

Growth Management and Environmental Protection: Practices in Washington State, USA

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OVERVIEW

According to a 2010 livability ranking for the world's cities prepared by the Economist Intelligence Unit (EIU), Dhaka scored one of the least livable cities in the world, second to Harare, Zimbabwe. The EIU considered five broad factors to quantify this livability rating, stability, healthcare, culture and environment, education, and Infrastructure. Aside from EIU ranking, it is evident from statistical and empirical data that Dhaka city is struggling with all these livability components.

Dhaka city has been facing environmental degradation for decades. It has become a cliché to discuss traffic jam, overcrowded development, and lack of urban facilities that are causing environmental degradation. But what is being largely overlooked is the fact that all these issues are merely the outcome of an unplanned and uncoordinated growth of the city. The city's infrastructure has failed to keep up with the pace of its urbanization, and has failed to provide a decent urban living for its residents. And yet, Dhaka the citystate of Bangladesh continues to draw a huge influx of population from all across the country. The growth continues to be so unsustainable that it is not an option, but a necessity to manage growth of the city. In order to manage growth of Dhaka and prevent other cities of Bangladesh from similar future, there must be appropriate policies, regulations and implementation strategies in place.

Washington State is one of the progressive states in the United States in terms of growth management and environmental protection. A review of policies and regulations practiced in this state helps understand the growth management principles and their applicability. A broad review of the existing policies for Dhaka city as found in different planning and environmental documents also helps to identify opportunities for enhancements of these policies for better implementation for Bangladesh.

WASHINGTON STATE GROWTH MANAGEMENT AND ENVIRONMENTAL POLICY ACTS

Washington State and its cities, especially Seattle, have long been known for their sustainable planning practices. Washington State is one of the 50 states in the United State with a land area of 66,544 sq-mi (*WA State Office of Finance Management data*). It is located in the Pacific Northwest and contains four major metropolitan areas, many cities, small towns and rural communities. Seattle is the major city in the state with a concentration of population of about one million in the metro area (*US Census Bureau 2006-2008 ACS Demographic estimate*).

Two sets of laws and regulations generally guide the growth and development in Washington State, the Growth Management Act (GMA) and the State Environmental Policy Act (SEPA). GMA intends to reduce urban sprawl by ensuring that future growth is contained only within urban areas where adequate infrastructure is available. By indentifying urban growth areas, it protects valuable agricultural land and environmentally sensitive land from development. SEPA on the other hand

takes a direct approach towards environmental protection. It requires almost any major development, whether public or private, be reviewed for its environmental impacts.

Background of Washington State Growth Management Act

In the early 70s, the State of Washington started facing challenges due to unplanned growth that was causing severe traffic gridlock, loss of natural resources and agricultural land. This concerned citizens as well as the state legislatures. In 1971, the State adopted the State Environmental Policy Act (SEPA) in order to preserve and mitigate environmental impacts caused by intense land uses, activities or developments. In 1990, state legislatures passed the Washington State Growth Management Act (GMA). It intended to coordinate land use and infrastructure, manage urban growth within Urban Growth Areas (UGA), preserve environmentally sensitive land and ensure sustainable economic development. Legislatures find that *“uncoordinated and unplanned growth, together with a lack of common goals expressing the public's interest in the conservation and the wise use of our lands, pose a threat to the environment, sustainable economic development, and the health, safety, and high quality of life enjoyed by residents of this state. It is in the public interest that citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning.”* (Revised Code of Washington 36.70A.010).



Historic population increase in Washington State by county. Source: OFM WA

Elements of the Growth Management Act

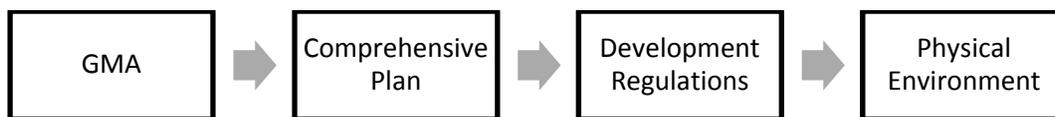
Under GMA, each city and county is required to prepare a comprehensive planning document to set out land use policy and provide direction for future growth. A comprehensive plan is associated with a land use map. Some major GMA goals are, concentrated urban growth, affordable housing, environmental protection, economic development, open space and recreation, regional transportation, public facilities and services, and permit processing. Under these goals, a comprehensive plan addresses following key planning elements:

- Land use
- Capital facilities
- Housing
- Utilities
- Transportation
- Economic Development
- Parks and Recreation

One of the important aspects of the comprehensive plan is to ensure that a 20 year population projection is considered in the plan. Each city must ensure in its plan that adequate land and infrastructure is available to support the projected growth. Comprehensive plans are evaluated in every 7 yrs for adjustment or enhancement of the 20-yr goal.

In order to provide adequate public services, state law allows cities to charge developers' impact fees for new developments. Impact fees attempt to recover the cost incurred by government in providing public facilities required to serve new developments. Impact fees are only used to fund facilities, such as roads, schools, and parks, that are directly associated with the new development (MRSC). There are multiple types of impacts fees such as, traffic impact fee, park impact fee, school impact fee etc. Cities prepare traffic impact analysis in order to calculate traffic impact fee. Cities divide their boundaries into several Traffic Analysis Zones (TAZ) or traffic impact zones. Traffic impact fee for a new project is analyzed based on the anticipated vehicle miles travelled (VMT) and associated road network. Impact fee from a new development is used to improve the road network where the impact is most likely to occur. Likewise, park impact fees are assessed based on park districts or park zones. Impacts fees are always applied to their associated zones where the impact is mostly anticipated.

While comprehensive plan provides a broader policy framework, implementation of policies is done via a set of development regulations. Cities must have adequate regulations in the form of municipal codes to implement the comprehensive plan. These codes define zoning regulations, height and bulk restrictions, prohibited uses in certain zones etc. Local governments are also required to identify and delineate environmentally sensitive areas and adopt development regulations for their protection. Environmentally sensitive areas are categorized as wetland, geologically hazardous areas, frequently flooded areas, aquifer recharge areas and fish and wildlife habitat areas.



Planning hierarchy under GMA

State Environmental Policy Act

Washington State Environmental Policy Act (SEPA) provides detailed framework for local governments to review and monitor environmental impacts caused by a development. It ensures that appropriate mitigation takes place. A project can be denied if it fails to meet the mitigation criteria. SEPA requires project applicants to submit adequate environmental information along with the permit application.

Most of the development proposals or land use activities are reviewed in terms of two environmental categories, 1) natural environment, and 2) built environment. The natural environment is reviewed in terms of the project's impact on earth, air, water, plants and animals, energy and natural resources; the built environment is reviewed in terms of the project's impact on environmental health, land and shoreline use, transportation, public services and utilities.

Based on the levels of impact expected on a proposal, determinations are made as follows:

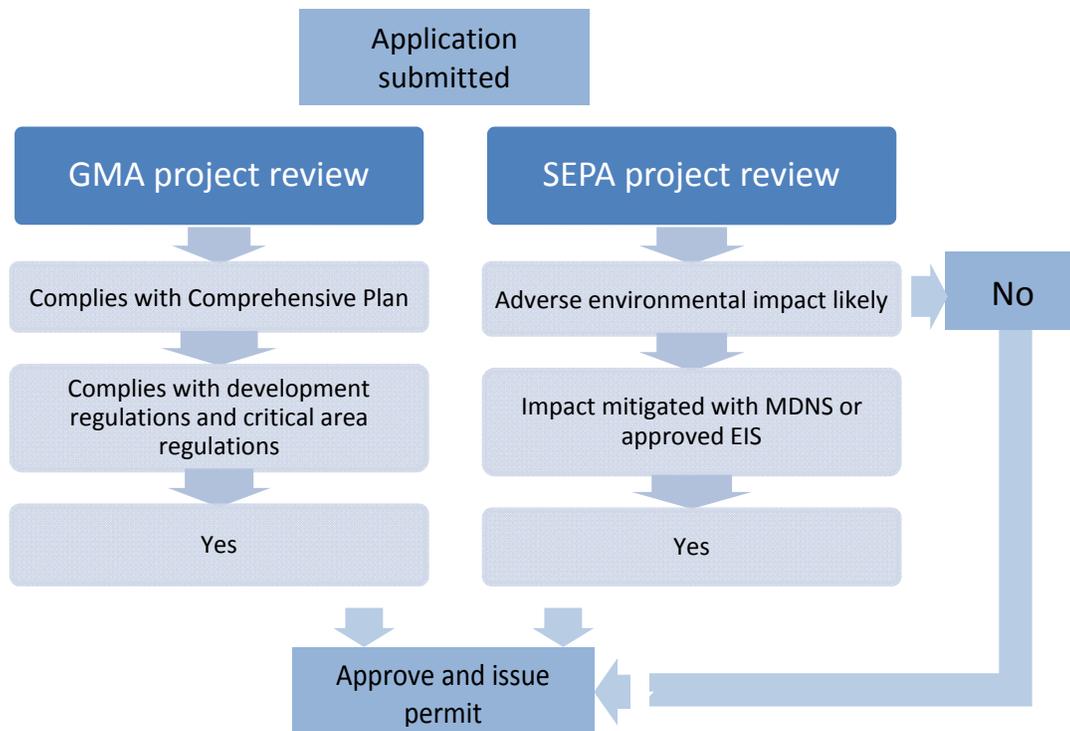
- Determination of non-significance (DNS) when the project has been identified as having no significant environmental impact. Once a DNS is issued, a project can go forward without any additional environmental scrutiny.
- Mitigated determination of non-significance (MDNS) when environmental impact has been identified and can be mitigated. For mitigated determination, proponent should mitigate the

impact caused by the proposal via mitigation impact fee or an alternate option. For example, if a wetland is expected to be disturbed by a proposed development, the proposal can mitigate that disturbance by increasing the building setback in that area and transfer the density in another area, or allowing another portion of the wetland to be left undeveloped.

- Determination of significance (DS) when significant environmental impact has been identified. Issuance of a DS will lead to two options, 1) to prepare an Environmental Impact Statement (EIS) that identifies potential impacts and outlines mitigations, or 2) deny the project if no EIS is prepared or if EIS doesn't provide mitigation up to a satisfactory level.

Integration of SEPA and GMA

For Washington State's planning and environmental protection, the key issue has been the integration of GMA and SEPA. Although at the state level, these two sets of laws are monitored by two different authorities, at the project permit level they are reviewed by local governments at the same time. Approval of any project permit depends on the compliance with both GMA and SEPA.



Some key aspects of GMA and SEPA are as follows:

- GMA and SEPA both ensure preservation of resource land (e.g. environmentally sensitive land, agricultural land etc.)
- GMA requires a balance of growth for 20 yr projection.
- Both allow local government to charge impact fee for developments in order to provide public services and mitigate impacts.
- Government can deny building permit if adequate public services are not available, therefore, project does not meet the public health and safety standards.
- Both SEPA and GMA have transparent public involvement processes. Every major project requires an open public hearing process or public comment period.

REVIEW OF DHAKA'S PLANNING REGULATIONS

Existing Planning Documents

Dhaka city's planning document was prepared in a "three tier plan", Structure Plan (SP), Urban Area Plan (UAP) and Detailed Area Plan (DAP) all under the Dhaka Metropolitan Development Plan (DMDP). These provide framework for Dhaka's planning and growth for a timeframe from 1995 to 2015. While the Structure Plan and the Urban Area Plan address broader contexts, DAP offers a detailed area specific plan with more development controls. DAP sets out planning policies of a selected area, provides a detailed analysis of the area, and serves as a document for land use and development control. The main objective of DAP is to implement the Structure Plan and Urban Area Plan policies and recommendations (*DAP*).

These documents offer some degree of environmental protection. The DAP identifies flood flow zones; it also offers recommendations to protect flood-prone areas, improve storm water drainage and solid waste disposal systems etc. However, due to the complexities of planning issues in Dhaka and a broad array of topics that DAP addresses, it doesn't address environmental impact during project development levels. A comprehensive implementation of DAP policies could have resulted into improved urban environment. However, many of the recommendations have not been implemented or have been delayed only multiplying the degradation of the environment. This indicates that a desired outcome cannot be obtained without appropriate implementation. Also implementation needs to be comprehensive in nature and all elements of these planning documents should be implemented concurrently. For example, the land use plan being implemented without the urban infrastructure improvements will not implement the objectives of these documents.

Additionally, since these plans were prepared for a timeframe of 1995 to 2015, they need to be reviewed for midterm assessments. The Structure Plan calls for plan review every five years. Consideration should be given to evaluate if these plans' population projection and other planning assumptions seem to be inconsistent with the current growth. Also, now is the time to think beyond the 2015 and develop a vision and plan for the city for the next 20-yr.

Development Regulations

The Dhaka Imarat Nirman Bidhimala (Building Construction Act) of 2008 offers a practical set of development regulations. With the Floor Area Ratio system and maximum ground coverage, it offers developers incentive as well as adequate flexibility within the regulatory system. It calls for public participation and timely review of a permit. However, an environmental review for a standard development project (e.g. a five-story apartment complex) has not been made mandatory prior to the issuance of an occupancy certificate. Although regulations refer to implementing the DMDP, a detailed set of guidelines to review development impact in terms of transportation, environmental protection and parks and open space would result into an efficient implementation of the planning policies.

Environmental Regulations

Bangladesh Government has adopted multiple levels of environmental laws. Recently all environmental laws have been compiled by the Ministry of Environment and Forest under the Bangladesh Environmental Management Project. The Environmental Conservation Act of 1995 and

Environmental Conservation Rules of 1997 are to be implemented and monitored under the Environmental Court Act of 2000.

The 1997 rules identify criteria for ecologically critical areas, set standards for vehicle emission, and set guidelines for environmental clearance certificate for industries. While environment protection from industrial impact is crucial, these rules don't address environmental impact caused by regular urban developments. Without that, the cumulative impact of continued urban development will continue to be ignored. These environmental laws and regulations can be carried on to the next phase to offer a detailed roadmap as to how each development project can be evaluated based on its environmental impacts.

SUGGESTIONS FOR FUTURE POLICY DEVELOPMENTS

Based on the understanding of Washington State's planning laws and practices, the most immediate step for Dhaka should be a coordinated project review process and a comprehensive implementation strategy. In addition to implementing existing plans, a vision and plan for the next 20 yrs need to be developed now. Specific implementations are suggested as follows:

- Include environmental agencies as part of the permit review and approval authority for all major projects. Integrate environmental review along with building permit review.
- Before issuing building permit, coordinate among all utility providers and agencies to ensure adequate urban amenities are available.
- Heavy investment in capital facilities and infrastructure based on accurate population projection for the next 20 yr.
- In order to invest in infrastructure, create fund with a strong public private partnership. Start an impact fee based system to help offset the development of infrastructure cost. Charge impact fee from private developers with government matching fund.
- Review traffic impact for every development project. Update the transportation plan based on the future land use plan. Perform traffic analysis for the entire city in order to collect development impacts fees.
- Expedite the permitting process with reduction of red tapes. Efficient approval process to help appropriate economic developments.
- Strong public-private partnership.
- A periodic review and assessment of plan implementation.

CONCLUSION

In Washington State, implementing regulations has not been free of pressure from special interest groups and developers. But an increasing awareness of general public and commitment from the government have made it possible to protect both urban and natural environments. In the context of Bangladesh, policies need to be crafted and adopted by law makers with firm commitment to uphold them. Three elements are vital for environmental protection in Bangladesh, a set of appropriate laws and regulations, strong public private partnership between the government and developers with commitment to implement such laws, and community awareness at all levels to monitor them.

References:

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About the Author

The author is a practicing planner in Washington State, USA. She is a Senior Planner at the ICF International, a planning consulting firm. Prior to that, she was Senior Planner and Planning Manager at the City of Kennewick, Washington; Urban Designer at LMN Architects, a Seattle based consulting firm. She was a lecturer at the Department of Architecture in Bangladesh University of Engineering and Technology where she earned her B. Arch and M. Arch degrees. She earned her Master of City Planning (MCP) degree from Georgia Institute of Technology, Atlanta, GA. She is currently serving as Vice-President of the American Planning Association of Washington Chapter (APA-WA).

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