

SESSION 3: MANAGEMENT OF REVENUES FROM EXTRACTIVE INDUSTRY

Application of financial modelling in Lao PDR

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Lao Financial Modelling (mining)

Negotiating revenues from mining investments. Shared financial benefits.

This is being addressed in many ways. PEI specifically supports the Lao governments mining endeavors through the development of:

- › Investment Compliance database – tax collections/royalties/fees etc
 - › Contracts (provisions taken from Ag agreements and included in mine agreements)
 - › Research on local mine expenditures (extent of local procurement)
 - › **Mine model development (for practically all minerals)**
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Mine Models in Lao

- › Two models used in Lao PDR - Ministry of Energy and Mines (MEM) and Ministry of Planning and Investment (MPI)
 - › MPI's model developed by Corality (Australian listed company), global leader in financial modelling (also developed PEI Myanmar's mine model)
 - › MPI model used for preliminary assessment of potash mine
 - › Model will be used extensively in the future. 70% of Lao based mines in the prospecting and exploration phase.
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Challenges

Extensive list of model inputs (inputs based on Australian and international best practice). The model has **100's of inputs**

Issue – not all information (inputs) available to run the financial model

Some key inputs need to be estimated (as below). This is not ideal but still useful.

- *Capex (construction costs by category) + Operations (again categorization of costs)*
- *Rehabilitation (continually during operations) – no requirement in past contracts*
- *Volumes (mineral recovery figures)*
- *Operating/Processing costs (again categorization of costs)*
- *Depreciation of assets.*

ALL THESE IMPACT THE USEFULNESS OF THE MODEL!!!!

Solutions to Challenges

Solution. Create list of ALL inputs to operate the model. Annex list to Department of Mines Feasibility Study (FS) guideline so investors are aware of FS data requirements

Why do this?

- Saves time (400 page FS, difficult to find data that might not be missing anyways...)
- Improves the models accuracy (ensures governments gets the right data)
- Compare apples with apples (same numbers same model to determine financials)
- Partly helps to level the playing field during negotiations
- Improves transparency

Why is the last point important? Because of the scenario manager.

Why financial models are helpful

	A	B	C	E	F	G	H	I	J	K	L	M	N	O
1	Scenario manager													
2	Scenario: Base case													
3	Integrity : OK													
4	Signals : OK													
5					Live case	Select case			1	2	3	4	5	6
6					Base case	Case 1			Base case	Delay	Capex up	Capex down	Opex up	Opex down
7														
8														
9			Timing											
10			Delay	Months	0 Mth					3 Mth				
11			Capex											
12			Construction contingency	Y * (1 + %)	-									
13			Sustaining capex flex	Y * (1 + %)	-									
14			Rehabilitation cost flex	Y * (1 + %)	-									
15														
16			Ore mined											
17			Open pit ore path	Choice	Base				Base					
18			Open pit ore flex	Y * (1 + %)	-									
19														
20			Underground ore path	Choice	Base				Base					
21			Underground ore flex	Y * (1 + %)	-									
22														
23			Other ore path	Choice	Base				Base					
24			Other ore flex	Y * (1 + %)	-									
25														
26			Waste mined path	Choice	Base				Base					
27			Waste mined flex	Y * (1 + %)	-									
28														
29			Price paths											

Log

Issues

Summary

AFS-2

IFS-2

AFS

IFS

Inputs

Scenarios

Timing

Capex

Ops

Funding

Next Steps for IPD and PEI

- › Use model for two upcoming mine negotiations
 - › Continue advancing IPDs ability to use and understand the model, including advanced MS excel skills.
 - › Develop specialists at IPDs screening division to focus on various aspects of the model. Staff must have good general understanding but with “added” specialist areas i.e. depreciation, tax, capex, etc. to advise lead negotiator.
 - › PEIs work offers an excellent opportunity to share experiences on Corality based modeling between Lao/ Myanmar since models are practically identical.
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Thank you for your attention