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**REPORT**

Beijing,  
China,  
23-27 April  
1990

# **FAO Regional Conference for Asia and the Pacific**

## **Twentieth session**



**Food and Agriculture Organization  
of the United Nations**

*FAO Member Nations in the Asia Region (as of 27 April 1990)*

Bangladesh	Japan	Papua New Guinea
Bhutan	Korea, Republic of	Philippines
Cambodia	Laos	Samoa
China	Malaysia	Sri Lanka
Democratic People's Republic of Korea	Maldives	Thailand
Fiji	Mongolia	Tonga
India	Myanmar	United Kingdom
Indonesia	Nepal	Vanuatu
	Pakistan	Viet Nam

*FAO Member Nations in the Southwest Pacific Region*

<i>Australia</i>	<i>New Zealand</i>	<i>Tonga</i>
<i>Cook Islands</i>	<i>Papua New Guinea</i>	<i>United Kingdom</i>
<i>Fiji</i>	<i>Samoa</i>	<i>United States of America</i>
<i>France</i>	<i>Solomon Islands</i>	<i>Vanuatu</i>

*Date and place of FAO Regional Conferences for Asia and the Pacific*

First	— Bangalore, India, 27 July-5 August 1953
Second	— Kandy, Ceylon, 20-25 June 1955
Third	— Bandung, Indonesia, 8-18 October 1956
Fourth	— Tokyo, Japan, 6-16 October 1958
Fifth	— Saigon, Republic of Viet Nam, 21-30 November 1960
Sixth	— Kuala Lumpur, Malaysia, 15-29 September 1962
Seventh	— Manila, Philippines, 7-21 November 1964
Eighth	— Seoul, Republic of Korea, 15-24 September 1966
Ninth	— Bangkok, Thailand, 4-15 November 1968
Tenth	— Canberra, Australia, 27 August-8 September 1970
Eleventh	— New Delhi, India, 17-27 October 1972
Twelfth	— Tokyo, Japan, 17-27 September 1974
Thirteenth	— Manila, Philippines, 5-13 August 1976
Fourteenth	— Kuala Lumpur, Malaysia, 25 July-3 August 1978
Fifteenth	— New Delhi, India, 5-13 March 1980
Sixteenth	— Jakarta, Indonesia, 1-11 June 1982
Seventeenth	— Islamabad, Pakistan, 24 April-3 May 1984
Eighteenth	— Rome, Italy, 8-17 July 1986
Nineteenth	— Bangkok, Thailand, 11-15 July 1988
Twentieth	— Beijing, China, 23-27 April 1990

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Report of the

TWENTIETH FAO REGIONAL CONFERENCE FOR ASIA AND THE PACIFIC

Beijing, China, 23-27 April 1990

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 1990



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## SUMMARY OF MAIN RECOMMENDATIONS

### FAO Activities in the Region

#### For the attention of Governments:

The Conference:

1. urged all Member Nations to settle their arrears quickly and in full to enable FAO to implement its Programme of Work for 1990-91 (para. 94);
2. stressed the need for special and differential treatment at the Uruguay Round of Multilateral Trade Negotiations for developing countries including expanded market access for agricultural and tropical products and substantial and progressive reductions in trade distorting support and protection policies. Emphasized FAO's role in providing scientific support in the Negotiations to Member Nations (para. 106);
3. urged member countries to formulate national Tropical Forestry Action Plans as an effective means in arresting deforestation (para. 108).

#### For the attention of FAO:

The Conference:

4. requested that further information on FAO's Regular Programme activities as presented in the report be included in the future (para. 93);
5. recognized the nine priority areas of FAO's work approved by the FAO Conference in November 1989, and underscored that activities relating to biotechnology, sustainable development, crop protection, and Tropical Forestry Action Plan, as well as fisheries development, be given special priority in the Region (paras. 96 and 97);
6. emphasized that FAO should give priority attention in its programmes to policy analysis and planning, with particular focus on sector and subsector reviews and structural adjustment work (para. 98);
7. urged FAO to continue integrating environmental issues into its programmes and field activities to evolve a strategy for sustainable agricultural development (para. 99);
8. stressed the importance of making problem soils more productive and suggested that FAO attach increased priority to this area, including soil conservation and watershed management (para. 100);
9. urged FAO to continue promoting and strengthening its programme on integrated pest management (para. 103);

10. supported FAO's efforts to monitor the changing status of forest cover through the global project - "Tropical Forest Resource Assessment, 1990" (para. 107);
11. endorsed FAO's approach in promoting TCDC through regional networks and suggested that TCDC activities be further expanded and strengthened (para. 109);
12. reaffirmed that the Technical Cooperation Programme (TCP) enabled FAO to respond promptly to the needs of countries in the region and suggested that in the future significant additional TCP resources be made available to the region (para. 110).

Action Programmes to Overcome Specific Nutritional Deficiencies in the Asia and Pacific Region

For the attention of Governments:

The Conference:

13. emphasized that integrated food and agriculture policies and plans were required to alleviate nutritional deficiencies. To this end, governments should formulate national and subnational food and nutrition policies and plans to ensure that development planning were consonant with nutritional improvement (para. 114);
14. urged countries to reorient their agricultural-based activities towards increased production, including animal products, and to diversify their food-crop availability, especially those rich in vitamins and micro-nutrients (para. 116);
15. recommended that governments establish nutrition surveillance systems and identify areas of high prevalence for priority targeting. In addition, they should monitor the implementation and impact of action programmes concerning nutritional improvement (para. 118);
16. recommended that steps be taken to ensure that governments and food industries adapt food fortification technologies to the nutritional conditions in the countries concerned and that they maintain strict quality control and safety systems for fortified foods (para. 121).

For the attention of FAO:

The Conference:

17. recommended that the conclusions of this Regional Conference on nutritional issues as reflected in paragraphs 114 to 125 of this Report be duly taken into account in preparing for the proposed International Conference on Nutrition (para. 126).

Progress and Prospects of Biotechnology for Crop and Livestock Production in Asia and the Pacific Region

For the attention of Governments:

The Conference:

18. noted the potential for biotechnological manipulations and biological nitrogen fixation in improving problem soils, marginal lands and rainfed areas, and suggested that appropriate biotechnologies be standardized and commercially exploited (para. 133);
19. suggested that selected institutions be strengthened to undertake work on embryo sexing methods for field application, on in vitro fertilization techniques, and on embryo cloning DNA transfer and that they share the technology thus generated (para. 136);
20. suggested balanced development of associated areas such as agronomy, breeding, biochemistry, etc. since biotechnology complemented "conventional" technology. Resources should be allocated in a rational manner to develop comprehensive capability in biotechnology (para. 138);
21. recommended that various ongoing national and international programmes, such as UNIDO's International Centre on Genetic Engineering and Biotechnology (ICGEB), CGIAR centres, FAO/IAEA, and laboratories in developed and certain developing countries be used effectively to generate the needed skilled manpower (para. 141);
22. suggested that individual developing countries assess their manpower and research and development needs and based on these assessments and comparative advantage, appropriate training, research programmes and infrastructures for biotechnology be developed (para. 142).

For the attention of FAO:

The Conference:

23. requested FAO to document and disseminate successful experiences of commercial exploitation of in vitro micropropagation (para. 130);
24. suggested that FAO assist member countries in strengthening national capacities in germplasm conservation and that, in order to promote international transfer of germplasm using in vitro cultures, that FAO develop suitable quarantine guidelines (para. 134);
25. suggested TCDC and North-South cooperation in the judicious exploitation of resources and in maximizing benefits from biotechnology (para. 143);
26. supported FAO's initiatives in establishing the regional networks on animal biotechnology and plant biotechnology. It emphasized that the networks should assist national governments to plan and coordinate research, develop priorities and strategies, promote exchanges of



planting materials and germplasm, and streamline linkages with other relevant regional and international organizations (para. 144);

27. suggested that FAO assist in holding a seminar for the countries of the region in 1991 and noted the offer of the Islamic Republic of Iran to host the seminar (para. 145);
28. suggested that FAO assist member countries in sharing more widely the benefits from new technologies, in monitoring their impact and in providing a forum to discuss biotechnology-related issues (para. 146).

#### Representation of the Region in the Consultative Group on International Agricultural Research

##### For the attention of Governments:

The Conference:

29. elected India and Samoa to represent the region on the CGIAR for a four-year term (1991-94) (para. 151).

#### Plant Protection Agreement for the Asia and Pacific Region

##### For the attention of Governments:

The Conference:

30. expressed satisfaction that the number of acceptances necessary to bring into force the Amendment to Article I(a) of the Plant Protection Agreement for Asia and the Pacific, extending the geographic scope of the Agreement to include China, had been received by the Director-General, and adopted by consensus a Resolution to this effect (paras. 157 and 158).

#### Date and Place of the Twenty-first Regional Conference

##### For the attention of FAO:

The Conference:

31. requested the Director-General to determine the date and place of the Twenty-first Regional Conference for Asia and the Pacific in consultation with the Government of India and other member governments of the Region (para. 160).



## I. INTRODUCTORY ITEMS

### Organization of the Conference

1. The Twentieth FAO Regional Conference for Asia and the Pacific was held at Kunlun Hotel, Beijing, China from 23 to 27 April 1990.
2. Member Nations which participated in the Conference were: Australia, Bangladesh, Bhutan, Cambodia, China, Democratic People's Republic of Korea, France, India, Indonesia, Islamic Republic of Iran, Japan, Republic of Korea, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Samoa, Sri Lanka, Thailand, United States of America, Vanuatu and Vietnam.
3. There were observers from Algeria, Belgium, Denmark, Federal Republic of Germany, Israel, Italy, Mexico, Netherlands and USSR; and representatives from the following United Nations Bodies and Specialized Agencies: Economic and Social Commission for Asia and the Pacific (ESCAP), International Fund for Agricultural Development (IFAD), International Labor Organization (ILO), United Nations Development Programme (UNDP), World Food Programme (WFP), and World Health Organization (WHO). In addition to the above, observers from the following intergovernmental organizations were present: Afro-Asian Rural Reconstruction Organization (AARRO), Asian Productivity Organization (APO), Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP), European Economic Community (EEC), and South Pacific Commission (SPC).
4. The Conference noted with satisfaction the presence of the FAO Independent Chairman of the Council, Mr. Antoine Saintraint, at the meeting.
5. The non-governmental organizations represented were: Association of Food Marketing Agencies in Asia and the Pacific (AFMA), International Cooperative Alliance (ICA), Trade Unions International of Agricultural, Forestry and Plantation Workers (TUIAFPW), and World Federation of Trade Unions (WFTU).
6. The list of participants at the Conference and the list of Secretariat Documents issued are given respectively in Appendix B and Appendix C to the report.

### Inaugural Ceremony

7. The Inaugural Ceremony of the Conference was held on 23 April 1990. The Director-General of FAO, Dr Edouard Saouma, welcomed His Excellency Yang Shangkun, President of the People's Republic of China, Ministers, delegates, observers and the members of the diplomatic corps in China. On behalf of FAO and the delegates to the Conference, he expressed appreciation for the hospitality extended by the Government and the people of China. He noted with great satisfaction that 28 member countries of this region sent delegations to this Conference. This was the highest turnout for a regional conference in this region so far -- and was a tribute to the host country. Many of the delegations present were led by Ministers or Vice-ministers. He observed that this high level of representation testified to the importance that member countries accorded to this Conference.
8. In his inaugural address, President Yang Shangkun extended a welcome, on behalf of his Government and people, to the participants in the

Conference. He observed that in many countries of the Region food self-sufficiency had been achieved and the rural economy improved. Nevertheless, millions of people were still short of food, clothing and shelter. Further development of agriculture was therefore a matter of urgency. The President emphasized that mankind had stepped into the last decade of this century. The foremost task was to develop practical strategies and a whole set of effective policies to encourage food production. Farmer's enthusiasm should be fully mobilized, and all-round development of agriculture, forestry, animal husbandry and fisheries promoted.

9. The President appealed for enhanced cooperation among countries in Asia and the Pacific, regardless of differences in social systems and development, on the basis of the "Five Principles for Peaceful Coexistence". Since agriculture was crucial to their national economies, cooperation in agriculture should be an important part of such regional cooperation. FAO was in a position to make a positive contribution in promoting regional cooperation. China would support all efforts aimed at the realization of common development and prosperity of the Region.

10. The President said China recently launched another campaign to mobilize people in all walks of life, including central and local governments, to support agriculture. State and local authorities carried out extensive farm land capital construction, based on increased scientific and technical inputs. As always, China would adhere to the reform and open-door policy, continue to establish and develop friendly relations with all countries, and firmly support efforts made by developing countries for the establishment of a New International Economic Order.

11. The President concluded his address by expressing his optimism that in this region, agriculture would enjoy a bright future.

12. In thanking the President for his address, the Director-General of FAO paid tribute to the Government and the people of China for their achievements. The Chinese experience in agriculture continued to be relevant to the region. Member countries of FAO were privileged to share this experience through the Conference. The full text of the inaugural address of the President of the People's Republic of China is given in Appendix D to this report.

#### Election of Chairman, Vice-Chairman and Rapporteur

13. The Conference elected, by acclamation, His Excellency He Kang, Minister for Agriculture, Government of People's Republic of China, as Chairman of the Conference.

14. The Conference also elected all the Ministers present as Vice-Chairmen. Abdul Wahid Jalil of Malaysia was appointed as Rapporteur.

#### Adoption of the Agenda and Timetable

15. The Conference adopted the Agenda which is given in Appendix A to the report.

Opening Statement of the Director-General

16. In his opening statement, the Director-General thanked the Chinese Government for its hospitality. He welcomed the many ministers who attended this important session -- the agricultural summit of the Region.

17. He expressed his deep regret over the premature death of Mr L.I.J. Silva, the FAO Regional Representative. He noted that the late Mr Silva was held in high esteem for his intellectual and moral rectitude and for his professional competence.

18. Reviewing the food production situation in the Region, the Director-General stated that the harvest of 1990 was expected to be good. The trade situation exhibited marked contrasts: some countries had succeeded in diversifying their exports, but others still relied mainly on agricultural commodities. The latter faced a difficult situation in world markets. Growing indebtedness in the Third World aggravated the situation. Measures taken to alleviate the debt burden had not gone far enough. Debt servicing continued to claim a large proportion of the export earnings. It was fortunate that a "freeze" on certain agricultural support measures was agreed to at the Uruguay Round of GATT negotiations. However, positions were still far apart on the long-term reform of agricultural policies. He emphasized that greater political will was needed to reduce unfair competition and expand access to markets for tropical products exported by developing countries.

19. The Director-General drew particular attention to the gravity of nutritional shortfalls in Asia and the Pacific. The largest number of malnourished people in the world lived in this region. Unbalanced diet perpetuated malnutrition and deficiency diseases. Malnutrition was, above all, a problem of poverty. He commended the efforts of several governments to provide improved access to food for low income groups. He reassured the Conference that FAO would continue to assist countries to take measures to conquer malnutrition. FAO and World Health Organization (WHO) would jointly sponsor and organize, in close collaboration with other UN and government institutions, an International Conference on Nutrition in Rome, Italy, in December 1992. Conclusions of this Regional Conference would constitute an important contribution from the Region in the preparation for the International Conference.

20. Speaking on environment and sustainable development, the Director-General emphasized that several countries had already reached or even crossed the boundaries of horizontal expansion of agricultural production. Therefore, the central focus of future development should be to enhance agricultural productivity in ways that were ecologically-sound.

21. He stressed that biotechnology held extraordinary promise. It had the potential to reduce production costs and increase availability of commodities produced and consumed by the poor. He noted that biotechnology could not be isolated from the general context of research. Greater allocation of financial resources and skilled manpower were needed. FAO played a major role in promoting biotechnology by organizing training courses, and through regional networks. Monitoring of various initiatives in biotechnology, including those by the private sector, was engaging the attention of FAO. FAO was currently preparing a Code of Conduct on Biotechnology which covered various aspects, including safety.

22. Referring to the role played by FAO in the region in matters concerning food and agriculture, the Director-General recalled that following the review of FAO's goals and operations, the FAO Conference in November 1989 reaffirmed the validity, relevance and the importance of the importance of the objectives, strategies, roles and activities of the Organization which in the opinion of the FAO Conference remained "solid and dynamic".

23. The Director-General affirmed the determination of the Organization to implement the FAO Conference decisions scrupulously. However, the Organization was handicapped by the problem of accumulated arrears in the payment of contributions, despite the appeals made by the FAO Conference for settlement of that obligation. Reluctantly, the Organization had to curtail its services to the Member Nations. He appealed to all Member Nations to settle their arrears quickly and in full to enable FAO to perform its mission. The complete text of the Director-General's statement is given in Appendix E to this Report.

24. After the Director-General completed his statement, the Chairman recalled the tribute paid to the late FAO Regional Representative, and the Conference observed a minute's silence in memory of Mr L.I.J. Silva.

## II. COUNTRY STATEMENTS AND GENERAL DEBATE ON THE FOOD AND AGRICULTURE SITUATION IN THE REGION

25. Country statements were presented by the delegates of the following countries: Australia, Bangladesh, Bhutan, Cambodia, China, Democratic People's Republic of Korea, France, India, Indonesia, Islamic Republic of Iran, Japan, Republic of Korea, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Samoa, Sri Lanka, Thailand, United States of America, Vanuatu and Vietnam.

26. Countries unanimously expressed serious concern that, despite appeals made by the FAO Conference, the Organization remained handicapped by accumulated arrears. A sense of unease was expressed over the fact that Organization had to curtail its services to Member Nations. The decline in the number of training courses, meetings, publications, direct support to member countries and initiation of new projects, etc., due to the financial constraints, was deplored. Countries appealed that all Member Nations should spare no efforts to honor their commitments and pay their assessed contributions in time to FAO to enable it to fulfil its mandate more vigorously.

27. Countries endorsed FAO's programme of activities and the established priorities. Several delegates stated that FAO, through its various activities, made remarkable contributions to improve the agricultural and food situation of developing countries in the Region.

28. FAO's role in the collection and dissemination of information on food and agriculture and in the provision of policy advice was emphasized by some delegations.

### Agricultural Production

29. Most countries expressed the view that of all the developing regions, Asia and the Pacific registered the most substantial gains in food production. Strategies adopted to increase agricultural production varied from one country to another and had evolved to suit individual country needs.

30. Bangladesh undertook a programme of boosting production by offering "incentive" prices to the farmers. This, in turn, resulted in surplus production, sometimes lowering prices below cost levels.

31. In China during the 1980's, the contract production responsibility system, the contract purchase system and free marketing of most farm products were introduced. The "Bumper Harvest Programme" to increase the production of cereals, cotton and other major farm products; the "Food Basket Programme" to increase the production of livestock, vegetable, fruits and other non-staple food; the "Poverty Alleviation Programme" to accelerate the development of poor areas, and the "Spark Programme" to upgrade the technical standards of rural enterprises were undertaken by China. Agro-technical extension service network was also promoted.

32. The Government of Democratic People's Republic of Korea recognized agriculture as one of the two major branches in their national economy, and set a goal of 15 million tons of grain production by the end of 1993.

Solving water problems and increasing the availability of arable land by reclaiming tidal land and acquiring new land were the priorities. Two large-scale fertilizer complexes designed to produce annually 900 000 tons of nitrogenous fertilizer and 510 000 tons of potassic fertilizer were nearing completion.

33. In the last two years in India, the agricultural sector made a significant recovery. Total production of foodgrains in 1989-90 was well over 170 million tonnes for the second year in succession. A series of measures were introduced by the Government as part of the new agricultural policy. Credit to farmers was made available on liberal terms. It was also decided to waive off loans up to a limit of RS. 10 000 to improve farmers' economic viability and to make further investment in agriculture. In India, the national agriculture research system comprising 42 ICAR Institutes, 26 state agriculture universities, 4 national bureaux and 89 Krishi Vigyan Kendras (Agriculture Science Centres) separately, and linked through large coordinated research networks, were responsible for developing agro-technologies, training manpower and taking up extension education. A massive lab-to-land programme for the transfer of appropriate technology in agriculture and allied sectors to the field level was undertaken.

34. Indonesia introduced new policies to boost agricultural production: fertilizer prices were adjusted to reflect world market prices, trade for coconut oil and export crops was liberalized to narrow the gap between local and border prices.

35. The Islamic Republic of Iran reported fundamental changes: traditional agricultural practices were yielding place to modern and profitable industrial agriculture, through centralization of the rural communities. Non-interference of government in the provision of agricultural products was stressed. The main goals during the first five-year development plan were to achieve self-sufficiency in some of the strategic products, preservation and promotion of natural resources and the reduction of food imports.

36. In Japan, the self-sufficiency rate of food, measured in calorie terms, had fallen to as low as 49 percent, which was among the lowest in the developed countries. Japan shared the concerns about world food security and fully supported the belief that each country should produce at least the basic foodstuffs within its own territory.

37. The Republic of Korea experienced an average annual growth rate of more than 8 percent due to rapid industrialization and urbanization. There was a sudden and massive outmigration of rural inhabitants, and the gap between the rural and urban sectors, both in income and living standards, widened. This posed new problems for the agricultural sector.

38. Malaysia registered an annual growth of 5.2 percent in agricultural production during the last two decades. The index of food production per caput rose by 39 percent. Among the policies pursued were: creation of new land development schemes and settlements; special support for rice; diversification into high value crops; consolidation and integration of smallholdings; development of downstream activities in agro-based industries, and above all, the introduction of new agricultural, veterinary and fishing opportunities.



39. In Maldives, the evaluation and selection of the best local varieties and the introduction of integrated pest management using combinations of biological control and environmentally-safe pesticides were the more recent thrusts.

40. In New Zealand, agriculture accounted for some 7 percent of the Gross Domestic Product (GDP) and agricultural exports represented some 60 percent of the total value of exports.

41. In Pakistan, the agricultural sector in 1988-89 registered a growth rate of 7.1 percent with a steady increase in the production of wheat, rice and maize. Remarkable strides were made in the production of cotton, but oil seeds and pulses remained a weak area and special programmes were being designed to correct the situation.

42. Samoa reported that the country was experiencing a period of critical local food supply shortages as a result of Cyclone Ofa. South Pacific countries in general depended on a narrow range of agricultural products having little influence on the terms of world trade. Most of them experienced balance-of-payment difficulties due to decreasing exports and increasing imports.

43. The agricultural sector in Sri Lanka accounted for more than 25 percent of the GDP. Paddy production increased significantly due to an improved technology package and new varieties developed by the scientists, coupled with extension education and training. Input supplies, particularly in respect of agricultural credit, fertilizer and quality seeds had been streamlined. More rural banks were opened. Sri Lanka recently launched an innovative programme called "Janasaviya" under which poor families receiving less than RS. 700/- per month were identified and provided access to a pool of resources worth RS. 2 500/- per month. A special counseling service at the village level with well-trained persons had been established.

44. Thailand highlighted the problem of land degradation in the country. Approximately 38 percent of the Northeast land was threatened by widespread saline soil conditions and the Central Plain region was facing the problem of soil acidity.

45. The United States of America emphasized that the key to many policy adjustments in Asia had been more market-oriented policies, greater private sector investment, and a liberalized trading system.

46. In Vietnam, food and agriculture production registered considerable progress in recent years. Total food production increased from 17.5 million tons in 1987 to 21.4 million tons in 1989. Part of the food was exported.

#### Agricultural Trade

47. The critical importance of achieving reform in agricultural trade through the Uruguay Round negotiations was emphasized by several countries. Australia drew attention to the creation of the Asia Pacific Economic Cooperation Forum and the inaugural Ministerial-level meeting held in Canberra in November 1989. Their joint statement strongly supported a strong and open multilateral trading system.

48. Malaysia expressed the hope that the Uruguay Round of Multilateral Trade Negotiations would enable the formulation of a more realistic framework for agricultural trade relations between developed and Third World nations in the years to come.

49. Indonesia stated that the Uruguay Round represented an immediate opportunity to further liberalize multilateral trading systems and urged that all tropical and natural resource-based products should be considered for special and differential treatment towards developing countries.

50. Japan stated that it maintained import restrictions for only a small number of commodities which were crucial to its domestic agricultural sector. It urged that in formulating the rules and disciplines at the Uruguay Round, various aspects of agriculture, such as food security and conservation of land and environment, should be taken into consideration.

51. The Republic of Korea voiced the opinion that the sudden and massive expansion of agricultural import liberalization would have an extremely adverse effect on food security and conservation of the environment. It called on FAO to endeavor to minimize negative effects arising from the process of agricultural market liberalization.

52. New Zealand commended FAO for the role it was playing in furthering the objectives of the GATT Multilateral Trade Negotiations on Agriculture, particularly the support provided by FAO in developing concepts and guidelines for sanitary and phytosanitary negotiations.

53. Thailand stated that despite the comparative advantage it had in rice production, its position as a leading exporter of rice was threatened by increasing protection policies and declining prices in world agricultural trade.

54. The United States of America stated that it submitted proposals to the Uruguay Round for improved market access by converting non-tariff barriers to tariffs; by phasing out export subsidies and export tax differentials; by reforming programmes that distort trade; and by placing sanitary and phytosanitary legislation and barriers under an international process that fostered settlement of disputes.

#### Nutrition

55. Several countries considered that achievements of the past decade in agriculture had been mainly in increasing production of foodgrains, predominantly rice and wheat. The rate of production of most other nutritive food crops had either remained static or had declined during this period. Consequently, there had been an increase in dietary imbalances.

56. Australia emphasized that the links between nutrition, agriculture and food programmes must be strengthened at all levels: community, national, academic and technical.

57. In Bangladesh, a new project on horticultural research and development was taken up this year, with assistance from the ADB and the UNDP. This project was expected to diversify cropping patterns and increase rural employment and income. Another project, for increased consumption of vitamin A-rich food was also under way, with FAO assistance.

58. In Bhutan, surveys had revealed the average calorie input to be above 2200 calories. Only about 9 percent of surveyed households exhibited calorie deficiencies, while 13 percent exhibited protein deficiencies. Iodine deficiencies were estimated to afflict over 50 percent of the population. To counter specific nutritional deficiencies, the Royal Government had initiated programmes of balanced food diets and improved health care. The Ministry of Agriculture was mandated to promote production and consumption of protein-rich foods and vegetables containing micronutrients. School garden programmes had been expanded. School teachers, health workers and extension workers had all been trained on nutritional aspects.

59. The Government of India was implementing various programmes concerning nutrition education and extension; development and promotion of nutritious food; and fortification and enrichment of food supply, for control and prevention of malnutrition. The programme, Universal Iodisation of Edible Salt, would be implemented in different phases.

60. Available data in Indonesia showed that about 40 percent of children suffered from mild undernourishment, and approximately, one out of 8 children were moderately or severely undernourished. The delegation from Indonesia urged UNDP and FAO to take necessary actions in order to accelerate the implementation of programme of activities of the Regional Network for the Implementation of Production and Consumption of Vitamin A-rich food.

61. The people of Maldives, especially children were not eating sufficient vegetables and fruit necessary for good health to supplement the basic diet of fish and rice. The main nutritional problem area was the availability of fresh vegetables, at an affordable price.

62. A series of nutritional requirement and intake surveys were carried out in Myanmar since 1985-86 for different age groups. The findings of the 1987-88 survey of primary school children diets between the ages of 10 to 12, indicated that nutrient intake stood at 57 percent for calories and 81 percent for protein against standard requirements.

63. Pakistan reported that they were confronted with four nutritional problems: protein calories malnutrition, anemia, iodine deficiency and poor maternal nutritional status. The country would adopt a nutritional surveillance system and pursue a strategy based on increased public awareness about nutrition.

64. In Papua New Guinea, the National Nutritional Survey identified some 30 districts where serious nutritional stress was evident from height and weight indicators. The reasons for this severe malnutrition were not fully understood, but could include food availability, food practices and disease patterns.

#### Biotechnology for Crop and Livestock Production in Asia and the Pacific Region

65. Australia emphasized that biotechnology would benefit developing countries through increased productivity of tropical commodities to meet future food needs, would open new opportunities for the use of marginal lands, and would reduce the use of agrochemicals.

66. Bangladesh reported that a project, with FAO assistance, would be initiated this year at the Bangladesh Agricultural Research Institute for the establishment of a tissue culture laboratory. Another project, with the assistance of the Rockefeller Foundation, would commence shortly at the Bangladesh Rice Research Institute for the development of a rice biotechnology facility.

67. The application of biotechnology as a total package of practices for enhancing animal, fish and poultry production through provision of adequate nutrition, health cover and management had found an important place in India. Programmes on field demonstrations of selected areas, such as embryo transfers and fish and poultry production for rural development, had been initiated.

68. A national board for development of biotechnology and a centre of excellence for biological scientists would be established in Indonesia. Existing facilities for the establishment of a Research Centre for Agricultural Biotechnology in Bogor, West Java would be strengthened. Efforts to accelerate food production by using tissue cultures, embryo transfers and superior, diagnostic techniques would be intensified.

69. The Republic of Korea delegation felt that the role of biotechnology was greater in developed countries than in the developing ones. It was not foreseen that developing countries would be able to catch up with the developed world in this field in the near future due to lack of skilled manpower and funds.

70. Pakistan stressed that biotechnology for crop and livestock production had immense scope to complement and augment the conventional approaches to problem solving and urged FAO to play a leading role in assisting member countries, in achieving breakthroughs and in exploring new horizons in food and agriculture. Development and spread of small farm-oriented new technologies would be particularly welcome.

71. Sri Lanka cautioned that while massive strides had been taken in biotechnological innovations and genetic engineering, developing countries should not lull themselves into a sense of complacency that the results of such developments had filtered down to the rural masses and the small farmers.

#### Livestock

72. Several countries reported that their programmes included increasing breed numbers as well as improving the genetic potential of these animals. Much progress had been achieved in the dairy industry through a combination of programmes that incorporated the procurement of high quality crossbreeds with integrated breeding, and the establishment of milk collection and marketing centres with extension support services.

73. Malaysia emphasized the integration of ruminants, particularly sheep, with tree crop farming. Mutual benefits to both animal and crops under this system had been established. Private estates and land development agencies in Malaysia were actively engaged in such livestock-crop integration. With 3.5 million hectares of rubber, oil palm and coconut area in the country, it was estimated that an additional 9 million sheep or one million cattle could be economically raised under that system.

### Fisheries

74. Australia and New Zealand were concerned about driftnet fishing, an issue of special importance to this region. Australia was a signatory to the Convention to ban driftnet fishing activities in the South Pacific. New Zealand voiced the opinion that fisheries was one area in which sustainability must obviously be a guiding principle. The resources of the sea were not inexhaustible and there was a need to end driftnetting in the South Pacific by mid-1991, and elsewhere by mid-1992.

75. Many countries appreciated "The Action Plan for Fishery Management and Development" adopted by 1984 World Conference on Fisheries Management and Development and called for its implementation.

### Forestry

76. Australia stated that they were providing funds under their Tropical Forestry Initiative for technical cooperation and exchanges to improve the management and protection of tropical forests. This included financing for the International Tropical Timber Organization's Study on Sustainable Forest Management in Sarawak. There had also been bilateral discussions on this issue with Papua New Guinea, Indonesia, Malaysia and Thailand.

77. The Government of Japan reported they would continue to support the activities for the formulation of national TFAPs, while trying to intensify bilateral cooperation for forest conservation, afforestation and related research, particularly for tropical forest. They would also lend additional support to the International Tropical Timber Organization (ITTO) and the Consultative Group on International Agricultural Research (CGIAR).

78. Several countries expressed their full commitment to the principles and framework of the Tropical Forestry Action Plan coordinated by FAO. They reiterated that the implementation of TFAP required the cooperation and active participation of all parties, including developed and developing countries, international banks and other institutions.

79. Malaysia stressed that timber and wood-based industries provided the timber producing/exporting countries with much needed foreign exchange, domestic revenue, income and employment opportunities. Sustainable management and development of forest resources should therefore include both production and protection aspects of forestry. Malaysia emphasized that developing countries needed to extract forest resources for economic development. Since the benefits were felt globally, the responsibility for bearing the cost of conservation and management should be international in scope.

### Sustainable Development

80. Countries were unanimous in stating that in recent years environmental degradation emerged as an issue of prime concern for industrialized, as well as for developing countries. Fast-growing populations entailed over-exploitation of the land and soil. The boundaries of "horizontal expansion" of agricultural production might have already been reached in several countries. Considering the urgent need for halting

environmentally-unsound practices, many countries emphasized that environmental aspects should be an integral part of the economic decision-making process.

81. Some countries highlighted that the problems associated with the greenhouse effect would present major challenges to the international community. They would require genuinely global solutions, solutions which would have to be built around cooperation efforts by developed and developing countries.

82. Australia stated that at the 1989 South Pacific Forum, they offered to establish a network of sea level monitoring stations in the South Pacific. Indonesia emphasized that the blame for global environmental damage had been disproportionately assigned to the developing countries. While there had been considerable pressure on developing economies to refrain from utilizing their natural resources for the sake of the global ecosystem, the more dangerous environmental destruction caused by toxic wastes and pollutants in developed countries had been ignored.

83. Japan stated that global environmental issues were now becoming a common threat to the existence of human beings and all fauna and flora in the world. Every country was required to maintain and develop agricultural production in each region on a stable basis by paying due attention to the maintenance of ecosystems as well as to the economic aspects of agriculture. Japan was committed to provide approximately 2 billion US dollars as Official Development Assistance in the field of environmental protection during the three years, starting from Fiscal Year 1989.

#### Statements by Observer Delegations

84. Statements were also made by representatives of the Afro-Asian Rural Reconstruction Organization (AARRO), the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) and the Economic and Social Commission for Asia and the Pacific (ESCAP).

85. The Secretary General of the Agro-Asian Rural Reconstruction Organization (AARRO) stated that the strategy for development of the developing countries should be based on an integrated approach for rural development with emphasis on agricultural productivity, employment, health and nutrition, education, people's involvement and participation, advancement of women and disadvantaged groups and the development of infrastructure facilities.

86. The Director of the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) stated that the Centre had completed 10 years of its existence in July 1989. Since inception, CIRDAP had the consistent support and guidance of FAO. The activities of CIRDAP had expanded and now covered Pacific island nations and the People's Republic of China, although they were non-members of CIRDAP. Apart from the enhanced support of Japan and the Commonwealth Secretariat, a number of other donors were assisting in the implementation of the Programme of Work of the Centre. Special professional relationships had been established with the EDI of the World Bank; IFAD; Wageningen Agricultural University of the Netherlands; and others.

87. In his statement the representative of ESCAP emphasized the importance of coordinating closely the activities of ESCAP and FAO. Many collective efforts had already been made; the Fertilizer Network, FADINAP, was a good example of inter-agency cooperation. FADINAP had undertaken a wide range of activities covering advisory services, training, and publication of technical reports relating to fertilizer and agro-pesticides. Another example of close inter-agency collaboration between FAO and ESCAP was the FAO regional project RAS/8/002-TCDC on Research and Development of Food Legumes and Coarse Grains in the Tropics and Subtropics of Asia. The Inter-Agency Committee on Integrated Rural Development for Asia and Pacific had also undertaken a number of programmes on participatory rural development and training programmes on decentralized planning.

III. REPORT ON FAO ACTIVITIES IN THE REGION 1988-1989<sup>1</sup>

88. The Acting Regional Representative of FAO Regional Office for Asia and the Pacific introduced this agenda item. He stated that these activities were undertaken in response to the priorities set at the 18th FAO Regional Conference in Rome and renewed at the 19th Conference in Bangkok. They were implemented within the context of severe financial constraints which troubled the Organization for most of the biennium. Liquidity problems imposed a constant struggle to ensure that the approved programme of work was carried out.
89. He stressed that the activities under regular programme complemented the field programme. FAO executed 605 field projects during the biennium, of which 99 were regional in scope. Nearly 900 professionals, drawn from all over the world, shared their expertise in executing these projects.
90. Investment support remained an area of critical concern. The Investment Centre assisted in formulating 18 projects which were approved by financing institutions. Total investment generated was in the order of US\$ 998 million.
91. He underscored that collective self-reliance among the developing countries of the region was promoted through TCDC. In this endeavour, RAPA's seven regional technical commissions, FAO-sponsored organizations such as Asia and Pacific Regional Agricultural Credit Association (APRACA) and the Association of Food Marketing Agencies in Asia and the Pacific (AFMA), and the Regional networks on various technical subjects played an important role.
92. He then presented an overview of FAO's activities in the region. The review covered natural resources, crops, livestock, nutrition, rural development, food and agricultural information and policies, fisheries and forestry.
93. The Conference commended the FAO Secretariat for the comprehensive and informative review and placed, on record, their appreciation to FAO for the services rendered to member countries despite financial constraints. In particular, the Conference noted the usefulness of the table in the report on activities under the FAO Regular Programme which provided information on allocation of resources between major programmes. It requested that further information of this nature be included in future reports.
94. Serious concern was expressed by the Conference that despite appeals made by the FAO Conference, the Organization remained handicapped by accumulated arrears. Reluctantly, the Organization had to curtail its services to the member countries. In this context, the Conference urged all Member Nations to settle their arrears quickly and in full to enable FAO to implement its Programme of Work for 1990-91.
95. The Conference expressed serious concern about the adverse effects of the reduction in training activities, in the number of technical meetings and in direct support activities on the implementation of FAO programme for agricultural development in the Region.

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<sup>1</sup> APRC/90/2



96. The Conference recognized that FAO's Programme of Work and Budget for 199-91 had been approved by Member Nations at the FAO Conference in November 1989. The nine priority areas agreed to were: (i) policy advice; (ii) biotechnology; (iii) agricultural data development; (iv) sustainable development; (v) women in development; (vi) crop/weather monitoring; (vii) crop protection; (viii) aquaculture; and (ix) Tropical Forestry Action Plan.

97. The Conference underscored that the activities relating to biotechnology, sustainable development, crop protection, and Tropical Forestry Action Plan, as well as fisheries development, should also be given special priority.

98. The Conference emphasized that FAO should give priority attention in its programmes to policy analysis and planning, with particular focus on sector and subsector reviews and structural adjustment work.

99. The Conference urged FAO to continue integrating environmental issues into its programmes and field activities to evolve a strategy for sustainable agricultural development.

100. The arable land frontier in many parts of the region had already been reached. Thus, the Conference stressed the importance of addressing more urgently problem soils to make them more productive. FAO should attach increased priority to this area of work, including soil conservation and watershed management. The Conference supported FAO's initiative in establishing a TCDC network on problem soils.

101. The importance of developing the application of remote sensing technology in agriculture, fisheries and forestry was underscored by the Conference. The role of remote sensing in Global Information and Early Warning Systems to monitor crop conditions, production prospects and the food supply situation still needed to be fully exploited.

102. The Conference noted with concern the indiscriminate use of dangerous pesticides. Adequate safeguards for the distribution and use of hazardous pesticides should be adopted.

103. Ongoing efforts of FAO in promoting the judicious and safe use of pesticides were commended. The Conference urged FAO to continue promoting and strengthening its programme on integrated pest management.

104. Assistance to the small island countries in the fields of marketing of agricultural produce and training programmes concerning agricultural credit, including fisheries and forestry, needed to be increased.

105. Research and technology development had been and would continue to be a critical stimulus for agricultural growth. The Conference therefore suggested broadened support for agricultural research.

106. The Uruguay Round of Multilateral Trade Negotiations had reached a critical stage with definitive negotiating proposals being tabled. The Conference therefore stressed the need for special and differential treatment for developing countries, expanded market access for agricultural and tropical products and substantial and progressive reductions in trade-distorting support and protection policies. FAO's role in providing scientific support to the Negotiations was emphasized.

107. The Conference emphasized that arresting deforestation and rebuilding forest resources were the major forestry concerns in the region. In this connection, the Conference supported the efforts of FAO to monitor the changing status of forest cover through the global project - "Tropical Forest Resource Assessment, 1990".

108. The Conference noted that embargoes on international trade in timber products were not proven to be effective in arresting deforestation. Formulation and implementation of appropriate national forestry policies were more important. Countries were urged to formulate national tropical forestry action plans.

109. FAO's approach of promoting TCDC through regional networks was strongly endorsed by the Conference. TCDC activities should be further expanded and strengthened.

110. The Conference reaffirmed that the Technical Cooperation Programme (TCP) enabled FAO to respond promptly to the needs of countries in the region and suggested that in the future significant additional TCP resources be made available to the region.

IV. ACTION PROGRAMMES TO OVERCOME SPECIFIC NUTRITIONAL DEFICIENCIES  
IN THE ASIA-PACIFIC REGION<sup>1</sup>

111. The Director, Food Policy and Nutrition Division, FAO, Rome, introduced this agenda item. He stated that average food availability in the Region during 1974-76 to 1984-86 increased from 2039 to 2430 kilocalories per caput per day. Considerable progress had been made in increasing food supplies. Still the region had the largest number of malnourished people in the world. Diseases due to specific micronutrient deficiencies were widespread. Vitamin A deficiency, leading to irreversible blindness, afflicted more than 10 million children in the region. High prevalence of iron deficiency causing anaemia was reported in preschool children, women in the reproductive age group and pregnant women. Iodine deficiency disorders (IDD) put at risk more than 277 million people in South-East Asia alone. Many suffered from such diseases as goitre and cretinism. In addition, deficiencies in human zinc, selenium, vitamin D, thiamine and riboflavin were recorded in many countries.

112. In reviewing the technologies available for prevention of these diseases and efforts being made by national governments and international bodies to remedy the situation, guidance was sought from the Conference on appropriate action programmes. These could form part of the regional contribution in the preparations for the International Conference on Nutrition proposed to be convened in 1992 in Rome.

113. The representative of the World Health Organization also made a statement. She stressed that iodine deficiency was a major risk factor for physical and mental development. At least 40 million preschool children in the world were affected by vitamin A deficiency.

114. The Conference emphasized that integrated food and agriculture policies and plans were required to alleviate nutritional deficiencies. To this end, governments should formulate national and subnational food and nutrition policies and plans to ensure that development planning, with all its sectoral components, were consonant with nutritional improvement. Nutritional objectives should be integrated into agricultural and rural development projects, including forestry and fisheries projects. Future biotechnology programmes should be oriented towards production of nutritionally-desirable plant varieties.

115. The Conference stressed that any overall action programme to combat specific nutritional deficiencies must address short-, medium- and long-term measures through its component programmes. In the fight against malnutrition, these components had essential roles to play: provision of vitamin and mineral supplements; development of appropriate food distribution systems; iodation of food; creation of long-term food supply programmes that provided the needed quality and balance of nutrients, and were economically accessible to all sections of society.

116. It was noted even that there was a high degree of complementarity between nutrition and improved productivity, especially in rainfed areas. The Conference urged countries to reorient their agricultural-based

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<sup>1</sup> APRC/90/3

activities towards increased production including animal products and to diversify their food-crop availability, especially those rich in vitamins and micronutrients.

117. Appropriately designed food distribution systems could improve the nutritional status of the underprivileged. The Conference therefore emphasized that vitamin A or carotene-rich foods could be included in the choice of commodities distributed, together with oils and fats, to improve the consumption of vitamin A. Iodized salt distribution, either gratuitous or at subsidized prices, could substantially reduce the prevalence of goitre.

118. The Conference recommended that governments establish nutrition surveillance systems. These would identify areas of high prevalence of micronutrient deficiencies within a country for priority targeting. In addition, they would monitor the implementation and impact of the action programmes.

119. The Conference stressed that special attention be given to supplementary feeding schemes. Targeting such schemes to vulnerable groups and reorienting them to include food items that would supply the needed micronutrients could enhance their effectiveness.

120. The Conference noted that food fortification programmes such as fortification of salt with iodine to combat iodine deficiency disorders (IDD), had been ongoing in the Asia-Pacific Region for some time. Within this context, the Conference noted the recent technological breakthrough achieved in India in fortifying salt with both iodine and iron. Regarding vitamin A, fortification of a suitable food carrier was a necessary medium-term solution to prevent vitamin A deficiency. In the long-term a more promising means of enriching vitamin A food levels was through the breeding of high-carotene containing plant varieties.

121. The Conference recommended that steps be taken to ensure that governments and food industries adapt food fortification technologies to the nutritional conditions in the countries concerned and that they maintain strict quality control and safety systems for fortified foods.

122. The Conference emphasized the importance of action programmes to support appropriate home food production in improving household-level access to nutritious food. These included: dark green leafy vegetables, yellow non-citrus fruits and mangoes, pumpkins and sweet potatoes.

123. The Conference stressed that nutrition education programmes conducted through established institutions and mass media and social marketing campaigns to increase public awareness were important supportive actions in overcoming nutritional deficiencies. The involvement of non-governmental organizations (NGOs) was of particular importance in creating public awareness.

124. The Conference emphasized that training of nutrition professionals, including that of medical students, needed to be improved and expanded. These ranged from postgraduate training of senior-level nutritionists to provision of short courses for agricultural extension workers, health assistants and community leaders.

125. The Conference welcomed the participation of WHO in the Regional Conference. In order to address the three major micronutrient deficiencies (iron, iodine and vitamin A), the international community had established three high-level technical consultative groups and councils to provide technical information to the countries. FAO, WHO and UNICEF were active partners in these three technical groups. The Conference urged governments to make greater use of these services.

126. In view of the differences in the nature of nutrition problems in different regions, the Conference suggested that the proposed International Conference on Nutrition have a regional focus in devising strategies and action proposals. The Conference therefore recommended that the conclusions of this Regional Conference on nutritional issues be duly taken into account in preparing for the International Conference on Nutrition.

V. PROGRESS AND PROSPECTS OF BIOTECHNOLOGY FOR CROP AND LIVESTOCK PRODUCTION IN ASIA AND THE PACIFIC REGION<sup>1</sup>

127. The Regional Plant Production and Protection Officer introduced this agenda item. He observed that biotechnology offers alternative or complementary ways and means to make or modify biological products according to needs. He emphasized that biotechnology should not be viewed as an end in itself, but as a group of tools for problem-solving. One of the distinct advantages of biotechnology was that it enabled better targeting of genetic restructuring and selection processes and provided quicker results.

128. The Conference noted that biotechnology applications differed considerably from country to country. Depending on their needs, capabilities and policies, countries were pursuing biotechnologies of varying complexities. They ranged from simple techniques, such as tissue culture and micropropagation, to gene splicing and production of transgenics. Some countries had even succeeded in inducing haploids and in developing new varieties in a large number of plant species. Positive and precise selection of individual plants in segregating populations for desirable attributes were now possible through the use of DNA markers.

129. Noting that technologies for breeding high-yielding varieties of several pulses, oilseeds, and roots and tubers were not available, the Conference suggested that biotechnology be utilized to incorporate genes in increasing productivity, adaptability, resistance and quality.

130. The Conference noted that the in vitro culture technique was labour-intensive, cost-effective and suitable for developing countries. However, the potential for this technique remained largely untapped. The Conference therefore suggested that countries develop integrated research and development programmes to exploit the technique. FAO was requested to document and disseminate successful experiences of commercial exploitation of in vitro micropropagation.

131. The Conference noted that there was a lack of cooperation within the private sector regarding biotechnology work on the oil and date palms, which could be disadvantageous for the overall development of this economically-valuable plant. Regarding coconut, the Conference suggested that efforts be made to standardize in vitro micropropagation, including somatic embryogenesis, for commercial use.

132. The Conference observed that two developments, namely, de novo synthesis of bio-pesticides by the host plant for its own defense, and microbial sprays, had created new opportunities for pest management. Resistance to herbicides had been engineered into selected crops. Resistance to major pests and diseases, such as brown plant hoppers

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<sup>1</sup> APRC/90/4

in rice, was being transferred from wild related species into cultivated varieties. The Conference suggested that these biological pest control opportunities be exploited by the countries.

133. Noting the potential for biotechnological manipulations and biological nitrogen fixation in improving problem soils, marginal lands and rainfed areas, the Conference suggested that appropriate biotechnologies be standardized and commercially exploited.

134. Considering the rich plant and animal diversity of the region and the applicability of biotechnology for germplasm conservation, the Conference suggested that FAO assist member countries in strengthening national capabilities in this field. Further, to promote international transfer of germplasm using in vitro culture, suitable guidelines for quarantine purposes should be developed by FAO.

135. The Conference noted that biotechnology was being used to increase animal production in the following ways: (i) Embryo transfer and embryo manipulation; (ii) Manipulation of rumen microflora to increase digestibility of roughages; (iii) Chemical treatment of certain roughages to increase digestibility; (iv) Production of growth promoters by gene-manipulated bacteria; (v) Production of vaccine antigens by recombinant DNA safer than conventional antigens; (vi) Development of biological diagnostic reagents which were more specific, accurate and safer than the traditional reagents; and (vii) Mapping of genomes, marker-assisted breeding and the eventual production of transgenic animals.

136. The Conference noted that some of the major problems, such as lack of embryo sexing method for field application, techniques for fertilization under in vitro conditions, cloning of embryos, DNA transfer, were major constraints in the development of newer and more promising technologies for animal production and health. It therefore suggested that selected institutions be strengthened to undertake work on these aspects and to share the technology thus generated.

137. The Conference noted the role of the private sector in biotechnology development in both developed and developing countries. Most developed countries had already created laws to allow private companies to obtain proprietary rights to new technologies for commercial exploitation. However, the implications of privatization and proprietary rights on biotechnology were not quite understood, particularly in the developing countries. In this context, the Conference noted that on the recommendation of the Third Session of the FAO Commission on Plant Genetic Resources, April 1989, the establishment of a Code of Conduct in Biotechnology, which included biosafety, had been included in the approved FAO Programme for Work for 1990-91. The Conference was informed that this Code would comprehensively address the question of biotechnologically-improved materials and techniques to bonafide users.

138. The Conference emphasized that biotechnology complemented "conventional" technology and suggested balanced development of associated areas such as agronomy, breeding, biochemistry, etc. Resources should be allocated in a rational manner to develop comprehensive capability in biotechnology.

139. The Conference emphasized that because of low production costs and ecological compatibility, biotechnology was particularly suitable for the Asia and the Pacific Region where the majority of farmers were small and resource-poor.

140. While appreciating the positive aspects of biotechnology, the Conference drew attention to its possible negative effects, such as erosion of markets for natural tropical products and excessive use of certain chemicals.

141. The Conference noted that there was an acute shortage of suitably-trained manpower in this field. It recommended that various ongoing national and international programmes, such as UNIDO's ICGEB, CGIAR centres, FAO/IAEA, and laboratories in developed and certain developing countries, be used effectively to generate the needed skilled manpower.

142. The Conference further suggested that individual developing countries assess their manpower and research and development needs. Based on these assessments and comparative advantage, appropriate training research programmes and infrastructures for biotechnology should be developed.

143. The Conference recognized the wide intercountry variation in expertise and achievement in biotechnology for crop and livestock production. Within the region, the three developed countries, namely Australia, Japan and New Zealand, were among the front-runners in this field. Several low-income countries had rather modest biotechnology programmes and were keen to establish appropriate level of capabilities in this field. The Conference, therefore, suggested TCDC and North-South cooperation in the judicious exploitation of resources and in maximizing benefits from biotechnology.

144. The Conference fully supported FAO's initiatives in establishing the regional network on animal biotechnology and the proposed regional network on plant biotechnology. It emphasized that the networks should assist national governments to plan and coordinate research and technology application, develop priorities and strategies for research and development activities, promote exchanges of planting materials and germplasm, organize and coordinate meetings, workshops, consultations and training activities, streamline linkages with other relevant regional and international organizations, and exchange information.

145. The Conference suggested that FAO assist in holding a seminar for the countries of the region in 1991 to exchange views on biotechnology and to determine the areas of cooperation among the countries. The Islamic Republic of Iran offered to host the Seminar.

146. Noting that FAO had included biotechnology as one of the nine priority areas in its Programme of Work, the Conference stressed FAO's vital role in assisting member countries in sharing more widely the benefits from new technologies, in monitoring the impact of such technologies (including those related to the private sector) and in providing a forum to discuss biotechnology-related issues.



VI. REPRESENTATION OF THE REGION IN THE CONSULTATIVE GROUP  
ON INTERNATIONAL AGRICULTURAL RESEARCH (CGIAR)<sup>1</sup>

147. The Regional Plant Production and Protection Officer introduced the agenda item and briefly dealt with the status of agricultural research in the region, the role of FAO, and the recent developments in the CGIAR System. He requested the Conference to elect two new members to succeed Bangladesh and Thailand who would be completing their terms by the end of 1990.

148. The Conference noted with appreciation the expanded scope of CGIAR's mandate to include research on the utilization of renewable resources related to agriculture and forestry, research on vegetables, coconut, and aquaculture.

149. The Conference appreciated FAO's assistance in ensuring contacts by regional representatives with member countries to facilitate the feed-in of national views of the CGIAR and feedback from the Group to member countries.

150. The Conference appreciated the action taken by FAO on the establishment of the Asia-Pacific Association on Agricultural Research Institutions (APAARI), noted that five member countries had already accepted its Constitution, that it provided a forum for TCDC, and that it increased the effectiveness of the Region's participation in CGIAR.

151. The Conference elected India and Samoa to represent the region on the CGIAR for a four-year term (1991-94).

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<sup>1</sup> APRC/90/5

VII. PLANT PROTECTION AGREEMENT FOR THE ASIA AND PACIFIC REGION<sup>1</sup>

152. The FAO Legal Counsel introduced this agenda item. He recalled that the Plant Protection Agreement for the Asia and Pacific Region had been approved by the FAO Council in November 1955 under Article XIV of the FAO Constitution. At that time, China was not included in the definition of the Agreement's geographical scope.

153. After China resumed its membership in FAO in 1973, it expressed interest in participating in the Agreement and the work of its Commission. This required an amendment to the definition of the Agreement's geographical scope. On the proposal of the Asia and Pacific Plant Protection Commission, the FAO Council approved in 1983, an amendment to Article I(a) of the Agreement. This extended the geographical scope of the Agreement to include China.

154. Under Article IX of the Agreement, any amendment must be accepted by two-thirds of the Contracting Governments before it can enter into force. There were, at present, 24 Contracting Governments. A total of 16 acceptances was, therefore, required to bring the amendment into force.

155. Progress in obtaining the required number of acceptances had been slower than expected. The last session of the FAO Conference had therefore urged Member Nations concerned to accept the amendment in order to bring it into force as quickly as possible. With this end in view, the item had been placed on the agenda of the present Conference.

156. The Conference was informed that the Director-General had now received the further acceptances necessary to bring the amendment into force. The 16th instrument of acceptance was deposited with the Director-General by the Government of Samoa on 23 April 1990. Further acceptances had been received since that date. In accordance with the first sentence of paragraph 4 of Article IX of the Agreement, an amendment comes into force as from the 30th day after its acceptance by two-thirds of the Contracting Governments. In the present case, therefore, the amendment would enter into force on 23 May 1990.

157. The Conference expressed its satisfaction that the acceptances necessary to bring the amendment into force had now been received. It adopted the following resolution by consensus.

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<sup>1</sup> APRC/90/6

PLANT PROTECTION AGREEMENT FOR THE ASIA AND PACIFIC REGION  
COMING INTO FORCE OF THE AMENDMENT TO ARTICLE I (A)

158. The Regional Conference for Asia and the Pacific, on the occasion of its Twentieth Session in Beijing:

Considering the Plant Protection Agreement for the Asia and Pacific Region approved by the FAO Council in November 1955 under Article XIV of the FAO Constitution;

Considering the amendment to Article I(a) extending the geographical scope of the Region covered by the Agreement to include the People's Republic of China, approved by the FAO Council at its Eighty-fourth Session in November 1983;

Considering that the FAO Conference, at its Twenty-fifth Session in November 1989 "urged that Member Nations concerned accept the amendments to paragraph (a), Article I of the Plant Protection Agreement for the Asia and Pacific Region, relating to the definition of the region, approved by the Council in November 1983, in order to bring these amendments into force as soon as possible";

Considering that the People's Republic of China has been participating in the work of the Asia and Pacific Plant Protection Commission in an observer capacity since 1983 and has expressed the desire on several occasions to become a member of the Agreement;

Considering the interest which membership of China in the Agreement would have for Asia and the Pacific;

Notes with satisfaction that the amendment which allows China to become a member of the Agreement has now been accepted by two-thirds of the Contracting Governments to the Agreement and will come into force on 23 May 1990;

Expresses its deep satisfaction that the People's Republic of China will now become a full participant in the Agreement.

### VIII. CONCLUDING ITEMS

#### Date and Place of the Twenty-first Regional Conference for Asia and the Pacific

159. The delegation from India indicated that their government would be pleased to host, in 1992, the Twenty-first FAO Regional Conference for Asia and the Pacific.

160. The chairman expressed the Conference's appreciation for this offer. This would be transmitted to the Director-General who would decide the place and dates in consultation with Member Governments.

#### Adoption of the Report

161. The Conference considered the draft Report presented by the Rapporteur and approved it unanimously.

#### Closure of the Conference

162. In their closing statements, delegations expressed the view that the Twentieth FAO Regional Conference had been constructive. The exchange of views on various agenda items resulted in useful and sound recommendations.

163. The Conference thanked the Chairman, the Vice-Chairmen, Rapporteur and Members of the Drafting Committee and other office bearers for efficiently performing their tasks.

164. All delegations expressed their appreciation to the Government of the People's Republic of China, especially to the Minister of Agriculture, for hosting the Conference, as well as for the generous hospitality and excellent meeting arrangements. The Conference commended the Secretariat for the excellent quality of the documentation and its efficient work.

165. The closing statement of the Director-General stressed the Twentieth FAO Regional Conference had been characterized by excellent substantive discussions and memorable host arrangements. Special tribute was paid to Minister He Kang for chairing the Conference.

166. The Director-General conveyed the appreciation of both the Organization and the Conference to the Secretary General of the Central Committee of the Communist Party of China, the President and Vice Premier for addressing delegations on food and agriculture issues of the Region. He thanked the host government for the efficient organization of the Conference and for the hospitality accorded to all delegates.

167. He congratulated the Conference for drawing up practical recommendations. The Conference report was balanced and concise. The recommendations would be carefully considered and would help in the preparation of FAO's future Programme of Work and Budget.

168. On behalf of the government of the People's Republic of China, Minister He Kang made the closing statement and then declared the Twentieth FAO Regional Conference for Asia and the Pacific closed.

APPENDIX A

AGENDA

I. INTRODUCTION ITEMS

1. Inaugural Ceremony.
2. Election of Chairman and Vice-Chairmen, and Appointment of Rapporteur.
3. Adoption of the Agenda and Timetable.

II. STATEMENTS

4. Statement by the Director-General.
5. Country Statements and General Debate on the Food and Agricultural Situation in Asia and the Pacific Region.
6. Report on FAO Activities in the Region during 1988-89.

III. SELECTED ISSUES OF AGRICULTURAL AND RURAL DEVELOPMENT

- x 7. Action Programmes to Overcome Specific Nutritional Deficiencies.
- x 8. Progress and Prospects of Biotechnology for Crop and Livestock Production in Asia and the Pacific.
9. Representation of the Region in the Consultative Group on International Agricultural Research (CGIAR).

IV. CONCLUDING ITEMS

10. Plant Protection Agreement for Asia and the Pacific. Membership of China: Coming into Force of Amendment to Article I(a) of the Agreement.
11. Any other business.
12. Date and Place of the Twenty-first FAO Regional Conference for Asia and the Pacific.
13. Adoption of the Report.
14. Closure of the Conference.



LIST OF PARTICIPANTS  
LISTE DES PARTICIPANTS

OFFICERS OF THE CONFERENCE  
BUREAU DE LA CONFERENCE

Chairman:  
Président:

HE KANG (China)

Vice-Chairmen:  
Vice-Présidents:

PAEK BOM SU (D.P.R. Korea)  
Devi LAL (India)  
WARDOJO (Indonesia)  
Issa KALANTARI (Iran)  
Bo-Seong KANG (Korea, Republic of)  
Datuk Seri Sanusi JUNID (Malaysia)  
Abdullah JAMEEL (Maldives)  
D. RADNAARAGCHAA (Mongolia)  
Lt. Gen. Chit SWE (Myanmar)  
Pule LAMEKO (Samoa)  
Jack T. HOPA (Vanuatu)  
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- Draft Resolution on "Plant Protection Agreement for the Asia and Pacific Region: Coming into Force of the Amendment to Article I(a).

APRC/90/REP Draft Report

STATEMENT BY THE PRESIDENT YANG SHANGKUN OF THE PEOPLE'S REPUBLIC OF CHINA

Mr Chairman,  
Your Excellency, the Director-General,  
Distinguished Delegates,  
Ladies and Gentlemen,

The Twentieth Session of the FAO Regional Conference for Asia and the Pacific has opened today. On behalf of the Chinese Government and the Chinese people, I would like to extend warm congratulations to the Conference and warm welcome to the delegates and friends from various countries.

The present session will focus on agriculture which is an important issue concerning national development and people's livelihood. To develop agriculture, mankind has made arduous efforts over a long period of time and has achieved remarkable results. Most of the countries in the Asia and Pacific Region are developing agricultural states and agriculture holds an exceedingly important position in their national economy. We are pleased to see that agriculture in this region has made much headway in the past decade or so and this has attracted worldwide attention. In many countries, including some countries with large populations, food self-sufficiency has in the main been achieved and rural economy has generally improved. Nevertheless, the Asia and Pacific is a region with large populations and relatively limited agricultural resources where serious hunger and malnutrition still exist and hundreds of millions of people are still short of food, clothing and shelter. Therefore, the further development of agriculture is an urgent and difficult task.

Now mankind has stepped into the last decade of this century in which chances and challenge, hope and danger coexist. Whether we will succeed in this challenge depends to a considerable extent on whether we can achieve an all-around development in agriculture throughout the world. In doing so, first and foremost correct and practical development strategy and a relevant whole set of effective policies must be formulated by various countries. The farmer's enthusiasm should be fully mobilized. We should rely on science and technology, make rational use of agricultural resources, protect ecological environment, promote animal husbandry and fishery so that the agricultural economy in this region will be raised to a new high level.

Mr Chairman,

The development of the Asia and the Pacific Region, including the agricultural development in this region, also rests on the enhancement of exchange and cooperation among countries in Asia and the Pacific. China is situated on the west side of the Pacific with extensive natural contacts among the countries in the region. It places great importance on taking an active part in the economic cooperation of this region. China has made unrelenting efforts for the common development in Asia and the Pacific. We are of the view that countries in this region, regardless of their difference in social systems and development, should sincerely cooperate with each other on the basis of the Five Principles for Peaceful Coexistence and such cooperation, on the basis of mutual benefit, may be initiated step-by-step in various areas and be further deepened in a cumulative way. Since agriculture holds a crucial position in most of the Asian and the Pacific countries' national economies, cooperation in agriculture should be an important part of such regional cooperation. It

is our view that the existing cooperative agencies in Asia and the Pacific should play the role of a bridge in promoting cooperation and in this case, FAO is in a position to make a greater contribution. China will support all efforts aimed at strengthening economic cooperation in Asia and the Pacific and the realization of common development and prosperity.

The Government of China has always attached great importance to the development of agriculture and has all along given top-priority to agriculture in developing economies. Recently, we have launched another campaign to mobilize all walks of life, including the central and local governments, to support agriculture. The State and local authorities have all increased input to agriculture and carried out extensive farm land capital constructions. Efforts are being made to increase scientific and technical input to further develop agriculture.

At present, China's political, economic and social situation is stable. The national economy is enjoying a healthy development amid readjustment. We shall, as always, adhere to the reform and open-door policy, confidently march towards our set target and strive for a fairly well-off society by the end of this century. In international affairs, we shall continue to establish and develop friendly relations with all countries on the basis of the Five Principles for Peaceful Coexistence; we firmly support the efforts made by the developing countries for the establishment of a New International Economic Order and also hope that the developed countries will take a positive attitude and take up their due responsibilities.

Mr Chairman,

The Asia and the Pacific Region is full of hope and vitality and agriculture in this region enjoys a bright future. The Chinese people are ready, together with peoples of various countries, to make positive contributions for a more thriving and prosperous Asia and the Pacific.

In conclusion, I wish the Conference a full success and the delegates a pleasant stay in China.

I thank you, Mr Chairman.



STATEMENT BY THE DIRECTOR-GENERAL

Mr Chairman,  
Your Excellencies,  
Distinguished Delegates,  
Ladies and Gentlemen,

It is always a joy to find myself in Beijing, this metropolis charged with history and full of beauty, flower of one of the most ancient, noble and refined civilizations the world has ever known: Beijing, city where the fascinating human scene bubbles with vitality, industrious and dynamic capital of the most populous country on earth.

While thanking the Chinese authorities for receiving us with such grace and elegance, in keeping with the great tradition of Chinese hospitality, I am pleased to welcome here the representatives of the Member Nations of the Asia and Pacific Region and to greet in particular the many ministers who have made a point of attending this important session, a real agricultural summit in this part of the world.

Tribute to Mr Silva

Even while I am greeting those present, I must express my deep regret over one absence: that of Mr. Silva, FAO Regional Representative, whose premature death was a grievous loss for us. I held Mr Silva in high esteem, both for his intellectual and moral rectitude and for his professional competence. Briefly, I should like to say that in serving FAO this son of Sri Lanka served well the region where he was born. Before being called to the high office of Regional Representative he had represented the Organization, first in Bangladesh and then here in China from January 1986 to September 1989.

Diversity of the Region

Of all the missions to be performed by a member of our Secretariat, the one I entrusted to Mr Silva is among the most difficult and exciting. It means maintaining the FAO presence in the most highly-populated region in the world, whose size and geographical, climatic, human, political and economic diversity defy the imagination. It includes some of the most developed and richest countries, as well as Pacific islands, - so poor that they are unable to send representatives to our general Conference.

The diversity inevitably blurs definition of the region's problems. Any general statement must immediately be qualified; no sooner have we lit upon a truth that seems widely applicable than we have to point out the exceptions, which are often notable. I can only venture very carefully to sketch a general picture of the food and agricultural situation in the region. This will not necessarily correspond exactly with the concrete reality in any given country.

### Food production and supplies

Total cereal production rose slightly in 1989. Although it is still too soon to make accurate forecasts, 1990 harvests are expected to be good, so long as the weather remains clement and the monsoon is normal. The marked expansion of rice production in China and India has been accompanied by appreciable progress in Bangladesh, Indonesia, Myanmar, Pakistan, the Philippines and particularly Viet Nam. In Iran and Sri Lanka, on the other hand, cereal harvests were poor, while planned reductions were made in the Republic of Korea and Malaysia.

It may be seen, therefore, that food supplies on the whole improved in 1989-90. Several countries, however, such as Iran and Sri Lanka, are still far from self-reliant, for the reasons I have just mentioned. The good harvests in 1989 have not entirely remedied the situation in Bangladesh, where structural food aid is still needed, or in the Philippines, where prolonged drought has jeopardized the 1990 harvest.

### Agricultural trade

The trade situation also shows marked contrasts, but on the whole it seems less promising than that of production and supply. Some countries in the region have indeed succeeded in diversifying their exports of both raw materials and manufactured goods. Others, however, still rely mainly on agricultural commodities for their export earnings, and face a difficult situation in world markets. For many of the major products exported by the region - rubber, coffee, cocoa, palm and coconut oil and jute - prices have collapsed or remain very depressed. Even if cereals have fared better, the global index of staple commodity prices continues to sag; it is lower than it was ten years ago, even in current dollars.

The growing indebtedness of the Third World - including many countries in this region - only aggravates the situation. In order to service their debts, countries struggle to produce more for export, which in turn depresses still further prices that are already low because of sluggish demand. Measures taken to alleviate the burden have not gone far enough; much more must be done to reduce the amount of export earnings eaten up by debt-servicing.

Protectionism in industrialized countries, particularly export subsidy programmes, thwarts the developing countries' attempts to conquer a share of the market. In the region, exporters of sugar, rice and other commodities are all too familiar with this situation, despite the occasional efforts made by a few developed countries to limit support for their own agriculture and open up their markets a little more.

In this connection, it was fortunate that in the spring of 1989 it was agreed to "freeze" certain agricultural support measures for the duration of the GATT negotiations known as the Uruguay Round. On the long-term reform of agricultural policies positions are still far apart, but at least the discussion has moved on from generalities to more concrete proposals. This series of negotiations ends in December, so it will take some political will to reach in such a short time an agreement eliminating, or at least reducing, unfair competition for temperate zone commodities, and expanding access to markets for tropical and processed products exported by developing countries.

The situation, therefore, remains difficult, although not entirely hopeless. As the countries of the region well know, FAO understands and takes a sympathetic view of the problems facing them. The Organization stands by them and will maintain and expand as far as possible the assistance it is providing in the most varied fields.

### Nutrition

Of all these problems, I should like to accord special attention to nutrition - a separate item on your agenda - because of the gravity of nutritional shortfalls in the region.

Despite the improvement in supplies I mentioned just now, the Asia - Pacific area is still the region with the largest number of malnourished people in the world. Calorie intake is improving, but an unbalanced diet, poor in proteins and micronutrients, is tending to perpetuate malnutrition and deficiency diseases. As I have often said, malnutrition is above all a problem of poverty. Once again, a vicious circle develops; the poor cannot obtain the food they need for their own health and the normal growth of their children, so from generation to generation malnutrition handicaps them and deprives them of the necessary physical and mental energy to emerge from poverty. We must therefore welcome the efforts several governments are making to improve access to food for low-income groups in the population. But the preparation and implementation of policies and programmes enabling these efforts to become more widespread and to bear fruit require resources which these countries do not have. International aid in this field is therefore essential.

FAO is of course in the forefront of this struggle, not only in the region but also on a world scale. To assess the situation, to review existing technologies and to assist countries in setting a course and in taking measures to conquer malnutrition, we have decided to organize, in close collaboration with the World Health Organization, an International Conference on Nutrition, for which preparations are now being made. This Conference, to be held in Rome in December 1992, will be the first big world meeting devoted exclusively to this serious problem. It goes without saying that the views of countries and regions will play a major role in the choice of agenda items and the approach to possible solutions. This is why we attach considerable importance to your debate on this question, since the statements, conclusions and positions you adopt will constitute the region's contribution to preparations for the world Conference.

### Environment and Sustainable Development

A solution to the problem of nutrition presupposes sustainable rural and agricultural development in this immense region where half the globe's population lives. In fact, nearly three-quarters of the agricultural population of our planet has to earn a living from less than one-third of the arable or permanently cultivated land.

Recent FAO studies show that, although some countries still have, at least in theory, room for maneuver, the region as a whole has reached or even crossed the boundaries of security as regards horizontal expansion of agricultural production. As a result, the fragile ecosystems of marginal and submarginal land are threatened by overexploitation. Land hunger is making man a dangerous predator.

The race is on to ensure that food production expands as fast as population. Consequently, the renewable resource base is subject, in the Asia-Pacific area, to more intense pressure than elsewhere.

Vital watersheds, for example in the Himalayas, have been deprived of their forest cover; the bare earth has been exposed to erosion; rivers are rising and the risk of flooding has increased. Soil degradation is sweeping away huge quantities of arable land. Salinization and waterlogging are affecting more than half of the irrigated areas. In the decimated mangrove swamps, the so-called sanctuaries and breeding grounds of wildlife, both on land and in the water, are disappearing. Deforestation and degradation of the plant cover are leading to the loss of valuable genetic resources and are reducing biological diversity. Fish stocks, like agricultural land and forests, are under heavy pressure.

Chemical products can, of course, help to increase agricultural production. The other side of the coin is that they can also cause problems if farmers are not taught to use them correctly, taking the necessary precautions, and if they are not subject to controls. Applied at the wrong time, in excessive or in too highly-concentrated doses, or without the right techniques, these products can induce chronic or acute poisoning of both human beings and the environment.

Various socio-economic factors combine to aggravate and accelerate damage to the natural environment in this region. Smallholders without title, tenant farmers and share-croppers have little reason to invest in improving land which is not their own. The absence of good policies covering prices and credit to agricultural production tends to discourage them still further. Industrialization is now complicating ecological problems all over the planet. The "greenhouse effect" of carbon dioxide and other gases released into the atmosphere will probably, according to most experts, lead to rising temperatures and climatic changes throughout the world. If the rhythm of the seasons is altered, the very foundations of agriculture, forestry and fisheries risk upheaval.

What is needed to eliminate hunger, to improve nutrition standards and to alleviate rural poverty is sustainable - and therefore ecologically-sound - development. This means promoting agricultural, forestry and fishery production that respects the requirements of conservation. Such an approach implies equity in human affairs, stable production, the preservation of ecological processes and balances, and lastly the harmonious integration of ecological, social, institutional and technical considerations.

Conserving our planet while maintaining and improving agricultural production is a cause to which we can all rally. Concerted effort by all countries, whether developed or developing, is therefore urgently needed at the national, regional and international level.

### Biotechnology

In this connection, it is clear that biotechnology will be playing a major role in plant and animal production. I should like to say something about these techniques, which include genetic engineering, tissue culture, protoplast fusion, and so forth.

The progress that this new approach could bring about has not yet been fully estimated, but already it seems extraordinarily promising. For instance, the time needed to develop new varieties could be cut by an astonishing amount - from 15 to 4 years in some cases. Biotechnology could improve the productivity of cultivated plants and their resistance to parasites, diseases and non-biological constraints such as salinity. Remarkable progress could also be made in the field of quality, for example as regards protein content. Biological nitrogen fixation and the uptake of nutrients could also be considerably improved.

In animal production, equally startling results could be obtained from embryo transfer and manipulation, gene transfer, action on rumen microflora, the use of growth hormones and the incorporation of antigens in vaccines.

Several countries in the region - particularly China, India and the Republic of Korea - are already conducting very important programmes in this field. In many respects, biotechnology seems especially suited to the conditions of the Asia-Pacific area. For instance, in vitro culture requires a large labor force, which the region certainly has, and relatively little financial outlay. The use of biotechnology reduces production costs for farmers, does not contravene the requirements of ecology and could lead to great advances in the quantity and quality of the commodities produced and consumed by the poor.

So must we pin all our hopes on this scientific innovation? Certainly not, for two reasons: first, the path is strewn with difficulties which must be methodically surmounted before we become too deeply involved; and secondly, any interference with living organisms involves the risk of finding ourselves in the role of sorcerer's apprentice if we do not take all possible precautions. Can we predict with absolute certainty all the characteristics of the mutant we are creating? Problems of sterility have often arisen with plants obtained from embryo culture.

A first comment is that biotechnology cannot be isolated from the general context of research, where it must take its place as a discipline complementary to those already proven.

Several problems remain to be solved in the region, and many countries have yet to define their targets. The eventual distribution of tasks, responsibilities and advantages between the public and private sectors - for example, as regards proprietary rights over new products - is still unclear; access to technologies and new materials, even to simple information on concepts recently developed, is restricted by some developed countries who are among the most advanced and who have shown little inclination to share; lastly, financial resources and skilled staff are sadly lacking.

FAO has not been inactive. It has held many training courses and an important symposium - in Luxembourg in June 1989 - on plant biotechnologies for developing countries (in cooperation with the Technical Centre for Agricultural and Rural Cooperation (CTA)); it has created a network in the Asia-Pacific Region on the use of biotechnology in animal production and health and has launched a region FAO/UNDP project in this field; it is setting up a similar system for plant production and protection. The Organization is ready to pursue and develop its action, to which our Programme of Work and Budget for 1990-91 attaches high priority. Our efforts, coordinated by an Interdepartmental Working Group on Science

and Technology, are intended to assist Member Nations to assess their needs, to encourage advanced countries to share their expertise with developing countries, to monitor and to record new facts, particularly initiatives in the private sector, and lastly to provide a forum where the debate on this important subject can be pursued.

At the same time, it is our earnest wish that Member Nations accept by consensus moral obligation in their approach to this subject, which raises so many delicate problems; the International Undertaking prepared under the Global System on Plant Genetic Resources already contains provisions to this effect. To define and confirm what has already been achieved, we are now preparing a Code of Conduct on Biotechnology which will cover various aspects, including safety.

To stimulate discussion, we have prepared a comprehensive document which you have before you. The importance and gravity of the question fully justify the keen interest with which we shall follow your deliberations on this point.

#### Situation of FAO

As you are aware, a discreet but essential role falls to our Organization or rather, your Organization - in all matters concerning food and agriculture in the region. How well is FAO equipped to face the challenges of the 1990s?

On the positive side, there are the decisions made recently by the FAO Conference following the Review of Certain Aspects of FAO's Goals and Operations. Reaffirming the validity, relevance and importance of the "objectives, strategies, roles and activities" of our institution, which remains in its opinion "solid and dynamic", it set out in Resolution 10/89 new orientations that will enable us to establish more modern and more efficient structures and working methods, thus making our action more effective. So while recognizing that a few minor changes may be needed, the Review demonstrated that FAO is in good health and serves its Member Nations well. It is not without significance that these conclusions were adopted by consensus.

We are determined to implement the Conference decisions scrupulously, but here we come up against a problem which for the time being is still intractable, namely that of the settlement by Member Nations of their financial obligations. Accumulated arrears in the payment of contributions (despite the appeals made by the Conference) mean that our cash flow situation is extremely worrying. It is now the main problem facing us, since, for lack of funds, we have reluctantly been obliged to curtail our services to Member Nations. I therefore appeal urgently to all our Member Nations to settle their contributions quickly and in full and thus furnish us with the means to perform our mission.

#### Conclusion

I have tried hard to give you an unvarnished picture of the situation in the region. From the contending brightness and gloom, two main features emerge to convince me that hope will carry the day.

First, although I do not wish to dwell on the international political situation, it seems obvious that the end of the Cold War and

concrete disarmament measures will lead to very considerable savings. It is to be hoped that the leaders of the great powers will have the wisdom to allocate a substantial part of the resources thus released to official development assistance, and that Third World countries and international institutions will, as a consequence, have easier access to funds to finance programmes and projects calculated to ensure an economic breakthrough.

Secondly, and above all, I place my trusts firmly in the immense human resources of your region, in its leaders and in the hundreds of millions of farmers, both men and women, working to develop it. It is impossible, it is unthinkable that so much courage in the face of adversity, so much wisdom and experience, culture and intellectual ability, dynamism and vitality should fail to overcome even the most gigantic obstacles, so long as the boundless energy of your innumerable peoples is galvanized by a spirit of solidarity and a sense of community.







