

# Developing a Sustainable Food Security Program for an Urban Coastal City, Navotas City, Metro Manila.

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**Abstract:** Urban coastal cities are most vulnerable to the impacts brought about by climate change. However, very little attention had been given to the role of urban coastal cities to the achievement of food security. This paper looked into the development of a sustainable food security program for Navotas that is designed to mitigate the impacts brought about by climate change to food availability, access, utilization and stability and how these affects food security. The proposed food security program is anchored on national interests and international commitments. The Manila Model for Urban Sustainability Planning Process developed by Taylor and Carandang (2010) provided the framework for the proposed program. Data from literature reviews and agency reports were validated by key informant interviews of local and national officials and focus group discussions with different stakeholder groups.

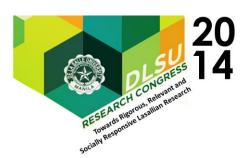
**Key Words:** sustainability: food security: urban centers

## **1. INTRODUCTION**

Navotas City also known as the "Fish Capital of the Philippines" is the home of the Navotas Fishport Complex and is located on the extreme northwest shore of Metro Manila. Navotas has a total land area of 10.69 sq.km. or 1,069 hectares (or less than 2% of the total area of Metro Manila) inclusive of the reclaimed area currently utilized by the Philippine Fisheries Development Authority (UP Planades, 2011). Of this area, about 50% or 534.5 hectares are considered alienable and disposable lands while the other 50% or 534.5 hectares are forestland composed mostly of unclassified public lands such as those with mangroves and those areas devoted for fishponds.

The city is divided into 2 districts and is composed of 14 barangays, 11 of which are located along coast (City Planning and Development Office Navotas, 2013). The majority of land in the city is used for residential and industrial purposes, not counting the considerably vast areas of unused and unproductive fish ponds. The barangays of North Bay Boulevard North, North Bay Boulevard South and San Rafael Village have the highest industrial land use profiles with 45-60% of their areas devoted to industrial use. Both commercial and industrial areas are more or less evenly distributed among all the barangays.

There are a total of 41,717 households with an estimated 15,904 of these belonging to the urban poor (Quintile 1). The average family income per year



is PhP 60,000 for a family size of 4.65 with the Income per capita of PhP 12,903.22. Based on the 2007 Population Census, Navotas has 15% of poverty incidence. Despite being considered as the "Fish Capital of the Philippines" it is only a fish trading city and not a fish producing city, it gets its food including fish from elsewhere.

According to the 1996 World Food Summit (FAO, 1996), food security exists when at all times (meaning the situation is sustainable), everybody in the community have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preference for an active and healthy life. This situation does not exist in Navotas City.

The International Covenant on Economic, Social and Cultural Rights (ICESCR) (2000) recognizes the "right to an adequate standard of living, including adequate food", as well as the "fundamental right to be free from hunger". This also affirmed by the ASEAN Integrated Food Security (AIFS) Framework. Access to safe, nutritious and affordable food is a basic human right; developing a Food Security Plan for Navotas City is not only vital but is also urgent.

# 2. METHODOLOGY

Literature survey and review of current legal and fiscal policies pertaining to urban coastal cities and current local policies in the City of Navotas were conducted to find out the current issues and challenges affecting food production capability and availability in this local government unit. Findings from these surveys were compared to or confirmed by key informant interviews.

#### 3. RESULTS AND DISCUSSION

1. What are the current challenges that affect the ability of Navotas City local government in providing food security for their constituents?

In separate interviews with Dr. Liberty Domingo, the City Health Officer of Navotas City, and Navotas City District 2 Councilor Marielle Del Rosario-Tumangan, Navotas City has yet to fully embrace and recognize the concept of Food Security, hence Navotas has no actual Food Security Policy in place. Starting 2011 the city's Annual Development Plan has been allocating funding for Food Security, but the actual activites under the said program are as yet undefined. What they have in place are instead prescriptions to basic health services provisions, where access to nutritional food is merely a component of their feeding program. Currently Navotas City is focused on individual agency activities, such as those prescribed in the City Charter.

2. What are the food security best practices at Navotas City?

Despite not having a concrete food security plan, Navotas City has in fact viable programs/plans/projects in place or in the planning stage which can be considered as food security best practices. In the walk-in interview at the City Planning Office, it was confirmed that there new ordinances and zoning regulations in place or at the ready designed to mitigate the effects that flooding and climate change has to the living and working conditions of the residents (e.g. allocation of new living space which includes possible backyard agrifish production). In relation to the zoning changes, access to water (potable & home / industry use) have also been in place, this includes an updated sewage and drainage system. This includes the existence of the local nutrition council chaired by the mayor (a possible pre-cursor for a food policy council) and its successful and continuous feeding programs.

3. Who are the stakeholders in Navotas City directly affected by food security problems?

Dr. Domingo identifies the children 0-71mos. And their parents as immediate stakeholders, when talking about the nutrition program, the school children are the direct stakeholders with regards to the school feeding programs, the buyers and sellers of agri-fish products who are dependent on the health office to certify the nutritious value and clean conditions of the products available in the markets. To some extent Councilor Del Rosario-Tumangan qualifies the stakeholders to include the citizens/residents of Navotas who are involved in food-supply chain of the city.



4. What are the government agencies and NGOs in Navotas City who are concerned with food security issues?

Over all the City Health Office is tasked to formulate and implement policies, plans, programs and projects to promote the health conditions of the people. The other functions of the office are to: advise the Mayor and the Sanggunian on matters pertaining to health; execute and enforce all laws, ordinances and regulations relating to public health; recommend to the Sanggunian, through the local board, the passage of such ordinances or regulations; direct the sanitary inspection of all business establishments, selling food and providing conduct health information accommodations; campaigns and renders health intelligence services; and coordinate with other government agencies and non-governmental organizations involved in the frontline of health services delivery, particularly during and in the aftermath of man-made and natural disasters and calamities.

Another agency directly linked with the food security related programs of Navotas is the City Agriculture Office which has the main function of formulating strategic action plans on agricultural programs and projects, as well as establishing linkages with concerned national government agencies and non-government organizations, and fisher folk for agricultural development purposes. The office also conducts training, demos, and lectures on agricultural and aqua-cultural technologies and matters related to the agro-fishery sector, specifically on capability building and community involvement of the stakeholders towards economic growth. The office also helps in promoting backyard gardening, backyard fish culturing, fish production in marine water, fruit tree planting, food processing, livestock, and poultry raising to less-fortunate fishermenhouseholds. and participates in nutritioneducational. The office is directly responsible for the implementation of RA 8550 otherwise known as the "Fisheries Code of 1998" and the updating of the fisher folk's records for the city profile.

To assist these two main agencies related to food security, Navotas also has a City Health Board; Price Monitoring Committee; City Disaster Risk Reduction and Management Office; City Nutrition Council and a City Fisheries and Aquatic Resources Management Council.

5. What planning process for the achievement of food security is appropriate to the conditions prevailing in Navotas City.

The planning process proposed by Taylor and Carandang (2010 & 2011) for achieving sustainability in urban centers can also be applied to Navotas City (see Figure 1). In determining the appropriate planning process, local characteristics, the stakeholders' perspectives, the local risks involved and the correct implementation strategy must be well defined. The urban ecosphere and anthroposphere must also be well understood including the roles played by each character in forming the urban environment.

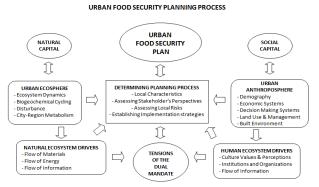


Figure 1. The proposed urban food security planning process.

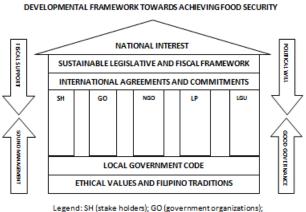
6. What are possible policy recommendations for the national government and LGUs to adopt that are necessary to help achieve a sustainable food security environment for urban coastal cities?

As the report by Goldstein et al. (2001) indicated, urban agriculture will necessarily be rooted in place, and best practices for urban agriculture are specific to the local context. Thus, those cities that are undertaking a review of codes and city ordinances that may inhibit the development of urban agriculture, or working with stakeholders in food policy councils or food system assessments are taking important steps that will



help them understand and engage with urban agriculture as it is practiced in their cities.

Another useful strategy for cities to support encourage urban agriculture is direct and community engagement with residents and stakeholders in urban agriculture (see Taylor et al., 2012a & 2012b). Because so many cities are overhauling or rethinking zoning and ordinances that constrain urban agriculture, now is the time to undertake education and outreach efforts to ensure officials and urban agricultural that citv practitioners and advocates understand what is and isn't working in their cities.



NGO (non-governmental organizations); LP (local populations); and LGU (local government units).

Figure 2. The proposed developmental framework towards achieving food security for Navotas City.

Engaging with stakeholders and community residents can help cities take a "how to do" urban agriculture approach, one that promotes overall objectives of a particular city, rather than saying in absolute terms "Yay or Nay" to urban agriculture. It may also help for cities to have a designated point of contact for residents and stakeholders who want to "do" urban agriculture. This point of contact could bridge knowledge and communication gaps between city administrations and city dwellers.

For a food security plan for an urban center to become successful, it must be guided by national

interests has to be hinged on a sustainable legislative and fiscal framework as well as a morale and just commitment to international agreements on food security (see Manasan et. al., 1999; FAO, 2009; Republic of the Philippines, 2010). Without these guarantors, parochial interests will prevail and the plan is doomed from the very start. Fajardo (1999) reminds us that there are also non-economic constraints to agriculture such as peoples' attitudes, values and culture, efficient public administration, health, education, population and religion. Thus the implementation of the plan must also be participatory with the consensus of the stakeholders being considered. Good governance and sound management of the resources most especially at the local level be sustained, given that food security has real political implications (Kuntjoro and Jamil, 2008). Furthermore, Jenkins and Scanlan (2001) found that domestic political considerations are prerequisites in mitigating hunger. A strong political will to enforce the policies by both local and national executives will guarantee success.

## 4. CONCLUSIONS

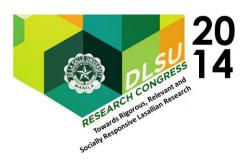
A sustainable supply and access to safe, nutritious and affordable food is a guaranteed human right. The capability of Navotas City to comply with this human right is currently inadequate. This paper presents a proposal on how to plan for the achievement of food security in this city. A developmental framework is also being proposed. A risk assessment on the effects of climate change to the food source of Navotas City will alsom be conducted through the use of focus group discussions (FGD). Results from the FGDs with the different stakeholders will likewise help the research understand and explain their take into the development of food security of this city.

#### 5. ACKNOWLEDGMENTS

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