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Construction Industry is the second largest employer and 40-50% of the National Plan outlay is on construction works. It is therefore imperative that the effect of construction activities, which play a major role in the Nation's Economy, be known. To this end development and updating of a set of key indicators for the Construction Industry highlighting and quantifying various economic parameters will be useful to planners & policymakers, researchers and others. The indicators again are needed to be developed at the central/state/regional/district level and for various sectors of the economy. The indicators needed to be developed fall under the following categories:

(1) Key Macro indicators:

Indicators such as share of construction in GDP, key demographic indicators, key financial indicators, per capita floor space, dwelling units etc. that present a macro overview of the construction industry fall under this category.

(2) Price Based Indicators:

Indicators such as Construction Cost Indices, price indices of key building materials, wages, fuel etc. These indicators are useful for planning, investment and to pay escalation in construction works.

(3) Risk based indicators:

To profile & quantify various risks in construction industry.

(4) Finance & Tax based indicators:

Indicators such as extent of bank credit in construction industry, interest rates etc & and statistics related to taxes.

(5) Sector indicators:

Indicator such as forward and backward linkages, multiplier effect etc which highlight and quantify the linkages of construction industry with other sectors of the economy.

(6) Enhancement and Development indicators:

Indicators such as value added per employee, productivity, cost of construction, skill level of worker, safety, level of prefabrication, environmental in construction etc.



(7) Investment based indicators:

Indicates that quantify total investment, investments in different sectors, public / private / foreign investment, opportunities, business alliance, JVs, profitability etc.

(8) Technology based indicators:

Indices / indicator the highlight & quantify the level of technology such mechanization, use of RMC etc. fall under this category.

(9) Environment / Safety based indicators:

Indicators that highlight the environment issues such as waste generated in construction works, its disposal etc and safety such as accident and its type, insurance claims etc.

(10) Business based indicator:

Indicator such as business confidences idea, profitability etc. fall under this category.

One of major set indicators, as indicated above, is Price Based indicator which helps the Building Industry planners. CIDC through one of its initiatives is developing and maintaining Construction Cost Indices.

Construction Cost Indices

1. Introduction

CCI are designed to represent the variation in the cost of the construction. It is an economic device giving the value of the increase/decrease in cost of construction with reference to a datum – the base year at a determined geographical area. Since the weightage of the inputs is different for different sector of the economy where construction works play a major role the indices are computed for construction works in the following 11 sectors of the economy.

1 Buildings	7 Mineral Plant
2 Roads	8 Power
3 Bridges	9 Transmission
4 Railways	10 Urban Infrastructure
5 Dams	11 Maintenance.
6 Medium Industry	

The weightages allotted to the input may be revised from time to time keeping in tune with the changes that take place in the construction work practices. The



inputs are the cost of different construction material, fuel, wages & salaries etc. The values of these inputs are also different for different locations keeping in line with the local variations. For example the sand being used for RCC may be quarry sand or river sand depending on the local conditions and the variation pattern may also differ altogether. Thus CIDC computes CCI for the following 6 cities in the country:

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|---------------|---------------|
| (1) New Delhi | (4) Chennai |
| (2) Mumbai | (5) Bangalore |
| (3) Kolkata | (6) Hyderabad |

2. Uses of Construction Cost Indices:

The uses of construction cost indices are given as follows:

1. To highlight the inflation in the cost of construction so that the policy makers / planners/business organizations may take necessary action.
2. To compute escalation in the cost of construction for reimbursement.
3. To help settle disputes where settlement issue is related to cost.
4. For investment planning.
5. To forecast project cost.
6. For statistical purpose.

Keeping in view of the investment that goes into construction, as highlighted in the previous section, it is important that a separate index for construction cost may be computed for the Asian Region. This would serve the purpose for the benefit of business organizations working in this region by providing a tool for predicting construction cost. In an economy like India, this becomes even more relevant as the economy is growing rapidly and extremely volatile. The cost of construction is what the business organisations are most concerned and hence the proposal.

3. Research Study for Compilation of Construction Cost Indices

To chart out the future course of action for the compilation of construction cost indices for the Asian Region it is proposed that we conduct a Research Study for the following:

- (i) To determine the indices available in different countries of the Asian Region. The Asian Forum members may gather the information through their contacts with the construction industry in their respective countries. A standard questioner may be prepared to collect the information.
- (ii) To determine the problems being faced by the construction industry w.r.t. construction cost/estimates. For example: In India most of the power projects are being funded/implemented by the Govt. These are awarded as LSTK



contracts and therefore a Project Report is prepared. The contracts are awarded almost 4-5 years after the Project Report is prepared and therefore the cost estimates are of no use. Thus there is a need for a separate index for power plants.

(iii) What are the methods of reimbursement of escalation in construction cost? How are the escalation in cost w.r.t material/labor/fuel/etc are reimbursed to construction companies for construction works.

(iv) To formulate the methodology of compilation of construction cost indices. We may begin with the methodology adopted by CIDC for compilation of construction cost indices.

(v) To establish data collection centers in each of the Asian Forum member country to collect data required for the compilation of construction cost indices.

(vi) To prepare a report highlighting the findings and recommendations.

4. Funding for the Research Study

Govt. Ministries of the Asian Forum member countries may be approached for grant to carry out the study. Detailed proposal may be prepared for the above objective highlighting the benefits.



Economic Indicators for the Construction Industry

