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Workshop on Industrial Development in
the Least Developed Countries:
Towards an Industrial Action Plan
Vienna, 19-23 August 1991

REPORT*

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INTRODUCTION

1. The Workshop on Industrial Development in Least Developed Countries (LDCs): Towards an Industrial Action Plan was held at Vienna, Austria from 19 to 23 August 1991. The workshop was organized by the United Nations Industrial Development Organization (UNIDO) with the financial support of the Government of Italy.

2. The purpose of the workshop was to review the current trends, constraints and prospects for industrial development in the LDCs and to prepare a draft Industrial Action Plan within the perspective of the Paris Declaration on the Least Developed Countries, drawing mainly on the findings and conclusions of the workshop. The studies under discussion focussed on key issues facing the process of industrialization in LDCs. The ideas and recommendations of the workshop are to be incorporated into the final version of the Industrial Action Plan for submission to the General Conference of UNIDO in November 1991.

I. ATTENDANCE

3. The workshop was attended by participants from the following countries: Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Djibouti, Equatorial Guinea, Ethiopia, The Gambia, Guinea, Guinea-Bissau, Haiti, Laos, Lesotho, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Sierra Leone, Sudan, Togo, Uganda and United Republic of Tanzania. A representative from the Government of Italy also participated, as well as representatives of the following organizations: ESCAP, ECA, ILO, ITC/UNCTAD/GATT, ITU, UNCTAD, UNESCO and WASME. The list of participants is attached as Annex II.

II. OPENING OF THE WORKSHOP

4. The workshop was formally opened by the Director-General of UNIDO. In welcoming the participants and thanking them for their assistance, he expressed the hope that they would find the experience a rewarding one and that through exchange of experience with other participants they would learn of new approaches to the many industrial problems facing LDCs. He also
emphasized that their experience and insight would be of signal value to UNIDO in its work of promoting and assisting industrial development in LDCs and other developing countries.

5. He recalled that the Second United Nations Conference on the Least Developed Countries (UNCLDC II) had adopted the Paris Declaration and Programme of Action of the Least Developed Countries and that, in this document, action was called for in all the major areas affecting socio-economic development. He stressed that one of the basic principles of the Paris Declaration and Programme of Action was that the LDCs themselves bore primary responsibility for their own development, and that it was thus essential that any industrial action plan for the LDCs should fully incorporate and reflect the inputs of the LDCs themselves.

6. He explained that the documents prepared for the workshop highlighted a number of issues that reflected the priorities of the Paris Declaration and Programme of Action in terms of the industrial sector. They were key issues that, from UNIDO's own experience, had been found to be of great importance for the preparation of successful industrial strategies. He expressed UNIDO's deep indebtedness to the Government of Italy for having funded the activities of preparing an Industrial Action Plan.

7. He then outlined the present modest and undiversified levels of industrialization in LDCs and stressed the significance of manufacturing for economic development, including its dynamic linkages, its role in providing consumption requirements and alleviating poverty. He then referred to priority UNIDO programmes of assistance to LDCs at the regional level and emphasized the importance UNIDO attached to the preparation of an Industrial Action Plan in order to give the necessary impetus for new programmes of activities in the future. He concluded by wishing the participants success in their deliberations.

III. ELECTION OF OFFICERS, ADOPTION OF THE AGENDA AND ORGANIZATION OF WORK

8. Mr. Demissachew ASSEFA (Ethiopia) was elected Chairman, Ms. Safyatou BA (Burkina Faso), Mr. Eholo Math CHALISE (Nepal) and Mr. Mohamed AHMED (Comoros) to that of Vice-Chairmen and Mr. Richard CHILINGULO (Malawi) to that of Rapporteur.
9. The following agenda was adopted:

AGENDA

1. Opening of the Workshop.

2. Election of Chairman, Vice-Chairmen and Rapporteur of the Workshop.

3. Outline of purpose and procedures of Workshop.

4. Introduction and discussion of background papers.


7. Closure of the Workshop.

IV. OUTLINE OF PURPOSE AND PROCEDURES OF WORKSHOP

10. A member of the UNIDO Secretariat outlined the twofold purpose of the workshop. He emphasized that the workshop was intended to review the current trends, constraints and prospects for industrial development in the LDCs and to prepare a draft Industrial Action Plan within the perspective of the Paris Declaration and Programme of Action on the Least Developed Countries. Therefore, the participants were there as experts to assist the Secretariat in the finalization of the Industrial Action Plan for submission to the General Conference of UNIDO to be held 18-22 November 1991. In this connection, he outlined changing conditions in the world economy, including the effects of deregulation and regionalization.

11. In connection with the relationship between the Industrial Action Plan and the Paris Declaration and Programme of Action, a member of the UNIDO Secretariat outlined the process by which this programme had been developed and recalled the four principles upon which the programme was based.
V. INTRODUCTION AND DISCUSSION OF PAPERS

12. A member of the UNIDO Secretariat introduced the background paper "Status of industry in the Least Developed Countries (LDCs)" (ID/WG/515/7(SPEC.)). He explained that the approach taken in the paper was to see industry as a system in order to identify areas for policy action. These included measures for industrial diversification and expanded linkages especially with the services sector. He referred to new data which revealed very low capacity utilization rates in LDCs at present, and he stressed the importance of measures to reduce the marginalization of the LDC economies and their improved integration into the world economic system. Since industrial growth would involve the creation of many new industries, measures were needed to encourage the investment decision. A member of the UNIDO Secretariat then introduced the background paper "Industrial policies in the Least Developed Countries (LDCs): major challenges" (ID/WG/515/2(SPEC.)). He stated that while no one policy prescription could be given to cover all countries, certain policy choices emerged from analysis of experience to date. He outlined characteristics of a supportive environment as well as targeted industrial policies that were necessary to release the latent dynamism of industrial entrepreneurs. He emphasized the need for resource-based and selective policies which included decentralized development. For industrial rehabilitation, a top-down, bottom-up approach was needed which took account both of plant-level and macro-economic conditions.

13. In the discussion that followed one participant suggested that the policy recommendations in the latter paper, including privatization, trade liberalization and adjustment of exchange rates be closely reviewed for their impact on the industrial sector. He observed that in the 1950s most developing countries could have been classified as LDCs, and he suggested that it would be useful to focus on the question as to why many LDCs have remained in that category since its inception, while others had graduated.

14. In the discussion that followed, several participants referred to the privatization issue. Some expressed reservations and stressed that it was necessary to establish the reasons for it and to whom the industry was to be sold. It was also pointed out that this should not take place too quickly, because there was a limited number of potential domestic investors. Most said that they were engaged in privatization activities and that the private sector
was seen as the main engine of growth and in one case as a new source of revenue. Other policy areas highlighted included the shortage of medium-level skilled labour, overcapacity, lack of standardization and quality control and the need to channel existing private capital into industry. It was suggested that, to facilitate policy formulation, UNIDO should assist LDCs in arriving at a practical definition of small-scale, craft, and cottage industries. A successful industrial promotion centre established by UNIDO was also referred to as highlighting the necessity of institutional support. On the world economic environment, the question was raised of how industry would be affected by the increased fragmentation of the world economy due to the formation of regional economic blocs.

15. A UNIDO expert introduced the paper "Stimulating rural small-scale industries in developing countries" (ID/WJ.515/4(SPEC.)). He stressed the need to distinguish between rural and agro-based industries, since the latter were often found in urban areas. Micro enterprises appeared to increase in number rather than in size. For linkages, regional differences were observed in that, in Asia, rural small industrial enterprises (RSIEs) had more backward linkages than in Africa. It was also observed that import substitution policies led to overlarge capital-intensive enterprises. The gap between micro- and large enterprises was also noted as resulting from inappropriate policies. Both demand and supply side measures were necessary, and could be combined in an integrated or a filière* approach.

16. It was pointed out that selective creation of large enterprises could encourage particular enterprises of smaller size to emerge. It was also pointed out that large enterprises were in a better position to influence government policy in their favour than were small ones. Among factors mentioned for stimulating RSIEs were preferential interest rates, appropriate technology selection including TCDC, the provision of industrial estates and positive discrimination in government purchasing. While appropriate

* The filière approach takes a "vertical" perspective, following the "thread" or filière from the production of basic natural resource inputs through a whole series of possible linked industries.
infrastructure was very important, waste disposal should be explicitly provided for in their planning. Factors militating against the success of RSIEs included land tenure systems, low quality products, and lack of co-ordination and suitable staff among responsible government agencies. Different import propensities between urban and rural areas should be taken into account in policy formulation. A tendency for rural savings to be invested in urban areas was also noted. The Chinese example of local protectionism was also referred to. Another consideration was the tendency of RSIEs to agglomerate in sectoral specializations. It was also suggested that UNIDO should undertake a resource endowment survey to indicate investment possibilities and should assist in mechanisms for funds mobilization.

17. A UNIDO expert then introduced the paper "Linkages between manufacturing and other sectors of the economy in the Least Developed Countries (LDCs)" (ID/WG.515/1(SPEC.)). He stressed that the growth of individual sectors could not be successfully planned in isolation from one another and pointed out that in the LDCs industry's links with other sectors were stronger than those within the manufacturing sector itself. He then reviewed the possibilities for increased linkages including those to mining, construction and services and the international dimensions of linkage expansion. A representative of ITC stressed that in the past too much emphasis had been placed on production neglecting the marketing aspect and pointed out the significant manufactures component of LDC exports.

18. In the discussion that followed the need for practical systems to provide credit to small industries was stressed and the need for assessment of the industrial potential of LDCs, based on their resources, was also urged. This would assist in the investment decision, as would the establishment of appropriate institutional capacity. Linkages to be considered should include not only intersectoral ones but should also look at the links between industry, government and institutions. In this connection, both UNIDO assistance and national components were necessary. The need for wide-ranging analysis to identify and rank the most promising areas for linkage development was also suggested.

19. A member of the UNIDO Secretariat then introduced the paper "Training Industrial Managers in Least Developed Countries (LDCs)" (ID/WG.515/6(SPEC.)). He stressed the importance of this issue as affecting
all industries and particularly in view of the new concentration on the private and small-scale sectors. Management training should be adapted and developed to reflect the culture of LDCs, and particular adjustments would be necessary to accommodate the training needs of the busy entrepreneur. Training should ensure that women are not excluded. Management development should be an integral part of negotiations on investment and privatization. The subregional approach to institutional development is also appropriate. There is also scope for initiatives in total quality management. A company that grouped small enterprises together would allow for management replacement in the event of absence or illness. The importance of "one-stop shopping" for investment promotion and management advice was also emphasized. Training however had to start with what was available, and to train for the future a national industrialization strategy was needed. Again, there was a need for information on resources including at the subregional level. A member of the UNIDO Secretariat referred to UNIDO's experience in this regard, including a Seed programme in traditional textiles. Training needs would also be influenced by technological change. The most important question was how to use existing capabilities, including how to redeploy trained personnel at present not properly utilized. A co-ordinated and concerted approach from the international agencies was also required.

20. A member of the UNIDO Secretariat described the present industrial training programme of UNIDO including the scope and scale of its existing activities and its emphasis on making the best use of existing training facilities. Participation by LDCs in UNIDO training programmes was very important and an improved response to the possibilities offered was very desirable. He also referred to the lack of a scientific base for the educational system and this was a major hindrance to industrial development.

21. A UNIDO expert presented the papers "The potential role of official development assistance (ODA) projects in promoting industry in the Least Developed Countries (LDCs)" (ID/WG.515/3(SPEC.)), "Aid co-ordination and industrial development in the Least Developed Countries (LDCs)" (ID/WG.515/8(SPEC.)) and "International support for industrialization in the Least Developed Countries (LDCs)" (ID/WG.515/5(SPEC.)). He described the link between aid and industry as insignificant especially in LDCs. The share of aid going to industry in LDCs was estimated at less than 3 per cent and this share was declining. This was not as bad as might appear, because the main
determinant of the health of the industrial sector is the health of the economy as a whole. From the donor side, aid to the public sector is seen as a bad investment. The main concern at the moment is a likely slowing down in the rate of increase in aid. With respect to the possibilities for a greater involvement of the local manufacturing sector in development assistance projects in other sectors, he listed a number of biases against local procurement at present, including aspects of international competitive bidding procedures, the bundling of different types of goods in purchasing, bias among the purchasers themselves and the tying of aid.

22. In the discussion that followed the inconsistencies in donor positions were noted as between co-ordination activities and individual negotiations. With respect to the local purchasing, the fact that specifications of required products for development projects were often made by expatriate consultants meant that products from developed countries tended to be specified. A representative of ITC suggested that the potential share of national and/or subregional purchasing could be as high as 25 per cent instead of its existing 5 per cent. ITC and IAPSO were preparing suppliers' directories to encourage local purchasing. For this, the subregional approach was desirable. The representative of Italy stressed the importance attached to co-ordination, which implied a closer look at existing industry, closer integration and the selection of appropriate technology. Joint venture investments and subregional co-operation were increasingly important vehicles. In the discussion, competition between international organizations was also noted, with development agencies attempting activities in areas that were not their strengths. Examples of inappropriate advice in the industrial sphere were given, and the need for more co-ordination including UNIDO acting as executing agency for World Bank projects was recommended, in view of UNIDO's technical expertise. Delays in communications between LDCs and the international agencies were referred to as another aspect of co-ordination: the need for simplified communication channels was stressed. The ease with which assistance in the form of consultants could be obtained was contrasted with the difficulty in securing support for institutional development, and was an indication of a conflict of objectives between the donor and the recipient country, being in some cases a dilution of the LDC's efforts to build up institutional capabilities. A representative of ITC referred to the significant efforts of developing countries to increase their exports, and he stressed that trade and industry have to be developed concomitantly. He
outlined areas of co-operation between UNIDO and ITC in general, and stressed in particular the importance of co-operation in the context of the proposed Industrial Action Plan for LDCs.

23. A representative of UNCTAD outlined the processes by which the international community had addressed the issues of socio-economic development in LDCs, including the preparation of the Paris Declaration and Programme of Action of the UNCLDC II. She described the structure of the Programme of Action, its basic principles, and the elements relevant to the industrial sector in particular. She also referred to recent adverse developments and to the fact the situation of the LDCs was now worse than at the time of the Paris Conference.

24. At an earlier stage, the Deputy Executive Director of UNCTAD, M. Yves Berthelot, addressed the workshop. He described the exercise of the preparation of the Industrial Action Plan as most useful and one fitting very well with the Paris Declaration and Programme of Action. The commitments and measures embodied in the Paris Declaration and Programme of Action provided common ground on which to build. He urged other agencies to follow UNIDO's example and welcomed the fact that the draft Industrial Action Plan, circulated by the UNIDO Secretariat, involved, in addition to UNIDO's, the co-operation of other agencies of the UN system. He wished every success to the workshop.

25. A representative of ILO stressed that industrialization is regarded as concomitant with economic growth, and it must take into account the social needs. The fulfilment of basic needs should be the first objective. His organization's interest was in the social aspects of industrialization and the respect of basic human rights was at the centre of this preoccupation. He drew attention to a discussion by the ILO Conference on "The Social Aspects of Industrialization" and to the existence of a "Tripartite Declaration" which dealt with FDI and the activities of Multinational Enterprises.

26. A representative of ITU indicated the vital importance of telecommunications development and the disadvantaged position of LDCs in this regard. Active co-operation between UNIDO and his organization on the small-scale telecommunications industry was soon to begin. Many possibilities existed for TCDC and for the manufacture of telecommunications equipment. His organization has always encouraged the engagement of experts from LDCs and
other developing countries in their technical co-operation activities. He welcomed the treatment of telecommunications in the Draft Industrial Action Plan circulated by the UNIDO Secretariat.

27. A representative of ESCAP contrasted the growth of Asian LDCs with that of the region as a whole, and pointed to the new emphasis on markets and the development of the private sector. He drew the workshop's attention to some relevant conclusions of the 47th session of ESCAP particularly the Seoul Plan of Action, recommendations on diversification, the role of small and medium enterprises, and the need for industrial surveys and enquiries in co-operation with UNIDO and the Asian Development Bank. Other recommendations included the setting up of networks of agencies for SMI development and the establishment of a system of information on investment opportunities in Asian LDCs.

28. A representative of ECA described activities in connection with LDCs at the regional level. He summarized a note by the ECA Secretariat,* which reviewed progress in African LDCs including recent industrial performance and policies. He stressed that the fundamental strategy upon which an Industrial Plan of Action for the LDCs in Africa should be based were the frameworks established by the Lagos Plan of Action (LPA) and the African Alternative Framework to Structural Adjustment Programmes and Transformation (AAF-SAP). He noted that, with respect to the industrial sector of LDCs in Africa, it would be essential for a tripartite ECA/UNCTAD/UNIDO collaborative effort for the organization of "cluster meetings", as envisaged by the Programme of Action for the LDCs for the 1990s. Discussion of the papers then concluded.**

VI. PRESENTATION AND REVIEW OF DRAFT INDUSTRIAL ACTION PLAN

29. A member of the UNIDO Secretariat introduced the Draft Industrial Action Plan. He pointed to the difficulties of its preparation in view of the fact


** A list of the papers of the workshop is given as Annex III.
that LDCs varied widely in size, geographical characteristics, industrial diversification and performance. He viewed the Industrial Action Plan as a necessary complement to structural adjustment programmes underway. He drew attention to the embodiment of the principles of the Paris Programme of Action in the draft before the workshop. Some aspects of the Plan could be further developed, such as the section dealing with environment in the light of a UNIDO Conference on Ecologically Sustainable Industrial Development (ESID) to be held in October 1991. It was also explained to the workshop that the main recommendations contained in the draft Plan derived principally from the workshop documentation, supplemented by the accumulated experience of UNIDO in other subject areas.

30. In discussion of the draft, various changes were recommended by the participants. These changes have been included and the Plan is attached as Annex 1 to this document.

VII. ADOPTION OF THE REPORT AND CLOSURE OF THE WORKSHOP

31. The Rapporteur presented a draft of the report of the workshop, summarizing the discussions held and the modifications suggested to the Industrial Action Plan. Participants proposed amendments to the draft report, which was then adopted.

32. The workshop was then closed by the Deputy Director-General of UNIDO. He expressed his appreciation to the Chairman, Vice-Chairmen, Rapporteur and participants for their work and expressed the satisfaction that, as a result of the efforts of the workshop, UNIDO was now ready to transmit the Industrial Action Plan to the General Conference. He also expressed UNIDO's gratitude to the Government of Italy for their support in the activities of preparing and holding the workshop.

33. In reply, the Chairman thanked UNIDO and the Government of Italy for their support in the holding of the workshop and the drawing up of the draft Industrial Action Plan. The meeting was then closed.
ANNEX I
PROPOSAL FOR AN INDUSTRIAL ACTION PLAN FOR THE LEAST DEVELOPED COUNTRIES

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1. INTRODUCTION

The growth of global interdependency makes both possible and necessary concerted efforts to reverse the decline in socio-economic development experienced by many LDCs in the 1980s. The Substantive New Programme of Action (SNPA), adopted in 1981 at the First Conference on Least Developed Countries set a target for the annual manufacturing value added (MVA) growth rate in LDCs of 9 per cent. The actual performance attained in the 1980s was an average of just 2 per cent. This was significantly less than the target rate, less than half the growth rate reached during the 1970s, less than the average population growth rate in LDCs, and also less than the average annual GDP growth rate. The LDCs have structural problems which are unique in their nature and degree and they therefore deserve special international support in their industrialization and development endeavours.

Although LDCs are numerous, geographically varied, and differing in population size, manufacturing in LDCs does exhibit a number of problems that are almost uniformly present and for which a set of solutions can be proposed. All LDCs have small manufacturing sectors and their industrialization prospects rest on the creation of new industries, and in a number of cases, on the rehabilitation of existing industries also. The establishment of new industries means that the supporting environment in terms of policy framework, industrial supplies and services, infrastructure and market access all have to be greatly improved. However, this is also true of the prospects for successful rehabilitation of existing industries, since many of their problems also arise from the policy framework in which they operate.

With respect to the policy framework, industrialization must have a central place in the policy debate. The involvement of the private sector, whether already active or still in an initial stage of development, will be crucial for the creation of an industrial structure that is diversified and flexible enough to meet the rapid changes under way in the socio-economic structures of LDCs and in the world economy as a whole.

Although the rudimentary stage of industry in most LDCs does provide a degree of commonality, there are significant differences between them at a more detailed level of size and geographical characteristics. In population terms, LDCs may be divided into large, medium, and small. In geographical terms, they may be divided into island states, landlocked states and coastline states. Both types of characteristic affect the possibilities for industrial growth and diversification. Landlocked and island states in general face additional obstacles because of increased freight charges. These mean that their exports are less competitive and their imports more expensive. But it also means that because of their remoteness the level of technological complexity they have attained is notably lower than for the coastline states. This is probably a consequence not only of the costs of embodied technology but of access to information sources and to market contacts in general.

Taken on its own, geographical type would indicate that extra efforts were needed in the areas of diversification, export communications and technological development, although a small population size does not necessarily mean that there are conclusive obstacles to a diversified industrial structure, or to a diversified institutional framework for the support of industrial growth.
Given the limited degree to which efficient markets have developed in most LDCs, and the pressing nature of the economic problems with which they are faced, there will remain for the foreseeable future a wide scope for government initiative in new industrial development. This will include the promotion of investment projects at the national and sub-regional level, as well as the rehabilitation of existing state industries, where appropriate. It will also include, however, a considered set of actions at the national level that encourage the growth of the private sector, especially small and medium industry (SMI). This can be both to encourage the involvement of the emerging industrial entrepreneurs and also to provide reassurance to potential foreign investors. There will be a greater emphasis on the overall industrial configuration that is being sought, rather than on individual major projects. An important obstacle to SMI development, the administrative complexities of establishment and operation, will be significantly eased by a reduction in government controls and simplified procedures. This will in turn free human resources in the government sector for more strategic analysis and monitoring of industrial development.

With respect to sub-sectoral priorities, there has to be a special concentration on agro-related industries. Food processing is the only branch of industry which is significant in every type of LDC, although textiles, wood processing, leather and clothing are usually also important, even if they are not necessarily part of the formal sector. On the input side, agro-related metalworking is also significant. Thus agro-related industries, including metal working, and also fertilizers, pesticides and fisheries, will need particular emphasis. This will include the preparation of indicative programmes, country sectoral programmes, and integrated sectoral programmes.

In support of industry, a major concentration of public policy should be in terms of supplying the appropriate transport, communications, energy, services and information facilities needed by the manufacturing sector. The needs of human resource development for industry imply extensive activity in institutional development for the specific skill requirements of modern industry. New methods of training will need to be applied. Other advisory and support services for industry will also be needed. In general there will be the need for a concentration on supplying these through dispersed and local-level advisory services, especially involving manufacturers associations and Chambers of Industry.

Technological development in LDCs will be conditioned by the major development priorities and industrial emphases chosen, and should therefore concentrate on the agro-industrial complex as well as electrical power generation and distribution, communications and information technologies, and transport system. Institutional development in this connection will need to concentrate on assisting the diffusion of exiting technology rather than a large-scale search for new solutions.

Although official development assistance is of enormous economic significance for LDCs, only a very small amount has been directed to the manufacturing sector. Consideration should be given by the donor community to means by which this could be increased. This would be especially necessary in terms of attention to priority areas of industrial growth and their contribution to the satisfaction of basic human needs and overall economic development. Considerable scope exists for involvement of local industry in development projects undertaken in other sectors of LDCs. This can be achieved through the development of better information systems as to the capabilities of local industry as well as through the explicit consideration, at national and international level, of such possibilities.
Given the importance of many international services, such as air transport, shipping, banking services, media and telecommunications, for the industrialization prospects of LDCs, it would be desirable for more explicit consideration of these questions, especially through the furtherance of dialogue between the different interests involved. In many cases international companies involved could, perhaps in a dialogue with donor governments, be encouraged to contribute to a reduction in the comparative isolation of LDCs from the international economic system.

The basic objective for the LDCs for this decade is to contribute to halting any further deterioration in their socio-economic situation, and to establish a basis for sustainable industrial growth and development to meet the needs of LDC populations, especially the rural and urban poor. The second part of this paper contains an Industrial Action Plan for the LDCs which provides a set of concerted actions to be taken by the LDCs and others to accelerate their industrialization in pursuit of this overall objective.

It must be stressed that the Industrial Action Plan is proposed in the context of the Paris Declaration and Programme of Action of the Second United Nations Conference on the Least Developed Countries. The commitments and measures contained therein and the consensus achieved by the international community on the steps to be taken for overall socio-economic development of the LDCs are taken as a basis for it. These include commitments and measures related to external resources, international trade, debt, commodities and the full range of issues of all aspects in LDCs development. The present industrial Action plan therefore concentrates on measures specific to industrial development, or measures where the situation with respect to industry is especially relevant. Thus, it should be stressed that discussion of related areas in such fields as trade, finance and macro-economic policy is undertaken because action in these fields are seen as essential concomitants of, or necessary pre-conditions for, successful action in the field of industry. Although such points are considered and agreed in more detail in the Paris Declaration and Programme of Action they are re-emphasized here because they emerge from existing UNIDO analysis and experience as of an essential character. It is of course recognized that these subjects are not directly within UNIDO's mandate but those of other agencies of the United Nations system, in particular UNCTAD which serves as focal point for the follow-up review and appraisal of the Programme of Action at the global level, and, further, that there are other fora more appropriate for their examination. However, UNIDO is concerned to emphasize the actions needed outside the sphere of industry if industrialization of LDCs is to succeed. Though the established procedures for inter-agency co-operation and system-wide co-ordination, the special conditions for industrialization of LDCs will have to be addressed. With respect to African LDCs, it should be noted that the Second Industrial Development Decade for Africa (IDDA II) endorsed by the Conference of African Ministers of Industry in Dakar in August 1991 will provide the basic framework for the implementation of the Industrial Action Plan. The proposals contained herein are based on a series of studies carried out by UNIDO and on the conclusions and recommendations of a Workshop on Industrial Development Strategies for the LDCs held in Vienna August 19-23 1991.

The Basic Principles underlying the Paris Declaration and Programme of Action may also be taken as an essential pre-condition of the success of the Industrial Action Plan. They are as follows:
1: Success depends on a shared responsibility and a strengthened partnership for the growth and development of the LDCs.

2: The least developed countries have the primary responsibility for the formulation and effective implementation of appropriate policies and priorities for their growth and development.

3: The strengthened partnership for development necessitates adequate external support from the LDCs' development partners.

4: Commitments undertaken should be measurable and sufficiently transparent to enable monitoring and assessment of the Industrial Plan of Action for the 1990s.

In the Plan which follows, problem areas are discussed, an objective is outlined for each, and a set of actions is then presented to achieve this objective. There is also an indication of the major actors likely to be involved. It should be emphasized that, where action on the part of UNIDO is indicated, it should be understood as taking place only within its existing mandates as the lead agency for industrialization.
II. ACTION PLAN

1. GLOBAL FRAMEWORK

1.1 Macro-economic conditions

Rigidities in LDC economies, fiscal imbalances, monetary (and in some cases political) instability, pricing policies, and insufficient attention to individual enterprises are some of the causes identified for the lack of success seen by LDCs in their growth and development strategies. The industrialist making an investment decision needs a stable legislative, institutional and macro-economic environment to provide the necessary confidence, and needs also an efficient market system to provide the price signals necessary for strategy formulation. Steps to achieve this include steps towards reducing price distortions, including those caused by inappropriate exchange rates. For industry, it is essential that a flexible macro-economic framework be established, in which decisions in monetary and fiscal policy take due account of the existing needs of the industrial sector and its potential contribution to overall development, especially in poverty alleviation.

**Objective:**

An appropriate and flexible legislative and macro-economic policy framework as an enabling environment for industrialization.

**Action:**

Identification of economic linkages and interface between macro-economic goals and sectoral/sub-sectoral restructuring;

Reduction of price distortions and changes in public expenditure patterns, including in some cases reductions in their overall magnitude;

Special measures to prevent further consequential increases in balance of payments disequilibria and to provide protection for the poorest sections of society;

Determination of expected future requirements of manufactures goods (including final consumption by households) to take account of changing patterns of imports and domestic production needs;

Development of the necessary information base for effective consultation with all economic agents, including domestic and foreign private investors;

Identification of key/priority industrial sectors, sub-sectors and enterprises for development;

Reduction of administrative controls, including authorizations, barriers, licences, etc. that inhibit the establishment of industries;

Establish regular channels for full representation of views of the industrial sector;
Re-alignment of exchange rates after analysis of their impact on industrial competitiveness:

Capacity building in Ministries of Industry to allow effective liaison with ministries dealing with planning and macro-economic policy;

Adequate provision in structural adjustment programmes for industrial development.

LDC Governments with the assistance of UNIDO.

1.2 Finance

1.2.1 Domestic resources

Although a few LDCs have managed to increase gross domestic savings rates above 10 per cent, the consumption requirements of often rapidly growing populations mean that the scope for mobilization of financial resources for industrialization will be limited. This being said, however, there is a need to maximize possibilities in this regard. The general promotion of domestic savings will have to be accompanied by suitable institutional development, including at a local level to allow decentralized access to commercial investment capital by small-scale and rural industrial enterprises. Similarly, savings can also be mobilized at this level through the promotion of savings and loan associations and group savings associations, and their encouragement to become more involved in loans for manufacturing purposes.

Mobilizing domestic resources for investment in industry.

Provision of easy access to loan funds and credit guarantees, especially for rural small-scale industrial enterprises (RSIEs);

Restructuring of the financial sector and establishing of capital markets;

Strengthening and restructuring domestic finance institutions and banking sector;

Promotion of savings and loans associations to provide small loans to RSIEs;

Decentralized, low-level institutions to reduce administrative costs of small loans;

Favourable legal and institutional framework to promote and increase local savings for industrial development;

Concentration on incentives to encourage investment that do not require specific approval and award in each case but are automatic in effect, such as differential tax rates and social security contributions;
Establishment of trade financing schemes for the provision of pre- and post-shipment financing, export credit guarantees and insurance etc.

**Initiative:**
LDC Governments. International organizations, including UNIDO.

### 1.2.2 External resources

Given that LDCs in general have limited capacity to generate investible surpluses for investment in industry, there is a need for foreign direct investment (FDI) both in terms of new investment and investment related to rehabilitation of existing production capacities. Most LDCs may need to continue their efforts to attract increased FDI flows in the hope of obtaining not only investment capital but also new technologies, managerial expertise and access to export markets. In this connection, appropriate financing mechanisms, including the use of trust funds, may be explored. However, many LDCs have insufficient domestic market possibilities, and sub-regional cooperation offers wider scope for market expansion, as well as the exploitation of complementarities.

**Objective:**
Mobilization of increased foreign direct investment (FDI) resources including, where necessary, encouragement of local participation in FDI by way of partnerships, to ensure continuity of industries.

**Action:**
- Formulation of favourable policies at both the national and sub-regional level;
- Re-design of investment codes and provision of greater guarantees;
- Simplification of legislative instruments to attract FDI;
- Consideration of tariff protection as a possible incentive;
- Consideration of debt-equity swaps, with technical intermediation by international agencies.
- Encouragement of local participation in FDI by way of partnerships to ensure continuity of industries.
- Creation of funds for pre-feasibility studies in connection with industrial investment projects.

**Initiative:**
LDC Governments, LDC industry. UNIDO to provide support through policy advisory services, pre-investment studies, and investment promotion.

### 1.3 External trade

#### 1.3.1 Diversification

Progress in LDCs towards a more diversified manufacturing base has not been great. Manufacturing activities concentrated in a few sub-sectors. Typically, food processing amounts to more than 50 per cent of manufacturing
activity. Again, there is a small number of enterprises, adding to the vulnerability of the industrial system. This implies the need for more emphasis on small and medium industry, but also on export diversification, since this is capable of strengthening the domestic economy and providing greater stability and predictability in export earnings.

Objective: Diversification of products and identification and development of new export markets.

Action:

- Analysis and identification of products representing potential export opportunities, in particular vis-a-vis subregional and regional markets.
- Development and provision of export support services.
- Establishment and improvement of quality control and standardization services and packaging and transport services.
- Development of appropriate advertising and media support.
- Establishment of regional and subregional mechanisms for assuring raw materials supplies.
- Improved management and export marketing techniques.
- Holding of trade fairs at the national and subregional level.
- Participation of LDCs in international trade fairs.
- Training of LDCs industrialists in export marketing and promotion, acquiring and utilizing market intelligence, conducting market surveys and contracts negotiation techniques.
- Establishment of trade information networks at national and subregional levels.
- Promotion of export-oriented joint ventures.
- Identification of resource endowment for industrial development.

Initiative: LDC Governments, LDC industry and trade representative organizations, international organizations, including UNIDO and ITC.

1.3.2 Access to markets

Developing countries, and LDCs in particular, are on the periphery of the world economy, as evidenced by their role in international trade. LDCs' share in world exports amounted to only 0.3 per cent in 1988. New tendencies in the international structure of production, such as the development of strategic industrial partnerships and agreements across national borders and
the building of new regional trading blocks, make the international market even more inaccessible to LDC manufactures. The geographic isolation of some LDCs is reflected in very high transport and communication costs, and associated service costs, such as banking, can also be expensive. Greater efforts are therefore needed to make international markets accessible to LDCs' industrial exports.

**Objective:**
Increased access to markets for industrial exports of LDCs.

**Action:**
Co-operation among LDCs and other developing countries at the regional and sub-regional levels to help provide enlarged markets for manufactured products;

Intensified market liberalization negotiations commenced by the Uruguay Round of GATT to provide market access for products originating from the LDCs;

Improvement of the General System of Preference (GSP) scheme to ensure duty-free treatment of LDCs' exports and help exempt them from quotas and ceilings placed on their exports in the international markets, especially in the advanced market economies;

Further development and implementation of the Generalized System of Trade Preferences among developing countries (GSTP);

Detailed analysis of the impact of non-tariff barriers in other countries on industrial production in LDCs;

Review of the impact of freight rates, communication costs, and transaction costs on LDCs industrial competitiveness in world markets, and discussions with the actors involved on measures for their alleviation;

Institute and develop suitable support measures to enable LDC exporters to take full advantage of existing preferential trade schemes, and other improved international market access arrangements.

**Initiative:**
International community, LDC Governments, international organizations, including UNCTAD, ITC and UNIDO.

2. **Enterprise Development and the Role of the State**

2.1 **Public industrial enterprises**

The past emphasis in most LDCs on public sector enterprises in a broad range of manufacturing areas has run into operational and financial constraints and led to an inefficient allocation of economic resources. What is needed is a redefinition of the role of the state with reference to public enterprises, and practical measures to make any public enterprise contribute positively to industrial development in LDCs. This can be achieved by increasing their responsiveness to market signals, but these in turn can only come from an appropriate macro-economic framework.
To increase the supportive role of viable public industrial enterprises by raising the efficiency, productivity and competitiveness of suitable public enterprises and where necessary to rehabilitate, privatize and/or dissolve them.

Adoption of necessary and appropriate measures to evaluate their performance and viability on a case-by-case basis;

Establish efficient accounting procedures;

Enforce financial and managerial discipline, including full autonomy and accountability of managers;

Create adequate incentive and career structures to attract, train and retain qualified personnel;

Privatization of selected public enterprises to stimulate and accelerate industrialization;

Implement restructuring options as appropriate, which may include consolidation/rehabilitation and privatization/dissolution, to stimulate and accelerate industrialization.

LDC Governments. National initiatives could be supported by technical and industrial service assistance from UNIDO, and other development partners.

2.2 Promoting private industry

In many LDCs there has been a long history of public sector dominance in industry and a narrow base of domestic private entrepreneurship. Privatization programmes are expected to dynamize production and bring improved economic efficiency in industry. Such programmes, however, will need an appropriate enabling economic environment in order to become workable. The major impetus for industrial growth will have to come through the private sector, including the promotion of private small- and medium-scale enterprises. This will be essential to achieve diversification of industrial structures, increased employment opportunities and poverty alleviation, and the growth of dynamic linkages with the economy. While export development and diversification are important considerations, the domestic market will be an initial focus of many new and existing enterprises, and measures to strengthen this market must be a major priority.

Creation of favourable and enabling economic environment for rehabilitation, local entrepreneurship and private sector initiatives.

As part of a programme of rehabilitation, carry out analyses of plant-level and sectoral and macro-economic conditions for enhanced performance;

Creation of secure and predictable legal and institutional framework for activities of private enterprises;
Simplification of administrative regulations that affect the operations of private industry, and transparency in their operation;

Appropriate fiscal policies, including careful assessment of the relevance of existing tax bases and rates;

Financial and credit policies including those related to structural adjustment programmes that take special account of the characteristics of industrial enterprises, and their special requirements for foreign exchange;

Provision of incentives, including appropriate imports allocations or tax concessions to potential buyers of ailing public industrial enterprises;

Promote the formation of broad-based institutions at local and national level which represent the interests of the private sector, such as Chambers of Commerce, manufacturers' associations, and Chambers of Industry;

Extensive human resources development programmes for the private and informal sectors, especially through the direct involvement of Chambers of Industry in training schemes;

Effective policies to attract foreign companies to invest in industry and related services sectors;

Promotion of management training, small-scale ventures, usually based on local/regional resources, and micro-industrial enterprises;

Supplementing existing skills by special programmes of computerization for standard management applications;

The creation of industrial development zones export processing zones (EPZs) where the appropriate pre-conditions for success (including geographic characteristics and human, technological and infrastructural supporting network) are present;

Encouragement of entrepreneurship by promotional measures such as programmes of education and training that foster self-employment as well as the release of entrepreneurial talents.

Initiative: LDC Governments, LDC industry, international organizations, including UNIDO.

2.3 Non-governmental organizations (NGOs)

The role of NGOs including development associations, co-operatives, credit unions, business associations, churches and women's groups in promoting development has become more prominent in recent years in both developed and developing countries. NGOs may have particular roles to play in promoting and supporting especially small-scale industry, and in human resource development.
for industry. Rural credit entrepreneurship development and training are some of the successful areas. Their capacities for organization and development at the local level can in many cases be used for the encouragement of industrialization initiatives in LDCs. There is a need however for increased international co-ordination to this end.

**Objective:**
Enhancement of participation of developed country and LDC NGOs in LDC industrial development.

**Action:**
Identification of NGOs in the fields of industry and industry-related services in developed countries that could participate in co-operation programmes with LDC industry;

Development of programmes of co-operation with LDCs by appropriate NGOs in developed countries, especially in such fields of organizational development, management skills development, quality control, marketing, repair and maintenance, and environmental protection;

Selection of counterparts in LDCs, especially nascent NGOs in comparable industrial branches, but also including governmental and parastatal involvement to assist in clearing administrative obstacles to direct co-operation;

Assist NGOs to offer management training and skills especially in rural areas on a basis to enhance development and interaction between entrepreneurs.

**Initiative:**
LDC NGOs with assistance of developed country NGOs. UNIDO to provide assistance in programme development and co-ordination including employers organizations and trade unions.

3. **Modernization and Expansion of the Industrial Base**

3.1 **Rural industrial development**

In many LDCs, modern small-scale industry is as yet of minor importance in rural areas, it is therefore important to enhance their contribution to industrial development in rural areas so as to better the living conditions of their population. To do this, measures are needed that include a suitable macro-economic framework, as well as demand and supply side measures. Since linkages tend to be particularly weak in LDCs, close attention has to be paid to the relations between different rural activities, as well as to clusters of urban small industries with rural links. Given that the industrial strengths of LDCs are to be found mainly in the natural and human resources available to them, it is clear that agro-based industries (including those based on forestry and fisheries) will be the principal basis of industrial growth, and that industrialization will include the development and extension of supply and demand relationships between agriculture and industry, including the supply of inputs to agriculture.

**Objective A:**
To combat poverty and make better use of natural resources based on ecologically sustainable rural industrial
development, through the development and promotion of rural small-scale industrial enterprises (RSIEs);

Suitable macro-economic policy and institutional framework, especially through the simplification of bureaucratic procedures and controls and the removal of pricing distortions unfavourable to RSIE;

Measures that avoid promoting commercial farming at the expense of, rather than in addition to, subsistence agriculture;

General measures for rural development that encourage RSIE, including price preferences, the development of rural credit schemes, and land reform;

Improved skill training and education, especially through extension programmes and support for community-level and private initiatives;

Public investment programmes that take account of the transport and energy requirements of existing and projected RSIE;

Promotion of agro-based and other resource-based small-scale industries, closely limited to domestic and regional market demands;

Special measures for the promotion of women entrepreneurs;

Assistance in identifying niches for craft products from micro-enterprises in international markets;

Initiate and strengthen effective measures for the conservation and development of water supplies in rural areas;

Concentration and co-ordination of specialized support service agencies (SSIs) for RSIEs;

Improvement and expansion of sub-contracting arrangements for RSIEs for efficient rural, urban and export market outlets;

Within the context of an overall review of tariff and tax structures, including those carried out in the context of structural adjustment programmes, selective reduction of duties on inputs to the agricultural machinery industry, together with tax concessions on sale of the products.

LDC Governments, regional and sub-regional organizations, institutions, international community and local NGOs, international organizations, including UNIDO. Technical assistance from UNIDO in development and rehabilitation of rural industries in LDCs.
Objective B: Development of agro-related industries.

Action: Survey of industries such as agricultural machinery, fertilizers, and pesticides industries and requirements at national, sub-regional and regional level, to identify patterns of development levels, potential demand and supply characteristics and

Preparation of integrated industrial sectoral programmes for development of these branches in LDCs;

Close dialogue between LDC Governments, LDC industry, rural development organizations and other interested parties on the selection and implementation of projects for investment and for technical co-operation.

Initiative: LDC Governments, UNIDO, international community.

3.2 Industrial services and technology development

A major weakness of industrial development in LDCs is the absence of supporting industries - particularly services. This lack of supporting industries, services and institutions has been identified as a major obstacle to industrial development (including the attraction of FDI flows). Industrial support services and technology need to be systematically built up. At present, there is a shortage of finance, banking, credit, insurance, repair and maintenance, skill management and training, accountancy, engineering design and consultancy as well as R&D services for manufacturing, together with wholesale and retail trade. In some cases, the informal sector provides some of these services to manufacturing in LDCs, but there is considerable scope for further expansion and development. Technological development in LDCs, while necessarily limited in its scope by the progress achieved in industrialization, is nevertheless of critical significance for industrial diversification, increased competitiveness and the conservation of resources. Adaptation of existing technologies offers many possibilities, especially in the exchange of experience with other developing countries, but is only possible if special measures are undertaken to overcome the geographic and institutional isolation of many LDCs and if the general economic framework is supportive.

Objective A: Increased support for industrial growth through the creation of new industry-related services and institutions as well as strengthening existing ones.

Action: National plans, programmes and strategies for the development of the services industries that take explicit account of the contribution that can be made to them by manufacturing and, in addition, the assistance given to industrial growth by the availability of suitable services;

Analysis of availability and requirements for industrial services, and assessment of contribution of existing institutions;

Planning the development of systematic institutional support for industry, especially in the fields of
industrial standards, testing, supporting exports, quality assurance, packaging, design, training, purchasing, technology acquisition, adaptation and adoption, and legal advisory services;

Establishment and expansion of institutions for policy development and research in specific fields of industry-related services, and in co-operation with LDC industry, co-ordination of advisory and extension services;

Setting up and expansion of institutions for advisory services for small and medium industry development, especially through LDC industry organizations and institutions at the local level, including the provision of support for ongoing enterprises in the field of marketing, cost control, and finance (accounting); (low cost) market research, etc.;

Encouragement of initiatives at industry and local level for repair and maintenance services for industry;

Assistance to local and industry initiatives in the provision of access to credit lines and business advice;

Technology acquisition policies based on proven and well-tested technology adapted to local conditions.

**Initiative:**
LDC Governments, LDC industry, international organizations, including UNIDO, international community, developed countries NGOs.

**Objective B:**
Increasing technological capabilities for industrial diversification

**Action:**
Improvement of access in LDCs to basic information sources (news media, technical and trade journals, etc.);

Institutional development, especially networking for technology information exchange, with sub-regional and regional co-operation playing an increasing role;

Re-assessment of tariff structures in the light of requirements for technological development;

Improved access to more advanced industrial technologies especially in the context of increased export orientation;

Training for more efficient use of existing technologies;

Establishing appropriate legal and regulatory framework in LDCs for technology development and protection of intellectual property rights.

**Initiative:**
LDC Governments, international community, UNIDO.
3.3 Efficient energy use

Inadequate and unreliable energy supplies have contributed to slow industrial growth in many LDCs, and the need to import energy sources has imposed balance of payments difficulties. Unequal distribution of resource endowments, large transmission distances, and the size of markets impose limits on the supply development. LDCs need to create the environment to develop and enhance economic energy supplies needed to sustain industrial growth and development. Infrastructural development to include extension of the national grid will be important for many industrial enterprises, actual and potential. However, there is also considerable scope for improving the quality of power supplies, as well as the introduction of a range of energy conservation measures.

**Objective:** Increased energy-efficiency in industry that also includes use of alternative energy sources.

**Action:**

- Increase energy national/regional resource capacity based on development of viable conventional and alternative energy sources, including hydropower, geothermal, bio-gas, solar, wind and other forms of energy;
- Intensify campaigns on modalities and benefits of low-cost energy conservation in industry and industry-related pollution problems;
- Carrying out of energy audits in industrial plants;
- Subsidization of energy conservation processing techniques in industry;
- Award programmes for efficient energy users and promotion of simple but efficient energy technology systems for industry;
- Special measures for SHI and RSIE to encourage more energy efficient production methods, including diffusion of information on efficient energy technologies, and promotion of expansion of the national grid as appropriate;
- Increase afforestation and reforestation programmes to improve renewable energy sources such as wood and forest products.

**Initiative:**

LDC Government, LDC industry, NGOs, local initiatives, international organizations, including UNIDO.

4. HUMAN RESOURCE DEVELOPMENT

4.1 Improving the human resource base

Generally, LDCs face a severe shortage of the skills necessary for industrial development. The reported lack of quality labour covering the whole spectrum from top to middle level management, engineering and technical skills in quality control and maintenance, and skilled and semi-skilled labour
in production calls for intensified efforts to improve the human resource base for industrial development in LDCs. Training and education, especially higher education, is often too theoretical, more geared to meeting the requirements of the public sector than the needs of industry. This includes rural small-scale industry, for which improvement of the human resource base is also necessary.

**Objective:**

Improve the quality of manpower, including top, middle and lower level managers, engineers and technicians, and skilled and semi-skilled labour in production;

**Action:**

Involvement of government and industry in a dialogue for a better definition of human resource development priorities and problems;

Streamlining of government administrative machinery in order to allow effective and quick response to the changing industrial situation, increasingly based on market signals;

Provision of adequate incentives to attract and retrain trained personnel in public service and other institutions including universities and research;

Establishment of legal and social security frameworks that encourage worker mobility and thus skill diffusion and new skill acquisition and that give stability and security in employment;

Development of informal apprenticeship schemes where existing;

Assessment of science and technology trends and their implications for human resource requirements in industry;

Gearing higher education in LDCs to meet the needs of industry, especially in the development of skills and professional training needed by an expanding private sector;

Analysis of trends in advanced technologies and development of appropriate training in response;

Provision of larger amounts of corporate and national budgets for training of trainers and development of training materials for industry;

Provision of adequate resources for development and support of the training infrastructure;

Adoption of measures and provision of incentives for the development of private training institutions;

Prepare programmes for the full participation of women in industry, especially in private small-scale and informal sector, especially through making the education,
information and decision-making processes accessible to them, including the design and evaluation of projects;

Establish within public administration and industrial enterprises a scheme of recognized responsibilities for all levels in order to encourage personal responsibility and identification with organizational objectives.

**Initiative:**

LDC Governments, LDC industrial associations, LDC industry Assistance of UNIDO, UNESCO, ILO, in the field of technical services. NGOs and private local corporate bodies may be important actors in institutional capacity building.

**4.2 Industrial management skill training**

Limitations with respect to education and training of human resources for industry are prevalent at virtually all levels of production activities in LDCs. This limitation including the quality of human resources applies to the company level where there is a lack of sufficient trained personnel. These limitations have adverse effects on the acquisition and efficient operation of new production techniques. Increased competition internationally calls for a continual upgrading of skills in the field of industry. Again, the adoption of strategies of industrialization based on development of the private sector, and especially small and medium industry, calls for a rapid increase in training for management skills development.

**Objective:**

Improved quality of technical and management training to meet the needs of industry.

**Action:**

- Incentives for increased school attendance by disadvantaged children to provide a basis for accelerated human capital formation in LDCs;
- Incentives to increase enrolment for training in subjects critical for industry, including management skills, engineering, natural sciences and technical occupation;
- Increase of training of trainers for industrial managers;
- National management development in association with industrial policy, especially in relation to partial privatization of some enterprises or restructuring of development co-operation;
- Effective design and implementation of national and regional management development programmes (MPDs) and building up of local training capacity for industrial managers;
- National and regional co-ordination of MDP institutions and universities;
- Intensification of national and regional exchange programmes and visit for LDC managers;
Development of cognitive and collective behaviour skills of both male and female managers:

Integration of appropriate entrepreneurship and small-scale management training into school, university and apprenticeship programmes to ensure participation of women in management:

Strategies to capitalize on the latent dynamism of local entrepreneurs, including initiatives that can be easily understood and assimilated by the local population.

Development of quality control throughout organizations and training of specialist in quality control and quality management, standardization and metrology.

Initiative: LDC Governments, national and regional institutions, and international organizations, including UNIDO.

5. TRANSPORT AND COMMUNICATIONS

The severe difficulties and handicaps which may LDCs face arising from landlockedness and geographical isolation create an urgent need for the improvement and development of both national and regional transport and communications for industrial development. The difficulties are especially in the areas of delays and unreliability of supplies and in reaching export markets, together with associated high transport costs of goods. In the longer term these difficulties have fundamental negative consequences for development of technology and market structures.

Objective: Improved national and regional transport and communications infrastructure to meet the needs of industry.

Action: Development, maintenance and rehabilitation of ports, waterways, roads and rail networks, taking into account the specific needs of industry for access to supplies and to markets;

Training of indigenous manpower to service transport and communication equipments and systems;

Special measures to link remote rural enterprises to market centres;

Expand and improve transit-transport and port facilities, including appropriate duty and legal arrangements, to facilitate transport to and from landlocked countries;

Incorporation of provision for telecommunication facilities as a major support service in all industrial projects;

Develop and promote use of telecommunication systems and other requisite infrastructure for industrial development, including satellite and other computer-aided communication technologies for industry and enterprises;
Assess feasibility, especially at a regional and sub-regional level, of production of low cost transport equipment:

Identification, siting, laying out and appropriate development of industrial estates.

**Initiative:**

LDC Governments, regional and sub-regional organizations, international organizations, including UNIDO.

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**6. INDUSTRY AND ENVIRONMENT**

Industrialization is aimed at increasing the welfare of the population of LDCs over time, but at the same time it has been associated with industry-related environmental problems. Although LDCs industry is small, they will have to adopt patterns of industrialization which minimize pollution through cleaner production.

**Objective:**

Integration of environment and development imperatives into national and regional industrial policies to achieve environmentally sustainable industrial development (ESID).

**Action:**

Awareness campaigns and incorporation of environmental concerns in education curricula;

Promotion of product stewardship and enterprise responsibility for industrial products;

Development of ESID-related structural adjustment programmes where environmental problems in a country's industry are of sufficient magnitude;

Assistance to industry in adherence to code of conduct for production, especially including support to industry associations in this regard:

Increased integration of environmental responsibility into all management levels, introduction of environmental auditing and resource accounting, together with associated training programmes;

Assistance to industry in identifying and meeting new product technical requirements and opportunities for international trade.

**Initiative:**

LDC Governments, international community, regional and sub-regional organizations, UNIDO, UNEP and other agencies.
7. INTERNATIONAL CO-OPERATION

7.1 Economic and technical co-operation among developing countries

The small size of domestic markets for manufactures in most LDCs, limited resources for industrial investment, physical inaccessibility due to landlockedness and insularity of some island LDCs pose major hindrances to industrial development. Increased economic and technical co-operation between LDCs and other developing countries at the regional and sub-regional levels can play an important role in industrial development of LDCs. While industrial resources are limited, there will still be certain complementarities in economic structure and possibilities for exchange of experience and expertise.

Objective: Development of regional and sub-regional markets for trade in manufactures and exchange of technical services in industry among LDCs and other developing countries, particularly those in the same subregion.

Action: Simplified procedures for importing LDCs' manufactured products, as part of the development of free trade areas and economic unions;

The development and strengthening of clearing houses for facilitating trade in manufactures in local currency;

Promotion of pilot industrial projects for subregional cooperation;

Undertake supply and demand surveys to identify products representing particular opportunities to be encouraged on regional and subregional markets;

Encouragement of the establishment of multinational industrial enterprises among LDCs and other developing countries.

Development of clearing houses for exchange of technical expertise among LDCs, and between LDCs and other developing countries;

Enhancing exchange of information and know-how in the manufacturing sector, including through buyer-seller meetings, sub-contracting exchanges, and networks of information exchange on technology negotiation and acquisition;

Facilitating the flow of goods in transit, especially for land-locked LDCs, again through simplified procedures and through international support for infrastructural development.

Initiative: LDC Governments, sub-regional and regional organizations, international organizations, including UNIDO, international community, ITC.
7.2. Co-operation with developed countries

7.2.1 Co-ordination and harmonization of aid policies and measures

Although industry in LDCs receives small share of the total official development aid (ODA) that flows to LDCs, this total is in many cases significant in proportion to total external resource flows. In many cases there may be opportunities for the local manufacturing sector in LDCs to participate in development aid projects dealing with other sectors, such as health, agriculture, infrastructure, etc. Again, the process of development aid co-ordination may have insufficiently considered the potential importance of industry in the development of the LDC in question.

Objective: Better aid coordination and targeting to make maximum use of ODA for industry.

Since industry in LDCs receives a minuscule share of ODA, it is pertinent to adopt an effective co-ordination strategy to utilize wisely the scarce resources available for industry.

Action: Consideration of increased resources for industrial development from the international community, or consideration of an increase in the share of existing funding channelled to the industrial sector;

Careful monitoring of aid and service inputs to ensure, as far as possible, use of products, expertise and services available in the recipient LDC or another LDC or for which an appropriate local substitute exists;

Expanded commodity aid funds in order to provide imported inputs;

Additional resources, including technical co-operation staff and NGO and industry initiatives in developed countries, to help bridge the gap in the training of indigenous management and technical skills for industry.

Preparation of databases and/or directories containing information on potential LDC suppliers to development aid projects and/or services.

Initiative: International community, LDC Governments and international organizations, including UNIDO.

7.2.2 Better harmonization of aid and debt relief strategy

The burden of debt, including bilateral concessional debt, with which many LDCs are faced, continues to be a major hindrance to industrial growth and to realization of development plans, making economic adjustment with sustained growth very difficult as was recognized at the Second United Nations Conference on the Least Developed Countries. The ODA required to meet these growth targets will depend on such variables as debt relief programmes, non-concessional capital inflows from private and public sources, and reserve requirements, all of which are subject to great uncertainties. The
effectiveness of increased ODA for LDCs industrialization will thus depend to a large extent on better harmonization between the debt relief mechanisms and ODA programmes.

Objective: Better harmonization of aid and debt relief policies and actions; progressive debt relief strategy to meet development needs of LDCs.

Action: Special consideration of debt and debt-relief policies for the industrial sector, especially considering the recurrent need of an expanding industry for foreign exchange;

Establishment of export revolving funds for foreign exchange requirements of exporting industries in LDCs.

Initiative: International community, and international organizations, including UNIDO.

7.2.3 Better understanding in the international community

Public awareness of the plight and potential of industry in LDCs has hitherto remained limited. In the international information setting the development problems of LDCs are often presented only in relation to very large scale national or human disasters. It is therefore necessary that intensive information campaigns for a wider appreciation of the problems and potential of industrialization in LDCs are made to attract greater support and greater private sector participation in the industrial transformation of LDCs.

Objective: Better understanding in the international community of the potential for enhanced socio-economic development of the LDCs through their industrialization.

Action: Development of public information strategy for UNIDO aimed at specific target groups at national, regional and international level, including decision-makers, the private sector, NGOs and the media.

Initiative: UNIDO, international community, LDC Governments.

8. IMPLEMENTATION AND REVIEW

8.1 Industrial data

The state of data and information on manufacturing industry and other sectors of the economy in LDCs are poor. Data gaps affect every sector including industry. If strategies for industrialization and sustainable growth with equity are to be developed in the LDCs, the industrial information system must be developed and improved, as a matter of urgency.

Objective: Improved information on manufacturing industry and economic sectors at national and regional levels.

Action: Improve perception of industry in the development process and emphasize the need for sectoral, branch, sub-branch and enterprise information;
Analysis of information requirements of government and the private sector, and re-definition and harmonization of information collected to meet real needs of decision makers:

Close co-operation between public authorities and industrialists in the collection of data and the establishment and strengthening of efficient networks for the periodic collection of data:

Development of mechanisms to facilitate quick and easy access to local and international data by users;

Training of statisticians and data base managers.

**Initiative:**
LDC Governments, LDC industrialists, and international organizations, including UNIDO.

8.2 Implementation arrangements, follow-up, monitoring and review of action plan

8.2.1 Sectoral level

**Objective:**
To translate the components of the Industrial Action Plan into specific steps at the sub-sectoral and institutional level.

**Action:**
Preparation of operational programmes of technical co-operation for groups of LDCs, including specific analysis of requirements and supply possibilities for technical co-operation in various fields including:
- Agro-food processing
- Fish processing
- Textiles
- Clothing
- Leather and leather products
- Construction materials
- Chemical industries
- Metalworking (including agro-related, repair and maintenance)
- Wood products
- Telecommunications

At the policy and institutional level, programmes will be developed in:
- Industrial rehabilitation
- Rural industrialization
- Small- and medium-scale industry and entrepreneurship development
- Industry-related services

**Initiative:**
LDC Governments, UNIDO.
8.2.2 National level

All analysis of the complex difficulties of socio-economic development in LDCs indicates that the problems of one sector cannot be solved in isolation, that due account has to be taken of the linkages between actions at the sectoral, national, sub-regional and international levels. Although manufacturing is small in LDCs, it is the focus of development aspirations and a potential source of dynamic growth. The special characteristic requirements and possibilities have to be taken into account in reviewing the socio-economic development of LDCs and the measures taken to achieve this. At the same time it is recognized that the wide range of products and processes encompassed by manufacturing makes this a difficult task, for which detailed and frequently updated technical analysis will be a continuing requirement.

Objective:

Industrial policy dialogue on progress and problems in reaching agreed objectives and in the creation of conditions for implementation of this Plan.

Action:

Increase national administrative capacity for necessary policy development, co-ordination, and review;

Preparation of national industrial plans and policy analyses that take full account of LDC objectives and the contribution of the international community, including the identification of resource gaps. This should include the development of integrated sectoral programmes at the national and, where appropriate, sub-regional and regional levels, and form a basic reference document for discussion of implementation of the Industrial Action Plan, for Round Tables and for Consultative Groups.

Intensify UNDP Round Tables and World Bank Consultative Group meetings and National Technical Co-operation Assessment and Programming (NATCAP) exercises organized by LDCs with the support of relevant institutions to implement the principles and commitments of the Industrial Action Plan;

Effective aid co-ordination to maximize efficiency of external support under the leadership of the LDC Government to avoid parallel systems of industry targeting, programming and allocation of scarce resources;

More consultation between the government, NGOs and the private sector in the country review process;

Harmonization of role of ministries of industry, finance and national planning agencies, so that their activities can be co-ordinated to benefit industry.

Initiative:

LDC Governments, international community, international organizations, including UNIDO.
8.2.3 Regional and sub-regional level

**Objective:**

Policies and measures to promote, monitor and co-ordinate industrial co-operation between LDCs and other developing countries in similar economic regions.

**Action:**

Appropriate harmonization and co-ordination of industrial development plans and objectives in a regional or sub-regional context.

Critical analysis of existing regional and sub-regional structures and co-ordination schemes and mechanisms.

Continuous collection, up-dating, analysis and dissemination of industrial development strategies and policies and associated information, in order to ensure that LDC Governments and industry undertake programmes and investments and make policy decisions in full knowledge of developments and intentions under way in other relevant countries.

**Initiative:**

LDC Governments, regional and subregional organizations, international organizations, including UNIDO.

8.2.4 Global level

**Objective:**

To establish an effective overview and consensus at the global level on progress in implementation of this Plan.

**Action:**

Analysis and comparison of status, experiences and lessons of development and industrial policy framework plans in LDCs;

Regular assessment of economic and social progress including industrial performance of LDCs within the context of international economic environment and domestic factors;

Review ODA and other assistance to development and industry in particular in relation to needs and circumstances of industry;

Monitor involvement of women in industrial development;

Regular industrial sector appraisal by national and international agencies.

**Initiative:**

International organizations, including UNIDO, international community.
# Annex II

## List of Participants/Liste des participants

### Nominated Participants/Participants Designés

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
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<th>Ministry/Department</th>
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<td>Joint Secretary</td>
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<td>Directeur adjoint de cabinet du ministre de l'industrie, de l'énergie et des entreprises publiques</td>
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<tr>
<td>Burkina Faso</td>
<td>Mme Ba Safiatou née Diallo</td>
<td>Chef de service promotion et planification industrielles</td>
<td>Direction du Développement Industriel</td>
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<tr>
<td>Burundi</td>
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<td>Central African</td>
<td>Mr. TchakNONE Enoch DjondANG</td>
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<td>Chad/Tchad</td>
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<td>Comoros/Comores</td>
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ANNEX III

LIST OF DOCUMENTS/LISTE DES DOCUMENTS

Linkages between manufacturing and other sectors of the economy in the Least Developed Countries (LDCs)
Liens entre l'industrie manufacturière et les autres secteurs de l'économie dans les pays les moins avancés (PMA)
(ID/WG.515/1(SPEC.))

Industrial policies in the Least Developed Countries: Major Challenges
Politiques industrielles dans les pays les moins avancés : principaux défis
(ID/WG.515/2(SPEC.))

The potential role of Official Development Assistance (ODA) projects in promoting industry in the Least Developed Countries (LDCs)
Le rôle potentiel des projets d'aide publique au développement (APD) dans la promotion de l'industrie dans les pays les moins avancés (PMA)
(ID/WG.515/3(SPEC.))

Stimulating rural small-scale industries in developing countries
Comment stimuler les petites industries rurales dans les pays en développement
(ID/WG.515/4(SPEC.))

International support for industrialization in the Least Developed Countries (LDCs)
Appui international à l'industrialisation dans les pays les moins avancés (PMA)
(ID/WG.515/5(SPEC.))
(ID/WG.515/5/Corr.1(SPEC.))

Training industrial managers in Least Developed Countries (LDCs)
La formation à la gestion industrielle dans les pays les moins avancés (PMA)
(ID/WG.515/6(SPEC.))

Status of industry in the Least Developed Countries (LDCs)
Etat de l'industrie dans les pays les moins avancés (PMA)
(ID/WG.515/7(SPEC.))

Aid co-ordination and industrial development in the Least Developed Countries (LDCs)
Coordination de l'aide et développement industriel dans les pays les moins avancés (PMA)
(ID/WG.515/8(SPEC.))

Industrialization in the Least Developed Countries: Issues paper
L'industrialisation dans les pays les moins avancés : document thématique
(ID/WG.515/9(SPEC.))