Construction Cost Indices

A Presentation by

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Definition

Construction Cost Index is an indicator of the average cost movement over time of a fixed basket of representative goods and services related to Construction Industry.

It is the monthly measure of Construction Cost movement for the Indian Construction Industry released by CIDC.

CCI Formation Process

- Identification of the base year;
- Identification of the item basket;
- Allocation of weights at item, groups/ sub-groups level;
- Statistical Analysis for the number evaluation;
- Publishing the Indices;
- Data management and warehousing.

Criteria for Base Year

- A normal year i.e. a year in which there are no abnormalities in the level of production, trade and in the price level and price variations;
- A year for which reliable production, price and other required data are available; and
- A year as recent possible and comparable with other data series at national and state level.

Item Basket

Constitution of the basket of goods and services is done so that their cost variations best represents the inflationary/deflationary changes of a specific sector of Construction Industry or cumulatively for the entire Industry.

At present, separate series of index numbers are compiled to capture the price movements at regional and Industry subsection level in India.

Basket Composition

- Items in the index basket are the best representatives of the sector;
- All the important items transacted in the economy during the base year are included;
- The importance of an item depends on its traded value during the base year;
- At CCI level, bulk transactions of goods and services are captured;
- Current prices are collected as per the item basket from the designated sources.

Derivation of Weightages

- Weights used in the CCI are value weights not quantity weights as its difficult to assign quantity weights.
- Distribution of the appropriate weight to each of the item is most important exercise for reliable index.
- Weightages are allotted as per the sound engineering practices/standards.

CCI Calculation

Step 1 Calculation of Price relative as the ratio of the current price to the base price multiplied by 100 i.e. (P1/Po)X100.

Step 2 Apply the Weightage for each representative Item

Step 3 Calculate the indices for the sub groups/groups/ major groups using Laspeyres formula.

Laspeyres Index Formula

$$P_L = \frac{\sum(p_{c,t_n} \cdot q_{c,t_0})}{\sum(p_{c,t_0} \cdot q_{c,t_0})}$$

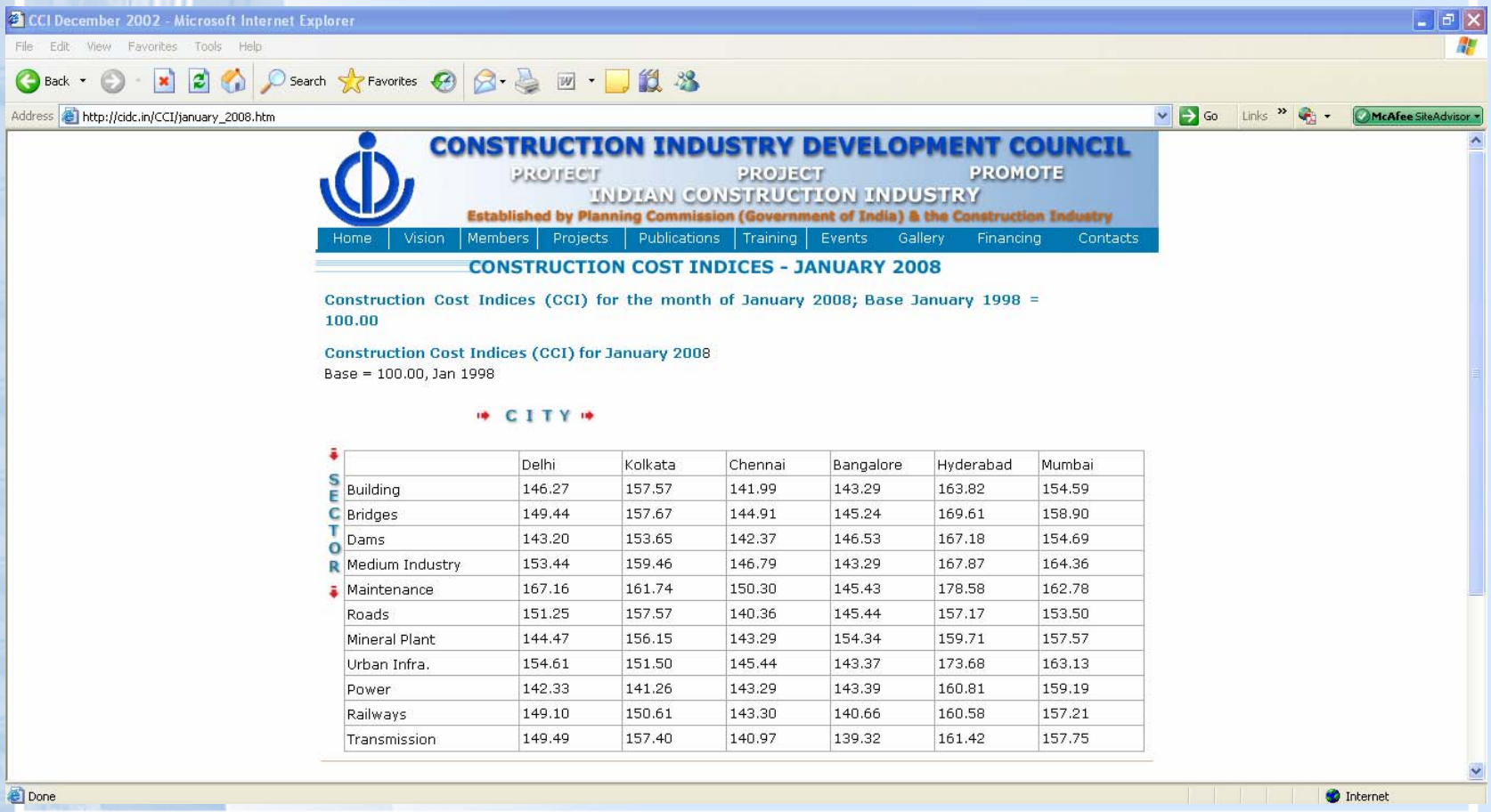
P = Change in cost level,

T_0 = Base period (usually the first year),

t_n = Period of index computation

- Monthly CCI are released to the press and CIDC website simultaneously.
- It is also published in the CIDC Quarterly Journal ‘Nirman Udyog’.
- CIDC has developed The CCI software for ONGC for their specific use.
- Similar tailor made software can be developed for Hydroelectric Projects.

CCI Report Page



	Delhi	Kolkata	Chennai	Bangalore	Hyderabad	Mumbai
Building	146.27	157.57	141.99	143.29	163.82	154.59
Bridges	149.44	157.67	144.91	145.24	169.61	158.90
Dams	143.20	153.65	142.37	146.53	167.18	154.69
Medium Industry	153.44	159.46	146.79	143.29	167.87	164.36
Maintenance	167.16	161.74	150.30	145.43	178.58	162.78
Roads	151.25	157.57	140.36	145.44	157.17	153.50
Mineral Plant	144.47	156.15	143.29	154.34	159.71	157.57
Urban Infra.	154.61	151.50	145.44	143.37	173.68	163.13
Power	142.33	141.26	143.29	143.39	160.81	159.19
Railways	149.10	150.61	143.30	140.66	160.58	157.21
Transmission	149.49	157.40	140.97	139.32	161.42	157.75

ONGC Sub Groups

1. Civil Works
2. Mechanical & Piping-Pumps / Compressors / Piping etc.
3. Static Equipment
4. Electrical Works-LT /HT/SWGR/ Transformers / DG Sets / Cables etc.
5. Instrumentation Works- Control & Measuring etc.
6. Utilities etc.

MASTERS

USERS (Alt + U)

CATEGORY (Alt + C)

PRODUCT (Alt + P)

EXCHANGE MASTER (Alt + E)

SUPPLIERS (Alt + S)

IMPORT SUPPLIERS FROM EXCEL (Alt + I)

IMPORT PRODUCTS FROM EXCEL (Alt + P)

BACK (Alt + M)

CONSTRUCTION COST INDICES - BASIC ITEM PRICE

Year: 2001 Location: ASSAM

Sl No	Nomenclature	Description	Unit	Price
1	CO	Cost of Operation	Rs in Lakhs	0.00
2	CO1	Skilled Specialist Wages	Rs Per Day	0.00
3	CO2	Average Cost of Chemicals	Rs Per Kg	172.00
4	CO3	Average Monthly Wages of Unskilled Workers (Indu	Rs Per Day	0.00
5	SO	Cost of Survey	Rs in Lakhs	0.00
6	A	Plot Area	M2	126000.00
7	BO	Cost of Civil Works	Rs in Lakhs	0.00
8	BOC	Cost of Cement	Rs Per Bag	135.00
9	BOS	Cost of Steel (Bars)	Rs Per MT	15200.00
10	BOL	Fair minimum Wages of Unskilled Workers	Rs Per Day	85.00
11	BOST	Cost of Steel (Rolled Section)	Rs Per MT	17000.00
12	BOB	Cost of Road Grade Bitumen	Rs Per MT	120000.00
13	BOBR	Cost of Bricks	Rs per 1000 Nos	1467.00
14	BOW	Volume of Tanks / Reservoirs	M3	0.00
15	BOCO	Cost of Wire Grade Copper	Rs Per MT	140000.00
16	BOAL	Cost of Aluminium (Extended Products)	Rs Per MT	135000.00
17	DL	Cost of Diesel	Rs per Litre	18.01
18	L	Length of PipeLine	in Metre	2350.00
19	PT	Plate Thickness	mm	8.50
20	IL	Insulated Length	m	1250.00
21	D	Diameter of Pipe	mm	323.90
22	N	No of Sleeves	Nos	115.00

OK (Alt + O)

CANCEL (Alt + C)

DELETE (Alt + D)

BACK (Alt + B)

MAIN MENU (Alt + M)

CONSTRUCTION COST INDICES - YEAR WISE

FACILITY	YEAR	LOCATION	
GROUP GATHERING STATIONS (GGS) (Alt + 1)	2001	ANDHRA PRADESH	GO
GAS COLLECTING STATIONS (GCS) (Alt + 2)	2001	ANDHRA PRADESH	GO
CENTRAL TANK FARMS (CTF) (Alt + 3)	2001	ANDHRA PRADESH	GO
WATER INJECTION PLANT (WIP) (Alt + 4)	2001	ANDHRA PRADESH	GO
EFFLUENT TREATMENT PLANTS (ETP) (Alt + 5)	2001	ANDHRA PRADESH	GO
GCP / GDU (Alt + 6)	2001	ANDHRA PRADESH	GO
AS / ASPs (Alt + 7)	2001	ANDHRA PRADESH	GO
PIPE LINES (Alt + 8)	2001	ANDHRA PRADESH	GO

BACK (Alt + B)

MAIN MENU (Alt + M)

CONSTRUCTION COST INDICES - SUMMARY

FACILITY	LOCATION	
GROUP GATHERING STATIONS (GGS) (Alt + 1)	ANDHRA PRADESH	GO
GAS COLLECTING STATIONS (GCS) (Alt + 2)	ANDHRA PRADESH	GO
CENTRAL TANK FARMS (CTF) (Alt + 3)	ANDHRA PRADESH	GO
WATER INJECTION PLANT (WIP) (Alt + 4)	ANDHRA PRADESH	GO
EFFLUENT TREATMENT PLANTS (ETP) (Alt + 5)	ANDHRA PRADESH	GO
GCP / GDU (Alt + 6)	ANDHRA PRADESH	GO
AS / ASPs (Alt + 7)	ANDHRA PRADESH	GO
PIPE LINES (Alt + 8)	ANDHRA PRADESH	GO

BACK (Alt + B)

MAIN MENU (Alt + M)

ONGC DATA COLLECTION

- Data collection is done from the registered vendors of ONGC for proper & appropriate costing.
- Rates/costs are incorporated from the awarded rates/quotations (if rates not available) from the registered vendors on a regular basis.

Registration Process

- Suppliers/Contractors are asked to apply on prescribed Registration Form, developed by CIDC each for Indigenous suppliers / Overseas suppliers / Contractors.
- On satisfactory review and acceptance of the documentation submitted, visit(s) as required are undertaken for verification of facilities.
- The evaluation is carried out against a number of parameters. A unique criteria of grading against the various parameters has been evolved.

Registration Form for Indigenous Vendor

(To be filled in by the Vendor)

Approval Desired for Process / item (Rating /Size/Type) :

(To be filled in by the Vendor)

COMPANY DETAILS

1. Name of Company :
2. Address of Regd. Office :

_____ Tel _____

_____ Fax _____

_____ e-mail _____

_____ Mobile _____

3. Address of Factory/Works :

_____ Tel _____

_____ Fax _____

_____ e-mail _____

_____ Mobile _____

Weekly off day

4. Branch/Liaison office in Delhi/Other Metro Cities :

_____ Tel _____

_____ Fax _____

_____ e-mail _____

_____ Mobile _____

Weekly off day

5. Person(s) to be contacted

Place	Name(s)	Official Capacity	Telephone No (s)
Regd. Off.			
Factory			
Branch/ Liaison Off.			

Annexure X

APPLICATION FOR REGISTRATION - FOREIGN SUPPLIERS

A. Category of registration:

Please indicate the items for which registration is sought	Items description

B. General Information:

1. Contact Details:

Registered Name of the Firm	
Registered Office Address : Telephone / Fax / E-Mail Details of contact person Name & designation :	
Works Addresses : Telephone / Fax / E-Mail Details of contact person Name & designation :	
Indian Representative if any Address Telephone / Fax / E-Mail	
Contact details of your office where trade enquiries are to be sent Address Telephone / Fax / E-Mail	

ANNEXTURE XI

APPLICATION FOR REGISTRATION OF CONTRACTORS

Category of Registration

Details of Services for which Registration is sought	

Contractor Class to which registration is sought. Please strike out those not applicable.

The Upper Limit indicates the maximum value of single work that can be awarded to the applicant.

Class	Upper Limit (Rs. Lacs)
I	More than 500
II	500
III	250
IV	100
V	40
VI	10

Concluding Remarks

- Primary objective of CCI is to bring out an estimate of inflation / deflation values for the Construction Industry.
- It can help in evaluating the cost variation for project delays, escalation claims, liquidated damages etc.
- Ultimate use of the index compilation will depend upon the quality of data management and data dissemination.
- Timeliness and transparency in release of the indices is imperative.
- CCI for Hydroelectric Sector can be developed jointly by CEA and CIDC and released by CEA as the official index.

Thank you