BUSINESS PLAN · INDIA

Minor-Mineral Mining Operation

Sand, gravel and minor-mineral extraction

MINING

AISEVAK.IN · BY ABL DIGITAL TECHNOLOGIES

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1. Executive Summary

This plan sets out a **Minor-Mineral Mining Operation** in India — a regulated real-asset extraction business mining **sand, gravel & minor minerals** (river/M-sand feedstock, gravel, murrum, ordinary earth) for construction. It operates on a **mining lease/permit** over a defined area, extracting & selling minor minerals by volume — a lease-, permit-, volume-, capex- & regulation-driven business tied to construction demand, under especially strict sand-mining norms.

India's construction demand for sand, gravel & minor minerals is vast, but **sand mining is among the most tightly regulated & scrutinised** extraction activities — NGT rulings, river-sand restrictions, sustainable-sand-mining guidelines, environmental clearance & strict enforcement against illegal mining. A minor-mineral mining operation is a **regulated real-asset extraction business**: it holds a mining lease/permit (often auctioned) over a defined area/river-stretch, invests in excavation/loading/haulage machinery, extracts sand/gravel/minor minerals within permitted volume & conditions, and sells by volume. It is permit-, volume-, capex- & regulation-heavy: mining lease/permit, environmental clearance (EC via DEIAA/SEIAA), consent-to-operate (CTO), royalty/DMF, replenishment/river-bed conditions & anti-illegal-mining enforcement govern it. Revenue = **permitted extraction volume × realisation**; economics rest on the permit/quantity, extraction cost, royalty, capex & construction demand — it is permit-, volume-, cost- & regulation-driven, real-asset.

This is a capital- & regulation-intensive real-asset business — funded by promoter equity plus term loan & working capital. This plan models a minor-mineral (sand/gravel) mining operation requiring **₹3 crore** (₹1.2 crore promoter + ₹1.8 crore term loan/WC), targeting **₹5.5 crore** revenue in Year 1 and **₹10 crore** by Year 3. *(Minor-mineral mining; permitted volume × realisation, permit/capex/regulation-driven, real-asset — figures illustrative.)*

2. Business Description, Vision & Legal Structure

Concept: A minor-mineral mining operation - extracting sand/gravel/minor minerals under a mining lease/permit to supply construction, within permitted volume & conditions.

Vision: To be a compliant, sustainable minor-mineral supplier - legal extraction, quality feedstock & responsible sourcing.

Mission: Extract & supply sand/gravel/minor minerals legally, sustainably & within permit - serving construction demand.

Legal structure options

- **Private Limited / LLP** — recommended for the lease/permit (often auctioned), capex, term loan, liability & compliance.
- **Proprietorship/Partnership** — possible for a small permit but weak for auction/finance/liability.

> **Regulatory anchor:** minor-mineral mining — especially **sand** — is a **heavily regulated & enforced** activity: **mining lease/permit** (state minor-mineral rules, often e-auctioned), **environmental clearance (EC)** (DEIAA/SEIAA; sustainable-sand-mining guidelines), **consent-to-operate (CTO)**, **royalty & DMF**, permitted-quantity/replenishment & river-bed conditions, transit passes/e-permits (anti-illegal-mining), & NGT/court oversight. Permit/quantity, extraction cost, royalty, capex & construction demand determine success; it is permit-, volume-, cost- & regulation-driven, real-asset. **Legal compliance is existential** — illegal mining carries severe penalties.

3. Promoter & Ownership

Led by a promoter with mining, construction-materials or civil expertise. The team includes a mine manager, extraction/machinery operations, transit/compliance, safety, sales & accounts. Permit/quantity, extraction efficiency, capex & strict compliance are the differentiators. Ownership, equity & any partner are editable inputs.

4. Market Analysis — India

India's demand for sand, gravel & minor minerals is enormous & construction-driven, while supply is constrained by tightening regulation — making legal, permitted supply valuable. Demand is construction-/infrastructure-driven & local (freight-sensitive). The market rewards a valid permit/quantity, extraction efficiency, logistics & compliance; it is construction-cycle-, regulation- & freight-sensitive, met with permits, efficiency, logistics & strict compliance.

Demand drivers

- **Construction/concrete & RMC** (sand-intensive).
- **Infrastructure/roads & buildings.**
- **Constrained legal supply** (regulation - legal sand is scarce/valuable).
- **Urbanisation & construction growth.**
- **Local demand** (freight-sensitive).

Market sizing (illustrative framing)

Layer	Definition	Indicative scale
TAM	Sand/minor minerals in India	Very large
SAM	Regional/local catchment	Substantial
SOM (Yr 1–3)	Permitted extraction & sales	Scaling

Target segments

- Construction contractors & builders.
- RMC/concrete plants.
- Infrastructure/road projects.
- Sand/aggregate traders.

5. Competition & Competitive Advantage

Landscape: other permit-holders in the catchment, M-sand (manufactured sand) as a substitute, traders & (unfortunately) illegal miners. The legal operation competes on permit/quantity, quality, proximity/logistics, reliability & compliance (legal supply is the moat).

The business's edge

- **Valid permit/quantity** (legal supply is scarce/valuable).
- **Extraction efficiency & cost.**
- **Proximity/logistics.**
- **Quality & reliability.**
- **Strict compliance** (transit passes/e-permits).

6. Products & Revenue Model

Product	Model	Basis

River/natural sand	Per-tonne/brass sale	Core volume
Gravel / aggregate feedstock	Per-tonne/brass	Volume
Murrum / ordinary earth / filling	Per-load	Volume
Other minor minerals	Per-tonne	As permitted

> Revenue is **permitted extraction volume × realisation** (sand/gravel/minor minerals within permit). Economics = volume × realisation − (royalty + extraction cost[diesel/machinery] + freight) − permit/compliance; permit/quantity, extraction efficiency/cost, royalty, capex & construction demand drive it — the decisive levers (real-asset extraction, permit-capped).

7. Go-to-Market — Sales & Logistics

- **Contractor/builder & RMC** supply relationships.
- **Infrastructure/project** supply.
- **Proximity/logistics** (freight advantage).
- **Legal/reliable supply** (transit-pass compliant).
- **Trader** off-take.

Sales approach

Secure permit/lease (auction) & clearances → set up extraction & transit-pass system → extract within permitted quantity → supply contractors/RMC/projects nearby (legal, reliable) → build repeat off-take → optimise extraction cost within permit. Permit/quantity, extraction efficiency, proximity/logistics & strict compliance build a legal real-asset extraction business tied to construction demand.

8. Operations Plan (extraction, real-asset)

- **Permit & quantity:** mining lease/permit, permitted quantity/period, mine-plan, replenishment/conditions.
- **Extraction:** excavation (excavator), loading, haulage (tippers) within permitted area/depth.
- **Transit & compliance:** transit passes/e-permits per load (anti-illegal-mining), royalty/DMF, weighbridge.
- **Machinery & maintenance:** excavators, tippers/dumpers, diesel, upkeep.
- **Environment & safety:** EC/CTO conditions, river-bed/replenishment, dust/water, safety.

Workflow

Stage	Activity	Metric
Permit	Lease/permit/EC/CTO	Quantity/approval
Extract	Excavate within permit	Volume/day
Transit	Transit-pass/weighbridge	Compliant loads
Dispatch	Load/haul/sell	Tonnes/realisation
Comply	Royalty/EC/replenishment	Compliance

9. Regulatory, Licences & Compliance (India)

- **Mining:** mining lease/permit (state minor-mineral rules, often e-auction); permitted quantity/period; mine-plan; royalty & DMF.
- **Environment:** EC (DEIAA/SEIAA; sustainable-sand-mining guidelines); CTO; river-bed/replenishment conditions.
- **Transit/anti-illegal:** transit passes/e-permits per load; weighbridge; NGT/court compliance.
- **General:** company; GST; safety; transport permits.

10. Organisation & Manpower Plan

Role	Yr 1	Yr 2	Yr 3
Promoter / mine manager	1	2	2
Extraction / machinery ops	4	7	10
Tipper drivers & loaders	6	11	16
Transit/compliance & weighbridge	3	5	7
Sales, safety & accounts	3	5	7
Total	**17**	**30**	**42**

11. Implementation Timeline & Milestones

Phase	Timeline	Milestone
Permit & clearance	Month 0–6	Lease/permit (auction), EC, CTO, mine-plan, transit system
Setup	Month 6–9	Machinery, weighbridge, first extraction
Ramp	Month 9–12	Extraction & sales, ₹5.5cr (ramp)
Grow	Year 2–3	Volume/efficiency, ₹10cr

12. Financial Plan (Illustrative)

All figures are illustrative model assumptions for an Indian context, shown so the promoter can replace them with live rates. They are not projections of guaranteed results. Minor-mineral mining is a real-asset, permit-capped extraction business; revenue = permitted volume × realisation; capex (machinery) & permit/compliance are the base; royalty, diesel & freight are the main variable costs; construction demand drives volume within permit.

12.1 Project cost & means of finance

Capital requirement	₹
Machinery (excavators/tippers/loader)	1,60,00,000
Lease/permit (auction premium), EC/CTO & site	80,00,000
Weighbridge, transit-system & development	20,00,000

Working capital (diesel + wages + royalty)	40,00,000
Total project cost	**3,00,00,000**
Promoter contribution	1,20,00,000
Term loan / WC finance	1,80,00,000

12.2 Projected Profit & Loss (3 years)

Particulars	Year 1	Year 2	Year 3
Sand sales	4,20,00,000	5,80,00,000	7,20,00,000
Gravel / aggregate feedstock	1,00,00,000	1,80,00,000	2,40,00,000
Murrum / earth / other	30,00,000	40,00,000	40,00,000
Total revenue	**5,50,00,000**	**8,00,00,000**	**10,00,00,000**
Royalty, DMF & permit	90,00,000	1,25,00,000	1,55,00,000
Extraction cost (diesel/machinery/spares)	1,90,00,000	2,70,00,000	3,30,00,000
Wages, freight & overheads	1,70,00,000	2,35,00,000	2,85,00,000
Depreciation, interest & other	55,00,000	58,00,000	60,00,000
Total expenses	**5,05,00,000**	**6,88,00,000**	**8,30,00,000**
Net profit (before tax)	**45,00,000**	**1,12,00,000**	**1,70,00,000**
Net margin	8.2%	14%	17%

12.3 Unit economics & break-even

- **Volume × realisation (permit-capped):** tonnes/brass × price; royalty & diesel are the main variable costs; permitted quantity caps upside (legal scarcity supports realisation); freight is proximity-sensitive.
- **Permit & extraction efficiency:** the valid permit/quantity, extraction cost per tonne & machinery utilisation are the make-or-break; legal supply commands a premium; capex is real-asset.
- **Break-even:** at an extraction/sales volume covering royalty, extraction cost, wages & finance; margins expand with volume (up to permit), efficiency & operating leverage.

12.4 Projected Cash Flow — Year 1 (quarterly, illustrative)

Particulars (₹)	Q1	Q2	Q3	Q4
Opening balance	40,00,000	25,00,000	24,00,000	26,00,000
Sales collections	80,00,000	1,30,00,000	1,55,00,000	1,85,00,000
Royalty, extraction, wages & operating	95,00,000	1,31,00,000	1,53,00,000	1,79,00,000
Closing balance	**25,00,000**	**24,00,000**	**26,00,000**	**32,00,000**

> Minor-mineral mining is capex- & compliance-heavy upfront (permit/EC/machinery) with a seasonal ramp (sand mining often has seasonal/monsoon windows); royalty/diesel/wages are steady. Volume within permit, extraction efficiency, royalty/diesel management & a WC line manage cash; the key risks are permit/EC/regulatory & enforcement (existential — legal

compliance is non-negotiable), construction-cycle demand, monsoon/seasonality, diesel/royalty cost & environmental/community — met with strict compliance, permits, efficiency & local demand.

12.5 Key Performance Indicators to Monitor

- **Extraction:** volume/day vs. permit; machinery utilisation; extraction cost/tonne.
- **Compliance:** transit-pass/e-permit compliance; permitted-quantity adherence; royalty.
- **Sales:** realisation; freight/proximity; off-take.
- **Finance:** royalty/diesel; net margin; DSCR; seasonality buffer.

13. Funding Requirement & Bankability

Total ask: **₹1.8 crore term loan/WC** against ₹1.2 crore promoter contribution — for machinery, permit/development & working capital on a real-asset base (machinery is financeable collateral). Fundability rests on the valid permit/quantity, clearances (EC/CTO), extraction economics & construction demand; legal-supply scarcity supports realisation. Year-1 profit ₹45 lakh growing to ₹1.7 crore as volume/efficiency scale within permit; permit validity, extraction efficiency & strict compliance are key. DSCR supported by permitted volume × realisation; permit, extraction cost, royalty & demand underpin the model — **bankability hinges on impeccable legal compliance**.

13.1 Funding utilisation

Use of funds	₹	% of total
Machinery (excavators/tippers/loader)	1,60,00,000	53.3%
Lease/permit (auction premium), EC/CTO & site	80,00,000	26.7%
Weighbridge, transit-system & development	20,00,000	6.7%
Working capital (diesel + wages + royalty)	40,00,000	13.3%
Total	**3,00,00,000**	**100%**

14. Risk Analysis & Mitigation

Risk	Mitigation
Permit / EC / regulatory / enforcement	Valid permit, EC/CTO, transit-pass discipline, strict legal compliance (existential)
Construction-cycle demand	Diverse off-take (contractors/RMC/projects), local proximity
Monsoon / seasonality	Seasonal planning, stock buffer, WC line
Diesel / royalty cost	Extraction efficiency, machinery utilisation
Environment / river-bed / community	Replenishment/EC conditions, DMF, community relations, sustainable practice

15. SWOT Analysis

Strengths Construction-demand tailwind; legal-supply scarcity (permit moat); real-asset; local/freight advantage; financeable machinery.	**Weaknesses** Regulation-/enforcement-heavy; permit-capped upside; permit/EC-dependent; seasonal; diesel/royalty-sensitive; environmental exposure.
Opportunities Constrained legal supply; infrastructure demand; RMC/EPC supply; nearby projects; reliable legal sourcing.	**Threats** Regulatory/NGT tightening; enforcement/illegal-mining dynamics; M-sand substitution; construction slowdown; monsoon; community pushback.

16. Recommended AiSevak Tools for This Business

This minor-mineral mining operation would use AiSevak's Mining vertical tools in operations:

- **Extraction & costing:** permitted-volume/realisation & extraction-cost/tonne, royalty/DMF & utilisation tools.
- **Compliance & transit:** permit/EC/CTO & transit-pass/quantity-adherence, royalty & GST tools (with Legal vertical).
- **Practice:** Business Plan, break-even/DSCR and volume-realisation tools to model the operation.

17. Key Assumptions & Notes

- Minor-mineral mining: regulated real-asset, permit-capped extraction of sand/gravel/minor minerals; revenue = permitted volume × realisation; sand-mining especially strict (NGT/river-sand rules).
- Volume × realisation − (royalty + extraction cost + freight) − permit/compliance decisive; permit/quantity, extraction efficiency/cost, royalty, capex & construction demand are the levers; legal compliance is existential.
- Equity + term loan/WC (machinery financeable); mining lease/permit (often e-auction), EC (DEIAA/SEIAA, sustainable-sand-mining), CTO, royalty/DMF, transit passes/e-permits.
- Permit, volume, extraction cost & strict compliance drive economics; figures illustrative, exclude GST; construction-cycle- & season-linked.

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