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# Canada's Role in Science and Technology for Development

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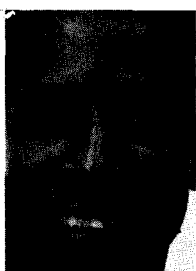
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## IDRC: Experiment in International Development

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*Rex Nettleford,  
IDRC Board of  
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I know I am speaking in the presence of a great many scientists and will not venture into your own particular domains for obvious reasons. But I think what many scientists in development need to be a little more aware of are the validating conditions under which their work will begin to make sense to the world. When I first went to the International Development Research Centre, in 1970, at its very beginning, I was rather impressed with the number of hard-nosed scientists I met who were shot through with a great deal of idealism and even a little naïveté. But then I was in Canada and I assumed, then, that it made sense. I also felt comfortable because they were more or less speaking my language. Of course, what

had happened, as you know, was that, in the 20 years previous, development assistance and the whole theory of development and development practice had just not worked for the Third World. The late Lester B. Pearson, who had been one of the foremost thinkers on the reform of approaches by the First and Second Worlds — if these really exist — to the Third World, went back to Canada from the United Nations, and, I suspect, used his tremendous authority and influence to get the legislators to do what he knew he couldn't get done in the United Nations. That was to set up the kind of body that would be responsive to the development needs of the world in general.

I say "the world in general" because Third World development has as much to do with industrialized world development as with development of the Third World, and I think that the political and cultural implications of this exercise, of this relationship, are crucial. I know that many scientists will probably hurl back that they want to be scientists and not politicians — and rightly so. Unfortunately, they won't be allowed to be just scientists because once they get into the Third World they will have to contend with a large range of variables that have to do with the desire of the Third World to change the basic relation between the section of the world that has been subordinate and the section of the world that has been superordinate over the past 100 or, in some cases, 300 years. This is fundamental to all the work that is being done in the name of science in many parts of the world.

Many Third World people are very suspicious of science and have an ambivalent attitude toward it. Science has been used to colonize many of us as much as it has been used to liberate us. (Funnily enough, it bears a close resemblance to Christianity.) This ambivalence persists with a vengeance, and so there is a whole body of thought that contends that the spirit of science was what really aided colonialism, in the sense that colonies — like nature — were to be ravished

and ambushed, tamed and distorted. And the might and power of the scientific method and of the scientific spirit guaranteed for science a dominant position in the world for all those who ravished, ambushed, tamed, and distorted the colonized communities.

Those of us who are in Third World countries, grappling, conceptually and practically, with strategies to find a way out of our bind, economic or otherwise, get ourselves into an even deeper trap. Many progressives throughout the Third World are talking not about socialism but about *scientific* socialism because it carries a particular authority and a particularly trendy myth. So those of you who are scientists working in the developed world have to understand what you are dealing with in the Third World. For example, among many of our people — and I can speak with some knowledge of the Caribbean — science to us means “higher science,” and higher science means magic. This is quite the opposite to what you in the developed world regard as science. I am sure that many of you who have served in the Third World will have stories to tell of trouble with the peasants. And this is the case even in the developed world. The peasants have learned a great deal watching the moon and the stars and the sun. Then there comes some fertilizer on the scene, and they just can’t put their faith in it. It has to be demonstrated to them in no uncertain way that greater yields can be had from less acreage and so on. This is by no means an easy task because one is working in an environment where, as I said, the very discipline that is regarded as the great liberator from the poverty of the Third World was also one of the chief agents of the Third World’s subjugation. We have to break through all this.

I have started my talk this way because it explains in psychological terms the success in part of the IDRC approach. The Canadians are not suspect; up to now there has been absolutely no evidence of imperialist ambitions. Long may that last. Also, Canada is a young country and for all practical purposes quite underdeveloped; it shares the sensibilities of the Third World as a recent colony. After all, it was only in the 1860s that a thing called a constitution came across the Atlantic to Canada. And there’s also a kind of neocolonialism that it suffers with a big, powerful neighbour to the south. So the Canadians have their own problems and I think they understand what the Third World is all about. An institution that declares noble intentions, as most institutions from the North Atlantic tend to do when dealing with the Third World, is bound to be taken seriously by people like us if it comes out of Ottawa, Toronto, or Montreal. And I think this has been very, very important to IDRC.

It is precisely for these reasons, in my opinion, Canada was able to decide on an institutional arrangement that I cannot imagine being replicated in the United States. I am aware that we are going to hear tomorrow of an institution that is about to be born in Washington and is based on the idea of IDRC. But the Canadian experience, the whole political ethos of Canada, has facilitated the establishment of this kind of organization. Canada has a parliamentary system under which the public can afford to leave things for 5 years or so to their elected representatives. And this applies particularly to foreign affairs. They know they can throw their representatives out when the time comes, but in between they leave them fairly well alone in regard to the spending of taxpayers’ money on development assistance. They don’t have to go back to congressional or parliamentary committees to justify every detail in a policy. This very important consideration, this absence of the separation of powers, is what makes it possible for IDRC to work as it does.

So Canada created this odd institution where you find a governing board of 20 or so, of whom 50% are non-Canadians, and of that 50% — and this is the most

revolutionary thing about the arrangement — a number actually come from the Third World. This is unheard of in the tradition of Third World-developed world relations, and it has been a definite plus because the people from the Third World who went onto the first Board of Governors felt they had a responsibility, not simply to represent in a chauvinistic way the views of the Third World, but also to make this new and revolutionary mechanism work in the interest of the world at large and to bring into the relationship the principle of interdependence between the so-called developed world and the so-called developing world.

Those of us from the developing world know that the principle of interdependence has always been the guiding principle in our relations. In Jamaica we have provided bauxite, all the primary ore, as well as oranges, grapefruit, and sugar, without which the developed world just wouldn't be what it is. So we have been conscious of this interdependence. If the technology of the developed world doesn't touch the bauxite of the Third World, then the earth remains inert, as I was once told by a bauxite manager. My reply was "All those engineers and professionals you are producing in North America would have fallen into disuse had it not been for our bauxite, on which they could exercise their knowledge." So it is a constant interdependence. However, one thing that has always struck me is that, until recently, say within the last decade, Jamaica was the world's largest supplier of bauxite, and that after a quarter of a century of operations we did not have a single research institute for soil sciences anywhere in the English-speaking Caribbean. We provided the basic material. All the earth was put into boxes and taken to Missouri or to Canada to be analyzed. The result was — and is — that we have ended up with little of the know-how and none of the know-why.

When I came upon IDRC and was told that one of its main aims was to indigenize the research capabilities of the Third World, I said: "This is a revolutionary thought." And it's amazing: the most revolutionary thoughts are usually the most obvious ones. With people like David Hopper and the late Lester Pearson, one got a certain commitment, which was unusual among people in the developed world. And it went beyond this. Certainly David Hopper is a first-rate scientist, but he brought to all that scientific spirit, knowledge, and expertise, tremendous compassion and understanding of the Third World, without being patronizing. And I feel that this is another feature that is to be found among all the people who are called upon to exercise expertise in IDRC, and it's a welcome change.

All these things are unusual, particularly for scientists working in universities and particularly for pure scientists, who want to do more with rats than with people and can't help feeling that their attention would be diverted from their discipline if they had to worry about people.

Now we in the Third World are very visceral animals. If we like you, we will do anything for you. On the other hand, you may be a brilliant scientist, but if we have any suspicion about your motives with respect to us as people, you are not likely to get through to us at all. That particular understanding and that particular sensibility we have found well served in IDRC, and it has informed the work of the specialists of IDRC who go to the Third World countries. They meet with us as people; they understand the criteria by which a project is judged. In no way do they go in as what we in Jamaica call *bakras*, imperial masters, to dictate. In fact, at times they even suggest that we have to learn by our mistakes, and at least we have the right to fail, because that's a right the "colonials" would like to have sometimes too.



*Although IDRC's focus is developing countries, there are several cooperative projects to which Canadian experts contribute. As part of one such project on triticale, Dr Ed Larter examines crop in a segregation plot in Manitoba.*

The experts at IDRC exercise tremendous talent and understanding. Interestingly, many of these people worked in the Third World under the old development assistance system, and therefore all was not lost in those first 20 years. In fact, their earlier experience helped them because they knew how not to go about their work. One of the main things we said was: "Look, we're going to humanize developmental assistance. This is the job. We are going to let the initiative be taken by the people from the Third World, and whenever assistance is given by experts from the developed world it will be given in the spirit of cooperation and sharing and honest guidance rather than dictated." All the people who have been employed at IDRC have been very much on to this orientation. This is another reason why IDRC has succeeded.

The fact that IDRC was released from having to be an agency of the Canadian government helped considerably. The Canadians, of course, were very wise in that they retained CIDA as an undoubted agency of the Canadian government. However, their elbow room to function free of geopolitical considerations came through IDRC. I heard the representative of CIDA saying that he looks forward to more cooperation with IDRC, which I fully endorse, but I also hope that the other side of the coin will be: Long live the difference!

In 1970, then, we committed ourselves to humanizing the developmental assistance, and this, we felt, was a far cry from what had gone on before. The next thing to do was to decide on the areas in which we were going to work. Again, from the experience of the previous 20 years, certain areas suggested themselves. These have become the classic developmental imperatives all over



*In Sierra Leone, investigations of traditional methods of cultivating and harvesting mangrove oysters are supported by IDRC. Project funds have been set aside for demonstration and operations research at village-scale production levels.*

the world: agriculture, food and nutrition, population and health care, human resources development, the social sciences, and information sciences. Broadly speaking, this tallies pretty much with how the Third World countries perceive their own developmental needs.

I am happy to say that the first set of governors of IDRC did not make the mistake that, I'm afraid, is still being made by some people: thinking development efforts must be focused on the needs of the poorest of the poor. The developed world sometimes misreads what's happening in the Third World, because if development had been left to the poorest of the poor in the developed world, that world would not have been developed. I say this because there is a real danger of overreacting to the sins of the First Development Decade or the first 20 years, when large sums of money went into the pockets of bureaucrats and politicians in Third World countries rather than benefiting the people for whom the money was originally voted. But this is not to say that there isn't a real responsibility for building up a cadre of skills and basic knowledge in every Third World country. The cadre will not be among the poorest of the poor, although many of them will have origins as the poorest of the poor.

If one persists in that concept of development assistance and that view of where scientific inquiry or the fruits of scientific knowledge should be applied, one is likely to earn from the Third World a continuing cynicism that will go something like this: the developed world merely wants to retain its domination over the Third World and, therefore, parcels out little pieces of money all over the place rather than putting it into projects that will really have an impact.



Now I know that people will be divided on this, and one has to be extremely careful. IDRC itself has faced this problem. Is it going to link rice research that is going on in the Philippines with the work of CIMMYT (Centro Internacional de Mejoramiento de Maiz y Trigo) in Mexico, or is it going to parcel out \$10 000 here and there because some scholar at Guelph or at the University of the West Indies or at some university in West Africa has an idea and wants to get something done and produce an extra publication to aid his or her promotion? That kind of decision, naturally, has to be taken. We have to deal with the dimes-and-cents matters, too, because there are aspects of development in the Third World that don't need a great deal of money. What they need is more strategic funding and sometimes \$20 000 can do much more than \$250 000 or \$1 million. On the other hand, there are some things that depend on major breakthroughs to have the impact that one wants in the Third World.

Here again the Third World has to be sensible. Far from indulging our cynicism about continuing imperialism by the people in the North Atlantic, we have to assist in the forging of new relationships and new institutional arrangements based on partnerships. And this is where the universities and the research institutes in both parts of the world become very important. I invite Canadian universities — people who have been with IDRC have been conscious of this — if they are really serious about development to take the initiative to establish links, organic links, with universities in the Third World that could benefit from the contact. If somebody is interested in what has just happened in St. Vincent, where a little volcano has erupted, and in Barbados, which, we hear, has become more fertile because of the dust that has settled on it, some research institute in the Caribbean should be contacted by the interested people and some kind of activity should be established that will begin to make sense on the basis of sharing, real sharing. That is the spirit that is present in IDRC, and IDRC is committed to facilitating that kind of partnership, wherever the initiative comes from.

Those at IDRC in the first 8 years were very conscious of the fact that it did not appear to be a Canadian institution. Many of us in the Third World were a little uneasy about this, but the Canadians who served with IDRC were very strong in maintaining their stand. They did not wish to create any doubt in the Third World that this was just another North Atlantic outfit organized to dictate to them. I know that many professors and scientists in universities have been disturbed by this. I can understand your saying: Why are we suffering cutbacks? Why is all this money going elsewhere through IDRC and we are not getting a piece of the action?

This is reasonable and, in fact, let me hasten to say that I have been visiting Canada for many years, and when I first came here one of the things that shocked me as a virtual country boy from the Third World was that you didn't have a flag and you didn't have an anthem and you didn't care about it. Well, since then, you have become very provincial, beautifully so, and nationalistic. So I understand the new thrust for a Canadian identity and the desire to claim what is your fair due. I don't think any Third World country could honestly object to this. In fact, the Third World members of IDRC are very much behind this new thrust. What should happen is that the institution should become better known to all Canadians, and Canada should understand the important and significant role it has to play in the development of all aspects of a new order in the world. We in the Third World insist on calling it a New International Economic Order. But it is also a new international political order because we have our flags and our anthems and our presidents and our governors and our military and so on. Then

we wake up and realize we still have no power. And one of the reasons we do not have any power is because we haven't the knowledge. We can nationalize until kingdom come, and take over equipment; but the knowledge will be in the gray matter that comes back with the owners to Ottawa, Toronto, New York, Washington, or wherever.

We have woken up to this fact, and we understand the necessity for partnership. The North Atlantic has to understand this too.

I feel that if we are going to get the free flow of ideas that is necessary for human development, each of us has to play a part, and IDRC is playing its part. So it's not only a question of building up the research capabilities in the Third World. There's also the question of the free flow of ideas. Now one of the things that many of us in the Third World are worried about is that because a lot of very valuable information is not in the hands of governments that may treat another government as a most favoured nation but in the hands of private firms and establishments, such information is not likely to get into the hands of people in the Third World. I think that institutions — university institutions and research institutions — are going to play an increasingly important role in the flow of ideas; that is, if they abide by the old, tried, and tested objective of free inquiry and free exchange of knowledge. Again, IDRC projects, many of them in the form of support given to research institutes and universities, are based on this very principle because it is becoming increasingly clear that one way of making sure that the most valuable means of production remain in the North Atlantic is to withhold valuable information from the people in the South. That is why we have to build up our own capabilities.

The old myth that the experience of the Third World is incapable of explanation and incapable of theory needs to be exploded. It's simply not true. There's a whole lot going on there that the rest of the world could learn from. I feel that if we are going to enter the 21st century in any kind of rational way this kind of sharing is going to be increasingly important.

Those of us who do not have hegemonic aspirations, and those of us who are not caught up too much in the geopolitical realities of power can afford to do such sharing. Canada, therefore, has a particular role and is in a much better position to do this than any other country I can think of in the North Atlantic, with the possible exception of the Scandinavian countries, who, interestingly enough, are looking to Canada for a model for development assistance and to find out how it goes about scientific inquiry designed to serve development needs.

IDRC, then, remains a revolutionary, if strange, institution. Our job now, and our greatest problem, is how to remain an innovative force. Without the necessary acknowledgment, institutions like the World Bank have used the IDRC experience as a model. There is no doubt in my mind that it is IDRC more than any other international institution that has influenced the thinking, the progressive thinking, of international development bodies throughout the world. What we thought was revolutionary in 1970 is now the stock and capital of most development agencies around the world.

What do we do from here? That, let me confess, is part of our problem. In IDRC there's absolutely no thought that it has to abandon its original objectives of humanizing development assistance and building up indigenous science research capabilities in the Third World, which includes not only building up the spirit but also aiding in institution building and, more than anything else, investing in human resources.

The social science and human resource development area has become very important. I know that many of the natural scientists here will regard the social sciences as "soft" science. Well, so be it. But birds have not only tough backs with feathers but also a soft underbelly. Anyone who is a hunter knows that the underbelly is the target. So the social sciences are the target of the development bird. For the Third World the management of change in the last quarter of the 20th century, when we are all suffering the anxieties of an end-of-the-century malaise, is vital. It's increasingly important that we know something about human societies, how they are organized, how they can be mobilized to use that very scientific knowledge that we say we are passing on to them or that they are discovering.

We in the Third World are very interested in this for obvious reasons because in most instances that's all we have on the ground — people. We are not even buying the developed world's preoccupation with fertility control because some of us feel that this is another way of keeping the population of the Third World down so that it can continue to be colonized. Foolish maybe, but that's the belief. Our greatest wealth, in some instances, is people. How these people organize themselves, how they are able to manage the change that is upon them are matters that are of tremendous importance to us. IDRC has long seen the need for this, and its support for human development projects such as Project Impact from Southeast Asia, which is about to be replicated in the Caribbean, is a good example.

What exactly we are going to do with our people is something we invite scientists to think very seriously about, biologically and socially, because this is becoming increasingly important to us. IDRC has paid a lot of attention to this. After all, when we increase the yield of our maize and other cereals we still have to answer the questions: What are we increasing the yield for? Who are we increasing the yield for? And what kind of life will these people lead? This, of course, is a matter for the scientists as much as for development strategists in the Third World.

There is a great deal of literature coming out on postindustrial societies, and I am interested to see the criteria by which you judge a postindustrial society and all the problems of a postindustrial society. Those of us who live in the Third World have been conscious of many of these problems, and many of them turn on how people relate to one another. The whole question of the texture of existence — the human being being able to live on three or four levels at the same time — becomes important.

And, finally, there is the question of building up the Third World's science sensibility so that people can come to terms with their environment and to ease communication between them and the developed world who think in many ways "scientifically." For people like ourselves this is another dimension that is fast upon us. No doubt these are issues IDRC will be discussing in its policy meetings in the near future.

That aside, IDRC remains, in my view, one of the most significant experiments in the world, not only in terms of scientific research, but also in the whole decolonization process and the rehumanization of the 20th century.

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