BGE (Nigeria) Solar FZE

Investigation and research on flora and fauna resources

I. Research Background

Biodiversity serves as the fundamental cornerstone for the stable functioning of ecosystems. The status of flora and fauna at the company's operational sites directly impacts regional ecological balance and corporate sustainable development. To scientifically assess the potential effects of operational activities on local biological communities and identify key ecological protection priorities and risk points, this specialized investigation and study have been conducted.

II. Scope of the Survey

Centered on the company's core operational areas (plant, office, and storage zones), the coverage extends to key ecological spaces within a 1-kilometer radius, including terrestrial, aquatic, and green spaces. These encompass typical habitat types such as artificial green spaces, natural vegetation belts, and canal water systems.

3、Analysis of influencing factors

1、positive influence

(1) The company's factory greening project has created artificial green habitats, supplemented local plant species, and provided foraging and resting sites for birds and insects, thereby enhancing regional vegetation coverage to some extent.

(2) Environmental protection measures such as wastewater treatment and waste sorting and recycling implemented during operations have reduced pollution to surrounding water systems and soil, providing relatively stable environmental conditions for the survival of flora and fauna.

(3) Strengthening daily environmental monitoring in operational zones effectively reduces risks of human-induced damage.

2、Potential negative impacts

(1) Infrastructure construction (plant expansion, road paving) has occupied part of the natural vegetation belt, leading to localized habitat fragmentation and disrupting the migration and foraging pathways of flora and fauna.

(2) Noise generated by production equipment operation and light pollution from nighttime activities may disrupt the activity patterns of sensitive animals (e.g., amphibians, small mammals); dust emission and exhaust fumes in certain areas may adversely affect plant growth.

(3) A small amount of waste generated during office and production processes, if improperly disposed of, may cause minor pollution to soil and water bodies, indirectly

affecting the habitats of flora and fauna; the introduction of exotic landscaping species may pose a risk of resource competition with native species.

4、safeguard

1. Habitat Conservation and Restoration

(1) Establish ecological protection red lines, and implement key protection for critical habitats such as natural vegetation belts and watershed areas within the operational zones, prohibiting arbitrary occupation or destruction.

(2) Optimize the plantation greening scheme by prioritizing native plant species and reducing the proportion of introduced species, thereby forming a greening community more suitable for local flora and fauna.

2. Optimization of operational activities

(1) Reasonably schedule work hours to avoid high-noise operations during nighttime (22:00-06:00 the next day), thereby reducing light pollution interference with animals; implement noise reduction modifications on production equipment to minimize the operational noise impact range.

(2) Strengthen the full-process control of waste, strictly implement the waste sorting and treatment system, optimize wastewater treatment processes to ensure compliance with discharge standards; enhance environmental control during procurement, and prioritize the selection of eco-friendly materials and equipment.

3. Enhanced Monitoring and Management

(1) Enhance employee training on ecological conservation, disseminate local knowledge of flora and fauna protection, advocate the behavioral concept of "green office and eco-friendliness", encourage staff participation in ecological conservation volunteer activities, and foster a culture of collective involvement in environmental protection.

(2) The company shall coordinate ecological conservation efforts, incorporate the protection of flora and fauna resources into its corporate policies, conduct regular assessments of conservation outcomes, and continuously optimize management measures.

5、Conclusion

The company's existing environmental protection measures and greening projects have played a positive role in enhancing regional biodiversity. However, minor potential impacts still exist in infrastructure development and operational activities. In the future, through the implementation of a series of measures such as

habitat restoration, operational optimization, and enhanced monitoring, negative impacts can be further reduced, biodiversity levels in operational areas can be improved, and a win-win situation between corporate development and ecological conservation can be achieved.