**PROPOSAL FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK.**

1. **IDENTIFIERS**

 **1.1 Requesting Country:** Nigeria

 **1.2 Requesting National Organization:** National Biosafety Management Agency

 **1.3 Executing Agency:** National Biosafety Management Agency

 **1.4**  **Project Location:** Nigeria

 **1.5**  **Project Duration:** Four years

 **1.6 Priority Issue Addressed:** Biodiversity loss; Low-level protection in the transfer, handling and use of Living Modified Organisms

1. **SUMMARY**

Economic development and sustainability is one of the fundamental features of a growing nation. Developing an economy and the capacity to sustain it depends upon a range of factors but ultimately on the environment. Biodiversity conservation therefore is one of the key indicators of a sustainable development.

The conservation of biodiversity is important for health, wealth, food, fuel and other services mankind depends on. It plays an integral role in supporting many sectors of Nigeria’s economic development. Food security depends on natural resources that form the basis of food production. Biodiversity conservation protects plants, animals, microbial and genetic resources for food production, agriculture and ecosystem functions. The conservation of biodiversity is vital for Nigeria’s economic growth and poverty reduction. A majority of Nigerians live in rural areas and depend upon forests, water and pastures for their livelihood.

Biodiversity conservation can help address the effects of climate change. Conserving habitats reduces the amount of carbon dioxide released into the atmosphere. The conservation can lessen disastrous impacts of climate change such as flooding and storm surges. Projects that reduce the vulnerability of species and ecosystems to climate change impacts can safeguard essential ecosystem services such as air and water purification, pollination and food production, and carbon sequestration.

However, it is certainly inappropriate to discuss biodiversity conservation independently of the broader pressures impacted on the environment by the underlying socio-economic processes involved in production and consumption activities. This brings in Biosafety, the set of measures laid down to ensure safety in the handling and movement of products of modern biotechnology that may have potential adverse effects on the conservation and sustainability of biodiversity.

Recognizing that improving livelihoods, food security and human health depends on the conservation of biodiversity,the Federal Republic of Nigeria through a peer-reviewed mechanism envisions to wholly mainstream biosafety into national actions by 80%, achievable through the assessment of relevant National Policies, Laws and Institutional Frameworks, undertaking consultations and awareness-creation activities among an inclusive range of relevant stakeholders. The mainstreaming is geared towards adequately protecting biodiversity from any adverse effects of Living Modified Organisms (LMOs) through strengthening of bilateral and multilateral biosafety actions.

Consequent upon the above, Nigeria has developed an Implementation Plan for Cartagena Protocol on Biosafety (CPB) Post-2020 recognizing the implementation Plan for the Cartagena Protocol as an implementation tool; reflecting the elements of the Strategic Plan for the Cartagena Protocol for the period 2011 to 2020; including new elements reflecting lessons learned and new developments, and also ensuring sufficient flexibility to account for developments during the implementation period.

**2.1 Project Objective**

The objective of the project is to strengthen Nigeria’s bilateral and multilateral biosafety actions and capacity in ensuring a tolerable level of protection in the field of safe transfer, handling and use of LMOs that may have potential adverse effects on the conservation and sustainability of biodiversity.

 **3 PROJECT DESCRIPTION**

 **Background and Justification**

The impacts on the Nigerian environment originate broadly from development activities carried out by various agencies and entities. This includes governments, regional authorities, private enterprises, informal sector units, households, groups of individuals and individuals for various purposes, including production, consumption, and research within diverse institutional contexts. It is therefore paramount to discuss biodiversity conservation alongside with those potential Biosafety activities that can provide a good environment for the practice of modern biotechnology without any harm to inherent biodiversity.

Impacts on biodiversity are not an inevitable consequence of development activities but often an outcome of inadequate development policies, policy implementation failures and market failures, ending in poor or lack of environmental management capacities. Nigeria, located in the Sub-Saharan region shares large ecosystems including valuable habitats and group of plants and animals of international economic significance. Changes introduced to the ecosystem affect living species common to the regional ecological endowment. Biotechnology activities in the country generate gradual modifications to the community of organisms which need protection if biodiversity is to retain its national integrity.

Taking the above into consideration, the Federal Republic of Nigeria has devised an implementation strategy for the CPB through the adoption of the following activities:

* Risk Assessment and Risk Management to develop implementation of scientific tools on common approaches to risk assessment and risk management. Proper Risk Assessment and Risk Management plan aids informed decision making.
* Ratification and implementation of the Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety and Nagoya Protocol on Access to Genetic Resources including the fair and equitable sharing of benefits arising from their utilization.
* Increased awareness creation on biosafety regulation and the profile of CPB in Nigeria. This will be achieved through increased biosafety public enlightenment programs, constant engagement of parties and stakeholders especially meetings, forums, and consultations relevant to modern biotechnology, biodiversity and ecosystem functions and services. Awareness creation promotes public reliance on all efforts geared towards Biosafety regulation.
* Mainstreaming and strengthening of the regulation of emerging modern biotechnology techniques (gene drive, gene editing and synthetic biology) into the national Biosafety system. This will be achieved through expansion of NBMA Act to cover regulation of emerging modern biotechnologies, preparation of guidelines and strategies that regulate the practices, carrying out an all-inclusive extensive desk study as related to regulation of the emerging technologies.

The project will involve capacity-building in line with the provisions of the CPB. Possible elements of a specific action for capacity-building will include the following activities:

* Intensive and continuous capacity building of Nigeria biosafety officers on modern trends of risk assessment and risk management with special attention to living modified fish and microorganisms used for biofuel production. Increased capacity-building for Biosafety Officers will increase their proficiency in the discharge of their duties.
* Continuous and intensive training activities to strengthen the scientific and technical capacity of the competent authorities to be able to evaluate damage, establish casual links and determine appropriate response measures as regards liability and redress. The Executing Agency partners with relevant agencies in the regulation of Biotechnology in Nigeria. Capacity-building for representatives of the sister agencies will boost their collaborative effort in biodiversity protection.
* High powered technical trainings of over 200 biosafety staff on issues of safety in the practice and use of emerging modern biotechnology including gene drive, gene editing and synthetic biology for proficiency in the regulation of the new technologies.
* Organization of training-of-trainers workshops for biosafety educators, communicators and other government and non-government personnel at the national and sub-regional levels. This will attract public confidence in the efforts to ensure safe transfer and use of LMOs in Nigeria.
* Organization of Biosafety Clearing House(BCH) training for specific target groups and information management experts, using the BCH Regional Advisors network and putting in place mechanisms to facilitate the use of the BCH by various stakeholders. This will improve information sharing on the experiences with LMOs, also for informed decision making.
* Strengthening of the general biosafety and bio-risk education and training programs at national and sub-regional levels, including online and continuing education programs
* Integration of biosafety into the curricula of existing relevant academic programs and courses and the development of academic exchange and fellowship programs to facilitate the sharing of expertise. The inculcation of the need and processes of biodiversity protection/conservation from grassroots will make the tasking efforts of protection easy to adopt.

**4. EXPECTED OUTPUT**

**1.** Establishment of a product stewardship strategy that will highly encourage increased communication of all aspects of the sector.

**2.** Mainstreamed and strengthened regulation of emerging modern biotechnologies into the national biosafety system

**3.** Established and gazetted guidelines and strategies that regulate the practice of modern biotechnology techniques by government

**4.** Established systems for monitoring, assessment, law enforcement, consultation, participatory management and sustainable financing

**5.** Local communities, including the private sector, involved in Biosafety management in Nigeria

**6.** Map with the distribution of commercialized LMOs in Nigeria

**7.** Identified hotspots in terms of biodiversity attributes, and the areas required to represent high percentage of Biosafety efforts in Nigeria

**8.** Well-developed synergistic strategies

**9.** Minimized genetic erosion

 **5. PROJECT COMPONENTS/ACTIVITIES**

The main activities of the project have been described in paragraph 3 and are summarized in the table below. The first phase of the project will consist of establishing the facilities for the implementation of the project. This would include the setting of project co-ordination and implementation structures at the national level. In the second phase, research and studies for helping to shape the future activities of the project will be conducted.

**Project Activities and Time Frame**

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| --- | --- | --- | --- | --- |
| Activities | 2020 | 2021 | 2022 | 2023 |
| Risk Assessment and Risk Management |  Applicable | Applicable | Applicable | Applicable |
| Ratification and implementation of the Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress | Applicable |  |  |  |
| Awareness creation on biosafety regulation |  | Applicable |  | Applicable |
| Mainstreaming and strengthening of the regulation of emerging modern biotechnology techniques (gene drive, gene editing and synthetic biology) into the national Biosafety system |  | Applicable |  |  |
| Capacity building of Nigeria biosafety officers on modern trends of risk assessment and risk management | Applicable |  |  | Applicable |
| Training activities to strengthen the scientific and technical capacity of the competent authorities |  |  | Applicable |  |
| Technical trainings of over 200 biosafety staff on issues of safety in the practice and use of emerging modern biotechnology |  | Applicable |  | Applicable |
| Organization of training-of-trainers workshops for biosafety educators, communicators and other government and non-government personnel |  | Applicable |  |  |
| Organization of BCH training for specific target groups |  |  | Applicable |  |
| Strengthening of the general biosafety and bio-risk education | Applicable |  |  | Applicable |
| Integration of biosafety into the curricula of existing relevant academic programs |  |  | Applicable |  |
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**6. PROJECT IMPLEMENTATION ARRANGEMENTS**

A Steering Committee will be created which will oversee the activities of the Project. Members of the Committee will be Government’s representatives, regional bodies involved, local NGOs and communities, including the private sector. The public will be involved from the planning stage of the activities and in the implementation of the project at the local level, particularly in the implementation of the management strategies at the local level. During the research and studies, the public may provide valuable information, particularly regarding the traditional knowledge, which could complement modern sciences. The involvement of the public will be an assurance of the ownership and of the sustainability of the results of the project.

**7. DEMONSTRATIVE VALUE AND REPLICABILITY**

Most of the activities in the project will be demonstrative. They will be carried out as best practices and also will be implemented in a manner that is easily replicable, such as the use of locally available expertise, materials and simple methods.

**8. STAKEHOLDERS**

The main stakeholders will be:

 1. Government

 2. Research Institutions and Universities. Institutions will be involved in the research and consultation process facilitation, support the process with the methodology, base line data and resource people

3. Local NGO’s which will play a pivotal role as they will serve as the link between Government and local communities, or between Private and local communities

 4. Local communities.

 5. The Private Sector which depends highly on environmental quality

**9.** **MONITORING, EVALUATION AND DISSEMINATION**

The project will have the following process of Monitoring and Evaluations:

1. Quarterly Progress Reports by the Project Coordinator, which will be identified as one national organization

2. Twice a year, there will be a Steering Committee meeting to evaluate progress. The Steering Committee will be composed of Government representatives, NGO and local communities’ representatives, and private sector and will be established at the national level

3. Project indicators will be formulated according to the expected outputs

**10.** **PROJECT COSTS**

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| --- | --- |
| Activities | Cost($) |
| Risk Assessment and Risk Management | 5,000 |
| Ratification and implementation of the Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress | 7.000 |
| Awareness creation on biosafety regulation | 4,500 |
| Mainstreaming and strengthening of the regulation of emerging modern biotechnology techniques (gene drive, gene editing and synthetic biology) into the national Biosafety system | 3,200 |
| Capacity building of Nigeria biosafety officers on modern trends of risk assessment and risk management | 6,500 |
| Training activities to strengthen the scientific and technical capacity of the competent authorities | 4,500 |
| Technical trainings of over 200 biosafety staff on issues of safety in the practice and use of emerging modern biotechnology | 6,200 |
| Organization of training-of-trainers workshops for biosafety educators, communicators and other government and non-government personnel | 7,400 |
| Organization of BCH training for specific target groups | 5,500 |
| Strengthening of the general biosafety and bio-risk education | 3,800 |
| Integration of biosafety into the curricula of existing relevant academic programs | 4,000 |
| **TOTAL** | 57, 600 |
|  |  |