

4.5 Socioeconomic Baseline Studies (SEBS)

Collection of Primary Data: A comprehensive socioeconomic baseline study was conducted to assess the existing conditions in all rural communities situated within and/or along the roads earmarked for structural rehabilitation and upgrade within the project area. In a bid to gather primary data, the convenience sampling¹ method was adopted to carry out a random survey across all project communities. This method was chosen for its practicality, considering factors such as easy access to respondents (i.e. members of the project communities), geographical proximity, and the availability and willingness of individuals to participate at the time of the study.

Survey Methodology: Semi-structured questionnaires² were administered to a diverse range of respondents, including community locals, women and youth groups, men, business owners, farmers, fishermen, etc. located within the project corridors. In total, 565 respondents were surveyed across the project area. The survey was designed to gain insights into the socioeconomic conditions within the project area of influence.

Survey Results:

Gender Distribution: Across the project locations, gender distribution revealed 60% male (339 respondents) and 40% female (226 respondents).

Age of Respondents: The surveyed population comprised diverse age groups, with a slight majority being males 60% (339 respondents) and females accounting for 40% (226 respondents). The respondents were categorized into four distinct age grades. The largest proportion, 39% (220 individuals), fell within the 38-58 years age bracket, representing the most economically active group. Following this, 37% (209 individuals) were aged 17-37 years, indicating a substantial youth presence. Respondents aged 59-79 years constituted 21% (119 individuals), while the smallest group, those aged 80 years and above, accounted for 3% (17 individuals). These findings suggest that while the majority of respondents are within the working-age population, a considerable proportion belongs to older age categories, who may be more vulnerable to social and environmental changes associated with proposed project activities. To mitigate potential impacts on these groups, especially the elderly, targeted interventions should prioritize ensuring accessibility and minimizing disruptions to essential services during project implementation.

Education & Literacy Rate: The socioeconomic study revealed a mixed level of education and literacy among the respondents, reflecting the diverse educational opportunities within the community. About 20% (113 individuals) attended primary school, laying the foundation for basic literacy and numeracy skills. Interestingly, an equal proportion 20% (113 individuals) received education exclusively through Islamiyah schools, emphasizing the prominence of religious education in the area. However, 25% (141 individuals) of respondents reported having no formal education, highlighting a gap in access to conventional educational systems. On the brighter side, 21% (119 individuals) progressed to secondary school, showcasing a significant number with higher literacy levels. Additionally, 11% (62 individuals) had earned university degrees or their equivalent, representing the most academically advanced segment of the population. A small but notable 4% (17 individuals) fell into other educational categories, reflecting non-traditional or vocational training.

Religious Affiliations: The survey findings revealed two primary religious affiliations among respondents, reflecting the dominant religious practices in Borno State, Northern Nigeria. A significant majority, 96% (542 individuals), identified as Muslims, while a minority, 4% (23 individuals), identified as Christians. This distribution aligns with the broader religious demographics of the region, where Islam predominates.

Marital Status: The survey highlighted a variety of marital statuses among respondents, reflecting the social diversity of the community. Nearly half of the respondents, 49% (277 individuals), were married, signifying the predominant role of marital unions in the region. Single individuals accounted for 29% (164 individuals), representing a significant

¹ Convenience sampling is a qualitative research sampling strategy that involves selecting participants based on their accessibility and availability to the researcher. This can be due to geographical proximity, availability at a given time, or willingness to participate in the study.

² A semi-structured questionnaire was prepared and administered to a minimum of six (6) respondents per quadrant (about 25 respondents per sheet). All administered questionnaire was retrieved and analysed to estimate socioeconomic conditions within the project communities.

portion of the population, likely including younger or unmarried adults. Widowed respondents made up 13% (73 individuals), a notable group that may require targeted support given their potential vulnerabilities. Meanwhile, 9% (51 individuals) reported being divorced, showcasing a smaller but important demographic to consider in community planning and engagement.

Family Size: The survey further revealed the distribution of family sizes as follows: small families (1-3 members) constitute 25% of respondents, amounting to 141 individuals, indicating a lesser prevalence of smaller households in the region. Medium-sized families (4-6 members) represent 30%, totaling 170 respondents, reflecting a moderate proportion of households within this range. Meanwhile, large families (7 or more members) dominate the distribution, comprising 45% of respondents, or 254 individuals, underscoring the cultural and economic preference for larger family sizes in the region.

Family Pattern: Nuclear families account for 45% of respondents, representing 254 individuals, while extended families make up 55%, totaling 311 individuals. This indicates a higher prevalence of extended family systems compared to nuclear families among the 565 respondents.

Occupation: The survey results reveal that the primary occupations among respondents in Borno State are trading (41%, 232 individuals), farming (33%, 187 individuals), fishing (12%, 68 individuals), artisanship (8%, 45 individuals), and other occupations (6%, 34 individuals). These findings highlight a significant reliance on trading and farming as the primary sources of livelihood, with fishing, artisanship, and other socioeconomic activities serving as supplementary means of income within the region.

Income Levels and Livelihood Activities: The survey results reveal that the primary occupations among respondents are trading (41%, 232 individuals), farming (33%, 187 individuals), fishing (12%, 68 individuals), artisanship (8%, 45 individuals), and other occupations (6%, 34 individuals). These findings underscore a significant reliance on trading and farming as the main sources of livelihood, with fishing, artisanship, and other socioeconomic activities serving as supplementary means of income. In terms of income levels, the survey indicates that monthly earnings are distributed as follows: less than ₦30,000 (30%, 170 individuals), ₦31,000 to ₦69,000 (45%, 254 individuals), and ₦70,000 and above (25%, 141 individuals). This distribution highlights that the majority of respondents (75%, 424 individuals) earn less than ₦70,000 monthly, reflecting a predominance of low- to middle-income earners in the region. The monthly expenditure patterns show that 20% of respondents (113 individuals) spend less than ₦30,000, 35% (198 individuals) spend between ₦31,000 and ₦69,000, and 45% (254 individuals) spend ₦70,000 and above. This indicates that while a significant portion of the population earns less than ₦70,000, a relatively higher percentage reports expenditures of ₦70,000 or more, suggesting reliance on informal income sources, credit, or savings to meet their expenses. The combined analysis reveals that the economic activities, income levels, and expenditure patterns in the project location are strongly tied to agriculture, trade, and natural resources. Trading and farming dominate the livelihood landscape, while the discrepancy between income and expenditure patterns points to financial pressures and potential vulnerabilities. These further emphasize the need for targeted development initiatives that enhance economic opportunities, provide financial literacy training, and support sustainable livelihoods to reduce economic vulnerability and improve overall living standards.

Physically Disabled Persons: The survey and field assessment conducted for the proposed project revealed that no physically disabled individuals were identified as being directly affected by the project activities. This observation indicates that the project's area of impact does not currently include persons with physical disabilities. However, it is recommended that inclusive measures and accessibility considerations be integrated into the project design to ensure that the needs of physically disabled individuals in the broader community are taken into account, promoting equity and inclusiveness in the project outcomes.

Farmers' Perception of the Benefits of

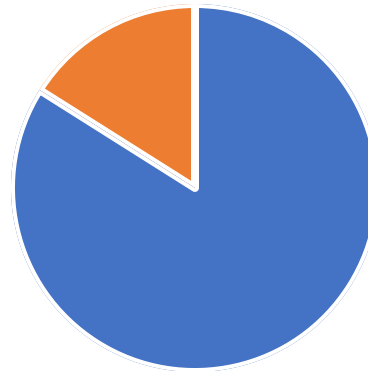
Bioengineering Works:

The survey results indicate that farmers (33%, 187 individuals) constitute a significant livelihood group

in the project area. Farmers have acknowledged that while the project may cause temporary disruptions to their activities, such as reduced access to farmland during the course of implementation, the long-term benefits far outweigh these impacts. They anticipate enhanced access to markets, improved infrastructure, and better economic opportunities, all of which are expected to boost agricultural productivity and income. Nevertheless, 16% of farmers (30 individuals) have expressed concerns that the project will not benefit them in the long term. Their primary worry revolves around increased challenges in accessing their farmland, which could impact their productivity and livelihoods.

To resolve these challenges, a Resettlement Action Plan (RAP) is Economically Displaced Persons. This plan aims to mitigate the challenges their needs are adequately addressed and that they benefit from the project.

Farmers' Perception of the Benefits of Bioengineering Works



● Farmers confident in the project's benefits
● Farmers skeptical about the project's benefits.

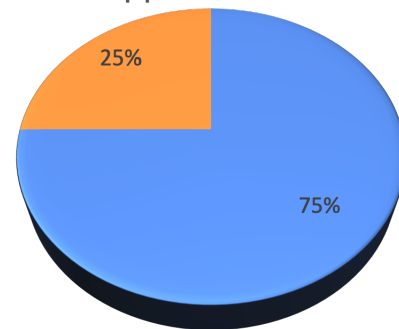
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Fishermen's Concerns About Loss of Fishing Opportunities During the Project Period:

The survey results also show that fishermen (12%, 68 individuals) are another significant livelihood group in the project area. Like the farmers, many fishermen have recognized the potential long-term benefits of the project, such as improved infrastructure, a better environment, and increased economic opportunities, which they believe will enhance their livelihoods. However, 25% of fishermen (17 individuals) feel that the project may negatively impact them due to increased distance to their fishing locations. This challenge could lead to higher costs and reduced efficiency in their fishing activities, thereby affecting their overall income. To tackle these issues, the Resettlement Action Plan (RAP) being prepared will also cover the specific needs of economically displaced fishermen. By incorporating measures to ease their access to fishing locations and providing alternative support mechanisms, the RAP will help ensure that the project's benefits are inclusive and equitable.

Despite these concerns, the majority of farmers and fishermen remain optimistic about the project's potential to contribute positively to their communities and are willing to adapt to temporary challenges for the long-term gains it promises.

Fishermen's concerns about losing fishing opportunities.



● Farmers confident in the project's benefits
● Farmers skeptical about the project's benefits.

Community Commitment to Reducing Waste Disposal in Drains:

The results revealed a strong willingness among the majority to cooperate, with 503 individuals (89%) expressing their commitment to tackling this environmental challenge, recognizing its importance in preventing degradation, improving

sanitation, and reducing flooding. However, 42 individuals (7%) were resistant, citing skepticism about the effectiveness of such efforts or limited understanding of the broader impacts. A negligible number, 20 individuals (4%), remained indifferent, choosing not to express any clear opinion.

Youths' Willingness to Participate in the Project Workforce:

The results showed an exceptionally strong response, with 528 individuals (93%) demonstrating enthusiastic interest in joining, motivated by opportunities for employment, skill acquisition, and community development. A minor proportion, 30 individuals (5%), expressed reservations, citing factors such as competing priorities or uncertainties about the project's relevance to their expertise. A negligible segment, 7 individuals (2%), remained neutral, showing no particular inclination either way.

Community Willingness to Utilize Alternative Routes:

The results indicated an overwhelmingly positive response, with all 565 individuals (100%) expressing readiness to adapt the several alternative routes available within the project location, to support the project's successful execution. Respondents highlighted their understanding of the temporary nature of the adjustments and emphasized their commitment to ensuring minimal disruptions to project activities. This unanimous willingness demonstrates the community's strong support and cooperative spirit, underscoring their shared vision of achieving the long-term benefits the project promises.

Community Commitment to Reducing Waste

Disposal in Drains

