

BIOSECURITY IN FOOD AND AGRICULTURE

Submission by the FAO

The following document has been submitted by the secretariat of the Codex Alimentarius Commission for the attention of the SPS Committee. The document will be considered at the Sixteenth Session of the FAO Committee on Agriculture (COAG), meeting in Rome on 26-30 March 2001.

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I. INTRODUCTION

1. Biosecurity is a key requirement for achieving the goals set out in the FAO Strategic Framework by promoting, developing and re-enforcing policy and regulatory frameworks for food, agriculture, fisheries and forestry. Biosecurity has direct relevance to food safety, the conservation of the environment (including biodiversity), and sustainability of agriculture. Biosecurity encompasses all policy and regulatory frameworks (including instruments and activities) to manage risks associated with food and agriculture (including relevant environmental risks), including fisheries and forestry. Biosecurity is composed of three sectors, namely food safety, plant life and health, and animal life and health. These sectors include food production in relation to food safety, the introduction of plant pests, animal pests and diseases, and zoonoses, the introduction and release of Genetically Modified Organisms (GMOs) and their products, and the introduction and safe management of invasive alien species and genotypes.

2. Biosecurity is of growing interest as a result of major international developments, including globalization of the world economy, the rapid increase in communications, transport and trade, technological progress, and increased awareness of biological diversity and environmental issues. Members require effective, efficient, improved and updated international frameworks and standards to support appropriate national action. Members also require national frameworks to regulate, manage and control biosecurity for food and agriculture, including forestry and fisheries, thus permitting practical implementation, increasing cost effectiveness, and improving consistency across sectors. These international and national requirements address the FAO strategies B1 (international instruments concerning food, agriculture, fisheries and forestry and the production, safe use and fair exchange of agricultural, fishery and forestry goods) and B2 (national policies, legal instruments and supporting mechanisms that respond to domestic requirements and are consistent with international policy and regulatory framework), respectively.

3. Recent developments in biosecurity in food and agriculture include the tendency toward integration of and cooperation across sectors. Internationally, this tendency is demonstrated in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), and the Convention on Biological Diversity (CBD) and its Cartagena Protocol on Biosafety.¹ It is further addressed in the FAO/WHO Codex Alimentarius, the International Plant Protection Convention (IPPC) and the FAO Code of Conduct for Responsible Fisheries. There is also a tendency in some countries for the integration and institutionalization of the three sectors, namely food safety, plant life and health, and animal life and health.

4. FAO is active in a number of areas that relate to biosecurity, including the development of international and regional instruments, capacity, expertise, and programmes. In terms of FAO activities:

- food safety relates to all food-related consumer health matters;
- plant life and health (including forestry) issues include phytosanitary issues, GMOs, the introduction and safe management of invasive alien species, safeguarding genetic resources and variability, and limiting genetic erosion. In addition, the forestry sector gives special emphasis to introduced species and genotypes, and genetic pollution of local provenances of forest trees; and

¹ The term biosafety is used in the Cartagena Protocol on Biosafety where it refers to the safe transfer, handling and use of living modified organisms possessing a novel combination of genetic material obtained through the use of modern biotechnology.

- animal life and health (including fish) issues include sanitary issues (including zoonoses), GMOs, the introduction and safe management of invasive alien species, and the safeguarding of genetic resources and variability, and limiting genetic erosion.

5. This paper considers the interrelationships between the food safety, and animal and plant life and health in the context of cooperation and coordination at both the international and national levels. It provides:

- an analysis of the common components to the three sectors and the need for their further development;
- an analysis of the international and national frameworks, and the need for a consistent international approach to relevant international regulatory frameworks, the identification of gaps and common components in international frameworks;
- an outline of the needs and opportunities for coordination and harmonisation with respect to national legislative frameworks, relevant infrastructure, expertise and output; and
- the possible role of FAO in biosecurity in food and agriculture, including forestry and fisheries.

This document also provides a follow-up to the 15th Session of COAG and the 116th FAO Council, which discussed biosafety in the context of biotechnology.

II. COMMON COMPONENTS

6. There are a number of common components for the management of the elements of biosecurity for food and agriculture. The SPS Agreement identifies the rights of States concerning sanitary and phytosanitary measures in relation to international trade but also provides common obligations that discipline those rights. The FAO/WHO Codex Alimentarius and the IPPC are, together with the Office International des Epizooties (OIE), recognised as standard setting organizations in the SPS Agreement for food safety, plant and animal life and health, respectively. Although FAO has relevant programmes related to biosecurity in forestry, fisheries and animal life and health in relation to livestock, these do not carry the same level of international recognition in relation to international standard setting.

7. Part of the technical base of the biosecurity elements of FAO's programme is common. Risk analysis is the basis for the establishment of sanitary and phytosanitary measures, and makes use of the same concepts among the various sectors. International standard-setting (including, where appropriate, environmental considerations) uses the same methodologies. Mechanisms for the exchange of official information need to be transparent, effective and efficient, and will largely address the same national and international community.

8. There are common components for national capacity building (including institutional, infrastructure, expertise and personnel capacity) and there is a need for national investment in the sectors addressing biosecurity.

9. The common components would facilitate the reduction of unjustified obstacles to trade and international traffic and transport, whilst safeguarding food safety, animal and plant life and health.

10. Common components in biosecurity extend beyond the mandate of FAO, particularly those components within the mandate of OIE with respect to animal life and health and the CBD with respect to the protection of ecosystems, habitats or species and genotypes. In addition, other

international organizations and international legal instruments also address components of these common elements.

III. INTERNATIONAL AND NATIONAL FRAMEWORKS

11. The international policy and regulatory framework:

- sets out the policy and legal rules governing biosecurity in food and agriculture, and defines the rights and obligations of governments in this subject area;
- defines the forum or fora within which inter-governmental consultations and negotiations take place on biosecurity; and
- should promote consistency and synergy among the various fora, facilitate common action with respect to biosecurity, and facilitate the safe growth of international trade while ensuring adequate protection of human, animal and plant life and health, and the environment.

12. The international policy and regulatory framework consists of legally binding instruments, soft law and policy declarations and institutional structures within which the instruments, soft law and policy declarations operate.

13. Binding international legal instruments relevant to biosecurity in food and agriculture (including forestry and fisheries) include:

- the **IPPC** as revised by the FAO Conference in 1997, and the various agreements establishing regional plant protection organizations², from the point of view of potential impacts of the movement of plant pests on plant life and health and the environment;
- the **Constitution of the European Commission for the Control of Foot and Mouth Disease (1953)**, and the **Agreement for the Establishment of a Regional Animal Production and Health Commission for Asia and the Pacific (1973)** are relevant from the point of view of the protection of animal life and health;
- the **SPS Agreement** impacts on sanitary, phytosanitary and zoosanitary measures in international trade;
- the **Biological Weapons and Toxins Convention (1972)** from the point of view of biological warfare and disarmament;
- the **Convention on Biological Diversity (1992) and its Cartagena Protocol on Biosafety (2000)** from the point of view of potential impacts of living modified organisms on biological diversity;
- the **United Nations Convention on the Law of the Sea** and various agreements establishing regional fisheries management organizations such as the **Convention for the Establishment of the Lake Victoria Fisheries Organization (1994) and Convention on the Conservation of Antarctic Marine Living Resources (1980), and the various regional seas agreements³** are relevant from the point of view of protecting living marine resources from pollution and the introduction of invasive alien species;

² E.g. the Plant Protection Agreement for the Asia and Pacific Region and the Agreement for the Establishment of the Near East Plant Protection Organization.

³ E.g. the Agreement for the Protection of the Mediterranean Sea from Pollution (1974).

- the **RAMSAR Convention on Wetlands** and the various regional nature conservation agreements such as the **African Convention on the Conservation of Nature and Natural Resources (1968)** and **ASEAN Agreement on the Conservation of Nature and Natural Resources (1985)** are also relevant in relation to the introduction of invasive alien species; and
- the **International Undertaking on Plant Genetic Resources** is now under revision by the FAO Commission on Genetic Resources for Food and Agriculture, for adoption as a legally binding instrument.

14. Soft law instruments would include:

- **Agenda 21 of UNCED (1992);**
- the **FAO International Code of Conduct on Responsible Fisheries (1995);**
- the **International Code of Conduct for Plant Germplasm Collecting and Transfer of Germplasm (1993);**
- the **FAO Code of Conduct for the Import and Release of Exotic Biological Control Agents (1995);**
- the **Code of Conduct on Biotechnology as it relates to Genetic Resources for Food and Agriculture** (currently under negotiation);
- the **ICES Code of Practice on the Introductions and Transfers of Marine Organisms (1994);**
- the **IMO Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Organisms and Pathogens (1997);** and
- the **IUCN Guide to Designing Legal and Institutional Frameworks on Alien Invasive Species.**

15. Institutions and fora active in biosecurity for food and agriculture, in addition to FAO, would include:

- the **FAO/WHO Codex Alimentarius Commission**, which sets standards for food safety and the **OIE**, which sets standards for the protection of animal health, both sets of standards being recognised, together with international standards for phytosanitary measures set by the **IPPC** (through the **FAO Interim Commission for Phytosanitary Measures - ICPM**), as reference points for international trade under the SPS Agreement and the **SPS Committee** established under that Agreement,
- the **Conference of Parties and Secretariat of the CBD and its Cartagena Protocol on Biosafety;** and
- the various commissions and other bodies established by the agreements noted above.

IV. NEED AND OPPORTUNITIES FOR COORDINATION AND HARMONISATION

16. The above description of the international policy and regulatory framework for biosecurity in food and agriculture, necessarily incomplete and illustrative only, is indicative for the vast range and complexity of the subject. Most instruments deal with aspects of biosecurity from distinctly sectoral perspectives, whether this be disarmament, biological diversity, wetland protection, plant, animal or human health, marine resources conservation and management, nature conservation or concern with the introduction of genetically modified organisms or invasive alien species and genotypes. The WTO SPS Agreement, which deals with sanitary, phytosanitary and zoosanitary measures together, does so

predominantly from the point of view of their impact on trade, rather than their own intrinsic effectiveness.

17. The international policy and regulatory framework for biosecurity in food and agriculture in toto is thus somewhat disjointed and as yet incomplete. There is a need for a coordinated, though not necessarily unified, approach to biosecurity, drawing on the common components. In particular, there is a need to critically examine areas of potential overlap and perhaps areas of potential conflict, such as the interrelationship between sanitary and phytosanitary measures on the one hand, and the control of invasive alien species, biological diversity and the control of GMOs on the other.

18. The situation with respect to national policy and regulatory frameworks is broadly similar:

- controls and national authority for biosecurity matters tend to be scattered over a variety of ministries, including Ministries of Agriculture, Health, Environment, Labour, Forestry, Fisheries, and Trade and Industry;
- there is a tendency to draw together relevant authorities and ministries, or at least to create coordinating mechanisms; and
- in developing countries, authorities still tend to be organized along sectoral lines, due perhaps to the relative importance of agriculture to their economies, although the need for a coordinated approach may be particularly important, for example for small island countries with particularly vulnerable ecosystems.

There may be a particular need for technical assistance to developing countries in adopting coordinated approaches to biosecurity, and the strengthening of relevant national and regional institutions, both in the implementation of controls in their own countries and the negotiation of relevant instruments at the international level, in the light of the pressures on them of an incomplete and disjunctive international framework.

19. The SPS Agreement provides for a common approach to the different sectors in biosecurity in relation to agricultural trade, and this approach is complemented by the approach of the Cartagena Protocol. In relation to other sectors, a common approach will allow for a more integrated approach to basic biosecurity issues, to common components and to managing interconnected elements, while still providing for sectorial application. The international harmonization of regulatory biosecurity measures, including the analysis of gaps and potential overlaps within and across international agreements, will provide the basic legal framework for a common approach to biosecurity.

20. Possible international and regional actions include the further development of a coordinated international regulatory framework for biosecurity for food and agriculture, including forestry and fisheries. The primary aim would be to avoid duplication and inconsistencies within the international regulatory framework and reduce disputes among the various international and regional Organizations and Instruments.

21. FAO's programmes related to biosecurity and programmes of other relevant International Organizations and secretariats of International Instruments, may benefit from the further development of common methodologies, particularly for risk-analysis, international standard-setting (including, where appropriate, environmental-related standards), and integrated management and monitoring. Regional and sub-regional action may be required to promote common regional or sub-regional action and to enhance the ability of countries to participate in the development of common methodologies and implement those.

22. FAO's programmes related to biosecurity should, in cooperation with other relevant international organizations and secretariats of international agreements, cooperate in the establishment

and operation of an official biosecurity information exchange system which will draw, in a coordinated manner, on official information available from member countries, information from relevant FAO programmes, and from other relevant international organizations and agreements.

23. FAO's programmes related to biosecurity should, in cooperation with other relevant international organizations and secretariats of international agreements, cooperate in the creation of awareness and in capacity building across sectors at the national level, to ensure an optimal use of resources at both international and national level. FAO will assist in implementing the CBD Cartagena Protocol in its' sphere of competency, and will harmonise its work with this Protocol.

24. Optimisation of coordination and management among relevant international organizations and secretariats of international agreements, may reduce costs in the **Harmonization** of measures, and make optimal use of international capacities. A FAO Priority Area for Interdisciplinary Action (PAIA) addresses the need for an Organization-wide programme that optimises coordination among the various sectorial activities and allows for a joint response to the needs of member governments. It also allows for a joint point of reference for cooperation and coordination among international organizations and secretariats of international agreements.

25. Regional and national actions include:

- the coordination and cooperation among the relevant authorities and ministries in relation to national policy and action and participation in the definition of common international actions;
- harmonisation and integration of national legislation;
- modernisation and harmonisation of regulations, with the aim to rationalise sanitary, phytosanitary and zoosanitary measures, while protecting human health and the environment;
- establishment, rationalisation and optimisation of national capacity with the aim of avoiding duplication, inconsistency and disputes among the relevant national agencies;
- make optimal use of regional resources and capacities; and
- cooperate in the exchange of relevant official information among states.

V. ISSUES THAT COAG MAY WISH TO CONSIDER

26. The Committee on Agriculture may wish to consider recommending to the 31st FAO Conference through the 120th FAO Council to endorse a common integrated approach to biosecurity through:

- through further development in FAO's programmes relating to biosecurity and in association with programmes of other relevant international organizations and secretariats of international agreements of common methodologies, particularly for risk-analysis, and further international standard-setting (including, where appropriate, relevant environmental standards);
- in cooperation with programmes of other relevant international organizations and secretariats of international agreements the development of integrated management and monitoring methodologies;
- seeking the cooperation of international agencies and secretariats of international agreements to further the development of a coordinated international regulatory framework for biosecurity for food and agriculture, taking into account agricultural

sustainability, trade issues, food security, and environmental protection and conservation;

- in cooperation with other relevant international organizations and secretariats, establishing and implementing of a biosecurity information system which will draw on official information available from member countries, information from relevant FAO programmes and from relevant international organizations and secretariats to international agreements; and
- FAO's programmes relating to biosecurity and in cooperation with other relevant international Organizations and Secretariats of International Agreements, cooperating in the creation of awareness and in capacity building across sectors.

27. The Committee on Agriculture may consider recommending through the 120th Council that the 31st Conference encourages Members to:

- coordinate among the relevant national authorities and ministries to adopt common national actions and participate in common international actions, including the establishment of international standards;
- modernise, harmonise and integrate national biosecurity legislation and regulations, with the aim to rationalise sanitary and phytosanitary measures, while protecting human health and the environment;
- establish, rationalise and optimise national capacity;
- make optimal use of regional resources and capacities; and
- cooperate in the exchange of relevant official information among states.

28. The Committee on Agriculture may consider recommending through the 120th Council that the 31st Conference encourages Members who are in a position to do so, to provide technical assistance to developing countries and to countries with economies in transition, to enable such countries to establish, rationalise and optimise national capacity for biosecurity.

29. The Committee on Agriculture may also wish to consider recommending that the FAO Secretariat, subject to extra-budgetary funding, sees to:

- the Convening of a Consultation on Biosecurity in Food and Agriculture, including Forestry and Fisheries, for the second half of 2001 with the aim to create overall awareness of the new concepts and opportunities in relation to biosecurity;
 - the immediate development of an international information exchange mechanism to enable members to identify relevant official biosecurity information for international trade and transport;
 - the development of manuals and guidelines for the application of risk analysis principles to food safety, covering the entire food chain,
 - the convening of a series of regional awareness and training sessions on all aspects of biosecurity related to food and agriculture; and
 - the provision of technical assistance, on request, to developing countries and countries with economies in transition, in the establishment and development of relevant policies, legislation and regulations and institutions.
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