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Seminar on the Industrial Development  
Decade for Africa with focus on the  
Linkage between Agriculture and Industry\*

Kinshasa, Republic of Zaire, 22-24 July 1988



REPORT\*\*

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\* Organized by the United Nations Industrial Development Organization (UNIDO), in co-operation with the Organization of African Unity (OAU), within the framework of the Fifth All-Africa Trade Fair.

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## I. INTRODUCTION

### Date and place

1. On the occasion of the Fifth All-Africa Trade Fair, which took place in Kinshasa, Republic of Zaire from 16 to 31 July 1988, the Organization of African Unity (OAU) and the United Nations Industrial Development Organization (UNIDO) jointly organized a seminar on the Industrial Development Decade for Africa (IDDA) with a special focus on the Linkage between Agriculture and Industry. The seminar lasted from 22 to 24 July 1988.

### Participation

2. The seminar was attended by some 85 participants from 10 African countries (Algeria, Cameroon, Congo, Cote d'Ivoire, Ethiopia, Ghana, Nigeria, Tanzania, Zaire and Zimbabwe) and 10 international and regional organizations, OAU, ECCAS, Central African Clearing House, PANA, PATU, ECA, FAO, UNDP, UN/UNIC and UNIDO. The detailed list of participants is attached as Annex I.

### Election of officers

3. The seminar elected the following bureau:

Chairman	:	Zaire
Vice-Chairman	:	Ethiopia
Rapporteur	:	Nigeria

## II. OPENING OF THE SEMINAR

4. The seminar was formally inaugurated by His Excellency the Minister (Commissaire d'Etat) for National Economy and Industry of Zaire, Citoyen MOKONDA BONZA. Opening addresses were also made by the Director-General of UNIDO, Mr. Domingo Siazon, Jr., and by the Assistant Secretary-General of the OAU, Ambassador Haggag.

5. In his inaugural address, Citoyen Mokonda Bonza extended, on behalf of the President Fondateur Mobutu Sese Seku, the Government and people of Zaire, and on his own behalf, a cordial welcome to the participants. He thanked the OAU and UNIDO for jointly sponsoring the seminar, and expressed the hope that the seminar would put forward concrete proposals and recommendations for accelerating the development of both agriculture and industry in Africa.

6. The Minister indicated that the choice of the theme for the seminar - the linkage between agriculture and industry - was most timely. It was most pertinent given the increasing food shortages in most African countries and the drought conditions. It was imperative that African countries redouble their efforts and their commitment to the agricultural sector which was the only means of achieving self-sufficiency in food production. The role and contribution of industry to that effort, he emphasized, was very crucial, particularly in terms of the production of agricultural machinery and implements, the supply of agricultural inputs, such as fertilizers, the elimination or at least minimization of post-harvest losses, and the design and construction of storage facilities.

7. The current international economic situation seriously affecting the African countries (falling commodity prices, unpredictable exchange rates, protectionist barriers, etc.) had meant that African countries were receiving increasingly less revenue from their agricultural commodities, while paying ever increasing prices for processed goods: in effect, they were paying the Western industrialized countries to process Africa's raw materials. The only solution, he suggested, lay in Africa's ability to engage itself in the processing of its raw materials and agricultural products.

8. He concluded with the hope that UNIDO would expand its programme of technical assistance to Zaire, and to African countries as a whole, so as to enable them to overcome the problem of decreased agricultural production and to increase the processing of their agricultural products.

9. Mr. Domingo L. Siazon, Jr., Director-General of UNIDO welcomed participants to the seminar and OAU. He extended his thanks to the Zairian authorities, and particularly to Citoyen Mobutu Sese Seku, President Fondateur of the MPR for the cordial welcome accorded to him and the UNIDO delegation upon their arrival in Kinshasa. That welcome and the presence of His Excellency the Commissaire d'Etat at the opening ceremony bore testimony to Zaire's interest in the industrialization of Africa and in the IDDA programme. He also thanked the OAU for its close collaboration in preparing the seminar, as well as the FAO and ECA representatives and other experts for their contribution to the deliberations.

10. The Director-General noted that Africa's socio-economic progress, particularly its industry, was lagging behind despite its immense natural and human resources. The region's industrialization goal and its desire to diversify production and ensure self-sustained and self-reliant economic development had not been achieved. In fact, overall industrial growth had dropped substantially since the 1970s. The adoption of the Lagos Plan of Action and the proclamation of 1980-1990 as the Industrial Development Decade for Africa were an attempt to reverse that trend and improve the industrial output of Africa.

11. The IDDA sought to increase Africa's share in the world industrial production and to ensure self-sufficiency in food, building materials, clothing and energy. During the preparatory phase of the IDDA (1982-1984), a number of countries had taken measures to readjust their national industrialization policies, strategies plans and programmes. UNIDO, ECA and OAU had also taken steps to promote regional industrial co-operation. UNIDO, in particular, had helped countries and intergovernmental organizations in Africa to prepare and implement their various programmes under the Decade. From 1985 to 1987, UNIDO had delivered more than 105 million dollars of technical assistance and promoted some 78 investment projects in Africa totalling about 208 million dollars.

12. The implementation phase of the IDDA (1985-1990) sought to modernize and develop priority core industries including small- and medium-scale industries while offering assistance in the development of manpower and technological capabilities plus strengthening of industrial support mechanisms and mobilizing financial resources from the international community. Adoption of the UN Programme of Action for Africa's Economic Recovery and Development had lent renewed impetus to the programme.

13. Both programmes attached great importance to the link between agriculture and industry. In developed countries agriculture benefited directly or indirectly from industry. A minimum of 50 per cent of direct and another 25 per cent of indirect inputs to agriculture came from industry. The situation was radically different in Africa where most of the simplest agricultural implements and tools were imported owing to the lack of local manufacturing capacities. This was further compounded by high post-harvest losses as well as inadequate packaging, storage, distribution, processing and preservation.

14. The optimum solution according to the Director-General was to improve local industrial production capacity. He stressed that integrated industrial development would enable African countries to redress their economies and improve the living standards of their peoples. That, he affirmed, was the leading idea contained in the Lagos Plan of Action, the Industrial Development Decade for Africa Programme and various OAU resolutions on Africa's industrialization. For its part, UNIDO was ready to co-operate with African countries and to assist them in any way possible. From 1980 onwards UNIDO had devoted a significant portion of its resources to Africa and had taken measures to mobilize more funds for Africa particularly under the programme for the Decade.

15. Over the past ten years, UNIDO had given Zaire technical assistance worth about 14 million dollars. That amount had been used to develop the wood and food industry sectors, strengthen industrial infrastructure, plan investment and develop human resources especially in the mechanical and pharmaceutical industries. With the financial support of UNDP, UNIDO was taking measures to execute a number of other industrial projects in the country. That assistance would mainly centre on the promotion and development of small- and medium-scale industries and the preparation of an industrial master plan. UNIDO was also planning to intensify its investment promotion activities in the country in order to support public and private undertakings, increase their industrial productivity and achieve economic growth.

16. In conclusion the Director-General of UNIDO called on Africa to accelerate its efforts to develop, and adopt policies and attitudes that would enable it to mobilize its abundant human and natural resources for the wellbeing of the peoples.

17. Ambassador Haggag, Assistant Secretary-General of the OAU, thanked His Excellency the Commissaire d'Etat for personally officiating at the inauguration of the seminar. He also thanked all the participants for their active interest in the seminar. He expressed his appreciation to the Director-General of UNIDO for the very active support and fruitful co-operation between UNIDO and the OAU, not only in the present Fifth All-Africa Trade Fair in Kinshasa, but also in past All-Africa Trade Fairs as organized in Khartoum in 1980 and Lomé in 1985.

18. In referring to the theme of the Fifth All-Africa Trade Fair - the promotion of intra-African trade - Ambassador Haggag emphasized that intra-African trade bore little meaning unless the range of products to be traded reflected actual needs and an improvement in quality. That he said could be brought about only through increased industrial development of the African countries. Priority programmes such as the achievement of food self-sufficiency and improved agricultural rehabilitation would succeed, only

if there was strong support from the industrial sector. The practical linkage between industry and agriculture thus constituted the basic foundation for the achievement of national and collective self-reliance, as called for in the Lagos Plan of Action.

19. He called on the participants to examine the the extent to which implementation of the IDDA programme influenced the achievement of the objectives of increased food and agricultural production as contained in the African Priority Programme for Economic Recovery (APPER), particularly as they related to the provision of agricultural inputs such as fertilizers, insecticides and spare parts, improved processing of primary agricultural products, food storage and preservation, etc., and to mobilizing national efforts to help achieve those objectives.

20. He concluded by requesting the seminar to come up with conclusions and recommendations containing specific project proposals for which UNIDO and other international organizations, in their respective areas of competence, could be called upon to provide the necessary technical assistance to African countries and organizations.

### III. SUMMARY OF DISCUSSIONS

21. Discussions at the seminar were based on: (i) the main document prepared by UNIDO entitled "Linkages between industry, agriculture and food production - Analysis and proposals for action" (UNIDO/OED.140); (ii) the document submitted by the United Nations Economic Commission for Africa (ECA) on "A dynamic liaison strategy between agriculture and industry"; (iii) the document submitted by the African Centre for Industrial Research, Kinshasa, Zaire (CARI) on "Standardization and industrial co-operation in Africa"; and (iv) the document submitted by the Federal Institute of Industrial Research Oshodi, Nigeria (FIIRO) on "Linkages between agriculture and industry: The role of research and development". Representatives of each of the above organizations briefly presented their respective documents.

22. In the UNIDO paper, it was noted that the pervasive socio-economic crisis affecting African countries had been aggravated by persistent drought, growing famine, encroaching desertification and other natural disasters. In the local and international efforts to assist the most deeply affected African countries, particular emphasis had been given to providing emergency relief, mainly in the form of food aid. Although the rapid development of the food and agricultural sectors was essential to the economic development of the region, it had now been recognized that the most effective solution to the economic crisis besetting the region lay in an integrated approach. Current and past experience revealed that the difference between developed and developing countries lay in their degree of industrialization. Despite the abundant mineral, agricultural, human and other natural resources, Africa's severe economic problems were largely due to its weak industrial base.

23. Major decisions relating to Africa's economic development accorded priority to food self-sufficiency and the rehabilitation of agriculture, in line with the Lagos Plan of Action. Despite the enormous efforts on the part of the African countries and the international community, the food situation in Africa was deteriorating. That underscored the need to re-examine the policy and operational measures adopted hitherto. An important aspect of that

re-examination was the linkage between industry, agriculture and food production.

24. In an analysis of the relationship between agriculture, food supply and industry, it was asserted that any breakthrough in the agricultural development of a country depended largely on its level of industrialization. This was substantiated by economic data which showed that an efficient agricultural sector and the production of food on the scale required to feed hundreds of millions of people, as was the case in Africa, hinged on the availability of a well developed industrial economy. It had been shown in UNIDO studies that industry provided at least 50 per cent of all direct inputs and another 25 per cent of indirect inputs to agricultural development.

25. Thus, countries with a low level of industrial development were comparably low on the agricultural development scale. By way of contrast, countries that were self-sufficient in food production and had become net exporters of food, such as the United States of America, were high up on the industrialization scale. The difference could be demonstrated in other terms. In most developing countries only a minor share, about 10-20 per cent, of the raw materials produced by local agriculture underwent industrial processing. In industrialized economies, the share was around 80 per cent.

26. The paper provided an analysis of the types of industrial inputs required at each stage in the agricultural and food production process. In broad terms these stages were: soil preparation and maintenance; crop planting, growing and cultivation; harvesting, distribution and storage; and food preservation and processing. The primary industrial inputs included:

- Agricultural machinery, implements and tools for soil preparation, crop planting, cultivation, growing and harvesting;
- Fertilizers, pH controllers and water retention devices for maintaining and improving soil quality;
- Pesticides, insecticides and other means to protect crops, grains and other agricultural produce against insects, pests, disease and improve poor soil conditions;
- Irrigation equipment, pumps, pipes and valves (including spare parts) for the extraction and distribution of water required for soil preparation and maintenance, crop planting and cultivation;
- Silos, warehouses, packaging material and refrigeration equipment; for the transportation, storage and distribution of agricultural produce and food supplies;
- Fermentors, digestors, chemicals, grinders/milling machines, agitators, canning equipment, packaging equipment and material and natural/artificial preservatives required for food processing and preservation.

Industry also provided secondary (indirect) inputs to agricultural and food production through the development of transport and communications, health, housing and social services, human resources and energy.

27. The development of the primary and secondary industrial inputs to agriculture required the development of a wide range of feeder industries and services. Various vertical and horizontal factors were required for the complete range of industrial inputs to agricultural and food production and their impact on the economy as a whole. The horizontal factors included: the



availability of energy; a well-functioning maintenance system; adequate infrastructure; and an efficient distribution system, including storage and related packaging systems. The vertical inputs related largely to the processing of indigenous raw materials, such as metallurgical industries, engineering industries and chemical industries.

28. At the same time, the necessary institutional machinery had to be established at the national, regional and subregional levels. That machinery would have to include institutions for: planning and monitoring the industrialization process; carrying out pre-investment studies; research and development; standardization, testing, quality control and consultancy services; industrial and investment promotion; regulating technology flows; industrial information; and industrial and technological capabilities development.

29. Another aspect of the linkage between industry and agriculture related to the local transformation of agricultural resources. Economic history showed that development of the industrial sector greatly stimulated that of the agricultural sector, not only by providing the necessary inputs but also by absorbing its outputs. The development of agro- and agro-related industries provided scope for the domestic processing of agriculture produce, thus increasing their local manufacturing value added and foreign exchange earnings.

30. In most African countries agriculture was the largest component in the industrial sector. In developed countries as well as in more advanced developing countries, the size and growth of both the agricultural and industrial sectors were determined by the size and growth of the domestic market which absorbed the bulk of production and provides the bulk of factor inputs (entrepreneurship, management, manpower for procurement, production and distribution, raw and intermediate materials, equipment and spare parts, implements and tools, technology, physical institutional infrastructure and services, especially consultancy). In order to be able to achieve a similar situation in Africa where domestic markets could absorb increasing volumes of processed agricultural products, specific measures would have to be taken to develop those domestic markets which would also have to be enlarged through regional and subregional industrial and economic co-operation.

31. It was also noted that the agricultural sector represented the most important segment of the domestic market for industrial products and a substantial area for the services sector. This implied, at least, an expansion of employment and a widespread availability and use of money. The concept of the agricultural sector as a market for the industrial sector also bore other implications. About 60-80 per cent of the population of Africa lived in rural areas and was dependent on subsistence production. Industry, agriculture and services therefore needed to be closely integrated since they were highly localized in hamlets and villages.

32. In the ECA document entitled "A dynamic liaison strategy between agriculture and industrial sectors", it was noted that 80 per cent of Africa's population lived in the rural areas. Its economic and industrial development policies ought to mobilize that rural population and make it participate in the modern development process. The gap between food production and population growth was constantly increasing, hence there were major food shortages, leading to even greater food imports and increasing dependence on food aid.

33. The low performance of Africa's agriculture sector derived from the low level of its industrialization. Manufacturing activities were dominated by rudimentary agricultural tools and implements produced locally without adequate technological and mechanical infrastructure. Experience in developed countries showed that there could be no agricultural development and food self-sufficiency without an industrial base and corresponding industrialization. Increase in agricultural production, food self-sufficiency and security all needed industrial inputs such as modern agricultural equipment and tools, fertilizers and pesticides, as well as food storage, processing and distribution facilities. The low application of fertilizers and pesticides in Africa adversely affected its agricultural production. The use of agricultural machinery and equipment would be one of the determining factors in the African countries' search for food self-sufficiency and security.

34. Africa's industrialization process ought to transform socially and technologically the rural areas which constituted the main force of economic growth and the main source of national revenue. Hence priority should be given to industries producing agricultural inputs and to those producing consumer goods in the rural areas and its various economic and economic structures. Africa had the infrastructure to produce agricultural equipment. The basic technology was in existence, but the production competence and know-how needed to be greatly enhanced. In that connection and in common with any industrial development efforts, entrepreneurial capacities ought to be developed so as to enhance production and economic and social progress, especially in the rural areas.

35. In the paper prepared by the African Centre for Industrial Research (CARI) on "Standardization and Industrial Co-operation in Africa" it was noted that there could be no real development without industrialization. The low level of industrial standards was one of the inhibiting factors in Africa's industrialization. In order to address that problem OAU, in its letter No. EDECO/TD/1/398/87 of 10 April 1987, had requested CARI to draw up the terms of reference for an African regional seminar on standardization. This had been done by 1 September 1987.

36. The seminar entitled "Standardization and Industrial Co-operation" would consider a number of sub-themes, including the following: international industrial standardization institutions; preparation and publication of industrial standards for African products especially those requiring specific standards; standardization of trade in industrial products in Africa including the role of standardization in, and the conditions for, intra-African industrial co-operation; African legislation on industrial standards; and standards application problems in industry in Africa. It was expected that the seminar would be attended by African policy-makers and senior scientific officials interested in industrial development issues.

37. In view of the importance of the subject it is recommended that UNIDO, ECA, OAU and the African Regional Organization for Standardization (ARSO) would co-operate with CARI in organizing the seminar which should be held as soon as possible. Those institutions were called upon to provide financial assistance to CARI and African countries in connection with the seminar. An appeal was also made to the World Bank and other funding agencies to provide financial assistance to the African Institute for Higher Technical Training and Research (AIHTTR), whose objective was to train the senior industrial

staff and businessmen that Africa lacked in its bid to industrialize. Technical and financial assistance should also be extended to African research centres specialized in industrial issues including the preparation of a directory of such institutions and commissioning them with studies.

38. In the paper entitled "Linkage between Agriculture and Industry: The Role of Research and Development" prepared by the Federal Institute of Industrial Research, Oshodi (FIIRO) (Nigeria) essentially emphasized the forward and backward linkages between agriculture and industry. The need for simultaneous development of both areas was stressed, as separate development might lead to problems. For example the development of the industrial sector in isolation of the agricultural sector could lead to the migration of the rural population to the urban areas and a reversal of economic development. Similarly development of the agricultural sector at the expense of the industrial sector could lead to high post-harvest losses, low income to farmers and unemployment, etc. The only way out was to develop both agricultural and industrial sectors simultaneously.

39. Emphasis was also placed on research and development, which played an important role in linking agricultural and industrial development. Development of appropriate technology was particularly important as this would help to reduce dependence on foreign technology for Africa's daily needs. It would also help to conserve Africa's foreign reserves. In that regard, there was a need to pay particular attention to the local application of research results.

40. For effective linkage between agricultural and industrial development, inter-African trade had to be intensified. Marketing systems needed to be established in both rural and urban areas. Importation of competitive goods should be reduced and, where possible, stopped completely so as to encourage the development of local industries. There was also a need to set up a sound financial mechanism to promote the development of local small- and medium-scale industries.

#### IV. CONCLUSIONS AND RECOMMENDATIONS OF THE SEMINAR

##### Conclusions

41. The presentation of the basic document by UNIDO and the supporting papers by the ECA, CARI and FIIRO, generated a lively discussion at the seminar. In that discussion the essentiality of industrialization to agricultural and food production was emphasized, and the seminar called for the development of the primary and secondary industrial inputs to agriculture which, in turn, required the development of a wide range of feeder industries and services. The seminar also stressed the need for the simultaneous development of the industrial and agricultural sectors since the development of one sector in isolation of the other could create a number of problems.

42. The seminar examined various vertical and horizontal factors required for the complete range of industrial inputs to agricultural and food production and their impact on the economy as a whole. Since all those factors required highly qualified and experienced specialists and technologists, the seminar concluded that the most important prerequisite for the development of those factors was the development of the human resources required at all levels and

in all industry-related disciplines. In that regard, particular emphasis was given to strengthening of existing and/or establishment, as needs be, of necessary training institutions at the national, regional and subregional levels.

43. Another aspect of the linkage between industry and agriculture stressed by the seminar relates to the local transformation of agricultural resources. The development of the industrial sector would greatly stimulate that of the agricultural sector not only by providing the necessary inputs, but also by absorbing its outputs. The development of agro- and agro-related industries in Africa would, on the other hand, provide the scope for the domestic processing of the agriculture produce, thus increasing their local manufacturing value-added and foreign exchange earnings. Some of that agricultural produce was currently being exported in large volumes with marginal returns.

44. In order to forge the link between industry, agriculture and food production the seminar emphasized the need for African countries to adopt major policy measures; carry out economic structural adjustments oriented towards accelerated industrialization; develop the necessary institutional mechanisms and mobilize significant investments. African policy-makers and planners would therefore have to take major decisions in such areas as: small-scale and large-scale agricultural production schemes and related investments; development of domestic markets; standardization of the equipment and spare parts required in the entire agricultural and food production process; intra-African co-operation, especially in respect of trade in industrial raw materials and products, as well as agricultural and food products; and institutions dealing, for example, with R & D, repair and maintenance, trade, consultancy, and human resource development and standardization and quality control.

#### Recommendations

45. On the basis of the above conclusions, the seminar arrived at the following recommendations:

##### Short-term measures

46. In order to increase food production, storage and processing, the short-term measures recommended by the seminar composed the following:

- Bulk purchase, blending, packaging and distribution of fertilizers;
- Development of simple packaging materials from local raw materials;
- Construction of simple storage facilities, such as silos, especially for village communities; and
- Development of mobile food-processing units, particularly those suited to rural areas.

47. Given the fact that many factories in Africa were either operating at less than full capacity or not operating at all, the seminar recommended a short-term measure that required immediate attention and related to industrial rehabilitation and strengthening of repair and maintenance capabilities in the region. Specific actions to be taken by African countries, with the assistance of the internal community, should include the following:

- Assessment of ailing industries to identify those requiring rehabilitation and elaboration of comprehensive rehabilitation programmes for each of the rehabilitable industries;
- Elaboration of national industrial maintenance programmes with particular emphasis on:
  - Strengthening or establishment of national industrial repair and maintenance workshops and services;
  - Upgrading of capabilities of local technicians;
  - Supply of repair and maintenance equipment and spare parts, including mobile units.

48. The most critical short-term measure recommended by the seminar related to the massive training of crucially important skills. The availability of skilled personnel would help ensure effective management of the industrial sector in general, and industrial enterprises and factories in particular. The seminar therefore recommended that African countries and organizations should place particular emphasis on the development of critical skills related, in particular, to policy-making in both Government and industry, as well as to project identification, design, evaluation, negotiation, implementation, monitoring, repair and maintenance and production of spare parts.

49. In addition to these specific training requirements, appropriate institutions and production facilities should be selected and strengthened, with international assistance, to become centres of excellence. In that regard, the seminar made an appeal to the international community to provide special assistance to such African regional centres as the African Regional Organization for Standardization, the African Regional Centre for Technology, the African Regional Centre for Engineering Design and Equipment Manufacturing and the African Institute for Higher Technical Training and Research. The elaboration of a programme for the training of trainers was also recommended.

50. In view of the importance of standardization and quality control in Africa's industrialization, especially in respect of the food industry, the seminar recommended that UNIDO, OAU, ECA and ARSO should assist CARI and African countries in the organization of the African Regional Seminar on Standardization proposed by the OAU.

#### Medium-/long-term measures

51. In order to accelerate the development of effective links between industry, agriculture and food production, the seminar recommended that each African country and organization should take all the necessary measures to implement fully the recommendations contained in the Programme for the Industrial Development Decade for Africa. In that regard, particular attention should be directed towards the formulation of national and subregional industrial development policies, strategies and plans with clearly defined inputs and outputs on the basis of clearly defined industrial development perspectives along with mechanisms for effective co-ordination. In those policies, particular attention would have to be accorded to rural development.

52. The seminar also recommended that steps be taken to strengthen or establish critical industrial institutions, especially those concerned with

industrial training; development, acquisition, adaptation and regulation of technology; standardization and quality control; extension services to small-scale industries; industrial consultancy and information; and industrial financing and investment promotion.

53. Given the magnitude of industrial skills required in Africa, in both urban and rural areas, the seminar recommended that a comprehensive programme be elaborated at the national and regional/subregional levels, for the accelerated development of industrial skills and technological capabilities. In this regard, special programmes would need to be developed for the training, on a continuous basis, of critical skills such as those identified under short-term measures, as well as those required for the selection and application of new technologies, especially in the area of genetic engineering/biotechnology, so as to improve food production, preservation and processing.

54. A crucial medium-/long-term measure, which was recommended by the seminar, related to the development of strategic industries in the priority industrial subsectors specified in the Programme for the Industrial Development Decade for Africa: metallurgical industries; engineering industries (including foundries/forges); chemical industries; building materials industries; capital goods industries; pharmaceutical industries; and industries processing local raw materials and energy resources.

55. Given the diversity of resource endowment in the African countries, and the varying levels of technological capabilities, it was recommended that every effort be made to intensify industrial co-operation among the African countries in the establishment of strategic industries.

56. The seminar also recommended that particular consideration be given to the development and formation of small-scale industries. In addition to those small-scale industries producing consumer goods (e.g. textiles and garments, shoes and leather goods, furniture, processed fruits and vegetables, etc.), the seminar called for special efforts to promote those producing intermediate goods to support medium- and large-scale industries (e.g. foundries, manufacture of nuts and bolts, springs, special electric motors, specialized chemical compounds, etc.).

## V. CONCLUSION

57. At its closing session on 24 July 1988, the seminar considered and adopted its conclusions and recommendations. It requested the Secretariat of UNIDO to finalize the recommendations in the light of the comments made and to incorporate them in the report of the seminar which should be circulated to African countries.

58. It also called on the international organizations to increase their assistance to African countries in support of their efforts in industrial development and food production. It called on the African countries to take due account of the recommendations of the seminar when formulating their national, regional and subregional programmes.

59. The seminar thanked the Government of Zaire for the facilities it had provided for the seminar and expressed its gratitude to UNIDO and the OAU for having organized the seminar.

ANNEX I

List of participants

Algeria	Mr. BRIK CHAOUCH, Ahmed, Directeur Général
Cameroon	Mr. KOUOSEU, Michel, Chef de Service Promotion des Exportations Mr. TETKA, Jules
Congo	Mr. MABIALA, Pierre, Directeur National Mr. SAMOUKOULOU
Côte d'Ivoire	Mr. TIMITE, Ibrahima, Chef de la Promotion Industrielle
Ethiopia	Mr. DAMTEW, Giorgis, Vice President, Chamber of Commerce
Ghana	Mrs. ANDAH, Abigail
Nigeria	Mr. KOLEOSO, Olajide, Director, Federal Institute of Industrial Research, Oshodi (FIIRO) Mr. OLADAPO, B. Mr. OYEWUSI, F.
Tanzania	Mr. KESSY, Felice
Zaire	Mr. AKENG, Miningongo, Professeur de Branches Commerciales Mr. ANGHONA, Omeluhu, Fonctionnaire Mr. ATSHIKO, Kutanga Kudimuka, Ingenieur (Conseiller Industriel) Mr. AZA, Bhatre, Chef de Rubrique: Information Economiques Mr. BANZA, Bwanga, Attaché au Bureau des Organisations Internationales Mr. BASANGANA, M'dunga Duki, Encadreur responsable du stand de la C.P.C.L. CB20 à la FIDIM Mr. BOKOLO, Ngub'e Nsele, Fonctionnaire Mr. BOTIMA, Bolongola, Délégué Général-adjoint Mr. BUKATA, Nntuja, Chercheur Mr. BWITI, Lumisa, Journaliste Mr. EBOMA, Kuma d'Eboma, Médecin vétérinaire à LIOPEZ Mr. ELEY, Isekelongo, Commerce Extérieur (fonctionnaire) Mr. GAMELA, Nginu, P.D.G. Office des Routes Mr. GENGEZO, Gele, Analyste des projets Mr. KABATANTSHI, Mulamba, Chef de Division de Publications

Zaire (continued)

Mr. KALALA, Chef Section élevage  
Mr. KANZONGO, Kifeme, Analyste financier  
Mr. KATO, Lone, Agent OPEZ  
Mr. KBALAKUMU, Fonctionnaire  
Mr. KEJE, Krishe, Agent OPEZ, Analyste financier  
Mr. KILONGO, Nyandulu Kisali Nasiya, Analyste  
Mr. KITUNGANO, Milenge Kitoga, Journaliste  
Mr. KONGO, Luzayamo Nzundu, Journal Elima (Journaliste)  
Mr. KOYAGBULE, Jean Paul, Commis Agence Nationale d'Immigration  
Mr. KUDIAKUBANSA, Bukey-Banki, Analyste financier (Ingenieur agronome)  
Mr. LIKOMBA, Dhamili, Inspecteur Agence Nationale d'Immigration  
Mr. LOBOWA, Gbendo, Fonctionnaire  
Mr. MANDIANGU, Kafuako, Encadreur responsable en second du stand de la C.P.C.L. CB6 a la FIKIM  
Mr. MANGA, Bolengu, Analyste financier  
Mr. MANKENDA, Koka, Administrateur Délégué de l'Ameza  
Mr. MASSA, Mukambo, Conseiller Principal du Président du Conseil  
Mr. MBUMBA, Ngoy, Fonctionnaire dep. commerce extérieur  
Mr. METRE, Emerth, Professeur  
Mr. MOKONDA, Bonza, Commissaire d'Etat à l'Economie  
Mr. MOLISHO, Lokeno, Chef du Protocole ENI  
Mr. MONSENGO, Chargé du Protocole  
Mr. MPIA, Manshale, Assistant au Gestion  
Mr. MUHINDO, Muzaliwa Kalumuna, Analyste (médecin vétérinaire)  
Mr. MUKANDU, Ngindu, Délégué commercial  
Mr. MUKEZA, Buina Bule, Cadre OPEZ  
Mr. MUKENZI, Ndaye, Fonctionnaire  
Mr. MUKENDI, wa Mukendi, Responsable des études économiques  
Mr. MULUMBA-NKUSU, Asa-Aeba, Journaliste  
Mr. MUPINGANAYI, Kasakuidi, Directeur  
Mr. MUZINGA, Makikamu, Administrateur Directeur  
Mr. MVIBULULU, Bimbu, Chargé des études promotionnelles et documentation  
Mr. MWIMBA, Bin Tumba, Diplomate au Département der Affairs Etrangeres  
Mr. NAHIRANA, François, Economiste-consultant



Zaire (continued)

Mr. NAMOKIE, Makobo, Prefêt des études  
Mr. NDTOKO, Mulopo, Représentant Permanent  
Vienne  
Mr. NGAMADITA, Masala-Lelo, Professeur  
Mr. NTAMBU, Ato, Agent OPEZ  
Mr. NTANGE, Bomkole, Membre du comité  
national de coordination de la foire  
panafrica  
Mr. NZEMBO, Basankunga, Analyste  
financier/directeur d'intervention  
Mr. NZUZI, Zola, Journaliste a la Voix du  
Zaire  
Mr. PASSY, Ndongani Ngoma, Journaliste  
Mr. RUGWIZA, Magera, Directeur  
administratif and financier  
Mr. RUTAYISIRE, Musoni, Adjoint au  
Directeur des études  
Mr. SELEMANI, Mwana Yile, Secrétaire d'Etat  
à l'Economie  
Mr. SIVUILU, Molengo, Fonctionnaire  
Mr. TANDU, Lombo, Stagiaire  
Mr. TONA, Di-Mayindu, Analyste financier  
Mr. TSHAMALA, N. Jilamule, Chef de Division  
Mr. TSHILAY, Mwkuma, Etudiant  
Mr. WENA, Yoa Dombala, Conseiller près le  
conseil législatif (parlement)  
Mr. WETSHI, Koy Letshu, Directeur  
Mr. ZUANZI, Izieme, Chef de Service  
Marketing

Zimbabwe

Mr. SAMAKANDE, Paul, Senior Exports  
Promotion Officer

International organizations

PANA

Mr. AJIBOLA, Samuel, Journaliste

ECCAS

Mr. NAAH, Robert, Secrétaire Général  
adjoint de la CEEAC  
Mr. OYONO NDONG, Miguel, Directeur de  
l'Agriculture et de l'Industrie  
Mr. NGUEMA MENIE, Jacques, Expert en  
Industrie

PATU

Mr. SHEHATA, Gamal Amin, Technical Director

Central Africal Clearing House

Mr. NKWENGA, Toka, Secrétaire  
Executif-Adjoint

OAU

Mr. AKPAN, Etim Bassey, Head, General  
Economic Affairs Division, Economic  
Development and Co-operation Department  
(EDECO)

ECA

Mr. IRO, Addo, Economic Affairs Officer

FAO Mr. VINCENT, Niague Agnimel, Chargé du Programme

UNDP Mr. SANHOUIDI, Bouri, Chargé du Bureau

UN/UNIC Mr. LUANIKA, Ngabu, Assistant à l'Information

UNIDO Mr. SIAZON, Jr., Domingo L.,  
Director-General  
Mr. ALEXANDRENNE, Louis, Deputy  
Director-General  
Mr. NDAM, Shadrack, Chief ODG/IDDA  
Mr. HEBGA, Joseph, SIDFA  
Mr. TABAH, George, IPCT/DTT/TEC  
Mr. AMIZO, Yves, IO/IIS/FEAS  
Mr. MEELKER, Jan, JPO  
Ms. HENIN-SPINDLER, Isabelle, IPCT/II  
Ms. TROLL-OBERGFELL, Helga, DA/FS/BUD