

## **Elements of the Arab Biodiversity Strategy**

**By**

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### **Introduction**

This article presents the elements of the Arab Biodiversity Strategy that was published by the Arab League Educational, Cultural and Scientific Organization (ALECSO) in 2001. This Strategy is the culmination of one of the important ALECSO projects that started in 1995, in response to the needs of Arab countries to tackle the problems related to biodiversity conservation and its sustainable utilization. The lands of the Arab World are known to be the birthplace of civilization that started in the Neolithic by the domestication of essential life support plant and animal species from their wild relative stocks. Among those plants domesticated were wheat and barley, and among animals goats and sheep. This was the first wise and sustainable utilization of biodiversity resources from which the entire human race benefited. The steps taken by ALECSO to implement this project started by gathering information about what we know about biodiversity resources in the Arab World as they stand now. This answers the question: What do we have now? About twenty Arab experts from more than a dozen Arab countries were involved

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and the results of this survey were published by ALECSO in 1998. After that, the next question to be asked is logically: So what should we do now? To answer this vital question, ALECSO proposed to write down the Arab Biodiversity Strategy, and to put it under an analytical study that was published in 2001. It consists of 8 chapters, which are: Efforts of ALECSO, Lights on biodiversity, Economics of biodiversity, Man and biodiversity, Before and after Rio, Financing the Convention, The Convention and development, and finally the text of the Strategy itself, which we are giving here. The Analytical Study has also a number of Annexes.

We hope this article will be of benefit to its readers, especially those in non-Arab countries. We are pleased to thank Dr. Al-Bahloul Al-Yaqouby, Director of Science and Scientific Research Programmes at ALECSO, for kind permission to diffuse this Strategy in a wide audience.

## **The Arab Biodiversity Strategy**

### **The value of biodiversity for the Arab citizen**

Arab citizens tend to cherish social stability, even though that nomadism is the dominant character from time immemorial in Arab life and generally in Arab society. The Arab nation since ancient times adopted policies of natural resources conservation and protection for the sake of future generations, both in the pre-Islamic culture, or after expansion eastwards and westwards. The experience of the Pharaonic Garawy Dam in Egypt, the Sheban Ma'reb Dam in Yemen, the Ahmia (reserves, singular hema = reserve) system in the Arabian Peninsula, the oases of Morocco, and the gardens of Andalusia, are the clearest

proof that Arabs had always practiced policies that are now known as "Sustainable Development". It is true that some Arab countries have been exposed in some periods to tyrannical foreign ruling systems when their natural resource were plundered in a severe manner, and this led to destruction of some resources. But Arab nations are now able, with their age-long wisdom, to overcome this destruction and to embark on the rehabilitation of such policies of natural resource management, to be received in a usable condition by future generations: their sons and grandsons. Resources that sustain life are used in a way whereby their value is maintained.

Because of the interference of newly acquired materialistic short term western values, opposed to the long term eastern values, Arab society lost its guiding compass in resource management. An Arab proverb says in fact: that the dearest of progeny are grandchildren, more so than children. But now, and nearly since the 19<sup>th</sup> century and the beginning of the Industrial Revolution and invasive attacks by European powers to open markets violently, another proverb is used: Let us eat and drink because tomorrow we will die. Or even, Let me live today and kill me tomorrow. This change of attitudes is not original in the Arab culture.

However, the West recently had to wake up because of the multitude of environmental problems it started to discover, that are attributed to these same short-term values. And it had to cope with these problems, albeit to a certain extent, and talk about conservation of natural resources and protection of environment to guarantee the rights of future generations. Now Arabs must act to control and stop

the emergence of western-type environmental problems, while they are still at the beginning of industrialization and modernization processes. They must show models to the world, either eastern or western, in adjusting the ideals of environmental values in the Arabic world, derived from their noble social and religious values, that survived for centuries, to work with and to raise the value of social benefit. This comprehensive social benefit to the whole of society is so precious that it can not, and must not, be evaluated with money. Arab society must consider these benefits over and above mere economic benefits. Economic values have a role that cannot be doubted in decision making, but they should not be the only dominant factor in decision making. This is what Arab countries should excel over the rest of the international society. What we see now is the resurgent dominance of economical values on decision making, increasing with the globalization movement. But this situation shouldn't be allowed to affect the condition of natural resources and especially biodiversity. Since this would lead to deterioration of these resources and their disappearance in the end, because the life of societies and their welfare depend totally on the continuity of functioning of these resources in performing their biological role, until God willing.

The agricultural crops that we know are not more than a small ratio of the botanical resources that God had created for the benefit of humans. The same is for domestic animals, which means that there is a large number of wild plants and animals which are waiting to be used practically in all life fields, especially in agricultural and medicine. Genetic engineering opens unlimited horizons for these

benefits, whereby Laser technology also opens unlimited horizons to enhance achieving this benefit in the shortest time and with the lowest costs. What Arab countries and Arab organizations need to do is to concentrate on studying this huge unutilized resource, by establishing Arab institutes for research on biodiversity and genetic engineering as well as Laser. These three sciences are so related to each other.

Biodiversity resources are the main receptacle containing raw materials, Laser is the oven providing energy, genetic engineering is the utensils by which diverse compositions and combinations are carried out, having wonderful economic benefits. The products are cooked to be ready to offer to a thirsty society for those products, to achieve food, clothing, and medical security. All these production factors are important to finally realize national security, away from any foreign interference.

Many Arab countries try to establish institutes for genetic engineering research and others for laser research, all are unfortunately separated from biodiversity research. It is clear that these institutes are still missing a funding of basic extension and also scientific basic extension. Research like this, cannot be undergone by individual persons or small groups of individuals; they need a wide scientific base with experienced scientific leaders. God bless, money is available in the Arab World and the scientific base is also available throughout the Arab World, so firstly this must be unified, secondly it should be comprehensive for all the extended Arab countries. Establishing this institute must be one of the priorities of a Biodiversity Arabic Strategy, for its conservation and obtaining sustainable benefit from it. This institute will enable Arab countries to

do without being in need to buy invention patents or to buy the rights of using those inventions, related to getting benefits of biodiversity, from foreign countries. The Arab poet said:

*By science and money people build their glory*

*Not by ignorance and misery*

Establishing an Arab Environment Fund, whose financial resources are constituted of contributions from Arab countries and Arab Development Funds, as well as from foreign contributions, must be the support of this institute. This institute is to be supposed to replenish its budget from profits that will be gained from selling its invention patents, on both the Arab and international levels, during a certain number of years. The price of selling these patents or selling rights of their use in Western countries should follow the conditions of those who will get benefit. Local Arab societies ought to have rights to get benefit from the yield outcome of these sales in a just and equitable way. Although there has been extensive talk about sharing benefits with local societies, it is missing in the Biodiversity Convention and in practices of international biodiversity and environmental utility transactions. Arab institutions should lead the way in applying this principle with their own products, with their own societies.

The Arab World must benefit from technical contributions and advances in knowledge offered by international organizations that treat the subject of biodiversity conservation and its sustainable use. But they must also note the defects and deficiencies of these organizations. In order to:

(a) get the maximum benefit of information and the resultant products under the prevailing international setup, and

(b) in order not to be involved in the activities of organizations that do not offer them their needs, do not care about them, or probably act, willingly or unwillingly, against their interests,

Arab countries must create for themselves the suitable regional organizations that would achieve the best-expected benefits for them.

If Arab countries depend upon themselves in managing their own biodiversity resources, this will help them avoid risks, dangers and deficiencies present in international organizations. Neglect of this step will sometimes cause them harm that they do not need. This is the real, true and effective method that must be included in the Arabic Biodiversity Strategy in this matter.

### **The need for a unified Arab Biodiversity Strategy**

The need for a unified Arab Biodiversity Strategy is becoming increasingly important because environment is an international affair, what any country may do in the field of biodiversity, will affect other countries. If two countries happen to have the same genetic resources, competition between them for contracting with foreign companies will put them in a weak position. This would lead to decrease of advantage for both of them, the advantage that each country would take alone. But if both of them agree to take a unified negotiating stand, this would lead to large advantages for both. If one country didn't care about conserving its own resources, it would lose important investment chances. This will harm the food security of citizens, cause climate change, floods, or loss of medicinal resources.

This means that conserving biological resources is not only a national or a local patriotic duty, but it is an obligatory duty posed by neighbourhood rights and solidarity in one Arab World. This means that all Arab countries together have good chances to better negotiations with other non-Arab countries, which need these resources and negotiate with each Arab country individually, to get of each country alone what they need, at the cheapest possible prices.

For Arab countries biodiversity must not be exchanged against as a mere wealth exposed and offered for selling, as any other raw material. Arab countries should not allow temporary economic stress or financial temptations and make them accept weakening their bargaining situation

Arab countries can get benefit from globalization of environmental problems only by taking unified and cooperative decisions, which is confirmed throughout the Arab Biodiversity Strategy. The International Biodiversity Convention and what it stated, is to utilize biodiversity resources in each country to develop its people, not to develop the companies of foreign countries.

Arab countries ought to cooperate with all Third World countries, especially those that have advanced basic foundations for biotechnology. Cooperation should be for establishing its foundations, on a collective basis. Here we may mention the NonAligned and Developing Countries Center of science and Technology, established in India more than 10 years ago, which works with other scientific establishments in Third World countries to organize common research



and to encourage the common development of inventions. This cooperation is very much likely to raise the efficiency of Arab countries and to enhance it, to save costs, to get benefit of biological resources, to manage it in a way that returns good for all, and it will raise their negotiating position with developed countries.

Although advances in economical analysis of cost/benefit of conserving biodiversity occurred in the last years, it is still slow and not enough. Economic measures for conserving biodiversity must not wait till gaining a complete picture of these studies, because there are so many aspects related to biodiversity or its loss that will remain unmeasurable economically. Biodiversity resources may be related to spiritual values or be difficult to measure, because its measuring tools are still inaccurate, or inexistant, and need a long time to reach agreement about their validity.

The view of putting the principle that who encroaches upon biological resources must pay the cost of losing it and of preventing harm from its loss, and also the social costs of such harm, is now well established. Also, those who use biological resources must pay the cost of this usage, including cost related to control of harm that may occur or to prevent it. Likewise, those populations that provide the community with noncommercial advantages through their conservation and use of these resources (e.g., for making hedges) must be rewarded or compensated.

They should also be rewarded or compensated for the cost they incur for the sake of, for example, leaving fallow land containing important animal and plant biodiversity without exploitation, or

continuing to practice traditional agricultural methods. These positive actions tend to increase the public's acceptance of biodiversity conservation measures. If they are used wisely and made flexible enough, according to varying conditions, it is logical that success of economic measures, both positive and negative, will depend upon the application of common sense.

For getting real benefit out of biodiversity resources in our daily life these guidelines of financial measures, which may be applied to these actions, have two benefits:

I - local societies get benefit directly by their conservation of biodiversity resources they have under their hands.

2 - these resources remain under control of local inhabitants and save the country from the cost of protection.

The uses of economical actions with their positive and negative sides of the coin, offer the chance for contact cooperation between all stakeholders, no matter how these benefits are diverse and contradictory. This leads to change of relationship patterns to continued establishment (sustainability), because all sides agree with it.

Their will for uniting together and working together, and continued enthusiasm for this union, could be flexible and develop with changing conditions and relieve a large load off the country's shoulders. But economic measures alone, in spite of all of their advantages, cannot be enough for protection of biodiversity in any country, against the risks that threaten it. There is in addition need for more measures, in fact, a package of a variety of actions, in order to guarantee a diversity of types of protections. Selection of elements of

that package will need knowledge of a large number of variables that are specific for each country. Each site and each type of problem for each kind of biodiversity needs an independent solution. The efficiency of one method per se for treatment of these problems is related to juridical, political, economic, and geographic factors, differing from one country to another and to one site from another. What actions that are suitable for a certain country may not be suitable for another, for example the actions that are practiced in a certain country depending basically upon irrigated agriculture, are not suitable to another country that depends on rain agriculture or pasture. Thus it is difficult to reach general rules and results related to other economical actions proven successful elsewhere. Limitations must be recognized and understood. Successful measures in a certain country cannot be said to be suitable for another country, unless it has been studied by professionals specialized in both countries, in extended areas. For each of these socio-political-economic-ecological systems has its own suitable method for dealing with biodiversity conservation and sustainable utilization, incorporated into the views of society as a whole.

What is to be done then to put an Arab Biodiversity Strategy into practice, in relation to economic actions, that will all aim to achieve this goal? Without necessarily going into much detail, we must analyze all the policies that are practiced in the Arabic world, in a methodological analysis, with a view of reducing expenses, whether governmental through management expenses, or inspection, or execution, or costs that people pay. In all cases we must look at protection of biodiversity while it still exists, as a priority, rather than its restoration, after its loss.

We refer to the genetic resources bank, re-introduction and propagation of animal and plant species on the verge of extinction. Even if the costs are higher, the importance in many cases has its justification, especially if supplemented to natural reserve as measures for their protection from final disappearance. It is doubtful however that last minute solutions for these animal and plant species can be permanent solutions. Wild species cannot be conserved properly and permanently except in their natural environments and in the company of and interaction with their natural wild communities. The strategy which would have a chance of success is that which adopts a diverse number of approaches, means of implementation, and at different management levels, that are applied at local, country, and regional levels, all together. Economic actions cannot alone replace the juridical setting and whatever else from the traditional means of organization and management. Integrating them, increasing their efficiency, saving efforts, and added to these awareness and education campaigns, play an important role beside the juridical and economical actions. All these directions must work together and not be in sequence, but in parallel. They all have the same priority. This is because there is no where we could organize priorities. There is no citizen who is not ready to pay for the conservation of resources and their protection from threats, when he is convinced of their benefits in his daily life. The benefit of the juridical approach in saving such resources in the last minute is because it is relatively quicker in its action, compared to but coupled with the slowness of economic actions and measures. All these approaches are complementary to each other, within a web of actions and measures that cover biological resources and offer together, in concerted action, a minimum of protection.

## **Foundations of the Arab Biodiversity Strategy**

- 1 - Requesting that the FAO "International Commitment" about botanical genetic resources, become a protocol of the Biodiversity Convention, in order to exclude a large number of genetic resources required for agricultural and research from the scope of the Intellectual Property Rights (IPRs) system, and to enter instead under the umbrella of an international management system, in order to offer at low cost to farmers and researchers.
- 2- Support of the UNESCO Declaration about the human genome, issued in 1999, and edited to complement the Human Rights Declaration, although this former declaration is not obligatory and couldn't resolve clearly the problem of IPRs of the human genome (human genetic material).
- 3- Support the European Union's refusal in permitting IPRs to genetically modified races of living organism.
- 4- Support Arab non-governmental organizations (NGOs) at international conferences, especially at assemblies for whom doors have recently been opened, such as the International Monetary Fund and the World Bank, and offer NGOs a full chance to express Arab people's views.
- 5- Consider the inapplicability of the International Biodiversity Convention to domesticated plant and animal genomic material, and also human genetic material, and insist that these materials are outside the scope of the Convention
- 6- Consider that cultural and social diversity are related to biodiversity and dependent on it.

- 7- Request that gene banks be under the jurisdiction and the authority of the source country, because they don't enter in the mandate of the International Convention since they were initiated before it. This is what the group of 77 (non-aligned countries) called for at the FAO meeting, demanding their restoration to these countries. These countries must have common rights for IPRs emerging from the global Declaration of Human Rights.
- 8- Urging the international community to consider farmers' rights, their rights to get viable seeds to cultivate from the previous harvest and submitted to IPRs, so that they can obtain their basic needs of food, clothing, and medicine.

The problem of biodiversity loss must be treated in the same manner, as are the problems of conserving the common cultural and natural heritage of mankind. They are national resources, as important as air and water. In order for society:

(a) to be well aware about the evolution of biodiversity and about the consequences of the diverse socio-economic choices available, and

(b) in order to be able to take the necessary initiatives that couldn't be overlooked,

Indispensable actions for conservation and policies of suitable management of resources, in collaboration with various groups of organization and associated laws, must be put in place.

It is true that it is the duty of scientists to carry out awareness programmes in mass media to gain the support of public opinion, by informing about the risks that are consequential to biodiversity loss, and the importance of its conservation. But they have no political

power to enforce the final solutions that they propose. Added to this, reasons of biodiversity erosion are mainly due to the relationship between the society and its environment. They are all immersed in the types of development and related economical paradigms. These reasons must first be treated before we think of slowing down the rate of loss of biodiversity, let alone its control. Although environmentalists may be able to gather the threads necessary for decision making, they can not themselves impose, or even select, the economic and social alternatives on behalf of society. This is because these are exclusively the responsibilities of political authorities and the constitutional establishments.

However, for the actions of biodiversity conservation to be efficient, it is important that society accepts these solutions and agrees with them. Here education (in its largest sense) ought to prepare the future citizen to shoulder responsibilities, by making them aware about the benefits and costs of different alternatives and policies, as well as the ethical and spiritual dimensions related to biodiversity conservation. If what has already perished cannot be restored, at least what remains has to be saved. Environmentalists who have been watching the environmental disasters of the last century unable of interference, despite the fact that they possess the required capacity to foretell them, have an important role to be fulfilled about biodiversity conservation. They have a similar obligation to restore degraded environmental systems to their earlier productive state, instead of only monitoring and counting the disappearing species as in the obituary pages of newspapers. They now ought to upgrade "ecological engineering" and conservation biology that ask them to rally around them as fast as they can and with the highest efficiency.

## **Elements of the Arabic Biodiversity Strategy**

### **Basic interests:**

- 1 - Issuing an Arab Biodiversity Conservation Charter.
- 2 - Training and capacity building.
- 3 - Educating and preparing experts.
- 4 - A Biodiversity Research Institute, especially in the fields of
  - A - delineating the borders of nature reserves, their planning and management, and web-connecting between them.
  - B - biotechnology, the study of its different economic, social, and developmental repercussions.
- 5 - Participation and contribution in international activities and to develop a unified negotiation stand and maximizing the benefit of financial and technical aid (debt-for-nature swaps, visits of foreign experts, training missions abroad).
- 6 - Controls at points of border passage and customs (for the implementation of CITES).
- 7 - The responsibilities of stakeholders (meetings, exchange of experience, agreements).
- 8 - Economical measures.
- 9 - Harmonization of Arab biodiversity conservation laws.
- 10 - Mass media awareness programmes.
- 11 - Environmental tourism (tour guides, tourism companies, tourist villages - safari rallies).



- 12 - Pests and pesticides.
- 13 - Climate change.
- 14 - Meetings of interested organizations.
- 15 - Stations for reproduction (captive breeding) and restoration.
- 16 - Alien invasive (exogenous) species.
- 17 - Surveys and environmental monitoring and data bases.
- 18 - Coordinated regional programmes.
- 19 - Environmental assessment of development projects.
- 20 - A unified periodical Arabic report about biodiversity conservation in the Arab World

## **Executive plans**

### **PART 1: Programmes to upgrade institutions working in the field of biodiversity:**

- 1 - Support of governmental institutions to carry out feasibility studies about the need of central and local establishments and tools and mechanisms for coordination between different ministries and governmental establishments.
- 2 - Revising laws and legislation of biodiversity and modernizing them, with special attention about activation of Arab and international cooperation.
- 3 - Developing tools for serious execution of these laws and legislation, especially at the local level, with special attention to the dominant customs and what achieves the good of local societies.

- 4 - Training programmes for raising the efficiency of human resources, in all their different specialties, to continue research and monitoring and data analysis.
- 5 - Programmes for support of non-governmental organizations and helping them to play their effective role in mobilizing public participation in local activities.
- 6 - Programmes for mobilizing financial resources at local country and international levels, to support biodiversity conservation programmes.
- 7 - Programmes of public awareness to urge citizens, from all walks of life, to actively support governmental and nongovernmental biodiversity conservation programmes.
- 8 - Establish academic scientific atlases and other simplified ones for Arab biodiversity showing the distribution of species and specific rare and threatened habitats, threats to which they are exposed, and means of reducing their effects. This will include translation and Arabization of learning and media material issued by various international organizations, especially UNESCO, in this respect.

## **PART 11: Programmes for Applied and Field Projects:**

- 1 - Networking and integrating Arab Nature and Biosphere Reserves and Natural Heritage Sites, representing the basic types of ecosystems and having a scientific importance for both significant high value biodiversity as well biodiversity under threat.
- 2 - Programmes for conserving ecosystems and sensitive and important habitats lying outside the reserves network, especially in

coastal arid marine and and regions, and management of these and habitats systems with the aim of conserving their resources.

- 3 - Management programmes aiming to get sustainable and intelligent utilization of renewable natural resources, including regularizing wildlife hunting, fisheries, pastures, and forests.
- 4 - Protection of animal and plant species of limited distribution or internationally threatened in their original sites.
- 5 - Establishing a central Arab natural history museum (or a network of local, national, and subregional museums), for studying, training, researching and awareness in different matters of biodiversity and its conservation.
- 6 - Establishing Arab gene resources banks (or a network of local, national, and subregional banks), as centers for conserving genetic resources and developing their products in the Arab world.
- 7 - Establishing a network of natural propagation centers for nearly extinct plants and animals all through the Arab world (even though they may still be present in other countries), and reintroducing them into natural sites in Arab countries.
- 8 - Establishing a biodiversity research institute.

### **PART III: Research, Monitoring and Assessment:**

- I - Establishing information centers about Arab biodiversity, with contributors all through the Arab world.
- 2 - Carrying out surveys and assessments in different geographical regions and natural ecosystem (as well as productive ecosystems, e.g., agricultural fields, pastures, forests, and fisheries).

- 3 - Carrying out surveys and assessments of common, rare, endemic, and especially threatened species.
- 4 - Carrying out studies about the economics of nature conservation, protection of biodiversity, and benefits of ecological resources.
- 5 - Making inventories about cultivated species and search of genetic resources of their wild relatives, and their chemical content.
- 6 - Establishing reference collections and upgrading taxonomic studies related to them.
- 7 - Initiate biodiversity monitoring stations inside and outside nature reserves and planning for their functions, together with perfection of data analysis techniques.
- 8 - Carrying out studies in each Arab country about traditional knowledge related to biodiversity and its comparison at the Arab and global levels.

#### **PART IV: Actions at the Global Level for Conserving the Rights of Arab Countries:**

- 1 - Regulating biological prospection campaigns from outside Arab countries.
- 2 - Establishing genetic engineering research centers, upgrading those already present, activating cooperation between them, and planning their research programmes in the Arab world.
- 3 - Sending forth of study missions of young scientists to foreign countries (preferably those who obtain the Diploma of Arab Biodiversity), bringing foreign experts to develop technology of genetic engineering and management of nature reserves.

- 4 - Application of indigenous knowledge about the different uses of biodiversity under the scrutiny of serious scientific research.
- 5 - Studying the rights and duties of countries and local societies and individuals according to international agreements and laws of intellectual property rights and patent of genetic inventions, and what is obtained from research on genetic engineering.
- 6 - Playing a larger and more effective role at meetings of the Contracting Parties of the Biodiversity Convention and trying to take a unified stand at these meetings through prior Arab consultations.
- 7 - Requesting the establishment of an international court to look into cases related to crimes of aggression against biodiversity at the international level, because recent international law does not include what can close this gap.
- 8 - Initiating a post-graduate Diploma specialized in the sciences of Arab biodiversity.
- 9 - Control the transfer of plants and animals between Arab countries whether for commercial dealings (intentional), or due to environmental and climatic change, in order that they not become pests or other ecologically disturbing species, and training of experts (customs and quarantine officials, specialists in taxonomy, etc.), through intensive training courses.
- 10 - Maximizing the benefits of technical and financial aid resources that are offered by foreign funding agencies, and harmonizing in between Arab countries while seeking such development aid, for purposes of improving methodologies of biodiversity conservation and its sustainable utilization (including debt-for-nature swaps, which may be useful in many cases).

- 11 - Agreeing on a Special Declaration on Biodiversity in Arab Countries, laying down the basic principles of work in the field of its conservation and sustainable utilization, and the bases for cooperation with countries of high technology that desire to utilize biodiversity resources of Arab world, on the basis of sharing of responsibilities and benefits, to determine a unified and common Arab negotiation position with foreign authorities.
- 12 - Establishing a network of the diverse nature reserves, Biosphere Reserves and World Heritage Sites in the Arab world, and harmonizing them, so that they represent important biogeographic regions, to work for exchange of experiences and at protection of rare environments and species, and those are threatened by extinction.
- 13 - Rationalizing usage of wild plants and animals for different purposes, by gradually unifying laws and legislation of Arab countries.
- 14 - Translation of basic books and documents of biodiversity sciences from their original languages to Arabic, and encouraging Arab scientists to write in these sciences of biodiversity subjects that are suitable for the Arab world.
- 15 - Encouraging Arab media to produce and transmit unified programmes about Arab biodiversity and its importance to Arab citizens.
- 16 - Making extended consultations with Arab and non-Arab organizations and with all those who are interested in biodiversity conservation and its sustainable utilization, for the sake of reaching agreement about a minimum of effective cooperation between them.

- 17 - Inviting official and private stakeholders to meetings to explain the dimensions and benefits of biodiversity and methods of its conservation.
- 18 - Inviting Arab countries to complete their ratification and joining of international conventions and protocols of biodiversity conservation and activating their contribution and to maximize the benefits that are offered by their advantages.
- 19 - Surveying of biodiversity resources in natural history museums outside the Arab world.
- 20 - Inviting Arab countries to contribute effectively in international programmes of biodiversity, such as the DIVERSITAS programme conducted by UNESCO, with the collaboration of the Scientific Committee for Problems of the Environment (SCOPE), and the International Union of Biological Sciences (IUBS), and also the Geosphere and Biosphere International Programme (Global Change), under the International Council of Scientific Unions (ICSU).
- 21 - Effective coordination between Arab League Organizations to avoid repetition of planning their programmes and in their implementation.

**PART V: Suggested Programmes and Activities of the Arab League Educational, Cultural, and Scientific Organization (ALECSO), for the Implementation of the Arab Biodiversity Strategy.**

It is clear that although we cannot determine the priorities unless more serious attention is given to all elements of the Strategy together, the situation requires from us anyway, to concentrate more efforts first on aspects that may give maximum benefit in as little time, with least cost. But what are these aspects? In our opinion, there are truly two unseparated aspects, which are efforts at the international level and the other at the level of Arab countries, themselves.

The first aspect is to issue the Arab Charter for Biodiversity, similar to the Arabic Information Charter, for example, including common relations between Arab countries that we wish to be documented by Their Excellencies Arab Environment Ministers, as is the case for other Arab Charters that are documented by Their Excellencies the competent Arab Ministers. Really there is an urgent importance to issue this Biodiversity Charter, because Arab biodiversity is by its very nature common and homogenous. It will not do any good nor is it right to exert efforts for its protection in nature reserves in a certain country and to neglect it in other parts of this same country, or in other parts of other Arab countries. Where is that Arab country that accepts protection of its biological resources inside nature reserves and then at same time allows the destruction of these same resources in rest of its land or its regional waters? Where is the Arab country that imposes instructions of biodiversity conservation on its citizens and accepts that its citizens destroy the biological resources of other sister Arab countries?

We must notice that international organizations have considered giving attention about world biodiversity on the basis of sheer numbers of species alone. As the country has larger numbers of



species, it gets better international interest. This means that the interest is nearly limited to those countries lying in equatorial regions, and the least interest would be for the countries that lie in desert zones, i.e., Arab countries.

This interest in quantity and not in quality puts the interests of Arab countries in the last level of international interest. This is the situation that Arab countries, and especially ALECSO, ought to realize and to correct, on the appropriate side, i.e., efforts at the international level. It would be better for ALECSO to take measures to contribute intensive presentations at international meetings, wether at conferences of Contracting Parties for the International Biodiversity Convention, or at meetings of other organizations, such as the International Union for Conservation of Nature (IUCN), or others, to emphasize the following vital points:

A - The quality interest in Arab biodiversity much exceeds thinking in terms of reduced species in sheer numbers, due to the multiple medical and social uses of these species in the Arab World, and this is greater than in any other region in the world, in addition to the fact that the Arab region has the original sites from which originated the wild relatives to many of the domestic plants and animals in the world.

B - Arab biodiversity has a large number of rare species which are exposed to high risks that threaten them with quick disappearance; firstly the dry and arid desert imposes difficult environmental hardships that are extremely difficult for reproduction of the given organisms, secondly the human population stress and their development aspirations double the difficulty.

C - Losses of say 50 species in the equatorial forest that is rich in species may not represent more than 1 % of its wealth, but this same loss may represent up to maybe 50% of botanical resources at a site in Arab deserts. This loss not only represents species loss, but also represents a structural loss in the desert environment.

D - Arab countries do the required best to conserve the biodiversity they possess to save the sustainable utilization of this resource.

E - International cooperation in all its forms has its undoubted importance in this respect.

Thus some of the most important articles in this suggested Biodiversity Charter, should be:

- 1 - Adoption of the proposed Arab Biodiversity Strategy suggested by ALECSO.
- 2 - Achieving the homogeneity of laws and plans specific for biodiversity conservation and its sustainable utilization in Arab countries.
- 3 - Considering any law applied in an Arab country, concerning biodiversity conservation, applicable in the rest of the Arab world.
- 4 - Achieving effective cooperation in the fields of biological technology, especially in genetic engineering.
- 5 - Working to establish a network of nature reserves representing all or the majority of Arab ecosystems and all rare and threatened species in the Arab World.
- 6 - Working to initiate Arab networks and also databases for biodiversity monitoring inside and outside nature reserves.

- 7 - Regulation and homogenizing of special efforts for training, education, awareness campaigns, and the media.
- 8 - Coordinating the efforts of organizations other than ALECSO and other regional organizations working in the Arab World to organize work in between them, in order to achieve avoiding dualism and repetition, and to upgrade efficiency of work.
- 9 - Holding consultation meetings to coordinate Arab stands, before attending the meetings of Contracting Parties to the Biodiversity Convention, and implementation of international agreements, at the global level.

**These are some of the detailed and specific points:**

- 1 - preparing an agenda of projects to organize and regulate biological *prospection campaigns, also hunting campaigns, in Arab countries*, in consultation with Arab countries and specialized international organizations, and some representatives of other stakeholders.
- 2 - Looking into unifying the contractual methods with non-Arab countries that desire to get benefit of using elements of Arab biodiversity and its harvesting, on the bases stated in the International Biodiversity Convention.
- 3 - Studying the situation of centers and institutes of biological technology research and genetic engineering in the Arab World and the range of benefits that can be drawn from Arab biodiversity resources, as an introduction to put a strategy for cooperation in between them and planning for its development at the Arab level.
- 4 - Making synthetic and analytic collective studies about the Arab indigenous knowledge about biodiversity and its benefits in agriculture and medicine and other purposes and also the economic value of all these resources for local societies.

- 5 - Preparing a study about the juridical situation in Arab countries and on the international scene about intellectual property rights in what concerns biodiversity resources and the Arab countries' position from it, as well as all actions Arab countries must take to protect their own rights.
- 6 - Working to coordinate the Arab world's position from in meetings of the Biodiversity Convention Contracting Parties.
- 7 - Preparing a feasibility study about requesting initiating an international court to look into cases related to aggression crimes against biodiversity.
- 8 - Preparing the legal document for starting a postgraduate Diploma of studies for specialization in Arab biodiversity. (Details of courses given in supplement of The Arab Biodiversity Strategy: An Analytical Study, by Samir Ghabbour, ALECSO, Tunis, 200 1: 153 pp.)
- 9 - Looking into effective cooperation of Arab countries to initiate control points for exogenous botanical and zoological species, and what these control points will need of scientific experiences, legislation and institutions.
- 10 - Preparing a study about international financial cooperation sources and abilities to maximize benefits of Arab controls from the Biodiversity Convention and other similar international arrangements.
- 11 - Preparing an Arab Declaration about Biodiversity Conservation that emphasizes the Arab World's aims and methods for its conservation and sustainable utilization, and concentrate on the history of the Arab World in this respect.

- 12 - Studying the abilities of networking between different Arab nature reserves and similar sites, coordinating work in between them, and studying possibilities of establishing new reserves and the applied and scientific need for them.
- 13 Study of the present legislation and laws in Arab countries related to the conservation and sustainable utilization of biodiversity, aiming at coordinating and harmonizing them.
- 14 - Study of present handling of biodiversity issues in Arab media and recommend to increase its level and enhancing its quality (e.g., not to glorify hunting "sports").
- 15 - Strengthen the relations with international governmental and non-governmental organizations (UNESCO, SCOPE, Global Change, etc.), to obtain benefit from their activities and to contribute in them effectively.
- 16 - Preparing a study about best ways and at the least cost of establishing databases of botanical and zoological specimens originally present in Arab countries, that are now kept at natural history museums and herbaria and other similar places in foreign countries, publish lists of these specimens, because of importance of making Arabic national policies in the field of the importance of such biodiversity knowledge for the better management of Arab biodiversity resources. This does not imply in any way that these specimens are to be relocated to their home countries. It is simply a relocation of information, not of specimens.
- 17 - Make a list for those who work in biodiversity issues in the Arab world, whether residing in it or abroad.

- 18 - Making permanent programmes for collecting documents about all what happens in biodiversity in the world generally and in the Arab world especially, all what is published or has been published about it. Distribution of this collected material in concise form to all those who are interested in the Arab World through internet sites, is part of the Strategy. This will include obtaining the benefit of experiences of site managers of Arab nature reserves in these matters and giving them support and extension services.
- 19 - Preparing a study about ability and feasibility of establishing an Arab monitoring system network to monitor biodiversity in the Arab World, and initiating databases and methods of analysis of data, to be published periodically at the aforementioned website.
- 20 - Support the role of regional organizations working in Arab countries in developing and upgrading biodiversity conservation and its sustainable utilization, through:
- a - participation in hybridization experiments,
  - b - better management of natural resources.
  - c - innovation of suitable policies and development of intellectual property rights, by collaborating with stakeholders in the country, and working in other fields as deemed necessary.

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## عناصر الاستراتيجية العربية للتنوع البيولوجي (الأحيائي)

### ملخص

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تنبه العالم مؤخرا إلى العواقب الاقتصادية و البيئية الضارة لتآكل التنوع البيولوجي (أو التباين الأحيائي) و إلى أن هذه المشكلة تتطلب اهتماما عاجلا من المجتمع الدولي، ممثلا في منظمات الأمم المتحدة و المنظمات الإقليمية، فضلا عن حكومات الدول ذاتها. و قد أدى هذا الوعي بأهمية صون تنوع الموارد الأحيائية و استخدامها المتواصل (أو المستدام)، إلى سرعة اعتماد الاتفاقية الدولية للتنوع البيولوجي، التي تم التوقيع عليها في مؤتمر قمة الأرض الذي عقد بمدينة ريو دي جانيرو بالبرازيل عام ١٩٩٢ .

إننا نعلم الآن أن الطاقة الكامنة في نواة الخلية الحية سوف يثبت في السنوات القليلة القادمة أنها أشد أثرا على مصير العالم و البشرية، بمراحل، و بكل ما يعنيه هذا، من الطاقة الكامنة في نواة الذرة، و التي أطلقت من عقالها في القرن العشرين. و لقد اقتنعت دول العالم بأن هذه الاتفاقية تحمي مصالحها و تحمي مستقبل شعوبها إلى حد كبير، و إن لم تكن أحكامها مرضية تماما. و لكن ينبغي على أية حال أن تعمل الدول على تعظيم استفادتها من هذه الأحكام بقدر الإمكان، و أن تقلل مما يمكن أن يعود عليها بالفن. كما أن عليها أن تعمل في ذات الوقت على التدخل الواعي في آليات تنفيذ هذه الأحكام، بما يحقق أقصى استفادة لمصالحها من خلال بنودها.

و إذا كنا نجد اليوم أن عددا كبيرا من الدول العربية قد انضم إلى الاتفاقية، فليس ذلك إلا تطورا منطقيا لجهود الدول العربية منذ قديم الزمان في حماية ثرواتها الطبيعية و خاصة مواردها من التنوع البيولوجي. تشهد بذلك غوطة دمشق و حدائق المغرب و مغاني غرناطة بالأندلس. و يشهد على ذلك ما قام به علماءها من أبحاث و دراسات، و ما أقيم فيها من محميات طبيعية، و ما أجاز بها من قوانين لتنظيم عمليات قطع الأشجار و صيد الحيوان البري، فضلا عن حماية الأصول البرية للنباتات و الحيوانات المستأنسة.

إن، لمنظمة العربية للتربية و الثقافة و العلوم (أليكسو) المنوط بها القيام بمهمة تنسيق الجهود العربية فى تلك المجالات، هى الوحيدة المتخصصة فى تلك الشئون على الصعيد الإقليمي العربى. و لذلك اعتمدت منذ عام ١٩٩٥ برنامجا متكاملا للتنوع البيولوجى العربى بدأ بإجراء دراسة عن "أوضاع التنوع البيولوجى فى الوطن العربى" نشرت عام ١٩٩٨، و أدت إلى "دراسة تحليلية للاستراتيجية العربية للتنوع البيولوجى"، نشرت عام ٢٠٠١. و قد كان الرائد فى وضع تلك البرامج و فى تنفيذها السيد الأستاذ الدكتور البهلول اليعقوبى مدير برامج العلوم و البحث العلمى بالمنظمة، و معاونوه، فليسانته و لهم عظيم الشكر و وافر الامتنان. و يسرنا أن نقدم للقارئ العزيز فى هذه المقالة عناصر تلك الاستراتيجية، لتعم الفائدة فى جميع الأوساط العلمية و الدولية المعنية بالموضوع.