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Ministry of Energy and Natural Resources  
Royal Government of Bhutan  
Thimphu

**BHUTAN**  
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**SECRETARY**

MoENR/SEC/DoFPS/05/2022-2023/35

7<sup>th</sup> March 2023

**Notification on the Approved Natural Resources Pricing Guideline, 2023**

This is for general information that the Natural Resources Pricing Committee (NRPC), comprising of members from Ministry of Energy and Natural Resources, Ministry of Finance, Natural Resources Development Corporation Limited and Association of Wood-Based Industries, with its Secretariat at the Department of Forests and Park Services has approved the Natural Resources Pricing Guideline, 2023. The Approved Natural Resources Pricing Guideline, 2023 shall be implemented with immediate effect.

(Karma Tshering)

**Chairman**

**Natural Resources Pricing Committee (NRPC)**

Copy to:

1. Hon'ble Minister, Ministry of Energy and Natural Resources for kind information.
2. Secretary, Ministry of Industry, Commerce and Employment for kind information.
3. Chairman, DHI, Thimphu for kind information.
4. Director, Department of Forests and Park Services for kind information and necessary action.
5. CEO, Natural Resources Development Corporation Limited for kind information and necessary action.
6. President, Association of Wood-Based Industries, Thimphu for kind information.



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Ministry of Energy and Natural Resources  
Royal Government of Bhutan  
Thimphu


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# NATURAL RESOURCES PRICING GUIDELINE, 2023

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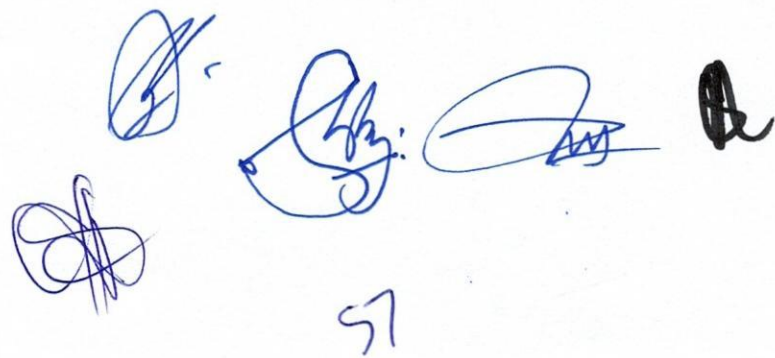
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## NATURAL RESOURCES PRICING GUIDELINE, 2023

### 1. INTRODUCTION

The Natural Resources Pricing Committee (NRPC) was formed as per the Government Executive Order 2007 (No. PM/01/07/571 dated 07/11/2007). The key objective is to make timber and other natural resources such as sand and stones available, accessible and affordable to all citizens. Consequently, the Rule 218(4) of Forest and Nature Conservation Rules and Regulation of Bhutan (FNCRR) 2017, states that the prices of the timber shall be periodically determined by Natural Resources Pricing Committee (NRPC). However, the pricing mechanism, the composition of NRPC members and their role and responsibilities are not described in the FNCRR. Under the current pricing mechanism, prices of timber, sand and stone are fixed based on average cost of production at Natural Resources Development Corporation Limited (NRDCL) regions and spread over to Dzongkhags falling within those regional jurisdictions. Sawm timber prices are derived from the log price on per unit basis with some additional cost components which are associated with timber sawing and marketing. Further, there were non-compliance to regulated sawn timber price by saw millers. Furthermore, there is no clear governing procedures for functioning of NRPC. Therefore, this guideline is developed to standardize the pricing mechanism for natural resources and mainstream procedure for approval by the NRPC to ensure compliance to relevant policy and regulatory provisions.

### 2. OBJECTIVES

The objectives of the guideline are to:

- a. Outline the procedures for functioning of NRPC and its governance.
- b. Formalize a standard mechanism for determining the price of timber, sand and stone in the country.
- c. Identify and standardize relevant costing parameters for determining price for timber, sand and stone.

### 3. PRICING MODEL

The pricing model that will be adopted for fixation of price of timber, sand and stone will be purely based on a **Cost-Plus Margin model**. Under this model, the royalty expense paid to the Government (Rg) will be included as a part of total cost, from which a fixed profit margin (PMi) will be added to derive the selling price (SPg) of the natural resources. Royalty expense is paid on production basis and is considered as allowable expense for taxation. Therefore, it should be included in the total cost formula.

The pricing formula is as follows:

$$SPg = \text{Total Cost} + (\text{Total Cost} * PMi)$$

Where:

  
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$SP_g$  is the Selling Price per unit “g” in Ngultrum per cft;

$PM_i$  is the Profit Margin “i” in percentage;

$R_g$  is the Royalty Expense “g” in Ngultrum per cft.

Total Cost is Cost of Production (CoPg) plus Royalty Expense ( $R_g$ )

#### 4. TIMBER PRICING

##### 4.1. Log Pricing

The log price shall be fixed based on the actual cost of log production plus royalty, profit margin, factoring inflation wherever required and other parameters where relevant. The log production cost shall include both direct and indirect cost of production which are discussed and described in detail under clause 4.1.1 and 4.1.2 respectively.

##### 4.1.1 Direct cost

The direct cost of log production is the cost incurred directly on production of logs from Forest Management Units, Working Schemes, Action Plans, ad hoc logging areas and expenses incurred for reforestation and scientific thinning. The direct cost shall include cost of felling, cross-cutting, de-barking, cable-craning or manual extraction, loading and unloading, transportation to depot, and stacking wherever applicable; and costs for reforestation and scientific thinning. The direct cost of log production shall be calculated as per Table 1 below and all estimates are on per unit basis (Nu. per cft).

Table 1: Direct Cost of log production (per unit cost)

Region	Name of FMU/ logging area	Dzongkhag	Co /BL	Volume (cft)	Felling, cross-cutting cost (Nu)	De-barking cost (Nu)	Cable Craning cost (Nu)	Manual extraction cost (Nu)	Loading & unloading cost (Nu)	Cost of trans. to depot (Nu)	Stacking cost (Nu)	Reforestation cost (Nu)	Thinning cost (Nu)	Total Cost (Nu)
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>n</i>	<i>o = f+g+...+n</i>
Wang	Gidakom		Co											
	Gidakom		BL											

##### 4.1.1.1 Felling and cross-cutting cost

The felling and cross-cutting cost shall include actual unit cost of felling of trees and cross cutting of felled trees into logs of suitable length for marketing and disposal.

##### 4.1.1.2 Debarking cost

The de-barking cost shall include actual unit cost of debarking of Spruce and Bluepine logs and poles.

##### 4.1.1.3 Cable-craning cost

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The cable-craning cost shall include actual craning cost incurred per unit for extraction of timber from felling site to the road point. However, if NRDCL's cable crane is deployed for log-craning purpose, this component shall be excluded from the log-pricing component. This cost shall not be included if manual extraction of timber is done.

#### *4.1.1.4 Manual extraction cost*

Manual extraction cost shall include actual unit cost of extraction of logs manually from felling site to the road head. This component shall be excluded if cable-craning cost is included. Manual extraction cost will be only allowed if the cable craning is not feasible.

#### *4.1.1.5 Loading and unloading*

The loading and unloading cost shall include the actual per unit cost of loading logs at landing site and unloading at the depot.

#### *4.1.1.6 Transportation cost to the depot*

Transportation cost to the depot shall include the actual per unit cost of transportation of logs from road head to the identified depot.

#### *4.1.1.7 Cost of stacking*

Cost of stacking shall include per unit cost of log-stacking at the time of timber lot formation and log-grading at a depot.

#### *4.1.1.8 Reforestation cost*

Reforestation cost shall include cost incurred on the creation and maintenance of nursery, creation and maintenance of plantation by NRDCL.

#### *4.1.1.9 Thinning cost*

Thinning cost shall include cost incurred for undertaking scientific thinning activities in State Reserved Forests by NRDCL.

#### *4.1.1.8 Total direct cost*

Total direct cost is sum of clauses 4.1.1.1 to 4.1.1.9 whichever is applicable. For each region, the average direct cost may be determined and reproduced as in Table 2.



Table 2: Average direct cost per unit of timber in NRDCL's regions

NRDCL Region	Dzongkhag	Conifer/Broadleaved	Average direct cost (Nu/cft)
Rinpung	Paro	Conifer	
	Paro	Broadleaved	
	Haa	Conifer	
	Haa	Broadleaved	

The average direct cost is the sum of all direct costs incurred for all logging areas under a particular Dzongkhag within NRDCL's regional jurisdiction divided by number of operation sites in that Dzongkhag, and it should be finally computed as weighted average for the whole of NRDCL region.

#### 4.1.2 Indirect cost of log production

The indirect cost or operation and maintenance (O&M) costs are the costs incurred against the day-to-day functioning of NRDCL and investments made for the extraction of timber from the approved Forest Management Units (FMU) and other NRDCL-operated areas. The indirect cost includes all expenses besides direct cost. Hence, the indirect cost includes operating expenses, employee-benefit costs, selling and distribution expenses incurred in the production of logs. The indirect cost is determined taking into consideration the total projected expenses and the total log-production volume projected. The details of indirect costs shall be determined as per Table 3. NRDCL shall provide the list of investment made along with their cost or provide report/information on all the expenses to the independent reviewing body or NRPC for review. Such information should be submitted along with timber price revision proposal.

Table 3: Components of indirect cost/operation and maintenance (O&M) cost

Sl. No.	Particulars	Total Expenditure (Nu.)	Unit cost (Nu/cft)
1	Operating expenses		
2	Employee-benefit costs		
3	Selling and distribution costs		
5	<b>Total</b>		

Note: The unit cost is derived by dividing the expenditure with the total log volume produced. In case of total number of employees, the total attrition figure at the end of the year should be taken into account.

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#### 4.1.2.1 Operating expenses

The operating expense shall include (i) general administration expenses related to printing, stationery, rent, electricity, telephone, etc. (ii) repair and maintenance expense related to infrastructure, vehicle, machines, equipment, etc. (iii) depreciation and amortization related to infrastructure, vehicle, machines, equipment, etc. and (iv) financial charges, etc. Only the expenses related to timber production or extraction shall be used to calculate the operating expenses for pricing. **Donations and cost incurred for repair and maintenance of cable crane (cost included in the direct cost for outsourcing) shall be excluded from pricing.** The independent reviewing body should also verify whether the cost of such infrastructure, vehicle, machine, equipment, etc. are recovered at the time of price revision. Only those cost which are not recovered over past years of operation shall be included in the depreciation cost.

#### 4.1.2.2 Employee-benefit costs

Employee-benefit costs shall include employee salary, TA/DA, transfer grant, leave travel concession, uniform cost, gratuity, etc. incurred on employees working exclusively for timber production.

#### 4.1.2.3 Selling and distribution costs

Selling and distribution costs shall include the expenses incurred on the advertisement of timbers, auction/allotment of timbers, customer survey, etc. Only the cost related to timber should be considered.

#### 4.1.3 Cost of Production

The cost of production (CoP) is the sum of direct costs (clause 4.1.1) and indirect costs (clause 4.1.2) factoring year-on-year inflation including efficiency gains. The average direct cost of log production should be added to indirect cost for each of the NRDCCL's regions and reported in Table 4. However, an efficiency gain of 2% will be imposed on the total indirect cost incurred by NRDCCL to calculate the adjusted indirect cost to exclude any inefficiencies in the process. In the event NRPC meeting could not be conducted during the year for any reason, the year-on-year inflation should be taken into account as per the actual inflation rate reported by National Statistics Bureau (NSB).

CoP = Average direct cost + Adjusted indirect cost

Where,

Adjusted indirect cost = Indirect cost – 2% efficiency task

CoP \* Inflation% is only applied in the year in which the NRPC price review meeting could not be conducted to revisit the average direct cost and indirect cost.

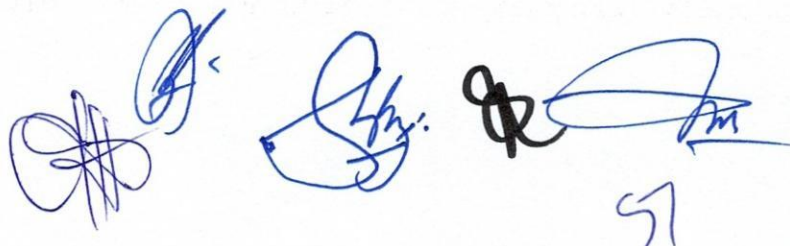


Table 4: Total average region-wise cost of timber production (Nu. per cft)

Region	Co/Bl	Average direct cost	Indirect Cost	2% efficiency task	Adjusted Indirect Cost	Inflation (only applied in the year if there was no NRPC price review meeting during the year)	CoP
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	$e=d*2\%$	$f=d-e$	$g=(c+f)*inflation\%$	$h=c+f+g$
Wang	CO						
	BL						

#### 4.1.4 Cross-subsidization

It is a long-standing fact that there is a preferential demand for timber, where softwood (conifer) timbers are preferred over hardwood (broadleaved) timber by builders, wood-based industries and other consumers. The records also show that conifer logs are more easily sold in the market than the broadleaved logs. In view of above stated facts, a mechanism called cross-subsidization shall be adopted for log pricing such that the conifer timber becomes dearer than broad-leaved timber.

Similarly, it was observed in the past that the sale of pole-size timber was a challenge in the country when the price of logs and poles were maintained at the same rate. To encourage the wood-based industries to purchase the poles, providing cross-subsidization of poles with logs by lowering the price of poles and adding it to the price of logs would make the poles much cheaper than logs and make it more attractive to the buyers.

Through cross-subsidization, a fixed amount (e.g., Nu. 10) or certain percent (e.g., 5%) from the cost of the broad-leaved timber may be subtracted and added to conifer timber price. Similarly, the cross-subsidization between logs and poles may also be calculated and applied. A fixed amount or certain percent from the cost of poles may be subtracted from the poles and added to the log price to make the poles cheaper and attractive to the customers.

#### 4.1.5 Profit margin

The pricing authority (NRPC) will determine a profit margin for the log-producing agency at the time of price fixation and the profit margin may be revisited from time to time. As it stands, the profit margin based on this guideline should not exceed 10% of the total cost.

#### 4.1.6 Royalty

Actual royalty based on species and class of timber determined by Royal Government of Bhutan shall be applicable.

#### 4.1.7 Final log price for Dzongkhags

The final log price will be the sum of cost of production, royalty, profit margin and cross-subsidy. It should be reported as in Table 5 and the final log price for each Dzongkhag should be reflected in Table 6.

Table 5: Log price calculation for Dzongkhags (Nu. per cft)

Region	Dzongkhag	Co/BL	CoP	Royalty	Final CoP	Profit 10%	Total Price	Cross-subsidy		Final Log Price
								Co to BL	Log to Pole	
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f=d+e</i>	<i>g=f*10%</i>	<i>h=f+g</i>	<i>i</i>	<i>j</i>	<i>k=h+i+j</i>
Wang	Thimphu	Co								
	Thimphu	BL								
	Paro	Co								
	Paro	BL								

Table 6. Final log prices for Dzongkhags (Nu. per cft)

Sl. No.	Dzongkhag	Conifer		Broadleaved	
		Class A	Class B	Class A	Class B
1	Thimphu				
2	Paro				
3	Haa				
4	Wangdue				
5	Gasa				
6	Punakha				
7	Tsirang				
8	Dagana				
9	Bumthang				
10	Trongsa				
11	Zhemgang				
12	Sarpang				
13	Chukha				
14	Samtse				
15	Mongar				
16	Lhuntse				
17	Trashiyangtse				
18	Trashigang				
19	Samdrupjongkhar				
20	Pemagatshel				

Note: If there is subsidy between logs and poles, the price for logs and poles will differ. The difference in the price of logs and poles will be subsidy rates fixed between logs and poles. Hence, if there is subsidy, the final log and pole prices for Dzongkhag should also be prepared as per Table 6 above.

#### 4.2 Sawn Timber Pricing

The price of the sawn timber shall be fixed simultaneously with fixation or revision of log prices by NRPC and the sawn timber price shall be fixed as per Table 7. The parameters for sawn timber pricing are as reflected in Table 7 and each of these parameters are defined subsequently.

Table 6: Parameters of sawn timber price fixation within the same Dzongkhag (Nu. per cft)

Dzongkhag Name	Log Price	Trans p. Cost	Loading/unloading cost	Sawing cost	Total Indirect cost	Inflation (only applied in the year if there was no NRPC price review meeting during the year)	Total sawn timber cost	Sawn timber recovery cost	Value of off-cuts	Sawn timber price	Profit margin	Final Sawn timber price
a	b	c	d	e	f= c+d+e	g = f*inflation%	h=b+f+g	i = h/recovery%	j	k=i-j	l=k*10 %	m=k+l

4.2.1 Log price

The log price is price of the log in the particular Dzongkhag approved by NRPC.

4.2.2 Indirect cost

The indirect cost for sawn timber shall include the cost of transportation of logs from depot to the sawmill, cost of loading at depot and unloading of logs at sawmill, and the cost of sawing the logs. In the event an NRPC meeting could not be conducted during the year for any reason, the year-on-year inflation should be taken into account as per the actual inflation rate reported by National Statistics Bureau (NSB).

4.2.2.1 Transportation cost

Transportation costs shall include average cost of transportation from log depot in all NRDCCL regions/Dzongkhags to particular Dzongkhag headquarter. The transportation cost will be determined based on tendered quotation rates or RSTA transportation rate at the time of price revision.

4.2.2.2 Loading and unloading charges

Loading and unloading costs are the loading charges paid at log-producing agency's depot and unloading charges paid to labourers or employees at sawmill or wood-based industries.

4.2.2.3 Sawing cost

Sawing cost shall include cost of sawing the timber at the prevailing market rate for sawing.

Sl.no	Particulars
	<b>COST</b>
1	Electricity & fuel
2	Depreciation
3	Repair & Maintenance of Plants & Machine and Infrastructure

4	Payment to employees
5	Administration Overhead
	<b>Total cost</b>
6	Handling and Sorting Charges (Nu.6 per cft x actual)
7	Share of Management expense (HO)-10% of cost
	<b>Total</b>
	<b>Sawing cost per unit (cft)</b>
	Profit margin @10%
	<b>Final Sawing charges per cft: Nu. 57.50</b>

#### 4.2.3 Inflation

Inflation shall be added to the total indirect cost. The inflation rate from the latest NSB information published shall be used. The inflation amount shall be calculated by multiplying the total indirect cost by the existing inflation %. The inflation will only be applied if there was no price revision done.

#### 4.2.4 Timber recovery cost

The timber recovery percent for conversion of logs into sawn timber is fixed at 70% for conifer species and 60% for broadleaf species. The cost shall be obtained by dividing total log cost i.e., the sum of log price, total indirect costs and inflation with recovery percent.

#### 4.2.5 Value of off-cuts

Value of off-cuts is monetary value obtained through selling of off-cuts as firewood, making packing boxes, etc. and this value shall be subtracted from the sawn timber price obtained under clause 4.2.4. One cubic feet (cft) of log timber is required to produce 0.70 cft (70%) of sawn timber and 0.30 cft (30%) will be in the form of offcuts and saw dust. Out of the 30% offcuts and saw dust, it is estimated that about 20% will be used as firewood or making packing boxes and rest 10% will be rendered useless as saw dust and other wood residues. Therefore, the value of 20% of 1 cft of log timber shall be converted into value of firewood and half of the value of the firewood shall be applicable. For instance, value of 8 cubic meters (m<sup>3</sup>) of firewood is approximately Nu. 7000, then value of firewood obtained from off-cuts will be half of the normal firewood, which is Nu. 3500 for 8 m<sup>3</sup>. This value has to be converted into per unit basis and it should be subtracted from the sawn timber price arrive under clause 4.2.4.

#### 4.2.6 Profit margin

The pricing authority (NRPC) will determine the profit margin for the sawmill at the time of price fixation and the profit margin may be revisited from time to time. However, the profit margin should not exceed 10% of total cost.

#### 4.2.7 Final sawn timber price

The final sawn timber price will be derived by deducting the value of offcuts from the sawn timber recovery rate and adding 10% profit to the amount obtained after deducting the value of offcuts as per Table 7. The final sawn timber will be presented Dzongkhag-wise as per Table 8.

Table 7: Final Sawn Timber Price (Nu/cft)

Sl. No.	Dzongkhag	Conifer		Broad-leaved	
		Class A	Class B	Class A	Class B
1	Thimphu				
2	Paro				
3	Haa				
4	Wangdue				
5	Gasa				
6	Punakha				
7	Tsirang				
8	Dagana				
9	Bumthang				
10	Trongsa				
11	Zhemgang				
12	Sarpang				
13	Chhukha				
14	Samtse				
15	Monggar				
16	Lhuentse				
17	Trashiyangtse				
18	Trashigang				
19	Samdrupjongkhar				
20	Pemagatshel				

#### 4.2.8 Sawn timber price for timber brought from another Dzongkhag

The sawn timber price for the timber brought from Dzongkhag with surplus timbers and sold in another Dzongkhag or demand centers shall be the price of sawn timber plus transportation cost/freight charge. The transportation/freight charges from timber surplus area to deficit area will be calculated by averaging the existing per km per unit transportation rates. For such timber deficit Dzongkhag, the weighted average rate shall be calculated to determine the selling price of sawn timber in the Dzongkhag.

## 5. SAND AND STONE PRICING

The sand and stone prices shall be reviewed simultaneously with the revision of log and sawn timber prices. The price of sand shall be fixed per m<sup>3</sup> while the stone price shall be fixed per m<sup>3</sup>. The cost component for sand and stone will also be similar to that of timber.

The sand and stone prices shall be fixed based on the actual cost of production plus royalty, profit margin, factoring inflation and other parameters. The cost of production shall include both direct and indirect costs which are discussed and described in detail under clause 5.1 and 5.2 respectively.

### 5.1 Direct Cost of Production

The direct cost of production for sand and stone is the cost incurred directly for production of sand and stone from the quarry site. The direct cost includes the cost of extraction/collection, loading and unloading, and mitigation works. In case of supply from stockyard, the transportation cost of sand and stone from quarry site to the stockyard will be considered as direct cost.

The direct cost of production for sand and stone shall be calculated as per Table 9 below and all estimates are on per unit basis (Nu. per m<sup>3</sup> for sand and Nu. per m<sup>3</sup> for stone).

Table 9: Direct cost of production (per unit cost)

Region	Dzongkhag	Location	Quarry/ Stockyard	Extraction/ collection cost (Nu)	Loading and unloading cost (Nu)	Cost of mitigation works (Nu)	Transportation cost to depot (Nu)	Total direct cost (Nu)
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i=e+f+g+h</i>
Wang	Thimphu	Gidakom	Quarry					
	Thimphu	Gidakom	Stockyard					

#### 5.1.1 Extraction/collection Cost

Extraction/collection cost shall mean cost of extraction or collection of sand and stone from quarry site. The extraction/collection cost shall be proposed by the operator as appropriate and should be reviewed by the independent reviewing body. The extraction/collection cost shall not be included for those quarries, surface collection and riverbed-dredging sites operated departmentally.

#### 5.1.2 Loading and unloading cost

Loading and unloading cost shall mean costs incurred for loading of sand and stone at quarry or extraction site and unloading at stockyard or depot. The maximum of one loading cost shall be included in price determination at extraction site and maximum of two loading costs for pricing at depot. Unloading cost (if required) should be adequately justified and unloading for all tipper trucks will not be applicable.

#### 5.1.3 Cost of mitigation works

Mitigation costs are the cost of gabion wall, wind barricade and other mitigation works that are done as per the requirement of environmental and public clearances, in order to protect the river bed, land and infrastructure in and around the quarry or working site.

#### 5.1.4 Transportation cost to depot

Transportation cost shall mean cost of transportation of sand and stone from the quarry/extraction site to the stockyard or depot.

#### 5.1.5 Total direct cost

Total direct cost is sum of clauses 5.1.1 to 5.1.4 whichever is applicable. For each region, the average direct cost may be determined and reproduced as in Table 10.

Table 10: Average direct cost per unit of sand/stone in NRDCL's regions

NRDCL Region	Dzongkhag	Location	Direct cost (Nu/m <sup>3</sup> )
Rinpung	Paro	A	
	Paro	B	
	Paro	C	
	Paro	D	
		Average	

The average direct cost is sum of all the direct costs incurred for quarry sites under a particular Dzongkhag within NRDCL's regional jurisdiction divided by number of operation sites in that Dzongkhag, and finally computed as weighted average for the whole NRDCL region.

#### 5.2 Indirect cost

The indirect cost or operation and maintenance (O&M) costs are the costs incurred against the day-to-day functioning of NRDCL and investments made for the extraction of sand and stone from the quarry sites operated by NRDCL. The indirect cost includes all expenses besides direct cost. Hence, the indirect cost includes operating expenses, employee-benefit costs, selling and distribution expenses incurred in the production of sand and stone. The indirect cost is determined taking into consideration the total projected expenses and the total sand/stone production volume projected. The details of indirect costs shall be determined as per Table 11. NRDCL shall provide the list of investments made along with their costs or provide report/information on all the expenses to the independent reviewing body or NRPC for review. Such information should be submitted along with sand and stone price revision proposal. Only the expenses incurred for sand and stone shall be included for pricing.

Table 11: Components of indirect cost/operation and maintenance (O&M) cost

Sl. No.	Particulars	Total Expenditure (Nu.)	Unit cost (Nu/m <sup>3</sup> )
1	Operating expenses		
2	Employee-benefit costs		
3	Selling and distribution costs		
4	<b>Total</b>		





Note: The unit cost is derived by dividing the expenditure by the total quantity of sand and stone produced. In case of total number of employees, the total attrition figure at the end of the year should be taken into account.

### 5.2.1 Operating expenses

The operating expense shall include (i) general administration expenses related to printing, stationery, rent, electricity, telephone, etc. (ii) repair and maintenance expense related to infrastructure, vehicle, machines, equipment, etc. (iii) depreciation and amortization related to infrastructure, vehicle, machines, equipment, etc. (iv) financial charges. Only the expenses related to sand and stone production or extraction shall be used to calculate the operating expenses for pricing. The independent reviewing body should verify whether the cost of such infrastructure, vehicle, machine, equipment, etc. are recovered at the time of price revision. Only those costs which are not recovered over past years of operation shall be included in the depreciation cost.

### 5.2.2 Employee-benefit costs

Employee-benefit costs shall include employee salary, TA/DA, transfer grant, leave travel concession, uniform cost, gratuity, etc. incurred for employees working exclusively for sand and stone production.

### 5.2.3 Selling and distribution costs

Selling and distribution costs shall include the expenses incurred on the advertisement of sand and stone. Only the costs related to sand and stone should be considered.

## 5.3 Cost of Production

The cost of production (CoP) is the sum of direct costs (clause 5.1) and indirect costs (clause 5.2) factoring year-on-year inflation but excluding any inefficiencies. The average direct cost of sand and stone production should be added to indirect cost for each of the NRDC's regions and reported in Table 12. However, an efficiency task of 2% will be imposed on the total indirect cost incurred by NRDC to calculate the adjusted indirect cost to exclude any inefficiencies in the process. In the event NRDC meeting could not be conducted during the year for any reason, the year-on-year inflation should be taken into account as per the actual inflation rate reported by National Statistics Bureau (NSB).

CoP = Average direct cost + Adjusted indirect cost

Where,

Adjusted indirect cost = Indirect cost – 2% efficiency task

CoP \* Inflation% is only applied in the year in which the NRDC price review meeting could not be conducted to revisit the average direct cost and indirect cost.



Table 12: Total average region-wise cost of sand/stone production (Nu./m<sup>3</sup>)

Region	Dzongkhag	Quarry/ Stockyard	Average direct cost	Indirect Cost	2% Efficiency task	Adjusted indirect cost	Inflation (only applied in the year if there was no NRPC price review meeting during the year)	CoP
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	$f=e*2\%$	$g=e-f$	$h=(d+g)*inflation\%$	$i=d+g+h$

#### 5.4 Profit margin

The pricing authority will determine a profit margin for the sand and stone producing agency (NRDCL) at the time of price fixation and the profit margin may be revisited from time to time. However, the profit margin should not exceed 10% of total cost.

#### 5.5 Royalty

Actual royalty determined by Royal Government of Bhutan per unit of sand and stone shall be applicable.

#### 5.6 Final sand and stone price

The final sand and stone price shall be the sum of cost of production, royalty and profit margin as reflected in Table 13.

Table 13: Sand/stone price

Region	Name of quarry	Dzongkhag	CoP	Royalty	Total Cost	Profit 10%	Total Price
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	$f=d+e$	<i>g</i>	$h=f+g$

### 6. PRICING AUTHORITY

Multidisciplinary pricing committee called the Natural Resources Pricing Committee (NRPC) shall be constituted under this guideline for review of timber, sand and stone prices. The Secretariat of the NRPC shall be at the Department of Forests and Park Services. The NRPC shall convene at least once a year.

#### 6.1 NRPC members

The NRPC committee shall comprise of:

1. Secretary, Ministry of Energy and Natural Resources, Chairman
2. Head, Department of Forests and Park Services, Member
3. Head, Department of Revenue and Customs, Member
4. Chief Executive Officer, Natural Resources Development Corporation Ltd., Member
5. Representative from Ministry of Industry, Commerce and Employment, Member
6. President, Association of Wood Based Industries, Member
7. Chief Forestry Officer, Forestry Resources Planning and Management Division, DoFPS, Member Secretary

The meeting can be conducted only if the Chairman and at least 4 members are present.

## 6.2 Roles and responsibilities of NRPC

The NRPC shall be responsible to:

- i. review the existing pricing mechanism and fix price for timber in log form, sawn timber, sand and stones;
- ii. review the price for natural resources as proposed by timber, sand and stone producing agencies;
- iii. approve and endorse the price of logs, sawn timber, poles, sand and stones; and
- iv. circulate the approved price of logs, poles, sawn timber, sand and stone widely through print media.
- v. Constitute a technical team to review pricing proposal.

## 7. PRICE APPROVAL PROCEDURE AND AUTHORITY

- i. The timber price revision shall be done annually in order for the price to be to be effective from 1<sup>st</sup> January.
- ii. NRPC meetings shall be coordinated by the NRPC Secretariat to discuss the price revision.
- iii. NRPC shall reserve the authority to accept or reject the proposed revised prices.
- iv. NRPC shall inform the Minister on the revised prices.
- v. The approved revised prices shall be notified in media by the NRPC Secretariat.

## 8. NRPC SECRETARIAT

NRPC Secretariat shall be under the Forest Resources Planning and Management Division under the Department of Forests and Park Services. The following shall be the roles and responsibilities of the NRPC Secretariat:


1. Coordinate and organize the NRPC and technical meetings as per the time schedule or directives from the Chairman;
2. Maintain records, correspondences and minutes of meetings;
3. Inform and invite the NRPC members to attend the meetings;
4. Circulate the revised prices approved by the NRPC.

## 9. MONITORING OF PRICES AND COMPLIANCE

Any violation of the provisions will be dealt as per the existing Forestry and Environmental rules and regulations.

## 10. VALIDITY OF THE GUIDELINE

This guideline shall be valid till the next amendment by the NRPC.



## Terms of Reference (NRPC Technical Team)

- i. The TT shall review the proposal for revision of prices for timber, sand and stone submitted by the NRDCL, in both hard copy and soft copy, to the NRPC through the Secretariat along with all the supporting documents. The review shall include:
- 1. Review of Existing NRPC Prices:**
    - Review of direct and indirect cost components
    - Review of cross-subsidy components of the current pricing
    - Review of current transportation costs
    - Review other associated cost components
  - 2. Preparation of new NRPC Prices for timber, sand and stones**
    - Consult all the relevant stakeholders while reviewing the price revision proposal wherever required for finalization of new NRPC rates
    - Presentation of the new NRPC rates to the NRPC for endorsement and approval.
- ii. The independent reviewing body for reviewing the proposal shall not include members from DoFPS, AWBI and NRDCL due to conflict of interest.
- iii. The reviewing independent body shall be given a time of at least one month to review as per the existing guidelines and submit the pricing proposal and recommendations to the NRPC for endorsement and approval.
- iv. **Key Expected Deliverables:**
1. Revised Natural Resources Pricing rates for logs, sawn timber, sand and stone dzongkhag-wise/cluster-wise/region-wise whichever the TT feels appropriate.
- v. **Member Composition (Technical Team)**
1. Chief Planning Officer, Ministry of Energy and Natural Resources, Team leader
  2. Chief, Department of Trade, MoICE, Member
  3. Representative, Department of Macro-Fiscal and Development Finance, MoF, Member
  4. Representative, Competition and Consumer Affairs Authority, MoICE, Team leader
  5. Representative, National Statistics Bureau, Member

  
(NRDCL) (FRPM/DoFPS) (AWBI) (DoFPS)