

## **SELECTING GLOBALLY ACCEPTED BUT LOCALLY AVAILABLE SUSTAINABLE DEVELOPMENT INDICATORS PURSUANT TO PHILIPPINE NATIONAL DEVELOPMENT PRIORITIES**

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**Abstract:** The study aims to identify the appropriate indicators for sustainable development of local governments in the Philippines. A quality indicator selection framework was constructed in order to facilitate this purpose. Based on mainstream local, national, and international sustainable development indicator sets, the selection of indicators obtained a parsimonious list of 16 sustainable development indicators which qualifies in terms of the framework (local availability, international acceptance, and coherence with national directions).

**Keywords:** Sustainable development, Indicators, Selection framework, Philippines.

### **INTRODUCTION**

Today, sustainable development has been a common concept among economists, development practitioners, environmentalists, and even politicians (Bell and Morse, 2008). But what really is sustainable development? The real definition could lie beyond what Kates et al (2005) described as a creatively ambiguous definition by the World Commission on Environment and Development (WCED): “to meet the needs of the present without compromising the ability of *future* generations to meet their own needs”.

Sustainable development can be described in line with its focus on three global problems: ecological, economic, and social (Holling, 2000; Flint 2007; Manzi et al, 2010). Furthermore, it can also be looked at in terms of what it specifically seeks to achieve (Kates et al, 2005; Mega and Pedersen, 1998). However, a more challenging way to define sustainable development is in how it is measured (Kates et al, 2005; Bell and Morse, 2008; Phillis and Kouikoglou, 2009).

Several initiatives have been done in line with measuring sustainable development. Measurements such as the Environmental Performance Index, the Wellbeing Index, the Genuine Progress Indicator, and Ecological Footprint just to name a few; have been useful

efforts in trying to find ways on checking if indeed we have been “getting better or getting worse” in terms of our development activities.

However, the above models are only possible on a country level measurement (with the exception of Ecological Footprint). Primarily these are used to assess and rank sustainable development performance of a country. The indicators used are thus based on data available at the country level. However, these indicators cannot be found locally such as in the level of provinces, municipalities, or cities. Furthermore, on the issue of context, these are not locally applicable. Thus, there is a need to localize and contextualize these measurements for the benefit of local governments.

In line with the above premise, this study aims to formulate a list of indicators that is contextual and thus applicable at the local level. This means that data is available at the local government units and that it measures what intends to measure: the performance of local government units towards achieving sustainable development.

### **Objectives of the Study**

1. Develop and test a framework for selecting appropriate indicators that would measure sustainable development at the local level.
2. Select a list of indicators that would measure the sustainable development of local government based on the above framework.

### **MATERIALS AND METHODS**

This study employs qualitative methods in the selection and analysis of appropriate indicators for sustainable development in the local level. In the selection of appropriate indicators for local sustainability, desk review was done in order to look for lists of sustainable development indicators in several published literature. Once appropriate indicator sets were found, specific indicators were then selected based on a predetermined framework.

For the purpose of this study, a Quality Indicator Selection Framework was constructed and named LIANA which is an acronym for “Local availability, International Acceptance, and National Agenda”. Based on the framework, the bases of selection of the indicators are the following:

- a. *Local Availability* – indicators should be available at the local level. This ensures that data acquisition will not be costly for local governments involved because they have already been regularly available in local agencies for quite some time.
- b. *International Acceptance* – the indicators should have already been advocated by several international agencies in their previous project engagements. This ensures future acceptance

by foreign funding agencies especially those dealing with development initiatives in developing countries.

*c. National Agenda* – the indicators should be included in the national development plan to ensure that it adheres to national priorities.

## RESULTS AND DISCUSSIONS

**Locally Available Indicators:** The selection of sustainable development indicators to be used in the study started with the Department of Interior and Local Government (DILG) list of eco-profiling data. The list comprises 281 development indicators which are available at the local level. Primarily the indicators are suggestions by the DILG in conducting ecological profiling of LGU's which mainly aims to provide basis for local development planning. Admittedly, not all of these indicators are relevant to sustainable development, hence the need to reduce the indicators based on the other criteria.

**Internationally Accepted Indicators:** The DILG list of indicators for ecological profiling was then reduced based on their appearance in the set of indicators advocated by international development agencies. These agencies refer to the United Nations (UNCSD (2001), European Commission (EC, 2009), The World Bank (WB, 2011), and the Asian Development Bank (ADB, 2011) (See Table 1).

**Table 1.** Summary of the four indicator sets used by international development agencies

Indicator Set	International Agency	No. of Indicators
UN Commission on Sustainable Development (UNCSD)	United Nations	62
Eurostat Sustainable Development Indicators	European Commission	129
World Development Indicators (WDI)	World Bank	331
Key Indicators for Asia and the Pacific	Asian Development Bank	110

Out of the 281 locally available indicators, 33 appeared in the set of indicators advocated by the mentioned development agencies. Five indicators appeared on all of the indicator sets by international development agencies, 2 appeared on 3 out of the 4 international indicator sets, 14 appeared on 2 out of the four indicators sets, and 12 appeared once out of the 4 indicator sets (See Table 2).

**Table 2.** List of locally available indicators accepted by international development agencies

Indicator	UN	WB	EU	ADB	Freq
Unemployment Rate	✓	✓	✓	✓	4
Poverty Incidence	✓	✓	✓	✓	4
Life Expectancy	✓	✓	✓	✓	4
Households with Access to Electricity	✓	✓	✓	✓	4
Average power consumption	✓	✓	✓	✓	4
Completion Rate	✓	✓		✓	3
Literacy Rate	✓	✓		✓	3
Labor Force Participation Rate		✓		✓	2
Population Growth Rate	✓	✓			2
Migration Rate		✓	✓		2
Nutritional Status of Children	✓	✓			2
Mortality under 5 years Old	✓	✓			2
Crude Birth rate		✓		✓	2
Crude Death rate			✓	✓	2
Contraceptive Prevalence rate	✓	✓			2
Percent of population with access to sanitary toilet facility	✓	✓			2
Drop Out Rate		✓	✓		2
Teacher-Pupil Ratio		✓		✓	2
Paved Roads		✓		✓	2
Percentage of forest cover	✓	✓			2
Waste generated	✓	✓			2
Incidence of Teenage Pregnancy		✓			1
Maternal Mortality		✓			1
Doctor – Population Ratio				✓	1
Proportion of Households with access to potable water		✓			1
Proportion of households with access to safe water		✓			1

Percent of households that access health facilities	✓	1
Hospital bed – population ratio	✓	1
Proportion of Out of School youth	✓	1
Cohort Survival Rate	✓	1
Population of informal Settlements	✓	1
Incidence of Various crimes	✓	1
Deforestation Rate	✓	1

**Coherence with National Agenda.** In order to find out if the previously listed indicators are in line with national directions, these were compared with the Philippine Development Plan Result Matrices (2011-2016) published by NEDA (2011). Results then will determine which indicators entail a national priority in terms of monitoring and evaluation of the efforts of the national government in achieving sustainable development.

Result showed that out of the 33 locally available and globally recognized indicators, 16 indicators are coherent with national directions based on the Philippine Development Plan Result Matrices (2011-2016) (See Table 3). Based on the matrices, the 16 indicators fall under 7 objectives/outcomes of the country's development plan.

As shown in the Table 3 there are 2 sub dimensions for the economic dimension: poverty reduction (2 indicators) and infrastructure services (2 indicators). The Social dimension has 3 sub dimensions: health and nutrition (6 indicators), education (3 indicators), and public safety (1 indicator). The ecological dimension has 2 sub dimensions: forest protection (1 indicator) and solid waste management (1 indicator).

**Table 4.** List of locally available indicators with global recognition and coherent with national agenda

SD Dimensions	Sub Dimensions	Indicators
Economic	Poverty reduction	Unemployment Rate Poverty Incidence
	Infrastructure services	Proportion of Households with Access to Electricity Percentage of Paved Road Length
	Health and nutrition	Prevalence Rate of Underweight Children Under Five Years Old

	Under-5 Mortality Rate
	Contraceptive Prevalence rate
	Percent of population with access to sanitary toilet facility
	Proportion of Households with access to safe drinking water
	Maternal Mortality Rate
Quality education	Completion Rate
	Literacy Rate
	Cohort Survival Rate
Public safety	Crime Solution Efficiency
Ecological	Forest Protection
	Percentage of Forest Cover
Solid Waste Management	Solid Waste Generation Rate

## CONCLUSIONS

Based on the findings of the study, it is found out that a simple Quality Indicator Selection Framework called LIANA (Local availability, International Acceptance, and National Agenda) is a simple yet effective tool in selecting indicators for local applications with global and national acceptance. Using the framework in the context of the Philippines, the study was able to identify 16 key indicators which reflects sustainable development goals that is locally available, internationally accepted, and in coherence with the national agenda for development.

These indicators will be essential in future development monitoring and evaluation studies of program performances of local government units. Suggested uses would be: criteria for award giving bodies, ranking of local governments for program prioritization, development of composite indices at the local level (e.g. Human Development Index, Environmental Performance Index, etc.).

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