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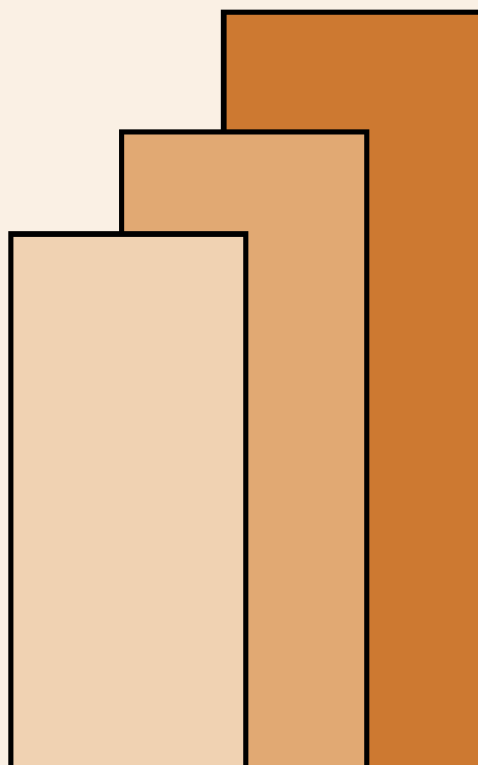
Ruben G. Mercado

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In Search of Metropolitan Definitions: Lessons From Metro Davao

*Ruben G. Mercado*¹

1. Introduction

Defining a metropolis should not be difficult, at least in the theoretical sense. Angotti (1993) in writing a modern day perspective on metropolitanization in the world has suggested a general rule-of-thumb in defining a metropolis or at least distinguishing it from a city. In the context of the twentieth century, the term *metropolis* refers to large urban settlements, usually crossing local jurisdictional boundaries, with at least one million population. The term *city*, on the other hand, refers to medium-sized settlement between 100,000 and one million population. Following this categorization, therefore, settlements under 100,00 population are considered *rural*. Admittedly, there is broadness in the definition. However, the definition comes very handy and useful in making broad categorization of urban settlements.

Another criterion has also evolved from the experience of other so-called metropolises in the country in determining whether an area can be classified as a metropolis beyond urbanization measure and population size, i.e., *that the area is undertaking metropolitan functions or activities*. These activities refer to those which are distinctly urban in nature and dimension and usually, when one or more political jurisdictions are involved, would require an institutional mechanism to undertake them. This criterion helps avoid a loose usage of the term metropolis only on the basis of population or the amalgamation of contiguous political units. The term *metropolitan arrangement* becomes more applicable to any interlocal cooperation between city/ies and municipalities which do not meet the population and largely urban criteria but are performing expanded urban service functions.

The case of Davao presents some major practical definitional dilemma. Reference to Metro Davao has taken on new meanings in recent years. What is being referred to by the term Metro Davao? Is it Davao City or is it beyond the city's political and administrative jurisdiction? How valid and meaningful are these definitions?

This paper attempts to describe three emerging operational definitions of Metro Davao in the way people in Davao or outside of it view such concept. The aim is not only to present the definitional dilemma at hand but more importantly to draw insights or lessons on the importance of definitions beyond the terminological exercise.

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1.4 Drainage Area and Water Supply

METRO DAVAO

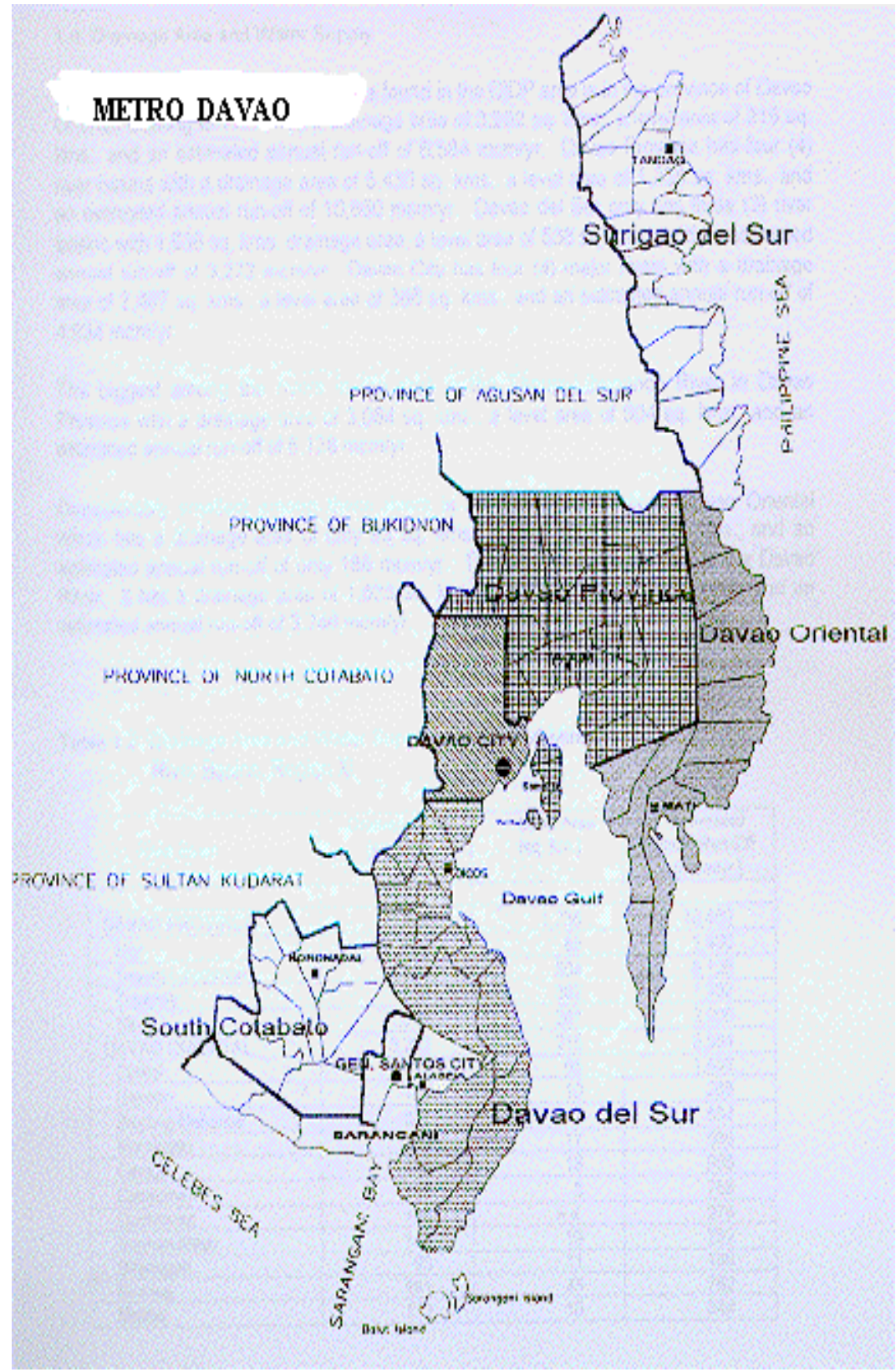
The Metro Davao area is located in the CDP of Davao City. It has a drainage area of 3,200 sq. km. and an estimated annual runoff of 8,504 mm. The area is divided into four (4) major basins with a drainage area of 3,437 sq. km., a river length of 1,125 km., and an estimated annual runoff of 10,830 mm. Davao del Sur basin with a CDP area drainage area of 1,332 sq. km., an annual runoff of 3,272 mm. Davao City has four (4) major basins with a drainage area of 2,307 sq. km., an annual runoff of 3,007 mm., and an estimated annual runoff of 4,334 mm.

The largest basin is the Davao City basin with a drainage area of 2,307 sq. km. and an estimated annual runoff of 3,007 mm.

The second largest basin is the Davao del Sur basin with a drainage area of 1,332 sq. km. and an estimated annual runoff of 3,272 mm.

The third largest basin is the Davao del Norte basin with a drainage area of 700 sq. km. and an estimated annual runoff of 3,100 mm.

The fourth largest basin is the Davao del Oeste basin with a drainage area of 475 sq. km. and an estimated annual runoff of 3,258 mm.



2. The Three Definitional Models of Metro Davao

2.1 Model 1: Davao City

Based on the basic definition of a metropolis, Davao City may in itself be considered a metropolis. In 1995, Davao City registered a population of a little over one million from about 850,000 in 1990 (Table 1). Growth rate has remained high since the eighties posting 3.39 percent growth from the period 1990-1995. A large percentage of its total population reside in areas classified as urban. However, it should be noted that the urban land area is only less than two percent of the total land size. Thus, it is necessary to distinguish density in the whole city and density in the urban areas in the city in order to appreciate the state of its urban geography. One needs to understand also that Davao City is, land-wise, a predominantly agricultural and forest area. Table 2 presents the land use pattern in Davao City in 1994 showing that the built-up area (depicting urban area) comprise only less than six percent of the total land area of the city.

Table 1
Basic Demographic and Land Characteristics

	1980	1985	1990	1995
Population	614,124	724,935	849,947	1,006,840
Growth Rate		3.32	3.18	3.39
Percent Urban	67	69	74	n.a
Pop. Density in the City (persons/ha)*	2.50	2.97	3.48	4.53
Pop. Density in Urban Areas (persons/ha)**	116.9	142.1	178.7	

Basic Sources: National Statistics Office, Census of Population and Housing (for 1980,1990 and 1995 figures) and Populations Projections, 1980-2010 (for 1985 figures)

* Total Land Area: 244,000 has.

** Total Urban Land Area: 3,520 has.

Table 2
General Land Use, Davao City, 1994

Land Use	Area (has)	Percent to Total
Built-Up	13,373	5.48
Agricultural	184,651	76.84
Forest	43,147	17.86
TOTAL	244,000	100.00

Source: 1996 Solid Waste Management Profile, Davao City

Davao City is considered the largest city in the world in terms of land area. Its size is more than three times the size of Metro Manila and more than twice the size of Metro Cebu. While the city size is significantly expansive, population is unevenly distributed. The city is divided into three major districts. Table 3 presents these divisions and how population is distributed in each of these administrative areas in 1990. One will note that majority of the population are concentrated in the first district where the built-

up areas are located. This district alone comprise already more than a third (38 percent) of the total population while only occupying five percent of the total land area.

Davao City, taken as a whole, can be considered a metropolis in terms of achieving the required population level. High growth rate has been exhibited by the city in the recent past and is expected to achieve high growth in population in the medium and long-term future. While majority of the land area of the city is agricultural and forest, the percentage of population living in the urban area is considerable, more than 75 percent of the city's total population. The rapid urbanization being experienced by the city will expectedly increase the urban landscape of the area.

Table 3
Population Distribution, Land Area and Density, Davao City, 1990

District/ Barangay	Population	Land Area (in has.)	Density (Pop./Ha)
DISTRICT 1			
Poblacion	141,090	1,028	137.0
Talomo	183,356	11,040	16.6
DISTRICT II			
Agdao	75,295	489	184.5
Buhangin	118,550	9,222	12.8
Bunawan	68,785	6,550	10.5
Paquibato	27,756	23,360	1.0
DISTRICT III			
Baguio	19,894	82,725	0.2
Calinan	53,379	22,360	2.4
Marilog	35,295	50,796	0.7
Toril	82,501	13,130	6.3
Tugbok	44,096	23,300	2.0
TOTAL	849,947	244,000	3.5

Source: City Government of Davao, 1996 Solid Waste Management Plan

2.2 Model 2: Davao City Plus Neighboring Municipalities

A recent (re)definition of Metro Davao (Gaffud, 1997; Carino, 1997) is the one that takes Davao City in relation with the immediate municipalities of Sta Cruz in the south and Panabo in the north. The definition is, admittedly, prospective and finds basis basically on the fact these municipalities are the nearest catchment areas for Davao city's eventual sprawl. Sta. Cruz and Panabo are 38 and 32 kilometers away from the city proper.

The involvement of the two municipalities is seen as just a potential possibility and there are actually no immediate inter-local concerns at hand. In fact, data on average daily traffic (ADT) shows that it is in the city proper, particularly in the Central Business District (CBD) of Davao City, where traffic is greatest and where choke points are located. The three local government units have their own water districts. Davao City

Water District alone has an excess production capacity of about five-million cubic meters, more than enough to supply its population. In the aspect of solid waste management, Panabo and Sta. Cruz generate a relatively small amount of garbage. In spite of the small garbage it generates, Panabo has a 6-hectare sanitary landfill (dumpsite). Davao City has four hectares of dumpsite and with its vast tract of land, the expansion and or location of alternative site for future sanitary landfill site will not be as much problem as other rapidly growing cities are experiencing. In short, the garbage issue is not a metropolitan problem since each of the political jurisdictions can singly handle the concern. Housing is similarly a local government concern and can be handled through their respective housing programs.

Table 4
General Information: Davao City, Sta. Cruz and Panabo

	Land Area (sq.km.)	Population 1995	Pop. Growth 1990-95	Percent Urban
Davao City	2440	1,006,840	3.39	74
Sta. Cruz	320	59,139	1.11	35
Panabo	193	130,585	3.40	50
TOTAL	2953	1,196564	2.66	69

Source of Basic Data: NSO (1990/1995)

While there is no problem defining Metro Davao to encompass Davao City together with the adjoining municipalities of Sta. Cruz and Panabo in terms of the basic criterion of population size, it is still premature to define Metro Davao in this manner in view of the absence of a real need for the area to undertake basic metropolitan services jointly and to establish an institutional interaction among the concerned political jurisdictions. The inclusion of these municipalities may be considered only a geographic expansion than an interlocal cooperation characteristic of most metropolises or metropolitan arrangements. Moreover, the addition of Sta. Cruz and Panabo even makes the whole area less urban.

2.3 Model 3: Davao City Plus Neighboring Provinces

Metro Davao under the third definition has taken on a more expansive scope by bringing together with Davao City the three Davao provinces of Davao del Norte, Davao del Sur and Davao Oriental. Unlike the second definition, the inclusion of these provinces is based on a formal agreement between the concerned political units. This consolidation is under the established Davao Integrated Development Program or DIDP.

The DIDP evolved from the original proposal for a Metro Davao Integrated Development Project Master Plan and Feasibility Study. A proposal for the same was submitted in June 1993 to NEDA Regional Office XI by a group of Japanese consultants. Metro Davao being referred to in the proposal is none other than Davao City. The development objective that is being addressed is enlarging urban functions through improvement or expansion of urban infrastructure and utilities for the growing urban population while maintaining balance with agricultural activities in the predominantly rural area. There are, however, numerous activities in the program which extend beyond the urban concerns.

In October 1993, an initial discussion in Hong Kong by the Chairman of the Regional Development Council, councilors of Davao City and the Governor of Davao Province (del Norte) was held on the possibility of having a joint socio-economic undertaking between the city and the three provinces of Davao. Later, consultations and meetings ensued among the local government units and eventually, in July 1994, a Memorandum of Agreement was signed by the Davao City Mayor and Governors of Davao del Norte and del Sur for the implementation of the DIDP. The original proposal in July 1993 was revised following this development with the planning space enlarged and concerns widened to consider the complementarity and more integrated development of these territories. In October 1994, the MOA was amended to include Davao Oriental.

The DIDP has identified nine key result areas or sectoral focus which includes: agri-industrial and marine industry, sea and air transport services, physical infrastructure development, tourism, natural resources management and conservation, peace and order, disaster preparedness, cultural exchanges, human resources and technology development.

The immediate opportunities for joint undertaking are in the areas of tourism, infrastructure and maintenance of peace and order. With respect to tourism, the development of Samal Island which has been one of the priority site for tourism development under the Tourism Master Plan is a topmost priority concern. In support of this are programs to maintain peace and order particularly in the border areas as well as the rationalization of plans for the development of infrastructure to enhance the area as a tourist investment destination through the provision of more access roads, wharves, jetties and other embarkation points. In addition, land and water transportation facilities will have to be provided and complementary destination points to enhance tourist's interest will have to be promoted.

The DIDP is being run by an Executive Committee composed of the Local Chief Executives of the LGUs who are members and participants of the Program and the Chairman of RDC XI as Ex-officio member. It is a collegial body and its meetings are chaired and presided over by the host Local Chief Executive.

Table 5
DIDP General Information

DAVAO	Land Area (sq.km.)	Population 1995	Pop. Growth	Percent Urban	No. of Mun.	No. of Bgys.	Capital Town
City	2,444	1,006,840	3.37	74	-	180	-
Del Norte	8,130	1,191,443	3.82	30	22	458	Tagum
Oriental	5,165	413,472	2.40	24	11	183	Mati
Del Sur	3,934	677,069	2.72	30	15	337	Digos
TOTAL	19,673	3,288,824	2.29	43	48	1158	

Source: DIDP (undated)

The DIDP is a local government cooperative undertaking that operates without national government funding. It relies solely from the contribution of each of the LGUs involved. Each LGU contributed P300,000 for the initial funding requirements of the program. A Project Management Office was set-up in May 1996 to provide overall supervision and coordination in the implementation, monitoring and evaluation of DIDP projects and activities.

It is difficult to classify the DIDP arrangement as the new Metro Davao. While, of course, with the consolidation of these areas, population has gone beyond one million, the entire area has become more rural than urban. Table 5 shows that with the low percentage of urban population in the three provinces, the total percent urban for the entire area is only 43 percent. It is not also appropriate to refer to it as a metropolitan arrangement inasmuch as the concerns of the DIDP are not primarily urban-related and metropolitan in character. It is more appropriate instead for such consolidation to be called a sub-regional development cooperation or the conventional integrated area development (IAD) undertaking.

3. Conclusion

The above analysis presented the three emerging definitions of Metro Davao and evaluated the same based on the simple criteria for accurately defining settlements as metropolis: *a largely urban settlement with a population of at least a million and usually extending beyond political jurisdictions*. As have been articulated in the analysis, from among the three references to Metro Davao, Metro Davao as defined as the whole area of Davao City is the definitional model that meets such criteria. The second model (Davao City plus neighboring municipalities) would also qualify but is still considered prospective or just a potential possibility in view of the absence of immediate inter-urban concerns at the present time. Also, a new finding is that, applying the theoretical distinction between a city and a metropolis, Davao City has graduated from being a city and has become a full-fledge metropolis in 1995. Thus, Davao City can already be classified as a metropolitan city.

Given the high growth in population being experienced not only in Davao City but in all of the Davao provinces especially in the urban areas, Gaffud (1997) has rightly pointed out, that the DIDP can be “an initial vehicle in the promotion of cross-border management of urban services”. Perhaps, in particular, there might also be a need to develop a sub-component of the program for Metro Davao (i.e. Davao City) concerns. In view of its current and future strategic role as the international trade center and gateway to the Southern Pacific Rim particularly in the BIMP-EAGA, a distinct program must be crafted to develop Metro Davao along the concept of a well-functioning and competitive metropolis. It might be useful to develop a separate Metro Davao Development Master Plan (Davao City concept) but anchored on the framework and broad strategies of the DIDP.

The recent transformation of Davao City into a metropolis should not be seen only as an urban redefinition. More importantly, it implies a need to shift the management paradigm of the city towards a broader approach to urban management. That is, going beyond the traditional city management towards metropolitan planning and management. The development plan for the new metropolis must be able to provide a

contemporary urban-management system (organisations, human resources, operational systems and approaches) that will aid this transition process.

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