

INDUSTRIALISATION OF CIVIL ENGINEERING

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"What is total industrialisation of civil engineering and establishment of building centres -nirmiti kendras - at least one at each tehsil all over the country, which can become the modern temples of allround development of rural areas".

"Total Industrialisation of Civil Engineering" means that one should be able to mass-manufacture standardised proven multi-quality multi-benefit modern building materials and structural components, having high strength to weight ratios and which could be subjected to scientific objective impersonal quality controls BIS (ISI) norms and marks, in Building Centres - Nirmiti Kendras - all over the country as small-scale industries, at least one at each Tehsil. These should be proven materials, after extensive forest produce, energy and good agricultural soil traditionally used for bricks and the non-replenishable mineral resources like lime-stone, iron-ore, coal etc. and with which any structure of any size, shape, dimension and geometric configurations, right from one-room dwelling unit for the poorest of the poor of the society to the costly villas for the wealthiest of the richest, as well as multi-storeyed commercial and administrative buildings, mass housing, hospitals, schools, factories, farm houses, stables etc. can be modularly planned for economy and speedily erected, rendered, completed in all respects and put to the desired use as early as possible, like all other industrial products, thus constituting "A REAL SOCIALISM", and enabling early

accruals of desired benefits on such heavy capital investments. This essentially needs registered industries and a total proven industrialised building materials technology, capable of being universalised in all areas and sectors, using locally available raw materials, as far as possible, so that the standardised and mass-manufactured products can be brought under BIS (ISI) norms and marks, and thus doing away with the subjective vague personality-based descriptive prescriptive unscientific specifications and quality controls, which only generate, perpetuate and fully protect the well-known rampant notorious ills, evils, malincentives, malpractices and safe unlimited corruption by maintaining the traditional status-quo. The drawbacks of subjective personal quality control prevalent in site concreting can be, and have to be, removed immediately by taking a resort to the use of real modern sophisticated concrete weighbatching and mixing plants, giving computer print-outs of the particular design mix details, characteristics and strengths, and/or ready-mixed concrete - RMC Units - as a rule for each and every work- small, medium or big. Volumetric proportioning of raw materials of concrete i.e. aggregate, sand, cement and water is not allowed both in theory and also by

BIS (ISI) norms and standards and hence this most pernicious practice must be stopped in any work immediately, being illegal, as per theory. Then alone, the manufacturers will be fully responsible in all respects. This constitutes and thus completes the process of "Total Industrialisation of Civil Engineering" and mass-manufacturing these proven multi-quality multi-benefit building materials and structural components in Building Centres - Nirmiti Kendras - at least one at each Tehsil, to start with, all over the country.

If the "Total Industrialisation of Civil Engineering" is now adopted, as a National Policy and its failproof implementation is ensured by Government of India and all State Governments by appointing broad-based Implementation Committees both at the National and State levels, as these reforms have fantastic vested interests' opposition, it will definitely control the major lacunae and drawbacks in this basic most important discipline, which not only give rise to but also fully protect and perpetuate the well-known notorious ills, evils, malpractices and rampant corruption, with total impunity. This, in short, is out definition of "Total Industrialisation of Civil Engineering" in general and of "Housing Construction Field" in particular by establishing Building Centres to mass-manufacture these proven standardised multi-quality multi-benefit building materials, at least one Centre at Each Tehsil, to start with, all over the Country.

B. G. Shirke and Company have developed, pioneered by extensive trials both in India and Overseas and piloted this concept of new industrialised

multi-quality economic building materials technology and proved the same by constructing about 100,000 dwelling units of all categories, both in India and Overseas, in all types of climatic zones and rainfall areas, during the last 18 years. B. G. Shirke and Company have also brought some of the materials like Siporex under BIS (ISI) norms for a total industrialised/prefabricated system. B. G. Shirke and Company have also helped to start hundreds of Building Centres all over the country in general and the Nirmiti Kendras in Kerala State in particular. Thus, a total proven technology is available. B. G. Shirke and Company have also pledged the same to the service of the country on the Trusteeship Principles under the progressive GR of 11.12.1984 of the Government of Maharashtra, without any commercial strings attached. This GR of 11.12.1984 was challenged as many as ten times in different High Courts, their Appellate Courts and ultimately in the Supreme Court of India and every time was vouched by these highest Courts of the Country as in the best public interests.

The concept of establishing "Building Centres", at least one at each Tehsil, to start with, all over the country, can also be very complementary to the recent "Vishwa Programme" launched by the Hon'ble Prime Minister at Bangalore on 2nd October 1991 i.e. Mahatma Gandhi Jayanthi Day. The Building Centres - Nirmiti Kendras - with this "Vishwa Programme" thus can become real modern temples of all-round rural development, if a national policy to this effect is adopted and its failproof implementation is ensured by Government of India.

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