

OYO STATE INVESTMENT PROMOTION & PUBLIC PRIVATE PARTNERSHIP AGENCY(OYSIPA)

REPORT ON CLIMATE SCREENING ASSESSMENT, ADAPTATION AND MITIGATION MEASURES FOR PPP PIPELINE PROJECTS IN OYO STATE, NIGERIA

1. Introduction

Oyo State, located in the southwestern part of Nigeria, has been actively pursuing Public-Private Partnership (PPP) projects to boost economic growth and infrastructure development. However, the region faces climate-related challenges, including variability in rainfall patterns, increasing temperatures, and extreme weather events. This report assesses the climate risks associated with PPP pipeline projects in Oyo State, evaluates adaptation strategies, and proposes mitigation measures to enhance the resilience and sustainability of these projects.

2. Climate Screening Assessment

Climate screening is essential to identify the potential risks that climate change poses to PPP projects in Oyo State. The screening process involves evaluating the following climate factors:

- **Temperature Increase**: Oyo State has experienced a gradual rise in average temperatures over the past decades. Higher temperatures can impact infrastructure longevity, increase energy demand for cooling, and exacerbate heat-related health issues.
- **Rainfall Variability**: The region is characterized by a wet and dry season, with increasing unpredictability in rainfall patterns. Heavy rainfall events can lead to flooding, which poses a risk to infrastructure, agriculture, and water resources.
- **Extreme Weather Events**: Oyo State is prone to occasional extreme weather events, such as storms and flash floods. These events can disrupt project timelines, damage infrastructure, and lead to economic losses.
- **Drought and Water Scarcity**: Periods of drought and reduced water availability can affect agricultural productivity, water supply, and the overall viability of water-dependent projects.

3. Adaptation Strategies

To mitigate the impacts of climate change on PPP projects, Oyo State should implement the following adaptation strategies:

- **Climate-Resilient Infrastructure Design**: Incorporate climate resilience into the design and construction of infrastructure projects. This includes using materials and designs that can withstand extreme weather events, temperature fluctuations, and flooding.
- Water Resource Management: Implement sustainable water management practices, such as rainwater harvesting, efficient irrigation systems, and water recycling, to address water scarcity issues.
- **Early Warning Systems**: Develop and deploy early warning systems for extreme weather events. This will enable timely response measures and reduce the risk of damage to infrastructure and communities.
- **Climate-Smart Agriculture**: Promote climate-smart agricultural practices that enhance productivity while reducing vulnerability to climate change. This includes using drought-resistant crops, agroforestry, and soil conservation techniques.
- Urban Planning and Zoning: Integrate climate considerations into urban planning and zoning regulations. This includes avoiding development in flood-prone areas and ensuring that infrastructure is designed to cope with potential climate impacts.

4. Mitigation Measures

In addition to adaptation strategies, it is crucial to implement mitigation measures to reduce greenhouse gas (GHG) emissions and contribute to global efforts to combat climate change:

- **Renewable Energy Integration**: Promote the use of renewable energy sources, such as solar and wind, in PPP projects. This can reduce the carbon footprint of energy-intensive projects and contribute to energy security.
- **Energy Efficiency**: Incorporate energy-efficient technologies and practices in infrastructure projects. This includes using energy-efficient lighting, heating, and cooling systems in buildings and facilities.
- **Sustainable Transportation**: Encourage the development of sustainable transportation options, such as electric vehicles, public transit, and non-motorized transport, to reduce emissions from the transportation sector.
- Afforestation and Reforestation: Support afforestation and reforestation projects to enhance carbon sequestration, improve biodiversity, and reduce the risk of soil erosion and desertification.
- **Waste Management**: Implement sustainable waste management practices, including waste reduction, recycling, and composting, to minimize methane emissions from landfills and promote a circular economy.

5. Monitoring and Evaluation

Effective monitoring and evaluation (M&E) systems should be established to track the progress of adaptation and mitigation measures. Key performance indicators (KPIs) should be defined for each project, and regular assessments should be conducted to ensure that climate risks are being effectively managed.

- **Data Collection**: Establish a robust system for collecting climate-related data, including temperature, rainfall, and extreme weather events, to inform decision-making and project adjustments.
- **Stakeholder Engagement**: Engage local communities, private sector partners, and other stakeholders in the M&E process to ensure transparency and accountability.
- **Capacity Building**: Provide training and capacity-building programs for government officials, project managers, and other stakeholders to enhance their understanding of climate risks and their ability to implement adaptation and mitigation measures.

6. Conclusion

Climate change poses significant risks to the successful implementation of PPP projects in Oyo State. By conducting thorough climate screening assessments and implementing targeted adaptation and mitigation measures, the state can enhance the resilience and sustainability of its infrastructure and development projects. These efforts will not only protect investments but also contribute to the long-term well-being of the people of Oyo State.

Recommendations

- Prioritize climate screening as a mandatory step in the planning and approval of all PPP projects.
- Foster collaboration between government agencies, private sector partners, and international organizations to access funding and technical expertise for climate adaptation and mitigation.
- Continuously update climate risk assessments and adaptation plans to reflect the latest climate data and projections.

This report serves as a comprehensive guide for integrating climate considerations into the planning, design, and implementation of PPP pipeline projects in Oyo State.

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