



TANSHEQ
ENGINEERING SOLUTIONS FOR SUSTAINABILITY

TANSHEQ COMPANY PROFILE

ISO 9001:2015 CERTIFIED



ACCREDITED BY



Certificate No. TZ-QMS-29

Valid to 24 May 2029

We are an engineering consulting firm based in Tanzania, with a significant presence across Eastern and Southern part of Africa.

ENGINEERING CONSULTING FIRM

WE ARE CONSULTING FIRM BASED IN TANZANIA

TANSHEQ is a consulting firm based in Tanzania. We offer services in the areas of Civil Engineering Speciality Services and Environmental Speciality Services like environmental management, Environmental Social Governance, Occupational health and safety, Management of Social Risks, Tansheq Mining Services, Quality management as well as managing social impacts.



CERTIFIED TEAM

We assist organizations to sustain their operations by presenting them with tools for managing their safety, health, environment, social, and quality related risks.



TRUSTED COMPANY

Becoming a consulting company of choice in management of occupational health and Safety, Environment, Mining and Quality Assurance in East Africa.



MESSAGE FROM CEO

I am incredibly proud of Tansheq's dedicated team for their commitment to excellence and professionalism. As a leading engineering consulting firm specializing in environmental management, civil engineering, and mining, we go beyond delivering services—we are trusted partners, empowering organizations to embrace sustainable operations and responsible practices.

Our vision is to be East Africa's premier choice for engineering consulting, driving innovation and sustainability across the region. Together, we uphold the highest standards of quality and service as we shape a brighter, safer, and more sustainable future for all.

Thank you for your trust, passion, and unwavering support for Tansheq.

LUSAKO RAPHAEL MWANJALI
Chief Executive Officer



At TANSHEQ, we take great pride in the professional manner in which our staff members conduct themselves and in their ability to meet the needs of our clients. The organization has established stringent quality assurance protocols, and it is the duty and accountability of every employee, in conjunction with upper management, to guarantee that the established protocols are followed.

ENGINEERING CONSULTING FIRM

WHY CHOOSE US

Our key to success is based on the fact that we are committed to meet and exceed the needs of our clients as well as to continually improve our professional consulting services by:



Fostering a learning environment for the growth and development of employees.



Advancing our capabilities by sharing individual experiences, knowledge and resources.



Hiring/subcontracting people with a verified high skill levels.



Measuring our progress against smart targets using normalized indicators.



Enhancing our business systems to meet international standards.

TANSHEQ - SERVICES

CIVIL ENGINEERING CONSULTING SERVICES

Tansheq Limited is a leading consulting company specializing in civil works projects in Tanzania. With a strong track record of successful projects and a team of highly skilled professionals, we provide comprehensive consulting services for various infrastructure development projects across the country. Our expertise covers a wide range of sectors, including transportation, water supply, sanitation, energy, and urban development.

Quality and Expertise: Tansheq Limited is committed to delivering high-quality services that meet or exceed client expectations. We prioritize technical excellence, professionalism, and adherence to ethical standards in all our projects. Our team consists of highly qualified engineers, environmental experts, project managers, and other professionals with extensive experience in civil works projects.



Site Design & Development



Structural Integrity Assessment



Aerial UAV Stockpile Analysis



Construction Administration



Due Diligence & Cost Estimation



Water/Wastewater Treatment Systems



Geotechnical Investigations



Utility Systems



Processing, Permitting, & Specifications

TANSHEQ - SERVICES

ENVIRONMENTAL AND SOCIAL RISKS MANAGEMENT



Environmental and Social Impact Assessment (ESIA)



Rapid Natural Capital Risk Assessment



Environmental Auditing



Environmental Monitoring



Management of Social Risks/Impacts



Environmental and Social Management Plan



Strategic Environmental and Social Assessment (SESA)



Environmental and Social Management System



Environmental Social Governance

TANSHEQ - SERVICES

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

We enable our clients to provide a safe and healthy work environment, taking into account inherent risks in their business and specific classes of hazards in their production processes, including physical, chemical, biological, and radiological hazards, and specific threats to women.

Steps we do to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work could be made to meet requirements of certifiable and auditable Occupational Health and Safety Management System (OHSMS) based on OHSAS 18001 or ISO 45001.



Risk Assessment



Risk Management



Emergency Preparedness and Response Plan

TANSHEQ - SERVICES

MINING SERVICES

Mining Services (TMS) Mining industry has a special set of requirements which are closely intertwined; therefore it was not just sufficient to assist our mining clients in acquisition of environmental clearance. In that regards, we formulated a comprehensive service for mining industry. We offer end to end services to mining companies from exploration to mine closure. Our services range from exploration drilling, feasibility studies, environmental clearance (ESIA), and acquisition and/or amalgamation of mining licence. We also prepare local content plans, process optimization. Waste rock characterization, site monitoring for environmental parameters as well as preparation and implementation of mine closure plan.



Exploration site monitoring



Environmental management & social license to operate



Small & artisanal scale mining (sasm)



Operational monitoring and management



Mine closure and closure management



Waste rock characterization



TANSHEQ - SERVICES

QUALITY ASSURANCE

At TANSHEQ, we take great pride in the professional manner in which our staff members conduct themselves and in their ability to meet the needs of our clients. The organization has established stringent quality assurance protocols, and it is the duty and accountability of every employee, in conjunction with upper management, to guarantee that the established protocols are followed.



Developing an effective Quality Management System (QMS) and based on ISO 9001,



Gap Analysis



Customized in-house training



Assistance in selecting a certification body

OUR CLIENTS AND ACHIEVEMENTS IN NUMBERS

TANSHEQ OUTREACH



90%
SATISFACTORY RATE



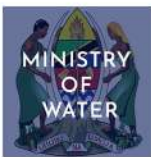
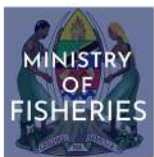
104+
PROJECT DONE



65+
OUR CLIENTS



32+
OUR TEAM



SOME OF TOOLS AND EQUIPMENTS

ENVIRONMENTAL MONITORING WITH TANSHEQ

At Tansheq, we understand that environmental monitoring is the cornerstone of sustainable development. It plays a critical role in assessing the health of ecosystems, managing environmental risks, and ensuring compliance with regulatory standards. By leveraging advanced tools and technologies, we provide precise and reliable monitoring solutions tailored to the unique needs of our clients.

Environmental monitoring is essential for

- **Compliance**

Ensuring adherence to local and international environmental regulations.

- **Risk Mitigation**

Identifying potential environmental hazards before they escalate into major issues.

- **Informed Decision-Making**

Providing accurate data to guide sustainable practices and policies.

- **Ecosystem Protection**

Safeguarding natural resources such as air, water, and soil for future generations.

- **Corporate Responsibility**

Supporting businesses in achieving environmental, social, and governance (ESG) goals.

Our cutting-edge equipment, ranging from air and water quality testing devices to noise level monitors and meteorological tools, enables us to measure and analyze critical environmental parameters. Tansheq's monitoring services empower organizations to reduce their environmental footprint and contribute to a greener, more sustainable future.

SUCCESS STORY

EXPLORE OUR EXPERIENCE

01

MINE REHABILITATION AND CLOSURE PLAN FOR KNAUF GYPSUM MINE



Tansheq Limited was commissioned by Knauf Gypsum Tanzania Limited to develop a detailed Mine Rehabilitation and Closure Plan for their quarry operations. This project is a compliance-driven initiative under the Mining Act of 1998 and the National Mine Closure Guidelines of 2019, ensuring alignment with both local and international regulatory standards.

The plan addresses critical aspects of mine closure, including:

• Environmental Rehabilitation

Restoring disturbed land to its natural state or a state conducive to sustainable post-mining land use, with considerations for biodiversity, soil health, and water quality.

• Rehabilitation Bond

Establishing financial provisions to cover closure costs, ensuring funds are available for activities such as site decontamination, ecosystem restoration, and long-term monitoring

• Risk Assessment and Management

Identifying and mitigating potential hazards such as acid drainage, erosion, and contamination of water sources..

• Stakeholder Engagement

Collaborating with local communities, government authorities, and other stakeholders to incorporate diverse perspectives and achieve consensus on post-closure objectives.

• Compliance with Regulatory Frameworks

Adhering to the Mining (Safety, Occupational Health and Environmental Protection) Regulations of 2010 and related legal requirements.

The project also integrates robust financial planning, including a closure cost model to ensure sufficient funding for planned rehabilitation activities and provisions for unforeseen emergency closures. Tansheq's multidisciplinary team will conduct site assessments, stakeholder consultations, and technical evaluations to deliver a closure plan that safeguards environmental integrity, promotes social benefits, and aligns with regulatory expectations.

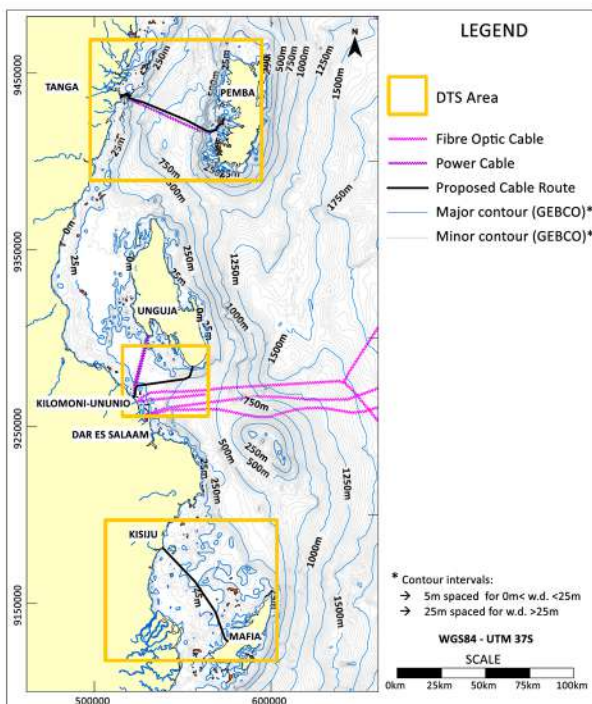
This initiative exemplifies Tansheq's expertise in sustainable environmental solutions, contributing to responsible mining practices and fostering long-term ecological and socioeconomic stability.

02

OVERCOMING CHALLENGES IN ENERGY INFRASTRUCTURE DEVELOPMENT FOR TANESCO AND ZECO



Tansheq Limited has been instrumental in delivering Environmental and Social Impact Assessments (ESIAs) for three critical energy infrastructure projects in Tanzania and Zanzibar. These projects include the installation of 33kV and 220kV power transmission lines from Mkuranga to Mafia Island, Dar es Salaam to Unguja Island, and Tanga to Pemba Island. Each project addresses unique challenges related to geography, ecosystems, and stakeholder engagement, reflecting Tansheq's expertise in sustainable development and environmental stewardship.



KEY CHALLENGES AND SOLUTIONS

Geographical and Technical Complexities

Challenge

The projects involved diverse terrains, including dense urban areas, marine environments, and ecologically sensitive regions such as the Tanga Coelacanth Marine Park, the Pemba Channel Conservation Area, and the Menai Bay Conservation Area. Engineering solutions had to account for varying depths, slopes, and soil types, particularly for submarine cables.

Solution

Tansheq collaborated with engineers to integrate advanced techniques such as submarine trenching, direct burial of cables, and underground transmission lines. These methods minimized physical disruptions and protected critical ecosystems.

Environmental and Biodiversity Conservation

Challenge

Each project intersected with marine and terrestrial biodiversity hotspots, including habitats for vulnerable and critically endangered species. Maintaining ecological balance while executing large-scale infrastructure was a significant hurdle.

Solution

Comprehensive baseline studies and stakeholder consultations ensured environmental sensitivities were identified early. Mitigation measures, such as selecting routes with minimal ecological impact and implementing detailed Environmental and Social Management Plans (ESMPs), were rigorously followed.

Stakeholder Engagement and Social Impact:

Challenge

Gaining community trust and addressing socioeconomic concerns, such as land acquisition and resettlement, were vital for project success. Stakeholders expressed concerns about potential cultural disruptions and access to resources.

Solution

Tansheq conducted extensive consultations across affected communities and tailored solutions, such as opting for underground cables in densely populated areas to reduce land displacement. Women's groups and fishermen were actively engaged to align project benefits with local needs.

Regulatory and Compliance Demands:

Challenge

Aligning project execution with complex regulatory frameworks across Tanzania and Zanzibar required meticulous planning and coordination.

Solution

Tansheq ensured compliance with all local and international environmental laws, including those of the African Development Bank, by adhering to rigorous environmental and social safeguard standards.

Outcomes and Impact

Through innovation and collaboration, Tansheq overcame these challenges to deliver sustainable, high-impact energy projects. These initiatives now provide reliable electricity to underserved regions, promote economic growth, and improve livelihoods while protecting the natural environment. Tansheq's commitment to balancing development with sustainability underscores its leadership in environmental consultancy for complex infrastructure projects.

03

ENHANCING ENERGY EFFICIENCY THROUGH CONVERSION OF OCGT TO CCGT AT UBUNGO II AND KINYEREZI I



Tansheq Limited successfully conducted the Environmental and Social Impact Assessment (ESIA) for TANESCO's initiative to convert Open Cycle Gas Turbines (OCGT) at Ubungu II and Kinyerezi I power plants in Dar es Salaam into Combined Cycle Gas Turbines (CCGT). This innovative project aims to enhance plant efficiency from 35-40% to 55-60%, reduce fuel consumption and greenhouse gas emissions while increasing electricity generation.

KEY CHALLENGES AND SOLUTIONS

Consideration of Alternatives

Challenge: Selecting the most suitable approach from a range of options, including the "no action" alternative, alternative technologies, and various operational strategies, required a robust evaluation framework.

Solution: Tansheq utilized Multi-Criteria Analysis (MCA) to assess alternatives based on technical feasibility, environmental sustainability, economic impact, and social considerations. MCA identified the CCGT conversion at the existing sites as the optimal solution, balancing development goals with minimal environmental disruption.

Environmental and Social Cost-Benefit Analysis

Challenge: Quantifying the long-term environmental and economic benefits while considering social impacts and initial capital investments required a rigorous analytical approach.

Solution: Tansheq employed Net Present Value (NPV) and Internal Rate of Return (IRR) calculations to evaluate the project's financial viability. Tansheq assessed the difference between the present value of benefits (e.g., fuel savings, increased energy output, reduced emissions) and the present value of costs (e.g., capital expenditure, operational and mitigation expenses). The positive NPV demonstrated that the project would yield significant net benefits over its lifecycle.

By calculating the project's IRR, Tansheq ensured that the investment would achieve returns exceeding TANESCO's cost of capital. The IRR validated the financial attractiveness of the CCGT conversion, aligning it with Tanzania's long-term energy efficiency and sustainability goals.

Technological Integration

Challenge: Integrating advanced CCGT components, such as Heat Recovery Steam Generators (HRSGs) and steam turbines, within the existing OCGT framework posed logistical and operational challenges.

Solution: Tansheq collaborated with engineering experts to streamline the integration process, ensuring the optimal utilization of resources and technology for enhanced efficiency.

This project highlights Tansheq's ability to integrate advanced analytical tools, such as NPV and IRR, into decision-making processes, ensuring financially viable and environmentally sustainable energy solutions for Tanzania's future.

04

SUPPORTING TANZANIA'S NATURAL GAS INFRASTRUCTURE DEVELOPMENT WITH TPDC



Tansheq Limited has partnered with the Tanzania Petroleum Development Corporation (TPDC) on multiple Environmental and Social Impact Assessments (ESIAs) to facilitate the development of critical natural gas infrastructure across Tanzania.

These projects include an ESIA for the construction of a high-pressure natural gas transmission pipeline from the Ntorya gas field to the Madimba natural gas processing plant and for natural gas distribution pipelines connecting customers along the Ubungu-Mikocheni corridor and in Mkuranga District. These initiatives are vital for expanding Tanzania's energy distribution network, promoting industrial growth, and enhancing household energy access.

Key Challenges and Solutions

Diverse Terrain and Geographical Constraints

- **Challenge:** The pipelines traverse diverse terrains, including urban areas, agricultural lands, and ecologically sensitive zones, requiring careful route optimization to minimize environmental and social impacts.
- **Solution:** Tansheq conducted comprehensive baseline studies and employed Geographic Information Systems (GIS) to map optimal routes, ensuring minimal disruption to ecosystems and communities.

Stakeholder Concerns and Community Engagement

- **Challenge:** Addressing land acquisition concerns, compensation disputes, and community safety issues required transparent and effective stakeholder engagement.
- **Solution:** Tansheq facilitated extensive consultations with affected communities, local authorities, and other stakeholders to build consensus and ensure fair and timely compensation processes.

Regulatory Compliance and Environmental Risks

- **Challenge:** Aligning projects with stringent national and international environmental standards, including risks of air and water contamination during construction and operation.
- **Solution:** Tansheq developed detailed Environmental and Social Management Plans (ESMPs) and implemented mitigation measures such as erosion control, spill management systems, and water quality monitoring programs to ensure compliance and minimize environmental risks.

Operational Safety and Risk Management

- **Challenge:** Ensuring the safety of high-pressure pipelines and managing construction risks in densely populated areas.
- **Solution:** Tansheq collaborated with engineers to incorporate advanced safety measures, such as corrosion-resistant materials and real-time monitoring systems, while providing training for construction teams on health and safety protocols.

Tansheq's expertise in managing complex regulatory requirements, addressing community concerns, and implementing innovative environmental solutions underscores its role as a trusted partner in advancing Tanzania's energy infrastructure. These projects demonstrate the company's ability to overcome challenges while fostering sustainable development and operational efficiency.

05

TANSHEQ'S ROLE IN SUPPORTING TANZANIA'S FISHERIES SECTOR THROUGH PUBLIC-PRIVATE PARTNERSHIPS (PPPS)



Tansheq Limited is at the forefront of advancing Tanzania's fisheries sector by conducting feasibility studies and providing consultancy for the development of longline fishing vessels and fish processing plants in collaboration with the Tanzania Fisheries Corporation (TAFICO) and the Zanzibar Fishing Corporation (ZAFICO). These projects are structured under a Public-Private Partnership (PPP) model to bolster Tanzania's fisheries capacity, with a focus on tapping into the country's rich Exclusive Economic Zone (EEZ) resources while integrating small-scale fishers (SSFs) into the value chain.

Challenges and Solutions

High Operational Costs and Limited Expertise

- **Challenge:** High costs of vessel procurement, operation, and maintenance, coupled with a lack of skilled personnel for deep-sea fishing.
- **Solution:** Inclusion of private partners with technical expertise and financial capacity. Implementation of training programs for local crew members to build operational and maintenance skills.

Integration of Small-Scale Fishers (SSFs)

- **Challenge:** SSFs face limitations in accessing the EEZ and are prone to post-harvest losses.
- **Solution:** Establishing business models that allow SSFs to supply bait and sell by-catch to processing plants, alongside training programs to improve their fishing techniques and post-harvest practices.

Infrastructure Deficiencies

- **Challenge:** Lack of cold chain and landing facilities to support longline fishing operations.
- **Solution:** Parallel investments in land-based infrastructure, including cold storage, ice-making facilities, and access roads, to ensure seamless operations.

Regulatory Compliance and Sustainability

- **Challenge:** Ensuring adherence to national and international standards, including measures to combat Illegal, Unreported, and Unregulated (IUU) fishing.
- **Solution:** Developing robust Environmental and Social Management Plans (ESMPs) and adhering to Conservation and Management Measures (CMMs) set by the Indian Ocean Tuna Commission (IOTC).

Key Benefits

- **Enhanced Fisheries Production:** Increased fish supply for local and international markets, reducing pressure on territorial waters.
- **Economic Growth:** Job creation, increased foreign exchange earnings, and improved livelihoods for SSFs.
- **Environmental Sustainability:** Adoption of sustainable fishing practices and reduction in post-harvest losses.

Tansheq's comprehensive approach in assessing the technical, financial, and environmental dimensions of this project ensures that Tanzania's fisheries sector is poised for sustainable growth while contributing significantly to the nation's economic development.

06

SUPPORTING ARA PETROLEUM'S COMPENSATION PROCESS FOR THE NTORYA 3D SEISMIC SURVEY



Tansheq Limited partnered with ARA Petroleum Tanzania to ensure a fair and transparent compensation process for damages caused during the 3D seismic survey conducted in the Ntorya area of the Mtwara region. The project addressed crop and tree damages along the survey lines, compensating Project Affected Persons (PAPs) in accordance with the Valuation and Valuers Regulation of 2018. Tansheq's involvement highlights its expertise in resolving complex compensation challenges and fostering trust within impacted communities.

Compensation payments were made in three volumes, covering a total of 4,269 PAPs and amounting to over 1.6 billion Tanzanian Shillings (TZS). Payments were distributed across multiple villages, including Maili, Tulia, Maranje, Nanguruwe, and others, ensuring fair compensation for crop and tree damages.

CHALLENGES AND SOLUTIONS

Data Management and Errors

- **Challenge:** Human errors in recording beneficiary account numbers led to mismatched transactions, delaying compensation for some PAPs.
- **Solution:** Tansheq developed a special app which eliminated human errors for subsequent batches, demonstrating its commitment to accuracy and accountability.

Inclusivity in Compensation

- **Challenge:** Some PAPs were omitted in the initial valuation reports, raising concerns of fairness and equity.
- **Solution:** A supplementary valuation ensured that all omitted PAPs were identified and compensated, reaffirming inclusivity in the process.

Unknown Beneficiaries

- **Challenge:** A few PAPs remained unidentified, posing a barrier to completing the compensation process.
- **Solution:** ARA Petroleum and Tansheq remain proactive, awaiting verification from these PAPs to finalize outstanding payments.

KEY BENEFITS

- **Restoration of Community Trust:** The comprehensive and transparent compensation process fostered trust between ARA Petroleum, Tansheq, and the impacted communities.
- **Equitable Compensation:** Ensuring that all eligible PAPs received payments for damages reinforced fairness and adherence to regulatory standards.
- **Improved Accountability:** Tansheq's role in resolving transaction mismatches and addressing omissions demonstrates its capability to manage complex compensation processes.

Tansheq's collaboration with ARA Petroleum exemplifies its dedication to upholding the rights of Project Affected Persons (PAPs) while promoting transparency and efficiency in compensation management. These efforts underscore Tansheq's commitment to sustainable project execution and fostering positive relationships with impacted communities.

07

WORLD BANK-FUNDED INFRASTRUCTURE DEVELOPMENT PROJECTS (SEQUIP AND TMCHIP)



Tansheq Limited supported the President's Office Regional Administration and Local Government (PO-RALG) in implementing two transformative World Bank-funded projects: the Secondary Education Quality Improvement Project (SEQUIP) and the Tanzania Maternal and Child Health Improvement Project (TMCHIP).



Under SEQUIP, Tansheq conducted design review, Environmental and Social Impact Assessments (ESIAs), capacity building on WB Environmental and Social Framework for the construction of girls' boarding secondary schools and associated access roads across 26 regions, aiming to address gender disparities in education by providing safe and conducive learning environments.

Under TMCHIP, Tansheq led the ESIAs for the construction and renovation of 140 health facilities, including access roads, to strengthen equitable healthcare access nationwide.

Both projects align with the World Bank's Environmental and Social Framework (ESF), adhering to key Environmental and Social Standards (ESS), including ESS1 (Environmental and Social Risks and Impacts), ESS4 (Community Health and Safety), and ESS10 (Stakeholder Engagement). These initiatives demonstrate Tansheq's commitment to ensuring environmental sustainability, regulatory compliance, and socioeconomic inclusion, while fostering long-term development impacts for Tanzania.

Challenges and Solutions

• Diverse Regional Contexts

Conducting assessments across varied geographic and social landscapes required region-specific approaches to risk mitigation and compliance with ESS.

• Stakeholder Engagement

Tansheq facilitated inclusive consultations with local communities, government authorities, and stakeholders to ensure the projects met local needs while adhering to the ESS10 standard.

• Regulatory Compliance

Developed comprehensive Environmental and Social Management Plans (ESMPs) aligned with Tanzanian regulations and the World Bank ESF.

08

DRIVING RESPONSIBLE SOURCING OF 3T MINERALS AS AN ICGLR RCM AUDITOR



Tansheq Limited plays a pivotal role in promoting ethical practices in the mining sector as an Independent Third-Party Auditor under the International Conference on the Great Lakes Region (ICGLR) Regional Certification Mechanism (RCM). With a focus on the critical 3T minerals—Tin, Tantalum, and Tungsten—Tansheq has conducted successful audits in Tanzania, Rwanda, and the Democratic Republic of Congo (DRC), ensuring that these resources are sourced responsibly and free from association with conflict.

The regulation of 3T minerals is essential due to their widespread use in electronics, automotive, and aerospace industries, coupled with the potential for their extraction and trade to fuel conflict, human rights abuses, and environmental degradation. Tansheq's audits verify compliance with ICGLR and OECD standards, helping mining operations adhere to due diligence protocols that promote transparency and ethical supply chain practices.

By facilitating the certification of mining activities, Tansheq strengthens trust among stakeholders, reduces the risk of conflict financing, and fosters sustainable development in the Great Lakes Region. This work underscores Tansheq's commitment to advancing responsible mineral sourcing while contributing to peace and prosperity in resource-rich but vulnerable areas.



09

SETTING NEW STANDARDS IN CROSS-BORDER SUSTAINABILITY: ESHS MANAGEMENT FOR THE RUSUMO FALLS HYDROPOWER PROJECT



The Regional Rusumo Falls Hydro Electric Project (RRFHEP), implemented by NELSAP, is a landmark initiative designed to benefit Rwanda, Tanzania, and Burundi. With an estimated output of 80 MW, the project harnesses the Kagera River at the Rusumo Falls, located on the border between Rwanda and Tanzania, through an innovative Run of River (RoR) scheme.

Tansheq, representing the contractor, played a pivotal role in ensuring the project adhered to world-class Environmental, Social, Health, and Safety (ESHS) standards. By aligning with the joint specifications of the Project Owner, the governments of the three nations, and the World Bank, Tansheq provided the following critical services:

- **Preparation of Construction Contractor Environmental and Social Health and Safety Management Plan (CC_ESHSMP):** A comprehensive plan was developed and implemented following approval.
- **Site Inspections:** Conducted regular inspections to monitor adherence to ESHS specifications, ensuring compliance with global industry standards.
- **Management of Non-compliances:** Identified, addressed, and resolved issues through corrective and preventive actions, tracking their implementation to completion.
- **Reporting:** Delivered timely and detailed updates on ESHS-related activities and progress to stakeholders.

Challenges Faced

- **Cross-Border Coordination:** Harmonizing ESHS standards across three nations with distinct regulations and cultural nuances.
- **Local Capacity Gaps:** A lack of skilled personnel familiar with ESHS compliance created delays and necessitated retraining efforts.

- **Environmental Sensitivity:** Stringent measures were required to protect the fragile Kagera River ecosystem.
- **Non-compliance Risks:** Instances of contractor non-compliance demanded continuous monitoring and corrective actions.

- **Community Concerns:** Earning and maintaining the trust of local communities required extensive stakeholder engagement.

Solutions Implemented

- **Integrated Cross-Border Frameworks:** Established collaboration with the governments of Rwanda, Tanzania, and Burundi to unify ESHS standards.
- **Capacity Development:** Delivered tailored training programs to local staff and contractors, building expertise in ESHS practices.
- **Advanced Environmental Safeguards:** Deployed monitoring tools and implemented strategies to minimize ecological impacts, aligning with World Bank and international standards.
- **Streamlined Issue Resolution:** Designed real-time processes to identify, report, and resolve non-compliance issues efficiently.
- **Transparent Community Engagement:** Organized regular stakeholder meetings, shared project updates, and established grievance mechanisms to address concerns.

Delivering Sustainable Impact

Tansheq's unwavering commitment to sustainability and compliance has ensured the Rusumo Falls Hydropower Project adheres to international ESHS standards. Over the past six years, the project has not only remained on track but has also delivered measurable benefits to the communities of Rwanda, Tanzania, and Burundi, setting a benchmark for future cross-border development projects.

10

PIONEERING SUSTAINABLE ROAD INFRASTRUCTURE: ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT FOR THE KABINGO-KASULU-MANYOVU ROAD PROJECT



Region: Kigoma, Tanzania

To realize the vision of seamless goods transportation and accelerated trade within the East African Community (EAC), Tanzania is addressing critical infrastructure gaps. The Kabingo-Kasulu-Manyovu/Rumonge-Gitaza Road serves as a vital link between Tanzania and Burundi, identified as a priority for regional development.

The Tanzania National Roads Agency (TANROADS), with funding from the African Development Bank (AfDB), initiated the upgrading of the Kabingo-Kasulu-Manyovu Road Section (260.6 KM) to Bitumen Standard. Tansheq was entrusted to lead the **Environmental and Social Risk Management** for this transformative project.

Tansheq's Role

Tansheq partnered with TANROADS to implement a comprehensive Environmental and Social Management Plan (ESMP) and Resettlement Action Plan (RAP). As part of this mandate, Tansheq also developed a Comprehensive Community Involvement Plan (CIP) to foster meaningful stakeholder engagement.

Scope of Work

- **Baseline Analysis:** Prepared a detailed pre-project situational analysis to understand environmental and social conditions.
- **Mitigation Strategies:** Developed Lot-specific mitigation plans aligned with ESMP guidelines.
- **Monitoring:** Oversaw the implementation of consolidated ESMPs across four Lots, ensuring positive conservation outcomes, ecosystem restoration, resource efficiency, and improved livelihoods.
- **Resettlement Oversight:** Monitored the implementation of the approved Resettlement Action Plan (RAP) to address displacement issues.
- **Performance Evaluation:** Conducted external evaluations of ESMP and RAP performance to ensure effectiveness.

Challenges

- **Community Displacement:** Managing resettlement and compensation in a way that minimizes disruption to affected communities.
- **Environmental Sensitivity:** Balancing construction activities with the protection of ecosystems and natural resources.
- **Stakeholder Resistance:** Overcoming initial resistance from communities and aligning diverse stakeholder interests.
- **Infrastructure Gaps:** Addressing logistical complexities and operational constraints during construction.

Solutions

- **Transparent Resettlement Processes:** Developed fair and inclusive compensation plans and implemented grievance mechanisms to resolve disputes.
- **Advanced Environmental Safeguards:** Deployed monitoring tools to ensure biodiversity conservation and sustainable resource management.
- **Proactive Stakeholder Engagement:** Fostered trust through community workshops, regular updates, and participatory decision-making.
- **Phased Implementation:** Designed construction activities in phases to mitigate logistical challenges and ensure minimal disruption to ongoing operations.

Delivering Impact

In four-year project, Tansheq plays a pivotal role in mitigating environmental and social risks, fostering community trust, and driving sustainable development. By aligning with global best practices, the project sets a new benchmark for infrastructure development in the region, ensuring both economic growth and environmental stewardship.

11

TRANSFORMING MARITIME INFRASTRUCTURE: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR THE DAR ES SALAAM MARITIME GATEWAY PROJECT (DMGP)



The Dar es Salaam Maritime Gateway Project (DMGP) is a transformative initiative aimed at modernizing the Port of Dar es Salaam, a key trade hub for Tanzania and East Africa. With support from the International Development Association (IDA), the project seeks to enhance port efficiency and capacity while ensuring compliance with global environmental maritime requirements and sustainability standards.

Key Components of the DMGP

Berths 1-7: Deepening and strengthening to 14.5 meters below CD and constructing a multipurpose berth at Gerezani Creek.

Entrance Channel: Deepening and widening to 15.5 meters below CD, extending to Berth 11.

Rail Linkages: Improving rail connectivity and platforms within the port.

Berths 8-11: Deepening and strengthening to 14.5 meters below CD.

Tansheq's Role

Tansheq was engaged to conduct a comprehensive Environmental and Social Impact Assessment (ESIA) for the rehabilitation of Berths 8-11. Our approach integrated compliance with international maritime and environmental standards, ensuring the project aligned with global best practices in sustainable port development.

Challenges

- **Marine Environmental Sensitivity:** Ensuring that dredging and construction activities did not harm marine biodiversity, ecosystems, and water quality.
- **Global Regulatory Compliance:** Adhering to a broad range of international maritime and environmental standards.

• **Stakeholder Engagement:** Managing expectations of international partners, local communities, and regulatory bodies.

• **Operational Impact:** Balancing the need for uninterrupted port operations with ongoing construction activities. Tansheq's Marine Biologists In Action: Pioneering Baseline Assessments for Vibrant Marine Ecology

Solutions

• **Environmental Mitigation Plans:** Implemented measures to prevent water contamination, manage sedimentation, and protect marine ecosystems, aligning with IMO Marine Environment Protection Committee (MEPC) guidelines.

• **Global Compliance Frameworks:** Ensured adherence to the MARPOL Convention, London Convention, and Ballast Water Management Convention, incorporating global best practices into local implementation.

• **Stakeholder Collaboration:** Facilitated transparent communication through regular consultations, grievance mechanisms, and compliance workshops, ensuring alignment with the World Bank Environmental and Social Framework (ESF).

• **Phased Construction Approach:** Adopted strategic planning in line with IMO port construction guidelines, ensuring minimal disruption to ongoing operations while maintaining high safety standards.

Key Benefits

- Full compliance with global maritime environmental regulations, including MARPOL, CBD, and IMO standards.
- Enhanced port infrastructure capable of meeting Tanzania's trade and economic goals while protecting marine ecosystems.
- Sustainable solutions that balance economic growth, environmental preservation, and social inclusivity.

12

RAISING THE BAR IN ENVIRONMENTAL AND SOCIAL OVERSIGHT: ENSURING COMPLIANCE FOR THE EACOP PROJECT



The East African Crude Oil Pipeline (EACOP) project, implemented by TOTAL E&P Uganda, is a monumental initiative connecting Hoima, Uganda, to Tanga, Tanzania. Spanning approximately 1,443 kilometers, the project is a cornerstone for regional economic growth, designed to facilitate crude oil export while addressing complex environmental and social challenges.

Tansheq, as a registered Environmental Expert, was entrusted with ensuring adherence to rigorous environmental and social standards through the implementation of the Environmental and Social Management Plan (ESMP).

Tansheq's Role

- **Comprehensive ESMP Monitoring:** Oversaw the implementation of the ESMP across all stages of the project, ensuring compliance with regulatory and project-specific guidelines.
- **Field Support:** Assisted survey contractors in identifying access routes, seismic lines, and camp locations with minimal environmental disruption.
- **Impact Assessments:** Conducted site-specific environmental and social assessments to identify potential risks and proposed tailored mitigations.
- **Expert Deployment:** Provided NEMC-certified Environmental Engineers to enhance field operations and ensure technical expertise during project execution.

Challenges

- **Complex Cross-Border Dynamics:** Navigating regulatory frameworks in two nations with differing compliance requirements.

• **Environmental Sensitivities:** Managing the impact of the pipeline on diverse ecosystems, including wetlands and biodiversity hotspots.

• **Community Engagement:** Addressing concerns of communities directly or indirectly affected by the project.

• **Operational Access:** Coordinating activities in remote, logistically challenging terrains.

Solutions

• **Regulatory Harmonization:** Established a collaborative framework to align environmental compliance between Uganda and Tanzania.

• **Ecosystem-Driven Solutions:** Introduced advanced tools like GIS mapping and biodiversity monitoring to safeguard critical habitats.

• **Proactive Engagement:** Developed inclusive engagement programs, including grievance mechanisms, to address community concerns effectively.

• **Streamlined Logistics:** Designed flexible operational strategies to ensure seamless monitoring and support in remote areas.

Delivering Impact

By maintaining strict oversight of the ESMP, Tansheq played a vital role in balancing the economic benefits of the EACOP project with the need to protect natural ecosystems and community well-being. This approach has strengthened the project's environmental credibility and laid a foundation for sustainable operations.

13

ENSURING SUSTAINABLE RURAL ELECTRIFICATION: EVALUATIVE ASSESSMENT OF ENVIRONMENTAL, SOCIAL, AND RESETTLEMENT PRACTICES FOR THE TURNKEY III PROJECT



The Rural Energy Agency (REA), a government body, is leading efforts to provide modern energy services to rural areas in Tanzania. The Turnkey III program focuses on extending the national grid to electrify newly established districts and previously unelectrified villages. Implemented through phased Engineering, Procurement, and Construction (EPC) contracts, this initiative is crucial for bridging energy access gaps in Tanzania's rural regions.

Tansheq was entrusted to assess the compliance of environmental, social, and resettlement practices in managing the Turnkey III project. The evaluation covered all critical phases, including tendering, contractor selection, contract management, and the effectiveness of supervision.

Tansheq's Scope of Work

- **End-to-End Process Review:** Evaluated compliance throughout the tendering, selection, and contract awarding stages.
- **Contractor Supervision:** Assessed operational sites where contractors were actively working, ensuring firsthand witnessing of practices.
- **Environmental and Social Oversight:** Monitored adherence to best practices in environmental, social, and resettlement standards.
- **Stakeholder Engagement:** Conducted site visits across six districts in four regions:
 - o Singida: Mkalama
 - o Iringa: Mufindi
 - o Arusha: Arumeru and Arusha District Council
 - o Tanga: Muheza and Korogwe

Challenges

- **Geographical Disparities:** Rural locations posed logistical and accessibility issues for site assessments.
- **Non-compliance Risks:** Instances of deviations from environmental and social guidelines by contractors.
- **Stakeholder Awareness Gaps:** Limited understanding of resettlement and environmental best practices among local stakeholders.
- **Operational Constraints:** Assessments required coordination with ongoing contractor activities without disrupting progress.

Solutions

- **Strategic Planning:** Deployed region-specific logistical plans to efficiently conduct assessments across remote areas.
- **Real-Time Monitoring:** Implemented on-site monitoring tools to address non-compliance issues promptly.
- **Capacity Building:** Delivered targeted training sessions to stakeholders on environmental and resettlement practices.
- **Collaborative Engagement:** Engaged contractors and local communities to enhance understanding and adoption of best practices.

Delivering Impact

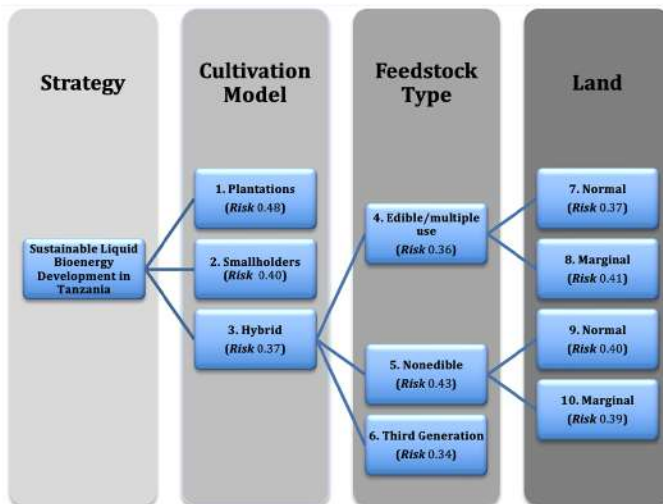
Tansheq's evaluative assessment ensured that the Turnkey III project aligns with environmental and social standards while achieving its goal of electrifying rural Tanzania. By identifying and mitigating risks, Tansheq contributed to a more sustainable and inclusive approach to rural energy development.

14

DRIVING SUSTAINABILITY: STRATEGIC ENVIRONMENTAL AND SOCIAL ASSESSMENT (SESA) FOR LIQUID BIOENERGY DEVELOPMENT IN TANZANIA



The Government of Tanzania via Ministry of Energy engaged Tansheq to conduct a Strategic Environmental and Social Assessment (SESA) to support its liquid biofuel policy. This initiative aimed to align Tanzania's energy strategies with global sustainability standards while addressing environmental, social, and economic challenges.



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Tansheq assessed the entire biofuel value chain, including:

- Biofuels Feedstock Production
- Biofuels Processing
- Biofuel Marketing and Trade

Sequential SESA Process

Baseline Assessment: Tansheq conducted detailed studies to establish the existing environmental, social, and economic conditions across the target regions. This baseline provided a foundation for evaluating potential impacts.

Scoping and Stakeholder Engagement: Key stakeholders, including local communities, government authorities, and industry experts, were consulted to identify critical issues and priorities. Transparent communication ensured stakeholder concerns were integrated into the decision-making process.

Identification and Analysis of Alternatives: Using Multi-Criteria Analysis (MCA), Tansheq evaluated 11 bioenergy models. The analysis considered factors such as greenhouse gas emissions, biodiversity, land productivity, and socio-economic impacts.

Cumulative Impact Assessment: The cumulative effects of biofuel production activities on biodiversity, soil, water resources, and livelihoods were identified and analyzed. This ensured a holistic understanding of potential challenges.

Impact Mitigation and Enhancement: Mitigation measures were developed to address adverse environmental and social impacts. Enhancement strategies were designed to optimize economic and community benefits while preserving natural ecosystems.

Decision Support: Recommendations were presented based on sustainability criteria and aligned with global best practices.

Challenges

- **Regulatory Complexity:** Navigating regional and international compliance requirements.
- **Environmental Sensitivity:** Minimizing risks to ecosystems and biodiversity.
- **Stakeholder Engagement:** Balancing diverse interests of local communities and government authorities.
- **Data Gaps:** Limited availability of reliable baseline data.

Solutions:

- **Regulatory Alignment:** Facilitated streamlined approvals by working closely with local and international regulatory bodies.
- **Advanced Safeguards:** Deployed cutting-edge monitoring systems to mitigate environmental risks.
- **Inclusive Participation:** Fostered trust through regular consultations and transparent communication.
- **Data-Driven Frameworks:** Established comprehensive tools for data collection and analysis to inform decision-making.

Results Delivered

- **Sustainable Bioenergy Models:** Identification of viable alternatives tailored to Tanzania's unique needs.
- **Improved Decision-Making:** Recommendations grounded in evidence and aligned with global best practices.
- **Enhanced Stakeholder Trust:** Transparent engagement fostered collaboration and local ownership.

15

ENERGIZING TANZANIA: COMPREHENSIVE MANAGEMENT OF COAL MINING OPERATIONS AT NKOMOLO



Rukwa Region

Edenville Energy PLC, a natural resources company listed on the London AIM Stock Exchange, spearheads coal mining operations in Tanzania. Through its local subsidiary, Edenville has developed the Nkomolo coal mine, holding a Joint Ore Reserves Committee (JORC) Measured and Indicated Resource of 173 million tons of thermal coal, ideal for open-pit mining.

Tansheq played a pivotal role in managing the coal mining operations, handling end-to-end project requirements, including exploration, JORC-compliant feasibility studies, Environmental and Social Impact Assessments (ESIA), mining license acquisition, and operational management.

Tansheq's Role

• Exploration and Feasibility:

Conducted geological surveys and prepared a JORC-compliant feasibility study, validating the project's economic and operational viability.

• Environmental and Social Impact Assessment (ESIA):

Incorporated environmental considerations into decision-making processes.

Anticipated and mitigated significant biophysical and social impacts.

Promoted sustainable resource utilization aligned with the Environmental Management Act, 2004.

• Resettlement Action Plan (RAP):

Conducted valuations for crops, buildings, and land impacted by the project.

Prepared compensation schedules based on market value and facilitated stakeholder engagement.

• Operational Management:

Oversaw mining activities to ensure consistent coal supply

Challenges

• **Environmental Sensitivity:** Preserving ecosystems while conducting large-scale mining operations.

• **Community Concerns:** Addressing displacement and compensation for affected communities.

• **Regulatory Compliance:** Aligning project activities with national and international standards.

• **Operational Complexity:** Managing coal mining operations alongside power plant commissioning.

Solutions:

• **Comprehensive Mitigation Plans:** Developed advanced environmental and social safeguards to minimize ecological disruption.

• **Transparent Resettlement Processes:** Established fair compensation frameworks and conducted community engagement workshops.

• **Regulatory Expertise:** Ensured seamless compliance with Tanzanian laws and JORC reporting standards.

• **Integrated Project Management:** Combined technical expertise with operational oversight to streamline coal extraction.

Delivering Impact

With Tansheq's guidance, Edenville Energy has successfully transformed the Nkomolo coal mine into a sustainable and economically viable operation.

16 AERIAL BASELINE ENVIRONMENTAL ASSESSMENT FOR SINGIDA GOLD MINE



Shanta Mining Company Ltd, through its wholly owned subsidiary Shanta Gold Ltd, is developing a greenfield project in Ikungi District, Singida Region. As part of the project's initial stages, the company sought to assess vegetation cover and community settings near the proposed processing facility. To achieve this, Tansheq conducted an aerial topographical survey using advanced drone technology to establish environmental baselines.

Tansheq's Role

- Conducted aerial photographic surveys using Remotely Piloted Aircraft (RPA).
- Georeferenced captured images and created georeferenced mosaic datasets.
- Overlapped and analyzed georeferenced images to provide high-resolution spatial data.

Advantages of Using Drones

- **High-Resolution Data:** Provided detailed images for precise analysis.
- **Targeted Assessments:** Enabled surveying of small or specific areas anytime.
- **Non-Intrusive Approach:** Minimized disruptions to local ecosystems and communities.
- **Enhanced Efficiency:** Improved ground survey effectiveness, particularly in remote areas.
- **Safety Benefits:** Reduced risks associated with traditional ground-based methods.

Challenges

- Accessing remote, previously uncharted areas.
- Ensuring consistent data quality despite weather challenges.

Solutions

- Leveraged drones with advanced imaging capabilities, overcoming cloud cover limitations.
- Trained pilots certified by the Tanzania Civil Aviation Authority (TCAA) ensured consistent and accurate data collection.

17 ENVIRONMENTAL ASSESSMENT FOR VERTICAL EXPLORATION DRILLING AND 3D SEISMIC SURVEYS



The Tanzania Petroleum Development Corporation (TPDC) engaged Tansheq to conduct environmental studies for gas exploration activities at Mnazi Bay North Block. These activities involve 3D seismic surveys and vertical well drilling, both of which carry potential environmental risks.

Tansheq's Role

- Prepared the Project Brief and completed registration with the National Environment Management Council (NEMC).
- Developed a Scoping Report and EIA Terms of Reference.
- Conducted stakeholder consultations to address community concerns.
- Assessed baseline environmental and social conditions.
- Examined alternative locations and technologies to minimize environmental impacts.
- Developed Mitigation, Management, and Monitoring Plans.
- Conducted a Cost-Benefit Analysis to ensure project feasibility.
- Represented the client in Technical Advisory Committee discussions and implemented recommendations.

Challenges

- **Stakeholder Concerns:** Community apprehension about seismic surveys and drilling impacts.
- **Environmental Sensitivity:** Preserving biodiversity in ecologically significant areas.

Solutions

- Conducted inclusive consultations and implemented grievance mechanisms to address concerns.
- Introduced advanced mitigation strategies and monitoring tools to minimize ecological disruptions.

Delivering Impact

Through these projects, Tansheq demonstrated its ability to integrate advanced technology, stakeholder engagement, and environmental stewardship. The drone-based assessment provided critical insights for sustainable planning at Singida Gold Mine, while the petroleum project ensured compliance and minimized environmental risks during exploration activities.

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ENSURING ENVIRONMENTAL COMPLIANCE: ENVIRONMENTAL AUDIT FOR OFFSHORE DRILLING ACTIVITIES AT PILIPILI WELL



Equinor (formerly Statoil Tanzania AS) has been conducting oil and gas exploration activities offshore Tanzania under Environmental Impact Assessment (EIA) Certificate No. EC/EIS/1109. In 2013, the company was granted a certificate for Additional Offshore Exploration Drilling in Block 2, Tanzania.

Key exploration activities included:

- Offshore drilling using the Ocean Rig Poseidon.
- Transportation of materials, chemicals, and waste via supply vessels to and from the drillship and Mtwara Port.
- Helicopter transit for crew and visitors.
- Waste management services provided locally by contractors in Mtwara.

To evaluate the performance and compliance of these activities with the approved **Environmental and Social Management and Monitoring Plan (ESMMP)**, Equinor engaged Tansheq to conduct a systematic internal environmental audit.

Tansheq's Role

- **Compliance Assessment:** Evaluated the project's adherence to the ESMMP as outlined in the Environmental Impact Statement (EIS) approved by NEMC.
- **Operational Performance Review:** Assessed the environmental management practices for offshore drilling, material transport, and waste handling.
- **Mitigation Verification:** Reviewed the effectiveness of mitigation measures implemented during drilling and logistics operations.
- **Audit Reporting:** Prepared a comprehensive audit report identifying compliance levels and opportunities for

Challenges

- **Marine Environmental Sensitivity:** Offshore drilling posed risks to marine ecosystems, including potential contamination and habitat disruption.
- **Waste Management:** Managing chemical and hazardous waste generated during operations in compliance with regulations.
- **Logistical Complexity:** Coordinating between offshore activities and onshore waste handling facilities at Mtwara Port.
- **Regulatory Alignment:** Ensuring activities complied with Tanzanian environmental regulations and international standards.

Solutions

- **Advanced Monitoring Tools:** Tansheq utilized real-time monitoring and data collection systems to assess environmental performance.
- **Strengthened Waste Management:** Implemented robust protocols for handling, transporting, and disposing of hazardous waste to minimize environmental impacts.
- **Stakeholder Collaboration:** Worked closely with contractors and regulatory bodies to ensure seamless waste management and compliance.
- **Thorough Auditing:** Conducted a detailed environmental audit to identify gaps and recommend corrective actions.

Delivering Impact

Tansheq's environmental audit ensured that Equinor's offshore drilling activities complied with the approved ESMMP, mitigating risks and enhancing operational sustainability. The project highlights Tansheq's commitment to upholding environmental standards in high-stakes offshore exploration.

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UNVEILING EARTH'S PAST: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR THE DEEPCHALLA PROJECT



The DeepCHALLA Project is a groundbreaking scientific drilling initiative led by the International Continental Scientific Drilling Programme (ICDP) and Ghent University. This innovative project focuses on recovering and analyzing the continuous sedimentary records accumulated at the bottom of Lake Challa, a 4.2 km², 92-meter deep crater lake near Mt. Kilimanjaro on the Tanzania-Kenya border.

The primary goal is to obtain high-resolution, well-dated information about climate, landscape, and ecosystem history spanning the past 250,000 years, a period that includes two complete ice-age cycles and the entirety of modern human existence in East Africa.

Tansheq was instrumental in obtaining environmental clearance for the project while providing logistical support for this ambitious and novel initiative.

Tansheq's Role

•Environmental Clearance:

- o Facilitated compliance with Tanzanian and Kenyan environmental regulations to secure approvals for drilling activities.

•Logistical Support:

- o Coordinated cross-border operational activities to ensure smooth project execution.
- o Assisted in addressing local stakeholder concerns related to the project's scope and objectives.

•Impact Mitigation:

- o Developed a tailored Environmental and Social Impact Assessment (ESIA) to address potential risks to Lake Challa's unique ecosystem.

Challenges

- Ecological Sensitivity:** The lake's ecosystem is delicate, requiring minimal disturbance during drilling operations.

- Cross-Border Coordination:** Aligning regulatory requirements and logistical operations across Tanzania and Kenya.

- Community Awareness:** Limited understanding of the project's scientific significance among local communities.

Solutions

- Advanced Environmental Safeguards:** Designed and implemented strict protocols to minimize ecological impacts during sediment recovery and analysis.

- Regulatory Collaboration:** Engaged with both Tanzanian and Kenyan environmental authorities to harmonize compliance efforts.

- Stakeholder Engagement:** Conducted community outreach programs to raise awareness about the project's benefits and scientific importance.

Delivering Impact

The DeepCHALLA project is a testament to the power of science and collaboration. By uncovering vital insights into climate and ecological history, the project contributes to a deeper understanding of Earth's past, informing strategies to address future environmental challenges.

20

ADVANCING ENERGY ACCESS: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR THE TPDC GAS DISTRIBUTION PIPELINE



The Tanzania Petroleum Development Corporation (TPDC) initiated a project to extend the Ubungo-Mikocheni Natural Gas Distribution Pipeline to connect new customers in Mkuranga District, Coast Region. This initiative aims to provide cleaner energy to more households and industries, promoting sustainable development and reducing reliance on less environmentally friendly energy sources.

Tansheq was appointed to lead the Environmental and Social Impact Assessment (ESIA) for this critical infrastructure project, ensuring regulatory compliance and alignment with environmental and social best practices.

Tansheq's Role

• Regulatory Compliance:

Prepared the Project Brief and registered the project with the National Environment Management Council (NEMC).

Developed the Scoping Report and EIA Terms of Reference.

• Stakeholder Engagement:

Conducted consultations to address community concerns and gain stakeholder support.

• Environmental and Social Assessment:

Assessed baseline environmental conditions to identify potential impacts.

Examined alternative locations and technologies to minimize risks.

Developed Mitigation and Monitoring Plans tailored to the project's needs.

• Economic and Technical Analysis:

Conducted a Cost-Benefit Analysis to ensure the project's feasibility and sustainability.

Compiled the Environmental Impact Statement (EIS) for approval.

• Client Representation:

Represented TPDC in the Technical Advisory Committee and incorporated feedback to refine project plans.

Challenges

• **Urban Complexity:** Extending the pipeline through densely populated areas posed logistical and environmental challenges.

• **Community Concerns:** Initial apprehension from residents about safety and potential disruptions.

• **Regulatory Hurdles:** Ensuring the project met stringent national environmental standards.

Solutions

• **Detailed Route Planning:** Identified optimal pipeline routes to minimize disruptions and environmental impacts.

• **Transparent Communication:** Engaged communities through workshops and meetings to address concerns and build trust.

• **Integrated Compliance Approach:** Aligned project activities with both national regulations and international environmental standards.

Delivering Impact

Tansheq's expertise ensured the TPDC gas pipeline project was developed responsibly, enhancing energy accessibility while safeguarding environmental and social values. This project supports Tanzania's transition to cleaner energy solutions and fosters economic growth by connecting more industries and households to natural gas.

ISO 9001:2015 CERTIFIED



ACCREDITED BY



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