



Sir John Crawford Memorial Lecture

Mexico, DF - October 27, 2004

**The Mystery of Capital:
The Role of Property Rights in Creating
Wealth and Alleviating Poverty**

Hernando de Soto
Founder and President,
Institute for Liberty and Democracy

Lima, Peru

The Consultative Group on International Agricultural Research (CGIAR) is a strategic alliance of countries, international and regional organizations, and private foundations supporting 15 international agricultural research Centers that work with national agricultural research systems, and civil society organizations including the private sector. The alliance mobilizes agricultural science to reduce poverty, foster human well-being, promote agricultural growth, and protect the environment. The CGIAR generates global public goods that are available to all.

www.cgiar.org

The Mystery of Capital: The Role of Property Rights in Creating Wealth and Alleviating Poverty

by Hernando de Soto
Founder and President,
Institute for Liberty and Democracy
Lima, Peru
(www.ild.org.pe)

Sir John Crawford Memorial Lecture
Consultative Group on International Agricultural Research
Mexico, DF
October 27, 2004



Excellencies, and ladies and gentlemen: good evening and buenos dias.

I am delighted to be here, and it is an honor to be asked to deliver the 2004 Sir John Crawford Memorial Lecture.

I know little about the activities of the Consultative Group on International Agricultural Research (CGIAR). That is why I initially hesitated to accept the invitation from CGIAR Chairman Ian Johnson, but I am glad I did, and it is indeed a pleasure to be in Mexico City.

My primary interest is in development. I come from a developing country, and I am extremely concerned with why we do not “make it” in development terms.

I know that agriculture matters for development, and for the business that you are in — that of global agricultural development. I know too that your work is important for improving the lives and livelihoods of millions of people living in rural areas, the *campesinos*. It is they who produce the food we eat and nurture the earth’s ecosystems on which all life depends. I am glad to know that CGIAR is active in my country, Peru, through the activities of the International Potato Center (better known by its Spanish acronym, CIP), and is working on our most important food crop, the potato.

So, in my search to find an easy way to connect to you, I brought along an apple.

I would begin by saying that most of the people I know in agriculture would look at the extensional aspects of this apple. In other words, an extensionist would define the apple as a *pome*, a type of fruit of a flowering plant. A taxonomist would call the cultivated species of the apple tree *Malus domestica*, and the wild species *Malus pumila*. More simply, we eat the pulpy side, which is high in fiber, vitamin C, and potassium. Apples are low in sodium and are almost fat free. This is an extensional view of the apple.

An intentional view of the apple, which is the domain in which I work — and that's why I'm introducing this — is to say that this apple that I brought along is *mine*. And I want to tell you that it's mine because I actually bought it in this hotel, after calling room service. If somebody were to ask me why it is mine, I will bring in the waiter as a witness and show my title to the apple, which is this bill.

I would need to do that because a stolen apple looks exactly like a legitimate apple. There is no way you can know, just by knowing the structure of the apple or its genus, that it originally may have come from Central Asia, that the Swiss cultivated it, or even that Johnny Appleseed went around and sowed it in the United States.

But there are other aspects that make the apple meaningful within a market economy. This apple does not have any significance in the absence of something that shows that I own it. That something will tell you whether I can transfer it, pledge it, lend it, deposit it as a guarantee, use it as collateral, export it, import it, or cut it up into segments and divide it among partners.

So I'm going to focus on the role of property rights — that "something" that is so essential for creating wealth and alleviating poverty.

Now that we are all assembled in Mexico, let me use a local example.

We are working with President Fox and have just finished a study looking at the issue of property rights. We found out that roughly 80 percent of the Mexican population — and I did not say 18, it is 80 percent — is in the extralegal economy. These individuals own about 6 million businesses, 134 million hectares, and 11 million buildings. All of them together are worth \$315 billion, which is seven times the size of the Mexican oil reserves and 29 times the size of all foreign direct investments since Spain left.

I recall a trip with President Fox when he was governor of Guanajuato, where we went up into the hills and tried to compare the area to Raleigh, North Carolina. The President asked me what the difference between the two areas was. Well, we found out that buildings in the United States could be used at least 100 different ways, to do things that one simply could not do with buildings in Mexico: sell them, buy them, offer them as collateral, or use them to obtain credit or create capital. In other words, the Mexican buildings were in a less accessible condition, and the buildings further north were in a more accessible condition. And our study showed that assets are at the very basis of getting credit.

I am a Peruvian, and we Latin Americans have always been under the impression that what is behind credit is money. And that, of course, is not true: We Latin Americans have possibly produced much more money than those in the West, and we still have no credit!

So, obviously, what produces money is property, because property basically provides a guarantee. As a matter of fact, the word “credit” comes from the Latin “credere,” which is, “I believe in you, and I believe in you because you have something to lose. And if you have nothing to lose, you have no credit.” It is a terrible little lesson, but that is the way it actually happens.

I had the privilege of being invited to talk to Alan Greenspan, chairman of the U.S. Federal Reserve. And, of course, I jumped at the opportunity. He wanted to talk about a book I had just written. I told him I was delighted to see him, and at a certain moment, I asked

him, “Mr. Greenspan, how do you know how much money to put into the market?”

He knew he was being set up, but he went along with the game and said, “Well, I try and see how many transactions there are.” And so I said, “Very good. Now, I understand that in the United States you have terrific intelligence services; that means you have intelligence people in front of shops and in front of malls to find out how many sofas or how many cars are going out?”

His response was, “No, that is not the way it works.” He explained that markets basically have recorded titles — titles over homes, titles over mortgages — that allow him to calculate the amounts involved in these transactions, according to which a certain quantity of money is put on the market. This exchange was instructive because it reaffirmed to me that credit is very, very much tied into property, and that property is very much tied into physical things.

On Trust

I recently read an article by Samuel Huntington, who claims that there is something in the Western culture related to market economies that makes it very friendly toward capitalism or toward making capital grow. There is a cultural connection, he asserts, echoing Max Weber’s theory and other related theories. And that is the reason he suggests that the West should isolate itself: because the cultural basis for doing market economies is not found elsewhere.

A recent study by the University of Michigan supports Huntington’s thesis, noting that a market economy is, after all, a system of exchange. And to exchange, people need to trust other people. One of the questions in the University of Michigan survey, which was administered in 80 countries, asks, “Do you, the nationals of country x, trust your own people?” And the statistics are revealing. Norway has the highest trust factor, with 65 percent of Norwegians saying they trust each other. In Sweden, the number is not as good, but is

still high at 60 percent. When you get to the United States, the statistic is below 50 percent — only half of the population. When you get to Peru, it is about 5 or 6 percent, and in Brazil, it is only 4 percent. So you can see why I like going to the United States — because I'm going to a country where people would trust me, especially since nobody trusts me in Peru!

Let me illustrate this by describing my experience going through immigration at a United States port of entry. I looked at this man with bright blue eyes who asked me to identify myself. I said, "I'm really glad to be asked that question because I am Hernando de Soto. I'm the son of Alberto Soto de La Jara and Rosa Polar Ugarteche. My mother's family actually comes from Moquegua. My father is from Arequipa. But this is, of course, not calculating the fact that the Polars originally came from Genoa and the de Sotos from Spain. But that is one of the particularities about our family," I continued, "and therefore my identity." To which he said, "Will you just stop there and show me your passport?" When I showed him my North American passport, all of a sudden he began trusting me. All of a sudden, he understood me. Not only did he understand me, but he had a machine that understood me even better. After running my passport through the machine, my identity was immediately established.

And at that moment, I realized that my identity did not travel within my physical body; that there are things that are not in physical bodies, but that are actually in documents that we create about things.

It is instructive to recall the lessons of Bertrand Russell, who said that there are two ways of absorbing knowledge — by acquaintance (which is when I meet any of you personally) and by description (which is when we describe things in a standard way, using standard symbols, alphabets, numbers, and grammar) — all the things we take for granted, and that allow us to trade over a wide scale.

And I became more comforted, because at that moment, I began concluding that trust has a lot to do with how many legal systems and institutional systems are in place, and how many people actually

have property versus having just possessions. Property enables trust, which in turn enables credit, which in turn enables capital — and capital is what ultimately enables exchange.

What I'm trying to tell you is that a market economy cannot work outside the rule of law, and that the rule of law — and I hope to have made a solid case for this by the end of my talk — is the very genesis of rule and order. Put another way, property is more than simply ownership.

Valuing Property

Working inside the rule of law has its benefits. We learned this lesson in Peru in the 1990s when we began to privatize the Peruvian Telephone Company, Compañía Peruana de Teléfonos (CPT). The company was owned by the state — well, actually, owned by most of us who owned telephones. A customer would get a share with every telephone he or she bought, and the government basically ran the whole apparatus. On the Lima Stock Exchange our shares were worth about \$53 million.

It is then that we found out that nobody wanted to buy CPT. First of all, we had to get the title over the telephone company clearly set out in such a way that everybody would understand it. And so we spent between \$15 million and \$20 million hiring merchant bankers in London and lawyers in Washington, D.C., to develop a telecommunications law. Once we had the rules under which the telephone company was governed, we then asked for bids. CPT was sold to Telefonica of Spain for \$2 billion, 37 times its original value. All we did to accomplish this was to give the company a “passport”; to put it another way, we placed the company under the rule of law. We did not paint the buildings, nor did we repair broken windows. We never even fixed the doors. We did not mow the lawn, and we did not polish the wires or replace them. All we did was put in place a circuit of information of enforceable statements.

In other words, all our beliefs that the telephone company belonged to us but was run by government and was now going to be passed

over to a company from outside — these beliefs were changed into enforceable statements. And it became clear that understanding the universal language of commerce helped raise the value of CPT 37 times.

I can relate a similar story from Egypt. There, the poor own outside the law 92 percent of all the buildings and 88 percent of all the enterprises, which together are worth \$248 billion. And \$248 billion is equivalent to 55 times the value of all foreign direct investment in Egypt since Napoleon left, including the Suez Canal and the Aswan Dam. It is 35 times the size of the Cairo Stock Exchange, 40 times the value of all World Bank loans to Egypt, and 70 times all the bilateral aid that they have received.

In other words, what this tells us is that the majority of resources will not come from resource transfers. Those are really drops of water compared to what we in the developing world already have. Real wealth grows from the efforts of entrepreneurs who can bring resources together and divide labor efficiently among themselves to raise productivity.

At the Institute for Liberty and Democracy, what we are trying to do is show political leaders that they have an enormous constituency for change to a market economy. But we are also trying to show them that a market economy is essentially a legal construct, not all those physical things — roads, bridges, airports, and water ports — that the West seems to want to give them. And that this legal construct begins with property rights.

If you look at the laws of a nation, they all look equal: There is family law, international public law, international private law, criminal law, and property law. But if you're poor, all you've got basically is a piece of land and a place where you work, whether you are a street vendor or a farmer milking a cow. There is nothing more precious to you than your property. But to preserve it without the law, you have to satisfy tribal chiefs, crooked cops, corrupt politicians, bad judges, difficult neighbors — and even terrorists.

But if the law comes in and says that those rights must be recognized, not only by your neighbors but also by the police and the whole nation, you can trade those rights nationally and even internationally, and the law will protect you. Then that poor person becomes interested in the rule of law. Then it means something. Then he or she begins to understand it. And all of these things help poor people to escape poverty.

Efficient Production

The genesis of the rule of law — which will allow a modern nation to grow and will bring peace, stability, and prosperity to the world — is property rights. That is where it actually starts.

And it is the rule of law that will actually generate prosperity. Adam Smith and later Karl Marx would say that the new productivity was due to the division of labor, and that this was bringing prosperity to Europe.

Smith's example is simple but compelling. He said that he had seen two people working outside the walls of Glasgow making pins. Taking 18 steps, each was able to make 20 pins a day. In another place, he had seen 10 people dividing those 18 steps among themselves. He described how one person bought the wire, one covered it with tin, one drew it, two others cut it, one put points to it, and one headed it. Altogether they made 48,000 pins a day. A productivity increase of over 240 times.

Enterprises versus Families

If you go to developing countries now, you will see that we don't really have firms, because the law has not reached there. What we have got are families. And families have trouble putting even 10 people to work. They can put only four. And of those four, there is your lazy brother and your alcoholic brother-in-law: guys who are not

interested in raising the efficiency of pin production. Anybody who is a manager knows that how you combine resources and whom you employ are extremely important.

By our reckoning, over 4 billion people do not have property rights over their assets; therefore, they cannot get credit and use collateral, and they cannot create a firm under which they could divide labor. This means that they cannot efficiently organize inputs or manage the creation of outputs. They cannot separate the assets of shareholders from the assets of creditors or from the assets of the workers.

Therefore, with only a few poorly organized people per enterprise, no matter how much microcredit you throw at them, they will never become efficient and will never be able to compete in the global marketplace. They're going to become prosperous only when the law comes into place.

So the time has come — and this is what we at ILD are trying to do in our work all around the world — to indicate that value consists not only in raw manpower, but in the power of man to divide labor. Even though Adam Smith was a great man, many early liberals such as him left us with an inheritance that we will have to get rid of: the labor theory of value. Value does not just come from simple labor. It comes from intelligent political and economic solutions that can raise productivity enormously. We need to get that theory out of my book and into the real world.

There is an interesting fact about the so-called Third World and the former Soviet Union: most of their population live outside the legal system. In fact, of the six billion people in the world, nearly five billion live outside the system. Of those five billion, about four billion are in small enterprises — what we would call the informal sector. And we often think about them as if they were microenterprises, which they are not. They are micro, but they are not enterprises. They are families: a father and a mother, and maybe some children or a close cousin. And they have gotten organized sufficiently to cultivate a field, make pins, or rear animals. But they are never going to get

organized in the way that Adam Smith described 215 years ago — in a way that allows for a dramatic increase in productivity.

Why is that the case? Because integrating a business organization is very different from integrating a family. A family is noisy. It does not have only business in mind. It has all sorts of other sentiments, and it is not easily defined. Really, one would not want to define it.

When you go to an enterprise in the elite sectors of the Third World or anywhere in the First World, it is simple to determine the CEO, COO, or CFO. What do the statutes say? Who owns the shares? Is there limited liability? How many of the executives are really liable? How are the assets partitioned? And there are standards for book-keeping — not 300 standards, but just one standard accepted by all.

But in the Third World and in the former Soviet Union, you don't have enterprises — you have families. So if you come into an operation and ask who runs the place, you might be told, "Juan Velasco runs the place." And you say, "Really, very good, and so you are the chief?" And Juan says, "Yes, and what of it?"

But if you look around carefully, you see that Juan does not actually run things. You can tell that his wife does, by the way her body language exudes confidence. Furthermore, it may not even be his wife, but granny who runs the show, and she sits in a corner and will speak only once you leave. So you do not really know who you're dealing with. Who really owns the sewing machine, and will you be able to take it in case they do not pay? You do not know. What are the accounts? Are they solvent or insolvent? Here too, you do not really know.

In addition, the family has no perpetual succession. I do not mind making a deal with any U.S. company as long as I know what their books say, because I do not care if the owner lives or dies. The company John Smith and Sons will continue. Well, if you're making a deal in the microsector of Peru, you had better look at who you're talking to and make sure that you have his medical records. He could be dead tomorrow of a heart attack.

What I'm trying to tell you regarding property and business organizations, and institutions, is that if they did not exist, the wealth of the West would also not exist, nor would the possibility of forming capital. What capital does is to capture the value of things on paper.

Capturing Value on Paper

Capturing the value of things on paper is invaluable. I challenge you to take anything valuable that you have that is not actually embedded in a piece of paper and try and sell it on the market. Go to any market — the New York Stock Exchange, the Chicago Mercantile Exchange, La Bourse Bruxelles — and nobody is moving cows around the place like in the old days. Nobody is moving sheep. Nobody at the London Metal Exchange is saying, “bring that ton of copper over here and place it to my left.” Everybody is dealing in property documents, and everybody is dealing according to rules. These structures allow for trust, much in the same way that the immigration official in the United States trusted me without knowing anything about my family.

Which brings me to the following question: How many people do not have the two things that I have talked about — the legal capacity to organize the division of labor, and the legal capacity to represent the value of the assets that they have on the market?

Taking a census is not easy. That is why in developing countries we really do not know many people we have. It gets so bad in Peru that every time we have a census, it takes place on a weekend, we are not allowed to move about freely, and the streets are controlled by the army so that university students can come and count us. How many people in the Third World can actually sign in a bill of lading and say, “I am Juan Perez?” Accurate address information is critical; it's essential, for example, when you sign a bill of lading. How many people can put in a legal address? And another question often asked when doing business: What company do you belong to? As I mentioned earlier, most people work in families, not in companies. And if they

do not have the legal mechanisms available to companies and corporations, they cannot do business with anyone outside their own families or limited circles of acquaintances.

So forget about globalization — real globalization. To be sure, the world has become smaller and more interconnected for many people and businesses. International commerce, the media, the Internet, and advances in computer and information technology have changed the world. “Globalization” is on everyone’s agenda. But if, as I have argued, most of the businesses and entrepreneurs in the world are on the outside looking in, operating outside the legal system in a parallel, extralegal economy, then four billion or so people around the world are in no position to take part in globalization. None of these changes touch them — which, by the way, is why in the Third World there is a general indifference to the issue of globalization. These four billion outsiders do not even have the legal means to trade with most of the people in their own cities and nations, never mind with the rest of the world. Because they are unable to expand their markets so close to home, “international free trade” and “globalization” are no more to them than shiny, meaningless phrases uttered by the intelligentsia and local politicians. No matter how hard they try to get into the system, discriminatory laws and unaffordable bureaucracy keep them on the outside looking in.

Legal Reforms to Ensure Property Rights

“International free trade” will not truly exist until most of the people in developing nations have *internal* free trade — in other words, are free to do business outside their limited family and neighborhood circles. “Globalization” must do more than connect elites and big businesses that have the legal means to expand their markets, create capital, and increase their wealth. To involve the rest of the entrepreneurs around the globe in globalization will require the kind of legal reform that makes existing systems more inclusive, gives everyone access to legal tools that will allow them to organize their businesses more

effectively and productively, gives them the means to operate in markets beyond their families and friends, and gives them the formal, fungible property rights that not only allow their assets to be identified but also allow ordinary people to move them in expanded markets to capture as much value as possible.

It is important to understand the processes that developed countries have gone through related to formalizing property rights. There is a feeling that problems related to property rights are really problems of the Third World. They are actually universal. George Washington, a founding father and the first president of the United States, was a significant real estate owner and once complained to his lawyer about “banditi” squatting on his farms. Now, I would not know why he used the Italian word for “bandits,” but what he meant were squatters. They call them “paracaidistas” in Mexico, “pueblos juvenes” in Peru, “favelas” in Brazil, and “libide en ville” in France.

The situation in the Third World now is not unlike that in the United States of the 18th century, which many books on the Wild West describe as being pretty wild. It took the U.S. government awhile to get its act together. When the United States took over California in the 1850s, for example, there wasn't one law in California — the one that Governor Arnold Schwarzenegger now manages. There were 800 systems of law. It took 30 or 40 years to bring them all together. Moreover, all the businesses operated in what we would call the informal sector. Many people argued that the government should not touch them — that operating with complete freedom was part of the essence of being American. And this was fine until other people came along and said, “But people have got to talk to each other and have got to operate on a scale.” As a matter of fact, in those days they had 700 currencies — the greenback, the yellowback, the brownback — and more. It took time to consolidate these currencies, in the same way that the Europeans are now consolidating their property and corporate laws and, for the first time in 50 years — perhaps for the first time in their history — living peaceably among each other. It is only when the European countries started talking to each

other on a legal basis through the European Union that they began setting standards with which they could understand each other.

I found something out in Peru very early on when I was taken to various collectives and was told about the great successes of communal effort: that we all have something communal among us, and also something that is private. Every time I walked among a collective in Peru, I would walk a bit to the left and a dog would bark, and somebody would say, "Sorry, that's my property." So I would walk a little bit more to the right and then another dog would bark. And then when dogs began barking in all different places, I started realizing that maybe the dogs had set up a property system. So we don't really know who owns what.

But whenever we have gone to Peru, Tanzania, or Honduras, one of the reasons we get contracts is that when the head of state calls us, we show him a sample of the contracts to demonstrate that his citizens (be they farmers or poor people living in the cities) already have a system of laws that are in place. It is not a question of imitating the West. *Oliver Twist* has already come into many parts of the Third World. The challenge is to connect the grassroots to a system that introduces the standards that are necessary.

And in that connection, I want to impress upon you that this kind of analysis is not my idea alone. It is something I've learned by visiting different places. And it is not all private property. Some of it is communal, but the important thing is that it is not defended by law. It is defended by politics.

I believe that when the West got very excited about spreading ownership, it actually created a meta system of passports and rules and laws that begins with property and extends itself to credit and to capital and to all the things that make a market economy work productively.

And why do I say this sometimes in a bitter fashion? I am bitter because many times the West does not actually see this and does not apportion the budgets to do these things, because there is a belief that it is a right-wing agenda. And my submission is that it is not a right-wing agenda; rather, it is the agenda of civilization.

In summary, what we see is that property rights are basically the genesis of the whole rule of law system that eventually leads to democracy. And it is important that everyone who is trying to avoid hunger and poverty in the world realize that our cultural differences are good for tourist agencies, but not good for creating international law.

I thank you very much for having invited me here.

Hernando de Soto Biography

Hernando de Soto is President of the Institute for Liberty and Democracy (ILD) headquartered in Lima, Peru.

Mr. de Soto was born in Arequipa, Peru, in 1941 and did his post-graduate work at the Institut Universitaire de Hautes Etudes Internationales in Geneva, Switzerland. He has served as an economist for the General Agreement on Tariffs and Trade (GATT), as President of the Executive Committee of the Copper Exporting Countries Organization (CIPEC), as Managing Director of Universal Engineering Corporation, as a principal of the Swiss Bank Corporation Consultant Group, and as a Governor of Peru's Central Reserve Bank.

Within the ILD, Mr. de Soto worked in the modernization of Peru's property system, and helped streamline government procedures to open up the legal system to greater participation by the majority.

Mr. de Soto is a member of the World Commission on the Global Dimension of Globalization, International Labour

Organization (ILO), co-chaired by Ms. Tarja Halonen, President of Finland, and Mr. Benjamin Mkapa, President of Tanzania; the UNDP Taskforce to Examine Private Resources for Development, chaired by Mr. Paul Martin, former Finance Minister and current Prime Minister of Canada; the Expert Group on Development Issues (EGDI) established by the Swedish Government, and is a Member of the Research Advisory Council of The Global Markets Institute at Goldman Sachs.

Mr. de Soto is the author of "The Mystery of Capital" published in 2000 and "The Silent Path" published in 1989.

Currently, ILD is designing and implementing capital formation programs to empower poor people in Asia, Latin America, the Middle East, and countries of the former Soviet Union.



The Sir John Crawford Memorial Lecture has been sponsored by the Australian Government since 1985 in honor of the distinguished Australian civil servant, educator, and agriculturalist who was one of the founders of the Consultative Group on International Agricultural Research. Sir John (1910–1984) was the first Chair of the CGIAR's Technical Advisory Committee.

Sir John Crawford Memorial Lecturers

- 2004 Hernando de Soto, Peru
- 2003 Susan Whelan, Canada
- 2002 Mohamed El-Ashry, Egypt
- 2001 Nafis Sadik, Pakistan
- 2000 J. Craig Venter, United States
- 1999 Michael Lipton, United Kingdom
- 1998 Peter C. Doherty, Australia
- 1997 Omar Kabbaj, Morocco
- 1996 Maurice F. Strong, Canada
- 1995 Shridath Ramphal, Guyana
- 1994 Alex F. McCalla, Canada
- 1993 James Gustave Speth, United States
- 1992 Enrique V. Iglesias, Uruguay
- 1991 CGIAR Twentieth Anniversary Commemoration
- 1990 M. S. Swaminathan, India
- 1989 Jacques Diouf, Senegal
- 1988 Helen Hughes, Australia
- 1987 Amartya Sen, India
- 1986 Bukar Shaib, Nigeria
- 1985 Robert S. McNamara, United States

CGIAR Members

African Development Bank
Arab Fund for Economic and Social Development
Asian Development Bank
Australia
Austria
Bangladesh
Belgium
Brazil
Canada
China
Colombia
Commission of the European Community
Côte d'Ivoire
Denmark
Arab Republic of Egypt
Finland
Food and Agriculture Organization of the United Nations
Ford Foundation
France
Germany
Gulf Cooperation Council
India
Indonesia
Inter-American Development Bank
International Development Research Centre
International Fund for Agricultural Development
Islamic Republic of Iran
Ireland
Israel
Italy
Japan
Kellogg Foundation
Kenya
Republic of Korea
Luxembourg
Malaysia
Mexico
Morocco
Netherlands
New Zealand
Nigeria
Norway
OPEC Fund for International Development
Pakistan
Peru
Philippines
Portugal
Rockefeller Foundation
Romania
Russian Federation
South Africa
Spain
Sweden
Switzerland
Syngenta Foundation for Sustainable Agriculture
Syrian Arab Republic
Thailand
Turkey
Uganda
United Kingdom
United Nations Development Programme
United Nations Environment Programme
United States of America
World Bank



CGIAR Secretariat

A Unit of the CGIAR System Office

World Bank 1818 H Street, N.W. Washington, D.C. 20433 USA

t: 1 202 473 8951 f: 1 202 473 8110

e: cgiar@cgiar.org cgiar@worldbank.org

June 2005