

NIIR PROJECT CONSULTANCY SERVICES

CLIENT SUCCESS CASE STUDY

MANUFACTURING OF ACTIVATED BLEACHING EARTH FROM BENTONITE

A Strategic Industrial Investment Study for M/s. Manaseer Group, Jordan

"Transforming Regional Resources into Global Industrial Value"

Techno-Economic Feasibility Study | Market Assessment | Strategic Advisory

www.niir.org | info@niir.org | +91 9097075054

01 ABOUT NIIR PROJECT CONSULTANCY SERVICES (NPCS)

Niir Project Consultancy Services (NPCS) is a globally recognized industrial consultancy organization dedicated to guiding entrepreneurs, MSMEs, and large-scale investors in establishing profitable, sustainable, and technically sound manufacturing ventures.

Founded on decades of deep industrial expertise, NPCS delivers bankable Detailed Project Reports (DPRs), techno-economic feasibility studies, and strategic advisory services that help clients make confident, data-driven investment decisions across hundreds of industries.

Core Services

- Detailed Project Reports (DPRs) — Comprehensive, investor-grade reports covering every aspect of project planning, execution, and financial modeling
- Techno-Economic Feasibility Studies — In-depth assessments of technical viability, cost structures, and economic returns
- Market Research & Demand Analysis — Rigorous analysis of market size, growth trends, competitive landscape, and demand forecasting
- Engineering & Technical Advisory — Expert guidance on process technology, plant design, machinery selection, and operational setup
- Financial Modeling & Investment Planning — Detailed ROI, IRR, payback period analysis, and capital structuring
- Implementation Strategy & Roadmap — Phased execution plans, vendor identification, regulatory compliance, and scale-up guidance

NPCS is part of Asia's leading industrial knowledge ecosystem with thousands of project profiles and global consulting expertise spanning 50+ countries and 30+ years.

02 AUTHORITY & TRACK RECORD

Trusted by Investors Worldwide — A Proven Legacy of Industrial Excellence

30,000+ Detailed Project Reports Published	50+ Countries Served Globally	30+ Years of Industrial Expertise	250,000+ Industrial Projects Delivered
---	---	---	--

NPCS has earned the trust of investors, governments, development banks, and industrial institutions across Asia, Africa, the Middle East, and beyond. Our research-backed project reports are recognized as bankable, credible, and implementation-ready by financial institutions worldwide.

03 PROJECT SNAPSHOT

Client	M/s. Manaseer Group
Location	Jordan, Middle East
Industry Sector	Specialty Mineral Processing — Activated Bleaching Earth
Project Recommended	Manufacturing of Activated Bleaching Earth from Bentonite
Consultancy Scope	Techno-Economic Feasibility Study, Market Assessment, Project Costing & Strategic Advisory
Implementation Status	Client reviewed feasibility insights and confirmed implementation planning
End Markets	Edible oil refining, Petrochemicals, Lubricants, Biodiesel, Pharmaceuticals

04 CLIENT OVERVIEW

About M/s. Manaseer Group

M/s. Manaseer Group is a prominent, diversified business conglomerate headquartered in Jordan. The Group has established a strong presence across multiple industrial and commercial sectors in the Jordanian economy and is consistently seeking new avenues for strategic investment and value creation.

Recognizing the growing potential of Jordan's mineral resource base and the region's strategic position as a bridge between European, Asian, and African markets, the Manaseer Group sought to identify a large-scale manufacturing investment opportunity that would:

- Leverage locally available natural mineral resources
- Address growing industrial demand in regional and global markets
- Generate strong, long-term financial returns
- Establish a competitive manufacturing presence in specialty industrial materials

Why They Engaged NPC

The client approached Niir Project Consultancy Services (NPCS) seeking independent, professional expertise in identifying the right manufacturing project. The Manaseer Group required a consultancy partner with deep industrial knowledge, proven market research capabilities, and the ability to deliver a rigorous, bankable feasibility study that could support final investment decisions.

05 CHALLENGES & PROBLEM STATEMENT

The Investment Decision Problem Every Industrial Investor Faces

Before engaging NPCS, M/s. Manaseer Group faced a complex set of strategic, technical, and financial challenges typical of large-scale industrial investment decisions:

Market Uncertainty

Identifying which manufacturing sector offered genuine, sustained demand — rather than short-term trends — required comprehensive global and regional market intelligence that the client did not have internally.

Technical Complexity

Evaluating the technical feasibility of mineral-based manufacturing processes — including chemical activation technologies, plant infrastructure, and production efficiency benchmarks — required specialized engineering knowledge.

Financial Risk Assessment

Without reliable cost modeling, investment estimates, and return projections, committing to a large-scale manufacturing facility carried substantial financial risk. Unreliable data could lead to costly miscalculations in capital allocation.

Raw Material Supply Chain

Confirming the availability, quality, and supply continuity of bentonite clay — the primary raw material — as well as associated chemical inputs required dedicated supply chain analysis.

Regulatory & Implementation Complexity

Understanding the regulatory environment in Jordan, plant permitting requirements, and building a realistic implementation roadmap required local and international experience that demanded expert guidance.

06 NPCS APPROACH & STRATEGIC METHODOLOGY

NPCS deployed a structured, multi-phase consulting approach to guide M/s. Manaseer Group from initial project identification through to implementation planning. This end-to-end methodology is designed to eliminate uncertainty and deliver investment-grade insights.

Phase 1 — Industrial Opportunity Identification

NPCS conducted a broad-based evaluation of manufacturing sectors aligned with Jordan's natural resource base and the client's investment objectives. Multiple industries were assessed before Activated Bleaching Earth manufacturing was identified as the optimal recommendation based on resource availability, demand dynamics, and profitability potential.

Phase 2 — Market Assessment & Demand Forecasting

A comprehensive global and regional market analysis was conducted covering the activated bleaching earth industry — including demand trends, key end-use sectors, competitive landscape, import-export dynamics, and price benchmarks. Special emphasis was placed on Jordan's export potential to Middle Eastern, Asian, and African markets.

Phase 3 — Raw Material & Supply Chain Analysis

NPCS assessed the availability, quality grades, pricing, and sourcing logistics of bentonite clay and chemical activating agents. The analysis confirmed viable supply chain options within the region, supporting the project's operational feasibility.

Phase 4 — Technical Feasibility Evaluation

Detailed technical analysis of the manufacturing process — including clay activation technology, reactor and kiln systems, quality control processes, and plant infrastructure requirements — was conducted to establish a technically viable production model.

Phase 5 — Financial Modeling & Investment Evaluation

NPCS developed a comprehensive financial model covering capital investment requirements, operating cost structures, revenue projections, profitability metrics (ROI, IRR, payback period), and break-even analysis to validate the project's economic viability.

Phase 6 — Implementation Planning

Strategic guidance on plant location, capacity planning, phased implementation, equipment procurement, and operational setup was provided to translate the feasibility study into a practical action plan.

07 SCOPE OF SERVICES DELIVERED BY NPCS

NPCS delivered a comprehensive suite of consulting services to M/s. Manaseer Group, covering all dimensions of the investment decision:

Techno-Economic Feasibility Study

- Complete assessment of the project's technical and economic viability
- Process technology evaluation and recommended production model
- Plant capacity planning and infrastructure layout guidance

Market Research & Demand Analysis

- Global activated bleaching earth market size, growth projections, and key drivers
- End-use sector analysis: edible oils, mineral oils, lubricants, biodiesel, pharmaceuticals
- Regional demand assessment and Jordan's export market potential
- Competitive landscape and pricing benchmark analysis

Financial Modeling & Project Costing

- Capital investment estimation (land, buildings, machinery, utilities, working capital)
- Operating cost modeling (raw materials, labor, energy, overheads)
- Revenue projections and profit margin analysis
- ROI, IRR, payback period, and NPV calculations
- Break-even analysis and sensitivity scenarios

Raw Material & Supply Chain Assessment

- Bentonite clay availability analysis in Jordan and neighboring regions
- Sourcing options for sulfuric acid and other chemical activating agents
- Supply continuity risk assessment and procurement strategy

Implementation Roadmap

- Phase-wise project execution timeline
- Equipment and machinery procurement guidance
- Regulatory compliance and permitting framework
- Organizational and staffing structure recommendations

08 TECHNICAL INSIGHTS: THE MANUFACTURING PROCESS

How Activated Bleaching Earth is Manufactured from Bentonite

Activated bleaching earth is produced through a specialized acid-activation process applied to raw bentonite clay. This chemical treatment dramatically enhances the natural adsorption capacity of the clay, enabling it to effectively remove impurities — including pigments, phospholipids, trace metals, and odor compounds — from oils and industrial liquids.

Step-by-Step Manufacturing Process

- Step 1: Raw Bentonite Extraction & Quality Testing — Bentonite clay is sourced, tested for mineral composition, and graded for suitability in bleaching earth production
- Step 2: Crushing & Pre-Treatment — Raw bentonite is crushed and dried to reduce moisture content to required processing levels
- Step 3: Acid Activation — Dried bentonite is mixed with dilute sulfuric acid (H₂SO₄) under controlled temperature and duration conditions, dissolving impurities and expanding the clay's pore structure to increase adsorption capacity
- Step 4: Washing & Neutralization — Acid-treated clay is thoroughly washed with water to remove excess acid and neutralized to achieve the required pH specifications
- Step 5: Drying & Calcination — Washed product is dried in rotary dryers and, where required, calcined in kilns to achieve the desired moisture content and activity levels
- Step 6: Milling & Classification — Dried material is milled to required particle size distribution and classified using screening systems
- Step 7: Quality Testing & Packaging — Final product is rigorously tested for bleaching capacity, moisture content, free acidity, and particle size before being packaged for dispatch

Key Machinery & Equipment

- Jaw crushers and impact mills for size reduction
- Rotary dryers and calcination kilns for thermal processing
- Acid activation reactors with temperature and agitation control
- Washing and filtration systems (filter presses, centrifuges)
- Ball mills and classifiers for particle size control
- Quality testing laboratory equipment
- Automated packaging and bagging systems

09 FINANCIAL & MARKET ANALYSIS

Global Market Overview

The global activated bleaching earth market is one of the most stable and consistently growing segments within industrial mineral processing, underpinned by the fundamental necessity of edible oil refining and industrial purification operations worldwide.

Market Indicator	2023 / Current	2030 Projection
Global Market Value	~USD 3.13 Billion (2025)	~USD 4.1 Billion

Market CAGR	~5.5% per annum	Sustained growth trajectory
Global Consumption Volume	3.9+ Million Metric Tons	Projected to exceed 5 MT
Share from Edible Oil Refining	~72% of total usage	Maintaining dominant share
Key Growth Markets	Middle East, Asia-Pacific, Africa	High-growth export regions

Investment Outlook

NPCS's techno-economic evaluation identified highly favourable investment fundamentals for the Activated Bleaching Earth manufacturing project:

- Moderate capital investment with scalable production capacity, enabling phased deployment and risk management
- Strong gross margin potential due to significant value addition from raw bentonite to high-value activated bleaching earth
- Attractive payback period driven by consistent industrial demand and stable pricing
- Export-oriented revenue potential leveraging Jordan's strategic trade connectivity
- Limited direct competition in the regional market, offering first-mover advantages

Strategic Financial Indicators

- Project Category: Medium-to-large scale capital manufacturing project
- Revenue Streams: Domestic sales to oil refiners + export to regional and international buyers
- Profit Margin Potential: Above-average for the mineral processing sector
- ROI Indicators: Positive NPV with attractive IRR relative to benchmark
- Risk Profile: Low-to-moderate — backed by stable, non-cyclical industrial demand

10 RESULTS & OUTCOMES

Tangible Value Delivered to M/s. Manaseer Group

The comprehensive consulting engagement by NPCS delivered clear, measurable value across multiple dimensions for M/s. Manaseer Group:

Strategic Clarity

The client gained a clear, evidence-based understanding of the manufacturing opportunity — including market size, competitive dynamics, and growth drivers — eliminating ambiguity and enabling a confident investment decision.

Technical Readiness

A fully documented, technically validated manufacturing model — covering process flow, machinery requirements, plant layout, and production parameters — provided the client with a ready-to-execute technical blueprint.

Financial Confidence

Detailed financial projections, investment estimates, and profitability analysis gave the Manaseer Group a bankable financial model that could be presented to institutional financiers and internal stakeholders.

Risk Mitigation

By identifying and addressing key investment risks — including raw material supply, market demand, technical complexity, and regulatory requirements — before capital commitment, NPCS significantly reduced the client's overall investment risk profile.

Implementation Momentum

With a structured implementation roadmap delivered by NPCS, the Manaseer Group was able to immediately transition from feasibility review to active implementation planning — saving months of internal research and planning time.

Outcome: M/s. Manaseer Group reviewed the NPCS techno-economic feasibility study and strategic analysis, expressed full confidence in the recommended project, and agreed to proceed with implementation planning for the Activated Bleaching Earth manufacturing facility in Jordan.

11 CLIENT TESTIMONIAL

“

Niir Project Consultancy Services provided valuable expertise in identifying a viable industrial manufacturing opportunity aligned with our regional resources and global demand trends. Their feasibility analysis was thorough, data-driven, and clearly structured. The strategic guidance and market insights they delivered gave us the confidence to move forward with our investment decision. NPCS is a trusted partner for anyone serious about industrial project development.

— Management Team, M/s. Manaseer Group, Jordan

12 WHY CHOOSE NIIR PROJECT CONSULTANCY SERVICES

Your Investment Deserves Expert Guidance — Here is Why NPCS is the Right Partner

1. Proven Industrial Expertise

With 30+ years of experience and 30,000+ project reports published, NPCS brings unmatched depth of knowledge across hundreds of manufacturing and processing industries — from specialty chemicals to mineral processing, food technology to renewable energy.

2. Global Market Understanding

NPCS combines deep local insights with a truly global market perspective. Our research teams monitor industrial trends across Asia, the Middle East, Africa, Europe, and the Americas — ensuring that every recommendation is anchored in current, credible market intelligence.

3. Data-Driven Feasibility Analysis

Every NPCS feasibility study is built on verified primary and secondary data, industry benchmarks, and quantitative financial modeling — not assumptions. Our reports are designed to be bankable, presentation-ready, and decision-ready.

4. End-to-End Project Support

From initial opportunity identification and market research, through technical feasibility and financial modeling, to implementation planning and post-investment advisory — NPCS is a true end-to-end industrial consulting partner.

5. Risk Mitigation Focus

NPCS's methodology is explicitly designed to identify, quantify, and help clients mitigate investment risks before capital is committed — protecting our clients from costly mistakes and ensuring they enter projects with eyes fully open.

6. Trusted Across 50+ Countries

Our clients include individual entrepreneurs, diversified business groups, development finance institutions, and government agencies across more than 50 countries. NPCS reports are recognized and accepted by banks, investors, and industrial authorities worldwide.

13 CONCLUSION

The M/s. Manaseer Group case study illustrates the transformative value that a rigorous, professionally executed techno-economic feasibility study can deliver to industrial investors. By partnering with NPCS, the Manaseer Group was able to move from investment aspiration to implementation confidence — backed by verified market data, sound technical analysis, and credible financial projections.

The Activated Bleaching Earth manufacturing project represents a compelling industrial opportunity — combining Jordan's mineral resource endowment, strong global demand from oil refining industries, and an attractive financial return profile. With NPCS's guidance, the Manaseer Group is positioned to establish a competitive, export-capable manufacturing operation that creates long-term economic and industrial value for Jordan.

This case study exemplifies NPCS's core mission: transforming investment ideas into profitable, sustainable, and technically sound industrial ventures — backed by rigorous research, proven methodology, and decades of industrial expertise.

14 READY TO BUILD YOUR NEXT INDUSTRIAL PROJECT?

Partner with Niir Project Consultancy Services (NPCS) to transform your investment idea into a profitable industrial venture.

NPCS offers the full spectrum of industrial consulting services — from project identification and market research to technical feasibility, financial modeling, and implementation support. Whatever stage of your industrial investment journey you are at, NPCS has the expertise to take you to the next level.

Niir Project Consultancy Services (NPCS)

Website: www.niir.org | www.entrepreneurindia.co

Email: info@niir.org | Phone: +91 9097075054

Explore thousands of industrial project opportunities at www.niir.org