

Institutionalizing Transport Impact Assessment: The Case of Cotabato City

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Abstract: The paper studied how Transport Impact Assessment (TIA) can be institutionalized in a local government unit, the city of Cotabato in particular. To achieve this general objective, the study looked into the factors that might facilitate and hinders the institutionalization of TIA in the city, reviewed existing national and local policies that require TIA for any type of development, and came up with an institutionalization mechanism. It found out that the best way to institutionalize TIA is to incorporate it as a policy in the Comprehensive Land Use Plan (CLUP) and Zoning Ordinance. The study has recognized that the knowledge of the local planning office on TIA is essential and that such has eased the process of integrating TIA as a measure to mitigate the impact of new developments on transportation. With TIA being institutionalized thru CLUP and ZO, there is no need to pass for a separate ordinance and TIA enforcement became the responsibility of the Zoning Administrator. Within the system of local governance, the ideal way to require TIA is in the building permit approval process. Since, it is mainstreamed in the ZO, such shall be required at the level of securing a Locational Clearance. The study has established the appropriateness to use Transport Impact Assessment instead of Traffic Impact Assessment since the former is being regarded as a land use measure rather than traffic control policy.

Key words: land use, traffic congestion, transport/traffic impact assessment

1. INTRODUCTION

Land use generates and attracts traffic, the existence of transport facilities make some locations more attractive than others for urban development and thus, influences land use developments (Hokao and Mohammed, 2001). A growing number of communities are recognizing the close relationship between transportation planning decisions and land use (Brierly, 2009). Wachs (1990) recognized the contribution of new developments on traffic.

Cities and key municipalities in the Philippines continue to undergo development even with the present economic slowdown. As areas become urbanized people come to face to face with traffic congestion (Regidor and Teodoro, 2003). Lidasan, *et al.* (2008) found out that among cities the issue on transport and traffic ranked 6th overall. Such issue is more critical in large cities, ranking 2nd among 11 other city-wide issues. It reflects that as cities get bigger, transport and traffic issues rise prominently in their list of problems. The study also revealed the troubling issue of some medium-sized cities urban transport already begins to deteriorate.

The City of Cotabato is a fast growing area in terms of population with a limited space ideal for urban development. The City has been experiencing traffic congestion for quite a time. In its desire to resolve the persistent problem on traffic, the City formulated their Transportation and Traffic Management Plan (TTMP). The plan has identified not only factors but strategies and policies that mitigate traffic congestion. One of the policies is to institutionalize the conduct of Traffic Impact Assessment (TIA) studies for urban/regional development projects that are traffic generators.

But, the political composition at the City Council/Sanggunian Panlungsod (SP) changed and has affected the TTMP approval process. Knowing the importance of TIA in mitigating impact of land use on transportation, the Zoning Administrator even without a legal basis has required a shopping complex to submit a TIA study. However, the Zoning Administrator cannot compel the owner to comply with the provisions of the TIA study due to the absence of a legal mandate. As a result, traffic along the vicinity of the complex worsens.

Limapornwanitch, *et al.* (2005) found out that the unavailability of standard process was seen as one of the obstacles in implementing traffic impact assessment. The guidelines or standard process will guide local government units (LGUs) in evaluating the impact of new developments¹ to the traffic situation of the area.

In response, the National Center for Transportation Studies (NCTS) of the University of the Philippines has developed Traffic Impact Assessment (TIA) guidelines, with assistance from JICA in 1999. It provided for ways to mainstream the guidelines in the Philippines context. The guidelines proposed four (4) ways to institutionalize TIA which are through the (i) Environmental Impact Assessment (EIA) system, (ii) Housing and Land Use Regulatory Board (HLURB) Guidelines for Subdivisions, (iii) national legislation, and (iv) local ordinance.

The study intends to look how TIA can be institutionalized in the City of Cotabato. It looked into the institutional and legislation issue of traffic impact analysis in the city from the point of view of city government officials and other stakeholders. The research also considered looking at the issue of appropriateness on what term to use, either "traffic" or "transport".

Traffic is usually associated with vehicles. On the other hand, many are in agreement that the term transport connotes not only vehicles but also people, the environment and the transport system. As such, there is a need to expand the term TIA to include not only vehicular traffic but also the other components of the environment and the transport system. For the purpose of this study, TIA would mean transport impact assessment. In essence, the study focuses on all aspects of the transport system and the environment.

2. CONCEPTUAL FRAMEWORK

Urban areas are faced with the growing problem on traffic congestion. Such problem is the result of incapacities and ineffectiveness of the soft and hard infrastructure facilities in an urban area like, Cotabato City. Transport planners at the national level have formulated a TIA guideline aimed to provide solution and mitigate the impact of new developments on transportation. The main challenge is how to institutionalize TIA in a city considering the absence of a national directive requiring LGUs to implement such measure.

¹ Proposed development or project

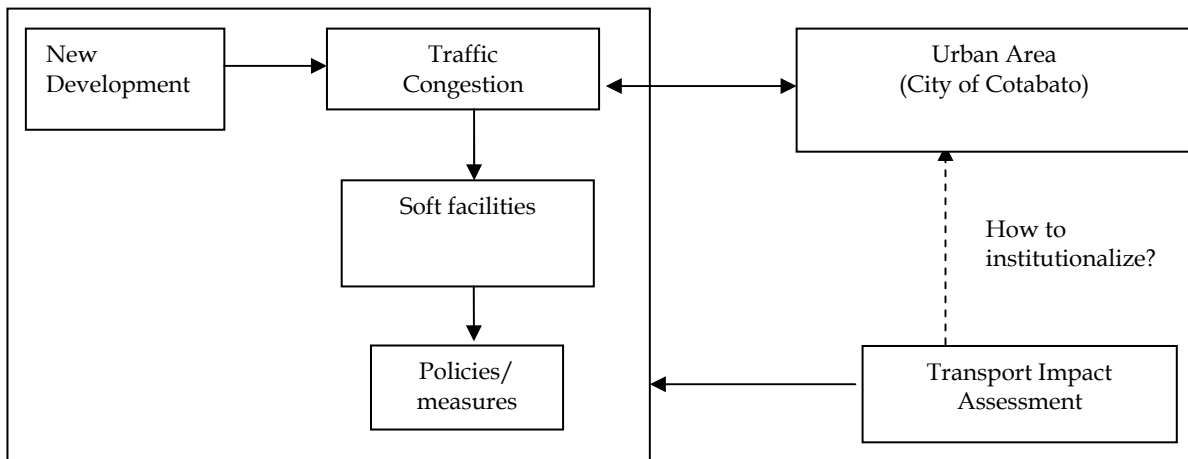


Figure 1. Conceptual Framework

3. ANALYTICAL FRAMEWORK

The study looked into the facilitating or hindering factors/ determinants affecting the institutionalization of TIA in the city of Cotabato. The factors or determinants of TIA institutionalization in the city are: (i) opinions / concerns of key informants on TIA, and (ii) existing local and national policies and measures relative to TIA. The study employed key informant interview and policy research methods in gathering data and information.

The descriptive account of the respondents determined the TIA institutional issues as well as regulatory processes and requirements. The descriptive account and result of policy research helped in coming up with a TIA institutionalization mechanism. It provide for the most possible means of incorporating TIA in the system of local governance. With the mechanism the question "how to?" is answered.

The mechanism also provided for necessary capacity interventions aimed to enhance capacities of key stakeholders on TIA (how to prepare and evaluate) and in transportation planning. It also came up with a user-friendly guide on how to institutionalize TIA in the city which may have as its first step the creation of a special committee tasked to advocate for the necessity of TIA, carry out the finalization of TIA ordinance and work for its institutionalization.

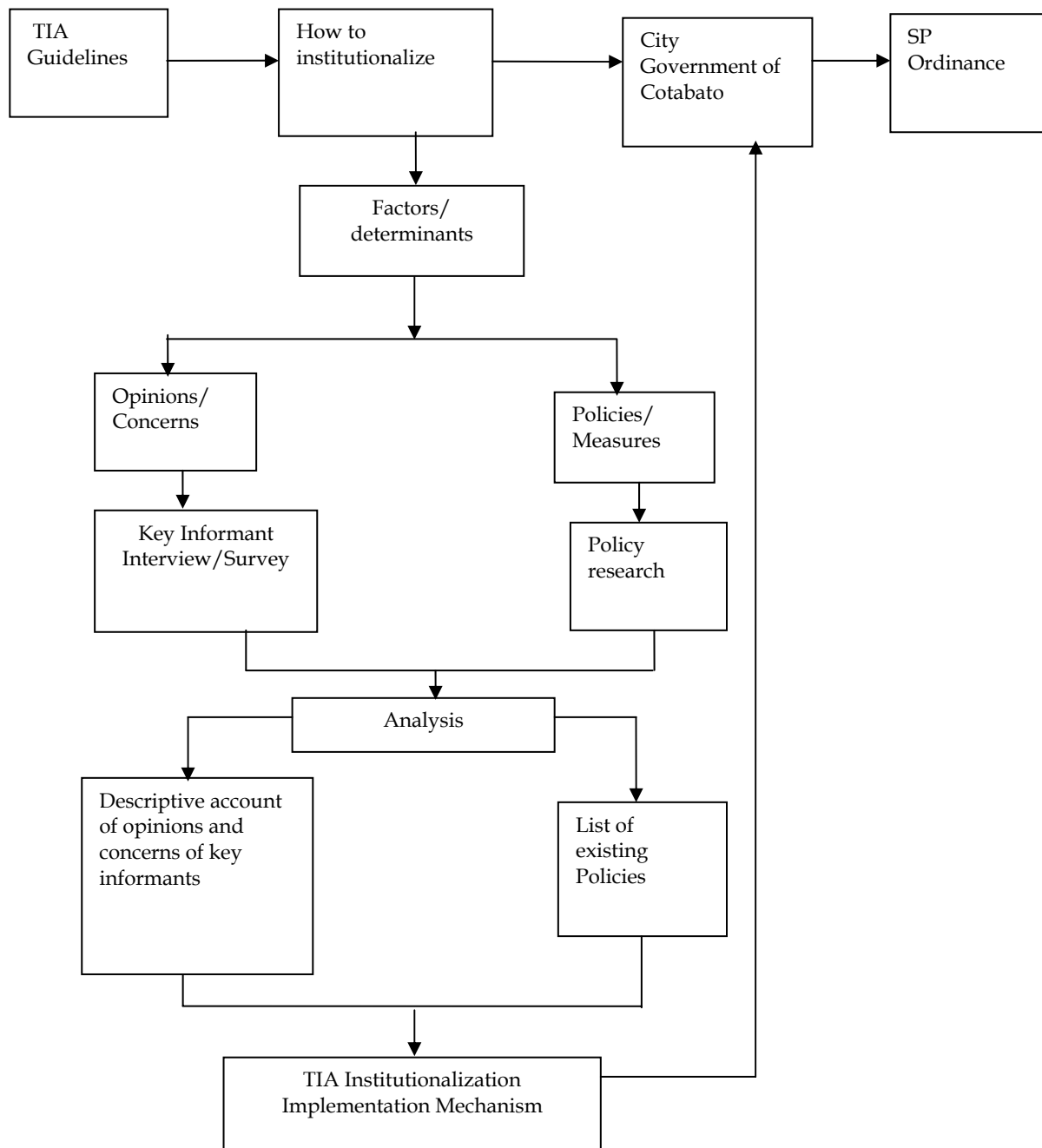


Figure 2. Analytical Framework

4. METHODS AND ANALYSIS

The study employed qualitative research method such as key informant interview in gathering opinions, views and recommendations with regard to TIA institutionalization in the City of Cotabato. Key informants from the city government were selected according to their position and involvement in transport and land use planning particularly in the implementation of regulatory processes. Other key informants are from academe, transport and business sectors that plays an active role in local governance. They participated in the affairs of local governance as members of development councils and special committees tasked in development plans and

policy formulation. The key informants were asked with open-ended questions related to TIA institutionalization. The study made use of qualitative data analysis in analyzing results of key informant interviews. The responses were cross-tabulated and analyzed as to significance to the study objectives.

Policies related to TIA and transport was gathered and secured from the internet and from the Secretary of the SP, Housing and Homesite Regulation Officer (HHRO) and Zoning Officer (ZO) of the CPDO. The policies were coded as to the level of issuance i.e. national or local, and specific provisions that either directly or indirectly requires studies on TIA for any type of development.

A process review of the present regulatory system in the City was also done. Such was done during the KII conducted with ZO and HHRO of CPDO, Building Official and BISID Chief of CEO. The regulatory processes (building permit issuance and PALC) were evaluated and assessed to identify the points of entry of imposing TIA. The way TIA is institutionalized in the City served as the primary criterion of the researcher in evaluating the existing regulatory processes.

5. FINDINGS

5.1 Traffic Congestion as a Problem

Results of the key informant interviews showed that the problem on traffic congestion being experienced in the city in general was rated with a medium rate. The technical persons and transport group acknowledged that traffic congestion at the CDB and along major roads is of high rate.

5.2 On Factors that Causes Traffic Congestion

The City having narrow roads is the most common response among respondents and seen as primary factor that causes congestion in the City. The next most common answer was the attitude of drivers and commuters followed by laxity in the implementation of traffic rules and regulations and inadequacy of parking spaces being provided by establishments. The attitude being referred to ranges from queuing along frontage of groceries, schools and shopping complex to unruly loading and unloading of passengers.

Transport groups on the other hand have raised the non-implementation of SP Ordinance No. 780 which has resulted to the oversupply of PUJs in the City and further aggravated with the creation of new routes by the Land Transportation Franchising Board (LTFRB). Due to the laxity in implementing SP Ordinance 780, all PUJs passes along Sinsuat Avenue, thus, causing overburden on its present road capacity.

Other factors raised, specifically by technical personnel of the City, are the intermittent crossing of pedestrians, absence of traffic enforcers, misaligned intersection crossing particularly the Sousa-Bormaheco Road intersection and the lack of traffic signs and signages and the poor conditions of major roads.

5.3 Factors Affecting Institutionalization of TIA

The passage of an enabling ordinance was seen by 90% of the respondents as the primary factor that facilitates institutionalization of TIA in the City. Technical personnel on the other hand, had seen the importance on TIA awareness and appreciation among legislators and local chief executive that facilitates TIA institutionalization.

However, political support was also seen as major hindering factor by 95% of the respondents. Political support includes the support of the legislators. The next hindering factor is the lack of technical expertise of personnel assigned in performing regulatory processes in the City like Locational Clearance, PALC and Building Permit and limited knowledge on transport planning of key technical personnel.

About 15.8 % of the respondents raised as hindering factor the limited funds of the City for training expense and technical personnel brought up the opposition that may come from potential investors /businessmen if TIA will be required.

Technical personnel respondents has seen the lack of support from higher authorities and technical expertise as the primary hindering factors in implementing TIA as an additional requirement in issuing Locational Clearance prior to Building Permit and PALC.

5.4 Way to mainstream TIA in the city

Both the legislative and technical personnel respondents have seen the best way to institutionalize TIA in the City are thru incorporating TIA as a policy in the CLUP and as a separate articles or section in the Zoning Ordinance. The legislative respondents stated that with the TIA policy included in the Zoning Ordinance, there is no need to pass for a separate enabling ordinance considering the former is already substantial in form. The Zoning Ordinance regulates the physical development of the City and serves as the legal mandate in requiring TIA for any type of development that pose greater impact on transport.

The knowledge and appreciation of the CPDO on TIA facilitates the mainstreaming of TIA in the CLUP and Zoning Ordinance. The knowledge of CPDO on TIA has eased the institutionalization process and identification of the most appropriate level within the LGU regulatory system in requiring TIA. Thus, the knowledge of the city planner does matters for any regulatory measure to be institutionalized in the City. For TIA to be institutionalized in the LGU system, their local planning office must be capacitated on transport planning and TIA in particular.

In the LGU regulatory system, the appropriate way to require TIA is in the process of securing a building permit and considering it is mainstreamed thru the Zoning Ordinance, such shall be required at the level of acquiring a Locational Clearance.

The following chart illustrates how TIA can be institutionalized in the City of Cotabato. It shows the actors and different stages of the institutionalization process. The process includes the conduct of public consultations where the City Government presents the contents of the Zoning Ordinance and serves as the forum to educate and advocate the benefits of incorporating TIA measure in the development of the City.

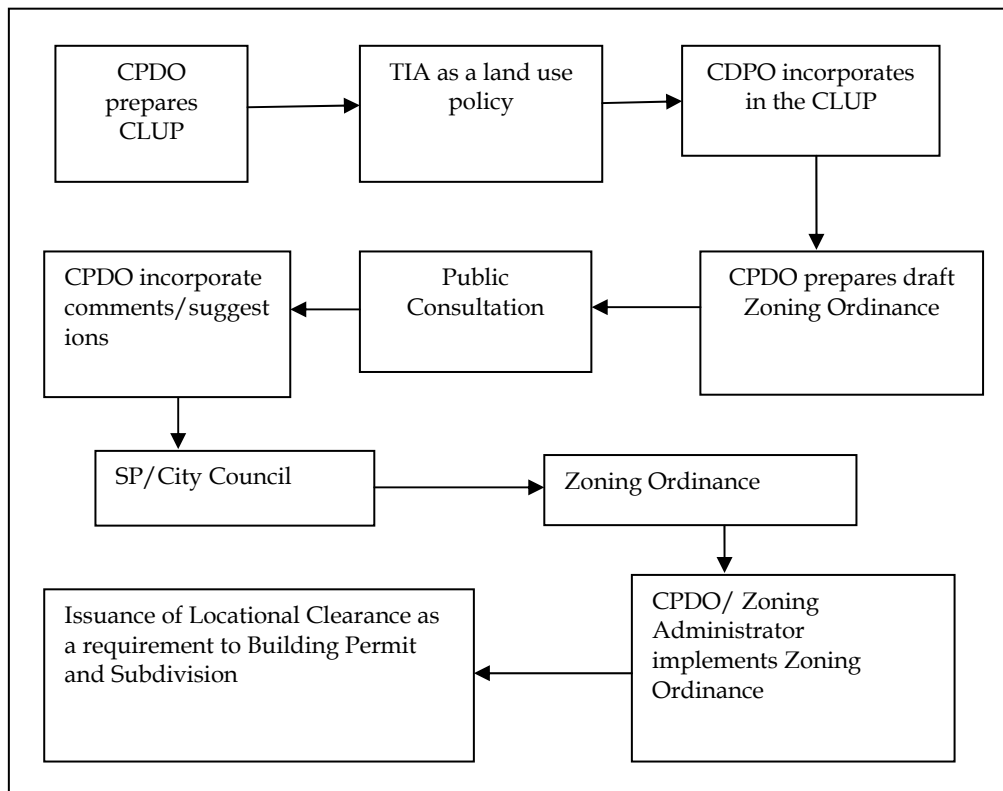


Figure 3. Flow Chart on TIA Institutionalization

The policy in the CLUP and Zoning Ordinance should also provide for the legal basis in creating a TIA Evaluation Committee and its composition. About 100% of the respondents has opined that TIA evaluation committee should be composed of CPDO, CEO, City Assessor's office, private sector, transport Group and with the City Administrator as Chairman. Majority said that the city personnel composing the TIA evaluation committee should have permanent status except for the Chairman who is a co-terminus to the Chief Executive.

5.5 Regulatory Processes

The regulatory process in the City which has to do with controlling physical development is the Building Permit approval process which includes issuance of Locational Clearance and PALC. The first (1st) step in securing a building permit aside from the list of requirements is to secure a Locational Clearance with the CPDO-Zoning Division. It is presumed that compliance to Zoning Ordinance of every application is scrutinized and evaluated at this level and any issues (except structural integrity) that will arise later will be answered by the Zoning Administrator in as much as he is responsible in managing land use and mitigate its effect. Considering the TIA is mainstreamed thru the Zoning Ordinance, imposition of the same falls within the ambit of the Zoning Administrator.

5.6 National /Local Policies or Guidelines Relative to Transportation and Traffic Management

5.6.1 CLUP Guidelines

The sectoral studies guidelines of the HLURB particularly that of the Transportation Sector, require for data and analysis on the transportation and traffic situation of an area. The particular

sectoral study requirements showed the attempt to awaken and encourage the mind of the planners identify issues and concerns relative to transportation and traffic.

5.6.2 Subdivision Guidelines

HULRB guidelines specifically BP 220 Section 10 (b) (12) require Traffic Impact assessment for projects 30 hectares and above. Thirty (30) hectares is quite big for a small city like Cotabato. In this instance, the technical respondents has recommended that TIA has to be required for subdivisions with more than 10 hectares in land area considering such will pose demand for transport routes serving their area. Considering the geographical characteristics of the City being a low-lying area and having a concentric type of development, subdivision developers tend to locate their projects either within or near the urban core. The preference to locate can be attributed to the high cost in land development and accessibility. Given the limited land area and spatial configuration of the City, requiring TIA for subdivision with more than 10 hectares is necessary considering such development would have an impact on transportation and its environment.

5.6.3 Department Order No, 30 of the DENR

The Order is about EIA System which requires establishments falling under the critical projects classification to submit an Initial Environmental Examination (IEE) study to facilitate issuance of ECC. An IEE has a traffic study part however; most IEEs just simply describes the traffic situation in the area and what the owner will do to mitigate impact on traffic during construction period. LGUs however, may proceed with the projects or developments if they are decisive to implement the latter, with or without ECC.

5.6.4 Formulating a National Transport Plan, Draft Final Report

In the Draft Final Report, specifically under the Transport Policies, provides: “All LGUs to adopt an integrated approach to land use and urban transport planning in order to have more effective management of growth in urban areas and to ensure that the capacity of transport facilities and services can accommodate the demand. Accordingly, LGUs shall require traffic impact assessments for new and significant land use developments in urban areas.”

Once, the National Transport Plan is adopted and approved by the authorities concerned, it will provide for the legal basis for LGUs to require TIA. However, such is dependent on the approval process of the National Government and which normally takes time.

5.6.5 Local policies

Of the 29 local policies passed, there is no direct provision that requires a TIA for any type of establishment. The Traffic Code of the City focused on the number and routes of public transport. It did not made mention of requiring parking spaces to be set up by establishments. Only the TTMP has a policy that requires TIA however, such was not adopted by the legislative.

6. CONCLUSIONS AND RECOMMENDATIONS

The significant findings of the study are:

1. The primary factors that might hinder institutionalization of TIA in the City are political support and appreciation on TIA of both the executive and legislative. Differing political views of these two (2) branches of governance will strain the institutionalization process;
2. The best way to institutionalize TIA is to incorporate the same in the CLUP and Zoning Ordinance. The knowledge of the city planner on TIA has eased the progress of integrating TIA as a measure to mitigate the impact of new developments on transport;
3. It is more appropriate to use the term “transport impact assessment” instead of “traffic impact assessment” as the former is being regarded as a land use control measure rather

than a traffic control policy. Thus, being institutionalized as land use policy in CLUP and ZO. The term transport does not only connote vehicles but also people, the environment and the transport system.

With TIA provision in CLUP and ZO, there is no need to pass for a separate enabling ordinance. As such, the following recommended policy statement shall be included in the CLUP and ZO, viz:

- a. A Transport Impact Assessment shall be required to new land use developments locating in high traffic impact areas (HTIA);
- b. A Transport Impact Assessment (TIA) shall be required to the following establishment regardless of location :

| Development type | Size threshold values |
|-------------------------|---|
| Residential | 100 dwelling units or more than 10 hectares |
| Educational | 2,500 sq.meters (GFA) |
| Office building | 1,575 sq.mts (GFA) |
| Motor vehicle Building | 540 sq.mts. (GFA) |
| Commercial | 810 sq.mts. (GFA) |
| Fast food | 200 sq.mts (GFA) |
| Gasoline station | 100 sq.mts. (GFA) |
| Recreational Facilities | 2,150 sq.mts. (GFA) |
| Industrial | 8,600 sq.mts (GFA) |
| Hotel | 170 rooms |
| Medical | 85 beds |

- c. A TIA Evaluation Committee shall be created by the LCE who will be tasked to evaluate and make recommendations on the TIA submitted by the new developments.

With this, imposing TIA then became the responsibility of the Zoning Administrator thru the Zoning Division of the CPDO. The question of capability of assigned personnel to evaluate can be addressed by tapping technical personnel who were trained on transportation planning and traffic management by the UP-NCTS during the LGSP assisted TTMP formulation, and from other agencies as what the city did in other previous studies/assessment.

To realize full institutionalization of TIA, the City has to do the following recommended activities:

1. Increase the level of awareness and appreciation of legislators and planners on TIA
2. Incorporate TIA among the policies in the CLUP and Zoning Ordinance
3. Detailed assessment of the capability and training needs of the technical personnel assigned to enforce and evaluate TIA
4. Tap the capacitated personnel to orient/echo the trainings on transportation and traffic management
5. Create a TIA study group tasked to formulate for the operational guidelines on TIA implementation thru the issuance of an executive order which would include identification of activities the city will undertake such as but not limited to capability trainings and accreditation of TIA preparers
6. Create TIA Evaluation Committee, its composition and functions thru the issuance of an executive order
7. Tap the participation of TTMP TWG's to provide technical assistance to the above mentioned activities
8. Conduct trainings on Transportation Planning, Traffic Engineering and Management.

The study has earlier provided for a flow chart on TIA institutionalization in the way to mainstream TIA in the City. The chart showed the stage where a public consultation has to be conducted and served as the forum to increase awareness and appreciation of all sectors on the benefits of TIA measure to the development of the City. Institutionalization takes time and needs the approval of various sectors, especially political support. And thus, it is essential that the entire process be properly documented to avert any reactions or issues that may arise when TIA is finally institutionalized and implemented.

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