



Environmental and Social Safeguards Audit

TRANSFORMING IRRIGATION MANAGEMENT IN NIGERIA (TRIMING) PROJECT



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EXECUTIVE SUMMARY

ES 1: Background

The World Bank (WB) is supporting the Government of Nigeria (GoN) through an Investment Project Financing (IPF) towards implementation of the Transforming Irrigation Management in Nigeria (TRIMING) Project. It is expected that TRIMING will help accelerate the development of irrigation through improving efficiency of existing irrigation schemes, expanded areas under irrigation, agricultural value chains and improving the safety of dams in selected basins. With regards to the need to support the nationwide capacity to increase production of healthy foods and grains, the TRIMING project in the past 8 years has applied part of its funds towards civil works interventions, establishment of Farmer Field Business Schools (FFBSs) at the scheme level, Farmer Management Service Delivery Centres (FMSDCs), etc. Essentially, IPF has been applied to the design and implementation of interventions works and sub-projects such as rehabilitation and reconstruction of dam and irrigation infrastructure (primary, secondary and tertiary canals; railings on bridges within the schemes; sluices and gates, mechanical and electrical structures, remedial works on embankment and concrete gravity dam, replacement of dam monitoring systems etc.). These civil works are being carried out in the TRIMING Project's five (5) participating irrigation schemes of Middle Rima valley Irrigation Scheme (MRVIS), Bakolori Irrigation Scheme (BIS), Kano River Irrigation Scheme (KRIS), Hadejia Valley Irrigation Scheme (HVIS), Dadin Kowa Irrigation Scheme (DKIS) and Zobe Dam1, for which several safeguard instruments were prepared prior to commencement of the civil works. The sub-projects have helped to improve water channeling and equity, structural integrity of dam infrastructure, management of typha grass, transportation and accessibility, and many more within the irrigation schemes.

In the first quarter of 2022, the TRIMING project conducted an E&S safeguards audit throughout its irrigation schemes to evaluate the project performance and compliance to safeguard requirements except for MRVIS where civil works had not commence at the time of the audit which produced significant findings and proffered suitable corrective actions through a scheme-specific action plan. Since the completion of the E&S safeguards audit, field visits, and feedback from irrigation schemes have established the need for a follow-up audit to evaluate the E&S performance of TRIMING activities and intervention works throughout the second, quarter of 2022, through 2024. Consequently, the TRIMING Project commissioned the preparation of a follow-up E&S Safeguards Audit, coordinated by its Project Management Unit (PMU). The audit evaluated institutional compliance to E&S mitigation measures and monitoring responsibilities as set out in the management plans included as part of the safeguard instruments prepared for sub-projects implemented in MVRIS, BIS, KRIS, HVIS, DKIS post-2022 and Zobe Dam, assess progress in the implementation of the previously developed action plans by the Irrigation Schemes as well as other environmental and social management procedures and processes.

ES 2: Inventory of Sub-projects and Aligning Safeguard Instruments Prepared

Summary of MVRIS Sub-projects

The scope of intervention works for MRVIS include river training and construction of dykes for flood control in identified sectors of the irrigation scheme. The flood control works involved the redesigning and reconstruction of protective dykes, as well as training of the rivers through channelization and dredging/desilting of the riverbed for free flow of water. As of November 2023, all River Training works for Rima River, River Keta and the Flood Protection Dyke for the Falaliya and Takakume Sectors of the MRVIS have been completed. Safeguard Instruments prepared include ESIA, RAP and ESMP for the FMSDCs.

Summary of BIS Sub-projects

Broadly, the intervention works being undertaken include: a) scheme level rehabilitation, which comprises of civil works such as; i) Rehabilitation of hydraulic structures (canals, drains and other ancillary civil structures, (ii) Rehabilitation of drainage pump stations, (iii) Supply/replacement of hydraulic gates (iv) Rehabilitation of concrete lined Supply, Main, Secondary and unlined Tertiary canals, (v) Rehabilitation of Main, Secondary/Collector and

¹ There are no investments for the irrigation aspects associated with Zobe Dam. All investments are strictly on the dam infrastructure.

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Tertiary drains, (vi) Rehabilitation of hydraulic Structures for canals and drains, (vii) Rehabilitation of the road network, (viii) Rehabilitation and construction of foot bridges, (ix) Rehabilitation and construction of culverts. b) Construction of FMSDCs, and c) Rehabilitation and improvement of Bakolori Dam. Safeguard Instruments prepared – i) Environmental and Social Impact Assessment (ESIA) for the Rehabilitation of the Bakolori Irrigation Project for Zamfara State, ii) Resettlement Action Plan (RAP) for Bakolori Irrigation Project for Zamfara State, iii) ESMP for Intervention to Support Livelihood Options for the Maradun Community Affected during the Bakolori Dam Construction, and iv) ESMP for Farmers Management Service Delivery Center (FMSDC) at Birnin Tudu, Zamfara State

Summary of Sub-projects for KRIS

Following the first ESA audit conducted for the TRIMING project in 2022, some intervention works were carried out for KRIS. Currently, TRIMING intends toisi carrying out rehabilitation works at e the Tiga Dam as part of its ongoing intervention efforts under KRIS. To support this, the project has engaged a consultant to prepared an Emergency Preparedness Plan (EPP) and an addendum to the existing ESIA for KRIS, incorporating civil works on Tiga Dam to addressidentify and mitigate associated Environmental and Social (E&S) risks and impacts. Since the last quarter of 2022, additional E&S instruments prepared for KRIS include: i) Environmental and Social Management Plan (ESMP) for the Farmers Management Service Delivery Centres (FMSDC) at Garun Mallam, Kano State, ii) ESMP for social interventions (livestock, waterpoints, and hand-pump boreholes) in KRIS and HVIS (one ESMP was prepared for KRIS and HVIS), and iii) Environmental and Social Management Plan for Bridge Construction Across River Chirin, Kano River Irrigation Scheme (KRIS), Under The Transforming Irrigation Management in Nigeria (TRIMING) Project.

Summary of Sub-projects for HVIS

Similar to KRIS, intervention works have also been undertaken by HVIS following the 2022 audit. To address the E&S risks and impacts associated with these interventions, additional safeguard instruments were prepared, including: i) an Environmental and Social Management Plan (ESMP) for the Farmers Management Service Delivery Centres (FMSDC) and ii) an ESMP for social interventions (livestock crossing, waterpoints, and hand-pump boreholes) in KRIS and HVIS. It is important to note that no E&S assessment was conducted for the rehabilitation of 66 km of laterite road in Auyo LGA.

Summary of Sub-projects for DKIS

The intervention works being undertaken are i) construction of main right canal, ii) extension of the left bank canal, iii) de-silting of existing main canal, iv) eehabilitation of supply canals, v) construction of 11 unlined secondary canals, v) construction of tertiary drains, vi) construction of tertiary canals, interception drains, field drains, feed canals, access roads and land development, vii) construction of Flood Control Measures (Dykes). Additionally, the Dadin Kowa dam and reservoir is currently undergoing rehabilitation as part of the intervention work under DKIS. Consequently, an ESMP has been developed to address E&S risks from the rehabilitation of the Dam and Reservoir. In summary, the safeguard instruments prepared for DKIS are – ESIA, ESMP and RAP.

The full details detail on the intervention works and titles of the instruments prepared is provided in chapter 3 and Chapter 5 respectively, in this environmental and social safeguards audit report.

ES 3: Audit Methodology

The methodology or technical approach—adopted for this safeguards audit was a stepwise process involving i) Strategic Planning, Activity Scheduling and Logistics Arrangement with the TRIMING PMU and subsequently, Irrigation project offices, ii) Stakeholder identification to ascertain what group of persons or individuals require to be consulted for the purpose of the audit iii) Inventory of Sub-projects and Documents Collections (Safeguard Instruments and other relevant documents), iv) Documents Review – precisely management plans and action plans for preparation of Scheme-specific Audit Checklists to address compliance to Specified Safeguards Instruments v) Use of Scoring Criteria to evaluate compliance vi) Field Visits, vii) Sampling of Project Affected Persons (PAPs) compensated or resettled under the project for the purpose of assessing the resettlement program, Grievance redress under this program as well as the impacts from livelihood restoration or enhancement and viii)

Commented [GF1]: Why was an assessment not conducted? What were the ES measures applied during the rehab works?

Commented [BA2R1]: A site specific ESMP table was prepared in line with the ESIA report for the Irrigation scheme

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Gaps Identification, recommendation of Corrective Actions and Preparation of an Action Plan. Details on the work methodology for the Audit are provided in Chapter 4 of this Safeguards Final Report.

ES 4: Audit Checklist

Checklists for each irrigation scheme, specific to the safeguard instruments prepared for their respective sub-projects were used.

Scoring Criteria

In view of the above, the scoring criteria or rating system for the Checklists is stratified from 'compliance' to 'major non-conformance' to convey a concise and consistent method for scoring each audit finding. See table below.

Finding	Definition/Impact	Action/Recommendation/Mitigation				
COMPLIANCE	Compliance (C) - Adherence with the basic requirements associated with expected and satisfactory project performance (Specialists functionality in PMU, implementation of mitigation measures, monitoring ESMP performance, Training, Supervision etc). The process is implemented and documented and records exist to verify this.	Continue to monitor trends/indicators.				
OPPORTUNITY FOR IMPROVEMENT (OFI)	Opportunity for Improvement (OFI)- A low risk issue that offers an opportunity to improve current practice as regards environmental and social performance, and other requisite functions or responsibilities. Additionally, processes may be cumbersome or overly complex but meet their targets and objectives even if proper documentation and process coordination is not applied (this should be noted) as unresolved OFIs may degrade over time to become non-compliant.	Review and implement actions to improve the process(s). Monitor trends/indicators to determine if improvement was achieved.				
MINOR NON- CONFORMANCE	Minor N/C - A medium risk, resulting in deviation from proffered practices targeted at ensuring and improving Environmental and Social Safeguard performance, and not likely to result in the failure of the project implementation or operational system or process. The medium risk is not expected to result in the delivery of nonconforming outputs, products or services nor reduce the effectiveness of the TRIMING Project Development Objectives or those of the sub-project(s)	Implement immediate corrections and Investigate root cause(s) and implement corrective actions. Suggest system enhancement programs or strategies.				
MAJOR NON- CONFORMANCE	Major N/C - A high risk, major non-conformance which adversely directly impacts upon Environmental and Social Safeguard performance (within the boundaries of prepared project sofeguard instruments); Project Coordination, Supervision and Monitoring; Labour and Working Conditions; Social Inclusion; Group Vulnerability; Occupational Health and Safety etc, likely to result in the complete non-conformance to expected requirements, inputs and outputs, products or services, of which may reduce the effectiveness of achieving the TRIMING Project Development Objectives.	Implement immediate containment action, investigate root cause(s) and apply corrective action. Monitoring required and internal auditing to verify correction.				

Additionally, where audit findings do not permit the application of the scoring criteria described in the Table above, the alternative criteria described in the table below will apply.

Alternative Scoring Criteria

YES	YES – Will apply in instances where "Compliance OR OFI" may not be the most suitable scoring criteria, or utilization of the above- described criteria may make interpretation of findings not clear or easily understood.	Recommend actions for enhancing and promoting good practices
NO	NO – Will apply in instances where "Minor or Major Non- Conformance" may not be the most suitable scoring criteria, or utilization of the above-described criteria may make interpretation of findings not clear or easily understood	Apply corrective action. Monitoring required and internal auditing to verify correction.

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ES 5: Description of Key Environmental and Social Audit Findings - Assessment of Mitigation and Monitoring **Responsibilities for ESMP Implementation**

MRVIS - The "Environmental and Social Impact Assessment (ESIA) for Middle Rima Valley Irrigation Scheme with Goronyo Dam in Sokoto State, Nigeria", is the only ESIA prepared for MRVIS under the TRIMING Project. An additional stand - alone ESMP titled "Environmental and Social Management Plan (ESMP) for Farmers Management Service Delivery Centers (FMSDC) at Goronvo Middle Valley Irrigation Scheme, Sokoto State" was also prepared for the project. These E&S safeguards instruments assigned responsibilities for mitigating and monitoring adverse E&S impacts from intervention works to be implemented under MRVIS. Both sub-projects are currently in their operational phases, with ongoing monitoring by the PMU.

Generally, the audit findings for the MRVIS indicate compliance with F&S mitigation measures in some areas such as routine wetting and regular servicing of equipment which was conducted throughout civil works implementation Additionally, machines that were not in use, were turned off, etc. Opportunities for improvement were identified in regular training for workers - trainings were one-off and not recurrent for newly recruited workers, use of personal protective equipment (PPE) - where PPE was provided, enforcement was lax, etc. Major Non-Conformance was observed particularly in the lack of landscaping/restoration plans and measures - despite the removal of 19 trees during construction, the Contractor did not revegetate as required. To compensate for this, the ESDOs planted 57 new trees with a ratio of three new trees for each tree removed. Non-conformance was also noted in the preparation and implementation of management plans, including i) Traffic Management Plan, ii) Waste Management Plan, Labour Influx Management Plan etc. See Chapter 5 and Annex 12 for more details on the assessment of compliance to E&S mitigation measures and monitoring responsibilities assigned in the ESIA for MRVIS and Goronvo Dam implementation and ESMP for FMSDC at Goronvo.

KRIS – from the third quarter of 2022 till date, three ESMPs were prepared for civil works activities carried out in KRIS titled i) Environmental and Social Management Plan (ESMP) for the Farmers Management Service Delivery Center (FMSDC) in Garun Mallam, Kano State, ii) Environmental and Social Management Plan (ESMP) for Social Interventions (Livestock Crossings, Watering Points, and Hand-Pumped Boreholes) in KRIS and HVIS and iii) Environmental and Social Management Plan for Bridge Construction Across River Chirin, Kano River Irrigation Scheme(KRIS), Under the Transforming Irrigation Management In Nigeria (TRIMING) Project, These E&S safeguards instruments assigned responsibilities for mitigating and monitoring adverse E&S impacts from intervention works. All sub-projects are is currently in its operational phase, with ongoing monitoring by the PMU. except for the FMSDC which was 85% completed at the time of the audit

FMSDC - A Committee of TRIMING PMU Supervision Team was constituted and deployed to monitor the civil works activities for FMSDC, and as a result, no Supervisory Consultant was engaged for this activity in KRIS.

BIS - The "Environmental and Social Impact Assessment (ESIA) for the Rehabilitation of the Bakolori Irrigation Scheme in Zamfara State, Nigeria", is the only ESIA prepared for BIS under the TRIMING Project. The ESIA addresses environmental and social risks and impacts that may arise during the rehabilitation of both the Irrigation Scheme and the Bakolori Dam. Although the previous audit conducted in 2022 ascertained compliance to ESMP provisions for this instrument, a follow-up E&S audit was deemed necessary since two (2) new contractors have been engaged by the TRIMING Project to: i) complete outstanding works at BIS, and ii) undertake the rehabilitation of the Bakolori Dam², Additionally, two (2) stand-alone ESMPs were prepared namely, a)" ESMP for Farmers Management Service Delivery Centers (FMSDC) at Birnin Tudu. Zamfara State": and b) "ESMP for Intervention to Support Livelihood Options for the Maradun Community Affected During the Bakolori Dam Construction in Zamfara State" (Jankarawa Sub-Project). It is noteworthy to state that while an ESMP was prepared for civil work activities associated with the provision of potable water and irrigation water services to the affected community in Jankarawa as part of the livelihood restoration support, no audit was carried out to ascertain compliance to mitigation measures. and monitoring responsibilities for this instrument. This is because the intervention has not yet received the necessary clearance or approval for civil works to commence.

ESIA (Rehabilitation of BIS) - Generally, the audit findings for the ESIA indicate compliance with E&S mitigation measures in some areas such as i) Site Preparation - excessive clearing, destruction of vegetation and sensitive ecosystem was avoided, etc. Opportunity for Improvement was identified in areas such as: i) ensuring operators of heavy equipment's wear earmuffs, ii) Limiting all major earth works which could impact the soil structure to dry season. etc. Minor non-conformance was noted in the routine monitoring of environmental media (air, soil, water quality and noise levels) where this activity was only carried out during the pre-construction phase, rather than throughout the pre-construction and construction phases. See Chapter 5 and Annex 12 for more details on the assessment of compliance to E&S mitigation measures and monitoring responsibilities assigned in the ESIA for rehabilitation of bakolori dam and BIS, and ESMP for FMSDC in Birnin Tudu.

HVIS - The ESMPs for the Farmers Management Service Delivery Center (FMSDC), Jiggawa State, and Social Interventions (Livestock Crossings, Watering Points, and Hand-Pumped Boreholes) in KRIS and HVIS are the E&S safeguards instruments prepared for HVIS from the third guarter of 2022 till date. The ESMPs outlined responsibilities for mitigating and monitoring adverse E&S impacts that could arise from intervention works. Currently, all intervention works have been completed and are operational.

FMSDC - A Committee of TRIMING PMU Supervision Team was constituted and deployed to monitor the civil works activities for FMSDC, and as a result, no Supervisory Consultant was engaged for this activity in HVIS.

Following audit findings for the ESMP, compliance was seen in adherence to implementation and monitoring of mitigation measures such as i) Air Pollution: routine sprinkling of water (once daily), hiring vehicles, plants and equipment that are in good condition, (generally less than 3 years old), routine check for working conditions of machines /vehicles, ii) Soil Compaction and Contamination: designate an area for stacking equipment, installing

² Inasmuch as one ESMP was developed for rehabilitation of the Irrigation Scheme and Bakolori Dam, the ESMP summary table was replicated twice (See Tables 25 and 26) to capture relevant mitigation measures and monitoring responsibilities specific to intervention works.

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ssessment of Compliance to Mitigation Measures and Monitoring Responsibilities Assigned in the E&S Safeguards Instrument

Generally, the audit findings for the FMSDC indicate compliance with several environmental and social mitigation measures, specifically in areas such as: i) Air Pollution: Carbon emissions were minimized through the hiring of modern vehicles, equipment, and machinery in good working condition, typically less than three years old, ii) Soil Pollution and Erosion Control: Fuel storage facilities were properly bonded and lined with impermeable materials, etc. Opportunities for improvement were identified in several areas such as: while the requirement to provide suitable fencing, warning signs, and security at the project site during construction was partially met—fencing and security personnel were present, there was no barbed wire on the fence, and the security personnel were unarmed and limited in number, etc. In some cases, although mitigation measures were not/partially implemented or lacked documentation to verify compliance, the Supervisory Team monitored and documented their observations. Instances of these efforts include: i) installing impermeable surfaces at containment zones to prevent leaks, etc. In other situations, while mitigation measures were implemented, monitoring was either not performed or lacked documentation to confirm monitoring activities, an example include: i) servicing vehicles and equipment per NESREA guidelines for Vehicle Emission Testing (VET) and Vehicle Exhaust Screening (VES). Major non-conformances primarily involved deficiencies in the preparation and implementation of key management plans, including the Flood Risk Management Plan and Waste Management Plan. See Chapter 5 and Annex 12 for more details on the assessment of compliance to E&S mitigation measures and monitoring responsibilities assigned in the ESMPs for FMSDC. Social Interventions and Siphon-2 Bridge implementation for KRIS.

DKIS – One (1) ESIA titled, Environmental and Social Impact Assessment for the Dadin Kowa Irrigation Scheme, Gombe State (April, 2020) was prepared for intervention works at DKIS. The ESIA identifies and evaluates all potential adverse E&S risks and impacts that could arise from the implementation of the interventions works at the DKIS and proposed realistic measures to eliminate or mitigate the risks and impacts on the biophysical and social environment in a timely and cost-effective way. Following the analysis of alternatives for the ESIA, two (2) adjoining ESMPs were prepared namely, ESMP for Gravity "Quick Wins" Command Area and ESMP for the Pumping Command Area. Stakeholder engagements with the ESDOs and resident engineer confirmed that only interventions in the Gravity Command Area were implemented; interventions for the Pumping Command Area were deferred for future developments. Accordingly, this safeguards audit focuses on the Gravity "Quick Wins" Command Area's compliance with ESMP mitigation measures and monitoring responsibilities.

Notably, as regards ESMP implementation, a high level of compliance to fulfilling mitigation measures and monitoring responsibilities was recorded by the ESDOs, Supervisory Consultant and Contractors in aspects such as i) air, soil and water quality monitoring and control, ii) waste management, etc. Complementarily, the ESDOs and Supervisory Consultant were able to provide documented evidence showing routine monitoring of environmental media (air, water, soil and noise levels). Furthermore, in accordance with the ESMP provisions, the ESDOs and Supervisory Consultant monitoried to ensure that the Contractor nursed and replanted a total of 500 trees in few locations where trees were felled—indigenous species and economic trees (e.g. lpomoea Plant, Mango Tree, Tamarind, etc.) were replanted in the areas around Nono and Gongola Rivers to serve as protection as directed by the project. Opportunities for Improvement were identified in areas such as i) traffic and road safety management – particularly in aspects such as early notification of PAPs, communities, road users, etc. See Chapter 5 and Annex 12 for more details on the assessment of compliance to E&S mitigation measures and monitoring responsibilities assigned in the ESMP for Gravity "Quick Wins" Command Area for DKIS and ESMP for Dadin Kowa Dam.

impermeable surface at the limit zone to contain potential leakages, siting oil and lubricants storage on an impervious base, use of drip pans, etc. Opportunity for Improvement was observed in the following areas: i) Utilization of mufflers and vehicles in good condition—although mufflers were not used, vehicles in good working order were hired; ii) provision of suitable fencing, warning signs, and adequate security at the project site during construction—while the FMSDC facility was fenced and security personnel were present, they were unarmed, limited in number, and no warning signs were installed, etc. Major non-conformance was recorded in areas such as i) implementation of management plans, e.g., WMP, Flood Management Plan, Labour Influx Management Plan and measures outlined in the GBV Action Plan, ii) adoption of erosion control measures e.g. soil compartment, Rock rip rapping, etc. See Chapter 5 and Annex 12 for more details on the assessment of compliance to E&S mitigation measures and monitoring responsibilities assigned in the ESMPs for FMSDC and Social Interventions for HVIS.

Zobe Dam No assessment was conducted for Zobe dam due to the fact that Contractors are yet to be procured and civil works have not commenced. However, an Environmental and Social Impact Assessment (ESIA) has been prepared for the proposed intervention works including the identification of requisite institutions responsible for mitigation and monitoring. Importantly, the institutional structure for implementing the ESMP provisions of the ESIA are not yet fully functional (some state actors/MDAs still need to be consulted/re-consulted and proper planning put in place). Therefore, it was not feasible to interact with any parties responsible for mitigation or monitoring, since no contracts have been awarded for the intervention works which would have facilitated participation of interested parties, also required for ESMP implementation.

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Commented [BA4R3]: Note that the works in Zobe Dam has been completed

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Assessment of Responsibilities for RAP Implementation

ssessment of Responsibilities for RAP Implementation

MRVIS – A RAP titled Resettlement Action Plan (RAP) for Flood Protection and Dyke Extension Works at Middle Rima Valley Irrigation Scheme was prepared for MRVIS. It was prepared in July 2020 and was approved for in-country disclosure display from 4th February 2021. Compliance was recorded in the establishment of Resettlement Implementation Committee (RIC) which also serves as the Grievance Resolution Committee (GRC) who are actively involved in the verification and payments of compensation to PAPs, as well as vetting, and provision of lands for PAPs, etc. for the effective coordination of the RAP. Compliance was observed for the institution of RIC, GRC, Sensitization of PAPs and Compensation. Compliance to the indicative budget was verifiable as RAP Implementation Reports for both phases were provided. However, there was opportunity for improvement to capacity building/training on RAP implementation. A budget was allocated for livelihood restoration in the RAP document, however there was no evidence of livelihood restoration assistance paid to PAPs as noted in the RAP implementation reports. There is a gap in the aspect of record-keeping as regards grievances received in MRVIS and the availability of grievance boxes. Following the RAP exercise conducted between the 9th and 17th of February, 2020, 176 PAPs were identified, made up of 174 males and 2 females, however, during the first phase of RAP implementation it was noted that certain PAPs captured were duplicated thus reducing the number of PAPs to 175. See Chapter 5 for more details on the assessment of RAP implementation for MRVIS.

KRIS – One RAP titled "Resettlement Action Plan for Kano River Irrigation Scheme (KRIS) in Kano State, Nigeria" was prepared for all civil works under the TRIMING Project in 2014. The RAP covered 42,450 PAPs across two branches—West branch (23 sectors, 30,135 PAPs) and East branch (21 sectors, 12,315 PAPs), with a total rehabilitated area of 14,314 hectares. As documented in the 2022 ESA report, compliance was achieved in establishing the Resettlement Implementation Committee (RIC), which was actively involved in verifying PAPs, distributing compensation, vetting, and providing land for PAPs to ensure effective RAP implementation. Additionally, PAPs were sensitized prior to and during the compensation process, and GRCs were established at block, sector, LGA, state, and scheme levels to manage feedback, complaints, and suggestions. Over time, the number of PAPs and the indicative budget for compensation increase drom 42,450 PAPs to 65,568 and from N425,516,337 to N2,070,607,030,26 respectively. This increase was due to the following factors: compensation adjustments for extended project duration, entitlement payment review, damage to crops, increase in PAPS through continuous consultation. See Chapter 5 for more details on the assessment of RAP implementation for KRIS.

DKIS - A RAP titled "Resettlement Action Plan for Dadin Kowa Irrigation Scheme (DKIS), Gombe State, Nigeria" was prepared in April 2020 and disclosed in-country on April 18, 2020. Compliance measures included the establishment of a RIC, which also functions as the GRC. The RIC actively participates in verifying and disbursing compensation to PAPs and in providing land to PAPs, ensuring effective RAP coordination and grievance management. However, significant gaps were noted. Record-keeping for RAP and intervention-related grievances was deficient, as ESDOs could not promptly retrieve and transmit these documents during the audit. Additionally, DKIS lacks a dedicated grievance box for compensation and intervention-related complaints; the only available GRM box is specific to GBV, restricting PAPs' ability to file grievances and limiting the role of scheme-level E&S desk officers. Furthermore, redressal frequency was inadequate, as grievances were often accumulated rather than resolved promptly, except for cases where on-the-spot verbal resolutions were provided. Over time, the number of PAPs and the estimated compensation budget increased from 3,804 to 6,539 PAPs and from N91,824,000 to N361,878,450.9, respectively. This increase resulted from changes in construction design and heightened awareness. Out of the 6,539 identified PAPs, 268 remain unpaid due to their absence during the compensation process. See Chapter 5 for more details on the assessment of RAP implementation for DKIS.

BIS - One RAP titled "Resettlement Action Plan for Bakolori Irrigation Project Zamfara" was prepared and was approved for in-country disclosure display from 19th August, 2016. This RAP was designed to compensate 39,930 PAPs, comprising 20,632 PAPs in the rehabilitation area and 19,298 PAPs in the conversion area, who were identified as being impacted by the intervention works in BIS. As of the last audit in 2022, compliance was recorded regarding the establishment of the Resettlement Implementation Committee (RIC), which remains functional and undissolved to date. The RIC also serves as the Grievance Redress Committee (GRC) and is actively involved in the verification and payment of compensation to PAPs. PAPs were sensitized prior to the compensation process, and GRCs were established at block sector, local government area (LGA) state, and scheme levels to manage feedback complaints and suggestions. Although grievance logs were not presented to the Consultant, the ESDOs RAP summary indicated that all compensation-related grievances had been resolved. The RAP proposed several livelihood restoration activities, including; i) livelihood enhancement and community empowerment programme and ii) agricultural improvement programme as well as vulnerable programme. However, costs for implementing these activities (i and ii stated above), were not included in the RAP, and as a result, these activities were not carried out. Over time, the number of PAPs and the indicative budget for compensation increased significantly, rising from 39,930 to 60,508 PAPs, and from ₹336.851.488.77 to ₹760.643.898.17, respectively.. See Chapter 5 for more details on the assessment of RAP implementation for BIS.

HVIS - A RAP titled "Resettlement Action Plan for Hadejia Valley Irrigation Scheme, Jigawa State, Nigeria" was prepared for HVIS under the TRIMING Project (May 2017). The RAP addresses a total of 10,136 Project-Affected Persons (PAPs). Compliance was seen in the establishment and active participation of the RIC, which verified and compensated PAPs, vetted lands, and coordinated RAP implementation. Sensitization sessions were conducted by the ESDOs and PMU to clarify the roles and responsibilities of the RIC, though an opportunity for improvement exists in better documenting and reporting these activities. Sensitization for PAPs was also conducted before the commencement of compensation. Additionally, GRCs were set up at the block, sector, L.G.A., state, and scheme levels, enabling effective handling of complaints, concerns, and feedback from PAPs. While livelihood restoration activities were proposed in the RAP, no specific budget was allocated for their implementation. Instead, the scheme leveraged a component of the TRIMING Project's KRIS, which focuses on Institutional and Capacity Building and Value Chain Addition. This component includes an Agronomist, Agricultural Business Manager (ABM), and a Value Chain Specialist to support livelihood restoration for HVIS. See Chapter 5 for more details on the assessment of RAP implementation for HVIS.

Zobe Dam - No RAP was prepared for civil works activities in Zobe dam.

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ES 6: Highlights of ESMP and RAP Implementation

Capacity Building

There is always room for continuous capacity building on implementation projects such as the TRIMING project, particularly in the area of carrying out E&S mitigation and monitoring responsibilities satisfactorily. In BIS, KRIS, HVIS and DKIS, the ESDOs have been engaged in several capacity building programs and workshops mainly in subject areas such as the World Bank's Environmental and Social Framework (ESF), Operational Safeguard Policies (OPs), ESMP implementation and monitoring responsibilities etc. Importantly, ESDOs from MRVIS were not part of these trainings simply because they had not joined the project at the time the training programs was conducted (2017 - 2020). Consequently, they struggled with effectively monitoring and enforcing compliance to the ESMP provisions for MRVIS intervention activities and were not aware of specific monitoring responsibilities assigned to them in the ESMP. See Section 6.4 for more details.

Project and Contractors' Adherence of Environmental and Social Due Diligence

In MRVIS and BIS, the Contractors complied with some E&S mitigation measures particularly with routine wetting to control dust emission, use of good working vehicles as well as frequent servicing of work vehicles. In BIS, both Contractors complied to other E&S mitigation measures such as periodic monitoring of sensitive environmental media and proper waste management practices (where third-party vendors were engaged to collect waste across the sites). In contrast, this was largely neglected in MRVIS, particularly where poor waste management practices were observed. Municipal waste at the campsites and work sites were dumped in shallow pits, and open burning was practiced. Furthermore, the Contractor in MRVIS did not liaise with the municipal sewage collection authorities Sokoto State Environmental Protection Agency (SSEPA) for collection and treatment of waste, neither did they develop and implement a site-specific waste management plan (a result of weak enforcement by the Supervisory Consultant and secondary monitoring by the ESDOs). Other requisite management plans such as Labour Influx Management Plan, OHS Management Plan, and Traffic Management Plan were neither developed nor implemented by Contractors in MRVIS and specifically the Contractor responsible for dam works in BIS. See Section 6.4 for more details.

General Assessment of Safeguard Issues & Monitoring Programs/Measures taken in Safeguard Monitoring

In MRVIS and BIS (specifically the Supervisory Consultant responsible for dam works), it was observed that there was poor synergy between the ESDOs and Supervisory Consultants in ensuring effective monitoring and feedback on monitoring-informed actions. In MRVIS and BIS, it was observed that Contractor(s) took more to implementing the corrective actions proffered by the Supervisory Consultants, and paid less importance to implementing those recommended by the ESDOs, especially where such recommendations would have improved the implementation of civil works from a safeguards point of view. Generally, the success in monitoring ESMP implementation for the TRIMING project can be said to be attributed to the expertise and dedication of the Supervisory Consultants across the schemes, where their environmental and social focal persons do not only have requisite education, but the required experience in supervising Contractors' civil works activities in donor-funded projects. **See Section 6.4 for more details.**

Gender Base Violence/Sexual Harassment

Trainings on GBV, SEA/SH were conducted across all schemes focusing on Contributing Factors to GBV in Communities, GBV Prevention Strategies, and monitoring and evaluation of the implementation of GBV prevention strategies. Forty-Eight (48), Forty-Eight (48), Twenty-Two (22), Nineteen (19), and Seventeen (17) GBV service providers were identified across Sokoto, Zamfara, Kano, Jigawa and Gombe states respectively e.g., Nana Khadija Sexual Assault Referral Center, General Hospital Goronyo, General Hospital Gada, Sokoto State Primary Health Care Dev. Agency, Federal Medical Center Gusau, Farida General Hospital Gusua, Fanda Women and Children Hospital Samaru, Safe Space Gusau etc. The TRIMING project also engaged GBV NGOs (New Initiative for Social Development) to carryout sensitization on GBV risk management across the irrigation schemes. Stakeholder consultations with the women leaders of the WUAs revealed that they were no cases of GBV in all schemes. See Section 6.4 for more details.

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Labour Influx

In KRIS and HVIS, only top management and some skilled personnel signed CoCs with no passport photographs affixed to identify personnel. Notably, in the case of the Siphon-2 Bridge (KRIS), the Contractor leveraged on previously signed CoCs used for a former intervention work carried out under the TRIMING project. This is not acceptable as the personnel initially used were not the same recruited for the intervention works on the Siphon-2 Bridge. Additionally, in HVIS the campsite was well equipped with recreation centers as well as a standard canteen. However, in KRIS, apartments were rented for workers in some sectors within Garum Mallam LGA e.g., New Kadawa, New Kore Day, and New Dorawa for intervention works at the FMSDC, with basic amenities (toilets, kitchens, bathrooms, burglary proof – since there was no fencing) inclusive. While some basic amenities were provided in the campsite, e.g., mobile toilets, water etc. **See Section 6.4 for more details.**

Assessment of Document Control Procedures

Generally, as seen in the 2022 E&S audit there is still a significant opportunity for improvement in document availability, accessibility, record-keeping, information retrieval, sharing, and management of safeguard documents and associated reports, particularly between the PMU and the ESDOs; and among ESDOs, Supervisory Consultants, and Contractors. In some cases, ESDOs did not have direct access to some safeguard instruments and other critical documentation prepared for the intervention works. Observations revealed that in most cases ESDOs did not have access to some reports submitted by the Contractors and Supervisory Consultants, as these reports are submitted directly to the PMU. See Section 6.4 for more details.

Banditry and Broader Security Risks

Currently in Zamfara and Sokoto States where BIS and MRVIS are located respectively, banditry, kidnapping and murders are on the high and are terrorizing farmers, WUAs and other citizens within the states. Violence has erupted in several local government areas of Sokoto State, including Goronyo, Gada, Sabon Birni, and Isa. These attacks have targeted villages, such as Birjingo Village in Goronyo, and even reached the Sokoto Municipality. In response to the deteriorating security conditions, the Sokoto state government has implemented various measures to address the challenges. See Section 6.4 for more details.

Technical Assistance and Capacity on Integrated Pest Management (IPM) and Safe Use of Chemicals

In 2015 the TRIMING Project implemented the "Technical Assistance for Advisory Services and Capacity Building on IPM". The major objectives of the Consultancy Service were to build capacity at the irrigation project offices and farm – levels, and furthermore provide technical assistance in key areas such as advice on most appropriate IPM methods for the irrigation schemes, assessment of the capacity for collaborative approaches towards IPM etc. Following on the success of the 2015 programme (First Phase) and on recommendations made by the 3rd World Bank/FAO Implementation Support Mission (3rd ISM, Oct – Nov 2015), the 2016/2017 program (Second Phase) was developed and approved. The 2016/2017 capacity building on IPM program was designed to build capacity of selected extension agents of the Agricultural Development Projects (ADPs) in the respective States where the TRIMING Project is implementing sub-projects. See Section 6.4 for more details.

Occupational Health and Safety Evaluation

In BIS, KRIS, HVIS, DKIS and MŘVIS, Contractors conducted several recurrent OHS training programs on subject areas such as accident reporting, hazard identification and control, fall protection, use of PPEs, fork-lift safety, etc. However, in MRVIS these programs were conducted as one-time events, with no record of refresher training on the above-mentioned subject matters, throughout the duration of civil works. Contractors prepared OHSMPs as required except in MRVIS and BIS (particularly the Contractor responsible for the rehabilitation of canals and roads) as well as for some intervention works in KRIS and HVIS (FMSDC and Social Intervention). Accident and incident reports were prepared detailing the nature of accidents/incidents including: dates and time, case scenario, identification of surface causes and corrective measures. Notable incidents recorded include: i) A fire outbreak in the labour camp on December 4, 2023, at 4:12am, caused by an unquenched cigarette, which was improperly discarded by a worker. The fire was controlled using a fire extinguisher and water, etc. See Section 6.4 for more details

Commented [GF5]: But this incident was not reported to the Bank

Commented [BA6R5]: Document on how this information was received. It was based on our documentation that this information was seen

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IPM Approaches for Management of Hippopotamus in DKIS

To support efforts towards pest control in TRIMING project implementation, a specific capacity building on IPM approaches on Hippopotamus management was conducted specifically for the Gombe ADP from Dec 14th – Dec 17th 2020 to address the Terms of Reference requirements on Technical Assistance for Hippos management. The areas of the DKIS which have been affected by Hippos are located downstream of the dam. Farmers at the downstream irrigated areas of the dam reported to have sighted only 3 hippos over the last 5 years; while a greater population density ranging about 100 - 500 tentatively, is known to exist upstream. No attacks by Hippos or death as a result of Hippo attacks have been recorded in the area. However, the major complaint rest arounds attacks on rice farms by Hippos mainly at night, where farms are nearly left bare, after the Hippos graze on the rice during the night. Importantly, the TRIMING project also prepared a Biodiversity Management Plan to ensure that while implementing IPM methods to control pests and Hippos in particular, the intervention works being carried out by the project do not contribute to adverse impacts on the hippos and their habitats. **See Section 6.5 for more details**.

Performance Assessment of the TRIMING Projects Implementation of the Action Plan Following the Previous E&S Safeguards Audit

Following the previous E&S Safeguards Audit, specific corrective action plans were prepared for each irrigation scheme, including provisions for capacity building, which was seen to be key for improved future E&S performance among ESDOs, Safeguards Specialists and the TRIMING PMU at large. However, the recent audit findings show that the action plans were not shared to the to the ESDOs in the respective irrigation schemes, so as to direct implementation of the corrective action. Furthermore, the project is yet to comply to the implementation schedule proffered for implementing the corrective actions. See Section 6.6 for more details.

ES 7: Scheme-Specific Conditions

Borrow Pit Management and Key Safeguard Concerns

The TRIMING PMU and its Safeguards Unit specifically, understands the Bank's position with regards to borrowpit reclamation and the general safeguards and safety concerns. However, at At the irrigation scheme level, ESDOs
require improvement in their approach, consistency and commitment to monitoring the borrow pit acquisition and
reclamation process. Currently, several borrow pits exist across the irrigation schemes (See Table 15) with some
still in use and others reclaimed. This means that reclamation of in-use borrow pits is not likely in the short term (3
- 6months), nonetheless a thorough follow-through from acquisition to reclamation is requisite. Primarily, the
Contractors are responsible for negotiating with persons or communities for the lease of land for the purpose of
use as borrow pits. In many occasions, evidence of negotiations, lease and payments were provided and sighted
during the audit. The major foreseeable reason which may affect borrow pit reclamation, is that private persons,
entities or communities who own the land used for borrow pits, may request the Contractors to leave the borrow
pits uncovered after completion of intervention works, so that they can use them for personal, commercial and
domestic purposes (such as for leasing to other Contractors, use as fish ponds, a place for watering cattle and
other small ruminants etc.). See Section 5.2.4 and Annex 13 for details on Borrow Pit reclamation across all
schemes.

Structure of the TRIMING GRM

The TRIMING GRM operates a "bottom-up" structure which allows for the uptake of grievances upwards, through various levels (Unit level to Sector level to Irrigation scheme level, and finally to PMU level). The overall responsibility for the coordination of the GRM lies with the Social Safeguard Specialist at the PMU level of the TRIMING project; who is also responsible for the collection of grievances of higher severity that may come directly to the PMU office based on the procedure and grievance classification and framework provided in the GRM. At the scheme level, a Social Desk Officer (SDO) engaged by the project is responsible for coordinating GRM functions that flow from the Sector level. At the sector level of the WUA, a Social Officer nominated from the WUA executive members is responsible for coordination of the GRM. Finally, a volunteer Social Contact "person" nominated at Unit level of the WUA is responsible for GRM implementation. See Subsection 5.2.8 for a GAP Analysis of GRM Implementation in the irrigation schemes following the 2023 GRM implementation assessment and performance evaluation carried out by the TRIMING project.

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ES 8: Corrective Actions

Some corrective actions proffered in the audit report include:

- 1. To facilitate simple access and retrieval of data, good document control and management platforms/software (such as Google Cloud and Microsoft SharePoint) should be employed
- Safeguards Specialists shall implement a standardized E&S monitoring and reporting framework for ESDOs and Supervisory Consultants, and Contractors.
- Monthly meetings should be held with ESDOs to review progress on the implementation of the action plans, address challenges, and provide necessary support.
- In future interventions, ESDOs must ensure there is liaison with prescribed government or private regulatory body for effective execution of ESMP mitigation and monitoring responsibilities
- Self-education on work processes, especially those within the scope of works of the ESDOs e.g., Review of safeguard instruments prepared for intervention works, as well as the CESMP prepared by the Contractors.

Implementation Schedule

The activities related to achieving implementation of the action plan captured in this audit report have to be integrated in the overall implementation schedule. The implementation of corrective actions will be completed over a three (3) months period. The implementation schedule is presented in the table below.

S/N	Activity Description	Responsibility	DEC, 2024		JAN,2024			FEB,2024						
			1	2	3	4	1	2	3	4	1	2	3	4
1	Capacity Building on Environmental and Social Safeguard Monitoring	TRIMING PMU, ESDOs												
2	Review and Approval of Budget for Implementation of corrective actions	TRIMING PMU												
3	Implementation of corrective actions	ESDOs, WUA												
4	Submission of progress reports for implementation of corrective actions	ESDOs,												

ES 9: Action Plan Estimated Implementation Budget

Estimated Implementation Budget

The total estimated cost for implementation of the action plan for all the Schemes is Four Thousand, Eight Hundred and Twenty Dollars and Two Cents (USD 4,820.2) This is equivalent to Seven Million, Four Hundred and Eighty – Five Thousand, Seven Hundred and Seventy Naira and Six Kobo Only (NGN 7,485,770.6). See Table below.

S/ N	Item	Responsibility	MRVIS	BIS	KRIS	HVIS	DKIS	Estimated Cost (US\$)	Estimated Cost (NGN)
1.	Cost for implementing Corrective actions	WB/TRIMING PMU/ESDOs/Supervisory Consultant/Contractors	Nil	850,000 (548)	3,652,656 (2,352)	1,799,927 (1,159)	501,619 (323)	4,382	6,805,246
2.	Contingency	10% of Corrective action Implementation cost.						438.5	680,524.6
	TOTAL							4,820.2	7,485,770.6

Note: USD to Naira exchange rates as at December 2024 (1 USD = 1,553 Naira) was applied and figures rounded up.

Commented [GF7]: Given the weight of non-compliance reported, are these the key corrective actions? These actions do not speak to the non-compliances and areas in need of improvement identified. The responsible parties and the timeline are not stated. Where are the corrective actions from the previous audit that were not implmented as reported

Commented [GF8]: It is not clear what specific activities the cost estimates are provided for. What are they?

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Capacity Building

From the audit findings, some capacity building activities have been identified to effectively enhance E&S performance subsequently. However, the time in which capacity building could be carried out may be constrained due to the project closure in January 2025. Nonetheless, requirements for capacity building are presented in the Table below.

S/N	Training Module	Who to Train	Duration	Cost (USD)	Cost (NGN)
1	General Capacity building on proper safeguard implementation, OHS, GRM implementation etc.	ESDOs, Supervisory Consultants and	1 Day	4,159	6,458,927
2	Capacity Building on implementation of correction actions)	Contractors (all irrigation schemes)	1 Day	2,080	3,230,240
3	Training on Documentation and Reporting Requirements for Safeguard Compliance		1 Day	1,040	1,677,240
4	Training of RAP implementation		1 Day	2,080	3,230,240
	TOTAL			9.359	14.534.527

Note: USD to Naira exchange rates as at December 2024 (1 USD = 1,553 Naira) was applied and figures rounded

ES 10: Stakeholder Engagement

The rational for stakeholder engagement (PAPs, GRCs, Resettlement Committees, Contractors, etc.) was based on the need to verify claims for which documentation was unavailable and to also access the general perception of sub-project performance in the respective benefiting communities. Since some issues associated with labour influx (such as SEA/SH, VAC, conflicts with communities, etc.) could not be verified, especially considering that sub-projects were mostly completed; responses from stakeholders in communities proved to be a useful performance indicator.

Summary of Key Consultation Comments, Concerns and Suggestions from PAPs

Scheme	Comments, Concerns, Suggestions	Responses by Consultant/Stakeholders				
MRVIS	The PAPs expressed dissatisfaction as they stated that one of the Dam gates was not closing. They further stated that this has resulted in flooding and loss of crops such as pepper, onions and garlic The women leader also commented that they were no cases of GBV as proper sensitization on GBV/SEA/SH was conducted in project communities. Additionally, minors were supervised in designated markets for the contractor to prevent cases of GBV/SEA/SH/VAC	The ESDOs responded by stating that this problem has now been resolved by the state ministry of water resources with support of TRIMING				
BIS	The women leaders stated that TRIMING has increased women participation in farming and the agriculture value chain in BIS. They stated that women are leaders in some units in BIS. PAPs informed the consultant that the project has been very beneficial as water supply has been made available to sectors MRICE & NRICE and farmlands that were previously non-irrigable for over 30 years now have sufficient water supply.	The ESDOs mentioned that every sector has at least representation of at least 3 women.				
	The consultant asked the status of the Four (4) culverts that collapsed in the GR sector as identified in the previous ESA	The ESDOs confirmed that the collapsed culverts were repaired and additional culverts were constructed in the GR sector				
KRIS	The Consultant enquired to know what civil works were implemented between the period of the last quarter of 2022 till date.	The ESDOs stated that the intervention works carried out include: i) Construction of FMSDC, ii) Construction of Social Intervention Works (Livestock Crossings, Watering Points and Hand-Pumped Boreholes), and iii) Construction of Siphon-2 Bridge.				

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Scheme	Comments, Concerns, Suggestions	Responses by Consultant/Stakeholders				
	The Consultant requested to know why the watering point for livestock in New Dalili is ponded. He asked if there is a broken pipe	The WUA stated that farming activities have encroached upon collector drains, redirecting water flow and altering its natural path. This change has led to flooding on adjacent roads and water buildup around watering points. He further revealed that RBDAs, previously responsible for land allocation to farmers, leased land near these collector drains without the permission of the WUAs, who now manage land allocations. This lack of coordination has contributed to flooding and ponding issues in the area.				
HVIS	The Consultant requested to know if the absence of railings on the livestock crossing was a result of vandalization. The Consultant asked the Contractors and Supervisory	The WUA and ESDOs stated that safety railings although proposed in the design were not installed across all livestock crossings constructed The Contractors stated that they prepared and				
	Consultant if they prepared and submitted monthly E&S reports for the implementation of the construction of the 66km lateritic roads to the ESDOs	submitted monthly E&S reports to the Supervisory Consultant				
DKIS	The WUAs were asked if they implemented the IPM strategies recommended in the Farmers First Business School (FFBS) and how these strategies have benefited them.	The WUA executives shared that they have been using the IPM strategies they learned from the Farmers Field Business School (FFBS) and have seen real benefits. They mentioned healthier crops, spending less on pesticides, and getting better yields. This they thanked the project for it has made numerous positive differences in their farming.				
	The ESDOs were asked what their qualification is and if they have received any form of training on the project	The EDO responded that she holds a degree in Geography and began her career during her NYSC, where she worked in KRIS. She further stated that she has four years of work experience with KRIS at SCs, and she has attained an Advanced Diploma in ESHS as well as a professional Master's degree in Environmental and Social Standards (SPESSCE).				