

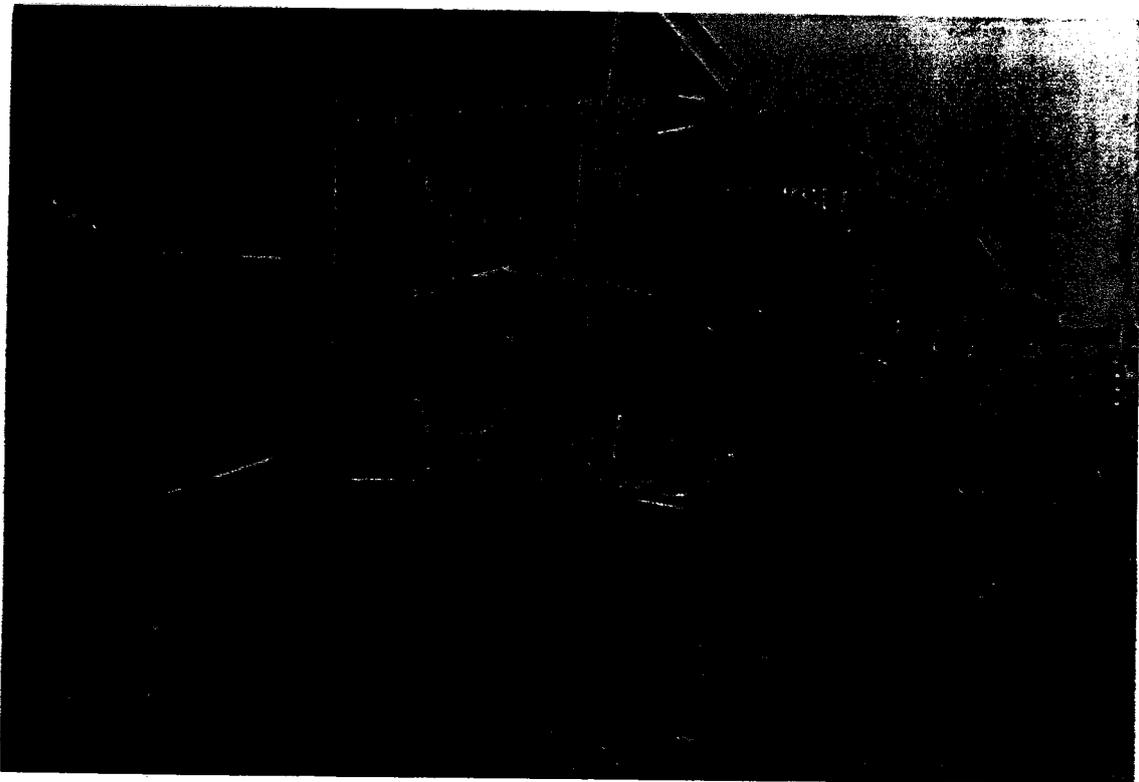
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Agence de coopération culturelle et technique

douste 

SEMINAR ON RIVER
ECOSYSTEM MANAGEMENT

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Environment
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Canada



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PROLOGUE

Song of the Djoliba

Djoliba! Djoliba! How evocative your name is!

Down from the last foothills of the Fouta-Djalou you come, bountiful and fruitful, to share in the life of the Guinean peasant.

It is you who, through countless meanders, quietly bring to each of our plains a message of peace and prosperity.

You have given yourself unsparingly to this land of laterite and sandstone so that a whole race might live.

The shepherds who lead their flocks each day along your verdant banks all venerate you and in their solitude sing your praises unceasingly.

Perched on bamboo watchtowers, in the midst of green rice paddies stretching as far as the eye can see, in the vast plains that you have fertilized, bare-chested children wielding slingshots every morning hum your song, the song of the Djoliba.

So flow, Djoliba, venerable Niger, wend your way through the black world and fulfil your generous mission.

While your limpid trickles irrigate this land, the granaries will never be bare and every evening feverish chants will rise from the villages to bring cheer to the people of Africa.

While you live and bring life to our vast rice paddies, while you fertilize our fields and our plains bloom, our Elders, lying under the palaver tree, will always bless you.

Flow and go beyond yourself across the whole world, quench the thirst of the unfulfilled, satisfy the insatiable and teach Humanity that only an unselfish gift has absolute meaning.

Translated from Aube Africaine, Seghers, 1965.

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FOREWORD

The management framework proposed in this manual was first developed at the St. Lawrence Centre, Environment Canada, and applied to the St. Lawrence River. Then, under the "Management of Major Rivers" project following the Summit of Heads of State and Heads of Government of countries using French as a common language held in Dakar in 1989, we have adapted this framework to the specific context of managing the Niger and Senegal rivers.

This process of analysis and adaptation led to the drafting of this manual. Designed as a training aid, it is intended for incumbent managers from different sectors whose responsibilities relate to the uses and biological resources associated with river ecosystems.

Indeed, with the necessary adaptations, this management framework can also be applied to a broad range of planning exercises for human intervention in a context of sustainable use of natural resources, in both aquatic and terrestrial ecosystems.

ACKNOWLEDGMENTS

Through the various successive stages of consultation and discussion with African partners, the management framework was adapted to the specific context of the Niger and Senegal rivers. Many senior managers from government, research institutions and NGOs collaborated in the "Management of Major Rivers" project. We thank them sincerely for their interest and co-operation.

We would like to stress, in particular, the contribution of the participants in the first Management of Major Rivers seminar, held in Ségou, Mali, from October 21 to November 1, 1991. Those who attended lent their expertise and knowhow by participating actively in the animated discussions that were typical of the seminar. To all of them, we would like to extend our heartfelt appreciation:

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INTRODUCTION

FEATURES OF THIS SEMINAR

The goal of this seminar is to offer selected managers the opportunity to become familiar with a framework for integrated river management, developed in Canada and geared to the management of African river ecosystems.

This seminar is intended for managers responsible for or directly involved in the planning and management of programs involving the uses and biological resources associated with river ecosystems.

Programs which have in common the uses of the river water are very varied, as are the players involved in their management. They come from sectors as different as hydraulics, fishing, health, agriculture, forestry, wastewater treatment, and transportation.

The seminar is designed to immerse managers in a multidisciplinary exercise that is as concrete as possible.

To take full advantage of the seminar, we recommend that participants:

- familiarize themselves with the management framework,
- analyse the documentation available in their own field of activity,
- prepare the necessary data (tables, charts); a checklist is provided in Appendix 2.

During the seminar, participants will be invited to:

- present the data specific to their field of activity,
- define an analytical framework with their colleagues (territory under study),
- participate in discussions in a multidisciplinary context,
- draft a number of common documents resulting from the exchange of information (tables, matrices, charts).

— ■ —
The structure of **this training manual** is as follows:

- First, the management framework is presented: origin, main phases, minimum path, and pitfalls to be avoided.
- Each stage in the process is presented in the same sequence:
 - a miniature diagram and corresponding number identify the stage reviewed;
 - a first box describes the objective targeted, the means to be used to attain it, and the output (result) anticipated at the end of the stage;
 - a series of explanatory notes, such as definitions, concepts, goals and cautions, complete the information;
 - an application of this process in tabular form presents the data gathered at the Ségou seminar (October 1991),

N.B.: The information in these tables is provided as an **example only** and must be considered **approximate**.

- throughout the manual, we use the example of fishing on the stretch of the Niger River in the State of Niger to illustrate this management framework ;
- finally, we specify the anticipated output, data to be gathered and processed, tables to be drawn up, etc., in a box.