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ECONOMIC COMMISSION FOR AFRICA

**Launching Seminar on a
Regional Transport Data Base**

**Addis Ababa, Ethiopia
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TRANSPORT DATA BASE PROJECT WITHIN THE CONTEXT OF ECA

TRANSPORT DATA BASE PROJECT WITHIN THE CONTEXT OF ECAI. The importance of data in general and of transport data in particular

1. The availability of up-to-date and reliable data is a prerequisite for rational planning and decision making at all levels of administration and management. The lack of a comprehensive set of reliable data is often considered to be one of the most important impediments to consistent and coordinated planning as well as to satisfactory performance in the transport sector. The need for comprehensive data and the use of appropriate planning and forecasting techniques and models is widely accepted by developed and developing countries to ensure the rational development of the economic sector. Planning institutions are often caught in a vicious circle regarding data; as long as the demand for a comprehensive and reliable data base is low, attempts to set up such a data base will fail; and as long as the data base remains inadequate, all activities relying on an accurate information will fail. Therefore, the improvement of data availability can improve those related activities which rely on the data and vice versa. Past approaches to establish and maintain a comprehensive transport database were often ineffective, because data collection became the focus and not users, their needs, and their willingness to use the collected data. It has become apparent that the identification of database users, their applications, the appropriate (macro-economic and operational) indicators, and choice of adequate data processing methods is key to the establishment of a sustainable database.

2. Results of the evaluation of the first United Nations Transport and Communications Decade in Africa (UNTACDA I) showed that there exists a well-founded concern about the inadequacy of transport statistics in Africa, both in terms of the scope of available data and the quality and reliability of data. It further concluded that a large proportion of time, cost and effort of transport studies and project evaluation is spent on ad-hoc data collection; furthermore, such efforts are not always consistently followed, requiring subsequent repetition of essentially similar work a few years later. It was also learned that the availability of transport data in most sub-Saharan African countries is still poor and even deteriorating in countries where a satisfactory statistical infrastructure was existing.

3. Given the key role of transport in socio-economic development in Africa, there is an obvious need for statistics for planning and evaluation purposes. Without giving a definitive list of specific needs, it is clear that data deficiencies cause major problems in

overall planning of transport activities, particularly where the ratio of private/public investment varies significantly between modes and between jurisdictions; in the measurement of the performance of carriers in the various modes; in the evaluation of transport sector investment needs relative to investment needs in non-transport activities; in analysis of transport costs and rates charged for freight and passenger; in project evaluation etc.

4. Implementation of UNTACDA II programme is expected to alleviate some of the deficiencies above.

II. Status of Data at ECA

5. The United Nations regional commissions are vested with the responsibility of promoting economic and social development among their respective member States, *inter-alia*, through provision of necessary technical assistance, compilation and dissemination of relevant harmonized development indicators.

6. In Africa the national level compilation of these socio-economic statistical data, vital for formulation, monitoring and evaluation of national development plans, is normally the responsibility of national statistical office (NSO) in close collaboration with the line ministries or departments. These NSOs along with the national banks, serve as the primary source of data not only for their respective governments but also for the international agencies including the United Nations regional commissions. However, in view of comparative monitoring and analysis, harmonization and pooling of such national statistical data in the form of a regional/international data bank becomes essential.

7. In the African region the above needs were recognised as early as 1959, when during the first Conference of African Statisticians a comprehensive list of multi-sectoral statistical series on numerous socio-economic indicators was adopted. Subsequently, in order to meet these needs, a multi-sectoral statistical data base during the 1980s was developed at UNECA. This data base is maintained at the Statistics Division and currently contains annual macro-level data on: international trade, national accounts, population, labour, education, health, vital statistics, tourism, transport and communications, agriculture, industry, finance and prices for all the UNECA member States. Dissemination of these harmonized data has until recently been achieved through the statistical publications as well as computer printouts but lately micro-computer media have also been utilized. To a lesser extent some sectoral data bases have also been in operation at the

Commission. ^{1/} In the transport and communications sector, a rather limited data base was established for monitoring the impact of UNTACDA programme. The data base concept like the one being developed on transport is therefore not new in ECA.

8. The ECA data base mentioned above was designed with the major objective of timely production of the statistical publications coming out of the ECA Statistics Division. Consequently, other forms of data dissemination (usage of micro-computers, on-line access etc., often a desired quality for urgent and ad-hoc data requirements) has so far been exploited only to a limited degree. Some of the ECA's substantive divisions, who enjoy connections to the HP microcomputer, have limited access to their respective data series. But due to the "static" nature of the system coupled with its limited "user-friendliness" the users outside of the Statistics Division have made minimal usage of this multi-sectoral data base and these users often have to rely upon systems assistance from the Statistics Division in order to obtain their desired data sets. Better dissemination and distribution of the needed data sets to the subject on other Divisions through the development of linkage tools and coordinated procedures is of urgent importance.

III. Place of the transport data base in ECA

9. The project on Transport Data Base for Sub-Saharan Africa was conceived as one of the components of the joint ECA/World Bank project on Sub-Saharan Africa Transport Programme (SSATP), and is being implemented with financial support from UNDP. A Steering Committee under the chairmanship of UNDP was set up consisting of ECA, OAU, UNCTAD and the World Bank for monitoring the project. The project is designed in two phases with the World Bank as the executing agency for the first phase and ECA as the associate agency. ECA will be the executing agency for the second phase. Phase one is programmed for completion in the second quarter of 1994.

(a) Objectives of the project

10. The long-term development objective of the project is to improve availability of transport data and performance/efficiency indicators, thereby strengthening the respective institutions data and user groups. The project is being implemented to fulfil

^{1/} Working Group on an integrated information system at ECA, Draft final report ... July 1992.

Objective 5 of UNTACDA II which calls for: **The establishment of Information on transport and communications as a basis for analysis and better planning of investments.** Communications data is not included in the project because an international fora within UNTACDA II framework for the data covering all aspects of communications already exist within the framework of the International Telecommunication (ITU) and the universal Postal Union (UPU). The three interrelated immediate objectives of the project are as follows:

- (i) determination of uses and users of different types of transport statistics;
- (ii) examination of the existing data collection systems, including identification of major gaps and recommendations for feasible improvements; and
- (iii) development of guidelines for the establishment of a regional transport data base at ECA.

(b) Phases of the project

11. The first phase of the project covers the identification of a set of core data necessary for monitoring and operating the transport sector, and reasons why transport data are not properly collected at the national and subregional levels as well as making recommendations on the set of data to be collected, the best way to collect and disseminate the data and the policy reforms necessary to improve national data base systems. The second phase will focus on the implementation of the transport data base systems at national, sub-regional and regional levels.

(c) Room for the project at ECA and status of its implementation

12. The first phase of the project is divided into two parts. Implementation plan and arrangements for phase I of the project were agreed upon at the first Steering Committee Meeting for the project held in Washington DC 4-5 April, 1991. The World Bank consultants using the terms of reference for the first part of phase I conducted missions to selected countries in Europe and Africa for data collection and prepared a report which they submitted to the World Bank and ECA in August 1992. Details of the work carried out by the consultant including the findings and recommendations are in the report for First part Phase I titled "A transport data base for Sub-Saharan Africa" dated June 1992, which has been distributed as one of the seminar documents.

13. The management team for the project has been established at the Transport Communications and Tourism of ECA under the leadership of a Project Manager based at the World Bank. The team is composed of representatives from PADIS, ISS, Statistics Division TCTD, and the Team Leader recruited for the overall implementation of the project.

14. The work programme for the implementation of the second part of phase one of the project was agreed upon at the second meeting of the Steering Committee held 1-3 February, 1992 in Abidjan, Cote d'Ivoire. The meeting resolved that the second part of phase I of the project should be implemented in a period of about 18 months to: (i) design transport data collection systems in selected pilot countries, sub-regional organizations and at ECA, including agreement on data to be collected, the process of country reporting, sub-regional reporting and data editing and analysis; (ii) harmonize norms and design transport data manuals for key transport modes, and investigate ways to develop methodologies to fill the major gaps; and (iii) prepare a project document for phase II of the project.

15. A work plan has been agreed upon (See Annex I) on how to complete the remaining activities at ECA for the second part of phase I of the project namely:

(i) determination and preparation of specifications for additional computing resources required by ECA for the transport data base;

(ii) preparation of recommendations for appropriate infrastructure necessary for the development, administration and maintenance of the proposed data base as well as operational arrangements for its linkage with the multisectoral statistical data base and other interested units with ECA;

(iii) preparation of a statistical manual and identification of contents and format for a statistical yearbook;

(iv) preparation and conducting of a closing seminar to be attended by all the parties involved to review and comment on synthesis report on the types of data to be collected at national, sub-regional, and regional levels as well as on the best practices to collect, process and disseminate data base on experience gained during the pilot studies; and

(v) preparation of a fully costed and detailed project proposal for phase II of the project under which the establishment of the transport data base at ECA would be implemented, under the leadership of ECA.

16. A review of goals and targets for the evaluation of UNTACDA II including the relevant indicators has been carried out. However, the work cannot be completed till after the various subsectoral working groups for UNTACDA II have improved upon the indicators as the majority of those already identified are quantitative in nature.

17. A review is to be completed by mid-July 1993 on existing processes and structure related to transport data within ECA, in particular the role of and the potential of ISS, PADIS and Statistical Division in the proposed transport data base, including the determination of additional computing resources required by ECA for the implementation of a required transport data base. This is a very important stage of implementation of the second part of Phase I of the project as it will determine additional computing resources required at ECA for the implementation of a transport data base including recommendations for appropriate infrastructure on which manpower requirements will be based.

18. Field visits were conducted Team Leader to the majority of pilot countries by the Chief Technical Adviser for the project. Joint ECA/World Bank missions with ECA have been conducted in selected pilot countries. The pilot countries that were visited are: Uganda, Burundi, Burkina Faso, Mali, Senegal, and Mozambique. A mission is still to be conducted in Lesotho after the launching seminar. Findings of these missions will be presented under a separate session of the seminar.

19. The objectives of the missions to the pilot countries are:

- (i) To impress upon the authorities dealing with transport information systems, the importance of the project and the role of the pilot countries in its implementation;
- (ii) To provide guidance and directives for the implementation of the activities to be conducted by the pilot countries; and
- (iii) To collect the necessary data for implementing future activities of the project team at ECA.

20. Transport data base related activities which have been in progress at ECA in the first half of 1993 include the work being carried out by an ad-hoc Task Force on the World Bank/ECA Statistical Data Linkages and Modalities. The Task Force was established by the Executive Secretary of ECA and divisional representatives in transport data base team are also members of the Task Force. The terms of reference for its work requires submission to the Executive Secretary recommendations regarding:

- (i) The list of data series needed urgently to complete the Commission's information dissemination requirements;
- (ii) Options for the establishment of data-transfer facility on regular basis through easily available medium;
- (iii) Co-ordination and distribution of such acquired data series to other users both within and outside the Commission.
- (iv) An in-depth evaluation of relevant data bases at the World Bank, IMF, FAO, ECE and UNSTAT regarding their contents, maintenance, dissemination aspects and particularly direct access linkages with ECA statistical data bases.
- (v) Feasibility of establishment of data-transfer capability with one or more of the above international data sources and the appropriate resource analysis to implement these plans.
- (vi) Creation of data linkages between the acquired data through a central data reservoir (multi-sectoral statistical data base), to be maintained at the Statistics Division, and all the UNECA data users and the member States in the long-run.

21. The transport data base project will certainly benefit from recommendations and findings of the Task Force, especially on issues under items (i), (iv), (v) and (vi) of the terms of reference. The Task Force is to complete its work by the end of July 1993, making it possible to consider some of its findings and recommendations to support the remaining tasks to be performed in the transport data base project.

4. Expected achievements of the project on completion of its two phases

22. On completion of phase I ECA expects to have a detailed project proposal with a complete definition of a transport data base design (format, content) according to the user's needs and available data; elaborated guidelines and policies, as well as standards and definitions for data collection at the national level. The data base design will include the physical and personnel requirements and costs for its computerization and selection of suitable statistical software based on the indicators to be calculated and other outputs required (tables, maps etc.).

The design will also examine suitable computer equipment taking into account communication systems available between ECA and sub-Saharan Africa member States.

23. It is expected that completion of phase two will be the operational phase of the data base design based on selected software and hardware which will have been purchased. This will take place when all available data (library of transport statistics from member States) will be fed in the data base, as well as a set of performance/efficiency indicators.

24. The success of implementation of the Second phase will depend on the availability of resources for the data base designs.

Conclusions

25. The state of the transport statistics in Africa after UNTACDA I is still bad and has to be looked into with great urgency during UNTACDA II. The first phase of the project on transport data base in Africa offers a rare opportunity for addressing the present unsatisfactory state of transport statistics by laying a foundation for building up an efficient data base system for solving transport statistics problems at national and regional levels. All parties involved in the project namely: pilot African countries, subregional organizations, UN agencies and international organizations should combine their efforts in the implementation and completion of the two phases of the project; as it is already known that unreliable and/or out dated transport data as well as the lack of basic efficiency/performance indicators form a major obstacle to well targeted planning and policy making in the sector.

25. It should be noted that the successful completion of both phases of the project will highly depend on the level of involvement of African countries and IGOs expected to contribute and actively participate as pilot cases for the project. At the regional level a mechanism, the project team at ECA, has been put in place to ensure the effective coordination of activities of all parties involved in the project. More efforts should, therefore, be made in the mobilisation of the necessary resources for the Second phase once the transport data base design is about to be completed. The steering committee for the project should meet as soon as practicable after the launching seminar to evaluate seminar findings and recommendations and decide upon how completion of phase one of the project should be carried out within the remaining period allocated for the project. The committee should also address the problem of financial resource for the implementation of the data base design.

WORK PROGRAMME

Activity No	Activity Description	Starting Date	STAFF WEEKS FOR PERIOD NOVEMBER 1992-APRIL 1993							REMARKS		
			Team Leader	TCTD	STAT.	PADIS	ISS	COMS.	TOTAL ECA (Cons)			
4.1	Review of analytical needs as related to transport data for the monitor of progress on UNTACDA II - Indicators for evaluation of impact of UNTACDA II on various modes of transport in Africa	Nov/Jan	1	6	3	2	-	(2)	11	(2)	31 Jan. 92	ISS will participate only in meetings under this activity
4.2	Review of existing processes and structures related to transport data collection within ECA	Dec./Feb	1	4	2	2	-	-	8	-	15 Feb. 93	
4.3	Systems analysis to determine computing resources needed for the development of transport data base 4.3.1 -Systems analysis 4.3.2 -Study existing information systems including computing capacity at ECA 4.3.3 - Specifications for additional computing resources at ECA	March/June	1	2	1	4	1	(3)	8	(3)	30 June 93	One consultant required on board 1.3.93
4.4	Preparation of recommendations for appropriate infrastructure for data base	April/May	1	4	1	5	1	(4)	11	(4)	31 May 1993	One consultant required 1 April 1993
4.5	Identification of contracts and format statistical year base	June/September 92	PM	4	3	8	-	(4)	15	(4)	31 Oct. 93	(a) ISS will participate only in meetings under this activity (b) Consultant required 1/9/93
4.6	A progress report on the implementation of the proposed infrastructure relating to transport data base at ECA	September	PM	3	-	-	-	-	3	-	30 Oct. 93	
				28	13	27	4.5	(21)	72.5	(21)		