## La science au service du développement

Dans cet ouvrage est présentée une expérience humaine d'un réseau de scientifiques, GIRGEA, qui a réuni, et qui réunit toujours plusieurs centaines d'étudiants, ingénieurs, techniciens, chercheurs, enseignants, etc. autour d'un objectif central : développer la recherche en sciences de l'espace en Afrique en installant des instruments, en formant des chercheurs de niveau international qui pourront constituer des équipes de recherche dans leur pays et assurer ainsi la pérennité du réseau.

Il semble impensable, et pourtant…, qu'au XXI[e] siècle un scientifique puisse prétendre développer des études planétaires des phénomènes physiques de l'environnement terrestre sans mesures sur l'ensemble du globe.

Le Nord est indispensable au Sud et le Sud est indispensable au Nord. L'éruption du volcan Eyjafjöll en 2010 a révélé la fragilité des pays du Nord techniquement avancés. Le tsunami du 26 décembre 2004 a mis en évidence la grande vulnérabilité des habitants de certaines régions du Sud ayant des réseaux d'alerte au tsunami défaillants ou inexistants. Mais ces événements ont aussi surtout démontré nos liens, nous vivons tous sur la même planète : la terre est un petit village et nous dépendons les uns des autres.

Le GIRGEA propose donc une méthode pour allier science de l'espace au niveau international et règles éthiques afin de favoriser une recherche à l'échelle planétaire indispensable à l'avancée des connaissances et profitable à tous.

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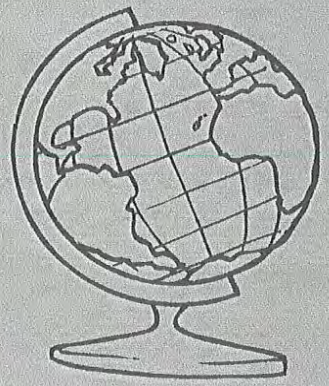

Préface de Dominique Kounkou

L'Harmattan

GIRGEA

# Science at the Service of Development

by Christine Amory

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## PREFACE

### An Itinerary of Hope

During my years at the *Université de la Sorbonne* in Paris, France, my friends and I were dreaming of another kind of development for Africa. One that would build up Africa's power, so that this continent could awaken, manifest its genuine power and thus count in this world, as a major player in its own right. With this in mind, we had set up at the time the *Groupe de Recherche pour un Autre Développement (G.R.A.D.)* — Research Group for Another kind of Development. Both resources and maturity were lacking however. G.R.A.D. did not become the Research group we had hoped it would. But still, our dream remained.

My encounter with Professor Christine AMORY, whose book Science at the Service of Development I am introducing today, showed me this dream come true: the GIRGEA, of which she is both the promoter and leader.

Seeing at what level the African Researchers and Academics, who are members of their original universities, are also recognized by laboratories such as NASA and innumerable universities worldwide, gives us good reason to hope that another kind of development is indeed possible.

I did not hesitate to ask Mrs. Amory to describe to us the itinerary of such a beautiful adventure. I wanted the problematics of alternative thinking to enable us to build an Africa that would differ from the miserable Africa which we are always given to see. I also thought that other fields could then follow this example of success given by scientists.

Several readers have been grateful to Christine Amory, for having so willingly accepted and taken the time, among her many travels and innumerable academic activities throughout the world, to explain to us, with simple words, how choosing the human ingredient and especially intelligence, can become "a miraculous weapon", as Aimé Césaire put it, at the service of a form of development which goes far beyond Africa.

Dominique KOUNKOU

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## I. Introduction

The GIRGEA *(Groupe International de Recherche en Géophysique Europe Afrique* — International European African Geophysics Research Group) was founded on January 1st, 1995, to pursue the research work initiated within the framework of a scientific project called International Year of the Equatorial Electrojet (an electric current which runs along the magnetic equator line, at altitudes ranging from 105 to 110km). This project had been launched by the ICDC (Interdivisional Commission of Developing Countries), a department of the Scientific Association called IAGA (International Association for Geomagnetism and Aeronomy).

Its main goal was to: « break up the North-South divide », in other words:

- to erase any differences in scientific culture between countries from the North and countries from the South, in one specific scientific discipline: geophysics,
- to enable young motivated scientists from the South to become internationally recognized researchers and thus contribute to the progress of our knowledge of geophysics.
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In most countries concerned by the GIRGEA, originally African countries, it was necessary:

to introduce new scientific disciplines,

- to help young scientists trained in setting up research teams in their countries to pursue their work, without being forced to migrate.

In order to successfully achieve the goals we had set, it was necessary to build an international network for our work: the GIRGEA www.girgea.org. This book is an introduction to this network. It is made up of five main parts. Part Two introduces the historical context. Parts Three, Four and Five describe GIRGEA's successive projects and what we learnt from them. Part Six, just before the Conclusion, analyzes what remains to be done.

What is unique about GIRGEA is that it's a dynamic human network without any set borders, both geographically and scientifically, a network which is constantly evolving

in order to adapt itself to the needs of the scientific communities in each and every one of its member states. The GIRGEA adapts its projects to requests from different member countries and provides each of its members international support, helping them to achieve their goals. The GIRGEA rests essentially upon the international scientific community. It functions by following rules of ethics based on the exchange of resources and the sharing of knowledge.