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REPORT OF THE UNITED NATIONS SEMINAR ON INDUSTRIAL ESTATES IN THE ECONOMIC COMMISSION FOR AFRICA REGION

(14 -- 21 December 1964)

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REPORT OF THE UNITED NATIONS SEMINAR ON INDUSTRIAL
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Organization and attendance

1. The United Nations Seminar on Industrial Estates in the ECA Region was held in Addis Ababa, from 14 to 21 December 1964. The Seminar was sponsored jointly by the Economic Commission for Africa (ECA), the Centre for Industrial Development of the United Nations, New York, and the Bureau of Technical Assistance Operations of the United Nations.
2. The Seminar was attended by participants from twenty-one member states and associate member states of the ECA. The countries represented were: Basutoland, Congo (Leopoldville), Dahomey, Ethiopia, Gambia, Ghana, Guinea, Kenya, Madagascar, Mauritius, Morocco, Nigeria, Sierra Leone, Somali Republic, Sudan, Tchad, Uganda, United Arab Republic, United Republic of Tanzania, United Kingdom and Zambia. The Seminar was attended by observers from the Federal Republic of Germany, India, Italy, the Netherlands, Sweden, United States of America and the Union of Soviet Socialist Republics. The Organization of African Unity was also represented by an observer. A list of participants, observers, and United Nations Secretariat members is given in Annex I.
3. The Deputy Executive Secretary of the ECA, Mr. F. A. N'Liba-N'Guimbous, welcomed the participants in the course of his opening address. The text of his speech is given in Annex II.
4. Ato Gabre-Michael Paulos (Ethiopia), Economic Expert, Ministry of Commerce and Industry of the Government of Ethiopia, was unanimously elected chairman. M. Mahamat Gabdou (Tchad), Directeur Adjoint des Affaires Economiques of the Government of Tchad, was unanimously elected vice-chairman.
5. The representatives of Dahomey, Guinea, Nigeria and the United Arab

Republic were elected unanimously to form the Drafting Committee.

6. On 17 and 18 December the Seminar was addressed by Mr. R.K.A. Gardiner, Executive Secretary, ECA, who stressed the importance of regional and sub-regional action in promoting the development of industrial estates and the need for early implementation of the recommendations of the Seminar in countries of the region.

7. The Report of the Seminar was adopted on 21 December 1964.

8. The Seminar closed with a note of thanks to the chairman for his able conduct of the meeting.

The Role of Industrial Estates and Industrial Areas in Policies and programmes of Industrial Development

9. The Seminar was of the view that one of the main purposes of its meeting was to draw the attention of Governments of countries of the region to the role of industrial estates in policies and programmes of industrial development; in particular, in programmes for the promotion of small-scale industries. Another major objective was to set standards for the establishment of industrial estates in these countries, in the light of the conditions and needs prevailing in the region. The formulation of recommendations on regional and international co-operations in the development of industrial estates was expected to be an important result of the discussion.

10. The Seminar considered that the subject of its discussions was not limited to industrial estates, but covered various forms of clustering of industrial enterprises on common sites. While it devoted most of its attention to industrial estates for small-scale industries, that is, to planned industrial communities featuring standard factory buildings with all the necessary utilities, common facilities, and service and assistance centres, it also examined the role of industrial areas providing only improved sites, which were particularly suitable for the establishment of larger industries. Some consideration was given to industrial zones, that is, to parts of an urban or suburban area.

reserved for industrial use, in which both estates and areas could and should be located.

11. The Seminar agreed that in countries of the region, great emphasis should be put on policies and programmes for the development of small-scale industries. It was convinced that, provided guidance, assistance, training and support were given, small-scale industries could be set up by people from all walks of life with small financial resources, little or no technical and management experience, and begin operation with relatively unskilled labour. These characteristics were predominantly those of the indigenous group of the population of these countries. By promoting small-scale industries, particularly by means of industrial estates, a breakthrough of the indigenous entrepreneur into industrial activities and his participation in the industrialization of his country could be achieved.

12. It was observed that, in many countries of the region, the present allocation of scarce financial resources among urgent competing claims -- agriculture, industry, services, health, education, etc. -- hardly permitted the undertaking of a comprehensive programme of small-scale industries, and, in particular, of industrial estate projects. In many countries, "Africanization" was a major policy objective, but the resources devoted to its achievement were often minimal. While the relative priorities necessarily varied from one country to another, the Seminar felt that some reallocation of resources towards small industry and industrial estates projects would be fully justified, and, in most cases, possible.

13. There was a consensus of opinion that industrial estates were a particularly effective means of encouraging and supporting the creation, expansion and modernization of small-scale industries. Because of the weaknesses and handicaps due to smallness of size and scale of operation these industries were especially in need of guidance, assistance and support. One of the chief merits of the industrial estate was that the grouping of small industries permitted to integrate on it the various measures of assistance and support economically and effectively. The

availability of standard factories offered for rent, and of the various services and facilities, was a powerful incentive to the creation of efficient new enterprises and, under certain circumstances, to the expansion and modernization of existing small units relocated on the estates. Other advantages were the development of inter-trading and inter-servicing relationships among occupants and, in certain cases, among them and large industries. Industrialization on the estate also stimulated development outside of it principally through the establishment of new trade and service undertakings, and of industrial enterprises located in the neighbourhood. Thus, industrial estates were developmental projects which permitted to achieve economic and social objectives of paramount importance to newly-independent countries.

14. The Seminar recognized that an industrial estate programme was not a substitute for an overall development programme for small-scale industries, but should be an integral part of it. The coverage of an industrial estate programme was necessarily narrow, and the majority of small enterprises would remain and develop outside of the estates. These industries would need assistance other than factory accommodation and common services and would look up to the Government for support and aid. Whether on the industrial estate or outside of it, small industries would need technical guidance and counselling, credit on liberal conditions, training of management, foremen and workers, assistance in procurement and marketing, etc. An industrial estate programme would have only a limited impact and usefulness if, on the one hand, it did not integrate all or most of these facilities and services and, on the other hand, if it were not backed by an overall development programme for small-scale industries, with a nationwide coverage.

15. In referring to small-scale industries, the Seminar had in mind modern manufacturing establishments, that is, enterprises using advanced tools and techniques of production and management and producing "new" types of goods, in particular those replacing imports. It distinguished such industries from the handicraft, artisan and cottage industry types

of undertakings, which clung to traditional processes, equipment and products. Although there was scope for technological improvements in traditional occupations, the possibilities of transforming them into modern manufacturing processes were limited. A programme of promotion of small-scale industries was aimed not at improving artisan production, but at creating and modernizing manufacturing establishments, small, but modern and efficient.

16. In order to identify the beneficiaries of the development programmes and in particular to determine their eligibility for admission on industrial estates, definitions of small-scale industries should be adopted by countries of the region; it was suggested that such definitions might appropriately take the form of ceilings on investment in fixed capital and, in some cases, of ceilings on employment.

17. It was expected that industrial estates would not only stimulate the establishment of new small-scale industrial enterprises, but also the expansion and modernization of existing ones allowed to settle on the estate. The Seminar felt that upgrading of existing enterprises by admission on industrial estates was an important objective of these programmes. Most of the existing indigenous enterprises occupied decrepit and unsanitary buildings, used obsolete and inefficient machinery, and were unable, because of lack of credit and technical advice, to raise their productivity, productive capacity and employment. Admission of such enterprises in industrial estates should be accompanied by provision of credit for the renovation of their equipment and the strengthening of their working capital to permit increased employment and production. The basic benefits of industrial estates -- common services, technical and managerial assistance, training and healthy surroundings -- would further increase output, improve product quality and reduce production costs.

18. Rehousing of existing enterprises on industrial estates, under the same conditions, was also recommended as a counterpart of urban development and redevelopment schemes, especially slum clearance

programmes. Such schemes often resulted in the expulsion of small industrial establishments whose existence and contribution to the national economy, however small, might thereby be annihilated. The Seminar felt that the struggling indigenous enterprises deserved every protection and support and recommended that industrial estate projects be planned as an integral part of urban schemes and programmes.

19. Another major objective of small industry promotion programmes, especially industrial estate projects, was to facilitate the growth of small-scale industry. The Seminar recommended that provision for eventual expansion of each factory building and of the estate as a whole be incorporated in its plan. A number of enterprises might, however, be able to outgrow the enlarged premises put at their disposal. The Seminar felt that, inasmuch as such enterprises fulfilled the objectives of the development programme, they should not be penalized for their success by being forced to leave the estate. Also, it considered that enterprises outgrowing the definition of small-scale industry should not be forced to vacate their premises on the estate. Such a condition might have the effect of inhibiting the growth of healthy small units which might fear to lose their benefits by exceeding the definition's limits. This would clearly defeat the purpose of the programme. Moreover, forcing industries to leave would be a factor of instability on the estate, with adverse economic and social repercussions. Growing enterprises might be encouraged to set up additional new plants in industrial areas. In all likelihood, their very success might enable them to put up their own factory buildings and to forgo some of the advantages of the industrial estate, for instance, the use of common service facilities. They might still, however, be in need of technical assistance, especially if they set out to produce new lines of goods in their new plant.

20. The participants felt that the device of the industrial estate should not be used for the promotion of large concerns, whether national or foreign. Large industries had the means of constructing "custom-made" factories, and of securing the technical and managerial talent

needed for efficient operation. Government assistance along these lines might however be required for stimulating the establishment of large-scale enterprises and ~~for~~ attracting capital from abroad where necessary. Industrial areas offering improved land, utilities, transportation facilities, zoning, and the advantage of industrial clustering, were the appropriate instruments for achieving these objectives. As mentioned earlier, industrial areas could also provide improved plots to expanding industries outgrowing the facilities of industrial estates, as well as to new or existing small-scale enterprises, with strong financial means and competent technical and managerial personnel, which might not need the facilities of the industrial estate.

21. At the same time, it was considered that Governments should do everything possible to attract and facilitate the implantation of large industrial undertakings. In some cases, facilities of broader scope than industrial areas should be provided for large-scale industries. These might include provision of various amenities, related infrastructure works, and services, e.g. recruitment and training of labour, engineering and economic research, etc.

22. The Seminar felt that while resources should be found to promote small-scale industries and set up a few industrial estates, the present means at the disposal of most countries of the region would be inadequate to finance, from the beginning, any large programme in this area. The role of the first industrial estates was, however, of considerable importance. They should be devised as demonstration projects which would not only provide guidance for planning, constructing and operating further industrial estates, but would also induce local governments and private groups to follow suit. As the network of industrial estates expanded in the course of time, their radiation effect would cover a broader territory. The action of the industrial extension services set up on each estate to meet the needs of both occupants and outside enterprises, would be particularly significant in this respect.

23. The Seminar was convinced that, in countries of the region, industrial estates and industrial areas would serve at the same time as instruments of industrial development and of planned location of industry. Industrial location was an integral part of any industrialization policy. In the developing countries as in the advanced ones, such policy was often oriented towards decentralization, with a view to developing inasmuch as possible all regions of a country, particularly the poorer ones, and checking at the same time the congestion of the larger urban centres. It was realized, however, that the industrial estates programme had to be large enough to exert any significant influence on the geographical distribution of industry throughout the country. In the conditions of most African countries, the latter objective had to remain for a long time subsidiary to that of promotion of industrial activity.

24. Finally, the Seminar briefly examined the role of industrial estates in socialist economies. It thought that, since their role was essentially to stimulate private initiatives, industrial estates as defined in this report might not always be provided. Some of the features of industrial clustering appeared, however, to be of great value. Government-owned factories could be set up on common sites, with consequent economies of scale in site development and factory construction. In some cases, contiguity could lead to cost-reducing inter-servicing or inter-trading among occupants. Common services could often be provided, as well as training and assistance facilities. It was likely that the distribution of industrial, residential and other zones in expanding urban and sub-urban centres could be planned with less difficulties, and the planned location of industry in smaller towns be achieved more effectively than in economies based predominantly on private enterprise. The Seminar felt that these problems deserved more attention and recommended that studies be undertaken on the subject.

25. In the course of a review of industrial estate developments in Africa, it was noted that actual experience in the field was limited. Information on plans and projects covered the following countries:

Botswana, Ghana, Kenya, Mauritius, Nigeria, Rhodesia, Somali Republic, South Africa, Tanzania, Uganda and U.A.R. It was pointed out that no comparative study existed of the various types of institutions for the development and promotion of small-scale industries in different countries in Africa, and it was recommended that ECA might undertake such a study.

Planning and Establishment of Industrial Estates

26. The Seminar considered that the first step in planning and establishing industrial estates was for the government of the country concerned to accept policies and programmes oriented towards development of small-scale industries. As noted in part II, the industrial estate was only one among the various measures for the stimulation and development of small industries and its effectiveness lay in its integration with other schemes of assistance. The Seminar noted that a few African countries had already formulated policies and programmes for the promotion of small-scale industries and acknowledged the importance of industrial estates in their national plans for development. The Seminar recommended that the attention of all African countries should be invited to the importance of taking early policy decisions on the development of small-scale industries and the role to be assigned to the industrial estate as an instrument for industrial promotion and development.

27. The Seminar stressed the importance of feasibility studies and surveys as an essential prerequisite for taking decisions on the establishment of industrial estates. It noted that the success of industrial estate projects would to a large extent depend on the thoroughness and care with which such studies were conducted, and cautioned against hasty and ill-considered decisions on establishment of industrial estates.

28. A feasibility study might be undertaken by a team consisting of an industrial engineer and an industrial economist. The association of a civil engineer and/or architect-planner with the team during the latter part of its work would be necessary to formulate recommendations

on suitable location and sites for industrial estates.

29. In the special context of the shortage of entrepreneurs in African countries, industrial estates could play a vital role in stimulating new indigenous entrepreneurship. The feasibility survey should therefore have two objectives.

- (i) to determine the feasibility of industrial estates in different locations and make recommendations on the most suitable location and site, the type of estate, size, number and type of factories and other buildings, services, and facilities and costs;
- (ii) to recommend the industries which are most suitable for location in the estate to serve as a guidance to prospective entrepreneurs.

30. In determining the feasibility of industrial estates in a particular location, sufficient importance should be given to the assessment of demand, existing and potential, for good factory accommodation. The Seminar, however, noted that a very rigid application of the demand criterion might not be advisable in most countries of Africa. In some cases industrial estates might have to be established in the expectation that they would themselves generate the climate and incentive for new industrial ventures. However, it was important that the potential of a particular location for industrial development should be clearly established before a decision to establish the estate there was made.

31. The Seminar considered that an important service which a potential entrepreneur in an African country required was guidance and advice on the new industries which had prospects for success. In many countries there were no specialized agencies or service institutes to provide this advice to prospective entrepreneurs and therefore such a service might have to be considered as part of the duties of the agencies responsible for the planning and establishment of industrial estates.

32. The Seminar recognized that the major difficulty in organizing feasibility studies was the shortage of personnel with training and experience in this field. It, therefore, recommended that the technical service agencies of the United Nations should assist the African Governments in conducting such feasibility studies.

33. The Seminar emphasized the importance of integration of industrial estate projects within the framework of urban or regional plans for development. An industrial estate was not a mere clustering of industrial buildings. Its success depended on the availability of a wide variety of supporting facilities and services such as houses for workers, transport and communications, hospitals, schools, playgrounds, etc. An estate project could not on its own afford the cost of these services, but its location should be such as it would enable it to get the benefits of these services without having to incur their direct cost. In deciding the location of the estate due consideration should be given to the availability of basic facilities such as power and water, and proximity to market, sources of supply of labour and raw materials.

34. The Seminar noted that in most African countries the locations which offered the maximum facilities and advantages were the big cities, often the capital cities. However it was of the view that further concentration of industries in the big cities would increase the strains on their facilities and create in its wake the attendant social and economic problems. Location of estates in rural areas, on the other hand, had its obvious difficulties. In most African countries the rural areas lacked the basic facilities for modern industrial development and therefore, were comparatively unsuitable as locations for industrial estates. Balancing all considerations, the Seminar was of the opinion that the best location for the first series of industrial estates in African countries were the towns. The Seminar expressed considerable interest in the problems of industrialization and development of rural areas, but was of the view that in the present stage of their development rural areas offered little scope for the success of industrial estates.

35. The Seminar noted the different concepts in industrial clustering such as industrial areas, zones, townships, and estates. It was of the view that industrial estates with general purpose and custom-built factories and provided with general and technical service facilities might be better suited to African countries. It considered that provision of developed plots in industrial areas for the use of medium and large industries side by side with industrial estates with factories for small industries would be an ideal pattern of development in most African countries.

36. The Seminar noted that the experience of other countries in organizing specialized types of estates such as 'single-trade' estates, (i.e. estates providing factory accommodation exclusively to industrial units belonging to the same trade) 'functional' estates (i.e. estates in which the functions of one industry are subdivided among a number of small-scale units located in one place, each functioning according to a co-ordinated manufacturing programme) and 'ancillary' estates (i.e. estates in which different small-scale units manufacturing components, and parts and stores which are required by a large industrial unit on a sub-contracting basis) was comparatively new and limited. It was of the view that the first series of estates in African countries were likely to be of the general pattern. However, the type of estates best suited for a country and location could be decided only on the basis of the results of the feasibility studies referred to earlier.

Physical Planning of Industrial Estates

37. The Seminar had before it a paper on "Planning, Design and Construction of Industrial Estates with Particular Reference to Africa" (E/CN.14/IE/7) which dealt with various aspects of over all planning, design and layout of the estate, buildings and other facilities, building materials and construction, costs and programming, and legislation. It expressed its general agreement with the conclusions and recommendations contained in that paper.

38. There was agreement that well-designed factories on well-planned estates with adequate open space were not only pleasant to look at, but produced better quality work, greater productivity, and reduced absenteeism. Good design was a sound investment since it produced not only good appearance but also greater industrial efficiency.

39. It was felt that the provision of open space needed special consideration, especially in over-populated areas. Open spaces should be regarded as essential 'lungs' or breathing spaces needed for the benefit of workers and neighbours alike. This was particularly important where there were industries creating noise and smell, since the open space could act as an effective buffer or filter zone.

40. The Seminar considered a number of technical questions relating to building techniques and materials for factory construction. It noted that technical advice could be obtained for construction of high buildings on unstable subsoils. Techniques such as chemical soil consolidation, piling and rafting had been successfully developed for such situations and Building Research Stations and similar bodies could provide detailed information. The deterioration of building materials was a difficult problem in the tropics, particularly in sea-board areas where salt-laden air was present. Again Building Research Stations could give valuable help. The answer lay in carefully detailed design, the choice of corrosion resistant materials and the use of appropriate protective coatings. The importance of materials reflecting heat was stressed in connexion with the design of roofs in tropical areas. In this respect asbestos cement roof sheeting sometimes had advantages over corrugated iron. The use of aluminium was also possible but the problems of cost, noise, during rain and possible sun glare often outweighed the advantages of its superior solar reflection qualities. A solution to the problem of structural failure in buildings was to appoint properly qualified professional advisers - architects, engineers and constructors - and to enforce rigidly building codes and bye-laws relating to the structural safety of buildings.

41. In connexion with possible pollution from industrial plants, it was recommended that liquid waste should be given first treatment at source, and then rendered harmless by a communal effluent treatment plant before discharge into the sewage system. Liquid trade effluent must never be discharged in an untreated state into sewage systems, rivers, lakes or other water ways.

42. It was agreed that air pollution was best dealt with by regulations requiring filtering and cleaning of fumes, smoke and dust at source and by means of improved plant and special equipment for boilers. In some cases high powered ejector fans could be used to force fumes high into the air where they could disperse quickly and harmlessly.

43. In relation to waste products it was suggested that some of these could be used by other industries and that by-product industries had often proved to be a valuable economic asset. Those solid wastes that could not be used in this way must be destroyed by incineration or other means and finally disposed of in a rigidly controlled and regulated manner.

44. In discussing prefabrication and similar construction techniques for factory building many participants expressed the fear that these might be too complicated and costly for use in Africa at the present moment. It was agreed that sophisticated methods of prefabrication were over-elaborate for African needs but that the principles of standardization, dimensional-co-ordination and modular design should be carefully studied. Simplified techniques of site precasting of concrete elements had been used in Africa and other developing countries with considerable success and a study of these to encourage their wider application was considered to be an urgent necessity. It was felt that such techniques could produce quicker, cheaper, and better factory buildings and allow greater use to be made of the good dry building weather between rainy seasons.

45. The question of industrial development in special areas where land was scarce and expensive was raised. It was agreed that although single storey buildings were most favoured by industrialists there were exceptional

occasions when upward growth in the form of "flatted factories" and multi-storey factories was inevitable. The important factors were the maintenance of flexibility within such buildings and the choice of industries to be housed in this way. It was generally considered that clean, light industries with relatively small numbers of workers could be most conveniently housed in flatted factories, examples being clothing manufacturers, leather workers, jewellery makers, and radio assembly units, etc.

46. It was agreed that further study in depth was vital on many of the technical matters which has been discussed by the Seminar. Steps should be taken to see that the exchange of experience and technical information was improved between the African countries; and that expert knowledge and experience of the highly industrialized countries should be made more readily available. It was felt that Building Research Stations and similar institutions could help in this matter. The Seminar recommended that where building research establishments did not exist, their creation should be encouraged, and that building information and documentation centres should also be created, in order to make technical information and advice more readily available.

47. In conclusion, the Seminar expressed the view that economies in physical planning of industrial estates would be achieved if the following conditions were met:

- (a) Adequate over-all pre-planning;
- (b) Right choice of site;
- (c) Functional layout;
- (d) Adequate provision of services and communications;
- (e) Proper communal facilities;
- (f) Careful choice of materials;
- (g) Simple structural design;
- (h) Provision for expansion in all aspects of the estates;
- (i) Adequate plans for maintenance;
- (j) Legislation to control the complicated estate and its surroundings.

48. The Seminar also recommended that the following surveys be undertaken:

- (a) A survey of African building costs with particular reference to industrial buildings together with details of building labour wages in the various African countries;
- (b) A study of African industrial building standards with a view to evolving a series of "norms" for use throughout the continent with particular reference to building components. This would include a study of dimensional co-ordination and modular design in relation to factory buildings.
- (c) Case studies of industrial estates and factory buildings already built in Africa to cover: (i) planning and layout; (ii) costs and construction details; (iii) plans of completed projects with photographs, if possible; (iv) details of construction, town planning and factory legislation in the various African countries.

49. The Seminar further recommended that training courses and fellowships be provided for the benefit of architect-planners, civil engineers and other technicians involved in planning and construction of industrial estates.

Organization, Management and Financing of Industrial Estates

50. There was a consensus of opinion that, in countries of the region, industrial estate projects would in general be sponsored and organized by the Government. This was consistent with the developmental nature of the projects. Such features as rental of premises below economic level, technical and managerial assistance, and some of the common service facilities representing non-recoverable expenditures were aimed at stimulating entrepreneurship, modernization and growth in the small-scale industry sector.

51. The Seminar felt, however, that all facilities on an estate need not be provided by the Government if feasibility studies or actual experience showed that private initiative was forthcoming to set them up. For

example, a forge, a foundry or a heat-treatment plant could sometimes be set up on a commercial basis by the occupants of some estates, but would have to be supplied by the sponsoring authority in other cases. In most instances, a testing laboratory, a maintenance and repair workshop, or a tool and machine lease shop would be an integral part of a government-sponsored project. In a more general way, the Seminar felt that because of the scarcity of financial resources in most countries of the region, the Government should welcome any contribution which the private sector might make to an industrial estate project.

52. The Seminar noted that certain types of industrial estates, e.g. the functional estates, lent themselves particularly well to co-operative ownership and administration. It felt, however, that desirable as the co-operative movement was for strengthening small-scale industries, special promotional and educational efforts were to be undertaken if this form of organization, new to most countries of the region, were to take roots and spread. In the long run, the creation of privately-sponsored, co-operative estates would be a desirable and possible objective. Every form of support should be given by the Government to such initiatives by private groups.

53. The Seminar recommended that the number of government departments involved in an industrial estate project should be as limited as possible, in order to facilitate and simplify administration and operation. Where a network of estates was to be set up, the creation of a special industrial estate authority might be useful. Whether in the case of a single estate or a network, a large degree of autonomy should be left to the management of the estates.

54. As already noted, the Seminar agreed that existing enterprises should be admitted to industrial estates, provided facilities were given them to renovate and improve their equipment, and small indigenous entrepreneurs who, without credit, training and assistance, had managed to set up industrial establishments, however, inefficient, deserved

support and encouragement as much as relatively untried newcomers. Modernized existing enterprises would contribute to raising productivity, productive capacity and employment. Mere existence was, however, not sufficient; potential for development should be taken into consideration.

55. The Seminar observed that the area surveys and feasibility studies undertaken at the planning stage would provide not only indication of the prospective industrial composition of an estate, but also guidance for promotion of entrepreneurship. It felt that admission rules aimed at influencing industrial composition and even priority of establishment would be justified in many cases; such rules might, in particular, facilitate the early establishment and effective operation of common service facilities, which required an effective and sustained demand on the part of the occupants. A more restrictive assessment of eligibility might sometimes be justified on estates located in or near large urban centres, where entrepreneurship could be more easily stimulated, than on estates in small towns where more liberal admission rules might be required.

56. For obvious reasons, admission policies had to be restrictive on specialized industrial estates - single-trade, functional or ancillary. Inasmuch as the prospects for the development of such estates were based on careful surveys and studies, restrictive rules would not result in slowing down occupancy.

57. The Seminar briefly considered the question of admission to an estate of entrepreneurs from other regions of the country. It felt that no discrimination on such basis should be allowed, since every contribution to entrepreneurship and development should be welcome.

58. There was a consensus that standard factories should be offered for rent, since this was one of the strongest inducements to entrepreneurship and occupancy. Rent subsidization, for a limited period and on a degressive scale, could be considered as a necessary incentive. As already mentioned, outright sale or hire-purchase of standard buildings

could be practised at the same time, but no subsidies should be provided for such transactions.

59. It was recognized that technical and managerial assistance, credit supervision, modernization requirements, as well as control of safety, hygiene, labour legislation, etc., encroached to some extent on the management of individual occupants. The Seminar felt that such controls by the estate authorities, aimed at improving, educating and protecting them, were entirely justified.

60. The Seminar noted that, in most developing countries, industrial estate projects were financed by public authorities - central, state, provincial or local governments, development or investment banks or corporations, sometimes in co-operation with each other. In many countries, projects were sponsored and financed by the central government in particular at the inception of the programmes. Where projects were sponsored by state or provincial governments, financial assistance was sometimes provided by the central government, in the form of long-term loans at normal or concessional rates of interest, grants, or both. The forms of co-operation between public authorities involved in industrial estate projects varied: the financing of land acquisition, site development, factory construction and establishment of common service facilities was frequently divided in different ways among them. The Seminar agreed that, in countries of the region, financial contribution from government authorities would be essential at the inception of the programme; the respective contribution of the various public bodies or agencies would vary from one country to the other and sometimes from one project to another. As the programme developed, and the benefits of industrial estates were demonstrated and publicized, encouragement would be given to increasing participation by private groups, in particular by co-operatives, commercial lending institutions, and corporations.

61. In the long run, as some of the developmental objectives of the estates were being achieved, economic rents and other charges would permit recovery of a part of the initial investment. Sales of standard factories to tenants or even transfer of the whole estate to the occupants grouped, for instance, in a co-operative association, would also become possible. The revenue from rent or sales would normally be used for further developmental projects. For obvious reasons, technical assistance and some other servicing facilities would continue to be provided by the government.

62. As mentioned earlier, the Seminar considered that, in spite of the scarcity of financial resources in most countries, some reallocation of public funds towards programmes in the field of small-scale industry, and especially industrial estates, would be necessary. In some countries, however, domestic resources could not be mobilized to the required amount and contributions from international, multilateral or bilateral sources would have to be sought. This question is referred to in Part IV, below.

63. The Seminar considered that programmes of promotion of small-scale industries would be largely ineffective if sufficient capital were not made available by financing institutions to extend credit on liberal terms to new entrepreneurs or to existing industrialists desiring to modernize or expand their enterprises. This applied, in particular, to industrial estate programmes. It noted that, in many developing countries, special financing institutions for small-scale industries had been set up; hire-purchase schemes for the supply of machinery to small producers were an effective form of "supervised credit" combining technical assistance with financial operations; schemes of credit guarantees or insurance permitted to minimize the risk of lending by commercial banks to small-scale industries. The Seminar recommended that appropriate financing measures be adopted as an integral part of programmes for the development of small industries, and, in particular, of industrial estate programmes. It considered that the improvements in productivity and management of small industries resulting from technical assistance, training and other promotion measures would increase their credit-worthiness. It was expected

that the performance of small-scale industries on an industrial estate would serve to demonstrate this fact.

64. The provision of common service facilities and of industrial extension centres was a basic feature of industrial estates in the developing countries. Many of the common service facilities were mainly aimed at improving the productivity of the occupants and reducing their production costs; they might also serve the needs of small industries located outside of the estate. This was the case, e.g. of a tool room, testing laboratory, maintenance shop, information centre, etc. Other services - canteen, dispensary, police and fire protection, etc. - contributed both to the welfare and efficiency of the occupants. The Seminar considered that the government should set up and operate those servicing facilities which could not provide on a commercial basis.

65. It was realized that common facilities could be set up economically only if there was a sufficient and sustained demand for their service. Their type and number depended upon the size and industrial composition of the estate. Only a few common facilities could be provided on the smaller estate, and it was suggested that, in that case, arrangements for co-operation among the large and smaller estates might sometimes be devised.

66. The technical and managerial assistance centres on the estates would serve the needs of both occupants and outside industrialists. At the same time, they would provide guidance and advice to prospective entrepreneurs. On the larger estates, other institutions might also be provided. According to the needs and means, they might include training centres, design centres, marketing and export promotion bureaux, prototype production and training centres, quality control associations, etc.

67. The Seminar considered that programmes for the promotion of small-scale industries should include, besides the benefits discussed until now, inducements such as tax and tariff exemptions, abatements or rebates, reduced rates on utilities, facilities for procurement of scarce raw

materials, and government purchasing schemes. Such inducements would be made available to all small-scale industries throughout the country. No special inducements should be provided to the occupants of the industrial estates since the facilities of the estates were a powerful inducement in themselves and the occupants were in a relatively privileged position with respect to outside industrialists - an inevitable consequence of a developmental project. The only special inducement which, in most countries, appeared to be necessary was temporary subsidization of rent. Only in exceptional circumstances, for instance, in the case of industrial estates in backward areas, some additional incentives, or higher rates of benefits might prove to be necessary for stimulating or attracting industrial entrepreneurship.

Regional and International Co-operation in the Development of Industrial Estates

68. The Seminar considered that there was considerable scope for regional and international co-operation in the development of industrial estates. In many cases, such co-operation was a pre-requisite to formulating, planning, constructing and operating industrial estate projects. Regional and sub-regional co-operation were of special importance: knowledge and experience gained in some countries of the region could often be of great value not only to neighbouring nations placed in similar economic, social and climatic conditions but also to countries in other parts of the continent. International co-operation permitted to call upon expert talent and educational and training facilities from overseas and to make use, with appropriate modifications, of the experience gained in a large number of advanced and developing countries of other regions. In view of the scarcity of financial resources in the region, international financing of industrial estate projects assumed particular importance.

69. With a view to accelerating the initiation of industrial estate projects in African countries, and carrying them out with maximum effectiveness, the Seminar recommended that the following measures be

considered by the countries concerned, African regional and sub-regional organizations, the Economic Commission for Africa, the Centre for Industrial Development of the United Nations, the specialized agencies, and other international and national organizations:

- (i) The Seminar recommended that in all countries of Africa the present report be circulated to all government departments and agencies involved in problems of industrial development, in particular of promotion of small-scale industries, as well as to town and country planning agencies and other concerned bodies.*
- (ii) All organizations responsible for industrial estate development in countries of the region should send periodically to ECA all relevant information for dissemination throughout the region; for each project, information should cover economic and technical data, including plans, construction specifications, types of building materials, etc. **
- (iii) Research on estate and factory layout, design, use of local construction materials, etc., and drawing up of relevant norms and specifications should be undertaken by appropriate agencies on a regional or sub-regional basis.
- (iv) Study tours and observation teams in African and other countries should be organized for the benefit of countries of the region.
- (v) Training courses on small scale industry and industrial estate development, area surveys, feasibility studies, etc., might be organized by ECA, the United Nations - for instance in connexion with its African Training Programme - the Economic Development and Planning Institute, Dakar, and institutes in various countries providing courses on small-

* Governments should be encouraged to communicate directly with ECA giving briefly their intentions & plans before establishing industrial estates in their respective countries.

** ECA for its part, will in the meantime forward the Report of the Seminar on Industrial Estates and such other technical material as is thought will be of practical use to them at this time in preparing their plans.

scale industries

- (vi) Implementation meetings or working parties of national personnel, international experts and staff from the Centre for Industrial Development of the United Nations and from ECA, including study tours, might be organized, at the request of Governments, by the United Nations under its technical assistance programmes. Such meetings would be held for countries actively engaged in planning industrial estate projects, with a view to facilitating and improving their implementation.
- (vii) Advisory services and consultations on economic, technical, financial or assistance problems would be provided, upon request, by regional advisers of ECA.
- (viii) Expert advice and fellowships might be requested from the United Nations under the regular and expanded programmes of technical assistance for operations of relatively limited scope and duration in the field of small-scale industries and industrial estates. Assistance for projects covering all or several phases of the establishment of a demonstration industrial estate, from early planning to beginning of operations, which would usually extend over a period of several years, might be requested from the United Nations Special Fund; as a rule, such assistance would include provision of a team of experts, award of fellowships to the counterparts of the United Nations experts and national personnel involved in the project, and provision of certain types of equipment and supplies for certain common service facilities. Special Fund assistance might also be requested for the establishment, as part of an industrial estate, of a small industry service institute, and of pilot plant facilities on an estate.

- (ix) Short-term visits by staff and technical advisers of the Centre for Industrial Development and ECA might be requested, under the technical assistance programmes, for consultations on policies and programmes in the field of small-scale industries and industrial estates, and for advice on further technical co-operation projects, including, if need be, assistance for the preparation of submissions to the Special Fund.
- (x) Assistance might also be requested from specialized agencies of the United Nations and other organizations providing aid under international, multilateral or bilateral programmes.
- (xi) Financing of investment in industrial estates, including plant and equipment, might be requested from a number of international, regional, sub-regional and foreign development banks, corporations and associations.

70. The Seminar noted that the United Nations would publish, in 1965, the present report, some of the papers prepared for the Seminar, and a survey of industrial estate plans and projects in countries of the region, under the title Industrial Estates in Africa. To carry out the survey, the Centre for Industrial Development would address, early in 1965, a request for information to all countries of the region. The Seminar recommended that all countries submit up-to-date information on relevant plans and projects to the Centre for Industrial Development, New York, by 1 June 1965.

71. The Seminar also noted that the Centre for Industrial Development planned the convening of seminars on industrial estates in other regions, and of seminars on small-scale industries, as well as the preparation of a series of research projects in the field of small-scale industry and industrial estates, and expressed interest in such projects, since the findings and recommendations obtained would be likely to be of inter-regional significance.

72. Finally, the Seminar recommended that an item on small-scale industries and industrial estates be included in the agenda of the forthcoming African Regional Symposium on Industrialization to be held in Cairo and that the present report be submitted to that conference.

Annex I

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ANNEX II

AGENDA

1. Opening addresses
2. Election of officers
3. Adoption of the agenda
4. General discussion on the role of industrial estates and industrial areas.
5. Planning the establishment of industrial estates
6. Physical planning and engineering aspects
7. Organization, management and financing of industrial estates
8. Regional and international co-operation in the development of industrial estates
9. Other business
10. Adoption of the report of the Seminar

ANNEX III

ADDRESS BY MR. F.A. N'LIBA-GUIMBOUS
DEPUTY EXECUTIVE SECRETARY ON 14 DECEMBER 1964

On behalf of the Executive Secretary, I am happy to welcome you to the Headquarters of the Economic Commission for Africa and to this Seminar on Industrial Estates.

As you know, this Seminar is jointly sponsored by our secretariat and the United Nations Centre for Industrial Development, New York, which is represented here by Mr. Krestovsky and Dr. Alexander. I should like to take advantage of their presence to express ECA's gratitude for the contribution made by the Centre and its collaboration, which show the interest that it takes in industrial problems in Africa.

When the United Nations, at Headquarters level and at the level of the regional economic commissions, first tackled the question of industrialization, particularly with regard to industrial estates in the developing countries, the emphasis was placed on small- and medium-scale industry. It was thereby recognized that, by developing small- and medium-scale industry, one of the main aspects was being dealt with and, at the same time, a step was being taken towards solving the problem of adapting industrialization to the conditions prevailing in developing countries.

As far back as the First session, the attention of our Commission was drawn to the problem of industrialization, and our secretariat was requested to take a special interest in it. This interest took two forms. Firstly, a Standing Committee on Industrialization was established, and has already held two meetings, and secondly, a particularly well-staffed division was set up in our organization to deal with all aspects of industry. In addition, today's meeting of your Seminar under the joint auspices of the Centre for Industrial Development and ECA confirms this attention and fittingly supplements the action taken by our secretariat in the form of industrial co-ordination missions. Although these missions covered vast and inadequately defined sub-regions, they nevertheless

revealed the immense industrial possibilities existing in Africa. In carrying out these activities, we are very much aware - and we wish to repeat this - that we are only at the beginning, only at the stage of defining the tasks before us. The proposals that we have prepared to achieve greater continuity in our work will be consolidated or will even find better expression as a result of the work of this Seminar.

The task that we must take up here with you, which is much more your task than that of the United Nations, comprises a certain number of sectors in which you will doubtless first wish to study in detail the nature of the instrument, the tool, that is to say the industrial estate, as well as the possibilities and limitations of these estates. Then, on the basis of experience gained in other parts of the world as well as of the limited but direct experience of African countries in relation to industrial estates, you will try to determine the role of these estates under the conditions existing in Africa, taking into account, of course, the special situation in the various countries of the continent. You will then probably wish to touch on the even vaster subject of the policies to be applied in developing small- and medium-scale industries, and to assess the role of industrial estates in this development process, as it appears in your respective countries. Finally, I hope that your discussions will lead to some practical suggestions concerning the formulation of a programme for the establishment of industrial estates.

In this connexion, I should like to point out that a major industrial research institute has, through the intermediary of the Government concerned, offered to help us conduct the necessary studies at sub-regional level. We hope that, in about four months, we shall be able to start putting this project into effect in the field.

Thus, Gentlemen, you see that the task in which we hope to associate you from now on is a considerable one, but you will certainly agree with me that it is an inspiring one. I wish to say how convinced we are that, by combining your efforts with our own, sufficient determination will be maintained on both sides, which is one of the conditions for final success. I hope that your stay here may be richly instructive, but that this may be an effective enrichment, that is to say one that is concrete and realistic. May the Seminar have every success and may you have a pleasant stay at Addis Ababa and in this hospitable country of Ethiopia.

ANNEX IV
LIST OF DOCUMENTS

<u>S Y M B O L</u>	<u>T I T L E</u>
E/CN.14/IE/2	The Role of Industrial Estates in Policies and Programmes for the Development of small-scale Industries
E/CN.14/IE/3	Industrial Estate Developments in the UAR
E/CN.14/IE/4	The Yaba Industrial Estate in Lagos, Nigeria
E/CN.14/IE/5	United Nations Activities in the Field of Industrial Estates
E/CN.14/IE/6	Types of Industrial Estates
E/CN.14/IE/7	Planning, Design and Construction of Industrial Estates with Particular Reference to Africa
E/CN.14/IE/8	The Potential Importance of Industrial Estates for African countries
E/CN.14/IE/9	A Review of Industrial Estate Developments in Africa
E/CN.14/IE/11	The Definition of Small-scale Industry