Name: Roberto de la Maza Hernández	Researcher: Senior
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land property as part of the solution; The Mexican case.	

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I.- Introduction

The conservation of biological diversity constitutes an important part of sustainable development; especially, for the countries that concentrate most of the planets natural assets. In this sense, Latin America has a responsibility towards the rest of the world, as it constitutes a diverse region, in terms of natural patrimony of all humanity, present and future¹. Therefore, Latin American countries must ensure the preservation of all that natural wealth.

One of the tools that the international environmental policy has for the conservation of biodiversity is the creation of protected areas. However, the use of this tool also means limiting property rights over the land and the natural resources, a situation that has originated a social disadvantage between the ones that bare the imposition of the restrictions, and those who benefit from it; thus, creating a general opposition to the establishment of protected areas.

As a result, in order to continue with the conservation of biodiversity, policy makers have to complement the use of protected areas with other instruments that can also accomplish this objective.

In this sense, voluntary instruments are tools which could play an important role in the conservation of biological diversity.

This paper will review the concept and implications of protected areas; why their establishment is facing the opposition of the local governments and communities, and how the use of voluntary instruments can complement the national policy for the conservation of biodiversity; all the aforementioned within the framework of the Mexican case.

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¹ The fact that some of the regions countries are rich in biological diversity, motivated that 7 of them subscribed the "Cancun Declaration of Like Minded Mega Diverse Countries", which can be consulted at http://www.megadiverse.org/armado ingles/PDF/three/three1.pdf

II.- Protected Areas as an instrument for the Conservation of Biological Diversity

Biological diversity defines the variety of life forms that coexist on our planet, including all the different ecosystems and the genetic range within every species. All this diversity is primarily the result of natural evolution, but in recent years, also because of the influence of humans and their activities, which have seriously affected this process.

Because the social and economic development has damaged the natural equilibrium of the planet, and therefore affected biodiversity, in the 1992 United Nations Conference on Environment and Development world leaders adopted the Convention on Biological Diversity (CBD), which aims at three main objectives², which are:

- The conservation of biological diversity;
- The sustainable use of its components, and
- The fair and equitable sharing of the benefits from the use of genetic resources.

In order to achieve the conservation of biodiversity, the CBD mainly establishes a couple of instruments known as *in situ* and *ex situ* conservation.

In the first case, article 3 establishes that "In-situ conservation means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties."

For the *ex situ* conservation, the same article defines it as "the conservation of components of biological diversity outside their natural habitats."

Considering the definitions given above, and taking in account that it is preferable to preserve biodiversity in its natural surrounding, the CBD establishes in article 9 that the *ex situ* conservation will serve as a complement of the *in situ* measures. In other words, the *in situ* measures should prevail over the *ex situ* conservation.

Now, as part of a series of measures directed towards the *in situ* conservation, article 8 of the CBD obligates every Contracting Party to "(a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity; and (b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity".

In this sense, it can be assured that protected areas constitute a fundamental instrument in the international strategy for the conservation of biodiversity.

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² Article 1° of the Convention on Biological Diversity.

The World Commission on Protected Areas define these as "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means"³

Mexico has complied with the obligation contained in article 8 (a) and (b) of the CBD, as the General Law of Ecological Equilibrium and the Protection of the Environment (LGEEPA)⁴, has included within its norms the protection of biodiversity through the establishment of protected areas.

In fact, this legislation gives the national definition, the objectives, the types and characteristics of this instrument; details the procedure for the selection and the establishment of protected areas; and develops the means which will allow the continuous management and supervision of them.

The Mexican legal system defines protected areas as "portions of the national territory, and the areas where the Nation exercises rights of jurisdiction and sovereignty, where the original environment has not suffered significant changes, due to human activities, or that require to be preserved and restored, and that will be held to the legal norms that are established on this Law and any other legislation on the subject". Consequently, protected areas represent the imposition of an especial regime of protection, which affects property rights and the use of natural resources.

III.- The crisis of Protected Areas

Now that we have defined protected areas in Mexico, its time to consider if there is a crisis in the use of this instrument, for the conservation of biodiversity in this Latin American country.

As it can be seen, protected areas entail the establishment of restrictions to land property and to the exercise of legal rights over the natural resources that are contained within their perimeters.

The former can be confirmed by the lecture of the second paragraph of article 44 of LGEPA, which states that land owners, tenants or holders of other rights over the land, water and forests included inside a protected area, should abide by the modalities and restrictions prescribed by this Law, which will be directed by the decrees that constitute these areas and their management program.

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³ Information available at http://www.iucn.org/themes/wcpa/wcpa/protectedareas.htm

⁴ Ley General del Equilibrio Ecológico y la Protección al Ambiente. Published on January 28 of 1988 (Diario Oficial de la Federación).

⁵ Article 44: Ley General del Equilibrio Ecológico y la Protección al Ambiente.

This means that some land owners will be obligated to diminish the possibilities to use their own property, just on behalf of the conservation of biodiversity, while the rest of society benefits from their limitation⁶.

Of course, even thought most Constitutions proclaim the right of private or collective property, these rights can be affected when there is a public cause that justifies the imposition of modalities or restrictions⁷. This is commonly known as the social aspect of the constitutional right of land property. In this sense, article 2 of LGEEPA declares that the establishment and preservation of protected areas constitute causes of public interest.

Still, it is evidently unfair that some land owners have to endure all these burdens, so that society can preserve biodiversity. This is what some authors have called the triumph of the inhabitants of the city over the residents of rural areas; a contradiction produced by the need of a major urban society, to protect portions of nature located in rural areas, which are economically more depressed⁸. In this sense, the quoted author considers that in the context of a society which, in an increasing tendency, starts to economically value untouched nature and the purity of the environment, it is dangerous and unjust to impose limitations without a proper compensation⁹.

At this point, we must take in account that if national authorities impose the establishment of an especial regime of protection, affecting, on the one hand, land property rights, but, on the other, executing a series of actions and instruments that allow certain compensation, then this protected area will probably accomplish its objectives. If this is achieved, then protected areas become close to the ideal of sustainable development, as they integrate certain "fairness in the manner of development which applies as between different sectors of the current generation and future generations"¹⁰.

Therefore, the Constitutional right of every citizen to a proper environment¹¹ meets the National aim of development, and other Constitutional mandates that pretend to ensure a better quality of life.

But the truth is that in Mexico (and in most Latin American countries) the establishment of protected areas is not accompanied by proper compensation instruments or policies; thus, creating conflicts between the objectives of the established area, and the inhabitants that need to use the natural resources that are contained in it¹². This is occasioned because the

¹⁰ Stuart Bell and Donald McGillivray, *Environmental Law*, 5th edition, Blackstone Press, 2000, p. 40.

⁶ Ramón Martín Mateo, *Tratado de Derecho Ambiental*, volume III, Editorial Trivium, España, 1997, p. 368.

⁷ The 3rd paragraph of article 27 of the Mexican Constitution establishes that the Nation can affect the private property at all times, through the imposition of limitations and modalities, when the former accomplishes a cause of public interest.

⁸ Fernando López Ramón, *La Conservación de la Naturaleza: Los Espacios Naturales Protegidos*, Publicaciones del Real Colegio de Bolonia, Italia, 1980, p. 110.

⁹ *Ibid*, p. 111

¹¹ Paragraph 4th of article 4 of the Mexican Constitution establishes the right of every person to an adequate environment.

¹² Julia Carabias, Javier de la Maza y Rosaura Cadena, *Capacidades Necesarias para el Manejo de Áreas Protegidas, América Latina y El Caribe*, The Nature Conservancy, World Commission on Protected Areas and UICN, 2003, p. 26.

instruments contained in LGEEPA and other legislations are weak, or do not fulfill their objectives.

Consequently, there is a significant social resistance to the creation of these especial regimes of protection; situation that is stopping the enlargement of the surface that is destined for the conservation of biodiversity. This case can be seen in the region of the Chimalapas, located in the southern State of Oaxaca, where the Mexican Federal government has tried, since 1987, to establish a Biosphere Reserve, but the inhabitants oppose the project¹³.

In a different aspect, as protected areas signify the establishment of an especial regime of protection, and therefore the appointment of a Federal official who acquires certain competences regarding the administration of a portion of land, some State governments are starting to oppose the creation of new Federal areas, as they see it as interference in their jurisdiction.

Finally, when protected areas are established and managed by the Federal Government, they entirely depend on the national budget; situation that makes them economically vulnerable.

The result of all what we have mentioned, is that in the last four years it has been very difficult to expand the percentage of land that is protected¹⁴. If this tendency continues, our country will not reach the general accepted percentage of 10%. Therefore, it is possible to confirm that in Mexico the establishment of protected areas is facing a serious crisis; a crisis which consists in the fact that there is a limit in the social, political and economical acceptance towards the imposition of especial regimes of protection.

IV.- The certification of land property as a complement of Protected Areas

One of the characteristics of environmental law is commonly known as flexibility. This characteristic allows having compulsory norms and voluntary norms, coexisting in the same legislation. In this sense, environmental norms tend to direct or to incentive, more than to order a certain conduct¹⁵. Modern environmental legislations contain different kinds of voluntary instruments, which also aim towards sustainable development and the conservation of biological diversity.

In the case of LGEPA, it is possible to find a voluntary instrument in the second paragraph of article 59, which states that the social and private sector (including indigenous communities) can voluntarily decide to dedicate the lands of their property, to the conservation of biodiversity. Therefore, acquiring a certificate emitted by the Federal Government, recognizing that these properties are destined to the conservation of ecosystems and biological diversity.

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¹³ Information available at http://www.ine.gob.mx/ueajei/publicaciones/libros/28/chimalap.html?id_pub=28

¹⁴ Information available at http://conanp.gob.mx/sig/

¹⁵ Andrés Betancor Rodríguez, *Instituciones de Derecho Ambiental*, Editorial La Ley, España, 2000, p. 53

According to articles 131 and 132 of the administrative regulation ¹⁶, the tenants of the certificate will acquire certain obligations, which include the submission to a special management regime that allows the conservation of natural resources, throughout the sustainable use of them; once that the certificate has been granted, the Federal authority will be able to supervise and measure that their tenants are complying with their obligations.

Although, it is important to consider that the regulation of this certification mechanism is not sufficient, for the second paragraph of article 59 and the administrative regulation (from article 126 to article 136) only develops the procedure throughout this certificate is granted.

Also, it seems like this voluntary mechanism only carries obligations for the tenants, without granting certain benefits that will make the attainment of the certificate more attractive.

At the present moment, the administrative regulation states in article 126 that the Federal authority would promote the certification of private or social land, by granting economical benefits and technical support, but these has not been accomplished.

Even thought the lack of proper incentives, in the last 4 years the use of this voluntary instrument has increased considerably, allowing the integration of more territory into the regime of especial protection; except not through an imposed act, but by the means of the will of the tenants of the land.

In this sense, through this original mechanism the community of Santa Maria Chimalapas has decided to preserve the biological diversity and the ecosystems of their lands; thus, achieving what the authorities could not do by the imposition of a protected area.

Therefore, the fact that obtaining the official certification can be used as a reference to attract sustainable conscience tourism, or to sell products that are environmental friendly, seems to be motives enough for the private and social sectors to dedicate their lands to the conservation of biological diversity.

In this sense, it is possible to anticipate that if the proper economical compensations or benefits are attached to the certification of private and social land, then the use of this instrument will increase even more. With this, protected areas will have different sources of finance, making them less dependants of the national budget.

Costa Rica represents a good example of a successful national policy for the conservation of biological diversity, complemented by an active participation of the social and private sector. In this country, the conservation of biodiversity is not only accomplished by the compulsory establishment of protected areas.

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¹⁶ Reglamento de la Ley General del Equilibrio Ecológico y la Protección al Ambiente en materia de Áreas Naturales Protegidas. Published on November 30 of 2000 (Diario Oficial de la Federación).

The former can be seen in the fact that of the 161 protected areas of Costa Rica, only 52 were created by the government, while 109 were promoted by the private and social sector. The first group of protected areas integrates 14, 2 % of the national territory, while the private areas represent 11, 2 % of it¹⁷.

V.- Conclusions

After this brief review of the concept and implications of protected areas, and of the reasons that motivate the social and private opposition to the establishment of these especial regimes of protection, the following general conclusions can be given:

- 1.- The establishment of protected areas is constrained by the opposition of social and private owners of the lands that will endure the limitations; and by the local governments, that see them as an obstacle to their jurisdiction;
- 2.- It is becoming very difficult to increase the area that is under some especial regime of protection;
- 3.- Considering the former, and that it is necessary to continue the expansion and integration of a national system of protected areas, policy makers most complement the imposition of especial regimes of protection with some other mechanisms that allows to guarantee the Constitutional right of every citizen to a proper environment;
- 4.- The aforementioned will not only allow to increase the surface that is destined to the preservation of biological diversity, but will permit to have different sources that are responsible for the finance of protected areas. In this sense, protected areas will not entirely depend on the state of public finances, and will endure economical crisis;
- 5.- Consequently, the voluntary certification of private and social properties can become an important complement of protected areas, as it is the case in Costa Rica;
- 6.- In order to achieve the aforementioned, it is necessary to strengthen the legal and administrative regulation of the certification instrument; therefore establishing a clear procedure throughout this instrument has to be implemented and supervised. Also, it is required to accompany the certification with proper compensation mechanisms to make it more attractive, in economical terms, for the private and the social sector.

Accordingly, it is possible to state as a general conclusion, that in order to guarantee the conservation of biological diversity it is needed to create and execute an integral strategy, which includes different instruments aiming towards this main objective.

In this sense, considering that the problems that affect biodiversity and the environment are not only diverse but complex, they most be solved through various means of action.

¹⁷ Conservación Privada en Latinoamérica: Herramientas Legales y Modelos para el Éxito, Environmental Law Institute and Pronatura A.C.,2003, p. 86.

Imposed and voluntary protected areas constitute only part of the solution to the loss of biological diversity.

As well, the Federal Government must strengthen the management measures and the supervision capacities of the existing protected areas, if it is to achieve the objectives of each of them.

This way, imposed and voluntary protected areas will integrate into an effective system of territories, destined for the conservation of biodiversity, which also allows to improve the quality of life of the inhabitants that depend on these natural spaces and their resources.

Finally, even thought these conclusions have been obtained from a general analysis of the situation of the establishment of new protected areas in Mexico, they can be applied in many countries of the Latin American region. Consequently, it is of first interest that in a regional scale, policy makers can meet the environmental and social needs of present and future generations, in order to achieve sustainable development.