

Measuring Urban Sustainability Using Spatial and Socio-Economic Factor and the Impact on Planning Policies in a Rapidly Urbanizing Area

*Anoraga Jatayu¹, Ernan Rustiadi^{2,3}, Didit Okta Pribadi^{4,3}

1. Regional and Rural Development Planning Science Study Program, 2. IPB University, 3. Center for Regional Systems, Analysis, Planning and Development, 4. Research Center for Plant Conservation and Botanic Garden, Indonesian Institute of Science

Regional growth and pattern in urban areas of Monsoon Asia have a relatively similar pattern, which is characterized by the expansion of core-urban areas to the surrounding areas. The growth of urban areas is also affecting its sustainability since spatial growth is followed by a transformation of economic and social activity. Cianjur Regency as one of the region that experiences the expansion process from Jakarta Metropolitan Area (JMA) is currently undergone major growth and transformation from the region with a mostly rural area to become “city-region”, characterized by its growth as a polycentric region with the emergence of newly established urban areas. Those growths are surely going to affect the region’s sustainability locally and regionally. The objective of this research is to measure Cianjur Regency urban areas sustainability (2000 and 2018), also its impact on future and current planning policies. Sustainability in those urban areas is measured using Local Sustainability Index (LSI) with spatial and socio-economic variables. The result shows that the new urban area (Puncak-Cipanas) is less sustainable than the majority of the existing urban area (Cianjur). The decline of urban sustainability on Puncak Cipanas is largely influenced by social and environmental sustainability, because of land-use change occurred in the area and the lack of social services/facilities. Meanwhile, Cianjur urban’s sustainability hardly experiencing any changes, mainly because regional development is currently focused on Puncak-Cipanas urban. Challenges on future and current planning policies are headed towards preserving the environment and providing better infrastructure coverage for all of the urban areas, as urban area tends to have a more complex needs of infrastructure. The integration of all planning policies also needed to achieve sustainable growth.

Keywords: Local sustainability, Urban Expansion, Sustainable Urban