Edward)**

There are presently plans underway to centralize all food safety data/research work in the field so that all information/data on food safety can be channelled through a central national point for dissemination to all stakeholders.

- **South Africa (D. Pretorius, V. De Klerk)**

Currently there are no specific mechanisms in place to collect/share food safety data across sectors/organizations and this is happening on an ad-hoc basis depending on the issue in question.

An Agriculture/Health Task Team has nevertheless been established to address the issue of an integrated, new food control system for South Africa, which is currently in the process of conducting a country profile.

A few formal channels include: the food legislation advisory group (FLAG) which has representation from all stakeholders (run by the Department of Health); Southern African association of Food science and technology; sectoral associations such as the South African chamber of Milling, the red meat abattoir association, the South African Poultry association, and the Food safety initiative which services its members which are largely retailers and larger producers in the country.

- **Syria (A. Baroudi)**
There are no special mechanisms to collect/share food safety data across sectors as every institution collects its own data. When there are some food safety contaminations, the organizations which determined the non-compliant products sent the information to the Ministry of Economy as it is the competent authority to confiscate the non-satisfying products and withdraw them from the market. An organized electronic exchange of data between sectors & ministries is foreseen by the new legislation.

**D. Steps taken in strengthening consumer awareness, consumer education and empowering consumer associations**

- **Armenia (A. Yeghoyan)**
  PCR has initiated publications of consumer manuals and leaflets on basic rights of consumers, food labelling, rights and responsibilities of public utility providers and consumers. PCR broadcasts advertisements and periodically organizes trainings, seminars and press conferences. PCR also provides consultations to concerned consumers through its hot-line and at its resource centre.

- **Cameroon (A. Issi)**
  Programs on capacity development for consumers and other stakeholders are planned and are supported by the Government and FAO. They will soon be implemented.

- **Denmark (P. Hansen)**
  Danish consumers have a system of Smiley to help them choose where to shop for food or dine. The Smiley-scheme is highly popular among Danish consumers as well as the enterprises, and has proved effective in raising food safety. The Smiley appears at the top of the official food inspection reports. The report must be displayed so consumers can read from the outside – before deciding to enter a shop or a restaurant.

- **Ghana (R. Omari)**
  The Consumer Protection Bill is still waiting passage. However the FDB and some organizations sometimes involve some consumer organizations in their activities. The FDB currently is constrained in terms of personnel, to carry out effective consumer education. Consumer organizations are not given adequate support in terms of finance and logistics.

- **India (N. Singhal, R. Sinha, D. A. Jani)**
  There is a significant lack of consumer awareness and demand on food safety. Several laws have been enacted to give explicit recognition to the role of consumer organizations. The latters often make use of the media for education of consumers. It focuses public attention by publicizing the information with regard to the products and services. The Ministry of Consumer Affairs, Food and Public Distribution is in charge of consumer welfare whereas the Consumer Protection Act protects rights of consumers which are enshrined in several laws. The Central Consumer Protection Council under the Ministry of Consumer Affairs consists of consumer representatives, Government and industry representatives to look into consumer related issues. Consumer Courts have been set up at District, State and National levels to redress consumer grievances. The Ministry of Consumer Affairs runs campaigns through media which is also being widely used by consumer groups. The Consumer Education & Research Centre (CERC) has been carrying out comparative testing of products to educate consumers for the best buy amongst the brands tested.

- **Nepal (P.C.Wasti)**
In Nepal consumer groups are quite active and they are strongly involved in the investigation of general issues of economic mal-practices. Such active consumer groups could prove useful for joint activities of consumer awareness, however, budgetary restriction greatly hamper their work.

- **Nigeria**

  The Federal introduced free and compulsory education up to secondary school level under the Universal Basic Education Programme. It also established training for school leavers, in preparation for employment and to starting small scale industries. The government also established the Consumer Protection Agency to protect consumers rights.

  NAFDAC regularly conducts public and school awareness activities, media advertisements, alert publications and stakeholders' consultative meetings.

  In Nigeria, the common man knows to always look out for a NAFDAC registration number on packaged food items which is his proof that he will consume a safe food product.

- **South Africa (D. Pretorius, V. De Klerk)**

  The Consumer protection Act has been recently promulgated. This provides the consumer with many rights and makes provision for consumer councils.

  There are a number of consumer organisations such as the National Consumer Forum (NCF), the South African Consumer Union (SANCU) and the Food advisory consumer service (FACS).

  A liaison Directorate coordinates the collaboration between these organisations. The Directorate carries out multiple information, education and communication activities, such as participation in television programmes for consumers' awareness and developing and distributing posters and pamphlets on various food safety topics.

- **Syria (A. Baroudi)**

  The law of consumer protection No 2 of 2008 has items which cover the steps to be taken for strengthening consumer awareness, consumer education and empowering the consumer. These activities are operated by the consumer protection societies, which ministries have to sponsor through special budget, as mentioned in the Law.

**E. Street food vending**

In most concerned countries, street food vending is loosely regulated or monitored. Street food is recognized as the most difficult area to achieve food safety. Women represent the majority of street food vendors.

- **Armenia (A. Yeghoyan)**

  Street vending system is not institutionalized in Armenia, because it is not common in Armenia.

- **Cameroon (A. Issi)**

  The sale of food in the street in Cameroon is informal. This is done in an unacceptable disorder, in a context of poor sanitation and lack of hygiene. Women represent the majority of street food vendors.

- **Denmark (P. Hansen)**

  Street food vending is institutionalized according the EU Food Safety Regulations common to all 27 Members

- **Ghana (R. Omari)**
Street food vending is currently not institutionalized but there are efforts to get this done. The Municipal Assemblies and the Ghana Tourist Board have bye-laws and guidelines which govern the establishment and operation food businesses including street food vending. The problem stems from the fact that most of the vendors are unaware of these requirements and the regulatory authorities are also not able to create awareness and enforce the laws.

Some studies have shown that 70-90% of street food vendors in Ghana are women. However there is an emerging phenomenon where young men are joining the trade mainly vending fast food (fried rice, fried chicken, and chopped vegetable). Their food is known in Ghana as “check-check” and they are scattered all over especially Accra and Kumasi.

- **India (N. Singhal, R. Sinha, D. A. Jani)**
  The street food vending system has not yet been institutionalized in India. Although efforts are being made to ensure safe, hygienic, nutritious and economic snacks are available to the public through such channels.
  According to the provision of Code for Hygienic Conditions for Food Hawkers (Bureau of Indian Standards, 1984), all the hawkers shall be inoculated and vaccinated against the entire group of diseases as prescribed by the concerned health authorities and a necessary certificate in this respect should be always available with him for inspections. These measures are seldom implemented.

  Women’s involvement is limited although several women’s Self Help Groups (SHG’s) exist.

- **Nepal (P.C. Wasti)**
  This is the most neglected area and Nepal is in the process of inception to improve the technology as well as hygienic practice of the vendors and institutionalize this sector with certain hygienic as well as other standards and provide sufficient authority to local government units (municipalities).

- **Nigeria (S. Denloye, E. Edward)**
  Street vending is not institutionalized in that it is not organized and regulated. Women are in the majority involved in street vending

  Although registration is a requirement for all production and distribution of food, the monitoring of street vended foods and food sold in the traditional markets has not been very effective.

- **South Africa (D. Pretorius, V. De Klerk)**
  South Africa considers the informal sector as a very important component of its economy and supports the development thereof. The health sector contributes to this aspect, among others, through ensuring that the hygiene legislation is applicable to situations where food is handled/prepared by vendors.
  There have been several publications coming out of South Africa relating to micro surveys done on street vended foods.
  In addition, a FAO TCP Project on Improving Street Foods is being implemented in South Africa.

- **Syria (A. Baroudi)**
  The street food vending systems are not institutionalized, but it is regulated by acts issued by the ministries of Economy & Trade, Local Affairs, and the new food safety law. The council of food safety is assigned to monitor the compliance.
III. REFERENCES

Good Agriculture Practices

Codex Alimentarius
http://www.codexalimentarius.net/web/index_en.jsp

Armenian Protection of Consumers’ Rights NGO
www.consumer.am

Danish Veterinary and Food Administration (DVFA)
http://www.uk.foedevarestyrelsen.dk/forside.htm

Danish Inspections of Food and Animals
http://www.uk.foedevarestyrelsen.dk/Inspection/forside.htm

Danish Smiley-Scheme
http://www.uk.foedevarestyrelsen.dk/Inspection/Smiley/forside.htm

EU Food Hygiene Legislation
http://www.food.gov.uk/foodindustry/regulation/europeleg/eufoodhygieneleg/

Food Safety and Standards Authority of India (FSSAI)
www.fssai.gov.in

Bureau of Indian Standards
http://www.bis.org.in/

Indian Ministry of Health & Family Welfare
www.mohfw.nic.in

Indian Food Safety Standards Bill

Consumer Education & Research Centre, India
http://www.cercindia.org/

South African Department of Health
http://www.doh.gov.za

South African Department of Agriculture, Forestry and Fisheries
http://www.daff.gov.za/

South African National Development Agency
http://www.nda.org.za/

South African Foodstuffs, Cosmetics and Disinfectants Act

Overview of HACCP in South Africa
South African Food Safety Indicators

Information Document on Food Control Functions in South Africa
http://typo3.fao.org/fileadmin/user_upload/fsn/docs/ehservices.doc

Role and Responsibility of the Public Health Sector in South Africa, Regarding the Control of Imported Foodstuffs

Short Summary of the Current Food Control System in South Africa

The Five Keys to Safer Food Training Programme