

DEVELOPMENT OF STRATEGIC MODEL TO CONTROL HAPHAZARD CONSTRUCTION

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Abstract— The proliferation of this strategy to Federal funding to state and local governments through revenue sharing and other grant programs is drying up, traditionally, local government has financed public services through general revenues and the issuance of general obligation bonds that are pledged against local property tax collections. This research attempt to overcome an issues regarding the illegal construction through an control process by the government body which can control the revenue of the country to some extent, in this process it is mainly depend on the resource of the construction component like as cement, steel, etc. which are very demanding and crucial resources in this new world of construction. This resources are analyzed and monitored the actual production and through that the local government can control the resources and supplies an equivalent resources approved by the government to develop or construct that body. Which manages the quality and quantity of a structure and can eliminate the present process of illegal construction to be legalized i.e. impact fee & remote sensing. This is very time consuming and complex method as the resources are optimum to construct there is no other way to construct illegal work, so an new conceptual model has been develop to control an haphazard construction

Keywords— Illegal construction, new conceptual model, impact fees, resources.

I INTRODUCTION

This research analyzed the impact of the use of ceramic powder, obtained as residue from the ceramics industry, on the mechanical properties of conventional concrete. The councils of large-and medium-sized towns have for years been increasingly concerned with the collection, storage and more recently treatment of domestic waste. Parallel to this, there has been a growing social and political awareness of environmental issues, particularly where this relates to the deterioration of the environment. Ceramic waste from factories producing construction industry materials has been accumulating on frequently illegal rubbish tips, creating increasingly large piles. Although they are usually chemically inert, the rubbish tips where this waste accumulates, given their size and the scant environmental control exercised, have as significant visual impact that destroys the intrinsic quality of the landscape. The advancement of concrete technology

can reduce the consumption of natural resources and energy sources. They have forced to focus on recovery, reuse of natural resources and find other alternatives. Presently large amounts of Ceramic waste are generated in ceramic industries with an important impact on the environment and humans. The use of the replacement materials offer cost reduction, energy savings, arguably superior products, and fewer hazards in the environment.

Indian ceramic production is 100 Million ton per year. In ceramic industry, about 15%-30% waste material generated from the total production. This waste is not recycled in any form at present. However, the ceramic waste is durable, hard and highly resistant to biological, chemical, and physical degradation forces. The Ceramic industries are dumping the waste in any nearby pit or vacant spaces, near their unit although notified areas have been marked for dumping. This leads to serious environmental and dust pollution and occupation of a vast area of land, especially after the powder dries up so it is necessary to dispose the Ceramic waste quickly and use in the construction industry. As the ceramic waste is piling up every day, there is a pressure on ceramic industries to find a solution for its disposal

II PRESENT METHODOLOGY

A. *IMAPCT FEES METHOD*

Within urbanized communities which are near build out, development impact fees (dif) are collected to mitigate the impact of new development through provisions of a portion of the financing needed for public facilities identified in the public facilities financing plan (pffp) and to maintain existing levels of service for that community. Upon determination of the area of benefit and community build out population, the estimated cost to construct the facilities is divided amongst residential and non-residential development.

One of the hottest issues in the land use arena is the expanding implementation of development exactions and impact fees. Although impact fees have existed for several years and development exactions even longer,' their use by local governments has greatly increased during this decade. Regarding fees in particular, planners, developers, and lawyers are wrestling with the validity of these new sources of municipal funds and their application to an ever expanding set of purposes. The proliferation of impact fees and development exactions (especially offsite exactions) is due to several factors. Federal funding to state and local governments through revenue sharing and other grant programs is drying up. The continuing suburbanization of the nation's population and the rapid rate of new household formation require local governments to extend services to new and larger areas. In high growth areas in particular, government is hardly able to keep pace with the demand for new services while simultaneously maintaining and repairing existing public facilities. In addition, compliance with stringent government mandated standards often requires substantial public outlays and unpopular financing decisions. Traditionally, local government has financed public services through general revenues and the issuance of general obligation bonds that are pledged against local property tax collections. In the present economic climate, however, the condition of the bond market and the competition among investment options has made the marketing of debt instruments more difficult for a number of jurisdictions, even for those

with sound credit ratings. Another complication arises from state mandated limitations on bonded indebtedness, which restricts the dollar volume of debt issued.

As in the present scenario the impact fees are taken after the extraction of the construction on the field. as the fees are paid on the basis of the area extension of the house and project. There are two different sectors of construction, public sector and private sector. Majorly the illegal construction is in the private sector where the private owner built the construction in his own way. As the plan is passed from the zonal office the client use to make the construction through the plan passed, but after the six months or more the client extent his construction above and above. Which is not passed by the government or zonal office, as after the detection of the extraction of the construction the client needs to apply a file to a government for legalize the extraction of construction and the fees are paid to a government.

In this present process of legalize the construction it goes through the year or month to detect and paid a fees to government, which consumes time and money. As this impact fees collection process is surveyed and established for the decades to a different cities with the different zonal area.

The major factors lacking in this process are:

- It consumes more time to detect haphazard or illegal construction.
- It is not a proper define process to control a haphazard construction.
- It cannot be possible to take an all haphazard construction to be legalized.
- It makes a way for the corruption for the legalization in a construction industry.
- It may disturb the economic status of the country.

B. REMOTE SENSING GIS METHOD (PHOTOGRAMMETRY)

A combination of social, economic, legal, and administrative parameters leads, in several countries, to the stage of unplanned development and to the creation of a considerable number of informal buildings. In countries like Greece the majority of informal buildings do not resemble dense slums at the edges of big cities. On the contrary, informal buildings are of good constructions, in some cases 2-story buildings, or even luxurious constructions. such type of buildings can be usually found scattered within agricultural land at the urban fringe of big cities or in areas close to the coast, mainly due to the increase of the population in the major urban centres, the new improvements in the road and railway network that reduced commuting times, and to the high demand for urban land in areas with better environmental conditions. The lower prices of agricultural land parcels and the low profit from agricultural products, especially in comparison to the profits expected through the urbanization of land, are also significant factors. These informal constructions are used either for permanent Residence, or in the coastal zone, for a second house for vacation. When increased in number, they may create various problems such as:

- decrease of state and local revenue since they are not fully taxed, as the informal buildings are not registered, but they also demand for additional infrastructure and services provision,
- Serious social and economic impact on the owners and on the national economy and the real estate market. the owners may be charged with high penalties, also such properties cannot be transferred or mortgaged, while there is always a risk of creating an informal market, and

- In case of a massive scale they may have negative environmental effect.

Government has applied high penalties in case of detection of informal constructions but this alone cannot solve the problem. Sound update of land-use planning according to changing needs, and a series of other fiscal and social measures are also necessary. From a technical point of view, one common reason for the administration's inefficiency to control unplanned development is the difficulty to locate quickly, and in time, the under construction informal buildings in a cost-effective way and stop the construction at its beginning or apply a penalty within a short time after its completion. Classic administrative control procedures are proved inefficient, especially when public administration suffers from lack of employees, bureaucracy, and increased responsibilities. It is difficult to place inspectors at each area to stop illegal construction work and this will encourage corruption. The contribution of modern techniques and tools is necessary for the design of an automated and objective procedure for the detection of informal constructions. Such procedures are already tested in some countries.

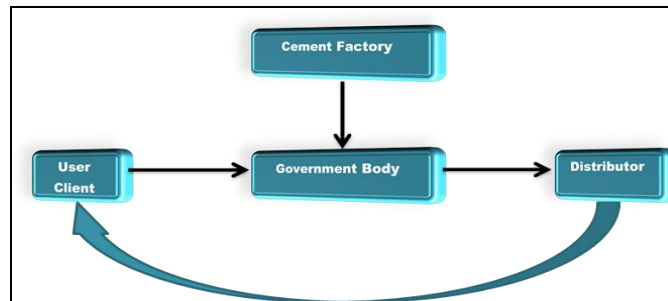
Methods to detect haphazard construction			
	Impact fees	Remote sensing method	New Conceptual model
Haphazard construction Detection	After existence of construction	On-going construction	Pre- detect illegal construction
Corruption	High level	Medium level	Some extent level
Time consume to legalize	Very much	Depends on the construction project	Minor time it will take to complete
Data accuracy	Low	Very low	High
Process define	Post approach	Current approach	Pre approach

III DEVELOPMENT OF CONCEPTAL MODEL

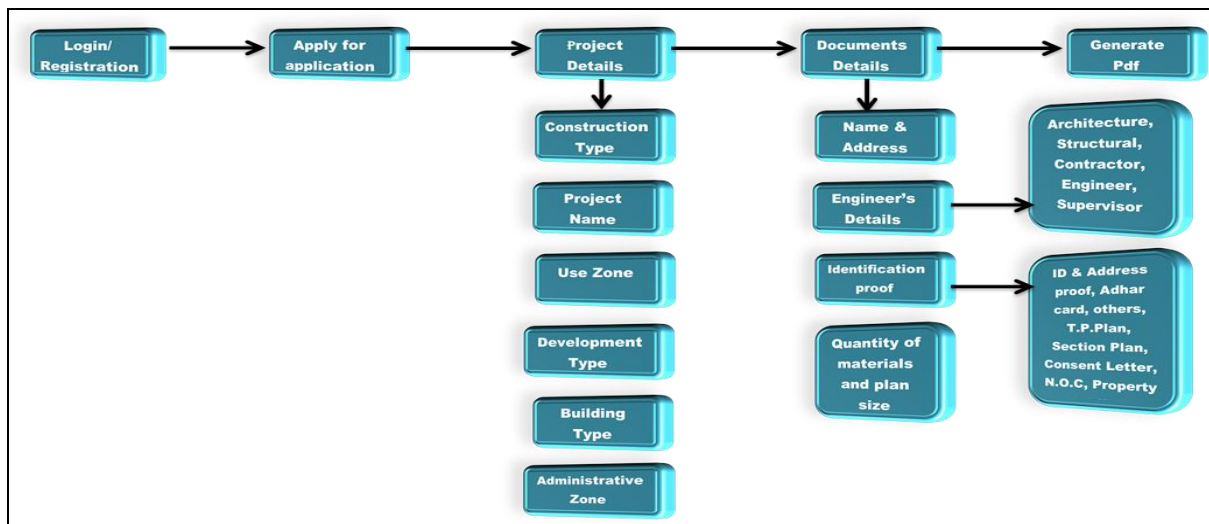
Basically the software is based on a server which centralizes the development in the Indian construction industry for the data of a new construction. This keeps the data of the new project construction client, distributor and cement factory in the region. As a new client registers his project to government and upload necessary data that are require passing the new project or existing project. On the very first client need an architect consultant & Structural Engineer which carries out the design for the place where the client need to develop? As the plan and design prepared the client need to register the project on the government website, which includes the personal and project information. As if the documents and proofs are to be scanned and upload to a government for the pre-verification of the document, there are some options where client can maintain his project information. The program requires the all data that are optioned on the software after all data gets upload client should apply data, on the click of submit the software generates the unique code and appointment to a government will be generated. On that time client need to verify the original to a government officer, but before that client need to check the update on his profile for the remarks by the government if the data upload are passed through a precertification then client has to go on that time and date if not passed then client need to modify his data within the time.

As after verification process by the government is passed with passing the unique code government approves that unique code through his region and distributor of the cement bag can get the information of the client which is approved for the new project. So the clients visit a distributor for the cement bag for his new project for the purchase. The distributor has one software which includes the approved unique code data by the government and his identity proof, when distributor enter that unique code in software it shows the passed out quantity of cement bags and so the client gets the cement bags.

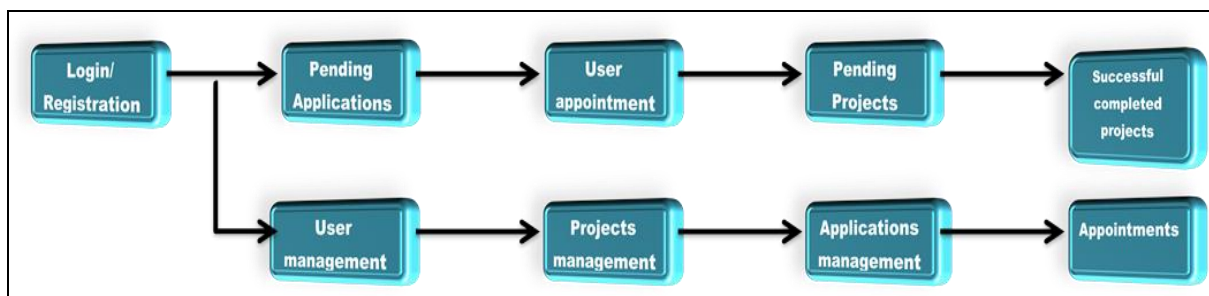
Now the problems is the black market of cement bags which can be direct buy from the factory by the client for illegal construction, it has also a way one another software is developed for the cement factory in which the factory employs has to entry a data of the cement ingredients import and cement quantity export. This manufactured cement bags are batched in a group and tracked where it is to be distributed, that records is directly to be apply by the cement factory to a government. As the below are the some flow chart which gives a graphical representation of the conceptual model and its flow of working.



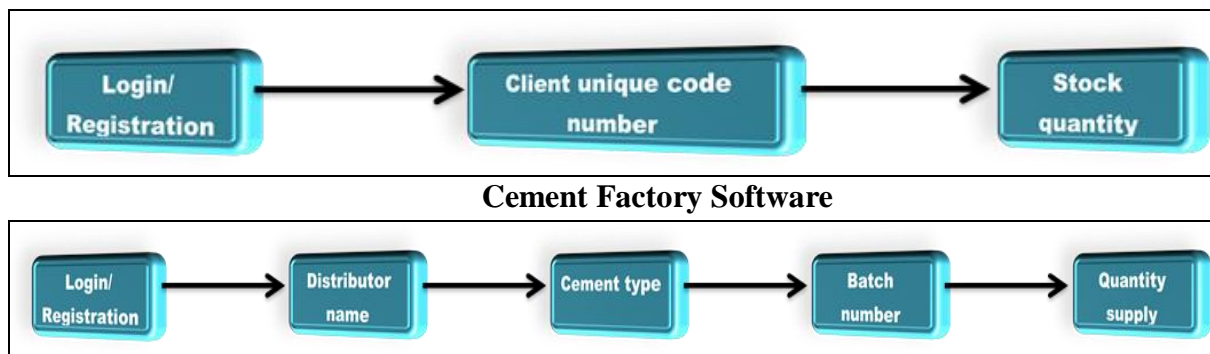
User software



Government Software



Distributor Software



VI. REVIEW

• Architect:

- √ The approach is good on the basis of present situation but the government needs more employee power which can make this model a true legalize construction model.
- √ How the cement material can be in control of such a huge ongoing projects day by day, for that u must make some strict norms and conditions.

• SMC officer's:

- √ This type of model can create a new way to control a haphazard construction.
- √ For the government employees it works smoothly to be work at right time.
- √ It may stop corruption within the present scenario.
- √ It may develop a country and its revenue.
- √ As in the city some area are not legal for the construction but through this model the client has to go through the process of government and so the client has to be submit the actual data, so it beneficiary for the government to collect all the data of any project.

• Contractor's & Builder's:

- √ They accept the conceptual model and have no issue with this new system if it is adopted by the government.
- √ As in some region the black market of cement bags are producing the cement bags so government should close them to control with this method.
- √ To control a cement bag production is too tough for any organization.
- √ Collect an appropriate data for the construction so that no one can save a cement bag for a illegal construction.

• Distributor:

- √ They were saying that as on like present process or through this process the selling of cement product will be done so we can use such process to control the haphazard construction.
- √ Some distributor are agree to support such system so that the product price can be in control reason behind that is the black market of cement products.

Based on experimental investigations concerning the compressive strength of concrete, the following observations are made:

- a. The Compressive Strength of M25 grade concrete increases when the replacement of cement with ceramic waste up to 30% by weight of cement and further replacement of cement with ceramic powder decreases the compressive strength.
- b. Concrete on **30%** replacement of cement with ceramic waste, compressive strength obtained is **26.77 N/mm²** and vice-versa the cost of the concrete is reduced up to **13.27%** in **M25** grade and hence it becomes more economical without compromising concrete strength than the standard concrete. It becomes technically and economically feasible and viable.
- c. Utilization of ceramic waste and its application are used for the development of the construction industry, Material sciences.
- d. It is the possible alternative solution of safe disposal of ceramic waste.

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