# 3. Results of FAO study

## 3.1. Sample characteristics

Among the 103 people interviewed, more than half had worked over 10 years in FAO (Table 1). There were however persons with varying degrees of history at FAO. They came from a variety of prior work experience (Table 1), 17% had worked in their respective national governments in various ministries or a country office of FAO and only about 8% had prior experience of private companies. Over one third of interviewees had permanent positions and 25% belonged to the higher position of division director (D1 or D2 in the UN system). Agriculture department is the largest single department given the work of FAO and 30% of the interviewees belonged to various divisions and sections of the Department. Next most common were the 16% of the interviewees who belonged to Forestry Department, which is also one of the major departments in FAO.

Only 4% of interviewees refused to be taped, although a further 11% made some comment about the recording of the interview that suggested some anxiety over future use of the tape. Approximately 40% of the persons had attended a committee meeting on the ethics of food and agriculture inside FAO at least once. The gender balance of FAO is male-orientated and 82% of the interviewees were men, representing the gender imbalance especially seen at higher positions of division directors and section chiefs. Two thirds of the subjects were over 45 years old. They covered all departments of FAO. Further details are shown in Table 1.

All inhabited continents were represented by people from 36 countries, though significantly 74% of the people belonged to rich countries (Table 2). There were few people from Asia, but many from Western Europe. The interviews were conducted in English and 67% of people interviewed were Anglophones, 20% Francophones and 13% spoke Spanish as their mother tongue. Two thirds of the interviews were conducted for more than one hour, and only 10% were completed within half an hour (because of the schedule commitments rather than lack of interest). Further details are shown in Table 2.

Table1: Details of the persons interviewed in FAO

| *Period at FAO* | % |
|---|---|
| In first year | 8 |
| 1-3 years | 9 |
| 4-6 years | 16 |
| 7-10 years | 11 |
| Over 10 years | 56 |
| | |
| *Prior work experience* | |
| UN organisation | 12 |
| National government | 17 |
| University | 16 |
| Company | 8 |
| International Aid Agency | 9 |
| World bank etc. | 2 |
| NGO | 2 |
| None | 5 |
| Not stated | 28 |
| | |
| *Rank in FAO* | |
| Assistant Director-General | 7 |
| Division Director | 25 |
| Section Chief | 24 |
| Other Permanent Positions | 37 |
| Short term | 7 |
| | |
| *Department inside FAO* | |
| Agriculture Department | 30 |
| Economic and Social Department | 9 |
| Fisheries Department | 7 |
| Forestry Department | 16 |
| Sustainable Development Department | 8 |
| Legal Office | 5 |
| General affairs | 6 |
| Technical Cooperation Department | 11 |
| Personnel Division | 2 |
| Office of the Director General | 8 |
| | |
| *Gender* | |
| Female | 18 |
| Male | 82 |
| | |
| *Age* | |
| Young (under 35) | 11 |
| Middle (between 35-45) | 22 |
| Older (45+) | 67 |

**Table 2: Regional representation in FAO**

| *Economic Status* | % |
|---|---|
| Rich | 74 |
| Middle | 16 |
| Poor | 11 |
| | |
| *Global Region* | |
| West Europe | 45 |
| East Europe | 2 |
| Australasia | 6 |
| Canada | 4 |
| USA | 12 |
| South America | 10 |
| Africa | 6 |
| Middle East / North Africa | 7 |
| Japan | 5 |
| Asia | 5 |
| | |
| *Language* | |
| English | 67 |
| Francophone | 20 |
| Spanish | 13 |

## 3.2 Explanation of analysis of frequency of concepts and keywords expressed in the interviews

The content of the interviews was assessed for keywords and concepts, by analyzing transcripts of the tapes, and interview notes made by each participant in the interview. Full transcripts were obtained by transcribing each recorded interview when available. Handwritten notes were also used. Based on notes made and tape recordings, each keyword was categorized as either: dominated, high, medium, little, and not stated. "Dominated" indicated that the subject was a dominant issue in the interview depending on the length of time given to the issue and its depth. An arbitrary scale was made with a scale down to "not stated at all (Table 3). "High" meant that the issue was extremely important and "medium" meant that the issue was not a high priority at that time for the FAO. "Little" refers to the case when the issues were mentioned only in one or two sentences, for example.

There are several ways to analyze the data. A simple percentage-based methodology was adopted for semi-quantitative analysis of the comments given in interviews to identify high priority issues for the experts in food and agriculture. This was because the primary goal of the research was to obtain the range of ethical issues discussed in food and agriculture, and to examine the interplay of these issues in the global governance of biotechnology. Although there are particular statistical procedures like non-parametric multivariate analysis that are available that could also be used for analyzing more quantitatively, given the uncertainties in the interview process and subject selection, and the above goal of seeking diversity of concerns, these were not considered appropriate in this thesis. Further analysis may be helpful in analyzing the data in more detail to answer other questions.

### 3.2.1 Importance of areas covered during the interviews

A specific trend was found based on the importance of the issues and the broad areas that staff covered during their interviews. One way to represent these is through those issues that were not mentioned at all (Figure 4). It was surprising to find that 30% of interviewees did not mention any issue of biotechnology, although it has taken a lead as a hotly debated topic internationally, and also it is reflected on the constitution of FAO in governance of global food and agriculture, which is widely applies biotechnology tools. Animal issues were also not found to be a major concern for 35% of interviewed staff, showing that plant agriculture dominates in FAO. The issues related to food, rural development and information were found to be the mostly mentioned as shown in figure 4.

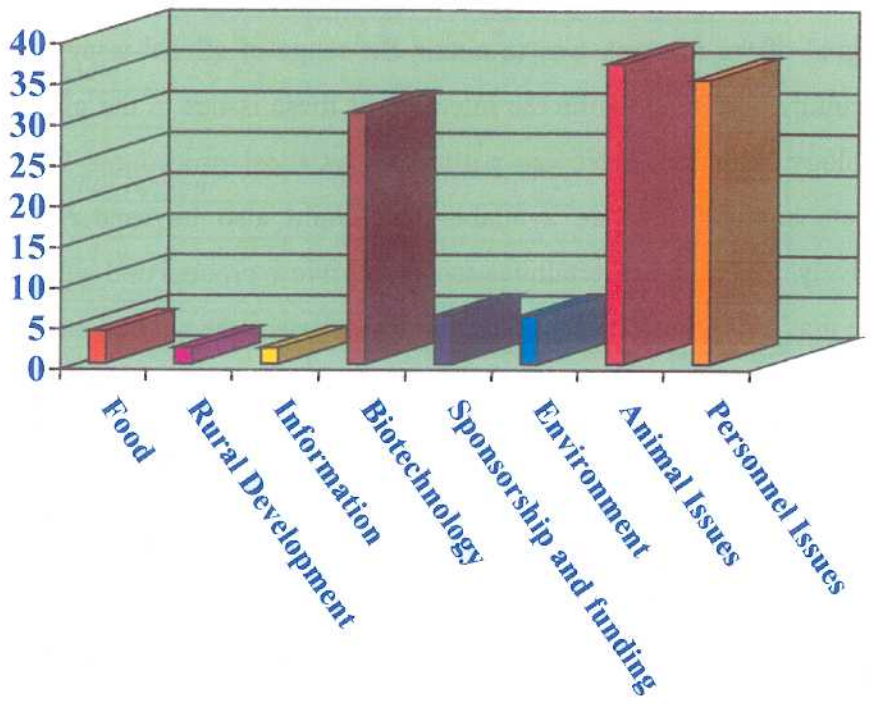


**Figure 4: Percentage of those who did not mention any issue in each concept category in FAO**

### 3.2.2 Summary of the results

Table 3 shows a summary of the results of the key word analysis of the interviews, and the results of the keyword categorization as either: dominated, high, medium, little, and not stated. For simplicity, the second column in Table 3 titled "major issue" indicates the number of persons who gave a "high" or "dominated" rating to that issue. In depth qualitative analysis of the keywords is presented in the following section with explanation of each key issue with example comments.

## 3.3 Results by category

### 3.3.1 General explanation

The study showed that although ethics as a word was not openly discussed at FAO until the end of the 1990s, as indicated by the nature of the programs and policies, the members who we spoke with had a strong underlying ethical motivation for their work. The enthusiasm for their work was also seen by people not formally interviewed

The types of issues represented by the keywords in Table 3 are explained by some example quotations from interviews conducted with staff members of all positions and across all divisions of FAO. To maintain confidentiality, which was a condition for conducting the interviews in an uninhibited way, persons making the comments are not identified. The results do not represent the policies or priorities of FAO, as a United Nations organisation, but highlight some of the key ethical issues in the area of food and agriculture and how international governance responds to such challenges.

**Table 3: Importance of ethical issues raised in FAO (1/2)**

| Issue | Major Issue (N) | Rating of the importance given by interviewees (%) | | | | |
|---|---|---|---|---|---|---|
| | | Dominated | High | Medium | Little | Not stated |
| **FOOD** | | | | | | |
| Food security | 42 | 10 | 32 | 18 | 24 | 17 |
| Right to food | 19 | 3 | 16 | 13 | 22 | 47 |
| Justice | 6 | 0 | 6 | 14 | 31 | 49 |
| Poverty | 18 | 0 | 18 | 24 | 30 | 28 |
| Overpopulation | 2 | 0 | 2 | 9 | 23 | 66 |
| Emergency food aid | 3 | 0 | 3 | 11 | 19 | 67 |
| Food quality | 14 | 3 | 11 | 11 | 22 | 54 |
| Antibiotics | 0 | 0 | 0 | 1 | 5 | 94 |
| Consumer's health | 12 | 1 | 11 | 13 | 23 | 53 |
| **RURAL DEVELOPMENT** | | | | | | |
| Sustainable rural development | 18 | 7 | 11 | 21 | 26 | 35 |
| Dependency on experts | 10 | 0 | 10 | 27 | 38 | 26 |
| Participatory approach | 30 | 8 | 22 | 34 | 17 | 20 |
| Gender issues | 10 | 4 | 6 | 8 | 16 | 67 |
| Youth labour | 0 | 0 | 0 | 2 | 19 | 79 |
| Intensive agriculture | 7 | 3 | 4 | 11 | 18 | 65 |
| Small vs large farms | 12 | 3 | 9 | 18 | 12 | 59 |
| Farmer's life quality | 15 | 2 | 13 | 12 | 21 | 52 |
| Farmer's health | 7 | 1 | 6 | 7 | 20 | 67 |
| Toxic dumping | 1 | 1 | 0 | 1 | 7 | 91 |
| Rapid change | 9 | 2 | 7 | 16 | 17 | 59 |
| Urbanisation | 7 | 2 | 5 | 17 | 28 | 49 |
| Agriculture part of nature | 15 | 2 | 13 | 8 | 21 | 54 |
| Long life is a value | 2 | 0 | 2 | 6 | 8 | 84 |
| Cultural differences | 10 | 3 | 7 | 13 | 29 | 48 |
| **INFORMATION** | | | | | | |
| Information access | 13 | 6 | 7 | 18 | 38 | 31 |
| Information dissemination | 32 | 11 | 21 | 30 | 25 | 14 |
| Technology transfer | 17 | 5 | 12 | 15 | 30 | 38 |
| Project design | 8 | 0 | 8 | 15 | 37 | 41 |
| Project evaluation | 6 | 0 | 6 | 18 | 22 | 55 |
| Safety of technology | 16 | 2 | 14 | 13 | 19 | 53 |
| Scientific ethics | 11 | 2 | 9 | 18 | 26 | 45 |
| Freedom of speech vs. FAO | 3 | 0 | 3 | 15 | 15 | 68 |
| FAO honest broker | 35 | 5 | 30 | 34 | 20 | 11 |
| Transparency | 14 | 2 | 12 | 18 | 26 | 42 |
| Consumer choice | 4 | 1 | 3 | 10 | 32 | 54 |
| **BIOTECHNOLOGY** | | | | | | |
| Organic food | 3 | 1 | 2 | 5 | 10 | 82 |
| GM food | 22 | 6 | 16 | 15 | 32 | 31 |
| GM labeling | 3 | 1 | 2 | 9 | 22 | 67 |
| GM environment | 12 | 5 | 7 | 13 | 16 | 60 |
| GM ethics | 17 | 5 | 12 | 17 | 21 | 46 |
| Biosafety training | 7 | 1 | 6 | 15 | 15 | 64 |
| Terminator genes | 7 | 1 | 6 | 4 | 11 | 78 |
| Monsanto | 2 | 0 | 2 | 4 | 4 | 90 |
| Animal cloning | 1 | 0 | 1 | 2 | 12 | 85 |
| Human cloning | 0 | 0 | 0 | 0 | 5 | 95 |
| Vaccines | 0 | 0 | 0 | 2 | 4 | 94 |
| Product substitution | 3 | 1 | 2 | 1 | 18 | 78 |

**Table 3: Importance of ethical issues raised in FAO ( 2/2)**

| | | Dominated | High | Medium | Little | Not stated |
|---|---|---|---|---|---|---|
| **SPONSORSHIP AND FUNDING** | | | | | | |
| FAO sponsorship | **18** | 2 | 16 | 17 | 18 | 48 |
| Corruption | **15** | 3 | 12 | 14 | 33 | 39 |
| Company money is corrupt | **13** | 2 | 11 | 9 | 29 | 49 |
| World Bank | **5** | 0 | 5 | 7 | 12 | 76 |
| Private sector | **25** | 7 | 18 | 22 | 20 | 33 |
| Developing/Developed divide | **20** | 4 | 16 | 33 | 16 | 32 |
| Donor vs. recipient demand | **13** | 0 | 13 | 26 | 24 | 37 |
| Governments | **6** | 2 | 4 | 38 | 22 | 34 |
| International laws | **12** | 3 | 9 | 24 | 37 | 28 |
| Over regulations | **2** | 0 | 2 | 12 | 31 | 55 |
| Trade barriers | **7** | 2 | 5 | 18 | 26 | 50 |
| World Trade Organization | **3** | 0 | 3 | 3 | 11 | 84 |
| **ENVIRONMENT** | | | | | | |
| Biodiversity loss | **12** | 4 | 8 | 19 | 26 | 44 |
| Sustainability | **7** | 2 | 5 | 35 | 32 | 27 |
| Future generations | **2** | 2 | 0 | 2 | 37 | 59 |
| Liability | **8** | 1 | 7 | 8 | 28 | 56 |
| Commons | **4** | 0 | 4 | 10 | 16 | 70 |
| Water access | **3** | 1 | 2 | 1 | 10 | 86 |
| Water quality | **2** | 1 | 1 | 1 | 10 | 87 |
| Land access | **4** | 1 | 3 | 6 | 14 | 77 |
| Land management | **6** | 3 | 3 | 12 | 16 | 67 |
| Roads | **1** | 0 | 1 | 1 | 3 | 95 |
| Energy | **1** | 1 | 0 | 2 | 14 | 84 |
| Ecosystem damage | **7** | 0 | 7 | 18 | 24 | 52 |
| Ecolabels | **2** | 1 | 1 | 7 | 9 | 82 |
| Air pollution | **0** | 0 | 0 | 1 | 4 | 95 |
| Genetic resource access | **21** | 3 | 18 | 12 | 25 | 43 |
| Genetic resource ownership | **15** | 2 | 13 | 20 | 22 | 44 |
| Genetic resource benefit | **8** | 1 | 7 | 10 | 30 | 52 |
| Genetic resource conservation | **11** | 4 | 7 | 14 | 34 | 41 |
| Exotic species | **1** | 0 | 1 | 6 | 16 | 78 |
| Natural resource management | **8** | 1 | 7 | 16 | 30 | 46 |
| Fertilizers | **3** | 1 | 2 | 3 | 12 | 82 |
| Pesticides | **7** | 4 | 3 | 7 | 22 | 65 |
| Herbicides | **1** | 1 | 0 | 3 | 5 | 91 |
| **ANIMAL ISSUES** | | | | | | |
| Animal capture | **3** | 1 | 2 | 3 | 3 | 91 |
| Animal husbandry | **11** | 3 | 8 | 1 | 24 | 65 |
| Animal killing | **5** | 2 | 3 | 4 | 4 | 87 |
| Animal transport | **2** | 1 | 1 | 4 | 4 | 90 |
| Animal protein revolution | **0** | 0 | 0 | 6 | 9 | 85 |
| Animal relations in work | **3** | 0 | 3 | 6 | 11 | 80 |
| Cross species disease | **1** | 1 | 0 | 7 | 13 | 79 |
| Hormones in animal feed | **2** | 0 | 2 | 4 | 6 | 88 |
| Religious views | **2** | 0 | 2 | 7 | 25 | 67 |
| **PERSONNEL ISSUES** | | | | | | |
| Personnel employment | **11** | 2 | 9 | 11 | 19 | 59 |
| Personnel gender | **4** | 3 | 1 | 4 | 19 | 73 |
| Personnel gifts | **1** | 0 | 1 | 0 | 7 | 92 |
| General behaviour | **9** | 2 | 7 | 15 | 25 | 52 |

### 3.3.2 Food

In the concept category food, food security was a major issue being cited by 42 persons, since it is in the constitutional mandate. The right to food in a legal sense as under the United Nations Declaration for Human Rights was a major issue for 19 persons. A controversial issue that is basic to poverty and hunger is defining what a minimum standard of life is. People do not have means to buy food. Poverty was mentioned more than the principle of justice, suggesting that the first focus for these persons was dealing with practical issues rather than underlying the principles of ethics. Poverty was a major issue for 18 persons, although 28% did not mention it. Food quality was also a major issue for 14 persons, and 12 persons saw consumer health as a major issue; given the ambiguity of food safety. Emergency food aid in man made emergencies like war or natural disasters was a major concern for 3 people. The issue of antibiotics was not a major issue for any interviewees as 94% did not mention it.

Figure 5 shows the details of the importance of issues in the concept category food and below example comments are shown for each keyword that reflect the kind of issues that FAO faces in governing global food and agriculture.

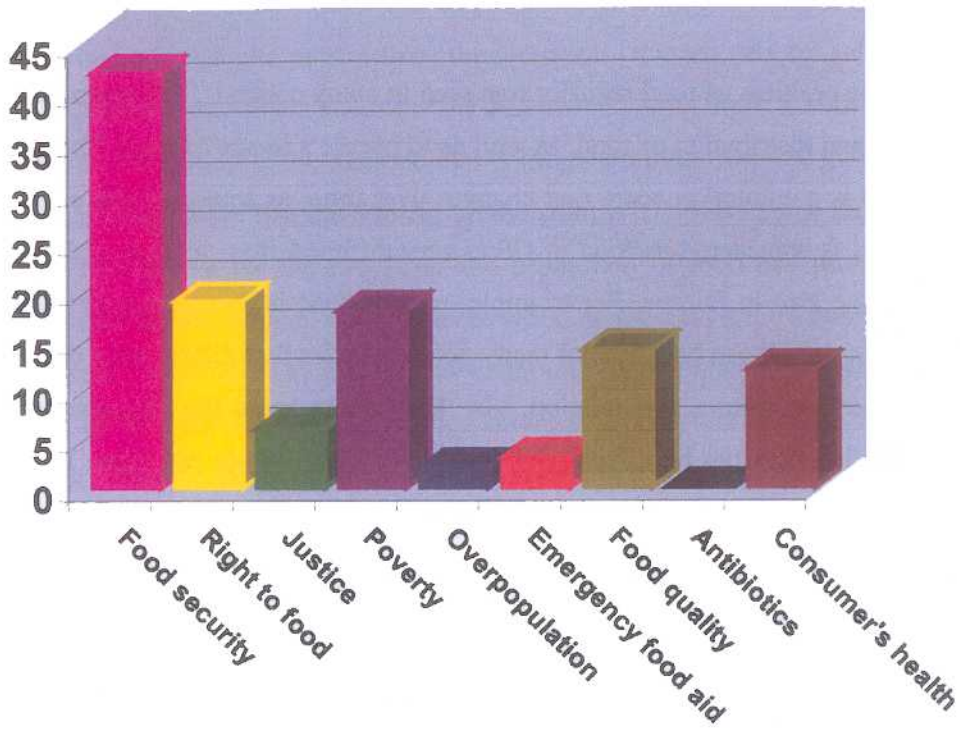


**Figure 5: Issues under the concept category FOOD considered to be of major importance**

### 3.3.2.1 Food security

To provide food for the 800 million people suffering from chronic hunger and malnutrition is a complex issue. Between 1990-92 and 1998-2000, the number of undernourished people decreased by barely 2.5 million per year and in most regions the number of undernourished people may be actually growing according to FAO statistics (FAO 2002), as one person said, " Not to use or not to modify nature would be the most comfortable advice to give, but it may not take into account a number of realities including hunger and number of people in the world." Annually, chronic hunger and malnutrition kills millions of people. It is a hidden famine that stops their development in all aspects of life. It saps the strength, weakens their health and mind; and cripples person's immune systems making them vulnerable to diseases and death. Where hunger is

widespread, mortality rates for infants and children under five are high, and life expectancy is low.

The problem of food security was seen in many contexts. For example, it was related to unequal distribution of food, as well as to people's image of food. The image of what is a food is a cultural concept that changes over time, as someone else said: "What is food? What is considered as food in US is very different from what is understood in Asia and Africa, also in Europe. For example, milk is food in some countries where others don't accept it." It can be a case of many poor countries that follow strict dietary rules, that are guided by culture and religion. In those cases, even the emergency food aid that is supplied may not be effective if such considerations are not taken into account before. False beliefs and misleading information regarding food are also causes of food insecurity. For instance, many sub-Saharan African nations denying food aid because some of it is genetically modified food, despite WHO statements that it is not harmful for health. A person confessed that more analytical approach is needed to resolve food insecurity say that "It should have an analytical approach for countries and local communities to examine what impact of their current ethical mellow is, on their ability to realize and sustained food security and sustainable rural development. And I emphasize that it was important to examine both positive and negative aspects in that analysis." Food insecurity is also very difficult to measure, because many times either the figures do not exist at all or they are not collected properly which makes data on food difficult to obtain, as the someone in the Statistics Division said, "It is very difficult to get figures from the groups which have very low consumption and also from very high consumption, because they do not report. Low consumption people live on streets and how can we catch them? It is difficult to find them and ask them to fill in our questionnaire. Also, from the people from very high income is difficult to know what they consume and how they consume."

### 3.3.2.2 Right to food

The right to food is an ethical right, recognized in the Universal Declaration of Human Rights in 1948 and there have been international provisions on making a right to food a legal right like the States Parties to the International Covenant on Economic, Social and Cultural Rights have a legally binding obligation to take steps to respect, protect, facilitate and fulfil the right to food. Lack of food deprives human beings of many other rights. As one person said, "Right to food is linked to human rights issue or a right to life or not.

There are a number of issues that are linked to it then". In the present time, availability of food is not only crucial, access to safe and nutritious food is also a concern for many hunger stricken countries as one person from the Nutrition Division of FAO said, " The right to food is the one I'm realistic about but the attitude should be right to healthy food. Otherwise it would be similar if the cattle fodder is mixed with the waste wood grind up to feed the cattle, because we just have to fill up the stomachs". FAO being the world's leading agency responsible for the provision and promotion of food and promote and employees understands its ethical obligation to work in the service of humanity, as another person said, "We could say that we have a moral obligation to put a high priority on this lead to be as balanced and as science oriented as possible because it affects people's right to food." Another person said, "Since we are dealing with ethical agreements, there is an area of human rights where we deal with the right to food, which is a basic ethical question. There we are trying to develop the concept of right to food and trying to make it into something useful to achieve the targets set by world food summit, eliminating hunger, reducing hunger by 2015 etc."

Several international conventions and programs have focused on the right to food. The human right to adequate food is recognized in several instruments under international law. The International Covenant on Economic, Social and Cultural Rights deals with this right more comprehensively than any other instrument. Pursuant to article 11.1 of the Covenant, States parties recognize "the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions", while pursuant to article 11.2 they recognize that more immediate and urgent steps may be needed to ensure "the fundamental right to freedom from hunger and malnutrition". The human right to adequate food is of crucial importance for the enjoyment of all rights (UNHCR 1976). It applies to everyone; thus the reference in Article 11.1 to "himself and his family" does not imply any limitation upon the applicability of this right to individuals or to female-headed households. has started various programs and policies like World food summit and World food day.

### 3.3.2.3 Justice

In food and agriculture, all the conceptions of the justice can be applied because of the overlapping dimensions of food and agriculture involving human beings and nature. One

person said, "There is other very important issue in the context of bioethics, related to doing no harm and injustice in food safety and biosafety. This biosafety is related to the entire food chain, at the level of food production, there are a number of issues raised like use of resources, soil erosion, destruction of certain species, varieties of plants and animals. This is related to both present and the future since there is an ethical issue in what should we give to our children; unspoiled and protected world." As an international organisation, FAO has been directly involved in implementing regular programs and projects that have a foundation of ethical principle of justice, as was recognized by one person saying, "There are activities related to equitable outcomes and justice. What we do is just as technocrats. Should we have any views on it at all or should it be prerogative of our receipt governments, is an ethical issue." Making countries self-reliant in agricultural production through sustainable development is regarded as environmental justice.

The programs of FAO also focus on improving life of poor people as one person said, " To meet ethics is more of an issue of equity and justice than ecosystem management." FAO is a secretariat and is not a decision-maker. It puts demands and requests of nations in practice by helping in various projects which sometimes may not be justifiable as one person said, " I think FAO should have some policy on such programs that they perceive to be unjust or inequitable, even if the governments ask for them. They should have some guidelines." International justice can be applied by respecting the principle of equity of all people in all societies and it can be achieved as another person said, "The issue of equity in society and how this impacts on hunger and access to food is still a very important and goes beyond bioethics. The key issues involved are the access to opportunities to earn income; and it begins with access to education, work opportunities, resources, political will and political interests in reforms in the establishment of social nets, protect the poor, in re- addressing investment so that so that the urban bias that is still present in so many activities would be overcome. The rural poor, who make the major part of the rural poor but, would have better opportunities."

### 3.3.2.4 Poverty

International action and dedication is required to combat poverty. This involves, providing opportunities to the poor to learn and earn, empowering them through some training and knowledge, which in turn provides people more security and recognition in

society. Poverty has many dimensions and many faces that change in time and place, like hunger, disease, malnutrition, lack of shelter, lack of education, joblessness and consequently death. As one person said, "One of the major problems with poverty is that it reduces options. You don't have ways of experimenting to solve your problems and find new solutions, and that is part of sustainability." Another interviewee said, " The biggest ethical issue is of hunger, death and poverty." One of the major issues for developing countries is of migration. People from remote villages come to big cities income in hope to generate for better future and quality of life, as one person noticed, "Also the poverty transpires into urban areas through migration. People move to towns for better hope and better future."

Poverty is a situation that people want to avoid but it still persists in at least a quarter of the world's population. Although much has been done in improving the poverty situation in the world but it is still insufficient. Given the changing trends of globalization process, even the rich countries of the world face severe competition of improving the life styles of people in their own countries and face market competition which sometimes halts or reduces the aid to poor nations and poor countries themselves need to consider their own options. It was also noticed in the interviews as one person said, " One could speak of international inequities and worldwide activities. In the early years of international assistance to poor countries, there was more emphasis on the ethical dimension that is the rich countries should help the poor or the rich countries being former colonial powers had accumulated the guilt that they had exploited the poor countries over many centuries and now had an obligation to help. This kind of moral obligation has disappeared as an argument with the independence of the states. Now it is considered that within country's own possibilities, and it is considered as their own neglect of priorities if they don't get out of poverty." Poverty alleviation cannot be achieved without giving substantial focus on the social systems of nations as another person said, " So the idea is that if you can make poverty and food security as one goal, culture is a vehicle to overcome a series of problems."

### 3.3.2.5 Overpopulation

It is important to consider all of the self-regulating communities of life and physical surroundings in the world. All of these systems are interconnected and depend upon one another to function properly. Increasing population causes a ripple effect; each part of the

community that is affected has an impact on the system as a whole as one of the interviewees mentions, " There are many countries where populations are increasing very fast, people need land, and with tremendous demand for new areas conservation becomes more difficult issue." These biotic communities are essential for the survival of all forms of life. With more people, more precious and limited resources are needed for survival. Our population explosion has many detrimental effects on the well being of our biotic community as another person said, "With increase in population people still would need the products, which come from forest and there are other products, which come from agriculture." More than 80% of the people in developing countries live in rural areas in very harsh conditions without access to basic necessities of life. FAO realizes its duty as an international organisation devoted to help the poor people in the world as one person stated, "We have the duty to meet the needs of all our member countries and many of them are in the situation where they have large rural populations who is poor and in need of any means available to improve the quality of their lives."

### 3.3.2.6 Emergency food aid

Conflict is one of the most common causes of food insecurity. War and civil strife were the major causes in 15 countries that suffered exceptional food emergencies in 2001 and early 2002. Conflict in sub-Saharan Africa resulted in losses of almost US$52 billion in agricultural output between 1970 and 1997, a figure equivalent to 75% of all official development assistance received by the conflict-affected countries. Estimated losses in agricultural output for all developing countries averaged US$4.3 billion per year, enough to have raised the food intake of 330 million hungry people to minimum required levels (FAO 2002). Although millions of people suffer from religious and ethnic conflicts and natural disasters in developing countries, still the governments of those nations have been known to constantly increase the budgetary allocations for arms and ammunitions rather than spending money for providing basic necessities for their people as one FAO staff member said, "There is the import of the possibility that is expected in the country, which needs food badly, could reduce other imports. It could sell some of its foreign goods and concentrate all the purchasing power on food supply including a reduction in the import of military equipment. We do not enter into this, instead we take into account the past import capacity as the benchmark and we say that some import could be done as in the past years in the food and the rest could come as food aid." Another FAO member gave the example of the Gulf war at the beginning of 1990s saying that, " First few years after

Iraq war, there was towed to a ban on oil exports from Iraq. FAO went there in 1991 and 1993 and assessed the food situation there. It was due to the report about miserable state of nutrition of Iraqi population, that oil for food deal was signed by the Security Council. So it was a clear recognition of the right to food."

### 3.3.2.7 Food quality

As discussed earlier, the right to food is extended as a right to adequate and safe food. However, this has been controversial in the setting of barriers in international food trade for setting up the standards of a safe food, which is under the jurisdiction of Codex, which was mentioned by a staff member. He quoted "The development of standards by Codex are used as reference points for harmonization and any disputes, which may occur, related to food quality and safety in trade. Many times the standards that determine food safety are too stringent for many poor countries to export their products and they do not meet the required criteria for the SPS Agreement." Also ethical arguments loosely related to health and safety of the consumers of the rich countries, may be used as barriers to trade by some rich countries, as was mentioned by one interviewee, "The other activities we do as far as ethical issues are concerned, that we are also related to food. Those are more in the area of food quality and food safety. There are a lot of concerns on the terms that are being used in an ethical term, which were in fact non-tariff trade barriers to prevent certain changes in agriculture practices and exports."

Modern agriculture based on intensive mechanical farming techniques and chemical inputs, has had a severe impact on the health of farmers and consumers. People fear the similar trend with the use of modern biotechnology as one interviewee was anxious say that, "Ethics is also quality of food. We are pushing for the productivity of the crops but we are forgetting the quality." FAO has been cautious in promoting the food quality issue beyond the health of consumers. The quality of food depends on many factors, starting from the type of seed that is chosen by the farmers until the food reaches the supermarkets in various forms. As one person said, " We also see in the area of food quality and food safety that we must work with farmers and with basic food processors."

### 3.3.2.8 Antibiotics

Antibiotics have recently become a cause of concern as they are not effective anymore because of the overuse. Although antibiotics were not raised as a major concern by any of the interviewed staff members, as one person observed, "In the post-antibiotic age, in, which we are now, there is not an organism, which you can find that is not resistant to antibiotics."

### 3.3.2.9 Consumer's health.

With genetically modified food around, the health of consumers is not only a national issue, it is also challenged at international level with growing food trade and food based economies. The Food industry has expanded to a larger extent with the advent of modern biotechnology. The health of consumers is not only a governance issue but it is also important for food industry. Consumers have a trustworthy image of the industry and that food has a huge economic impact as was commented by a person, "Externalities in terms of economics that are spent on environment and human health are also considered, especially on the question of protection of consumer interest and interest of the producers." The overriding interests of consumers in the world are; first, safety and, second, informed choice given the public uncertainty raised over the safety of the food derived from modern biotechnology. This in turn has further health concerns. FAO is the leading agency for global food and agriculture in the world and some people felt that FAO should make concrete statements on safety of food as one person observed, " I think FAO should make a comment that the food we are eating these days is not really healthy any more. WHO and Codex does cover all enough, and FAO is standing without any comment and the fact is that the people don't look at what " healthy food " actually is. They try to take convenient way out."

## *3.3.3 Rural development*

At all levels, a third of the respondents considered participation necessary. They also raised the issue of meeting demands of the poor countries and improving the quality of life. Sustainable rural development was a major issue for 18 persons, but the term is difficult to define and encompasses a number of issues. Sustainable rural development was viewed as important for sustainability and to provide greater good and economic self-sufficiency to the developing countries. It is also reflected in many FAO documents.

Farmer's life quality was raised as a major issue by 15 people. Nine people said that life is becoming more difficult given the rapidity of change. The transition from small to large farms was a major issue raised by 12 people. More philosophical comments such as agriculture being a part of nature were raised by 15 people. The rapid change due to modernization and intensive agriculture in terms of environmental changes was also noticed among the interviews as a major issue by 7 persons. The intensification and modernization debates highlight differences between North and South and countries with different population densities. In developing countries gender discrimination is widely spread especially in the rural areas, this was raised as a major issue by 10 people. Cultural considerations are important in resolving many issues, that was considered as a major issue by 10 people. Child labor was not raised as a major issue by the interviewees, although it is a major problem for many poor countries, children are forced to opt for labor to contribute to family earnings (figure 6).

The example quotations are shown further that express the kind of issues FAO staff members raised regarding rural development.

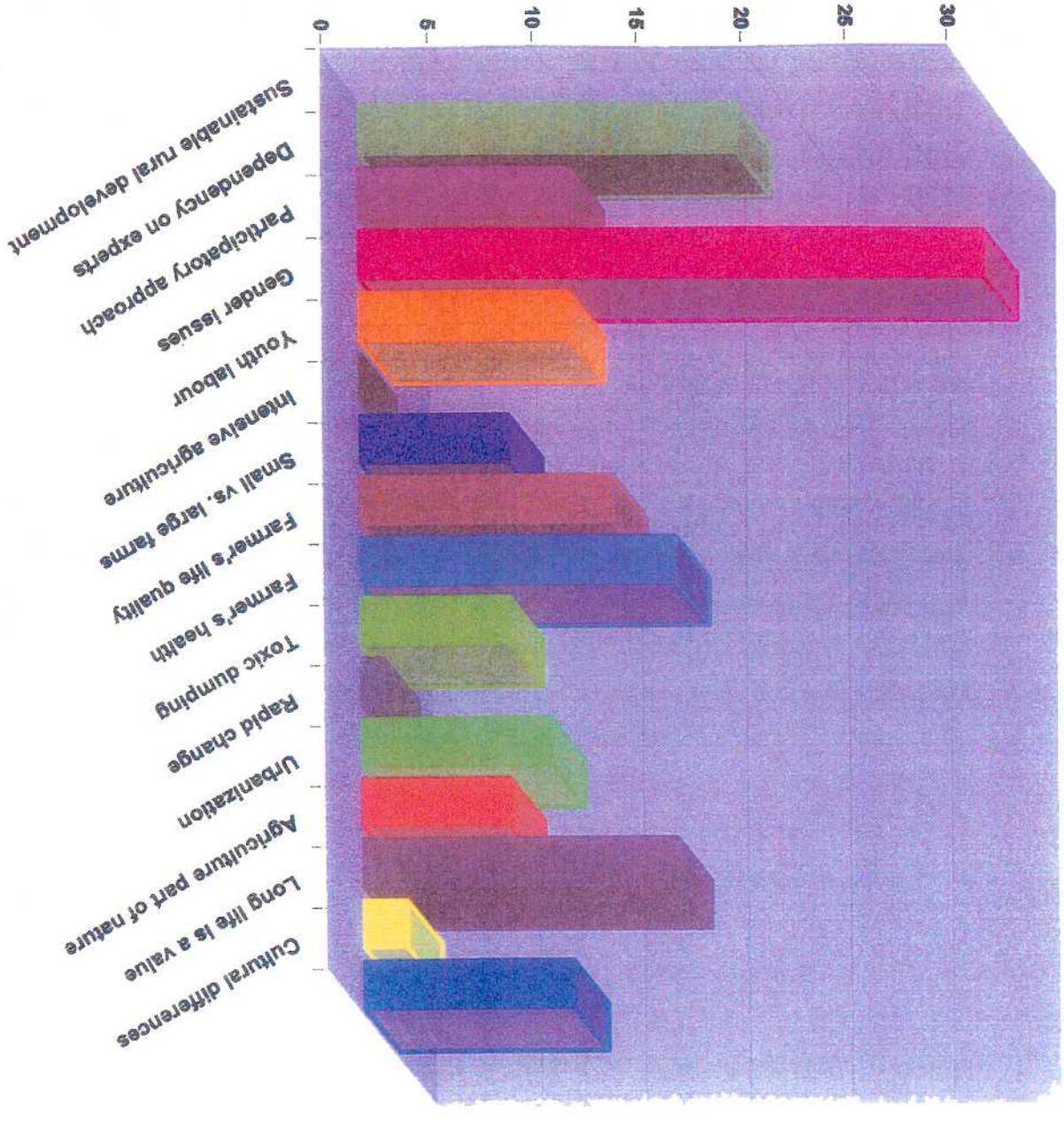


**Figure 6: Issues under the concept category RURAL DEVELOPMENT considered to be of major importance**

### 3.3.3.1 Sustainable Rural Development (SRD)

Sustainable rural development is based on the fundamental ethical principle of beneficence to do good for the humanity, especially the poor people. As one person noticed, "It could be said that there could not be a sustainable development without a strong ethical base. We are dealing with social problems, health problems so without ethics the system will not be sustainable. This is a simple thinking, but how do we express that? We do not express it as ethics. We say that there must be economic viability, social acceptability, equity and others. All those elements cannot be reached out without strong ethical base. It's not a religious statement. Minimum code of conduct needs to be observed to ensure all of these elements. This is a nice debate including philosophy. We need to know pros and cons." However, sustainable rural development is multi- faceted and difficult to define. As a person in Sustainable Development department in FAO said,"The environment is the part of everything in FAO and it is related to sustainable rural development, and since it is very broad, it is difficult to define sustainable rural development." International organisations alone cannot foster sustainable rural development in poor countries. There is a need for active involvement of the countries and the communities. Another person said, " It should have an analytical approach for countries and local communities to examine what impact of their current ethical mellow is, on their ability to realize and sustained food security and sustainable rural development." Farming and agriculture are the main source of income for rural people. Thus a better development of environmentally friendly and income generating methods of agriculture would help in sustainable rural development, as was mentioned by another interviewee, " There is nothing much what else rural people can do other than to be effective and efficient more in what they are doing, which is farming or similar farming employments. How do we design our programs to meet those needs?"

### 3.3.3.2 Dependency on experts

National and international organisations depend on the expertise of people to carry out their tasks properly and efficiently, as was mentioned by one person "We need proper expertise that we can refer to if we are not clear on issues." FAO staff is an assembly of some of the world's best expertise on food and agriculture and they realize this responsibility, as one person said, " Our work is to provide expertise to the people in the world who need them. So our mandate should be on that, what historically we have been

claiming." However at the international level the selection of experts sometimes becomes a more political issue as one person observed, "There is always a concern to try and keep the balance across the globe, like certain criteria we use in the selection of experts. There are expertise with experience because we want to get the best scientific advice, people who can guide us and the recommendations that would be considered at codex. But the same time we need to be balanced that we do not favor one perspective or the other, and let we also make the process accessible to the developing world. We want the input of representations from developing world also, although it might be difficult to find expertise in some areas. Some time we are criticized that by bringing the experts from developing world, sometimes they don't have same value of expertise in terms of their CVs or papers they have published. We are also challenged that we are biased in composition of committees." Proper selection of experts is also an important aspect in project implementations, good expertise can provide many benefits and could be bring many new positive developments in the project, as another person said, "When we write a project for developing countries with big money like 250,000$, we just send experts, which costs money. But we need to find more cost effective and comparative advantages. When we are giving development aid we have to think what are the most cost-effective methods and means. It should not be providing just international consultants but should care for development also. We have to give a good free honest advice."

GM food is debated on many grounds, therefore as the international organisation responsible for global food issues, FAO has a responsibility to be clear and transparent, as one person said, "So we are very concerned that we bring some precision into the debate on GM food and genetic engineering, that we do not continue our arguments on emotive grounds that could be argued just as effectively by an arts student who is a good debater than somebody who is an agriculture expert. So we have to develop our perspective on solid authoritative information."

### 3.3.3.3 Participatory approach

While a participatory approach is based on the concept of autonomy, the ethical principle of autonomy was not raised directly. The participatory approach should be effected by stimulation of people at all levels in the recipient countries to be more involved in decisions over the entire food production system. To be truly descriptive we

need views from a wide variety of persons and cultures. As a person from Codex Alimentarius raised: "The challenges we face in terms of ensuring that there is a balance of perspective on different issues, there is participation from developing world in the discussion and evaluation, and development of advice that we give in the principal key areas, like food quality and safety issues in biotechnology, animal feeding issues to address, BSE or Madcow disease, dioxin contamination, and so on." However, participation is needed to address the environmental concerns and other affects of biotechnology and given the magnitude of potentials of some of the novel technologies, participation is necessary between international organisations working on specific and also countries to set out their priorities properly as one person said, "It seems to me that before the tendency was to propose a country what is good for them. Now we are trying to see what is good for all people. I think there is an overall sensitivity on the issues. So in the sense that whatever position we take, we also take into account the environmental issues and forestry issues and people's participation." To be more effective in reaching the goals of true development, there is a need to reach out to local people at the field level and grass roots, as was affirmed by another person, "We try to have all holistic approach in are participatory manner to enable the household, which is the nucleus of operation, to be better involved or in decision making." This involves distribution of power and right of decision-making to the people of poor countries as another person said, "Everyone is saying we have to decentralize, including people's participation so on but some of them without even knowing what it means. Some of these things we get forced to follow; this because they are seen as ways of keeping donors happy or what the people in charge have told us to do about, even if they know what are the implications of decentralization." Participation from the NGOs is also needed because they represent people, " Every NGO is able to participate on every single subject on the agenda. If they ask for a floor they are given. Even they introduced onetime on the provisional agenda, which was the item on the role of enhancing consumer participation on the agenda."

### 3.3.3.4 Gender issues

The gender issue is a universal problem seen in all the places, in every country in different ways. It also creates critical situations because of the cultural restraints on women as was typified by a person working in the fields with rural people in developing countries, "I have heard that in some parts of Indonesia, where it is Muslim culture,

women cannot participate or they can't be in the same group. In some parts of Africa also it is a common issue, and sometimes there have been issues like if the women in participate in the farm field school, and makes a profit, men think that it is their share and try to take over. Some countries allow mixed participation of men and women, which is not possible in Muslim culture so alternate days are decided for men and women. We have to be flexible with cultural constraints." Another person also agreed saying that, "There is also gender issue on the field level, participation of women into activities at different levels, from farm level to government level." Even if specific measures are taken for active and equal participation of women, and women oriented work is started, problems may still arise due to several reasons, as was asked by another person, "Even if you do gender analysis at the beginning of the process but women generally fall out during the process. Why are they not there at the end of the project when they were in the beginning? Gender participation is also a problem in international agencies. FAO is considered to be the international agency with the least women representation at higher positions and this was a concern expressed by one person, "FAO needs to maintain a good balance of nationalities and gender." The gender issue is also as a major issue for FAO for holistic development as one person said, "What we do is very social; in terms of sharing of benefits, access to resources, and the gender aspect, which are our major social concerns."

#### 3.3.3.5 Youth labour

Youth labour and child labour are serious ethical problems in most poor countries. Children are forced to work due to poverty and for helping parents who have large families to feed. However, youth labour was not raised as major issue in the interviews.

#### 3.3.3.6 Intensive agriculture

Mechanization of agriculture, with extensive use of fertilizers and pesticides has created environmental pollution and also deteriorating health affects on all forms of life. This was observed by a staff member, "We are intensifying agriculture and intensive agriculture is making environmental pollution." Another person said, "There are concerns on intensive farming, especially in FAO perspective in West, but it is not a luxury to allow this." Environmental pollution is not only caused by terrestrial agriculture but also from the overuse of fisheries and inappropriate mechanisms in aquaculture industry have also been

a major cause of environmental pollution, as one person said, "But if you expand aquaculture you are encroaching agriculture lands, water and since it is intensive it is creating environmental problems. It is an emerging problem, which is going to present more troubles in future. The whole of this applies to technologies in general, high technology in terms of commercial agriculture." The Green revolution was based on intensive farming with a target of increase in productivity. Similar fears are raised again with respect to the use of genetic engineering, that it would cause environmental and especially genetic pollution and a widening gap between the poor farmers who use local methods of farming and those using genetic engineering. One staff member feared, " When we talk about high technology of GMO, we talk about industrial and commercial agriculture, and the hungry are very often the poor farmers who don't have a means to produce food or to purchase food. So there is a widening gap between subsistence agriculture and commercial agriculture in my view. FAO is more concentrating on commercial agriculture and less on subsistence agriculture because of the fertilizers and agro-industry."

### 3.3.3.7 Small versus large farms

As mentioned above, there are fears that increased use of novel biotechnologies with a focus on patenting of genetic material and technology will widen the gaps between rich and poor countries and deprive the rights of small farmers that have selected and chosen varieties by experience for thousands of years. One person critically said, "Small farmers are poor and they need to borrow money to buy seeds, but they have to wait 6 months to return until the product is sold. But generally the rich farmers have access to credits and not the poor farmers. Lot of efforts are done to provide access to subsidized seeds to farmers but very less poor farmers could get access to it because first big farmers are listed in the subsidized credits and so the rationed subsidies go to them. Also big farmers are educated enough to handle the system. Also they are able to mobilize big amounts of credits by just one contract. If you want to spread lot of credits to small peasants at far off places, you need to have a number of official groups to go to those places, for, which generally money is not there. So you put your officials into one place and they don't reach out to all."

Small farmers in poor countries not only face open competition from big agriculture businesses in markets, but also they do not have access to basic raw materials, the 'seeds',

given that the high quality genetically engineered seeds are not only expensive to buy but they even have to pay for normal varieties. Another person said, "We are shifting the expenditure more to the basics and in agriculture a lot more can be done; which is also been done in the way of getting rid of the subsidies that after all are not able to reach the small farmers." One economist made a strong statement, "The idea of putting a competition between very small farmer families with very little means and rich farmers of US and Europe with huge production means is almost criminal." Some people also criticized FAO's approach towards programs for improving productivity as one person said, "I can't say I know all the statistics but the majority of the activities are sponsoring the classical industrial approach to agriculture. Even for the small-scale farmers, the approach is the same." However, the role of FAO in international agriculture sector is also important as another person said, "If there is no FAO, all the countries have to negotiate bilaterally and that is an impossible task because nowadays even a small village economy is related to large economy. Globalization process is going on and survival of one person depends on what's going to happen to the world if I say it is in the extreme case."

### 3.3.3.8 Farmer's life quality

If we are going to serve humanity we need to consider ways to make farmer's lives better, as one person said,"Farmer's life is not easy. Making that life easy is part of FAO's mandate." Many countries have policy directives about farmers involvement in development and, more recently, about community participation in development by improving participation and seeking their views developed by the experience of many years in sustainable rural development, as was observed by one person, "We are very much engaged now in inter-linkages cages between the conservation and sustainable rural development. All those things you do, you do it for perpetuity and improving quality of life for rural farmers. But to do it for perpetuity it must be accepted by communities living nearby."

The life of poor farmers is also affected due to their own ignorance about worldly things, which is sometimes taken as an advantage by the people who are involved in financing of the projects, who make farmers carried away by their false claims of helping in improving the quality of life of poor farmers. As one economist said, " In rural finance it is a bit difficult to persuade a private bank or branches of major banks to give money. It is much more difficult in the case of agriculture development bank, which is run by

politicians any way." On the issue of role of FAO in providing financial help to rural farmers another person said, " On the rural financing side, many years ago we recognized that the manual book keeping systems are extremely out of date and capable of manipulation, misreporting and theft and resulted in farmers even loosing whatever small savings they have and does not help much to improve their livelihoods. This is the reason we started developing a simple computerized system, which soon became a very popular product of this service. Its called FAO's microbanking system".

### 3.3.3.9 Farmer's health

Poor farmers in developing countries depend on traditional farming methods that take lot of time, energy and efforts to cultivate crops and even then the returns are not enough for the amount of labor involved in the harsh conditions where they do not have proper irrigation methods, no access to good seeds, degrading land fertility and no support from the governments. This has an adverse effect on the physical and mental health and development of farmers, as one person said, " I think FAO should focus on the improving the livelihood of the poor farmers, which is more than distribution of high quality seeds. Small holder farmers suffer not only from social constraints but also health constraints which are caused due to multiple factors like environment, poverty and many other things that they do not have access to." Most of the farming in the poor countries is inherited from generation to generation, and is learnt without any special training and improvement, as was noticed by another person, " Illiteracy is another factor that has serious impact on farmer's physical and mental health. Even if the provisions are given, they do not know how to use them as in the case of use of chemicals, many poor farmers cannot read the instructions for proper handling of pesticides but use it, which is one of the causes of severe respiratory problems among farmers". Another person involved in livestock management said, "Livestock farmers face severe problem of respiratory dust caused in the livestock barns which is one of the main causes asthma among farmers".

### 3.3.3.10 Toxic dumping

Toxic dumping was not a major issue raised by the interviewees, however biological magnification of the pesticides in the food chain was mentioned as one person said, "This has been a position in the codex that biotechnological innovations not require different methods of risk assessment and they only have to follow the same. Others may fear that

this is not enough because it's not toxic because it is the alteration of biological mechanism and might have some long-lasting impact." On the issue of toxic dumping one person said, "Industrial waste in nearby water centuries is affecting the life of many aquatic animals, and we are losing aquatic biodiversity." Dumping of toxic industrial residues is a major problem in the world and it is supposedly threatening the lives of many aquatic animals and the other animals that feed on them.

### 3.3.3.11 Rapid change

Globalisation is changing the world economies very fast and the trends are very conspicuous in the developing countries with growing urbanization and rapid development of information technology and communication development. As one person said, "The major problem right now is that the massive change that is occurring, which is not particularly selective. For example a television channel reaching persons in an African village has much more impact on that culture than a television show seen in a developed country." However this rapid change and massive development may have a strong influence on the gap between the rich and poor people and changing the attitudes and choices of people, which is also seen among the farmers who are changing their modes of agriculture which sometimes results in heavy losses to poor farmers and widening the gap between smallholders and large holders. As another person said, "When we talk about high technology of GMO, we talk about industrial and commercial agriculture, and the hungry are very often the poor farmers who don't have a means to produce food or to purchase food. So there is a widening gap between subsistence agriculture and commercial agriculture in my view." International agencies face a tough challenge of merging new and foreign technologies in the communities because of the acknowledged reasons of illiteracy and cultural restraints and fears of technology, as another person worried, "We just go with our technology. When I take this technology there I realize that the day I go away the whole thing will collapse because there are structural things that are more important than my little technology." Provision of technology with proper training and education is essential for the bringing productive changes in the rural communities.

### 3.3.3.12 Urbanization

Another aspect of rapid change is the speed with which villages are converting to towns and cities and also rural people are migrating to cities for a better future, as one person

said, "Rural people move to cities with hopes for better future. Farmers are opting out for other jobs which involves less labor so they move to cities for better quality of life." Another problem related to governance in the urban areas was cited as, "This is a tradition by governments to put the bulk of their efforts to urban areas for development and not on rural areas. The people in the urban areas live near the governments and governments live on urban areas for power. So governments are careful about that. The rural side is far away from power so the things are not heard and the voice is more depressed. It is very clear that governments do not see or hear and invest in more pressing and better-perceived problems". There is a need for governments of the world to give more focus on improving the conditions in the rural villages given that about 80% of the total population in the developing countries live in the rural villages. Rural people are known to be closer to nature and urban people are considered to be surrounded by concrete jungles where they are bound by rapid life and complex social structures and pressure of competition for a materialistically better life. This is seen as another person said, "The urban population is completely alienated from the rural population, from the natural world and it is not really in their good interest. It has the devastating effect on the natural world."

### 3.3.3.13 Agriculture as a part of nature

There are various divisions in literature on the issue of what is natural and unnatural. The usual image of nature is the forests with complex ecosystems harboring many biotic communities. As one person said, "Agriculture itself is an activity of human beings modifying the environment, in that sense natural environment and agriculture environment are connected but still very different. So how can we deal with natural environment or natural habitat or flora and fauna, is related to bioethics." Another person said, "Once you start agriculture in natural environment, you already are drawing the line." There are even differences in views among professionals whether agriculture is a natural or not, given that agriculture is a human activity and different human beings chose particular vegetation on which they can rely on for food. Although as expressed above in a comment, people living in urban areas feel rural people living in farm fields are closer to nature. It was also found to be a matter of debate in FAO as one higher official said, " I expect them to clear our motto, which says, agriculture includes forestry and fishery. It bugs me all the time. I think ethically, forestry is not the part of agriculture. Forestry works for agriculture. When we talk about Ethics related to biological diversity, forestry being a unique character should get a unique consideration. Because we are conserving

the same, but because of the unique characteristics of forests as an ecosystem and compliments of this ecosystem, it is very different."

Bioethics includes problems at many levels and expands as it starts to enfold different dimensions. It is also seen in the context of agricultural ethics. One person said, "My only concern is how to relate bioethics to agriculture ethics. How to overlap, their interaction and coordination between the two and I personally take this from agriculture to forestry; because the issues we address here go beyond agriculture as a source of food. We have other products and services that would require special kind of thinking about the ethics. So that's a three step the process for me, bioethics going to agriculture and then from agriculture to forestry." Some people also expressed frustration on this issue. A division director said, "We have the difficulty of course because we have the mandate, we have the human resources in the form of the largest collection of highly professional foresters in the world, yet since the subject is so popular and attracts a lot of funds, and some people unethically encroach our territories from both inside and outside FAO." However, there have been efforts seen in enhancing the mutual dependency of agriculture and forests by bringing in agro-forestry, which involves cooperation between both agriculture and forestry experts. One person mentioned, "There is a huge ethical responsibility when we suggest agro-forestry models because they are very closely related to the life of farmer and because it is directly related to tomorrow's life of farmer. When talking about trees, it may not be immediately relevant but in the years to come it may so you need immense time and patience for it."

Most indigenous people who dwell in forests like tribes usually do not cultivate, and they are dependant on forests for their food and living through hunting and collection. This is different from rural farming that focuses on cultivation of food and domestication of animals. As one person also said, "We have people living in the forests, on the forest and off the forest as well, and they are special people. They are not wheat or rice growers. They're different breeds and their ethics is different. When they're pushed out of the forest, they are not the same as who are displaced for dam or something or for flood. You simply cannot push the people living in the forests because of any reasons like highway or other, to become farmers. That's absolutely ridiculous. If farmers get their land flooded, they can go to other places to farm but you cannot shift people from forests to farms. You

can't farm forests; you can only be in the forests. As a system it is different from other biological systems."

### 3.3.3.14 Long life is a value

Long life is a value can be interpreted in different ways. This is also a point for debate between the foresters and agriculturists. Crops can be harvested and grown many times over a year, however it is impossible to grow a forest or even a tree without significant time. This is considered as a special character of trees and increases the value of forests to many persons, as one person said, "Trees are not weeds or poppies in the field. They are very long living organisms and they have their characteristics. We are long living organisms. They out live others. So we need a special recognition." In the case of forestry it is extremely important to choose the right project given the length of time that it needed to achieve the goals, as was mentioned by a person in forestry department, "There is a responsibility on foresters when they suggest a model or a regime in managing forest. When you manage a forest, you have a time frame that is completely different from the agriculture time frame. You have a time frame, which can go from five years to 30 years to a century. What will happen then, as you are not going to be present, dead or old or retired? So this is a combination of a lack of direct responsibility, when you have suggested or mentioned, lack of presence, lack of still existing responsibility than those things happen. I think that these raises a number of very important questions, because you are suggesting models that may not be hundred percent perfect in the location, for the people or the environment in which you are suggesting it. In national systems some elements may change, which will give a completely different picture. So this is an ethical problem so the consequence is to try to get all the possible information. So we try to look around all examples and models we have to buttress your choice and option. There are a number of things common to whatever we do. I used to say to people in my country, that what you're suggesting affects your own brothers, uncles, and kin people. So try to be very careful about what you are suggesting and what you are providing."

Another person gave an example related to changing trends and choices of people, and its affect on the forestry business. He said,"I can give you an example, where big foresters in France were thinking about one and a half centuries ago to plant a lot of oak forests. They were thinking about building ships. When these oak forests matured, they ended of being part of the furniture. So the provision was completely wrong because the ships are

not as potent as they used to be in transport, and aluminum and other metals have come. So the timber is not any longer as important as it used to be. Those communities that were founding their economy on shipbuilding, connected to tree planting, and forest planting, they may well have found themselves in a difficult situation. So it is on a long-term basis and so you can reduce. You can have a situation in a time frame of 10 to 25 years in forestry, which has a real importance in the situation of communities."

### 3.3.3.15 Cultural differences

Cultural differences bring diversity as well as creating problems in implementing global policies as was mentioned by one person, "Taboos, like culture, make people's perception what is ethical or not. In the final analysis given the environment you live, you have to protect the majority in that society. Something accepted or unaccepted is the view of majority, but we have to protect the view of minority." Respect, understanding and tolerance for different cultural values are important for global ethics and for implementing global policies as another person agreed, "We need to discuss ethics from different cultural point of views as well, as we are living in a new world where everything is globalized. I don't say ethics is different from one culture to another, but sometimes there could be conflict." However fundamental ethical principles are universal. One person said, "I am not sure if we should take ethics as a cultural thing as we are in the changing world. Certain things that were not acceptable before are acceptable now."

At the field level, during direct interaction with local people in villages, a mutual relationship of trust and cooperation with farmers needs to be built. Rural people have their own traditions and social norms that need to be integrated when projects are designed for them. One person said, "The benefits are obviously field based and more practical ways can be found. They have cultural relationships with farmers." Another person said, "We have to be flexible with cultural constraints." This is important as the image of nature and natural things and agriculture is a social activity as another person said, "There is a fairly consensus that water is essentially an economic good but it is also a social and cultural good, and that is the matter for balance." Therefore it is a challenge for international agencies to implement programs because it may or may not be acceptable to different cultures as the ideologies and thinking are culture based concepts, as one person said, "It is difficult to convince a community or a culture that what they are

doing is wrong when it has taken thousands of years to develop and all of the sudden some smart people come and say that they are wrong. One of the real problems is in terms of being able to do objectively some of these things."

### 3.3.4 Information

Information is central to development and all the United Nations agencies are responsible to provide as much free and unbiased information as they permit. Another central role for FAO as the United Nations Secretariat for Food and Agriculture is being a forum for debate and an honest broker in the discussion of issues, which often involve conflict. This was raised as a major issue by a 35 of the persons interviewed. FAO is science-based organisation and it is one duty of FAO to provide science-based information that is neutral and based on scientific facts rather than emotional and cultural based. Scientific ethics was considered a major task for FAO as an international organisation responsible for its 180 member countries by 11 people. The goal of scientific ethics can be achieved if there is a free flow of information and it is transparent. Transparency was viewed as essential for being a credible international agency by 14 people. It was also expressed in terms of duty of FAO to disseminate information on environmentally friendly, improved ways of agriculture to farmers and consumers, as 32 people raised information dissemination as a major challenge for FAO.

Information dissemination alone is not enough to raise the level of living of poor people, they need technical training and utilization of proper technologies that need to be provided to the people. 17 people raised appropriate transfer of technology as a major issue. The other aspect of information is also having access to information. Access to complete and genuine information, especially from the developing countries and access of rural people to proper information was cited as a major ethical concern by 13 people. Some people confessed that it was crucial for consumers to make proper choices in the market and 4 people raised it as a major issue for consumer choice. People also raised issues of cultural restraints and practical problems in carrying out the projects. Project design was raised as a major issue by 8 people stating that proper designing is essential for avoiding waste of time and resources that are invested. Six people were concerned that designing projects and implementation of the projects were different things and even if the projects look perfect on paper, many hurdles come up during their implementation. Some people also expressed their helplessness on freedom of speech because of the

restrictions of working in an international organisation. Three people raised it as a major concern.

The details are also shown in figure 7 below. Example comments are shown below for the types of issue people raised for each keyword in the concept category information.

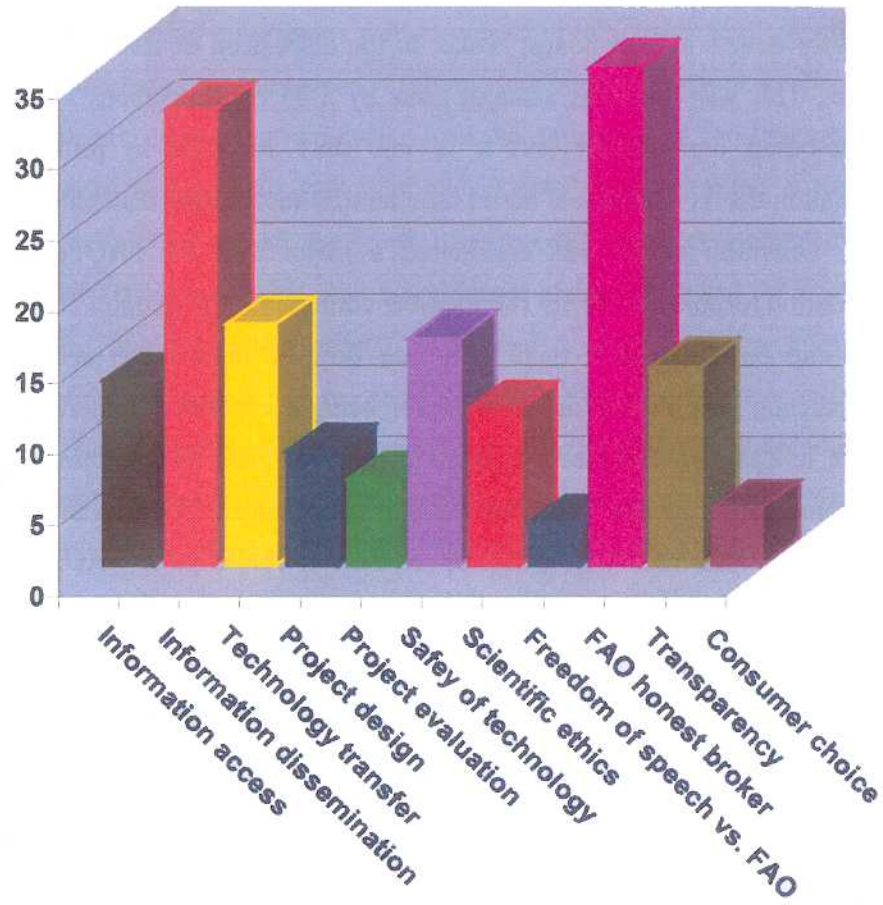


**Figure 7: Issues under the concept category INFORMATION considered to be of major importance**

### 3.3.4.1 Information access

One of the major problems that international agencies face with developing countries is access to information on developing countries. Sometimes information does not exist

even on major issues, which is an obstacle for designing projects accordingly, as one person said, "Access to information really has key roles. Access to information is not equal in industrial countries and developing countries. Because in the industrial world information is collected systematically. In developing marketing, one of the areas in, which I pay a lot of attention to improve access to information in order to balance our equity. Also to make marketing as efficient as possible." FAO has to make many efforts to extract information from poor countries, by jointly working with rural people at the community level and becoming part of them. One person said, " When somebody from us goes to a peasant and ask questions, of course farmers want to please. They've just filled the forms and what comes out in the end is not very useful. It's not a method but a philosophy how to enter community from different disciplines and how to communicate with people. When you are from the city, you have your own code of communication but they do not share the same code. They don't even understand you not because they're stupid but they have another code. For example, if you go to a small town and ask the men to draw a map of the town with main things and ask women also, both the maps are totally different because they have different interests. If you do that with the social activities like fish, they like it or culture it, if you ask one sector you will get very partial information, and you go also from different angles and different disciplines to get a complete picture." A classical way of surveying among the rural people through questionnaires is not always the most effective way of getting information, there is a need to get integrated to the culture and get the real information as another person said, "If we are asked for assistance, we have to make the appraisal of the place both physical, technical and social economic appraisal. We are now working with a new methodology called " rapid rural appraisal and participatory rural appraisal". It's a way to get information from the community, and not through the classical survey where there were supposed to fill up the form and practically " invited to lie ". Information is a two way process, asking information is part of encouraging people to think about the issues that do not come up in regular process, as another person said, "As knowledge become more accessible to greater number of individuals, then people start raising questions."

### 3.3.4.2 Information dissemination

Information dissemination is central to the modern information society, as one person said, it has to be responsible: "One of the problems with technologies like GMOs is that

they have the potential to make tremendous changes. The media has made GM technologies like Frankenstein monsters, and ordinary people, who want to live their life peacefully, are not surprisingly frightened. So some type of ethics is involved in informing people at community level and at country level. Giving balanced information about the impacts of these technologies, means that overtime they could give themselves, or might be given, the opportunity to learn about them and make good decisions." FAO works as the center of information on global food and agriculture, helping governments in processing available information into agriculture policies and developmental programs. As one person said, " From our point of view by data compiling, analysis and data dissemination, we are showing what the problems are and then there is a role of other organisation, governments and institutions to take decisions what they want to do because FAO has no decision making power." However an integrated communication policy was only released in 1998 (FAO, 1998).

Global communication is becoming more and more dependent on networking, based on the Internet and other information technology, considering it as the fastest mode of exchanging information. FAO also has been disseminating information through the world wide web, as one person said, "Information dissemination is a major issue, a major way is the FAO website to, which FAO communicates to the world." Some people were critical of FAO's information dissemination policy, that it is discriminatory against developing countries who have the greatest need for information on food and agriculture. One critic said, "The information dissemination issues are barbarious. On FAO's role, and policy on information dissemination of, hard copies are freely distributed, Electronic version who pay for it. How do you handle requests of developing countries from that of developed countries?" FAO collects and disseminates information to all countries, and it especially focuses on poor countries because they lack basic infrastructure facilities like computers and internet services as another person said, "For countries that don't have access to www, we sent out hard copies and CD-ROMs for the main database." However, it is still a critical issue because of the pace with which new information is flowing in everyday, by the time poor countries absorb the information to take measures, there is new information available. Availability of information on time is necessary for making analytically balanced approach to the developmental programs. On the part of developing countries, even if the information is made available on time, there is a lack of coordination and professional ethics sometimes as another person said, "We are well aware that in many

countries the information is used as a tool for exercise in power. For example many institutes to not have good library facilities, do not have access to www, particularly developing countries; often senior people in the institutes would try to hide away FAO publications and information and lock them indoors so that they have ammunition, which others don't have, so this is an abuse."

### 3.3.4.3 Technology transfer

Use of appropriate technology is essential for sustainable rural development. FAO promotes environmentally friendly, economically affordable and user-friendly technology in its programs for rural appraisal. The first step involves dissemination of information, as one person said, "Technology transfer is information transfer about technology." Many developing countries suffer from loss of natural resources and also economic losses in agriculture because they are heavily dependent on the conventional ways of cropping which has degraded the land and other ecological systems in the fields, as one person said, " There is a need to improve agriculture techniques, which call for various types of technology transfer, training and work at that level. It also requires more inputs. You have to use the best available technology. Some countries improve their practices just by improving traditional agriculture. But some could use by improving traditional agriculture and a mix of high yielding crops including GMOs." When transferring technology there is for involvement of local people as they know the their environment best, and might play a critical role in establishing better mechanisms. As one person said, " Earlier FAO was a supplier of staff expertise and equipment and then gradually increasing the capacity of the local staff. Then there was a technical phase where we focused on production; sometimes it is detrimental for the resource with inappropriate transfer of technology. Now we are moving towards more of providing expertise on specific issues."

It is unlikely to imagine that one technology will be feasible for all kinds of environments and could be universally acceptable however many benefits it seems to provide. Sometimes the technologies that are best suited for one region may be disastrous for another. One person gave an example of this,"I used to train people on technical issues. How to monitor pollution in fish and water? But that project of transfer of technology in 1980 was a total failure as they were looking at the transfer of technology, which was then much developed from the northern countries without looking at the

capacity of people to apply and managed and natural resources and that's how I got involved with FAO on human part." Some technologies can be acceptable by some countries; not all because of the cultural, religious and social constraints, as another person said,"There is a large outcry against these products in many parts of the world and other parts are quite accepting. So there is clearly a difference in the opinions, which has not been examined from ethical point of view. The question is the procedures used by member governments are adequate to address the safety and quality all of these foods?" Transfer of appropriate technology is not only important in plant agriculture but also for animal agriculture as one trainer said, "We also need to look into the impact of technology transfer in livestock breeding."

### 3.3.4.4 Project design

Project design is a prerequisite for many researchers who work to help international aid. It should be coherent and relevant to the needs and capabilities of the nations. As one advisor in the FAO Technical Cooperation Department said, "A project is stopped only when money is not flowing in, not when it is bad. Usually we don't come to know the project is doing badly until the mid-term because it takes so long to start the project, so the problems do not come up in the first year." Also the design has to be as good as possible, and not just be fulfilling the duties of being international agency as one interviewee said, "When you write a project you cannot say that it is for subsistence agriculture. We don't want groups of society are to be just subsisting or surviving." Many times even well designed projects are unable to be successfully implemented because of the many other hurdles that come up which indirectly have a significant impact on the projects. This also occurs if the target of ultimate effect on the people is not properly judged. One person gave an example, "There was a big irrigation project in Iran funded by World Bank. It was to introduce an environment component in the irrigation planning. We did a field trip there. It was fascinating to see how this huge irrigation scheme has been constructed at the lowest regard to environmental consideration. It was purely an engineering thing. It was not only birds and animals that are being affected but also people. Just as in Narmada dam. Engineers did not bother to think about people. They are damming a river, which feeds wetlands. There are 60 thousand people living in the marsh, depending on river for food, water and so on. Engineers who were doing this project gave zero consideration to this fact that what they're doing will certainly diminish the welfare

of the people. That sets example where agriculturists should have got serious about, taking the wider view of the effects of what they are doing."

### 3.3.4.5 Project evaluation

Evaluation of projects whether good or bad is dependent on many factors, even if a project looks perfect by design, many hurdles come up during its implementation that have effects on the overall evaluation of projects. One person gave a comment, "It is difficult to say generally if the project is a success or failure but in some cases it is not very clear. Technology is not an isolated thing. If like beached technology to people and they start using it, but there are other problems, which force people to immigrate to the cities, then nobody can say that my project has failed. The project is just a part of the reality, which has other accompanies. Most of the cases in this are, especially it is difficult to say whether the thing is going to work or not because of your component other things. There are other studies of success or failures but it is not easy because there is never anything pure or isolated." Another person said, "We need to find more cost effective and comparative advantages. When we are giving development aid we have to think what are the most cost-effective methods and means, it is basics of project evaluation." For a successful project, not only the results should be positive it is also important to analyse the process of its implementation, as one nutritional technical expert said, "We focus on the product and as much on the process as is required to ensure that the project is safe and nutritional as it is supposed to be." Local participation is also necessary for the success of the project, as another field worker said, "We have many examples where project comes from the top and is not implemented or stopped because local people do not participate it.

### 3.3.4.6 Safety of technology

Genetic engineering has been catalytic in bringing a debate on safety of technologies. It has roped in people from all walks of life; from ordinary people of many occupations in many countries to people working in the United Nations. There are debates over the safety of genetic modification is also feared because of rapid developments it has brought in science and its social and ethical dimensions. As one person said, "It must be done in the manner that we must ensure the world that there are no food safety concerns, not causing any effect to the environment. Misunderstanding is that it is brand new, but plant

breeding has been done for centuries. The only difference is that in the past we did not have any idea what are we going to come up with. And now with the new modern new science we know explicitly what genes are going to be transferred. If applied properly, it is as safe, if not safer than traditional methods of plant breeding. There are tremendous positive applications of biotechnologies, but there could be negative as well. We need basic controls and structural approach in reviewing products developed from biotechnology. Positive benefits could be from biotechnology and could be better with controls and without control, of course a helpless situation can occur, like introduction of allergens into new products." Some people argued that if the technology is safe it is ethical to use it. One person quoted, "Safety is inside ethics." Another person said, "I don't see any difference between safety issues and ethical issues." It is also a responsibility of the UN agencies to tell the governments about the feasibility and safety of technology. As another technical advisor said, "If a government proposes a project and you know it's not going to last, would do you do? That's an ethical problem. It's a typical situation where you know something does not have technical feasibility. For example, sometimes people have cultured fish but they don't have a market. We are supposed to tell the Government this is not feasible, and we do that. But higher level decides that it has to be done, so what to do. When a project is proposed and we as technicians go and say it is not feasible but if it is pressured probably FAO has to say yes. Of course the things to not work then."

### 3.3.4 .7 Scientific ethics

Scientific knowledge is neutral; socially and emotionally free. Science based approaches are considered more neutral, as one person said, "If you deal with it ethically, and decided it as a "good", then whether the good is being provided by large companies or small farmers does not matter because it is a "good". FAO as a neutral organisation and a secretariat has a responsibility to follow science-based assessment and not to be led by favors and arguments that are based on emotive and social grounds. As one person said, "Is it ethical to eat pork or beef? We are working for a diverse supermarket. We need provisions for all. Most important is to take note of what stakeholders need. Our role is to try to catalyze and provide a forum for discussion as codex. If needed, set standards and those standards have to be followed by members of the organisation."

Scientific ethics can be achieved through many things, one interviewee gave example, " The exchange of views can be considered to be a sharing of information. Independence

and academic freedom, the freedom of expression, which are parts of scientific ethics, are important in the eventual resolution of controversial and difficult problems." One person gave an example of FAO's scientific ethics as, " The usual way of FAO to deal with burning issues is to let them calm down and then take a position." Another person said, "Even on the technical information, I don't want to make the ethical obligations or religious obligations and all such considerations. It's not up to FAO. We would give them technical and scientific information."

There are divisions among nations on the safety aspects of genetic engineering products. Some of the nations are big donors to FAO. There are more difficulties difficult to follow scientific ethics, as one person from policy and planning division said, "What is the role of the ethical considerations in food safety policy making? This is related to the perception of science. The first school of thought is that we leave it to science and science will tell us the truth. So we just leave it to scientists to study and report and then we should elaborate the regulations based on science, which means that we consider implicitly that science is neutral." On the debate between Europe and US on safety of GMOs another person said, "There is no clear examination done on that part between the scientists who do the evaluation and approval of these foods, who think they're doing the right thing but the public does not. So there is clearly some difference of opinion, particularly the European public. So how do you examine the ongoing process from combined scientific and ethical point of view to find out if you're doing in the right direction? For example the U.S. has made a panel of scientists and ethicists to look into GMO questions. How can be reassured people that what is done is the right thing. There are similar ethical issues when you come to the problem of over nutrition. People are eating too much and dying. Then you examine that from " what to do " and " how to do " point of view."

### 3.3.4.8 Freedom of speech and FAO employees

Freedom of speech and integrity are basic human rights that may be difficult for some persons in an industrial setting or as government spokespersons. One person who had varied work experience, made this comment: "The good thing working for FAO rather than working for a private company is that I have never been forced to say something, write something or propose something against my mental judgment, and that is a big luxury I think, compared to working with private company." However, not all the

interviewees felt the same. Some were critical of organisational working hierarchy, which restricts freedom of expression, as one person said, "At organisational level, in FAO kind of a system it looks like that the most important thing is not what you think. Most important is that what the people on the top want you to think. There is relatively a lack of freedom to express their feelings because the lower staff is always afraid of contradicting with higher administration inside the FAO." Another critic said, "Here we have a system where the great to use of resources go into setting up rules with in the house and our managers a tick off these rules and this is called as management. I call it management by numbers. They don't look for what people do, they do it in accordance with the rules. Following the rules is more important than achievement. It is broader issue for FAO as well. There is not sufficient intellectual honesty and rigor. There is a great tendency to follow the flavor of the month, partly because some of the people at senior positions have feeling flying towards flavor of the month, on another occasions there is a feeling that by following the flavor of the month, you can get money from donors and FAO is all about taking money from the donors. In order to keep the donors happy, you have to do what they want"

### 3.3.4.9 FAO as an honest broker

The role of FAO as an honest broker is in its mandate. All the member nations, whether rich or poor, donors or recipients have to be treated equally, as one person said, "What the government asks is, our technical expertise and not our intergovernmental character and therefore is it separated from our intergovernmental activities through projects." Some people wanted more expansion of FAO activities as a neutral forum, another person said, "FAO should become a platform for exchange of information in agriculture research system, at national, international and regional level." Some people felt that there is a need for FAO to take positions on some critical issues, as another person said, "One thing that needs to be identified is the question of FAO taking a position on certain issues and. It avoids it because it does not want to accept some states or groups and tries to be neutral." Another person frustratingly said, "We have no culture of defending ideals. It's not the second nature to us. So it catches us by surprise. On one hand we claim that we are center of excellence but we have a not any excellence to prove it. We ask people to believe it because we just say so. We don't take positions on things like Bt gene. These are double standards. There are always ways of cheating yourself. There is a contradiction with FAO say that it's a neutral forum and an honest broker, how can it adopt a position ideal. That

is a fundamental, logical, Aristotelian contradiction in terms." Some people also feared that taking positions might not be good, as another person said, "According to the position we take it an have the impact seen on the monetary terms, for example on trade, positive or negative."

The constitutionality of being a neutral forum in the mandate of FAO was emphasized by some, as one person defensively said, "That's the first thing in, which we claim the moral high ground; that we talk on behalf of people and that makes us honest broker. With that statement announcement we expect ourselves as an organisation that takes a moral stand." Another person who agreed stated, "A major think we should not forget is that we have to be a neutral organisation. I don't know if people take it into consideration in making the decision, either to propose a project or to choose a country, to select the consultant." Many other people made similar statements, on FAO's constitutionally designed role of being an honest broker. One passionate worker said, "We should be neutral and professional as we are a knowledge-based organisation and that knowledge should not be biased by any political concentration in. We have obligation of balancing the interests of member nations, which might be sometimes conflicting. Highest moral obligation is to give best technical advise and professional services to member countries. On difficult issues we have certain natural advantage as an international independent organisation as compared to a national aid agency or a national institution." Sometimes this neutral role is challenged in applying projects and resource allocation to the countries, as one person from budget division said, "We try to be very neutral in our proposal but we have to consider the realities of the countries because when being neutral you propose the same thing to different countries." This has an affect on the overall role of FAO as a secretariat for the countries. One person said, "There is a big gap in what FAO likes to be and be as according to its rules and regulations, but the policies show something else and what it really is and how it works." Another person shared the similar sentiments, "When we are giving development aid we have to think what are the most cost-effective methods and means. It should not be providing just international consultants but should care for development also. We have to give a good free honest advice." More than just debating on whether to be neutral or not, one person advised, "We see ourselves as a neutral forum, but we should let people know that we are good forum." Another person hoped, "It's my wish FAO to be more neutral, which is the main one."

### 3.3.4.10 Transparency

The usual image of international organisations is the working environment is comparatively more transparent than national institutions because of the intergovernmental nature and participation from different cultures, nations, level of economies that force international institutions to be more transparent. Ethically also, it avoids confusions and misunderstandings that sometimes result in heavy losses. As one person said, "There is nothing wrong when we say we need to be transparent, but we need to be kept reminding about it. We need to find mechanism to make people more aware about ethical issues." Exchange of information helps to maintain transparency, as another person said, "We have a division in statistics where it there is an ethical issue on honesty and correctness and completeness of information that we provide. That division is very essential in this regard because information is one of our key functions. We collect information, process it and then disseminate. In that process we might be in danger of biasing the information; either intentionally or unintentionally which is essential to maintain a clean image." Maintaining a transparent flow in the organisation is also an obligation towards member nations who contribute to FAO for carrying out its responsibility as another person said, "We have our obligation in the use of the resources, which we are getting from member countries, in a precision and transparent manner according to the mandate, not to miss use and miss appropriate it." However, it is also a prerequisite for the countries also, as another person said, "Different countries have their different policies. Sometimes they are transparent and sometimes not." Especially with regard to food, that has a cultural, religious, natural and ethical basis, so it becomes necessary duty to be as transparent as possible. One person said, "We also have a big food standards program, which deals with preparing international standards for food, which then have on how the food is produced at the national level. That comes back to this judgment of how these processes are used for preparing those standards adequate from both scientific, policy and ethical point of view or transparency point of view."

### 3.3.4.11 Consumer choice

Consumer choice is one of the virtues applauded in modern society, and issues like labeling and increased participation of consumers in deciding what products are sold in the markets were emphasized. Information including shelf-life, and content, respects the consumer's right to know what is in their food, empowering them to make more informed

choices (Macer 1998). For example, a few persons said, "We have the duty to give appropriate or correct information to people to make their choice." It remains a matter of research how much information is a benefit and when too much is a hindrance to choice. However, still it is way of educating people, as another person said, "My point of view is that the education of general public because if you don't educate people, they don't change their habits because it is hard to change habits as such and if they don't have education about nutrition they are not going to change their habits at all. If you don't have a food-based approach, you get into a lot of confusion, which is promoted by helped sector, the pharmaceutical industry. So we should try to make people change rather than telling them " take this pill and you will be fine ". It costs a lot of money and does not work. So there is an ethical issue in that area."

Correct, unbiased and complete information is catalytic to the types of choices people make. On the case of GM food choice, one person said, "I am concerned with the ultimate consumer, who is informed, ends up with a rational perspective of issues, which is not the case with GM food. It was also not the case for years, like in food irradiation where basically the consumers were subject of myth information rather than rational information of technology. We informed the secretariat between WHO/FAO/IAEA, which was to provide qualitative information around the world on food irradiation. Then they would be able to make a rational choice, which would at least be informed choice with authoritative information." Another person said, "One of the things that has to be seen in the GM food is that consumer is being part of the equation." The consumer is the ultimate decision-maker for acceptance and rejection of technology and its products, as another person said, "Consumers cast the vote by buying something; so that needs particular care, not to listen to anybody but to science." Many countries have also established consumer protection mechanisms in the form of codes and laws. International agencies help the countries to identify the interests of the consumers. One person said, "Even we are requested by countries to develop such codes and to try and see how we can enforce such codes so as to protect the consumers."

### *3.3.5 Biotechnology*

GM food and its related issues were commonly cited as a major issue by over a third of the persons, but were perceived to be a particularly important future issue for FAO to deal with. GM food was raised as a major issue by 22 people. Ethical concerns of genetic

modification were raised a major concern by 17 people. 12 people cited effects of genetic modification on the environment as a major concern. Need for proper training to rural people was raised as a major concern by 7 people, stating that biosafety training is crucial for preventing further biodiversity loss. Use of terminator technology through genetic engineering, was raised as a major concern by 7 people. The Codex Alimentarius Commission (1999) had approved guidelines in June 1999 on organic food. However, it was mentioned only by a few persons, generally who were internal activists for the organic movement through an internal FAO organic food mailing list, and 82% did not mention it. Interestingly, issue of human cloning was not raised as an issue during the interviews, with 95% people not mentioning it. A few persons working in animal division did little raised the issue of animal cloning. In general 85% people did not mention the issue of animal cloning. Monsanto was mentioned as an example of multinational private companies by a few people. Synthetic production of naturally occurring things and use of genetic engineering was raised as a major concern by 3 people. The details are shown in figure 8.

Example comments are shown in the following sections for the types of issues that were raised by the interviewees under the concept category biotechnology.

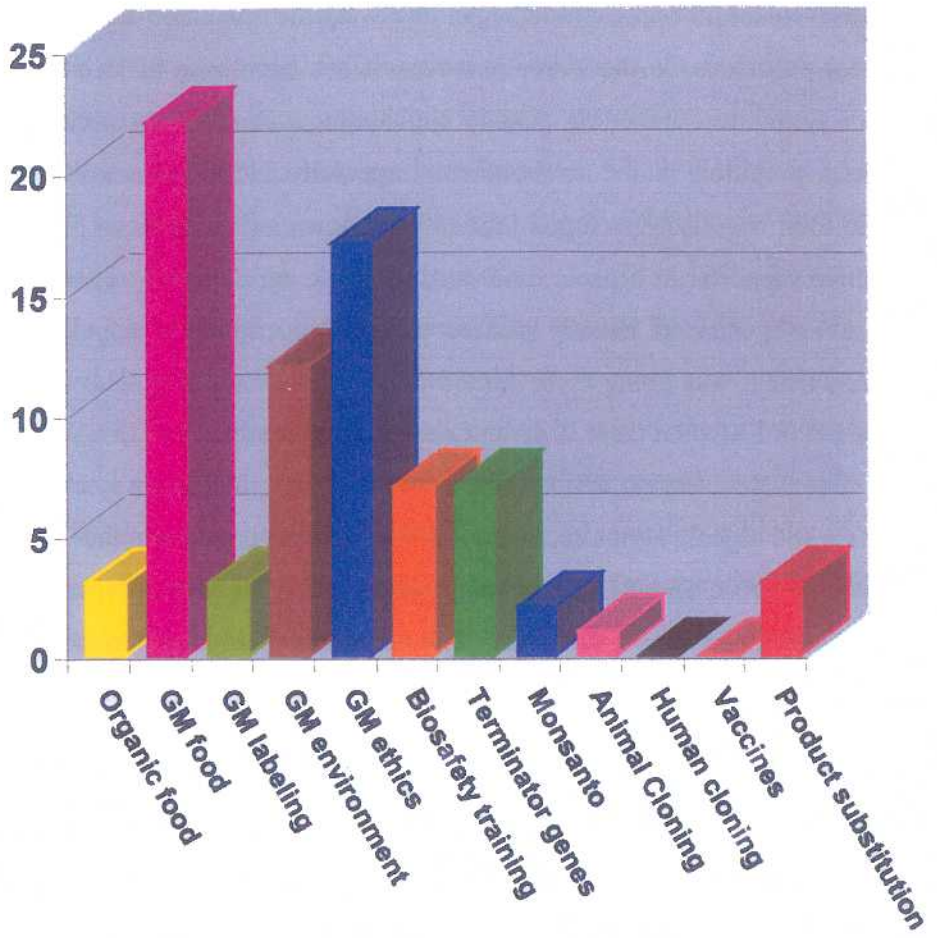


**Figure 8: Issues under the concept category BIOTECHNOLOGY considered to be of major importance**

### 3.3.5.1 Organic food

The movement for organic food began following the revelation of the potential harms of chemical pesticides. In the 1990s however, it has been seen as an alternative to all of modern agriculture, including genetic engineering. Proponents of organ food claim it decreases pollution in the environment; especially biotic community. The debate on organic food has also enveloped international agencies; with views for and against. As one active supporter of organic food said, "Organic agriculture was very difficult to push into FAO's agenda, as nobody wanted it. When put into the agenda, it was with the intention that it was going to be turned down by the countries. Now it has become an official act in FAO, but there is a lot of resistance to it still. The official line in FAO is the New Green Revolution, which was based on high inputs, in terms of technology, irrigation and organic agriculture are given low priority because of the GM issue, which is big noise in FAO. There is a big momentum around the world for organic food, which made Codex to develop guidelines." The internal debate is reflected in what one FAO staff member said regarding another widely debated issue, food irradiation, and the organic food debates: "Codex Alimentarius recommendations regarding organic food, that organic food should not be irradiated is very strange, because irradiation is the only treatment which leaves no residues at all. But it is a good example because on one hand organic is supposed to be natural and because the term "irradiation" is frightening for everyone and we felt that it is not compatible with it. On the other hand the use of manures to fertilize organic foods without any controls in the Codex indicating that the manure has to be sterilised. It is a clear indication that not very much authoritative thought has gone into this issue, in fact we are starting to see in the last 5 years, food borne diseases of animal origins on horticulture products and that is because of the organic food movement. In the past, I was very cynical because there were many food manufacturers and many were frauds. They traded with the name organic food but when the analysis of the food was done, it was found to be contaminated or contained additives. There is nothing wrong with the concept, but there are certain conditions when products go to the market. One of them is that they have to be safe. If they are not safe, you have to declare that they are a hazard, and let the consumer decide if they want to risk that hazard. But organic foods unfortunately do not have that sort of scrutiny as other foods and they are becoming more and more responsible for food borne diseases."

Between the extremes of being totally organic, genetic engineering, or the use of pesticides, programs like IPM have been successfully applied. One person said, " Agriculture is 4-5000 years old. Still in farmers' practices, in so-called conventional agriculture and the new incoming organic agriculture, the difference lies in the degrees. For example organic agriculture is to produce food and, which it IPM we try to reduce chemical use. The main difference between organic and IPM lies in the definition of organic. In organic we don't use any chemicals but in IPM it is the sound use of the input." Some people were very active in promoting organic food by labeling it, as one person said, "I think there are lots of opportunities for organic agriculture products, but the marketing part of it is very sophisticated, and it is very complex when you have to label. So you have some interesting opportunities, not just in organic agriculture but that is one area." Other people saw the organic movement as an action to hinder food security efforts that are achievable by using novel technologies. One sceptic said, "The debate between organic and GM is symptomatic in the sense that first argument that comes is that we have to feed the world. How much trade-offs will be accepted, at what costs they want to achieve food security is a big question."

### 3.3.5.2 GM food

The issues can be confused, as a member of the CAC remarked, "Part of the GM food debate is deliberately muddied because people mix environmental issues with food safety issues." There is a need for science-based approach in case of GM food, as another person said, " Now is the GM food, which has become the biggest concern in the food industry. GM food is becoming a great fear and most people don't know why they fear them. There is no sound basis for fear and most don't consider any ethical or moral issues involved. Although I believe that GM food do hold a lot of controversy, I believe that GM food has to be taken on case by case basis and each one analyzed. I have no specific foods in mind and I am not including one or excluding other. I basically want to make sure that what is done for the consumer is the right thing and the consumer has the information upon, which he can make a rational decision." Another person also agreed stating, "I think FAO should state that GM food should be taken on case by case basis and in fact should set out some kind of guidelines as to what would make the GM food meritorious."

Some people were against the total commercial approach towards GM food. As one person said, "All the GM foods that are being produced so far have been modified for the benefit of everyone but the consumer." Food can be genetically modified in many ways and sold, as one person said, " One of the issues in the food industry now a days is, what is called "nutriceuticals" or the "functional foods". They are foods that provide health benefits and over and above they are the result for straight-forward nutrition. There are fatty acids that will cut down cholesterol and prevent heart diseases, certain minerals that will reduce the risk of cancer, certain oxidants. There is a lot of work that is been done to incorporate genetic material in plants that would express these particular components. There we are talking about GM food, the food that could easily be sold as to bringing something good to the consumer." There are some benefits of using new biotechnologies given the situation of the world. One person said, " We are going to need new technologies with an anticipated population growth, degradation of agricultural land and fresh water supplies. This issue has been unfortunately out of hands and there has been extremely poor communication and it has been thought very badly." On the issue of genetic modification of animals, the situation might be different as another person raised, " From developing countries perspective it is a very negative thing because if you make a GM livestock, because the infrastructure is prepared to transfer the germplasm for plants and animals, particularly animals does not work in these countries. Actual genetic change and the understanding of the biochemistry of the other genetic change and that could probably manipulate the biochemistry of the animal could far more easily be explained in the agriculture system of developing world, although the developed world has much more structural transfer, which is routinely used."

### 3.3.5.3 GM labeling

Even with enough information on genetic modification of foods, the issue of labeling has not yet been conclusive because of many political and trade factors involved, and most importantly what information to be put on the labels. One person said, " But the issue is what that label actually means? If you have a label that says, this product was sustainably harvested and the benefits work equitably shared among all stakeholders, it tells you one thing but if the labels say that the product contains GM soybeans, and then what? The issue is what kind of information is really being conveyed by the label?" Another person said, "Labeling on GM is a difficult issue from the perspective of

applying science to meet the objective of the organisation, which is food security." Labeling is pursued as a mode of informing people. However, what should be labeled and how it should be labeled is the question that is debated. One person said, "It is an issue of consumer choice and consumer is choosing whether it is GM or not GM. But is that what the consumer really cares about? Or do they care about if the transgene is leaked into the environment and it is going to be passed on to my offspring. Is it going to mutate inside the body? This kind of information is not contained on any label at all and then if you label transgenics, do you label hybrids also because biotechnicians argue that to produce a transgenic, you have to know the gene very well, where is it going into its new genetic background, its functions. These things are necessary for patenting, product descriptions, and product identification. So they maintain that this process is very precise. But if you hybrid fish you don't have to label them because you are changing the whole set of genes, and you don't know, which half your moving between species." A consensus is needed on the type of information that a label should carry, which is rational and understandable by the consumers to make an appropriate choice.

### 3.3.5.4 GM environment concerns

Achieving food security at the cost of environmental is a big concern, if genetic engineering is applied for commercial cropping, as a FAO staff member said, "GM crops and their effects on environment and genetic diversity is a major issue because any farmer who is offered a very good variety that exceeds the one they have, will abandon the land races that we have and we might loose the variability that we need." However, it also provides exciting opportunities for understanding ecosystems better. One person said, "On the other hand in China, the GM crops are planted on much larger area than any place in the world. It would be interesting to follow ecological studies on it." But there is a need to be cautious before approving a technology as good or bad. One staff member said, "Obviously the one with FAO is dealing with is transgenics. I think they have interesting opportunities here in the sense that the whole area of molecular biology has created a polarized environment, where many people believe that such new technologies will that that there are legitimate biological risks associated with this and in order to proceed with this, one must contribute to science and development and making better conditions for mankind. That's one side of the coin and there is another feeling do so cautiously and responsibly and that takes time to work out how you do that."

One person gave example of environmental concerns of GM saying, "If we look at transgenics I believe that many people became particularly concerned when one would move a gene across species, worse if it gets across Kingdom, it sounds very detrimental that I'm embarking on, not only from the risks side but from another dimension of the topic as well. More recently, in man's understanding that there is a great deal of genetic information that is common, practically from bacteria to man and now, as you probably know that plant kingdom has at least one kingdom even though plant geneticist now are arguing that you have a different kingdom for fungi, so this is interesting in a way that what our perception of life is and how it is proved and its relationships. Again buying time for society to find a right balance and understanding what it is comfortable with." Another person said, "GMOs can also become potential pests or weeds. So this is important. This is where GMOs may be detrimental to plants and to the environment. If you are to introduce a gene in a plant, it may become a weed in the natural flora."

### 3.3.5.5 GM ethics

The area of genetic engineering is very promising, but also raises many and social and ethical concerns. However, they need to be evaluated case by case with holistic benefits and risk analysis technology and its products. One person said, "The basis on, which consumer and advocacy groups have been influential in making GM food undesirable is not been a solid basis. It has been an emotional argument and any emotional argument can be won anytime. Emotional argument is that we really don't know if it is good or bad for the consumer. In case of GM, it has been very bad for the consumers as it has been generalized with no precision. It is not a technical imperative but a moral and ethical imperative upon, which it is based, so it is a mistake." Another person said, "We are very concerned that we bring some precision into the debate on GM food and genetic engineering, that we do not continue our arguments on emotive grounds that could be argued just as effectively by an arts student who is a good debater than somebody who is an agriculture expert." Some of the debates on genetic modification are also unnecessary hyped, as one person said, "Our fear of science and technology, which is probably what the fear of GM is all about, the fear of risk. It is still better than not doing anything. For example, use of chlorine in water. We know that use of chlorinated water cuts your life short by some years. Lets say drinking chlorinated water reduces life by half number of years. Drinking contaminated water you may die in a few years. So unless you happen to be living by the stream of crystal clear pure water, where you don't need chlorinated

water, you happen to be lucky, otherwise we all have same living anywhere. You have to drink treated water otherwise you will not last long time. That sort of decision-making you have to take. It is not a very happy decision but its what can be done in the present circumstances. I think the genetic modification in agriculture has some great potentials to solve some of the problems that we face."

There is a need for a rational approach to genetic modification research. One person said, "When we talk about GM food, is it crops or the finished foods. We should start thinking about some kind of code, which can be imposed upon the commercial world. Some type of code that we can suggest or promote within the development community, like what type of research should go into GM crops. In some cases we talk about yields, but there is a wide range in the genetic modification that can take place. Since so many international research centres are involved in genetic engineering, it would not be a bad idea for everybody to sit together and say what is good in terms of crop modification, what are we working for what is not good."

Some genetic modification has been criticized for being made only for commercial purposes which promotes a negative image for other GM products, as one person said, "I don't know what was the benefit for the consumer in Flavr Savr Tomato. They were the first GM to be approved. They are nice red colored and can be kept for 3-4 weeks without any change. But when you taste them they just taste like potatoes. So here is a product on, which a lovely research is done, there is nothing wrong with the technology, and there is never anything wrong with the technology obviously, but the consumer did not fit anywhere in the equation. Flavr Savr tomatoes were designed for the distribution system, that it would not spoil and the companies can save money and they would not throw the products out. It was not for the consumers. Flavr Savr tomatoes were a total failure as a marketing device because for the consumers it tastes bad. That's one example of GM products on, which tremendous amount of research is done, but the consumer could not identify with. Another person said, "I can not believe that GM food is looked upon so negative by consumers. I don't understand what has come on the market that the consumer look at it so negatively, unless there is being so much scare mongering that these things will effect our children, old age." FAO being a secretariat for its nations, cannot always take position on things, as one person said, "Issues of bioethics come in the area of biotechnology. But we have been using Technology for generations, for example

fermentation. But in recent times GM can and are been used in food production and processing. But in terms of role of FAO, it is difficult to a point out other than that this thing is GM and this is not."

### 3.3.5.6 Biosafety training

A lot of environmental problems related to agriculture can be avoided if appropriate mechanisms are applied, which can work in a given environment. However, the role of international organisations is not only giving advice to the member nations, but also giving practical training to people on biosafety issues. As one person said, "I think peoples training is really required. We should come up with proper training and curricula." There are very practical advantages of biosafety training at field level, although it is tough for both trainers and the learners. As one person said, "Farmers come back week after week to spend four to five hours together where it is hot and unpleasant, and talk to each other for learning things. They have identified that it is important to them as human beings and as decision makers to understand their fields as ecosystems, and that is at least as important as profits because basically during the first season of the training they are not making any profit the change until the end of the season. So it is not something profit table in the monetary sense but they still come and participate actively and there number in many of the schools go up by third season. The participating people talk to other people, and spend time there. So I think the learning process is important to, perhaps they see that this is the way to a network to outsiders and in some distant future the might be useful to them." A person working in field level training gave an example of FAO's training methodology, " The training of trainers is focused on training extension officers or technical people who work with farmers. We train them on IPM and methodologies of teaching in farm field schools. We, at FAO coordinate a team who would facilitate the trainers, who will further train the trainers, to train the farmers. There are two levels of involvement. During the training of trainers, we work in farm field schools where we work with farmers directly. We as core facilitator also have some direct interaction with farmers."

Working with local farmers is also a learning process for facilitators and FAO in general, as they gain the knowledge of local systems from farmers, which can be crucial in developing appropriate projects. Within the training school and farm field practices, we try and see different ways in farming. There are some practices done by farmers and it

seemed to be effective, and we try to introduce that to wider group of people, we also try to validate and see if it is scientifically right or not." Sometimes during training, there is an expansion of the regular programs as the issues are understood more clearly and in depth. One trainer said, "We have been trying to incorporate more activities on AIDS within our training program to farmers because it's becoming such a huge problem in the continent and obviously it is going to be more serious in the time to come." Training also helps to avoid misunderstandings, as another interviewee said, "There are various levels of misunderstandings. We are trying to provide information in very practical manner in the farmer training schools."

### 3.3.5.7 Terminator genes

The use of terminator technology has been widely criticised for its negative potential impacts on the environment. As one person gave a long comment saying, "There is certainly a global position. I have been asked by the head of the Agriculture Department of Rockefeller Foundation that what do I think about putting Bt. into the Rice genome. I said that it was a piece of pre-Darwinian poppycock, it is a stupid idea. I have maintained that because it ruins Bt. for more precision use by farmers. Better thing to do, by using biotech approaches and analysis would be to take Bt. and make it much more toxic in strain specific way to a particular target organism, and make it much more selective. They could have made target specific Bt. strains to increase the virulence by selection pressure and use them as something that farmers could decide to use, either yes or no. I believe that it is both evolutionary and ethically wrong to put Bt. into the genome because it removes choice and evolutionary wrong because it puts selection pressure on everything. The example and thinking is of the work done in Tanzania where work was done with nematodes, which carry symbiotic bacteria. The nematodes can crawl down the holes after stem borers in rice. The virulent strains of these bacteria were and much more efficient kind of nematodes were selected and bred them. With this they were able to get triple orders in magnitude of these virulent strains, which could effect one kind of pest but not against others. It was much more effective and environmentally friendly to go for one kind of pest alone. So we can also make target specific strains, increase the virulence by selection pressure and use them as something that farmers could decide to use, yes or no. I feel it evolutionary and ethically wrong by putting it into the genome." Applications of terminator technology have been the talk of the world, in research institutes, public and

private sectors, although farmers who practically might use it for their crops need to be informed as one analyst said, "At farmer level they don't know much about it."

On the question of beneficial uses of terminator technology for rural development and food security purposes, a division director in Sustainable Development Department said, "It can be thought because there are two or three ways of considering rural development. One part of the rural development is economics and if you're considering them, but problems come with some crops, for example in beans and rice there is a tendency to use the seeds year after year. So the seed industry never took off and it never takes off because there is no way that anybody can be able to sell those seeds and they are not able to invest much. It's only the public sector, which invests in the development of new varieties of beans and rice. Especially in the case of beans since they are leguminous plants and if you use seeds year after year, you build up diseases, seed borne diseases in the seeds. So you may have a package that might be acceptable this year and that develops the disease later in the cycle. Because it develops the disease late in the cycle, though this seeds work normal but it is sick, so if you use the same seed next year the plants that would come out would be sick from the first day and so the production will be low. So we have seed borne transmitted diseases in the seeds to the point that sometimes farmers are obliged to go back and buy new seeds. But by the time they recognize the obligation to go back, they had already lost a lot because it takes a lot of time to recognize it. For those crops that have too many seed borne diseases, it would be a big advantage for farmers buying seeds every year or teaching them how to produce a really high quality seeds in a way that the seeds are free of diseases. But that's not easy to do. They would need technical training. For those cases seed industry would be very good help because then the seeds would be available for farmers to buy and in those cases Terminator technology could stimulate the seed industry, because seed industry needs some sort of assurance that people are going to buy seeds."

### 3.3.5.8 Monsanto

Although Monsanto was not mentioned by many people, some people in the Agriculture Department who dealt with the private sectors were open to give it as an example of a private company trying to influence international agencies to get some favors. Some were very concerned, as one interviewee said, "Monsanto is trying to achieve something and

they start sending us the person who is in charge of their foundation, and now the director started to come. I can't say that I don't want to receive him, because there is no basis on, which I can make discrimination against Monsanto, but I know that I am not the only one who is worried about that so these are very difficult issues that we have to deal with." Companies have strategies to get a clean image, and joining with international organisations can help in better public relations. One critic said, " I have been approached twice by Monsanto. They want to support sustainable development guidelines and it is because our official lines are more for integrated Systems. We look for intermediate entry points. So when we explained it to them that we have more of integrated protection system lines they said they wanted the same. When we started discussions they said they don't need as for these guidelines, but they need FAO logo on these guidelines. Basically I managed to turn them down twice but they keep coming back." However, some people were neutral as one said, "I personally have no hesitation in taking a commercial approach as by Monsanto." United Nations agencies usually have a trustworthy image among ordinary people, which is important to be maintained. However, there is a dilemma how to approach to people as another person said, " If we feel what Monsanto has done is very bad for our clients; for instance, if a crop is modified in such a way that a farmer cannot produce seed from it, should we be doing research on reversing it? " Another critic said, "If there is a campaign for food for hunger, we cannot accept money from Monsanto."

### 3.3.5.9 Animal cloning

The issue of animal cloning was not raised as a major issue by people, which shows that although there is also a dedicated animal division in the Agriculture Department, issues in plant agriculture have a stronger influence on the minds of people we interviewed. However, one person from the animal division said, "I do not personally object to the cloning of livestock and farm animals, if it would help to increase the nutritional diet of millions of mal nourished people and hungry in the world; in many parts of the world it is also becoming necessary because of increasing dependency meat diet, although it is culturally dependent argument also." Another person said, "The only controversy in biotechnology is for the one single technique, that is transgenics and genetic engineering and cloning, which is one step of genetic engineering; especially the cloning of mammals."

### 3.3.5.10 Human cloning

Surprisingly, the staff members of FAO did not consider human cloning to be a major issue, as no one raised it as a higher issue. It was mentioned by one person when discussing the ethical issues of genetic engineering briefly, "Clones could be misused. Some will say, which is a real and some will say that these are twins or some will say they are not. But who knows? What is ethical or what is moral is a very difficult area." Another person said, "Is it reasonable that when Dolly was discussed, it took not one day for a press to convert from sheep to what humans are going to do. They saw a human in that technology, maybe they were right to say so because that's what happens in reproduction because these technologies initially started with livestock to benefit food and agriculture and then extended to humans. We get very easily confused."

### 3.3.5.11 Vaccines

Genetic engineering has another potential role to contribute to health of people by incorporating vaccines into foods. It could be considered ethically good if it helps to protect the lives of millions of children all over the world, as one person said, "Rather than condemning GM products as bad, its good with what's done on with edible vaccines. Edible vaccines, which are incorporated into the potato. In the post antibiotic age, in, which we are now, there is not an organism, which you can find that is not resistance to antibiotics. We have to be able to go back to vaccines. There is no question about that. About 50 vaccines have to be renewed, and one of the best ways of delivering vaccines is edible products, which would obviously be genetically modified, but for a consumer who is faced with children to go for an operation for diseases like ear infection, which we don't have antibiotics, which can work any more, would be happy to have a way of consuming a vaccine for children in a manner, which is effective." Delivering vaccines is also easy as another person said, " But if we can have outcome of genetic change manifested in biochemical pathways because it is easier to distribute, for instance, vaccines could be used."

### 3.3.5.12 Product Substitution

Some people were worried about synthetic production of naturally occurring products. One person gave an example, "In the US they sell so-called natural ice cream flavored with artificial vanilla; vanilla should be natural, even if it is 10 times expensive to buy

natural vanilla". Synthetic production using genetic engineering might be misused if sold as a natural, and it is substantially equivalent to its natural counterpart. One person feared, "Biotechnology has tremendous potential, to the extent that it is difficult to separate what is natural and what is unnatural."

### 3.3.6 Sponsorship and funding

In the concept category of sponsorship and funding, issue of involvement of FAO with private sector dominated, with 25 people raising it as a major concern for FAO. The private sector tries to influence FAO in several ways, especially through sponsorship and funding since FAO depends on donations from both public and private institutions; sponsorship of FAO was raised as a major issue by 18 people. Money also encourages corruption, whether at national or international level, small or big, and it has serious consequences on the overall credibility of the projects. Corruption was raised as a major issue by 15 people. There is a general belief that globalization has increased the gap between rich and poor countries in almost every sphere, how to narrow the divide between developing and developed countries was raised as a major issue by 20 people. At the level of international cooperation; it is a bilateral process between donors and recipients. If the recipients are poor countries, many technical issues also become ethical concerns. This issue of power of donors versus the demands of recipients was raised as a major issue by 13 people. The importance of international laws in global governance was raised a major issue by 12 people. 2 people were specifically worried about existing too many laws, that are also hindrance for smooth working. FAO is also depended on World Bank for financial aid. The influence of the World Bank as a financing agency on FAO's work was also raised as a major concern by 5 people. Countries putting trade barriers on food and other agriculture commodities and the role of WTO was a major concern for 7 and 3 persons respectively. The details are shown in the figure 9.

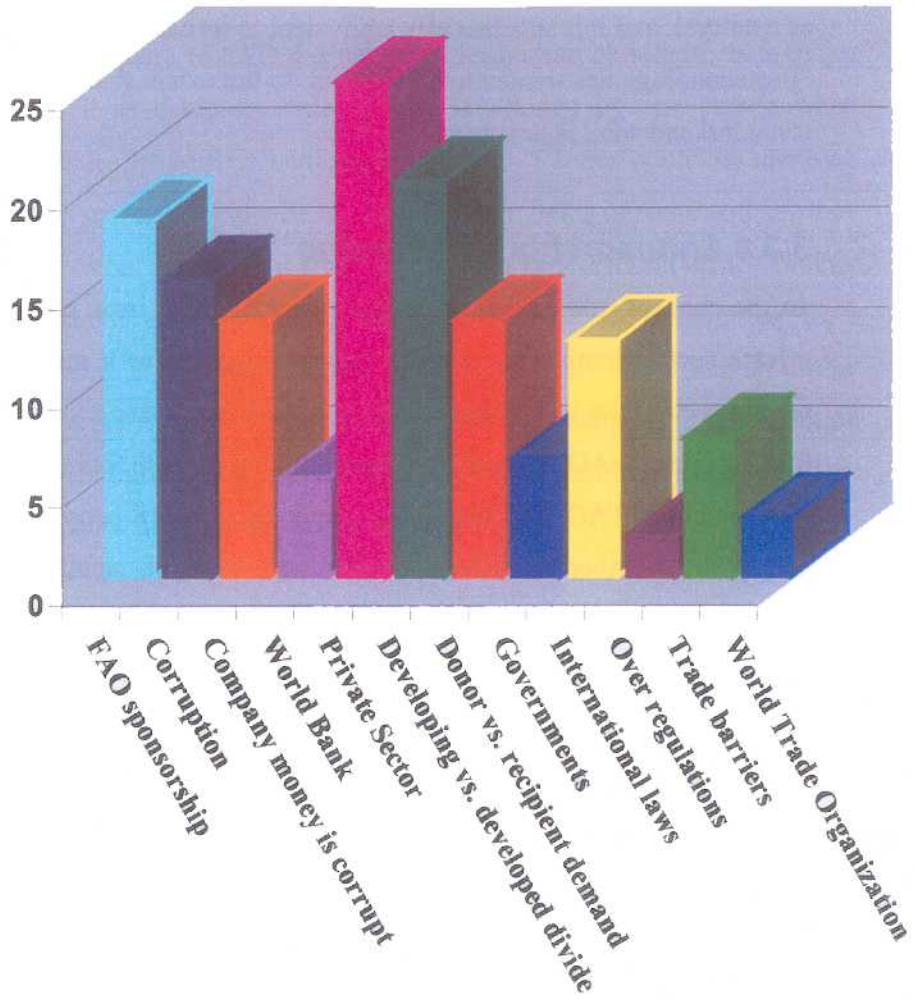


**Figure 9: Issues under the concept category SPONSORSHIP and FUNDING considered to be of major importance**

### 3.3.6.1 FAO sponsorship

The issues of external agencies funding FAO projects and FAO sponsoring and funding to different agencies were both raised by the interviewees. It is also crucial for international agencies to identify proper sponsoring agencies depending on the projects and occasions, as one person said, "But again you have to be careful with what kind of arrangement you make with sponsor and making very clear that making available of the funding for this kind of a thing does not give sponsors a right, or at any kind of undue influence on the policies of the organisation. With regard to some types of sponsors this is not really a problem and we had some very good sponsorship from, for instance an

organisation that provides farm machinery and equipment, and that is not controversial. But if we got sponsorship from certain major chemical companies, you might have a real problem of image, which could mean that every message to put out could be suspected because people would be able to say that this was done with the assistance of company X that is producing toxic chemicals or producing GMOs or whatever. So the association may risk more damage to your credibility than the benefit you derive from receiving the sponsorship." FAO basically depends on governments and other financial institutions for its funding. Several people gave examples on how FAO is funded. One person said, " There are two different things, a core contribution to FAO's regular program in general and the trust fund for multi bilateral programs. The ministries of agriculture make core contribution to FAO's regular program budget and the contributions for the trust fund for multi bilateral programs come generally from Ministry of State or Ministry of Foreign Affairs." On project sponsorship, another person said, "Governments have to continuously support by government funds to keep them going." Also the donor countries can chose specific areas of development that they wish to sponsor, as one person said, "Different agencies have different concerned people and the donor government have different kinds of priorities and different kind of expertise and even different columns of money to be allotted. For example Denmark has a very strong commitment to the environment and it has extra 0. 25% of its GDP for environment systems, and also has a rule in its donations that if you use Danish commodities, which includes pesticides it is counted as a positive point in the column. So they regarded as a support for Danish initiatives. Countries can target specific nations." There are several agencies that contribute to FAO's budget by sponsoring several projects, as one person said, "Governments enter into contracts with FAO, which is funded either as a part of FAO budget for projects or resources that are directly available to government itself or 3 parties like World Bank, EFAD for technical expertise."

FAO as a center of expertise has some power to allocate the funds for specific purposes, that may sometimes be the same or sometimes differ from the governments of the member nations. It also advises governments on funding, as another person said, "Essentially, we try to keep tabs on almost every country as far as production of agricultural commodities, basic foodstuffs, raw materials and we then put all these together and monitor the prices at global level, try to guess what the demand would be, determining funds, to see what are the emerging problems in some of the vulnerable

countries so that the steps could be taken to organize necessary steps and aid could go to those countries who need it."

Sponsoring agencies, especially private companies, have often tried to exploit the name of FAO, as one person said, "There are guidelines on sponsorship in general and guidelines on the use of FAO logo and name. We had another issue such as FAO logo on breakfast cereal. The problem is FAO does not maintain that it is nutritionally essential to eat corn flakes in the morning. So the FAO logo on the box of corn flakes could give entirely wrong impression about our messages in the nutrition although it is nutritionally good to eat in the morning." Another person agreed, " We try to keep separate our program of work from the funding."

### 3.3.6.2 Corruption

Money encourages corruption, as one person said, "The key ethical problem is that whenever a large amount of money is involved, it encourages corruption. The positive side about it is that you can talk about it." Usually the private sector is associated with corruption; however it is not similar everywhere as one person said, "I suppose the potential of corruption in marketing finance is going down because of the liberalization of the marketing, closure of marketing boards with private sector taking over." The topic of corruption is considered as a taboo in many places, although the trends have been changing as the societies are opening up and there is more interaction and communication among the people and the governments. One person who was not yet confident of an organisational ongoing approach said, "The corruption issue is an unspoken issue. How to deal with that? How do you wrap yourself from it? Everybody knows but no one acknowledge it." However other people differed, one person said, " It was not even 10 years ago inside FAO that we would be afraid to mention the problem of corruption and its effects on development. We would not talk about it and yet now we can see the dialogue around corruption is very topical now." Another person said, "We have started it and we are trying to move in a certain direction. Like, no one has asked us to look into corruption. We ourselves are sliding it in. We are trying to take it up. There are many different ways to do it; it can provide some statistics, which can give some explicit mandate to work on." However, corruption occurs in various forms and various levels and it is difficult to analyse as one person said, "Corruption is very new topic. It's a very hot topic for countries in transition. Corruption data is very difficult to collect." People in

FAO were found to be generally confident of FAO's image of a non corrupt organisation, one person said, "There is no corruption in FAO and our recommendations are ethical." Even if FAO works with all honesty and devotion, corruption can occur at country level that has a significant impact one overall FAO image and its projects, as one person said, "For instance, I go to a country together with a supervision mission, which is a very useful in formulating a project, to get feedback on what is going on in other projects in the country, and there had been cases where corruption was discovered, a large-scale corruption in three different projects. The financing institutions suspended them and ask them to pay back but it was caught by their own auditor general. It's much better to use the government procedures than to set up special project procedures; because then the implementing agencies can use the excuse that it is a special project procedure. That's where they start cheating and even the central auditors have difficulties in making their observations. So government procedures are not on always bad. In FAO over centralization of financial control is a problem and FAO staff does not know what is happening." However, it is extremely difficult for FAO to keep a check on corruption as another person said, "FAO sees itself as a neutral forum. It is at the top to be a neutral forum. It is because of the nature of the organisation, it has hard time in dealing with issues such as corruption." Some people felt it needs to be explored more, one person said, "In terms of corruption, we might not have as much discussion as it should be, but then everyone recognizes it. World Bank has much stronger position. It has conditionality because they control funds they can put conditions. So their situation is a bit different."

### 3.3.6.3 Company money is corrupt

Big multinational companies are known to be only profit oriented and their whole target is how to extract maximum profits by any means, which needlessly has corruption involved. It is an important issue for intergovernmental agencies, when they collaborate with companies at any level. As one person said, "The ethical issue, which could be rather a pragmatic one, is that the association with that kind of company would undermine our credibility to such an extent that the message we got out would not have any effect. Those are the sort of dilemmas that organisation like FAO faces." Another person said, "It is sometimes difficult to select some company. We have to be very careful whom we are selecting or what we are suggesting. It is not based on documents that how bad it is, what we suggest is the common practice now, with modest changes, investment, better

planning and control. We demonstrate the costs and the products. We demonstrate the quality and the amount of the product, environmental damages and other costs. Also we have to select companies that are willing to accept us." International agencies have difficult time in persuading the companies to follow ethical standards and international laws. As one person said, "If I talk to a company's Quality Manager and tell him that he should use codex guidelines on food hygiene for the food products, I market that by telling him that, not that he wants to protect the consumer, which probably is not in his side, and that he does not want to run into law, and that his products seized by the food authorities, that he understands. So we have to use tailor-made methods according to different circumstances." The image of private companies suffers from a negative opinion due to constantly changing strategies, as one person said, "I have had a number of companies contacting me that they want to be involved but they are public companies that are taking longer-term view. They would say that they would of very want to save genetic material and so that's outside what currently in our population is and so we should try to conserve it too. And I suspect if you take them further they are going to be fairly selective in what they conserve. Initially they might say that this might be potentially valuable so we conserve that first, but maybe that's not bad because a community at large would do it anyway." Not all the companies are equally corrupt, and each should be evaluated on a separate platform as another person said, "In all MNCs or large companies, it is impossible to find, which are good ones or, which have some bad things. All major MNCs have at least one lawsuit. For example an old employer alleging that he was improperly fired. Is that sufficient ground for dealing with that company? If that is the case we cannot deal with any company. The most difficult ones are the agrochemicals." It is also a role of international agencies to motivate the private sector to do a justified contribution to the development processes. One person said, "We have only advisory capacity, before we had projects and we demonstrated them. Now we have small projects namely the case studies where we want to convince the private companies that doing a better job is not only good for the environment but also beneficial for the company."

### 3.3.6.4 The World Bank

Many of the projects in FAO are funded by the World Bank, which might have a significant impact in different ways on the work of FAO. On the structural working relationship with World Bank, one person said, "The World Bank supports over all agreed volume of work each year it is generally expressed in terms of dollars/ Staff / week. It is

on a project-to-project basis. It is an interesting arrangement because although our programming and funding is with the financing institution, we see ourselves be accountable to member countries." Some people were not very enthusiastic about the World Bank's intervention as a financing agency, nor on the quality of supervision of research projects. One person said, " They are not quite clean because they are under pressure to make money. We are able to be much more objective than people at World Bank." Another person said, "We have guidelines from our investment center also; which are more productive than World Bank operational directive, which is focused on the symptoms and not the upstream questions. They are like Band- Aids. There are only looking at in voluntary settlements and vulnerable indigenous people. They are not basically considering the questions that we are considering about it, is there a convergence or divergence between the view of the government with that of the financing agencies, with that of the intended beneficiaries, and objective to people who might not be the beneficiaries."

The choice and the changes in the projects are sometimes influenced by the sponsoring agencies, as one person said, "There is around 75% investment, which comes from World Bank. So FAO is in difficult position to say no. So we have to try to work together and try to convince rather than just have some obstacle." Another person also agreed, " In many cases it is not even in our hands. There are other bigger and stronger institutions like World Bank, NGOs like Green peace and WWF that have better resources than we do." However, in general it does not affect the overall FAO institutional approach. One person said, "If the World Bank funds a project in a particular country, we go and do it, it does not detract from our work for others." One person who felt a strong influence of the World Bank, said, "We are very much dominated by World Band thinking and World Trade and liberal economy." Being a financing agency, the World Bank attracts a lot of attention from everywhere, as one person said, "But whenever we are working in a large project, people have their eyes on World Bank for and we have no control."

### 3.3.6.5 Private sector

The issue of private sector dominated a number of the interviews for different reasons. Some persons, even at very senior positions were not sure how to deal with the private sector, "One of the main problems is how to deal with the private sector, because they are part of work, but they are so big that we never can tell whether we are dealing in the right

way or not." Another person said, " We must be careful and we must have time and we must not be driven by private sector alone. We should know how to deal with private sector, which is another big problem for FAO. It is a big problem in my mind, how to deal with Agro business as it is on our own terms, which I think for FAO is one of the greatest challenges that it has for the next few years." The private sector tries to get the attention of international agencies for its involvement in their projects for a good public image, which is bothering for FAO staff, as one person said, "Whenever we are asked to receive somebody from private sector, we try not to bring them, but it is difficult to escape." The power of the private sector, especially multinational companies is fearsome as they are known to attempt to influence persons or bodies, especially by bribes or heavy donations and sponsorship. One person said, "They often invite FAO people in meetings and put them in best hotels. Their selling image is very powerful. Agro-industry is so powerful that they can do what they want ultimately. This is the danger that how long can we keep them off." FAO's main area of work is rural appraisal, which is difficult for the private sector to endorse in some persons' opinions, "Private sectors not prepared to go out to remote areas because they can't make good profit there." Also it is difficult to understand the real motives of the private sector as one person said, "On one hand we want to promote synergy and cooperation with private sector, on the other hand private-sector may have some particular interests, which we would not want to be endorsed in. I think it is becoming more acute. For example seed companies, or life science companies, Agro chemical Industry; some of the colleagues face them a lot."

People were also afraid of the agenda of the private sector, as one person said, "Underlying FAO's relationship with private sector is a concern, that there is no role for the private sector by a minority or more pervasive is the view is that private sector is inherently exploitive. So anything that we do with them, should recognize that they have an clear agenda." However, some people also felt the need for FAO to involve the private sector, as one person said, "I don't mind collaborations because they have funds and we have knowledge." Another person also agreed, "There is no harm in working provided we have the guidelines where the rules of the games are set and most of the time the rules are not obvious and we get caught. It is the problem although we are supposed to work in public-private partnership." FAO and private sector can be collaborative in many ways as one person said, "Obviously I agree that they do have different agendas but our interests can be fairly comparable, and have overlapping goals." Nonetheless many times FAO

accepts some sponsorships from private sectors as another person said, "We get very little funding from private sector in that case it is called as financing from other agencies." However, FAO still need caution to not favour one or the other company, as one person commented, "We have to be careful that if we start working with private sector, in our activities together, we don't benefit unduly one company."

The term private sector is broader than the multinational companies who have an image to be busily involved in making profits at any costs, whether ethical or unethical; as one person said, "I encourage the redefinition of private sector. Private sectors are not just multinationals that are exploiting. Basically the private sector begins with the small farmers, leading to family enterprises till the multinationals. In that sense we are dealing with agriculture as an economic activity. And that activity has both poor people in the private sector and wealthy people in the private sector. Our mandate is to touch the poor, marginalized in terms of food security. Basically the private sector begins with the small farmers, leading to family enterprises till the multinationals. In that sense we are dealing with agriculture as an economic activity. And that activity has both poor people in the private sector and wealthy people in the private sector." Quality of life is affected by economics, and cash cropping may substitute money for food, as another said: "Developing countries like South Africa and Zimbabwe say that tobacco production is an important economic activity for the lives of many poor people. So you have made a judgment that is basically working against the interests of certain poor constituencies. So people just tend to look at the multinationals and forgetting the other private sector (poor farmers) who don't have another choice." FAO also recognizes this second private sector, as another person said, "NGOs are non-profit groups but they are also designated as private sector." FAO also established guidelines for private sector identification in 1999.

### 3.3.6.6 Developing / developed divide

Big multinational companies are dominating many decisions and will affect the quality of life in different parts of the world, shifting resources from the poor to the rich. FAO has an ethical responsibility to narrow the gap between the developing and developed countries. One person said, "What are we going to do to make sure that people in the rich countries think about poor ones and what is happening in the world." One economist said, "The idea of putting a competition between very small farmer families with very little means and rich farmers of the United States and Europe with huge production means is

almost criminal." One of the ways towards this approach is, as suggested by an interviewee, "We are trying to make our clients, developing countries more competitive." This divide between the poor countries and rich countries also poses immense practical problems. One person said, "Collecting statistics is very expensive and particularly in developing countries, where we have to take the information, which is available. We collect everything and then we put all these into a generally accepted frame. So that means we are putting all the statistics whether from US or Ghana or Slovakia in one frame. The statistics, which is available from US, is obviously very different from the statistics, which is available from Slovakia." This divide is increasing especially at the level of trade as one person said, "Farmers of developing countries have a big difficulty in competing with the farmers of rich countries, where 50% of it is covered by the governments. So on one side we are talking about globalization of marketing, abolish in trade barriers, but subsidies are bringing new and new problems, and those are better should have their open, but in this case it is very unethical, because the rich farmers are gaining international market not because he is better, but the government is behind him."

Part of the problem also lies with developed countries who want to get into more severe market competitions, try to take advantage through trade, as one person said, "There are wonderful products that could be grown in developing countries but they lack markets because of this current political structure that is growing up in the' top-see' fashion in developed countries. European countries have huge wheat mountains, wine mountains, which they have; which with their industrial structure they could buy those products from developing countries, but they don't and instead they have huge trade barriers to keep the products from developing countries out and to continue to make their products most expensive in the world for their own people. So you take twice taxes than farmers can have and then you pay higher prices for the products. So that is where there is a need for ethical consideration." However, some of the tendencies of developing countries could also hinder the process of development, as one person said, "There is some tendency in developing countries to copy the situation in developed countries." Developing countries need to develop their own products and strategies that are suitable in the domestic environment, through the help of international agencies and bilateral programs. FAO has been playing a key role in this. The kind of work that FAO is involved in, through financial, advisory and piratical training, is essential in order to narrow the gap. As one person said, "In many developing countries the yields per hectare are 25% of those in

developed countries. For example, U.S. can grow four times corn and as in the case of Nigeria. There is no reason why Nigerians cannot grow same amount of corn on the same part of the land if they had the same techniques. So it is the need to improve agriculture techniques, which call for various types of technology transfer, training and work at that level." Globalization is taking control away from small breeders, as one person said, "Recent understanding shows that plants are more genetically similar than we thought through species, and the only big difference is in the change of regulatory genes. That might be helpful to explore the shifts in genetic variability, and allow changes without going to transformation across species and across kingdom. So these might be exciting opportunities for developing countries to give them new tools that are not under the control of big companies like Monsanto or Novartis."

### 3.3.6.7 Donor vs. recipient demand

The issue of donors versus recipients is related to the issue of the divide between the developing and developed countries. It is more critical at the United Nations level because it has a growing tendency of multilateral cooperation. As one person said, "The donor countries put the pressure in the UN system as such the political pressure from the donor countries is much layered." FAO is no exception to this problem of donors having a pressure on agency on its recommendations. One person said, "The major problem, which is also seen in other organisation is that there is always a conflict between donor communities and the receipt and country's interests. The international organisation is supposed to be a moderator and mediator to match what the developing countries want and getting the developed countries to supply and our stands are rather for the interests of developing countries. However, what happens that the donor countries who have the resources, have moral authority and power for the control of the resources. So we tends to be obliged to cope with what the developed countries want,, which sometimes in our opinion might not be good for developing countries. So in dealing with governments there is always this conflict in our work." Donations are necessary to keep the projects going in some way, as another person cited, "In order to keep the donors happy, you have to do what they want." Another person said, "Sometimes you forget about the priorities of the countries and go ahead with what is interested to donors. It is not always the case but not rare either. So funding becomes the means to do the research so people go for funding."

Some people were worried about too much influence of donors on FAO's activities as one person said, "FAO has an institutional memory; that's being lost quite a rapidly pitted some of the donors are having far more impact that FAO does." Donors also set priorities on the types of donations which is sometimes influential as one person said, "The first question donors want to know, if FAO has made any provision on the regular program of work. They don't want to be subsidizing anything. They want anything to be part of normal work, which they can supplement with the resources." However, donors also are many times beneficial by collaborating to FAO, as a person involved with GIEWS said, "The donor countries who are rich, not always are ready to make contributions for poor countries because they have their needs as well. And when we provide them any information predicting some important things like whether forecast, or locust attack, that would help them in their bilateral aid arrangements, they can get very valuable information from FAO. That would help them to make their decisions where FAO is not part of their direct aid program." However there were some strict ideological approaches also, as one person said, "There cannot be any commitment with the donor."

### 3.3.6.8 Governments

The role of member governments is crucial in the choice of aid, and in the strategies adopted by international agencies in their developmental aid. However, many governments do not provide true information on the situations of their countries, as one person said, "We try to screen it as best as we can, but it is not really very easy. In some cases we have doubts about the reliability of the data and this is due to poor capacity of member countries in collecting statistics. In other cases we know there is a deliberate distortions by governments." There are several reasons for it, and image of good governance is politically important for countries. As one person said, "The problem with FAO is that we have always dealt with the governments. Normally the situations in developing countries are weak and inefficient. So if your partner is weak and inefficient, the assistance you give is likely not to be very efficient either." Since FAO is a secretariat, sometimes it is difficult for FAO to manage certain positions of governments that they are very unlikely to change. As one person said, "Because government has some people who have studied in U.S. and get training overseas are very influential in the government because they have done their Ph.D. in overseas countries, and they suggest governments on the basis of their research experiences overseas which might not be the best alternative always." Another person added, "In dealing with governments there is always this conflict

in our work." Sometimes governments also put some illegitimate demands, as another person quoted, " In the profession, we have a tremendous pressure from governments." However, FAO has to be cooperative and help the governments, as one person said, "We have to find some constructive way to do it better than what could be done without us because any cases where we have refused something and the government would have got it done anyway, offered it to any other donor who would finance it any way." Another person said, "We are trying to make governments to open up the other sectors and try to share responsibility." However, some people felt more could be done to improve the situations. One person said, "There is an imbalance between the investment of governments to our general budget and the output they get, for 600 million US$ for 2 years. In my opinion we are not doing enough in return."

### 3.3.6.9 International laws

Many international laws mentioned during the interviews have a significant impact on FAO's working programs. Given the unique role of FAO as an honest broker, it faces ethical responsibilities towards all the member nations. As one person said, "Legal office is bound by the law and practices, but the ethical issues in that are more of personal nature. Sometimes we are confronted with ethical issues when we are dealing in negotiations of conventions. There we have to be very careful about what values we are defending. Our interest is not only developing countries or poor countries, so you have to be open to all needs on all positions. Even if FAO is not negotiating anything, because we are secretariat but very often get involved with attention to various problems, when each country's point of view is involved." FAO as a secretariat has plays a key role in framing international laws. One person said, "Ethical issues are some how always underneath on how we participate, since we are a secretariat so that we can just help in making documents, preparing recommendations. This is very important because then you can bring the points that you think are very important. So the work of the secretariat is very basic and important to begin the discussions. This was the case of CBD where we put all the aspects of having to defend ecosystems, sustainable agriculture. Sustainable agriculture is the kind of thing, which is very important. Another person said, "We obviously face a lot of ethical issues in dealing with conventions, personal matters, serving the council and the bodies of the Organisation."

International laws are helpful in settling disputes. One person said, "I think in the background we always had the idea of putting the things right according to law and to be open-minded. So when the problems arise in future, they can be taken care of in the framework. It's not alone what you are doing is right or wrong, but also defending justice in a broader sense". International laws are not easy to negotiate, as one person said, "It takes a long time for negotiations. We generally begin by drafting a soft law. We have guidelines but they are not legally binding. It has been the case for some of associations like PIC, after some years only some aspects have become a convention on it. We are trying to undertake some things, which are soft laws, like on pesticides and plant genetic resources. International undertaking on plant genetic resources, if many countries accept it, it would become legally binding." Another person discussed the usual process of framing international laws. He said, "Soft law comes out in cases where countries do agree but want to stay free of it, or where countries want to follow some guidelines but not the strict ones. So we generally began with a soft law and I would say it is a positive thing because many of the convention is began like this. Important body like even codex is a soft law. Even soft laws can be very much accepted by member countries. Issues like food for, which are very important commercially also, in the beginning countries did not accept any binding instrument so codex is come out as a soft law, and as an experiment whether it could be useful or not, or practical or not; and once they see that it works, and it is useful, it might become a law. We are now in a move where many countries want hard laws than soft laws but soft law is also sometimes necessary because it is the only possible agreement. Once countries agree, they see it as useful, and then they set it as a hard law. Soft law is important because when we come to principles and guidelines, they are difficult to make in hard law. Even in hard laws like conventions, the general principles and guidelines are soft laws. They are very important principles but they're not immediately applicable, so in this sense sometimes in conventions also you have lot of soft laws."

### 3.3.6.10 Over-regulations

Too many regulations will make things proceed slowly, and sometimes these may not be beneficial for the consumers. One person said, "If you have a policy, you can show discrimination." Some people felt that over regulation at national and international level, both encourage unethical motives and corruption, which was raised as a upcoming ethical concern in FAO also. One person said, "My personal approach to minimize corruption is

by asking why do we have corruption? When can you exercise opportunities to be corrupt? So you have corruption when you have lots of rules and regulations. Another person gave an example of how excessive regulations are sometimes meaningless. He said, "The trader goes to the local authority saying please give me a license, and pays a backhand for using license. So we see new potential for corruption and red seeking. By removing some of the legislations you overcome certain corruption. Its not the right assumption that people should not be allowed to function freely, and told that they should have licenses, and that it may not necessarily be self interested on the part of potential red seekers. It's just the way people look at it. The effect of having more and more rules and regulations is that you have more and more corruption." On the issue of ownership and access to genetic resources, one person said, "I don't want to criticize but there is a danger that we are adding a sort of regulatory load on the countries, which might hinder efforts in getting more choice of genetic diversity and also increasing the regulatory costs of the countries."

### 3.3.6.11 Trade barriers

One of the issues related with the gap between rich and the poor countries is that economic powers regulate trade, and developing countries are losing markets that are needed for export to earn foreign currency to the countries. One person said, "European countries have huge wheat mountains, wine mountains, which they have; which with their industrial structure they could buy those products from developing countries, but they don't and instead they have huge trade barriers to keep the products from developing countries out and to continue to make their products most expensive in the world for their own people. So you take twice taxes than farmers can have and then you pay higher prices for the products. So that is where there is a need for ethical consideration." It is a critical issue for FAO as an advisor to the member nations, especially the developing countries. One person said, "We are continuously challenged in terms of how we provide scientific advice to particularly based on codex in terms of establishing standards, guidelines and recommendations because of the development of standards on sanitary and phytosanitary measures, which are technical barriers to trade agreements. For example the development of standards by Codex is used as reference points for harmonization and any disputes, which may occur, related to food quality and safety in trade." It is a difficult issue for developing countries, as one person said, "Farmers of developing countries have

a big difficulty in competing with the farmers of rich countries, where 50% of it is covered by the governments, and in poor countries farmers even have to buy seeds and pay taxes." How much profit should be considered ethical in the trade is a challenge for international agencies, as one person said, "The ethical question is what is the satisfactory level of profits? For example if you know the prize of a thing is X, how would that price be translated for the farmer and what is the acceptable margin for the traders. I think that the acceptable margin of the trader is the margin he required for the costs to go to the farmers for the trade." On the issue of trade in genetically engineered products, there are many other factors also involved, as another person said, "Personally, I would like to see the debate is resolved in a manner where whatever these legitimate factors are found to be, the criteria that is being used is very objective and measurable, but its not. It is something that can pull the crowds and giving the governments trade advantage against others." In the era of globalization of everything, trade is considered as a big tool for economic development of the nations. As one person said, "The ethical issue is how far can we move using trade as a tool."

### 3.3.6.12 World Trade Organisation

The World Trade Organisation (WTO) is the international body responsible for setting up the rules and regulations over all kinds of trade. Therefore some people feared the influence of WTO on the United Nations organisations, because of its control over the international trade. One person said, "The important thing is that we are moving towards WTO, away from UN. 30 years ago, WB, IMF and WTO were the three main regulating bodies, that time it was not possible. WTO wanted to establish loyalties, since then WTO's hidden agenda is to substitute the UN system, which is very scary." It is also influencing the work of FAO, which was considered as an ethical concern for FAO's constitutional mandate and the way it designed its policies. One person said, "The overall policy now is that the environment is now shifting towards more on recognition of intellectual property rights and there are limits to what can be done in the context of WTO." As discussed earlier, money influences loyalties and honesty. One person said, "WTO talks about transparency but I have never seen any less transparent decision-making body." As an international body, some people felt that WTO should work in equity for all the nations. One person said, "Of course WTO should ensure that countries maintain their sovereign rights to set this level the protection. It is necessary. But they should also import the products from developing world and sell their domestic products."

Some people felt the need for FAO to be more active. One person said, "FAO should have a role for this, we should sit down on the table and see what decision can be taken at a global level, but I'm afraid we leave it to WTO." However some people were doubtful about WTO changing its strategies, one person said, "WTO gets contributions from countries, which are volunteering, that means they will not contribute depending on how would the secretariat and other countries behave."

### 3.3.7 Environment

Genetic engineering of crops increased the awareness on the issues of farmer's rights and IPR. In developing countries, many technical and logistical problems exist in getting access to the resources, especially the rural farmers face the main problem of securing seeds. Issues of access to genetic resources were raised as major issues by 21 people. Protection of farmer's rights on local varieties and intellectual property rights were raised as a major issue by 15 people. However, ecolabeling for nature friendly products was raised as a major concern by two people only. Farmer's rights are also important in the context of availability of basic requirement for agriculture, which is land, four people considered access to land and 6 people considered management of land as important concerns. Equally important is water, however only 3 people raised access to water as a major issue and only 2 people considered pollution of water as a major concern. There are some fears of losing the existing biodiversity, as genetically engineered organisms are set free in the environment. It was raised as a major concern by 12 people, while 11 people considered need the to conserve the genetic resources as an important issue.

Interestingly, issues of environmental pollution due to other human activities, like industrialization, and heavy mechanization and intensive agriculture were seldom raised. 95% of the people did not mention about air pollution. Use of excessive chemicals like fertilizers, pesticides and herbicides were occasionally raised, as only 3, 7 and 1 person considered them as a major issue for FAO, respectively. Liability issues for damaging the environment during the trade of GMOs was raised as a major issue by 8 people. Natural Resource Management was a major issue raised by 8 people, and includes different parts of the environment, as the ecosystems of the world have been degraded which was a major concern raised by 7 people.

Seven people also raised the issue of sustainability as a major concern to save environment for sake of future generations. Although the more evident issues like invasion of exotic species was not a major concern. While 41% mentioned future generations, it was not a major issue raised, and there was little agreement on the timescale. The details are shown in figure 10.

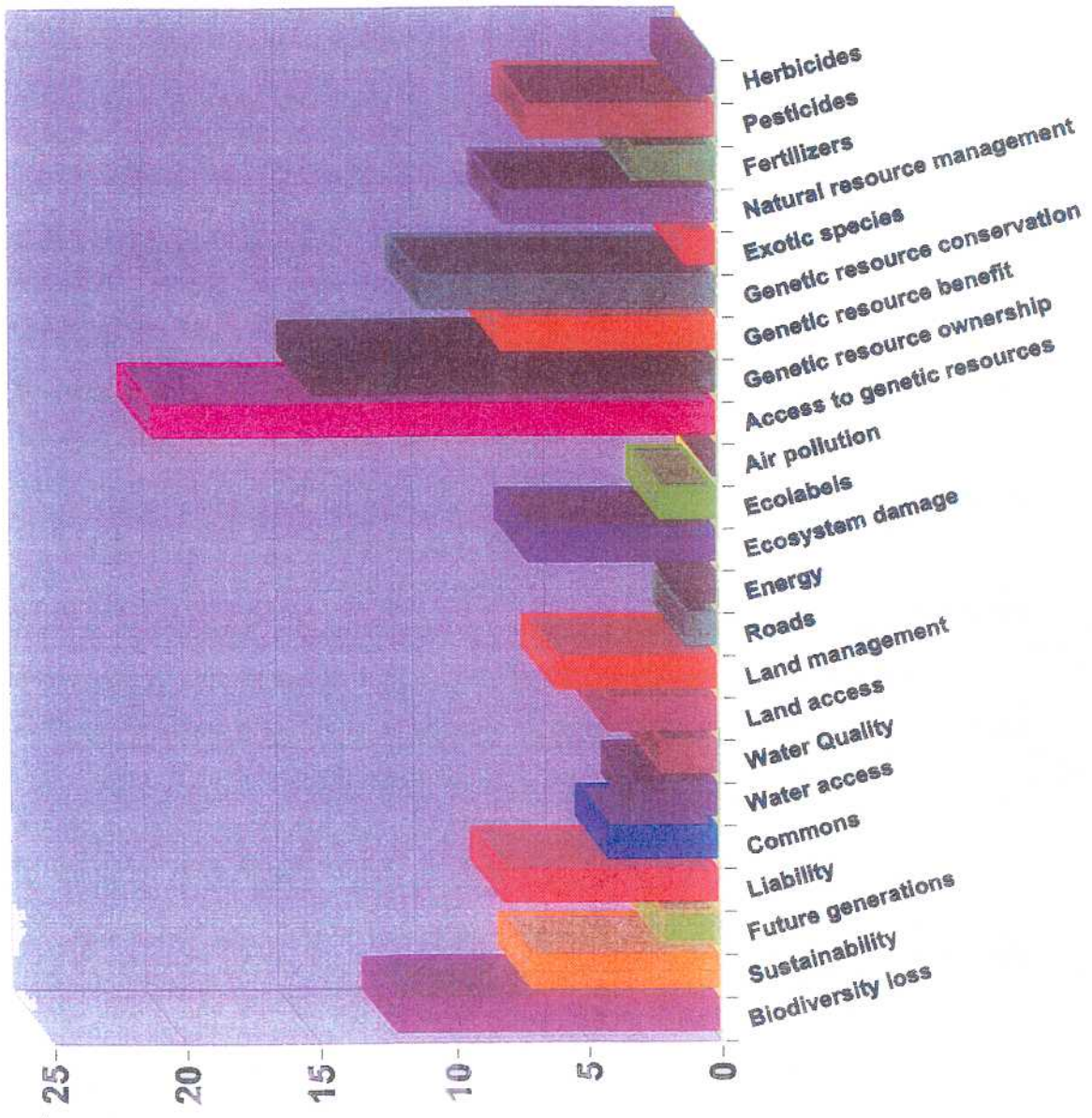


**Figure 10: Issues under the concept category ENVIRONMENT considered to be of major importance**

### 3.3.7.1 Biodiversity loss

We can regard the loss in biodiversity as being accelerated since human beings started cultivation and domestication, as one person said, "For instance in plant genetic resources people are more interested in conservation of trees and agriculture plants but not wild plants. It's not only ethical but scientifically also FAO should be taking it more seriously. Since the last decade people had been thinking about agriculture biodiversity quite seriously but in fact the situation is that urban civilization and human beings in general depend on agricultural productivity directly and ultimately agricultural productivity depends on biodiversity, both directly and indirectly. By destroying biodiversity we make our own existence less and less secure. We are more and more vulnerable to food shortage, famine and other similar things." Loss of biodiversity is becoming a common affair. As one person said, "Reduction in biodiversity of plants and animals, and all other issues we face in our daily life." The pace with which biodiversity is being lost is a key issue, as one person said, "The destruction is going, on an enormous speed and the measures to conserve are very slow, which is discouraging. " One of the reasons attributed for this loss is biotechnology, as another person commented, "Biotechnology is a field and products of biotechnology have implications on biodiversity, and have implications on ethics, for safety." It is a big challenge to preserve each species, not only in terms of numbers but also in economic terms, as another person said, "There is always a problem of how much money to put into one area and in case of conservation of biodiversity, how to decide, which species to conserve and that has an impact on reducing economic development opportunities? How much is justified to suppress the control growth? How to value them, even if it does not give an answer on what to do? So we try to help on economic side." Loss of biodiversity is an ethical concern in different ways, as one person said, " One of the concerns is that bioethics is building on biodiversity and biodiversity is product of generation of farmers. This use of biodiversity might be done by people who have modern technology and looking for money. It is just not the question of benefit sharing and farmers rights, it is also a question of ethics." Inside FAO the issue of biodiversity is divided. One person said, "We have people in this organisation who are very much in favor of using biotechnology and biodiversity and we also have people who are totally against it. So both of them are biased. What should we do to play a role, which is expected from a UN organisation to be place where a fair discussion can be held." It is debatable where more biodiversity exists, as was seen in FAO. One person said, "Rice fields have tremendous biodiversity in comparison with other rainforest or a tropical

forest." However, at any cost, loss of biodiversity needs to be prevented as one person said, "We need to conserve biodiversity as to have a larger gene pool, gene base." FAO needs to be more firm on the issue of biodiversity loss, as one person commented, "I think we should have a stand on these issues and also in publications regarding biodiversity."

### 3.3.7.2 Sustainability

The issue of sustainability is complex and is an immutable need. As one person said, "Sustainability has to do with two things, first the ability to produce, to stay around but also to ensure the potential for society to have options for the future. The future is uncertain and you have to have the capacity to evolve, to adapt to new system." Human lives depend on natural resources and sustainability of natural resources is important for the sustainability of human beings, as one person quoted, "We are talking about food security and sustainable rural development, for which first requirement is the sustainability of natural resources." Loss of biodiversity with increasing pollution results in ecosystems losing their functions, as one person said, "The world is trying hard to understand sustainable production systems. Production systems are developed and much of their stability is governed by interactions that occur between components of the system and being able to understand many of those interactions beyond a gross approach, I'm not sure if we would be able to do that." Sustainability of nature is required not only because of its aesthetic and intrinsic values, but also for food security purposes which is fundamentally based on agriculture, as a person said, "There are many implications with Seeds because Seeds co present varieties and variety comes from the good and sustainable use of plant genetic resources." Another person questioned, "Agriculture has to be sustainable otherwise how can you feed the world?" Sustainability is a multidimensional issue as the components of nature are interlinked. One person said, "The point that I am trying to make was in terms of management of genetic resources which is an absolute requirement for sustainability of production systems. It could be argued that genetic material is one of the areas of natural capital that is required for the maintenance of human kind and in a more immediate sense it is required for food security and e rural development."

### 3.3.7.3 Future generations

The issue of sustainability is related to ethical concerns of saving the environment for future generations. As one person said, "We should really talk about passing sound measurements and sustainability from one generation to another." Another person said, "This is related to both present and future since there is an ethical issue in what should we give to our children; unspoiled and protected world." One of the fears of biotechnology is that it is going to result in the loss of biodiversity, however it is also necessary to use biotechnology for practical reasons of food security and rural development, as one person said, "We say, if it safe and we have knowledge that surely it does not cause any harm to human it is safe. If it effects future generations, it is unethical. It is unethical because we are ignorant about it and ignorance makes it unethical." However, conservation should be given time, as a sceptic said, "People want to feed the world, green the land or dispose the weeds without really counting what is really going to happen in future generation." On the issue of time length of our consideration, one person said, "Intergenerational ethics can't be applied for infinity, But should apply 2 to 3 generations at the minimum."

### 3.3.7 4 Liability

Biotechnology has potential to increase the value of international trade, associated with the introduction of GMOs and their prospected potential impacts on the environment, as one person said, "The countries that negotiated agreements on sailing of the vessels in other people's water or they would save they have the right to fish on the high seas, they would tend to let their vessels go without any responsibility for what they did. We are always trying to say them, no you are responsible for such vessels and we must bringing them home to the right state and the right state must accept this responsibility. That is why we led into this compliance agreement. Whatever was put into the compliance agreement was mostly our point of view from secretariat." In international funding sources, the reliability of financial banks are important, as another person said, "The way in which the biggest thefts can be countered is by having a sufficiently independent bank, reporting to a sufficiently independent board, with proper attention to the liability structure of the bank. So it is not beholding government funding, which in turn depends on the ministerial approval or agreements." Many international agreements have also stressed the liability issue between the trading parties. As one person said, "CBD has been catalytic in addressing liability issues." However, some people were critical of the CBD stand, as one

person said, "In CBD some articles should not have accepted as they are, but the secretariat let it go because the member countries should take their responsibility, this has serious affect on the liability of developing countries who do not have enough power for negotiating trade with big economic powers." However, there are certain advantages of recognizing liability at the international level, as another person said, "One advantage of liability is that it gives an extra dimension to responsibility of the nations to be careful and avoid accidental or intentional damages to their counterparts."

### 3.3.7.5 The Commons

Natural resources, especially water, air and genetic resources, are ethically no one's property. They are a universal and a common heritage of humankind and no ones wealth. It is an issue especially in the trade of natural goods. As one person said, "You are selling something that you do not own, which is a common property of the people. People consider it as a social injustice." The economic value of natural products has led to the destruction of commons, resulting in the imbalance of nature and loss of valuable genetic resources. FAO and other agencies have a moral responsibility to look into this issue, as another person said, "Our function is that we sensitize the governments and other organisations that it is an economic good but also a common good. There are conservation issues, which need to be considered. It is a difficult process." However, since nature is regarded as a property of the commons and no one has authorized rights over it, it has a negative impact that people do not feel individual responsibility to preserve it. As another person said, "The ethical concern in there is that the property held in common is poorly managed and destroyed or very few benefits are produced. In opposition to that is the discomfort of people seeing public property being transferred to private owners. It's an issue of values of creation of benefits versus ownership of assets. It's a fundamental problem." On the question of FAO's initiative with issues related to commons, one person said, "It is a tricky thing used generally by universities but not in FAO. We don't have any specialist to handle such soft issues."

### 3.3.7.6 Water access

Ethically speaking water is also a common property, a public good. Access to water is a fundamental right like the right to food. For a farmer, land and water are two most essential things for agriculture as one person said, " We have got massive demand for

food and agriculture and we have got limited land capacities to expand, and limited water capacities to expand." Water also has a cultural value, and it is not seen in terms of its economic value. One person said, "This question in particular with regard to water is very difficult one in traditional societies, for example in some societies like Islamic societies water has no price because of that notion that it is the basic necessity of life and it should not be priced. May be when it was developed people were thinking of drinking water and not water for economic purpose like irrigation." Another person said, "We are working in a dual role of food insecurity and conflict generation, and the fact that the resources are scarce, is a factor causing conflict and tension within societies, people are fighting for land, for water." However, the issue is difficult to resolve, as another person suggested, "Water markets need to be established, which would then lead to optimum allocation and optimum use of water resources, and that is probably correct in the economic sense but since we are dealing with water and water is a basic necessity of life." The issue of water is also sensitive in social and cultural context to resolve, as another person said, "That's a difficult one. I think it's about the balance, as I mentioned access to water rights. There is a fair consensus that water is essentially an economic good but it is also a social and cultural good, and that is the matter for balance. So we have to be sensitive towards level of development in the environment and in different circumstances." However, FAO is trying to develop policies on access to water, as another person said, "We do have a program like water policy reforms where the question of water rights, water ethics plays a considerable role."

### 3.3.7.7 Water quality

Access to clean and safe water is becoming a big demand as water pollution is increasing due to various known factors, as one person gave as an example, "We also have problems with pollution; as an industry we polluted a lot. We dumped effluent in the water stream." Apart from industrial waste dumping, agriculture is another factor adding to rapid deterioration in the quality of water, due to excessive use of chemicals, as one person said, "It is not really ethical to keep those pesticides accumulated because they are going to be harmful to the environment, may be leaked to rivers and water." Polluted water is threatening the lives of people, although there are various measures taken to provide purified water. One person said, "For example, use of chlorine in water. We know that use of chlorinated water cuts your life short by some years. Lets say drinking chlorinated water reduces life by half number of years. Drinking contaminated water you

may die in a few years. So unless you happen to be living by the stream of crystal clear pure water, where you don't need chlorinated water, you happen to be lucky, otherwise we all have same living anywhere. You have to drink treated water otherwise you will not last long time. That sort of decision-making you have to take. It is not a very happy decision but its what can be done in the present circumstances." People look towards FAO to provide some measures and alternatives to counter decreasing water quality, as another person said, "Land and water are where FAO has a major role to play."

### 3.3.7.8 Land access

Access to land and its management is a basic issue, for a farmer the soil is the beloved medium of their food and livelihood, across all cultures. However, shrinking land availability has increased economic value of land, which has a severe impact on the poor people, as one person said, "When you address the problems associated with unequal distribution of land, the land being concentrated in few hectares and a number of inhabitants having no access to land. May be it is a problem of economic efficiency, or a problem of market, but it is also a problem which should be considered from an ethical point of view. Ethically it is not legitimate that you concentrate thousands of hectares, at the same time when a lot of people are looking for land, for food, labor opportunities, employment, or even to die, which is seen in Africa where the idea is that each person belongs to the land, so each person needs a piece of land. Those are ethical concerns." Another person gave an example, " In Asia we don't have too much land left due to overpopulation." The growing demands of access to land are rapidly increasing and it also a reason for many conflicts. One person said, "We are working in dual role of food insecurity and conflict generation, and the fact that the resources are scarce, is a factor causing conflict and tension within societies, people are fighting for land, for water." The issue of land is one reason for may international conflicts, that have been existing for several decades not but yet unresolved, as one person said, "There is still a lot of inequity in some countries with regard to the issues I mentioned and also access to land. This is what ethical issue that is still not resolved. One could go beyond that and speak of international inequities but worldwide activities."

### 3.3.7.9 Land management

As the availability of land is becoming an acute shortage, there is a need for proper management of land by proper planning and use of land. However, the issue is country dependent, as one person said, "Land use planning is a difficult subject and somehow we are trying to optimize land use. Of course there are certain criteria that you can establish like in watershed you have upper areas, middle land, reach out areas and down land for more irrigation. So you can speculate about that. But unfortunately the reality is not that way. Land use decisions are independent. The landowners decide how to use the land; the government structures and ways to influence this are notoriously poor. In that respect land and water are different. Land being immobile entity so this is much more governed by individual decisions or collective government decisions. Now we are getting away from the land use planning and we are rather talking about Land Management. Working with people on one hand, we recognize that it is their land and they should take decisions. We create awareness that decisions they might take in their farm or field or in that community as repercussions, up streams and down streams, So as to build that organisation, that would be a platform for discussions and negotiations and perhaps also for compensation of benefits and costs."

Proper land management is a more significant problem for poor countries that have big populations. One person gave example, "In Zimbabwe we are doing land reforms and it is a big debate in the country. Some small-scale farmers do have their own land but some live in a communal situation or with very minimum land they did the government is planning to buy land from big farmers and divide it into small-scale farmers or farmers with no land, and that is the selection issue." In many developing countries small farmers do not even own a piece of land, so they get more marginalized as they do not have any rights over the land, as one person said, "Generally whatever profit comes from land goes to the owner of the land." However, there is a need for understanding and incorporating people in the reforms process, as one person said, "In more than thinking it is seen as effective when local population should be mobilized, they should be part of the scheme, awareness should be created and also some incentive should be provided so that they voluntarily adopt better land use practices. Land use planning is therefore a small part of the story. It is a scenario by, which communities can better understand the consequences of what they are doing rather than FAO people telling them what to plant where."

### 3.3.7.10 Roads

Roads are necessary for transportation and communication, however they are also considered as a causative factor for deforestation and degradation of land. Foresters are known to cut trees and construct roads for their own convenience although they are used by all people. One person said, "Sometimes we are blamed for things we have nothing to do with. If you take an example of building roads in the forests, people want it, people walk through it, when they're built we have to cut across the forests and people call it deforestation and we are blamed for deforestation. Sometimes we did built roads to extract our materials from forests but we are always been careful most of the time. If we build highway and clear the forest, next day in a newspaper you can see deforestation in headlines." More and more roads are needed for connecting people to people. There is a need to find different ways of improving roads as the land is shrinking. One person said, "Society is changing. We introduced skyline type of advanced road construction techniques in remote villages in mountainous areas by using excavators, so that the roads can be build in very steep places, to give access to people in a way that is coherent with nature. We did it in the same way as the people did it in old times with hand made roads, using big stones, but now we used advanced technology and it went nicely."

### 3.3.7.11 Energy

In rural areas of most developing countries, people are still dependent on forests for fuel wood for cooking and other purposes. As the development is in progress, there are shifting trends on the production of energy, as one person said, "In the energy sector also you have a lot of fallacies. People are shifting their views from fuel wood to gas or kerosene, which many people even cannot afford. Not only at the traditional use of fuel energy but also in the modern use." One person also related the issue of international conflicts resulting in people living more or less a nomadic life, where they do not even cook. He said, "Also, ethical problems in the accessibility to poor people, and refugees for example, to fuel wood and charcoal for cooking and heating. It is linked to food security, and nutrition in some way. We are not dealing directly with those issues." International policies also affect the choice of people on the type of fuel to be used, as one person quoted, "We can see in many countries, especially in the Southern countries, people are involved with biofuels. Most of them are little obliged to use fossil fuel, because the World Bank, International Monetary Fund etc in their policies and subsidies grant to use

fossil fuels. For example, subsidies are mainly based on conventional resources of energies, and this is generally the trend."

### 3.3.7.12 Ecosystem damage

Increasing pollution and excessive use of natural resources has resulted in ecosystems being damaged to the extent that they are not recoverable. Lately, but there is a growing awareness for proper utilization of natural resources as one person said, "There is now emphasis on balance between the environment and utilization issues so that the environment is not harmed." As discussed in the previous sections, there were several opinions on the whether agriculture is just another entity of nature or whether it should be separated. For farmers, the issue is crucial as part of holistic understanding of the agriculture systems. One person said, "They have identified that it is important to them as human beings and as decision makers to understand their fields as ecosystems, and that is at least as important as profits." However, the debate is not conclusive as some think there are significant differences between agriculture ecosystems and natural vegetation, especially in the contest of forests, as one person said, "When we talk about Ethics related to biological diversity, forestry being a unique character should get a unique consideration. Because we are conserving the same, but because of the unique characteristics of forests as an ecosystem and compliments of this ecosystem, it is very different." A balance is required, as a person quoted, "We should not disturb the balance by scooping out one part of the ecosystem from other. Also implementing the code of conduct." FAO has always defended the safety and maintenance and conservation of ecosystems, as one person said, "For FAO, agriculture has to be sustainable otherwise how can you feed the world? Even in the past we did defend ecosystems, when we drafted negotiations for countries. There has been a tendency that if you don't do it now, you can never do it again. So especially for last 7 to 10 years, it's more of an outspoken view." Some people took a practical approach and gave practical reasons for maintaining environment rather that ethical reasons, as one person said, "We try to say somewhere "ecosystem considerations". This gives a label of awareness and trying to see ecosystems management. I don't see it is an issue of ethics. To meet ethics is more of an issue of equity and justice than ecosystem management."

### 3.3.7.13 Ecolabels

Ecolabeling is a recent trend, for products that are produced in an ecologically friendly way. FAO has been promoting ecolabeling of the products. One person said, "For ecolabeling we are essentially doing monitoring, we are looking what is going on and we are carefully analyzing it, but we are not taking any stands on it because its very controversial for certification. There are few schemes going on. One is a European scheme and other is an international scheme. We certainly follow it." However, there were differences found in the criteria and the reasons for ecolabeling as one person said, "You can examine it as an ethical issue. For example the developed world imposing restrictions, it can be ecolabeling or health certification." One person was critical of ecolabeling as the strategy of developed countries rather than safety of environement, one person said, "Safety cannot be compromised. So you have to abide by some safety measures for developing world and developed world. On ecolabeling issues, it is related to how they're going to exploit resources, it is different." Another person agreed, "The broader issue is an extra increased burden on producers to meet some criteria, especially in poor countries." Ecolabeling is also complex and needs many questions to be answered, "Anyhow the issue is, do you certify the process or you certify the product?" Another person asked, "Also with ecolabeling, one gets into the issue, whether you want to label GMO?"

### 3.3.7.14 Air pollution

The issue of air pollution was seldom raised during the interviews and 95% of the people did not mention it. There is some literature from FAO on the subject, and 20 years ago it was one of the most popular subjects to be debated and talked about in the environment.

### 3.3.7.15 Access to genetic resources

For farmers, access to seeds was the second most important issue emerging from the interviews regarding the environment after access to land and water. With the issue of collection of germplasm in the name of protection of genetic diversity and various species, the issue has been controversial for both developing countries and developed countries in different ways at international level, especially in terms of IPR and benefit sharing. One person said, "For instance, in many countries, following the CBD, which gives a right to countries to restrict access to genetic resources promoting policies, which

would quite heavily restrict access to genetic resources in order that they can bargain to get better benefits to return to those countries. On the other hand, it may be that they are not sure of failing in any imagined system and the system could be returned from such mechanism to been exaggerated and restricting access may end up harming small farmers more than the countries concerned. Small farmers need access to genetic resources and it is not just North and South issue." But the issue is more serious for developing countries who possess vast genetic diversity, as one person said, "The whole question of trying to balance the developing countries concerns with those of the developed countries to access to plant genetic resources, which again is almost an ethical question because all these is important for food security and food safety, and trying to balance the interests of developing countries in order to have a transfer of resources, which enable to be compensated with what they have been doing in the past and also to continue to preserve plant genetic resources. Those involve a number of ethical issues." The availability of seeds is a constant need for the farmers, but types and quality of the seeds also matter as one person said, "One is dealing with plant genetic resource conservation and utilization and the second is dealing with seed development. There are no major differences between the two but the actors may be different. So the programs you address to this particular group of actors, its starts from the farmers to the government in terms of policies for agriculture development for the farmers, and for the farmers, the basic issue starts if they have the capacity to buy the seeds or not. It is a fundamental problem we face in our projects for rural communities. Even if they get subsidized seeds, the returns in the end are no good because crops fail. It is the responsibility of governments and FAO in a larger context seeds are accessible to farmers and then looking at other factors like appropriate technology transfer, or community education programs."

Access to genetic resources is not only a political and legal issue it is also related to the fundamental ethical issues of right to life and right to food, as one person said, "It could be argued that genetic material is one of the areas of natural capital that is required for the maintenance of human kind and in a more immediate sense it is required for food security and sustainable rural development." Some persons also feared economic trade offs on the issue of access to genetic resources, "On one hand we are trying to increase the participatory approach and we talk of benefit sharing, but the issue should be dealt at more deeper level, from the point of view of its affect on farmers. Poor farmers would have to depend on the private companies or governments to buy their own seeds that they

have been selecting and preserving for a number of years. And private sector is not the one to look for the needs of the farmers, but what is margin of their profit by participating. Governments need to ensure poor farmers have some constant supply of seeds going, at least to be able to feed their ownselves."

### 3.3.7.16 Ownership of genetic resources

Inherently and ethically we could argue that genetic resources are no one's property, however patents and intellectual property rights have increased the debate on the ownership of genetic resources. Many persons attempt to protect the poor from losing intellectual property rights, as one person said: "As an agricultural economist, for me, ethics is more on the economics side. It is more related to protect the rights of people in third world, developing countries. Ethics is also the rights of farmers to own the ownership of the local varieties, which they are producing for centuries, which is written by international seed business." Some people gave examples on the reaction of the countries on the issue of ownership of local varieties and farmer's rights. One person said, "Generally countries of South. Strong ethical component may include countries like Mali, Ethiopia etc. India has been one of the stronger defenders of farmer's rights more generally. But it has not promoted draconian measures in negotiations to restrict access. They would be looking for more subtle solutions. India has very much upheld the principle but it did not uphold that there should be better sharing of benefits. They have been more flexible in policy prescriptions that they would to that. But others are a bit hard liners, like Ethiopia is the leading negotiator in Africa and also is a clever negotiator." Some people wanted FAO to take some position, as one person said, "FAO should say that enterprises could define the rights of farmers for developing countries who do not have any means to define their rights. This will be useful as it might be able to protect the biodiversity of the crops, which might not have any commercial value for the moment, which might have commercial value in the future." Especially for farmers in the remote farmers in poor countries, FAO has a greater role. One person said, "For example small-scale farmers in Zimbabwe who don't know about GM crops or farmers' rights, or any other information that they need to know for sustainable living, I think FAO should be playing the part." Many political advantages can be extracted out of genetic resources ownership negotiations, as one person said, "If in fact of those agreements to greatly reduce the subsidies took place, it would be much less likely that you would have corn

being delivered at very low price than the production prices in Nigeria. That this happened in many countries because the countries are producing all of the products and they are doing not only for food production and food access purpose but also for inherent political situations that should be changed, whenever they try to do it farmers raise their protests."

### 3.3.7.17 Benefits of genetic resources

Human beings depend on nature for several things, which are obviously important for their survival. With the deteriorating environment and natural resources, resource conservation has become important at least in terms of economics, although FAO's mission of feeding the hungry world is also not possible without the use of genetic resources. As one person said, "It could be argued that genetic material is one of the areas of natural capital that is required for the maintenance of humankind and in a more immediate sense it is required for food security and sustainable rural development." Human beings have been using the natural resources for their personal reasons, without contributing much to the benefit of the nature, as another person said, "One of the challenges is the argument to do what humans do. The way humans arrange their industry in a broad sense to sustain themselves." Trade of genetic resources has also added a commercial approach to the conservation of genetic resources as another person said, "The broader issues related to policy front, sharing of benefits arising from the use of genetic resources, farmers' rights, and intellectual property rights. They're basically economical and political issues with ethical dimension." International debates while framing conventions and guidelines also gave new direction to understanding of benefits arising out of genetic resources, as another person said, "One could argue that benefit sharing of genetic resources is objective of CBD, at least developed from a global ethical basis." Conservation of nature is not only important in terms of trade value but also as an aesthetic value that is beneficial in dual way. One person said, "If you look the benefits of genetic resources in a wider context, the natural parks and centuries have a very high economic value in terms of tourism attraction. So you have another side of genetic resource benefits which is more ethical than conceptualizing it only in terms of trade of GM food."

### 3.3.7.18 Genetic resources conservation

Benefits from the natural resources could only be efficiently utilized with proper conservation and replacing them after being utilized for future generations that involves both in situ and ex situ conservation. As one person said, "If you say about conservation, we think about eternity closer to 100 to 200 years because when you talk about conservation, you talk about references, maintenances, human and natural heritage and you talk about but perpetuity." Conservation is related to the protection of future generation, "The management of genetic resources goes a way beyond the Mendelian segregation and qualitative genetics. It involves many more disciplines and indeed it involves many more cultural aspects and intergenerational ethics aspects because genetics is one area that what you get in this generate, an average you also get in next generation. So it has an intergenerational continuity. So there is ethics dimension about whether a community wants to retain particular genetic material that it has in its production systems now." Genetic engineering has also raised the concerns about loss of biodiversity and genetic pollution, as another person said, "When you think about most of the biodiversity because of the introduction of GM crops, which are good, FAO could probably address the issue of genetic resource conservation in the countries. So the farmers would stop planting and the government should maintain the diversity in the collection. It is interlinked." However, it is difficult to define what to conserve and how to conserve. One person said, "May be in the end it is an ethical question to what do you want to preserve in the certain biotypes to maintain biodiversity." Another person said, "There is always a problem of how much money to put into one area and in case of conservation of biodiversity, how to decide, which species to conserve and that has an impact on reducing economic development opportunities?" Nevertheless we can be selective as another person said, "My answer is, not to be ignorant and we should try to conserve those genetic resources that we don't know much about or, which are fairly different. That's why we use scientific knowledge to conserve the germplasm." However, some people thought it is also self interest of human beings, as one person quoted, "Humankind tends to have very strong ethics; it may not be ethics but behavioral drive to maintain its own genetic constitution. I'm rather a believer in the principle of selfish gene."

### 3.3.7.19 Exotic species

Another issue with the conservation of genetic resources is the effect of alien species on wild or native species. The issue is important especially in the context of introduction of GMOs. One person said, "Environmental effects of genetically engineered organisms and their interaction with the native species is a big issue, as there is outcry of genes jumping and mutating the land races, nevertheless it provides exciting opportunities for understanding the natural systems more." However there needs an overall evaluation, including its affects on the lives of people who depend on the existing native resources. One person working in the fisheries department said, "We basically try to point out what can happen. Because a lot of times, the policy makers have not thought through the whole thing. Take a concrete example of stocking or putting fish into environment for increase of fishery. We just try to point out what things should be considered like, try not to bring in an exotic species if there is a local species that can do the same job at the same market acceptability and good culture performance."

### 3.3.7.20 Natural resource management

A lot of depletion can be prevented if there is a proper management of natural resources. It does not mean to stop the use of natural resources, otherwise there is no extrinsic value of the existing vegetation except its intrinsic value. It is a responsibility of human beings not to stop utilization of forests but to maintain the integrity by using it. As one forester said, "The challenge lies in the use of natural resources especially forests for us. We used to say to be technically comfortable, but the forests, which are not used and managed will decline. But it was easy to say than to prove it. We used to encourage the use of forests, for population in communities who use these forests in new ways, that is for production of timber and so, although not encouraging the might be lenient. That is behind our assumption that forests, which are not used, are not of a value. The thing that has no value is neglected. From there it may decline. Sometimes we implicitly might encourage the use of forests in an environment that is not likely to make a sustainable use of these forests. So the whole package is not there. Potential ethical nightmare is in our advice to use forest in an environment that is not well equipped to use forests. When we go from local and traditional use, which are friendly to forests, to modern use of forests we might create unwillingly a number of situations, which are not favorable to maintenance of these resources. So I think here again we have some responsibility." However, nature takes its

own course, which sometimes is beyond the control of human beings, as another person said, "When you are dealing with living systems sometimes you may introduce something in a system. When the human dimension thinks to have done whatever was necessary to be done, avoiding any tragedy, but sometimes the way nature reacts may not be completely unknown. So this is the area of indirect responsibility. I don't know if it is very clear but if it is the translation of whatever may happen, with happen and that's what we say. An engineer has no right to error. If you think it might fail, you have to consider that it will fail. It is difficult to follow on in a natural system."

FAO has been actively promoting and contributing to the better management of natural resources through projects and advice to member nations, as another person said, "People in FAO now tend to support more on sustainable issues, natural resource issues in developing countries. So it is slightly changing its way of thinking into the issues of development." Another person also agreed, "With the movement now to conservation and development initiatives, where and the underlying assumption is that people should actually get benefit from these natural resources and not just consoling them. This is indeed the trend and there are a number of projects all over the world. There is a combination of conservation and development, which is now filled out of the buffer zone approach to natural resource management

### 3.3.7.21 Fertilizers

Fertilizers have also been regarded as a source of environmental pollution and adverse human health, also their adverse impact on general food chain in the ecosystems is well known. However, it is still an ethical debate to stop the use of fertilizers or not because of intertwined issues of deteriorating soil fertility, land conditions and lowering water quality versus the safety of all the species. One person said, "We are also interested in the use of pesticides and fertilizers; of positive and negative impacts or doing some harm on all species including plants and human beings. So here we have ethical considerations in terms of safety of all species." The developmental process cannot be achieved without some sacrificing some good. Another person said, "When we go through a process, for example increasing productivity, we use fertilizers, spray herbicides and pesticides, and those have implications for the environment, biodiversity and even to human life." However, trends keep changing as the knowledge spreads, as was exemplified by another person, "There was a service of fertilizers of about 20 people, which was sponsored by

fertilizer industry. It was a regular program and it was born as a fertilizer industry and because of the increased awareness or degrading perceptions on fertilizers the service has been dismantled and the small group now is been merged with a soil service. Their race for fertilizers and pesticides has now come to a point where everybody knows about the hazards and there is a shift there." Some people were critical of the undue privileges given by the governments, as a critic said, "The debate on fertilizers increasing pollution cannot be closed without looking at the governments, especially in developing countries. Governments found it as a best way to resolve the land degradation problems and subsidized fertilizers for farmers who found it a cheaper way to get better yields."

### 3.3.7.22 Pesticides

Given its mandate for governance of food and agriculture, pesticides are dealt with on a regular basis in FAO, as one person said, "The issue of pesticides is very active in FAO." There are several ethical issues related to pesticides, as an agriculture reformist said, "Anything with pesticides has in a narrowest sense has an ethical aspect. There are ways to make pesticides that don't kill people, and don't kill mammals. But our vast majority of pesticides still kill mammals, fish or anything that people can call as a non-target organism. There are ways to make chemicals more selective, but usually not pursued by corporations and only a very few of them do that." FAO realized the harmful affects of pesticide use and alternative programs like Integrated Pest Management (IPM) were started a long time ago as told by another person, "FAO began working with IPM in mid 1960's where it was a forum for largely university professors from developed countries, sitting in panel meetings, after Silent Spring that more and more insecticides were not going well in developed countries and what about developing countries where they needed food production or small holder farmers, for example in cotton production. It was a place where IPM and alternative to pesticides driven intensification could be talked about." FAO had to face initial challenges of developing countries who felt they were marginalized by not getting access to more pesticides, however it could convince the nations for alternative strategies using pesticides, as another person said, "FAO has a certain amount of reputation for this and FAO has justified and kept up IPM as an alternative to intensification of pesticides."

The issue of economics is convincing for some, as another person quoted, "Basically in much of this work the economics side is in favor of what we are doing in any case

because the level of inputs, particularly pesticides that are recommended under a policy of agriculture production intensification, particularly food production intensification or small holder cash crop intensification is way above optimum and so the economics works out in favor of the farmers, they save money get and higher production, and get much higher profit return on their investments." However contradictions occur in the approach to any given situation, as another person gave example, "The contradiction is that there are FAO's' the emergency program, which is called TCOR, in which many requests come in for pesticides and in the position technically since 1992 is that it should only be part of TCOR project within an IPM strategy. That's been difficult to implement. TCOR gets some emergency assistant donations, which often have an element of on-choice spending by the donors, who prefer convenience spending and convenient shopping. They pick up the prepackaged customary pesticides box, which is ready for shipment and for, which already chemical analysis has been done. So certain donors go about it."

#### 3.3.7.23 Herbicides

Herbicide use has been more popular in the developed countries because of intensive farming and mechanization of agriculture. However there have been severe adverse affects not only to the environment, but also to human health. As one person said, "When you talk about crop intensification and chemical use, and if you look at the spraying equipments, since their safety is very important for local people, we develop standards for pesticides and herbicide spraying so that they are not hazard to the environment." Another person said, "When we go through a process, for example increasing productivity, we use fertilizers, spray herbicides and pesticides, and those have implications for the environment, biodiversity and even to human life." Genetic engineering has made it possible to develop crops that are herbicide resistant, however, there needs to be better understanding of their implications, as another person said, "The impact of herbicide resistant crops need to be carefully analyzed, because of the contradicting reports on weeds becoming super weeds in the long run developing resistance. We had to hold a meeting for expert consultation."

### *3.3.8 Animal issues*

In general, the issues related to animals were of not a major concern for most FAO staff. However, some people did raise issues related to animal welfare. The life of farm animals,

especially in the poor countries of the world is especially tough, facing unhygienic and small living places with no proper environmental conditions and nutritional inadequacy. The issue of animal husbandry in poor countries was raised as a major concern by 11 people. 5 people also raised inhuman and improper way of animal killing as a major concern. Issue of capture of animals, the ways of capturing and the treatment of animals in captivity was raised as a major concern by 3 people. The transportation of captured animals or farm animals was also raised as a major issue by 2 people. Human beings and animals depend on each other in many ways. Relationships to animals in work was raised by 20% of the people, but only 3 mentioned it as a major issue. Use of hormones in animals for increasing vigor and more meat was a major issue for 2 people. The cultural and religious image of animals and its importance in global decision-making was raised as a major issue by 2 people. Interestingly, although there is increasing meat based diets, the animal protein revolution was not raised as a major issue by any interviewee (Figure11).

The example comments are given to explain the range of issues that people raised, and the results are summarized in Figure 11.

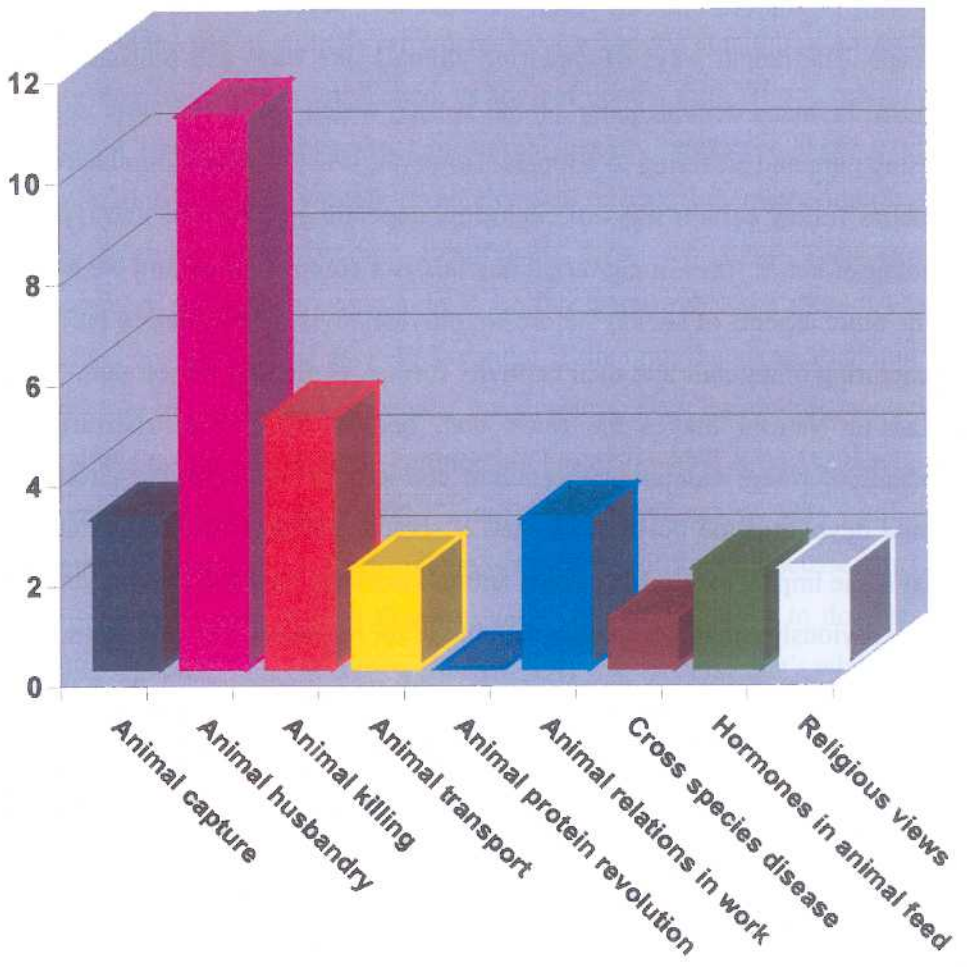


**Figure 11: Issues under the concept category ANIMAL ISSUES considered to be of major importance**

### 3.3.8.1 Animal capture

Hunting animals in the wild for food and other purposes is intertwined with human evolution. There are societies in the world that still depend largely on animals for their livelihoods. As one person said, "People dwelling in forests are not farmers. They live in the forests and consider themselves as part of the wild. They depend on forests for their food and other things. They gather food through collection and capturing animals, so you cannot put rural people and others on the same platform." There are several ways of capturing animals and they are painful for animals. As another person said, "Starting from

capturing of animals until the reach supermarkets, several ethical issues are involved with animals. Traditional ways of capturing animals like traps and poisoned arrows are still popular in many remote parts of the world, which results is slow death of animals, causing pain and suffering to animals. However, it also has a cultural aspect where some societies follow certain ways of capturing, depending on the use and type of animal, so training of better ways of capturing animals is a complex issue and we have to first look at the other aspects of society before we provide advises." FAO has a broader role to play in capturing of animals and their captivity further, as another person said, "The experience I had in Nairobi makes me think that, because with industrialization and animal production, where animals are captured and kept in unacceptable circumstances, FAO should develop some position on that. It should provide some comparative analysis on what is the impact of ways in, which animals are kept, or the kind of environment they are kept. Obviously, since we are accountable to all members, we have to be careful on that. There is room for much proactiveness, and such issues could be stated." A further dimension lies with capturing of aquatic animals, which is also a big international debate, as one person quoted, "In terms of fishing management, there might be issues such as ethics of hunting aquatic mammals, and cultural identity related issues."

### 3.3.8.2 Animal husbandry

Animal welfare is a controversial issue and it has also been highlighted by the intensification of animal agriculture, especially chickens and pigs. As one interviewee said: "Practically, there are significant differences between rich and poor countries, so that the conditions expected in housing or slaughterhouses for animals in rich countries can even be better than the people's houses in poorer ones". Animal husbandry is a key issue from an economic side as well, as one person said, "We are conscious of it is as individuals. When we are involving in projects, which have the development of the farm tools, animal drafts, so before designing we have to take into account the safety of animals because we have invested a lot of resources into An oxen and we do not want to lose it. If we look at the economics of the enterprise, if the animals are fed well, it is safe." Some people had a very commercial approach to animals and their scientific importance, which might reflect the overall organisational stand for animal welfare issues, as one interviewee said, "Normally its easier to test novel technologies with plants rather than animals. So they are important to us. Biotechnology applications are more in plants." Animal welfare concerns can relate to environmental problem as well, "There is

environmental side also, of animal waste problem and how is it handled?" Sometimes the arguments against the use of animals are extreme but without a sound basis, which makes the animal welfare issue more complicated, as another person said, "If you really want me to think about it issues in management of animal genetic resources, there is ethics in livestock production to. When we talk about livestock production, many other extremely difficult issues arise. Some become theoretical, there are some sometimes-weird arguments put very publicly by some animal welfare people that we shouldn't be using animals for food and agriculture as well. I wonder if they put the same argument if their children had some incapabilities. If we take out livestock from agriculture, we will be in much more worse problems." Genetic engineering has also added strong criticism against the use of animals as one person said, "I see those arguments as very confused and coming together for instance, is it reasonable that when Dolly was discussed, it took not one day for a press to convert from sheep to what humans are going to do. They saw a human in that technology, maybe they were right to say so because that's what happens in reproduction because these technologies initially started with livestock to benefit food and agriculture and then extended to humans." Some people thought FAO was not doing enough in animal welfare, as one critic said, "We would like to have an ethical component dealing with ethical issues in animal welfare. At present it is only raised depending on the circumstances." People involved in aquaculture also criticized FAO policies in animal welfare that are more focused on terrestrial animals, as one person said, "they are sometimes forgotten as animals." Another person added, "There are such differences that you must separate terrestrial and aquatic animals."

### 3.3.8.3 Animal killing

Animal killing is an ethical concern as one person said, "One of the main activities on the meat side, which might be linked to ethics is slaughtering of animals. Generally there are a lot of losses in poultry especially in developing countries; they don't take advantage of byproducts." Animals have to be killed to use them for food and other commercial purposes, however suffering should be avoided, as one person said, "When you have to kill the animal, you should stun the animal, in order to avoid suffering. So for example in Latin America, they use a knife so when it cut animals, the animals suffer." Improper killing of animals has several practical disadvantages, as one person involved with training of proper slaughtering said, "We are also working in the area of meat processing. Our work is very simple, just to train people to slaughter animals properly. We try to train

people to do humane slaughtering. Not only because of humane approach but also economic approach. If the animals are kept under stress the meat is of lower quality. So there are some economic losses, which we try to avoid it. There are many ethical issues in slaughtering." Many practical difficulties come up during training and implementation of projects in animal areas that have ethical dimensions as another person said, "If you kill animals under the tree there is a danger of disease and poor meat is bad for human consumption. So we try to stimulate people for simple slaughterhouses and we don't need electricity for it because there are many places in the world where there is no power so it does not make sense to make big sophisticated slaughterhouses. Even in some places if you make slaughterhouses people kill the animals in their own way." Another person gave an example and said, "We know it would be ridiculous to go to some developing country where people are starving, talking about how to deal with animals; humanity, which might not be convincing. But if you touch economical side of it, they become interested. So we are doing that. We are telling people if you slaughter properly, it would increase in profit."

### 3.3.8.4 Animal transport

Proper handling of animals is considered important more from commercial point of view as one person said, "If you are not transporting animals properly you lose money and value of the animal. Some of them die because they are sophisticated and genetically selected. So you have to be careful with the animal." Many points are taken under consideration while transporting animals, especially where finance is not a major constraint, as in rich countries. One person said, "In developed countries it is generally established in the production area because transportation is good and it is cheaper to transport carcass rather than live animals. Everything is a refrigerated." However, there are significant differences between the developed and the developing countries, where the life of human beings is much difficult than animals of developed countries, as one person quoted, "We built a slaughterhouse in Bolivia in a city called Pongo. There are 26 families living there. When we visited houses of those people, I was partly surprised and partly ashamed that the slaughterhouses were even better than people's houses. Just to go there and tell people who don't have electricity and water supply, to transport the animals from farm to slaughterhouses and you have to give them a sophisticated truck with refrigerate, how is it possible for people to follow." Another person said, "I know EU is very careful about humane concept of transportation. But if you go developing countries you have cases of where a herd of animals is taken 300 km away to slaughterhouses on foot."

Geographical barriers also make transportation difficult especially in the poor countries, as another person gave example, "For example if you take Columbia, there are valleys and mountains; how is it possible to take the cows to slaughterhouses and bring back. Similar problem is for islands, is it is not difficult to take House from one island to another?"

### 3.3.8.5 Animal protein revolution

Although animal protein revolution was not raised as a major issue by any interviewee, some people mentioned it in the context of food security. One person said, "There is a food dimension and there is a conversion issue. Many people say that people are hungry. We are going to have animal revolution in many ways. We are seeing this in and some other places where the consumption of meat is going up; meat proteins are expanding and society is becoming wealthier and yet you still have 800 million people hungry. Is it a right to promote an animal protein system, which is less efficient, people worry about it." The change is occurring more in developing countries because of degrading land capacity and frequent natural disasters. One person said, "Projections say that animal food consumption will double in the next 20 years and the entire expansion will happen in the tropical world, so this is the challenge in, which I would like to be involved with." Some people were comfortable with the animal diet as a supplementary source for feeding the world, as one person said, "There is food revolution coming into note or we can call it second food revolution in a way of protein revolute, the revolution in animal protein diet, which we are comfortable with."

### 3.3.8.6 Animal relations in work

Animals have a working relationship with human being, and both are mutually interdependent. However, there is much exploitation of animals for satisfying various human needs, as one person said, "We make things with attachments of animals on dresses, that as much you want to reduce human treasury, we have to see not to cause any pain and suffering to the animals. But that is more looked as the improving the efficiency of operation rather than the tenderness of the animals." A holistic view is needed, including not only immediate concerns of animal welfare for the present animals but also their progeny, however some people were more anthropocentric in outlook, as one person said, "It is not particularly important in terms of what you treat an animal today will

influence directly on what their progeny is going to be. One of the challenges is the argument to do what humans do." Another person also argued that there is a need to draw proper lines in the working relationships, he said, "Those who drive in animal welfare would argue that animals should be treated as humans. That is not acceptable because what humans like is not necessarily liked by animals. On the same token, no animals who have feelings should be mistreated. But animal welfare is getting confused with human welfare, and that is getting confused with maintaining the planet and the environment welfare and the whole thing is becoming very complicated for OECD type of thinking, for a minority of different ethnic groups in the world." There are economic benefits of taking proper care of animals, as one person said, "Animals can work longer if they are not tired." However cooperation is needed from both sides, as another person said, "We also deal with agriculture engineering; we try to encourage all human, animal and machine power to give a firm structure."

### 3.3.8.7 Cross species disease

Some persons linked this issue to genetic modification, saying it has added to the threat of transferring diseases to human beings more easily than before. As one person said, "I believe that many people became particularly concerned when one would move a gene across species, worse if it gets across Kingdom, it sounds very detrimental. We have already seen AIDS before genetic engineering became a common topic. It is that I'm embarking on, not only from the risks side but from another dimension of the topic as well." Another person challenged definition of bioethics, as love of life. He said, "We have to start with a trick there, may be starting assumptions that some like you [DM] say, bioethics is love of life or cross species life, is a very straightforward question. I don't think that's a good way to do It but it is still possible to do it and it is a significance at least in terms of disease control." Some people were fearful of xenotransplantation experimentation. One person said, "One of the ethical challenges is how to secure human life free from diseases. I think we have been meddling too much in nature, for instance, if you take organs from animals for xenotransplants, there is every possibility of various diseases transferring across species and may be across kingdoms in future, even though all the care is assured and we claim it to be safe."

### 3.3.8.8 Hormones in animal feed

Use of hormones to increase the speed at which animals grow for meat production, or to increase milk production (Macer 1990), has been controversial for a long time now. There are fears of health affects although there are safety standards established, as one person said, "I think it is more of a scientific issue although some of the European countries are raising it as an ethical issue, that they should not have such residues. The same issue is for BST in milk production, which has been evaluated by JECFA twice and found it to be safe from UN perspective now, but banned it for further tests for animal health concerns." Another person also added to the controversy between Europe and US over the use of hormones in animal feed, saying, "The principle dispute occurred in food trade is the use of hormones in animal meat and production of milk. Issues in WTO related to use of hormones is by US and Canada that Europeans don't want in their meat. Many of the hormones produced are same as those produced naturally and they are not different at any levels. Scientifically the safety of residues of such hormones was addressed by joint experts committee, which was held by independent scientists, concluded that the products were safe at the first session of the CAC. When hormones were brought to vote the Europeans continued to dispute and WTO was challenged. It was sent to ongoing resolution process. It is resolved now." FAO had not been very active on the issue until recently as a person said, "It was a subject remaining at FAO while we have the problem of Madcow, which is somehow related to the unethical use of animal feed, and dioxin problems. It shows that something must be done. Although FAO by nature is a place to do that." FAO in initially responded by establishing a code, as a person said, "You might come across the code of conduct on animal feeding, which is also of great importance. It deals with contamination problems in food, and the ways animals are kept. It is more difficult with animal feeding, because it has a direct and immediate impact on the consumers. Even we are requested by countries to develop such codes and to try and see how we can enforce such codes so as to protect the consumers."

### 3.3.8.9 Religious views

There are various images of animals in different religions. In the global governance of biotechnology, these considerations have to be taken into account, given it has a direct impact on philosophy upon millions of ordinary people. One Muslim person said, "If gene mixing is between animals to animals and between plants to plants, it may be ok, but the

way we are going now we will not conserve anything and also it has to be seen in the religious context, trying not to breach the trust of people on science." The concerns are deep rooted and beyond biotechnology, as another person told from his experience, "The religious approach according to different communities is another ethical issue. For example in Guyana there were two communities, so even in a very small slaughterhouse we were forced to build a wall because the Muslims did not want to see the slaughtering of pigs. Also, the way of Muslim slaughtering is different so we have to be careful. It also affects the policies and recommendations." FAO tries to be careful with the sentiments of the common people especially in religious and cultural context while suggesting policies and implementing programs, as another person said, "For example Muslims don't eat pork but we don't know that they cannot see slaughtering of pigs as well. So we contact authorities in the countries. There is also problem in legislation of the countries. Countries have their own legislation for slaughtering. In some countries' legislations you have to hook the animals; some places they you cradles. So we have to ask the government." Some people criticize FAO for being unconcerned about the beliefs of people, however another person challenged this, "FAO is one of the first organisations, to give due consideration to religious and cultural aspects, Codex was the first body to draft guidelines specifically on halal food and of course, FAO played one of the key roles in it."

### *3.3.9 Personnel issues*

These issues were not the objects of this study, however due to the non-leading approach to asking people to mention ethical issues, some people raised these issues. These issues are important for representatives of international organisations who work in a range of cultures, from very conservative cultures to frank and open ones, requiring formal bureaucratic behavior to informal approaches. Staff need to understand culture and be tolerant to difference in ideology of fellow staff as well as contacts. Significantly, 59% people raised issues related to the employment of FAO staff, and 11 people considered it as a major issue. The issue of gender participation, especially in the context of FAO was raised as a major issue by 4 people. General behavior with each other in a common working place and approach among the FAO staff was raised as a major issue by 9 people. One person also raised the culture of presenting gifts as a concern. The details are shown in figure 12.

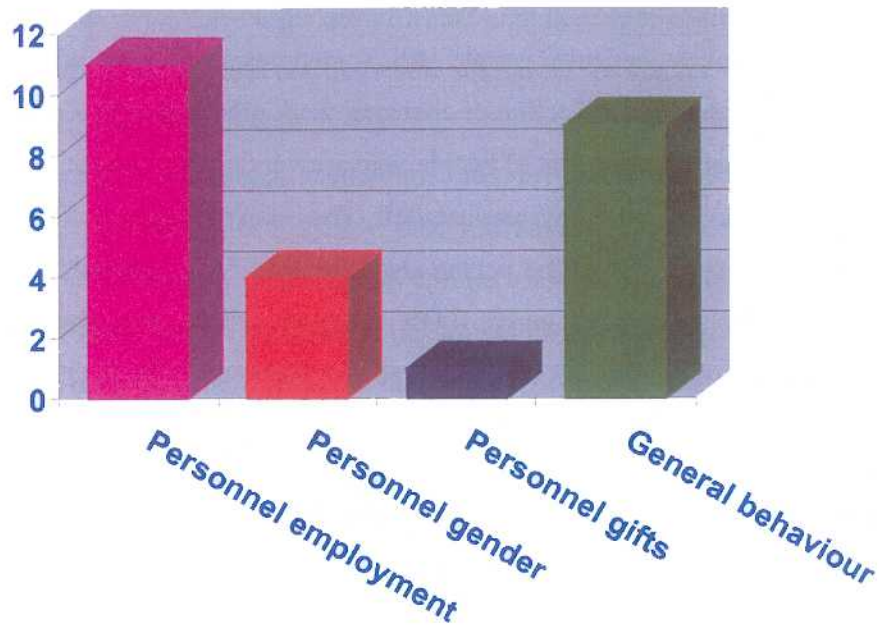


**Figure 12: Issues under the concept category PERSONNEL ISSUES considered to be of major importance**

### 3.3.9.1 Personnel employment

The issue of selection of employees for an international organisation is important, as it can significantly influence the policies of the organisation. Also it is politically critical. As one person said, "It would certainly be useful in relation to FAO's own rules and things like employment policy. It is a tricky subject. Obviously FAO needs to maintain a good balance of nationalities, gender etc." At international level, especially UN agencies, to have people representing each country is important for balance of perspective, as another person said, "We support people coming from countries that are not represented. We try to increase the opportunities for not represented countries; especially the reforming countries who have not so good economies by giving employment opportunities." There are common rules for selection criteria as one person informed, "Most of the terms and conditions of employment and standards are designed at ILO, which are shared by all the

specialized agencies in the system of UN." However, some people challenged the policy that it affects the working intellect of the organisation. One person said, "Partly because of the recruitment policy because people are sometimes employed who are not appropriate for the job; partly a reflection of changing work practices of FAO in working projects to more nominative work. Lot of people who are very good at operating projects, feel lost, because we do not have any products left. They don't know how to respond to new nominative environment." Another person also criticized FAO , and said, "FAO had not been recruiting in a balanced way." ILO's selection criteria was challenged for professional capability of employees, as another person informed, "The ILO has gone to the heart of this question and has established clear priorities and that the technical competence should be the overriding consideration and I completely agree with that." However, the views were still divided, as one higher official said, "So I believe very firmly that diversity of national background, cultural diversity, education is necessary and we balanced gender, I'm also sensitive to that aspect of diversity as well." Young people also need to be recruited for bringing new ideas and new synergy in the UN system, as one person said, "One of another aspect, which can be raised in every unit in the House and every organisation is to worry about young people. How do you give them the opportunities, at least in your boundaries? FAO is a very bureaucratic in the whole recruitment process. I have a feeling that the average age of the FAO 's staff has gone down to 20 years since I started working in FAO. When I'd joined I had the feeling that that I'm working in old people's home and I feel I've worked in the kindergarten. I think we have the duty to identify the qualified people. We have to worry about all our member countries, the non-represented countries."

### 3.3.9.2 Personnel gender

Employment of women at professional level is less than men even in the UN system, as one person said, "Within FAO also there is a gender problem. FAO is the worst among the UN agencies in terms of gender balance, it is now about one-fifth of the whole organisation. But if you look at different levels, women are more concentrated on general staff, lower grade level." Another person also agreed, "Within FAO itself we have very low percentage of professional women." On the employment issue, one person added, "In FAO we have a policy of spouse exclusion irrespective of gender. So a couple can't work at FAO." Working in FAO is difficult for women, as one person from forestry department gave example, "For instance in my field of forestry resource management, it is very hot

now, a lot of resources are put into it. If you are a bright woman and working through the GTZ, because we have a gender affirmative policy, your chances of promotion would be good and faster. But it is not the whole set up. So we are not very competitive with other organisations. We are looking at it. If you look at the number of men and women professionals, most professional women join FAO as single woman but men are generally married. So this implies already that you have a self-selection process." FAO has a personnel division to look into all the personal issues. One person from the personal division said, "For example if some project comes and it influences the organisational policies on sexual harassment, in that case we would intervene. We just see if anybody is misbehaving in the department and not for the project itself, we have established people."

### 3.3.9.3 Personnel gifts

There are various cultures where visitors are given expensive hospitality and given presents, which is understood in various ways. However, in bureaucratic procedures, sometimes it becomes conflicting and difficult issue because giving or receiving gifts has an image of asking some favors instead. It could be even sometimes regarded as bribing. One very concerned person said, "We have many administrative ethical issues, for example how wrong it is it to accept a brooch for your wife when you are visiting a country, as a present to take back home for the assistance you have provided. How wrong is it to accept that or how rude is it to say that I'm sorry, we don't take bribes or gifts. An ADG was given a brooch worth of several thousand dollars and he thought it would be too rude to return so he brought that and asked that he does not know what to do with. He wanted to get it off his hands so that he could not have seen himself being accepted what he thought was improper. But the people, who gave it to him, did not think it was improper at all. In fact there are gift-giving countries where it is a part of their culture to give presents to. So these kinds of administrative ethical issues we deal with all the time."

### 3.3.9.4 General behavior

A cordial working environment can increase the performance and productivity of an organisation. It is also valuable in understanding people from different countries and various backgrounds. However, sometimes it is difficult for people to make their stands clear and put their own experiences in the context, as one person said, "Once a person occupied next office to me and put on his door a very famous piece of paper from the

fourth century that read, "I will come from the provinces and I will go to Rome, there to address the heart of purity. When I came here I found that the heart was rotten". That act of a person putting the piece of paper on the door is very important signal of how many people feel this fundamental discrepancy. It is at the heart of its erosion of values and motivation that people feel in this organisation because we say let's listen to people, let's treat them properly, let's worry about their feelings and then internally we are written over without consultation, lack of discussion, by impersonal and machineries. I think this is very bad." Good hierarchy and environment in the organisation has a strong effect on the personal performances of people, as one person said, "I had to maintain my belief in what the organisation does, not because of the organisation but in spite of It. The fact that we are here, is a tragedy, we are tragic heroes. The things happen in this organisation, either you resign or you become an automatic robot or that promoted because you endure the auto pilot behavior. If there is a study on how many people went home on stress related psychological issues as proportioned in a humanitarian organisation, if I was a cutting edge industrial organisation competing against a bottom dollar or every single cent, comply with the deadlines of cut throat competitions, those rates of dropout would be understandable, but here we are working on a human process and there is the chi- square discrepancy between dealing of people issues and having so many casualties in such a brutal manner." Lower staff in any organisation faces the most severe consequences, as another person said, "I think the General Services staff are particularly hit by this. When I came here from University I was astounded that the General Service Staff are treated so badly. But now nobody tries to touch the General Service Staff because their union became so strong. There is an Italian saying, "the fish begins to smell from the head".