

Republic of Iraq

Federal Board of Supreme Audit

The role of FBSA in supervising state policy for preserving biological diversity throughout Iraq

- Fundamental Information

The FBSA, through an audit program based on standard guidelines, is auditing the programs of state policy in preserving biological diversity throughout Iraq and evaluating the performance of institutions in terms of the compliance with laws, regulations and instructions issued for that concern, The evaluation includes the following offices:

- Ministry of health and environment/technical office, international environmental dep. - department of technical agent
- Ministry of water resources/ marsh revitalization centre.
- Ministry of agriculture / veterinary office , livestock office, department of plant protection, seed testing and confirmation , planning and following –up office- environment dep.

The most important legislations and standards are indicated herein bellow:

First- environmental legislations issued by department of environmental improvement and protection of 1988.

Second- Ministry of Environment' law No.(37) of 2008.

Third- Environmental improvement and protection law No. (27) of 2009.

Fourth- Law of regulating wild animals and birds' hunting No. (17) of 2010.

Fifth-Natural protected animals system No. (2) of 2014

Sixth- Biological safety system for genetic modified living organisms and their products No.(2) of 2015.

Seventh- Biological diversity review / Guidelines of supreme audit institutions for environmental review.

- Reasons to choose the topic

Through field visits, interviews with officials of the auditees, access to database, request and collect the information, the main social problem was identified as the deterioration and decline of biodiversity throughout the country, therefore, the theme of biological diversity has been chosen because of its importance in achieving some of sustainable development goals, especially in terms of economic, recreational, cultural, environmental, health and tourism aspects as well as being an important source of the raw materials that benefit the human, especially food products, fibers, leather, fur and feathers, building materials, timber materials , colored materials, industrial materials and their raw materials , medicines and others.

- Auditing objectives:

The main objectives of evaluating the performance of the phenomenon of deterioration and decline of biodiversity throughout the country are the following:

1. Evaluating actions taken by relevant authorities to preserve biological diversity throughout Iraq and to protect threatened species..
2. Verify the extent to which the relevance of environment protection to realizing part of sustainable development goals particularly from economic, recreational, cultural, environmental, health and touristic is perceived.
3. Verify the environmental effect on natural and agricultural reserves including wetlands and their effect on touristic and economic development projects.

- Audit method

1. Integrating an innovative practice by using the topic of policies (in collaboration with NCA). Main and sub risk matrices is used to prioritize risks in the course of implementation.
2. Examining procedures of complying with relevant laws, regulations and rules.
 - Compensatory damages and penalties for environmental violations
 - Environmental projects evaluation
3. Environmental audit aided by laboratory technical examination

- Audit Result

The work team evaluated the performance of the state policy program on conserving biodiversity and identified the main social problem

"deteriorating and shrinking biodiversity all over the country". The most undesirable events and situations are as follows:

- a. Deterioration of natural environmental systems and climate change.
- b. Poor state policy of managing strategic plans to conserve biodiversity.
- c. Poor public awareness of biodiversity.
- d. The huge growth of population and urban expansion.

Main risk matrix

Main problem	undesirable events and situations	Probability	Effect	Estimated risk	Risk field	Response	Residual risk	Priority
deteriorating and shrinking biodiversity all over the country	Deterioration of natural environmental systems and climate change.	7	7	49	operational	20	29	3
	Poor state policy of managing strategic plans to conserve biodiversity.	9	9	81	operational	45	36	1
	Poor public awareness of biodiversity	6	7	42	operational	25	17	4
	The huge growth of population and urban expansion	7	8	56	operational	25	31	2

Matrix and risk identification

Through using sub risk matrix to prioritize risks during the implementation, the topic "Poor state policy of managing strategic plans to conserve biodiversity" is selected due to the high probability of its contribution to the deterioration of biodiversity all over the country. The reason behind is the poor procedures taken by related entities in terms of conserving biodiversity all over Iraq and protecting the endangered species.

Sub problem	undesirable events and situations	Probability	Effect	Estimated risk	Risk field	Response	Residual risk	Priority
Poor state policy of managing strategic plans to conserve biodiversity	Pollution of environment due to human, industrial and agricultural activities	8	8	64	operational	35	29	2
	Degrading and drying up of wetlands and river water.	9	9	81	operational	45	36	1
	Spread of pests and invasive plants that cause damage to other living organisms	7	7	49	operational	30	19	4
	Inactivation of laws pertaining to illegal hunting and taking the deterrent actions against violators	6	6	36	operational	25	11	5
	Insufficient number of reserves and habitats ,desertification and degradation of green areas	7	8	56	operational	30	26	3

- Audit process of environmental policy implementation

The right strategy to preserve biological diversity and to protect endangered species is based on how the applicable ministries implement their work with regard to the conservation of biological diversity in accordance with the laws, regulations and environmental controls. Through our study of the State's policy of conserving biological diversity in accordance with the criteria and indicators adopted in this field and the available data and information provided to us by the relevant authorities following is our key conclusions and recommendations.

- Audit conclusions

Through studying the precedents submitted by the ministries concerned to us and site field visits we have noted the following.

- a. The technical department of the Ministry of Environment does not have any local survey lists of extinct or endangered animals and plants. It relies on global surveys, which indicate the lack of knowledge of the actual reality of endangered species and extinct species in Iraq and their impact on ecosystems and their components that have a direct impact on biological diversity in areas where they live.
- b. Insufficient natural preservatories as there is only one that is middle marches which were announced in 2013 in Maysan and Dhi Qar governorates despite the importance natural preservatories and their role in maintaining bio diversity.
- c. The Technical Department did not prepare studies and reports on the negative effects of the use of pesticides and chemical fertilizers as well as high salinity of the soil and its impact on biodiversity, despite the importance of the subject and its impact on biodiversity.
- d. The Technical Department does not have any database on genetically modified organisms and their adverse effects on biodiversity despite the promulgation of Regulation 2 of 2015 on the safety of genetically modified organisms
- e. Spread of some invasive intruding plants such as hydrilla and Nile flower which negatively affected biodiversity of rivers all over Iraq without taking the necessary procedures in fighting them.
- f. The ministry of health and environment has not paid contributions for Iraq's accession to biodiversity-related conventions for some years, the CITES treaties and the Cartagena Protocol, which negatively affects the utilization of the support provided by these conventions as well as the interests resulted from non-payment.

- g. Low rate of immersion of the marshes due to the lack of discharges inflowed to the marshes originating from the Tigris and Euphrates Rivers as well as the general estuary, which negatively impacted the ecosystems as a result of feeding the marshes from the downstream water which is characterized by increased percentage of salt and other contaminants.
- h. Some agricultural preservatories are no more functioning despite the fact that the Ministry of Agriculture has disbursed large amounts to create 13 artificial agricultural preservatories to maintain the biodiversity of the animals and the plants ,which affected the preservation of the biodiversity in them especially since those reserves contain endangered species like gazelles.
- i- The domestic animals are affected by many diseases, which lead to their death and the decrease in their numbers and production, as well as the decrease of the rates of preventive vaccinations carried out by the Department of Veterinary / Ministry of Agriculture for animals susceptible to some viral diseases, thus affecting directly on the deterioration of biodiversity in Iraq.

- Audit recommendations:

- a. The technical department must prepare local survey lists of the extinct or endangered animals and plants to identify the actual number of these species and their effect on the environmental systems and their components in order to protect them from extinction .
- b. The technical department must coordinate with the parties concerned to increase the number of the nature reserves and maintain them in order to preserve the biodiversity , besides taking the necessary measures to recognize them as nature reserves
- c. The technical department must prepare studies and reports about the negative effects of using the pesticides and chemical fertilizers and the high level of salts in the soil and their effect on the biodiversity .
- d. Making the necessary efforts to collect the data and develop data base about the genetically modified organisms and their negative effects on the biodiversity and in accordance with system no2 for 2015 concerning the safety of the genetically modified organisms.

- e. Taking the necessary measures to fight the spread of the invasive intruding plants in the rivers of Iraq like hydrilla and Nile flower and in coordination with the parties concerned
- f. The Ministry of Health and the Environment should pay the contributions for the accession of Iraq to the biodiversity conventions, the two conventions (CITES) and the Cartagena Protocol in order to take advantage from the support provided.
- g. Increasing the reconstruction rates of the marshes from the incoming discharges (sources) originating from Tigris and Euphrates rivers in coordination with the relevant authorities.
- h. Restoring some of the suspended agricultural reserves, the necessity of removing the abuses on some of them and making the necessary efforts to rehabilitate these reserves.
- i. Study the causes of the existence of many diseases that affect the domestic animals, which lead to their loss and low numbers and production, as well as increase the percentage of protective vaccinations implemented by the Department of Veterinary/ Ministry of Agriculture for animals exposed to some viral diseases.

- **Influence**

Maintaining (Biodiversity) is important subject because of its direct impact on the achievement of some objectives of sustainable development, especially in terms of economic, recreational, cultural, environmental, health and tourism areas. It is an important source of raw materials that benefit humans, especially food products, fibers, leather, fur, feathers, building materials, Industrial materials, raw materials, medicine, etc.

- **Experiences**

FBSA has technical expertise and some of them have a higher degree in environmental audit for environmental engineers, chemists, biologists and accountants. They have training inside and outside Iraq, in addition to continuous development and rehabilitation courses.

and in cooperation with universities and specialized training centers in ministry of planning, ministry of high education, ministry of science and technology and ministry of environment. The following table explained numbers and specializations of the staff:

Specialty	Number
Environment engineer	4
Civil engineer	12
Chemist	5
Biology	8
Accountant	21
Other engineering specializations	28

- **The challenges:**

- a- Lack of specialized environmental legislations for each activity.
- b- Lack of expertise of personnel on environmental activities in bodies subject to FBSA.
- c- Lack of environmental units in the bodies that subject to FBSA contained an integrated database regarding the activity of each body.
- d- Multiple departments responsible on following up the environmental activities.

- **The summary**

As illustrated above, the state policy to preserve biodiversity in all Iraq is weak. The biodiversity is degraded and declined throughout the country due to prevalence of poaching of aquacultures and endemic and migrating birds, also receding, drying up and pollution of marshes and rivers, in addition to spread of natural pests, harmful plants and diseases, as well as lack of reserves and habitats, spread of desertification and lack of green areas, which negatively affecting the biodiversity especially in the central marshes as a declared site of the world heritage.