Payment Mechanism for Deep Seabed Exploitation *Versus* Land Customary Regime of Different Countries

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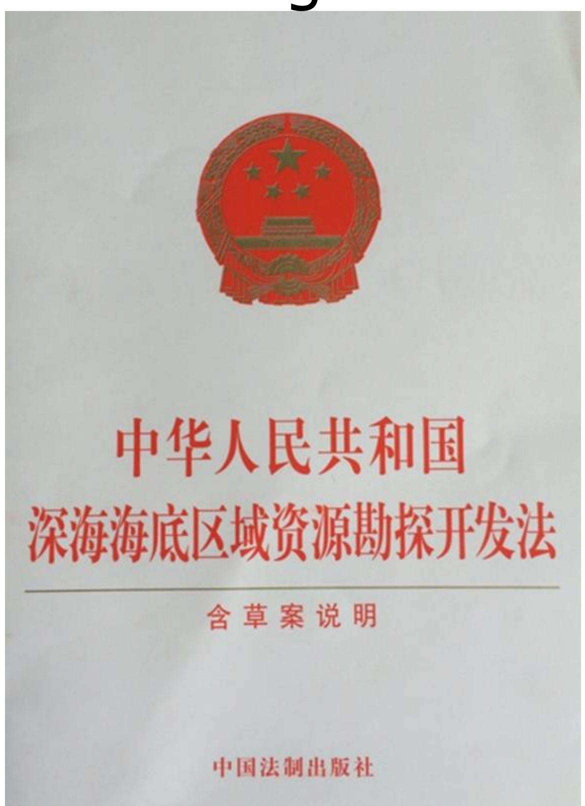
Contents

I. China's Deep Seabed Law

- **The Law of the People's Republic of China on Exploration for and Exploitation of Resources in the Deep Seabed**

— adopted by the Standing Committee of the National People's Congress on February 26, 2016

— promulgated through No.42 Order of the President, PRC



I. China's Deep Seabed Law

1. —Regulating the activities of resource exploration and exploitation in the deep seabed area
2. —Advancing science and technology research of deep sea and resource investigation
3. —Protecting the marine environment
4. —Promoting sustainable utilization of resources in the deep seabed area; and
5. —Maintaining the common interests of mankind

Purposes of the Law

I. China's Deep Seabed Law

Principles of Seabed Activities

1. Peaceful and sustain-able use
2. Collaboration and sharing,
3. No less than ISA environ-ment standards
4. Maintaining common interests of mankind

The law entered into force on May 1, 2016

I. China's Deep Seabed Law

Structure (7 chapters and 29 articles)

I. General Provisions
II. Exploration and Exploitation
III. Environment Protection
IV. Science and Technology Research and Resource Investigation
V. Supervision and Inspection
VI. Legal Liability
VII. Supplementary Provisions

II. China's Position on the Seabed Regime

China's Position

1

Insist on the principle of common heritage of mankind

2

Support ISA functioning as an organ to administer the Area

3

Balance the utilization of the resources and the protection of environment

III. Provisions Set in the UNCLOS

- Fair both to the contractor and to the Authority;
- Rates of payments within the range of those prevailing of land-based mining in order to avoid artificial competitive advantage or disadvantage;
- Not complicated and not impose major administrative costs on the Authority or on the Contractor;
- A royalty system or a combination of a royalty and profit-sharing system;

III. Provisions Set in the UNCLOS

- The contractor’s right to choose the system and agreed by the Authority;
- System of payments may be revised periodically in the light of changing circumstances;
- An annual fixed fee from the date of commencement of commercial production and may be credited against other payments due;
- The fee for processing applications for approval of a plan of work be US$ 250,000.

III. Provisions Set in the UNCLOS

** US$ 500,000 in the Convention.

** In the Agreement Art.2: In the event of any inconsistency between the Agreement and Part XI, the provisions of the Agreement shall prevail.

Remarks on UNCLOS Payment Provisions

According the Agreement :
Two Kinds of payments

Payment 1: Application fee of US$250,000

Payment 1: Royalty and, Profit-sharing System

****Annual fixed fee may be credited from the royalty system.**

What is an adequate Payment System?

Royalty

specific Vs ad valorem system?

Profit sharing system?

Let's look at the land Customary Regime for reference……

Different Governments may adopt different systems, but it is universally acknowledged that the profit sharing system is more rational to both the investor and to the Government.

IV. Land Customary Royalty

	Unit based	ad valorem	Profit Sharing	Mix
Countries and regions	Australia; Indonesia; Georgia	China; India; Mongolia; Latin America; Papua New Guinea; Philippines; the federal land, Arizona, Michigan of the US; Kazakhstan; Uzbekistan; Botswana; Angola; Ghana; Ivory coast; Mozambique; Namibia; Zambia; Azerbaijan; Poland; Russia; Venezuela;	Bolivia; Peru; the United States; Nevada; Ontario; Northwest territories, Alberta of Canada; South Africa; Tanzania; Western Australia, North Area of Australia	China; Queensland; new south wales, Western of Australia, British Columbia, Saskatchewan province of Canada; Papua New Guinea

IV. Land Customary Royalty

China's Mineral Resource Royalty (Tax) System:

Royalty + Tax

IV. Land Customary Royalty

Minerals	Royalty Rate (%)
Oil, natural gas, coal, coal-formed gas, stone coal and oil sands	1
Natural bitumen, oil shale, iron, manganese, chromium, vanadium, titanium, copper, lead, zinc, bauxite, nickel, cobalt, tungsten, tin, bismuth, molybdenum, mercury, magnesium	2
Samarium, europium, yttrium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium, scandium, germanium, gallium, indium, thallium, rhenium, cadmium, selenium, antimony	3
Gold, silver, platinum, palladium, ruthenium and osmium, iridium, rhodium, ionic rare earth, precious stones, jade, gem grade diamond	4
Non-metallic, building materials	2
Lake salt brine, salt, and natural	0. 5
Carbon oxide, sulfide hydrogen and helium gas, radon	3
Mineral water	4

China's Land Mineral Royalties

(ad valorem)

IV. Land Customary Royalty

China's Mineral Resource Tax

Tax		Tax Rate	Levy Method
Crude oil		5-10%	ad valorem
Natural gas		5-10%	ad valorem
Coal	Coking coal	8-20RMB/t	Unit based
	Others	0.4-5RMB/t	Unit based
No-metallic ores	General Ore	0.5-20RMB/M^2	Unit based
	Precious Ore	0.5-20RMB/kg	Unit based
Black metal ores		20-30RMB/t	Unit based
Non-ferrous metal Ore	Rare earths	0.4-60RMB/t	Unit based
	Others	0.4-30RMB/t	Unit based
Salt Ore	Solid salt	10-60RMB/t	Unit based
	Liquid Salt	1-6RMB/t	Unit based

IV. Land Customary Royalty

Indonesia's Mineral Resource Royalties

(Unit based)

Items	Annual output	Unit	Rate	Calculation basis
Copper	<1200	Ton	70 US$/T	Copper content of sold products
	>1200		80 US$/T	
Gold	<2000	Kg	225 US$/Kg	Gold content of sold products
	>2000		235 US$/Kg	
Chromium	<15000	Ton	0.35 US$/T	Weight of the concentrate ore sold
	>15000		0.45 US$/T	
Monohydrallite	<20000	Ton	0.4 US$/T	Weight of ores sold
	>20000		0.5 US$/T	

IV. Land Customary Royalty

Kazakhstan's Mineral Resource Royalties

(ad valorem)

Items	Rate (%)	Calculation basis
Hydrocarbons	8--19	Sales revenue
Copper	8	Sales revenue
Zinc	9	Sales revenue
Lead	8.5	Sales revenue
Chromium	17	Sales revenue
Gold, Silver,and Platine group	5	Sales revenue
Uranium	15	Sales revenue

IV. Land Customary Royalty

South Africa's Land Mineral Royalties (Profit Sharing)

Refined mineral Royalty = **0.5**+ （Pre-tax gross profit÷ (Sales revenue of Refined mineral ×**12.5**))） × **100**

Non-Refined mineral Royalty = **0.5**+ （Pre-tax gross profit÷ (Sales revenue of Refined mineral ×**9**))） × **100**

- The Royalty of South African protects the business in red.
- When the commodity price rises, the Royalty increases. The extra royalty goes to subsidize the consumers.

IV. Land Customary Royalty

A South Africa Example

Assuming a mine produces 100,000 tons of refined copper, with total sales revenue of $800 million, and gross profit before tax of $220 million (gross profit 38%), the royalty rate will be:

Royalty Rate= 0.5 + {$220 million /($800 million x 12.5)} x 100 = 2.7%

If mine pre-tax profit is zero, then Royalty rate is only 0.5%

Over all Burden of the Industries

The over all burden comes from Royalty and the Levied Tax by the government.

- Sweden's mining industry enjoys the lowest rate of 15.7%;
- Industry in Ontario, Canada, the highest of 63.8%;
- While in China the rate is about 45.7%.
- In Mexico mining industry do not need to pay Royalty, but over all tax rate is as high as 49.9%.
- The world average overall burden （average effective tax rate） of the mining industry is about 40-50% of the net profit.

Technical and Economical Model

	IRR(%)	Pay Back Period(year)
Yamazaki (2005):	9.8	11
UKSR (2015):	8.6	20
COMRA (2015):	8.4	20

The figures don't show any satisfactory, the pay back period is quite long. Even so, the Royalty, the environmental costs, and so on, were not taken into account of the calculation.

Therefore, if the Royalty Rate is **higher** than the contractor to bear, the only choice for the contractor is to **wait-and-see**.

V. Conclusions and Suggestions

Royalty Rate

Royalty Rate should attract contractors to enter into the exploitation and permit them get a profit higher than that of the average investment in mining industry. Considering the complexity of the mining technology, the Royalty Rate should below that of land minerals of copper, cobalt and nickel.

Without exploitation, "the Common Interest of Mankind" will only be a principle in theory and be an armchair strategist.

V. Conclusions and Suggestions

Two kinds of Payments

Payment 1: The fee for processing applications for approval of a plan of work be US$ 250,000.

Payment 2: Two kinds of systems should be considered: Royalty, and Royalty ***plus*** Profits Sharing systems, so as that the contractors could make proper choice for themselves.

****Indicated in subparagraph (c) , section 8, Annex of the Agreement.**

V. Conclusions and Suggestions

Suggestions for Royalty Rate

- If specific system is applied, 50-60 US$/t is suggested for copper content;
- If ad valorem system is applied,

  0% is suggested if the net profit ≤0,

  1% is suggested if the net profit >0, ≤ 10%,

  2% is suggested if the net profit >10% (mature)
- If profit sharing system is applied,

  Non-Refined mineral Royalty = 0.5+ 〔Pre-tax gross profit÷ (Sales revenue of Refined mineral ×**9**)〕 × **100**

**** South African Formula**

V. Conclusions and Suggestions

Preference of Profit Sharing System

From previous workshops, most standpoints prefer ad valorem system.

- ✓ In the ad valorem system, it is clear to us about the amount of the production, metal content, and the metal price and the sales revenue.
- ✓ And from Annual Report, Auditing Report submitted to the Authority by the contractor, which are all based on the Internationally Accepted Accounting Standards, the cost and the profit of the exploitation operation can be calculated.
- ➢ Therefore, profit sharing system is preferred.

V. Conclusions and Suggestions

Annual Fixed Fee

An annual fixed fee shall be payable from the date of commencement of commercial production. This fee may be credited against other payments due under the system adopted.

The amount of the fee shall meet the ISA's normal operation, but be less than US$ 1,000,000.

V. Conclusions and Suggestions

ISA Royalty + Sponsoring State Tax

Besides Royalty levied by ISA, the contractor has to pay tax to the Sponsoring State according to the domestic tax law, the tax rate may vary greatly from country to country.

V. Conclusions and Suggestions

Use of the Royalty Collected

In land mining, the royalty collected by the government is usually for the use of searching for new mineral resources, for protecting mineral resources, for returning and subsidizing the immature mining industry, and for the protecting the environment.

The use the Annual Fixed Fee and the Royalty collected by the Authority should also set to a certain scope.

Thank you
for your attention !

Questions?