

STATUS OF CONSTRUCTION INDUSTRY IN INDIA

BY :

S K GUHA THAKURTA
B.E., C.E., F.I.E., F.B.I.M.,
F.I.I.M., F.S.E.I., F.I.V.

DIRECTOR, M/S.GANNON DUNKERLEY & CO. LTD.

Construction symbolises progress - the progress in civilisation and the prosperity of mankind. It is an essential prerequisite for the economic growth of the Nation. Since the Construction Industry is the base for all activities of development, in any developing Country its share in the plan outlay is anything between 40% to 50%. In India this has accounted for nearly 41% of total development investment during last 40 years.

In employment generation this is next to Agriculture, it is estimated that in 8th plan period about 20 million of workers and their family will earn their livelihood from this Industry, and allied Industries. Materials component like Cement, Steel etc. constitute 50% to 60% of the construction estimate. These allied Industries also generate employment opportunities. During the last 10 years while the average rate of growth of employment in this country has been about 2% per annum, the growth of employment in construction has been about 7% per year. Moreover, the cost of creating a job is the lowest in this Sector. It adds 78 paise to Gross Domestic Products for every Rupee of investment. Agriculture adds only 20 paise (Table 2). In addition construction has been a major foreign exchange earner in terms of both project exports as well as remittances. This is not merely true for our Country but more so for developed Countries.

The contribution of Construction Industry to the Net Domestic Product has progressed substantially since 1950-51. At current prices, its contribution was Rs. 6250 millions in 1960-61 and in 1988-89 the same contribution was Rs. 188900 Million.

Similarly the construction has substantially contributed to the gross fixed capital formation in the Country. It went up progressively from Rs. 6.33 billions in 1950-51 to Rs. 333.66 billions in 1987-88.

As already highlighted the construction industry is the base Industry for all Sectors. The National Committee of Science and Technology worked out the construction component of various Sectors as in Table (3). Table 4 & 5 indicate the impact of construction components on various sectors from 1st plan of 1951-56 to 7th plan 1985-90.

However, these figures of capital outlay are only of Public Sector i.e. in 7th plan in addition to 1800 billions, the private sector outlay is 1400 billions totalling to 3200 billion. The same figure for 8th plan is proposed at 7920 billions of which 3420 billions are of Public Sector.

In 1947 when India won Independence, there was hardly any infrastructural developments in the Country and consequently no Industry or Project was there worthy of mention. The population was below 350 millions. Our First Prime Minister of the Country Pandit Jawaharlal Nehru was a man of vision. He was the Architect of India's five year plans and affectionately honoured these National Projects as 'Temples of Tomorrow.'

In India we have today the strength within ourselves to straddle the globe, cross the seas or soar into the skies. It is a challenge to face nature and harness it for the mankind.

Since independence, India has been deeply committed to the principle of "self-reliance", particularly in key sectors such as iron and steel, heavy machinery, transport and electricity, fertilizers. It has therefore controlled imports of foreign technology, favoured the development of indigenous technological capability and acknowledged early the importance of developing engineering and design capabilities.

Today we have the World's third largest reserve of qualified scientists/Technologists numbering 2.5 millions strong next to U.S.A./U.S.S.R.

We have plenty of natural resources. Water Resources alone is to the extent of :

- (A) Rainfall 3000 Million Acre Feet;
- (B) Available Ground Water : 180 Million Acre Feet;
- (C) Plenty of River flows.

But we have not been able to exploit this fully and as much as 75% River water flows to sea and is wasted.

50% Ground Water has still remained un-utilised.

Land under irrigation no doubt increased from 25 million acres of pre-Independence period to 111 million acres, but yet we have 311 million acres not covered by irrigation.

However we can still boast of our achievements in the following :

	Year 1950-51 -----	Year 1988-89 -----
Food grain production	50.80 mill.ton	170.20 mill.ton
Finished Steel	1.00 mill.ton	10.90 mill.ton
Cement	2.70 mill.ton	41.80 mill.ton
Crude Oil	0.30 mill.ton	32.00 mill.ton
Vehicle population	0.30 million nos.	13.00 million nos.
Road Length	0.40 million kms.	1.90 million kms.

Similar progress was made in all fields of activities, for which as already mentioned, Civil Construction is the base.

India took-up many projects in the past 4 decades :

- 1) In Steel Sector 11 Nos. Some of them are at Bokaro, Rourkela, Durgapur, Vizag.

- 2) In Power Sector 30 Nos. Some of them are at Rihand, Kolaghat, Farakka, Mettur, Talcher, Korba, Nagpur, Nayveli, Durgapur, Raichur,
- 6 Nos. Atomic Power Plants at Rajasthan, Madras, Narora, Tarapur, Kakrapar.
- Several Hydel Power Projects - many - small and big such as Ukai, Idukki, Salal, Saravathi & many others.
- 4) In Fertilizer Fields 14 Projects - Talchar, Ramagundam, Mangalore, Panipat, Bhatinda, Kribco, Hazira, Haldia, Durgapur, Namrup and many others.
- 5) Heavy Water Plant 5 Nos. Kota, Talcher etc.
- 6) Space Projects 3 Nos. Sriharikota, Thumba, Mahendragiri
- 7) Marine Projects 10 Nos. Nhavasheva, Madras, Haldia, Kandla, Tuticorin, Pradeep, Mangalore etc.
- 8) Many Irrigation and Flood Control Bhakra, DVC, Sarasvathi, Farakka Hirakud, Rajasthan Canal, Narmada Sardar Sarovar and Indira Sagar etc.
- 9) Many Water Supply/ Sewarage Major - Manjira Hyderabad, Bombay Augmentation, Veeranam of Madras, Telugu Ganga, Mangalore/Bangalore, Ahmedabad and many others.
- 10) Many Intricate Projects like Long Range Missile Project and others Balasore, H A L Projects
- Mining Projects like Kudremukh, Donimalai Neyveli lignite, Kiraburu etc.
- 11) Many Shipyards and Naval Projects Cochin, Vizag, Goa, Mazagaon Docks, Garden Reach, Karwar etc.
- 12) Petrochemicals Projects Both in Public & Private Sectors.

- | | |
|------------------------------------|--|
| 13) Many heavy Industries Projects | Both in Public and Private Sectors like BALCO, NALCO, Heavy Engineering, Ranchi and Cement Projects, Chemical Plants |
| 14) Heavy Bridge Projects | Mandvi, Sarasvathi, Thane Creek, Karwar and Hoogly Second Bridge, Ganga Bridge Patna, Narmada |
| 15) Multi-disciplinary Projects | Off-shore, drilling H.B.J. pipeline and many allied projects |

Most of these projects are with the latest technology.

Two most important Sectors are power and coal :

There our targets are

Our Production in 1986	:	2000 A.D. target
Power 37000 MW	:	110000 MW
Coal 150 Million Tons	:	400 Million ton

I have highlighted only a few Sectors but there are many more. If any one has moved from North to South, Kashmir to Kanyakumari and East to West, he can notice the extent of development going on in India.

8th Plan allocation is yet to be done by the Planning Commission. There are many mega projects - Offshore and onshore drilling projects, Trunk Road Projects, Railway Projects, Nuclear Power Projects, Hydro and Thermal Power Projects, Space Projects, Port and Harbour Projects, Dams and Canals Projects and many Industrial Projects and mega-housing Projects.

It is not an easy task before us to handle such mega 8th plan but with the background of our expertise in construction in last 4 decades of independent India and coupled with our past heritage we will make it possible.

One may ask if we are now more competent than in the past, why 361 mega projects of one billion rupees or more each have lagged behind in schedule completion by 2 years to 10 years or more. There are many other reasons for the same. They are :

- (1) Budgetary constraints is the prime reason,
- (2) Land acquisition delays,
- (3) Lack of planning, Lack of foresight and modern management system,
- (4) Lack in uniformity of contract document,
- (5) Problem of mechanisation and shortage of trained workers,

(6) Fiscal policies and want of Government support.

If I narrate in detail all the constraints I will require the whole day and then all of you will be surprised to know how Indian contractors are still surviving and yet aspiring to survive. But I shall attempt to explain only a few of them and seek guidance of this august body how do we solve our problem.

India is a developing country with meagre resources - so budgetary constraints are quite natural as well as inevitable. The clients expect the Indian vendors should also be the financiers of their project. Contracting sector is not considered as Industry and hence financial support is not available from Financial Institutions. Work therefore suffer. However, if any IFAWPCA member Country come forward with financial package to Indian contractors for mega projects in India, this will be welcome.

Land acquisition is a big problem for any project. In a democratic Government it is not possible for settling these issues expeditiously. Consequently project lingers on even to start with. Now a days this is coupled with Environment clearance of the project, which is very difficult to overcome.

Being a democratic Country with popular Government, our planning is politically motivated based on popular demand of influential representatives of the masses. His masters voice is supremo. Viability or feasibility of the projects is secondary. Obviously projects get delayed since infrastructural facilities are not easily available. To develop infrastructural facilities - further budgetary sanctions are needed. This is again time consuming.

On the aspect of uniform contract document - probably you will be surprised to know that here also we have democratic norm i.e. each project authority, Private or Public, has their own document. Sometimes back Planning Commission formulated a document but it remained in the Shelf. Now NICMAR/BAI have prepared a very good piece of document - circulated amongst all project authorities and we hope something will emerge.

On mechanisation of domestic projects - we have two schools of thought to do or not to do. This is precisely because politicians feel we have plenty of labour in our Country & why should we think of depriving them of 2 square meals by full scale mechanisation of the Industry.

The contracting Industry on the other hand is feeling the pinch of shortage of labour, both skilled and unskilled. This is because our labourers are agriculture based and secondly there is plenty of opportunity for them to go to Middle East and earn in couple of years what could be only life savings. At the same time the Industry is not going in full scale mechanisation because (1) of poor quality of after sales service, (2) continuity of project and idling of equipment. So we are just midway today - but very soon we shall have to go in for full scale mechanisation if we are to implement the targetted 8th five year plan project. The manufacturers of the equipments have also been alert.

On fiscal policies I must say that we are worst hit as many as 30 or more acts are made applicable to the construction industry in India - some of the acts are mutually contradictory and some duplication, particularly the labour Laws. We have represented many times for a consolidated single act. Even Tripartite Committee and Expert Committee were established by Ministry of Labour, Government of India. Their recommendation are already there before the Ministry but nothing resulted so far. We are living with hopes. But the main problem is that we are like an orphan - we have no Ministry to support our cause. Therefore, you will be surprised to find how we are surviving. Still we are surviving and we shall continue not only to survive but thrive too as our expertise in Engineering field has World wide recognition and no force on earth can stop our progress. We only need the patronage of our Government for fiscal policies and others for funds.

Another Challenge is our population growth and their Housing problems. Population has grown in leaps & bound in this century starting with 238 millions in 1901 (United India)
361 millions in 1951 (Divided India)
683 millions in 1981 (" ")
844 millions in 1991 (" ")

Rate of increase slightly reduced to 2.11% from 2.22% in 1981.

It has been realised that the metropolitan Cities must have Continuing Urban development program to wipe out the backlog deficits in infrastructure and also to expand the facilities to support the future growth. The concept of Satellite Cities are growing fast.

The development in real sense includes all facets of activities that influence the Social, Economic and Physical life of the people, such as Employment, Health & Education, Shelter & Settlement, Urban transport, Water Sanitation, Drainage and Solid Waste treatment and Environment protection.

Concluding Para :

Since Independence in 1947, the principle of "self - reliance" has been, and indeed continues to be, a cornerstone of Indian economic planning. The broad lines of economic planning, based on clearly enunciated social objectives as well as agricultural and industrial targets, have been outlined in successive Five Year Plans. The First Five-Year Plan, covering the period 1951-56, set relatively modest aims for industrial and agricultural output. Subsequent plans gave greater emphasis to heavy industry, and industrialisation targets became much more ambitious. Large projects were initiated in order to increase steel, power and fertilizer production, thus providing broad base for both agriculturéal production and industrialisation through import substitution.

India has transformed itself from a suppressed, colonial, largely agrarian economy into a vibrant, independent modern Industrial one. The Country's GNP is the 12th largest in the world (having quintupled since 1947). Its large population, could, in less than two generations, given the right nutritional and educational improvements, become a massive asset equipping India with the largest technically skilled, sophisticated and motivated work force the world has ever known.

Projections & Predictions say by 2025 AD India will emerge as the 5th most powerful Country. India will dominate United Nations on account of its powerful leadership of the non-aligned world, strategic location and educated mass of 1.2 billion with biggest consumer market.

REFERENCE :

-
- 1) NICMAR LITERATURES
 - 2) SEMINAR organised by NICMAR in Delhi

Table 2 : INVESTMENT AND INCREMENT IN GDP (1980 - 85)

	Investment at market prices Rs.crores at 1979-80 prices	Increment in GDP at factor cost (Rs.) crores at 1979-80 price	Incremental GDP per Re. of investme (Paise)
	1	2	3
1. CONSTRUCTION	1760	1369	78
2. Agriculture	32242	6404	20
3. Forestry & Logging	478	327	68
4. Mining & Quarrying	6575	1040	16
5. Manufacturing	45515	6500	14
6. Railways	4724	420	8
7. Transport other than Railways	11330	1025	9
8. Communications	2902	262	9
9. Trade, Storage and Warehousing	7299	5026	69
10. Banking and Insurance	260	968	370

$$3 = 2/1$$

Source : Sixth Five Year Plan 1980-85, New Delhi :
Planning Commission, Government of India,
Table 3.7, p-37.

Table 3 : ESTIMATED APPROXIMATE CONSTRUCTION
COMPONENT OF SUB-SECTORS

SUB-HEAD -----	CONSTRUCTION COMPONENT AS A PERCENTAGE OF OUTLAY -----
1. Agriculture & Allied Sectors	34
2. Irrigation & Flood Control	80
3. Power	75
4. Small Industries	25
5. Organised Industry	30
6. Transport and Communication	40 (excluding Railways)
7. Education	20
8. Scientific Research	10
9. Health	37
10. Housing	100
11. Welfare of backward classes	12
12. Social Welfare	21
13. Labour Welfare and Craftsmen Training	45

Reproduced from : Project Dossier and Overviews of S & T
Plan on Housing and Construction Technology,
New Delhi : National Committee on Science and
Technology, July 1975, Table - 1, p-19.

Table 4 : PLAN OUTLAY BY HEADS OF DEVELOPMENT

Rs. in crore

No.	Heads of Development	I Plan (Actual)	II Plan (Actual)	III Plan (Actual)	IV Plan 69-80 (Actual)	V Plan 74-79 (Actual)	Annual Plan 79-80 (Actual)	VI Plan	VII Plan 85-90
1.	2.	3.	4.	5.	6.	7.	8.	9.	
1.	Acriculture & Allied Sectors	290	549	1089	2390	4865	1997	13275	10254
2.	Irrigation & Flood Control	434	430	665	1354	3877	1288	14936	16978
3.	Power	149	452	1252	2932	7399	2241	19265	34273
4.	Small Industry	42	187	241	243	593	256	1787	2752
5.	Organised Industry	55	938	1726	2863	8989	2384	20407	19708
6.	Transport & Communication	518	1261	2112	3080	6870	2045	15484	29443
7.	Education	149	273	588	744	-	263	2524	6382
8.	Scientific Research			72	131	1710	91	915	2466
9.	Health	98	228	226	336	761	223	1821	3392
10.	Housing	129	149	128	270	1150	369	2370	4259
11.	Welfare of backward classes	32	83	99	165	724	248	2370	1520
12.	Social Welfare			19	64	88	31	272	1010
13.	Labour Welfare & Craftsmen Training			56	31	817	236	2030	33
	T O T A L	1960	4672	8577	15779	39426	12177	97500	180000

Source : Perspective India , New Delhi, September - October 1984, / p-5.

Table 5 : CONSTRUCTION CONTENT BY HEADS OF DEVELOPMENT

Rs. in crores

No.	Heads of Development	I Plan (Actual)	II Plan (Actual)	III Plan (Actual)	IV Plan 69-80 (Actual)	V Plan 74-79 (Actual)	Annual Plan 79-80 (Actual)	VI Plan	VII Plan 85-90
1.	2.	3.	4.	5.	6.	7.	8.	9.	
1.	Agriculture & Allied Sectors	99	187	370	789	1654	679	4514	3578
2.	Irrigation & Flood Control	347	344	532	1083	3102	1030	11949	13582
3.	Power	112	339	539	2200	5549	1681	1449	26042
4.	Small Industry	11	47	60	61	148	64	445	668
5.	Organised Industry	17	281	518	859	2061	715	6122	5912
6.	Transport & Communication	207	504	845	1232	2748	818	6194	11777
7.	Education	30	55	118	155	-	53	505	1276
8.	Scientific Research			7	13	17	9	92	247
9.	Health	36	84	84	124	282	83	674	1255
10.	Housing	129	149	128	270	1150	369	2370	4259
11.	Welfare of backward classes			2	8	11	4	33	182
12.	Social Welfare			4	13	18	7	57	212
13.	Labour Welfare & Craftsmen Training			25	14	368	106	914	150
	Approximate Construction Content as % of total outlay	50.4	42.6	42.3	43.2	43.4	46.1	36.2	38.42

The AIMO has made an analysis of the Bill drafted by the National Campaign Committee for Central Legislation on Construction Workers headed by Mr. Justice V.R. Krishna Iyer (Retd.). It is our considered opinion that the draft Bill in its present form will not meet the needs of the situation.

In fact, it might in most cases create difficulties by unnecessarily coming in the way of a free flow of labour and put too many constraints on the worker's freedom to change employment in search of better conditions. The Committee seems to have given no thought to the social aspect of the life and work of construction labour. The draft Bill ignores the very important fact that construction workers move in groups from specific areas, tend to stay together because it gives them a sense of security in an alien atmosphere, are totally ignorant of bureaucratic procedures and can be fair game for exploitation by unscrupulous elements. In fact, enlightened builders and contractors with a ~~xxxxxxxxxxxx~~ social conscience can be their best guides and guarantors of better living conditions. It may then be asked if the Government

has no role to play. The Government certainly has a role in seeing to it that only laws that can be conveniently and usefully implemented are framed, without itself coming in as an intermediary, which will be a remedy worse than the disease.

The construction industry does not assure continuity of work. In the present system, idle labour moves from one work site to another. This happens because there is a great flexibility in the present system. The draft legislation referred to above envisages setting up of boards which will register all construction workers and undertake to supply to the builders/contractors the required number of workers against wages deposited in advance. At first glance it looks to be a good system but it bristles with difficulties. For any single agency it will be a stupendous task to register all the labour and allot them to work sites especially when workers keep on coming and going. How will the Boards get in touch with the workers who are to be transferred from one site to another? How will priorities be fixed for allotting work? If priority is given according to the registration number, it may divide families and village groups, which will be disastrous for their social fabric. There will be chaos all over and many will go without work. This will make the illiterate, unskilled construction workers fall a prey to unscrupulous bureaucrats. The Government will almost turn an employer but without having any idea of employment ~~xxxxxxxxxxxxxxxx~~ possibilities. Worse, the workers will not have the option to choose work or their employers. We, therefore, believe that the present loose system be allowed to continue while care be taken to provide them proper wages and living conditions, with a provision made for their future needs. This is what they need most.

The draft bill ignores the balance between productivity and expenditure which is at present continuously monitored by the contractor who is also the paymaster. If this is disturbed, efficiency will be impaired and construction costs will go up. The delays and overruns will be nobody's business. At present

: 9 :

the contractors are bound by their contracts to ensure that this does not happen. The skilled workers are paid between Rs.50/- and Rs.150/- per day, depending on the efficiency of a particular worker. The system entitles the worker to demand and bargain for whatever he thinks is his fair wage in view of the skill he commands. Only a contractor is competent to judge this. The Boards will have no basis on which to take such decisions. It is the contractor who knows the worth of each individual worker.

The workers themselves will have greater faith in the contractor than in some remote boards sitting in air-conditioned Government buildings which they cannot even approach. Workers will be open to exploitation in the matter of recruitment, postings, transfers and fixing of wages, particularly when their fundamental right to choose employers is taken away from them and replaced by impersonal ~~with~~ boards without any contract with the worker. This will totally unhinge the worker and leave him at the mercy of a maze of bureaucratic machinery which is totally alien to his work culture.

The proposed Construction Workers (Regulation of Employment and Conditions of Service) Bill provides that wages shall be disbursed in the presence of the representatives of the principal employer, the organisation which is getting a project undertaken, and he shall certify that this has been done. If this is done, the worker will be assured fair wages. Usually there is a clause in contracts for reimbursement of the increase in wages to ensure payment throughout the tenure of the contract. But sometimes the principal employer avoids provision of the reimbursement clause. There is certainly need for legislation to check this tendency. The law should make reimbursement in the event of escalation of wages compulsory and a breach on the part of the principal employer should be termed a criminal offence.

The Construction Industry is full of uncertainties. It is not possible to ensure continuity of employment. Construction workers tend to seek employment only at their own convenience and according to their need.

The best way to see that the construction worker's staying power is augmented is to raise his wage and at the same time encourage the banks to inculcate the savings habit among the workers so that they are able to accumulate their savings and draw upon these in times of need.

At the outset, AIMO wishes to emphasise that as employers it has the welfare and well being of the workers at all times in its mind. The workers are the main instrument for executing any construction and, therefore, the Organisation would like to assure you that any legislation which will provide proper terms and conditions of service, safety, health and social security and welfare will be welcomed by it. It has always felt a need for an unified labour legislation to overcome the multifarious difficulties that are being experienced by the construction industry since as many as 29 Labour Laws have been made applicable to this vital sector of the economy and nothing in these statutes were designed to meet the peculiar characteristics of employment and nature of work involved in the Industry. These legislations were enacted primarily and designed for the organised manufacturing sector and industries and extended to this sector without reckoning with the peculiarities of the construction industry. AIMO, therefore, is of the firm belief that an unified labour legislation which will streamline working conditions, functioning and delivering all benefits due to the workers should be enacted.

The draft bill prepared and presented by NCCL and debated at length in the Seminar held in Delhi suffers from certain major shortcomings and we, therefore, have objection to its adoption by the Government on the following grounds :-

- (a) The bill does not take into account the characteristics of the construction sector wherein the nature of employment of the workers' becomes casual and temporary.

- (b) The bill is modelled on the dock workers (Regulation of Employment) Act 1948 whereas there is hardly any similarity between the working of the two.
- (c) The experiment in Maharashtra of the Mathadies workers Act (Manual head load workers) has proved to be a failure.
- (d) The bill envisages Regulation of employment through Construction Labour Board to which we have strong objections for obvious reasons.
- (e) The Bill has totally ignored the recommendations of the Tripartite Working Group, which was constituted by the Government of India to go into the various aspects relating to social security and welfare of construction workers.

The bill also is silent on the following major issues which merit attention :-

- (1) The contractor will be required to deposit the wages of workers in advance.
- (2) Responsibility for timely execution of the work by the labour has not been fixed.
- (3) Who will be responsible for defraying idle labour cost ?
- (4) Even an individual constructing a house will be required to indent for labour from the Board and thus will be at the mercy of the Board for completion of the house.
- (5) How a major project can be covered by such a Board has not been spelt out ?
- (6) The existence of the owner/Principal employer has been totally ignored.
- (7) Social security welfare has to be extended through the Board but methodology has not been given out.

(8) The President of the Board has been empowered to declare "State of Emergency". The purpose of delegating such draconian power is not enumerated.

AIMO wishes, to, therefore, in the light of the above, reiterate that a single unified labour legislation must be enacted for the Building and Construction Industry but the Act should not aim at regulation of employment in the manner contemplated in the draft bill submitted by the NCCL. The legislation must aim at delivering the intended benefits and social security and welfare measures to the workers regulating working conditions, health and safety and to do so separate Boards may be constituted, the control of which should be exercised by the Government and if need be assisted by representatives of employers and the workers.

We hope and believe that the Government will, in all its wisdom, take into account various factors that must be considered before enacting the legislation as a mere legislation does not solve the problem whereas by systematic education and attitude of co-operation can achieve same objective very easily and profitably. We, therefore, urge upon your Ministry to reconsider the matter in the light of the ~~foregoing~~ foregoing so that the interest of the Nation and the economy and the welfare of the millions of workers in the construction industry are kept uppermost in minds at all times.

Looking into the present concept of the Exit Policy, and the provision of National Renewal Fund, the Government of India is stuck with the problem of organised labour with various industries. If this bill is proposed, the concept of National Renewal Fund as well as Exit Policy which are initiated by the Government with such great difficulty, will become a nullity.

This is additionally so because the number of labour employed in the construction industry is much more than the total organised labour in the country today.