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IMPLEMENTING THE CARTAGENA PROTOCOL ON BIOSAFETY IN DEVELOPING COUNTRIES: EARLY LESSONS LEARNED FROM CAMEROON

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ABSTRACT

Today, many developing countries are faced with the challenge of implementing numerous MEAs with limited resources. In addition to scarce resources, politicians often need to be convinced of an MEA's importance considering the other pressing priorities facing a developing country.The Cartagena Protocol on Biosafety is an international instruments that regulates the transboundary movement of Living Modified Organisms resulting from modern biotechnology. Cameroon is a sub-saharan African country that is a party to this protocol and has made some key efforts in implementing the protocol. Some early lessons learned so far from her experience have been shared here.

KEY WORDS

Implementation, Cartagena Protocol, Party, Biotechnology, Obligations, MEAs, GMO, LMO and BCH.

1 INTRODUCTION

The international community is faced today with the responsibility of implementing and enforcing hundreds of Multilateral Environmental Agreements (MEAs), many of which have been in existence only since the Stockholm Conference of 1972. This growing body of MEAs suffers from the inability or unwillingness to implement and enforce them. Implementation and enforcement in developing countries are often made difficult by lack of financial and human resources, the sheer volume and complexity of associated obligations and responsibilities, inconsistency in implementation regimes between countries and occasionally, a lack of political will. In many instances, States recognized an environmental problem, negotiated an MEA to address the problem, and then signed and ratified the MEA, without conducting a serious assessment of whether particular States actually have the financial, personnel, and the required technical resources. Today, many States are faced with the challenge of implementing numerous MEAs with limited resources. In addition to scarce resources, politicians often need to be convinced of an MEA's importance considering the other pressing priorities facing a developing country. States are now asking questions about the best way forward (UNEP 2004).

States implement their international environmental obligations in three distinct phases. First, by adopting national implementation measures; second, by ensuring that national measures are complied with by those subject to their jurisdiction and control; third, by fulfilling obligations to the relevant international organizations , such as as reporting the measures taken to give effect to international obligations. Sands(1995)

Experts say Agriculture will have to sustain an additional 2 billion people over the next 30 years from an increasingly fragile natural resource base. The need for further increase in production in the future while conserving the resource base of agriculture and minimizing adverse effects on the wider environment, calls for ever greater contributions from agricultural research. FAO (2003). The challenge is to develop technologies that combine several objectives - increase yields and reduce costs, protect the environment, address consumer concerns for food safety and quality, enhance rural livelihoods and

food security. This includes the development of technologies that will not only be available to them but also technology that will meet their felt needs. Biotechnology holds great promise for agriculture in developing countries, but if not well regulated, can cause a great disservice to the very people it is intended to serve. There was therefore the need to come up with an international instrument to regulate modern biotechnology. Furthermore, most developing countries have not yet passed legislation in this field and believe that their limited scientific capacities, their recurrent problems with checking products at the border, and their restricted ability to make their own assessment of the risks and benefits involved do not allow them to manage properly the challenges that genetically modified organisms (GMOs) pose. They therefore called for the establishment of international rules in this field. The Cartagena Protocol on Biosafety , which represents the multilaterally agreed response to these concerns provides the legal framework regulating transboundary movements of Living Modifed Organisms(LMOs). As a multilateral environmental agreement what obligations are there for the parties ?, how prepared are the developing countries for its implementation and what experiences are there for other developing countries who are still at the very early stages of implementation to learn? We will look at these and other questions while using the Cameroon experience as a case study.

2 THE CARTAGENA PROTOCOL ON BIOSAFETY

The Biosafety Protocol was finalized and adopted in Montreal on January 29th 2000 at an extra-ordinary meeting of the conference of the parties. In accordance with the precautionary approach contained in Principle 15 of the Rio Declaration on Environment and Development, the objective of the Protocol is to contribute to ensuring an adequate level of protection in the field of, the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements.[1] The 50th

[1] http://www.biodiv.org/biosafety/faqs.

instrument of ratification by parties was on June 13th 2003 and in accordance with article 37 of the protocol it entered into force on 11th September 2003.[2]

2.1 KEY FEATURES OF THE PROTOCOL

The Protocol promotes biosafety by establishing rules and procedures for the safe transfer, handling, and use of LMOs, with specific focus on transboundary movements of LMOs. It features a set of procedures including one for LMOs that are to be intentionally introduced into the environment (advance informed agreement procedure), and one for LMOs that are intended to be used directly as food or feed or for processing. Parties to the Protocol must ensure that LMOs are handled, packaged and transported under conditions of safety. Furthermore, the shipment of LMOs subject to transboundary movement must be accompanied by appropriate documentation specifying, among other things, identity of LMOs and contact point for further information. These procedures and requirements are designed to provide importing Parties with the necessary information needed for making informed decisions about whether or not to accept LMO imports and for handling them in a safe manner.

The Party of import makes its decisions in accordance with scientifically sound risk assessments. The Protocol sets out principles and methodologies on how to conduct a risk assessment. In case of insufficient relevant scientific information and knowledge, the Party of import may use precaution in making their decisions on import. Parties may also take into account, consistent with their international obligations, socio-economic considerations in reaching decisions on import of LMOs. Parties must also adopt measures for managing any risks identified by the risk assessment, and they must take necessary steps in the event of accidental release of LMOs.

To facilitate its implementation, the Protocol establishes a Biosafety Clearing-House for Parties to exchange information, and contains a number of important provisions,

[2] Article 37 (1) states that "This Protocol shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession by States or regional economic integration organizations that are Parties to the Convention"

including capacity-building, financial mechanism, compliance procedures and public awareness and participation.

2.2 CATEGORIES OF IMPLEMENTATION ACTIONS BY PARTIES TO THE PROTOCOL

Implementation actions that the Parties to the Protocol are required to take can be put under the following categories :

- Administrative tasks ,
- Legal requirements and/or undertakings and
- Procedural requirements

2.2 (a) *ADMINISTRATIVE TASKS*

The administrative tasks required from the parties to the Protocol cover mainly the designation of the national competent authority that will handle matters concerning biosafety and liaise with the Secretariat of the Convention, provide the Biosafety Clearing house with all relevant information and take the administrative steps that are related to the effective implementation of the Biosafety Protocol. These administrative tasks can again be subdivided into two categories: initial and future administrative tasks. The designation of the competent national authority is the initial administrative task which parties take from the onset of the implementation effort, while the administrative activities of this designated authority can be classified under future administrative tasks. These include provision of the relevant information to the BCH, the Secretariat, handling notifications and monitoring implementation activities.

2.2(b) *LEGAL REQUIREMENTS and/or UNDERTAKINGS*

The Legal Requirements and/or Undertakings under the protocol include the laws and regulations that govern biosafety activities by ensuring that the development, handling, transport, use, transfer and release of LMOs are undertaken in a manner that prevents or reduces the risks to biological diversity, taking also into account risks to human health. These domestic frameworks that are used in the place of of the Advanced Informed Agreement procedures under the Protocol should be consistent with the protocol. The legal requirements and /or undertakings should address risk assessments, risk managements, documentation and accuracy of information accompanying LMOs as well as public awareness.

2.2 (c) *PROCEDURAL REQUIREMENTS*

Procedural requirements are related to:

(i) Advanced Informed Agreement (AIA) in case of intentional transboundary movement of LMOs notifications and approval procedures. Here parties most clearly state their procedures of handling notifications for AIA and submit such to the BCH.

(ii) living modified organisms for Direct Use as Food, Feed or for Processing

LMO s intended for direct use as Food, Feed or for Processing including placing on the market, either domestically or that may be subject to transboundary movement must follow specific procedures that are in conformity with Protocol and the annexes.

3 CARTAGENA PROTOCOL IMPLEMENTATION EFFORTS IN CAMEROON

Cameroon is one of the richest countries in the Congo Basin in terms of biodiversity and cultural diversity[3]. Cameroon is faced with the challenge of balancing economic development with the conservation of her rich biodiversity. She has been active on the international arena in negotiating and signing many Multilateral Environmental Agreements (MEAs).[4] One of such MEAs is the Convention on Biological Diversity (CBD). Cameroon ratified the Cartagena Protocol in January 2002. The following actions have so far been taken to implement the Protocol in Cameroon:

3.1 DESIGNATION OF FOCAL POINT AND COMPETENT NATIONAL ADMINISTRATION

Cameroon designated the Ministry Of Environment and Forestry[5] as the Focal Point and Competent National Administration. The National Biosafety Committee which was created to handle the administrative tasks will be directly under this Ministry, although it has representatives from other Ministries and stakeholder institutions. Within the Ministry there are Officers in charge of BCH related matters and they are now in the process of building the Cameroon BCH. The various stakeholder institutions have already designated their members to the National Biosafety Committee and are in the process of setting up their institutional biosafety committees as required by the law. These will however be directly under the supervision of the Minister of Environment and Nature Protection. The difficulty this arrangement might pose is that as an institution under one

[3] Apart from the the fact that the country is officially bilingual (English and French), about 214 local languages are spoken by 15 million people.
[4] Since 1960, the year of independence Cameroon has signed at least 36 MEA, and she has the highest record amongst the six CEMAC countries.
[5] On December 8th 2004, This Ministry was split into two and the Ministry of Environment and Nature Protection is now the Competent National Administration

Ministry, it might have little or no control over biosafety activities carried out by other Ministries. Experience has shown that Ministries in this Country usually follow their projects almost independently from each other and that most ministries focus on local problems and issues of immediate, visible and tangible concern to their ministerial departments. Cross-cutting issues such as biosafety are too 'distant' and 'unconnected' to their activities, and such concerns are not kept in mind when developing and implementing ministerial projects and programmes. Administravely it will be practically difficult for the MINEP, to give instructions to another Ministry maybe to cease importing some GM product.

3.2 THE BIOSAFETY CLEARING HOUSE

Article 20 of the Protocol on Biosafety established the Biosafety Clearing House to:

a) Facilitate the exchange of scientific, technical, environmental and legal information on, and experiences with living modified organisms;

b) Assist Parties to implement the Protocol, taking into account the special needs of developing country Parties, in particular the least developed and small Island developing States among them, and countries with economies in transition as well as countries that are centre of origin and centres of genetic diversity.

Although Cameroon has established her BCH, the incomplete database, shows that all is not yet in order. Cameroon has to furnish, update and always make available information on national contacts, national laws and actions related to biosafety within the her jurisdiction. This inlcudes information on capacity-building, the roster of experts and links to other websites, in particular links to other international biosafety-information exchange mechanisms.

3.3 *THE CAMEROON LAW ON BIOSAFETY*

Cameroon's ratification of the Protocol was followed by the enactment of Law N^{o} 2003/006 OF APRIL 21 2003 On Biosafety . This law is based on the Precautionary Principle and it governs the safety, development, use including contained use,

manipulation and crossborder movement, including the transit of any genetically modified organism that may negatively affect human and animal health, biodiversity and the environment. The law has 67 sections about 16 of which will need to be operationalised by texts of application. These texts of application are in their final stages of preparations and will soon be out. The key highlights of this law are that, it is based on the precautionary principle and it equally takes into consideration the socio-cultural concerns as far as risk assessment is concerned. One peculiarity of this law is that it applies to genetically modified organisms and the products thereof. This might a little problematic in its application for it goes too far down the production line by covering not only GMOs but also products there even if they no more contain any traces of transgenes. It is hoped that when the texts of application will put in place, it will also take into consideration the practical realities of application in Cameroon following the present human and institutional capacity.

3.4 PUBLIC EDUCATION AND CONSULTATION

The law states that the competent national administration shall, in collaboration with the other services concerned, foster and facilitate the sensitization, education and participation of the public with regard to the safe movement, manipulation, and use of genetically modified organisms concerned in relation to the conservation and sustainable management of biodiversity, taking into consideration the risks on human health. But so far modern biotechnology discussions are a preserve of scientists and a few enlightened members of society. There is the need to create an innovative and enabling biotechnology environment in Cameroon through education, enhanced understanding and awareness creation on all aspects of biotechnology, biosafety and IPRs. That is based on a principle of public participation that will involve of all stakeholders in modern biotechnology (farmers, politicians, social scientists, consumers, etc). Given the controversial nature of modern biotechnology, there is need for impartiality in public sensitization programs. It was realized that the Cameroonian scientists should take their responsibility and disseminate balanced information for if they do not do it, the public might receive unbalanced and misleading information. It is through such a process that the public gets empowered to make informed decisions on modern biotechnology. Cameroon has been

organizing a series of training and public awareness workshops for stakeholders eg farmers, communicators, politicians, government ministers, parliamentarians and the academia and civil society. Discussions in most of these workshops always indicate that a cross section of the society has very limited knowledge of GMOs and the regulations in place.

The law has defined "Public Hearing" as a meeting with the local or neighbouring population through which they can react, after having been duly informed of any activity on the environment which, according to them, could adversely affect human or animal health or the environment. But it should be noted that this has only been defined and the practical modalities of public hearing organisation and the effects of its outcome on authorisation decision have not been mentioned any where in the Law. Cameroonian authorities also concluded that because of the controversy of modern biotechnology, awareness creation should not just end there, but should be followed by consensus building. There should be effort to build consensus on agreed areas and note the non-consensus areas. It is through this process that issues concerning modern biotechnology can be settled. The outputs of consensus should be referred to the relevant stakeholders for action.

4 EARLY LESSONS LEARNED AND RECCOMENDATIONS

As has been observed, Cameroon is still at a very early stage in her implementation experience but lessons that have been learned so far are being shared for the benefit of other developing countries so that they may orient their implementation actions towards a more realistic direction. It must be said here that officially Cameroon has not yet handled any application for the importation of GMOs but the Government is under pressure as GMOS are already at our door steps. The lessons that have been learned so far can be summarized as follows:

4.1 THE NATIONAL BIOSAFETY COMMITTEE

As has been seen above the National Biosafety Committee is under supervision of the Ministry in charge of Environment and Nature Protection. This makes supervision of the

biosafety related activities of other stakeholder ministries complicated. The workable alternative would have been an independent National Biosafety Authority created by a Presidential decree under the supervision of the Prime Minister. However, with the present state of things, the Ministry in charge is sensitizing others on the need to incorporate biosaftey in all ministerial plans, policies and programmes is also crucial. In particular, relation to other development objectives and priorities (such as poverty alleviation) needs to be clarified. Environmental and biosafety issues can become an 'excuse' to initiate programmes and projects that have long-term effects and meet developmental objectives. For example, a biosafety project can not only create jobs (and hence higher incomes), but can also improve health (and hence labour productivity), and create better quality of life (and hence better decisions of lifestyle choices.

4.2 THE CHALLENGES RELATED TO THE BCH

The main concern here is, who are the targeted users of the BCH? In a country where having a PC and access to the internet is still a luxury of very few people, how useful will the BCH be for the local majority? **.** In order to present a coherent and relevant view of local concerns and needs/wishes at the global level, it is imperative to build trust among the stakeholders, but also enhance governance structures that include transparency and accountability. It is very clear that there is a great need to build human and infrastructure capacity in this area and this needs lots of investment from the state and her partners.

4.3 THE IMPORTANCE AND USE OF GUIDELINES FOR APPLICANTS AND INTERNAL MANUALS FOR GOVERNMENT

We have learned that some times in trying to meet the provisions of the protocol, Cameroon tried to cover “everything” in the legislation. Biotechnology and Biosafety being a field that is dynamic and new developments keep coming up, it makes it difficult to address the new developments if everything has to go through the long legislative process that is a feature of this country. For that reason, some technical and scientific details that may soon be changed with time, are better placed in the guidelines for applicants or in the internal manuals for the government. A manual of risk assesement has been developed and guidelines are being drawn to handle many aspects in the

application procedure. In that way it is easier to effect the necessary changes that will meet the needs of the time at each given moment.

4.4 THE NEED FOR THE OBJECTIVE USE OF PRECAUTIONARY PRINCIPLE

Section 5 (41) of the Law defines "Precautionary principle" as follows: in case of suspicion of serious threat, or of irreversible damage, the absence of scientific proofs should not be a pretext to delay the taking of preventive measures. The use of the word "suspicion" in the law may make its application vulnerable to abuse. The synonyms of this word include doubt, inkling, feeling, distrust, thought, notion, mistrust, etc. This puts a very low threshold on the principle and can be misused by those having the task of applying the law. However, as Peter T. Saunders explains[6], in fact, the precautionary principle is very simple. All it actually amounts to is a piece of common sense: if we are embarking on something new, we should think very carefully about whether it is safe or not, and we should not go ahead until we are convinced it is. The precautionary principle does not provide us with an algorithm for decision making. We still have to seek to apply the best scientific evidence we can obtain and we still have to make judgements about what is in the best interest of ourselves and our environment. Indeed, one of the advantages of the principle is that it obliges us to face these issues; we cannot ignore them in the hope that everything will turn out for the best whatever we do. The basic point, however, is that it places the burden of proof firmly on the advocates of new technology. It is for them to show that what they are proposing is safe. It is not for the rest of us to show that it is not (Saunders). In the Cameroonian case however, this does not mean that once the burden of proof is pushed to the notifiers and fold our arms and wait for the results from them,, but we should rather take the challenge of carrying out scientific studies (means permitting) as well to back our decision.

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[6] Peter T. Saunders, USE AND ABUSE OF THE PRECAUTIONARY PRINCIPLE, *http:www.twnside.org.sg*

4.5 THE NEED FOR LOCAL SCIENTISTS TO DEVELOP BIOTECH PRODUCTS THAT MEET LOCAL NEEDS.

Biotechnology holds great promise for agriculture in developing countries, but so far only farmers in a few developing countries are reaping these benefits, FAO said in its annual report 'The State of Food and Agriculture 2003-04', released May 17th 2004.

Basic food crops of the poor such as cassava, potato, rice and wheat receive little attention by scientists and even when they receive attention as is the case of transgenic maize, the traits concerned do not respond to the felt needs of the poor people.

"Neither the private nor the public sector has invested significantly in new genetic technologies for the so-called 'orphan crops' such as cowpea, millet, sorghum and cassava that are critical for the food supply and livelihoods of the world's poorest people,"[7] During a workshop on GMOs organized jointly by the Cameroon Accademy of Sciences and the Ministry of Environment in July 2004, the Cameroonian Scientists were called upon to develop products that will meet consumer needs.

4.6 THE NEED FOR REGIONAL COOPERATION IN MATTERS RELATED TO BIOTECHNOLOGY RESEARCH

According to a survey carried out in Cameroon, the laboratory infrastructure and manpower base in Cameroon is comparable to or better than the situation in some countries surveyed in West and Central Africa (S. Alhassan 2002). But this does not mean that Cameroon can stand on her own to effectively implement the her biosafety obligations with her present capabilities. For this reason Cameroon is actively involved in regional initiatives such as CORAF/WECARD which is a 21 member country agricultural research organization for West and Central Africa. Her mission is to improve efficiency and effectiveness of agricultural research in West and Central Africa by contributing to the construction and consolidation of the capacities of the National Agricultural Research Systems (NARS) through cooperation between its members, development partners, regional and international organizations, the private sector, nongovernmental organizations, and users of research results. Her mission is also to consolidate the position of the West and central African sub-region within the context of

[7] FAO Director-General Dr Jacques Diouf. 17 May 2004, Rome

the international agricultural research–for-development. Structures such as CORAF/WECARD could play a very important role in assisting members with capacity needs to carry out risk assessment as required by the Protocol. This could be done by using the services of centers of excellence that may be established in different member countries.

4.7 THE NEED FOR HORIZONTAL AND VERTICAL PUBLIC EDUCATION

It could be misconstrued that only the local populations need to be sensitized, but the Cameroon experience has proven that government organs need to be educated on these issues. Even the legislature that passed the laws on biosafety have indicated the desire to be educated on this very law again. This shows how public awareness has to be given priority at all stages of the implementation process. The Academia has also proven little awareness about the biosafety issues at the international and national levels.

4.8 THE NEED TO INVOLVE WOMEN AT ALL STAGES OF DECISSION MAKING IN MATTERS RELATED TO AGRIC-BIOTECHNOLOGY

Women have been particularly targeted for training and awareness workshops. Up till now women have been excluded from the realm of decision making even though they are those will most feel the immediate effects (positive or negative) of modern biotechnology. Unfortunately, and as one African leader observed twenty two years , the weight of the centuries-old traditions of our society has relegated women to the rank of beasts of burden. Women suffer doubly from all scourges of neocolonial society. First they experience the same suffering as men. Second, they are subjected to additional suffering by men (Sankara 1983). For biotechnology to be successful in developing countries, women should be an integral part in all levels of the process from conceiving projects to making decisions and implementing them. This has been realized in Cameroon and women are a major training workshops.

5. CONCLUSION

Parties to the Protocol usually have two options when deciding on the nature of the biosafety legal framework and these are either to build on the existing pieces of legislation addressing the various aspects of biosafety or put in place a single and comprehensive legislation that will address all the aspects of biosafety. This depends on many factors, such as their policy awareness, the level of risk they are willing to accept, their capacity to carry out risk assessments and implement adequate legislation, their perception of gain from biotechnology and their investments they have made in the sector. What ever option a country takes one thing remains clear and it is that for a biosafety regime to be effective, it should be comprehensive, expedient, transparent, workable and simple.

Once a party to the Protocol, countries must make sure that it is implemented even though developing countries have specific challenges associated with enabling popular participation in the policy arena. Many developing country parties are still trying their hands at democracy and so political climate that favors effective public participation in decision making process are rare.

The infrastructure and human capacity that may enable the effective implementation of the Protocol are still a problem in the developing countries. Therefore regional initiative are highly encouraged and experience sharing remains the key tool. Cameroon's experience, though so early will be useful for other countries of the sub-region that are still at their early stages of implementation.

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