

The Role of Statistics in Factual-Based Policy-Making

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Abstract

This paper¹ attempts to show that proper and efficient use of statistics leads to better policy and development outcomes. Making the transition to factual-based policy-making can best be achieved through formulating a National Strategy for the Development of Statistics (NSDS), which can be fully integrated into the national policy making processes.

Introduction

The importance of statistics is captured in the following statements:

“ Why do statistics matter? In simple terms, they are the evidence on which policies are built. They help to identify needs, set goals and monitor progress. Without good statistics, the development process is blind: policy-makers cannot learn from their mistakes and the public cannot hold them accountable ” (World Bank, 2000).

“ No matter whether you are a politician, farmer, industrialist, businessman, or economist, you need reliable information upon which to base current policy.... We live in a world of infinite demands on finite resources. Government must therefore ask itself where the marginal dollar of expenditure will have maximum impact. In primary health, should we focus on outreach activities to inform society of the dangers of malaria... or should we increase expenditure on child

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immunisation programmes? In primary education, which is most beneficial to our children, more books or more teachers? ” (Keith Muhakanizi, Director of Economic Affairs, Ministry of Finance, Government of Uganda, 1999).

“ Sound data represent a key weapon in the battle against poverty ” (Tadao Chino, 2002).

“ If you can’t measure it, you can’t manage it ” (Kaplan and Norton, 2000)

Thus, this paper will discuss the importance of statistics in any public policy-making and suggest the ways to incorporate them into policy-making activities.

What is meant by factual-based policy-making?

Public policy is complex because it is diversified. It ranges from various areas such as agriculture, health, and the arts to housing. Public policy is also complex because it is interconnected. Take the issue of child care, a policy proposal in this area is likely to impact on labour market policies, gender equality, child welfare and educational system.

Public policy is regarded as a product of government or the administrative system. It is often not seen by the layman as the expression of a democratic process, expressed through the political system and democratic institutions. There is an apparent disconnection. Policy is often seen as something delivered to the public rather than emanated from the public.

Generally, what we believe in is influenced by the information we possess, the factual data or the statistics. Statistics relate to more than just hard facts. Statistics help to turn our strategic goals into something concrete, manageable and achievable. Statistics may therefore take many forms (qualitative and quantitative); research, analysis of data, economic and statistical modeling, cost / benefit analysis, opinions and beliefs, as well as methodologies that are used

to gather and synthesize the information. The better quality information we have, the better-founded our beliefs and working models will be, and the better-targeted will be our search for factual data. The factual data is dynamic, not static. It changes constantly as people's understanding develops, as new research produces new results and issues intrinsically change. Maintaining the factual data requires updating of information which involves advisors and all key stakeholders. The existing research and analysis should be reviewed constantly. New research should be developed over time.

Definitions of factual-based policy making are generally cited in the following terms:

The Government expects more of policy makers. More new ideas, more willingness to question inherited ways of doing things, better use of statistics and research in policy-making and better focus on policies that will deliver long term goals (UK Government, 2001).

Therefore, factual-based policy-making means that policy decisions which are based on careful and rigorous analysis using sound and transparent data. More specifically, it may be defined as the use of statistics to:

- a. Achieve issue recognition;
- b. Inform programme design and policy choice;
- c. Forecast the future;
- d. Monitor policy implementation;
- e. Evaluate policy impact.

This distinguishes it from public policy based on more conventional policy development processes where intuitive appeal, tradition, politics or the extension of existing practice may set the policy agenda.

In recent years, the international community has increasingly focus on monitoring and evaluating the areas where statistics

should be used in support of policy-making. However, it is important to realize that policy outcomes are crucially affected by the use of statistics and statistical procedures in 'upstream' stages of policy-making, such as issue recognition, programme design, policy choice and accurate forecasting as well as monitoring and evaluation.

Sound and transparent statistics are essential for effective policy-making – a necessary part of the enabling environment for improving development outcomes. There are rarely a simple link between statistics and the adoption of a particular policy. Policy-makers often draw different policy conclusions from the same set of data, owing to differences in the type of analysis undertaken and / or to differences in value judgments about policy objectives.

While factual-based policy-making maybe understood as a roughly chronological sequence of activities, the production of statistics can have a less direct, but not necessarily a less important impact on policy-makers. Thus, from time to time controversies arise at both international and national level over statistical series. These debates may focus on methodological issues, such as the coverage, consistency or accuracy of different sources of data, or they may be concerned with the appropriateness or inappropriateness of particular statistics to evaluate specific policy arguments. In either case, such controversies can have a powerful indirect effect on policy-making, and indeed on electoral outcomes, by focusing public attention on particular policy issues and raising questions about different types of data.

Why is factual-based policy-making important?

There are two reasons why factual-based policy-making is important. It is the only way of making public policy decisions which is fully consistent with a democratic political process characterized by transparency and accountability (Bullock et al., 2001; PARIS21, 2004; Scott, 2005).

Transparency is desirable on grounds of equity and efficiency. In a democracy, citizens have the right to know how and why decisions are taken which affect their lives. Such knowledge is an essential part of good governance. Transparency affords protection against decision-making processes being captured by sectional interests or becoming tainted by corruption. Transparency provides private firms and households with some assurance when taking rational personal and business decisions – thereby promoting the efficiency of capital markets which in turn contributes to faster economic growth.

Factual-based policy-making enhances the **accountability** of policy-makers. A central tenet of democracy is that civil servants should be accountable to the ministers, and that ministers should be accountable to the public. Both types of accountability require good data to be effective. The availability of information to citizens allows them to monitor whether the policy made is effective or otherwise. For their part, members of the government hold senior civil servants to account by requiring factual data to show that programmes are being implemented successfully as planned.

Each year, the government spends a considerable sum of money on a range of services and activities intended to benefit the public. If policies are not well designed and implemented, public services may be of poor quality. Those intended to benefit may not do so or a significant portion of society may be excluded from the benefits, or a policy may be successful in achieving its objectives but the cost of doing so may not represent value for money (UK Government, 1999).

The 1999 *Modernising Government* white paper, published by the UK Government noted that Government “*must produce policies that really deal with problems, that are forward-looking and shaped by the evidence rather than a response to short-term pressures; that tackle causes not symptoms*”.

How has the good statistics helped in policy-making?

a. Statistics to help identify issues

Good statistics enable us to identify issues such as poverty, inflation, air pollution, unemployment graduates etc. For example, how do we define poverty line? Do urban or rural households have high poverty line? In Malaysia, the incidence of absolute poverty has traditionally been determined by reference to a threshold poverty line income (PLI). This PLI is based on what is considered to be the minimum consumption requirements of a household for food, and other non-food items, such as rent, fuel and power. There is no separate PLI for urban and rural households. The proportion of all households living below this threshold is the proportion living in poverty – that is the poverty rate. Poverty rates are available for household categories only: they are not available for individuals separately.

The multi dimensional nature of poverty is not encapsulated in the current narrow definition of poverty thereby resulting in a lack of understanding of the poverty issues. It is essential to review the existing research and to have comprehensive statistical information in order to embark on new approaches to poverty that will improve the understanding of the poverty problem (Sulochana Nair, 2001).

Addressing graduate unemployment is not a new issue but irrespective of statistical data accuracy and hence, their reliability, statistics can play havoc with public perception and the determination of policies and the framing of programs. “We are now caught in a statistical trap. Do we have 80,000 or 18,000 unemployed graduates?” Former Minister in the Prime Minister’s Department Datuk Mustapa Mohamed recently insisted that there has been a

misunderstanding and the correct figure is 18,000 (Malaysian Business, 2005). The issue of unemployment among local university graduates has caught the attention of the nation and making newspaper headlines. Economically, this is not a trivial issue when the amount of public money poured into local universities, the man-years spent by our unemployed graduates in studying for a degree, and the frustration of employers in recruiting graduates to keep industry running. The ultimate cost will be the loss of economic competitiveness at a time when it has become so crucial for our country to be globally competitive.

b. Statistics to inform the design and choice of policy

Once a policy issue is identified, the next step is to undertake some analysis, so that the extent and nature of the problem can be understood. This understanding provides the basis for any subsequent policy recommendations. For instance, quality data and sound statistical analysis supported the design of Ninth Malaysia Plan. Statistical information is also needed for studying growth prospects in the industrial, employment, agriculture sector etc.

Various techniques are used to target poverty and vulnerability to determine cost-effective expenditure priorities from a limited budget. For instance, poverty maps are produced to rank localities by need by combining population census data with information on consumption expenditure from household surveys. However, their validity depends crucially on the accuracy and consistency of the data sources.

c. Statistics to forecast the future

Good statistics also help in forecasting the future. For example, Input-Output Tables are used for economic forecasting, meanwhile population census data is important for projection on population, education, health etc. On health, forecasting is of paramount importance when a country is afflicted by the outbreak of a serious disease. The government needs to know how quickly it is likely to spread among the population in order to design appropriate counter-measures. Having access to accurate data on disease prevalence in the early stages of an epidemic is crucial to obtaining reliable forecasts of future prevalence.

d. Statistics to monitor policy implementation

Good statistics help to monitor policy implementation. For example, a wide range of statistical information is used to monitor whether or not we have achieved the Millennium Development Goals (MDG).

However, the lack of baseline data or information on trends is a serious impediment to implementing a target-driven development strategy (UNDP, 2005).

e. Statistics to evaluate policy impact

Evaluating policy impact is more methodologically demanding than monitoring policy implementation.

Statisticians should be involved in the policy making process at an early stage to advise on how the impact of a new policy will be assessed (United Nations Statistics Division, 1994). In some instances, this assessment may need to be undertaken at regular intervals over many years.

In the case of growing demand for imported foods in Malaysia, it has increased by RM13 billion. It was forecasted that there would be an increase in demand of foods for RM20 billion in the future. Therefore, there is a need to review certain parts of the agriculture policy.

Good statistics, therefore, represent a key role in good policy making. The impact of policy can be measured with good statistics. If policy cannot be measured, it is not a good policy.

Good statistics provide a basis for good decision making, help governments to identify the best courses of action in addressing complex problems, are essential to manage the effective delivery of basic services, and are an indispensable, core requirement for accountability and transparency. Good statistics are a core component of good governance. They also provide a sound basis for the design, management, monitoring, and evaluation of national policy frameworks such as Poverty Reduction Strategies (PRSs) and for monitoring progress towards the Millennium Development Goals (MDGs). Good statistics, therefore, are part of the enabling environment for development: they measure inputs, outputs, outcomes, and impact, providing reliable assessments of key economic and social indicators, covering all aspects of development from measures of economic output and price inflation, to the well-being of individuals.

The litmus test of good statistics is their quality and accessibility and the efficiency with which they are produced. Good official statistics must have many characteristics. Most basically, official statistics are good only to the extent that they meet the needs of users. Official statistics must be available to a broad range of public and private users and be trusted to be objective and reliable. Good statistics must also have a breadth and depth of coverage to meet all policy needs and to inform the public so they can evaluate the effectiveness of government actions.

There is no doubt that official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

This means that statistics are the backbone and should be relevant for society, compiled in an impartial manner, be free from political interference and be accessible for everyone under equal conditions.

Where do we get good statistics?

In the Malaysian Statistical System, which is considered to be largely centralized, the Chief Statistician of the Department of Statistics (DOS) is the head of the national statistical service. All censuses and surveys conducted on a nationwide basis are the responsibility of DOS. Other government ministries and departments may have their own statistical and research units but the statistics they collect and compile are mostly by-products of the administrative processes.

In Malaysia, two important committees, namely the Statistics Steering Committee and the Main Users Committee, were established in March 1988 with the view to determine guidelines, policy and priorities in statistical activities. The terms of reference of the Statistics Steering Committee are:

- a. to determine guidelines and policy of DOS;
- b. to coordinate activities related to the collection and dissemination of statistics carried out by Government agencies; and
- c. to provide guidelines towards an effective national information system.

The Main Users Committee coordinates at the technical level the collection and dissemination of statistics by Government agencies in order to ensure the efficient and effective utilization of available resources; the use of standard concepts, definitions and classifications; the use of appropriate and effective methods in the collection and production of statistics; the minimization of duplication; and the production of quality and timely data. This committee also sets up technical working groups for specific statistical activities.

It was suggested that all the agencies under the two committees to become one identity known as National Statistical System (NSS). NSS is where data producers, compilers, analysts and users come under one roof.

NSS is important for effective coordination of the activities of various statistical entities. The following are some of the objectives which would be difficult to achieve in the absence of effective coordination within the statistical service:

- a. To ensure a maximum of integration in the statistical process and in its outputs;
- b. To realize the full potential of personnel and other resources in providing quality services;
- c. To promote the use of appropriate and effective methods in the collection and production of statistics;
- d. To apply common standards and best methodology;
- e. To identify and define statistical priorities and requirements;
- f. To meet the demand for statistics effectively and efficiently;
- g. To ensure maximum cooperation of data providers;
- h. To take full account of the load enquires place on providers of data;

- i. To improve awareness of the importance of statistics;
- j. To make data available according to the important themes and priorities of the government and the community;
- k. To identify gaps in national statistics; and
- l. To promote statistical development.

Careful decisions need to be taken on how best to develop statistics effectively and efficiently; and reform is often required across the whole system. This can be facilitated through the design and implementation of strategic statistical plans, which are integrated within national policy processes and cover all data sectors and users. These National Strategies for the Development of Statistics (NSDSs) provide a robust framework and action plan for building the statistical capacity to meet both current and future data needs. A NSDSs should:

- a. Be nationally led and owned, with high level political support;
- b. Be demand-focused and integrated within national development policy processes;
- c. Be developed in an inclusive and consultative way;
- d. Assess all statistical sectors and user needs and provide a vision and strategic plan for national statistics;
- e. Set out an integrated statistical development programme to build capacity to deliver results, which is prioritized and timetabled, incorporating plans for implementation, monitoring and evaluation but is also flexible enough to cope with change;
- f. Address institutional and organisational constraints and process, including resources, for the sustainable development of statistical systems and outputs;
- g. Build quality “fit for purpose”, drawing on best international practice and standards;

- h. Build on what exists and is being developed and continue to satisfy immediate needs for statistics during the NSDS process;
- i. Respond to user needs but be realistic about resources; and
- j. Serve as a coherent framework for international support for statistical development.

This strategic approach can help to make statistics available for the formulation of national development policies and to align resources to improve statistical capacity with priority needs. Improvement plans can cover the whole of the national statistical system or focus on specific areas where capacity building is needed.

Enhancing the role of National Statistical System

A systematic and efficient delivery system is important to enhance the role of NSS.

The factors for assessment of the current status of NSS are given as:

- a. Stakeholders' and users' requirements;
- b. Coordination arrangements among producers and users;
- c. Legal and institutional framework;
- d. Methodology, definitions, concepts and standard classifications; and
- e. Current statistical capacity – human development etc.

The factors of assessment and planning of the NSS are as follows:

- a. Stakeholders' and users' satisfaction and future needs;
- b. Management and leadership capacity;

- c. Assessment of current and planned outputs of the NSS;
- d. International requirements and standards – SDDS, SNA 1993;
- e. Government support and commitment;
- f. Part of National Development Policy; and
- g. Full support for statistical capacity building.

Conclusion

Governments, society generally and, the international system need good statistics. Proper use of good statistics leads to better policy and development outcomes.

Factual-based approaches have a key part to play at two points. Firstly, there is a growing public demand for analysis before policy is implemented. Without sound analysis, research and modeling, policy development will be in the dark and unaware of the impact that the policies are facing. In addition, the general public want to see the facts and figures and the bodies that were consulted in respect of new policy initiatives or legislative proposals. Factual-based approaches support transparency and comprehensiveness. Secondly, in whatever form our initiatives are, for example, grant schemes or regulations, we need to ensure they are systematically reviewed to check that they are achieving their desired outcomes. In this case, factual-based approaches help to ensure effectiveness and efficiency.

Making the transition to factual-based policy-making can best be achieved through formulating a national strategy for the development of statistics, which is fully integrated into the system of national policy making. The added value of an NSDS is that it provides strategic planning and priority setting within the context of the entire statistical system, covering all data sectors and users as well as essential organisational and institutional issues.

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