Folder Title: Kamrany, Nake M. - Articles and Speeches (1970) - 1v

Folder ID: 1651984

Fonds: Records of Office of External Affairs (WB IBRD/IDA EXT)

Digitized: February 12, 2014

THE WORLD BANK
Washington, D.C.

KAMRANY, NAKE M. — Articles and speeches (1970)

SOCIAL INDICATORS IN PERSPECTIVE*

NAKE M. KAMRANY and ALEXANDER N. CHRISTAKIS†

This paper is divided into three parts. Part I discusses the need for the development of an adequate barometer (social indicators) to measure the overall wellbeing of nations. Part II expounds upon the major dimensions of a social indicator. Part III proposes a conceptual framework for a practical approach embodying social indicators in a framework of national policy planning and priority setting.

I. INTRODUCTION

THE NEED for the development of an adequate barometer to measure the overall well-being of societies and nations is clearly recognized. The social phenomena of the sixties is not less important, in magnitude and complexity, than the Great Depression of the Thirties which prompted social thinkers into the development of economic indicators (leading, lagging, coincidental and diffusive) as an instrument for controlling economic fluctuations and maintaining economic growth. Although it took about thirty years to develop and make effective use of these economic indicators, the "forces making for economic fluctuation have been contained . . . " [1]. However, economic prosperity has its limitations.

The existence of growing affluence and growing social ills has led many to the conclusion that the vision of general prosperity as a solvent of social ills has been a chimera—that GNP has turned out to be a small god [2].

The paradoxes of the American Society is an illustration, where, amidst great wealth there remain pockets of poverty, where discontent moves directly rather than inversely with prosperity, where the growth of clean suburbs and dirty ghettos have been in parallel, and where defiance rather than dissent has been adhered to as a means of challenging the "conventional wisdom" [3] and the basic institutions.

The limitations inherent in social accounts or indicators are far deeper and more complex than those of economic accounts. In spite of this, it has been claimed that social indicators could be developed within two years [4]. And some interesting work has already been undertaken [5]. Undoubtedly, a number of recent events and observations have prompted active interest in examining socio-economic, environmental and behavioral phenomena in their proper context. Some of these problems include widespread social unrest, the questioning of the legitimacy of certain traditional or conventional institutions, such as the student–university relationship, the industrial–military–academic complex, the

---

inequities of the minority groups, the social costs of a growing industrial economy such as polluted air, water, parks, streets, traffic congestions, and many others.

The term social account or indicator is not yet clearly defined—conceptually or theoretically. It refers to some crude measure of overall well-being, or a "good quality of life". It represents an attempt to "describe, with some precision and detail, the condition of society in terms of particular activities and social groups" [6]. It is a relative notion to be measured and/or quantified against some defined standard of unit that represents the "quality of a good life". Mancur Olson, Jr. defines social indicators "as an aggregative or representative welfare measure; that is, as a statistic that measures the extent to which some social goal or general welfare has been achieved . . . "[7]. A recent definition of social indicator reads as follows:

> A social indicator, as the term is used here, may be defined to be a statistic of direct normative *interest* which facilitates concise, comprehensive and balanced judgments about the condition of major aspects of a society. It is in all cases a direct measure of welfare and is subject to the interpretation that, if it changes in the "right" direction, while other things remain equal, things have gotten better, or people are "better off" [8].

The term "indicator" is synonymous with index. In economics, aggregation means the construction of an index from individual economic data. Even defining a single index is a formidable task. It represents some value, mathematically or otherwise, derived from some accepted standard or series of observations and is used as a measure of certain conditions. Formal work on indicators was undertaken by Wesley C. Mitchell and Arthur F. Burns, who undertook the initial work on the development of economic indicators [9]. They analyzed nearly five hundred monthly and quarterly time series to determine their relationships to past economic business cycles. This work was followed by Geoffrey H. Moore, and others, in the early 'fifties [10]. Moore determined that some indicators normally lead, some tend to coincide, and some generally lag, behind the business turning points. In addition to the above, the "diffusive" indicators were developed and many of these indicators are periodically published in the *Survey of Current Business*. It ought to be noted that economic indicators lend themselves to empirical observations and they are sensitive in varying degrees to general economic activities [11].

II. MAJOR DIMENSIONS OF A SOCIAL INDICATOR

So far, the effort expended on the development of a measure of social accounts has been fragmented and restricted to identifying welfare measures. It suffers from a lack of conceptual and theoretical framework. Social Indicators must meet the necessary and sufficient criteria for a theoretical basis—including completeness, geographical delineation, an effective level of disaggregation, and relevance to some cohesive national process of policy planning.

Completeness
It refers to the embodiment of all variables and elements that impinge upon the quality of a good life. So far, effort has been expended, almost exclusively, in examining the problems of the poor. Is there justification that a person or group of people shall be included or excluded from a model of social account because of his or their level of income,

religion, race, ethnic group, age, sex, politics, and others. The answer is clearly no. Variation in the above factors could assist in identifying the degrees of urgencies for policy measures but would provide no grounds for total or partial exclusion.

Level of aggregation

Aggregation of social accounts masks specific problems or specific problem areas. There is no doubt that there exists basic statistical and informational bottlenecks in establishing indicators at meaningful levels of aggregations. Even economic indicators suffer from some of these weaknesses.

For example, in spite of a rapid and satisfactory rate of growth in gross national product, it is generally true that the distribution of income in the United States has remained practically unchanged over the last twenty years. Likewise, while the nation as a whole has experienced unprecedented economic affluence and prosperity, it is once again true that certain depressed regions have remained economically depressed over the last two decades. In the social sphere, many findings reveal that a significant improvement in the learning of the children has been observed since the 1950's; nevertheless, the learning and education of the poor and the disadvantaged have not increased proportionately. "Groups that suffer social and economic deprivations systematically learn less than those who have more comfortable backgrounds" [12]. There is no doubt that there exists basic statistical difficulties in establishing indicators and indexes, and a great deal of research is needed to develop appropriate levels of aggregation and disaggregation for various socio-economic information.

Geography

No agreement has been reached on the unity in the overall regional systems. It is on this unity issue that general agreement must be reached before a systematically designed urban problem-solving matrix could be developed. In an era of supersonic jets and Telestar communications, while no region is totally isolated or antiseptic from other nearby or distant regions, there is a definite need for differentiating localized situations of some importance from the rest. No doubt, the link between local and national and international interests ought to be clearly defined. And, conditions of national environment from small and large areas ought to be distinguished. Sound physical planning is related to specific geographic locations. It is futuristic and anticipatory of social changes. With respect to patterns of urbanization, fundamental disagreement exists among regionalists with respect to the theory of groupings of metropolitan areas such as the growth of a few large and self-contained megalopolis and the smaller clusters within these regions, and the degree of interaction among these clusters. Is the tendency of urban patterns toward polynucleated metropolitan clusters or major metropolitan megalopolis? What regional factors attract the location of new businesses or branches of large corporations in a locality? Recognition of the types of geographic areas, subareas, and their growth patterns bears important implications upon public decision-making. In view of the rapid rate of obsolescence of highways and freeways and other physical outlays, and the direct impact upon people, one could not overstate the importance of geography and the need for its inclusion in a measure of well-being.

Regional indicators are construed to measure the trends within a specific region and to compare this trend with a larger geographic area. There is no doubt that the following factors have varying degrees of importance with respect to specific regions: the economic

importance of specific industries and/or activities and the degree to which these industries and/or activities are reflected in other component series; the degree to which regional series measures or reflects fluctuations in general business activity of a region; the flexibility and stability of these series and their freedom from radical fluctuation; the units in which these series are expressed and the quality of the information which are drawn upon in the development of these series.

Indicators have varying degrees of sensitivity and significance with respect to the level of geographic disaggregation. This degree of geographic disaggregation varies from the earth down to a piece of lot in a specific location:

Level 1—The earth.
Level 2—The continent.
Level 3—The country.
Level 4—The province within a country or state.
Level 5—The region within the state.
Level 6—The county and/or metropolitan area.
Level 7—The city.
Level 8—The regional planning area.
Level 9—The census tract.
Level 10—The block.
Level 11—The lot.

The political boundaries of geographic locations do not necessarily coincide with the economic, social and other information needs of the boundaries.

Relevance to the process of national policy planning

The crucial role of social indicators in the overall process of national policy planning needs clarification and understanding. The connectiveness of social indicators to some national or societal objectives, goals, etc. needs establishing. What is needed is the development of a "national social theory" to which "social indicators" would provide the necessary social information and from which "national social policy measures" are derived. It should be noted that the main reason for the success of economic indicators is the existence of a national income theory, including economic tools (fiscal, monetary, market and international) and some means of implementation. No such theory, tools, system of information or indicators exist in the social sphere.

III. A CONCEPTUAL FRAMEWORK

Social indicators, like any other kind of information, are, of themselves, silent; it is the use to which they are put in assisting policymakers' decisions that is important in terms of inferring, interpreting, analyzing and evaluating.

Just as economic indicators have been used as a barometer of a nation's economic health, it is reasonable to assume that social indicators, if and when they are developed, will be used to measure the overall well-being of a nation. Thus, the development and uses of social indicators are neutral with respect to the socio-economic and political systems of nations. They could be effectively used in all countries with varying socio-economic systems, such as highly centralized or decentralized, developed or underdeveloped, capitalistic or communistic, authoritarian or democratic, systems.

A major task in formulating a conceptual model in which social indicators are embodied, as an integral part of a national system, would be to identify the major dimensions and processes of a national system, determine and identify the role of social indicators in the entire process, and develop and implement a particular system of social indicators for that process. Assuming that some such indicators could meet the necessary criteria of completeness, aggregation, geography and relevance to the process of a national system of policy planning, the connectiveness of social indicators with such a process is illustrated in Fig. 1.

As illustrated, the major dimensions of the processes of societal policy planning include the setting of national objectives, national goals, national priorities, operational targets, implementation strategies and a system of monitoring and review on a continuous basis.

The structure of the social indicators as illustrated requires that appropriate dis-aggregations ought to be made in terms of regional indicators and the overall behavioral and environmental conditions should be translated into three kinds of indicators, namely: (1) absolute indicators; (2) relative indicators; and (3) autonomous indicators.

Absolute indicators refer to the measurement of those "scientific" indexes for which a substantial agreement among experts has been reached. For instance, minimum require-ments for clean air could be easily established for contents of carbon monoxide, sulfur dioxide, hydrocarbon, nitrogen oxides and suspended organic particles. Likewise, standards for minimum cleanliness of water could be easily established with respect to water contents of biochemical oxygen, coliform, turbidity, inorganic mineral content, temperature, alkalinity, phenols, syndots, oil and grease, floating debris, hardness, etc. Likewise, indi-cators could be easily established for the level of noise, odor, density of population, minimum income for a conventional living standard, number of people per room, and many other environmental factors.

Relative indicators are those indexes for which time series data and cross-comparison data are available and for which no optimum value is available. Nevertheless, the boun-daries of an optimum, reasonable, or expected rate of change for relative indicators could be established. Examples of relative indicators include such factors as areas of parks per number of population, distance to open space, number of specific types of crimes committed, number of illegitimate children per population, quality and quantity of police protection, quality and quantity of education on a per capita basis, number of drop-outs, income spent for rent, utilization of public programs, per capita income, and many others.

Autonomous indicators refer to those indexes which reflect specific social, economic, institutional and cultural values of specific regions. For instance, the Mexican-American population of Los Angeles has certain autonomous socio-cultural aspects as compared to the Polish-Americans of New Jersey. The measures, as well as the method of measuring these indexes, ought to be established. In spite of the many commonalities of the pluralistic American society, there are numerous socio-economic and cultural values that are culturally-bound and/or are specific to various regions.

The relative and autonomous indicators are subject to various socio-economic changes which the nation experiences. These changes are continuous and a system of continuous monitoring and interpreting these changes upon the relative and autonomous indicators are necessary. For instance, it has been observed that over the years large corporations have continued to increase and improve their relative degree of dominance over the economy, jointly accounting for about half of the gross national product.
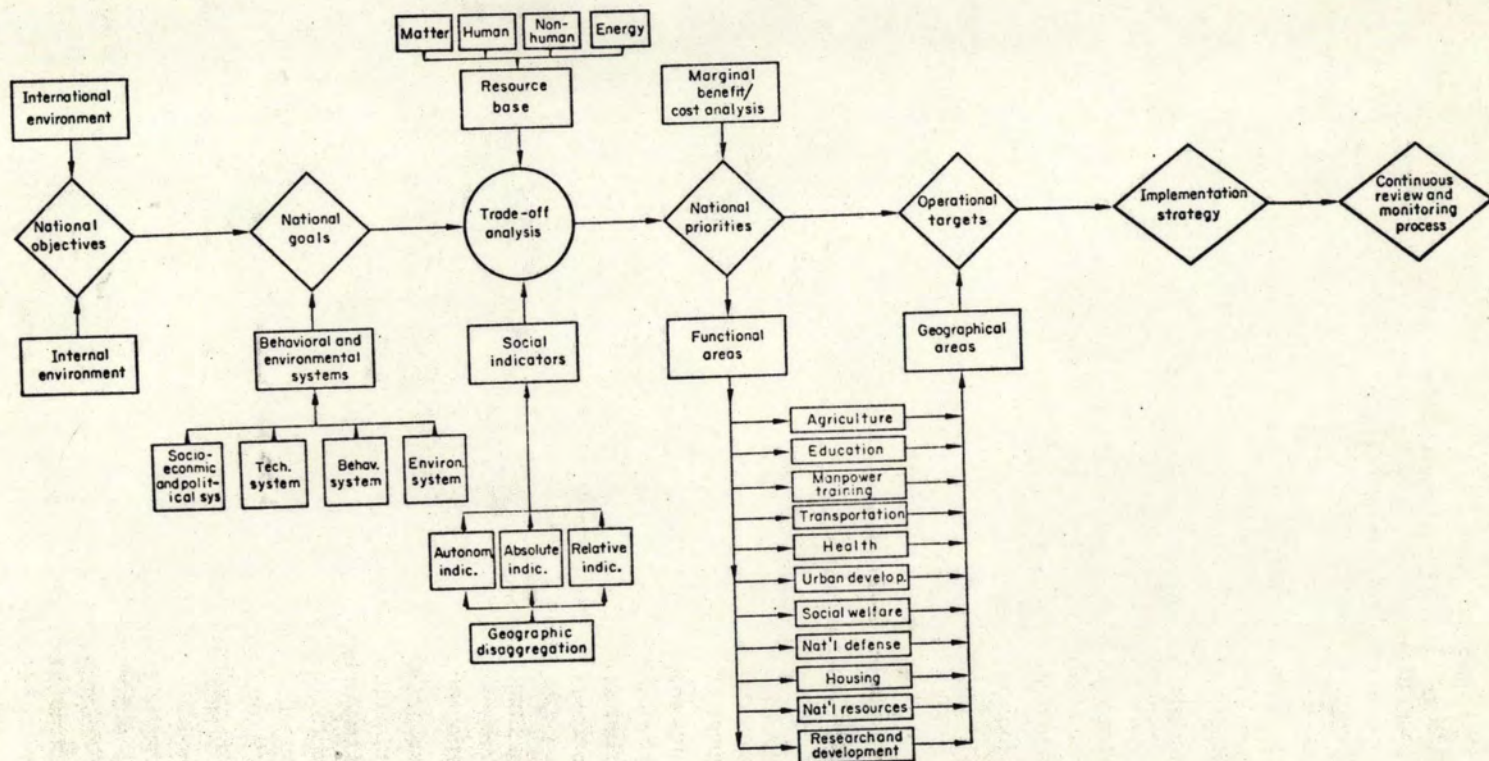
FIG. 1. The role of social indicators in the process of national policy planning.

The non-owner, professional bureaucrats—the techno structure—rather than owners and boards of directors—manage and wield the powers of corporate decision, whose goal is rapid growth at a satisficing rate of profit. High risk ventures that may threaten management control are avoided. Through planning and study of the environment, large corporations are able to influence the markets and take better and more accurate signals from the changing market forces. The American scientists rather than the administrators or Congress shape the American science policy and its impact upon the nation. The intellectual community has gained in importance over the financial community as the group of highest prestige in the American society [13].

There appears to be an awakening of the minority groups, and they are serious about becoming a part of the American life. They are no longer satisfied with unemployment, underemployment, disguised employment, and restricted employment, to, by and large, manual and blue-collar jobs, slum dwellings, depressed environments; and the less privileged groups (for example, women) demand for equal privileges.

Other observable changes include extended urbanism, community fragmentation, proliferation of governments (over 80,000 in the U.S.), and many others. All of these dynamic changes precipitate impacts and influences upon the values of the relative and autonomous indicators as discussed previously. These changes point to various trends, gaps and imbalances. Wagner's Law states that economic growth and progress enlarges the share of government activities, while Colin Clark suggests that there is an absolute upper limit to the relative expansion of the public sector [14]. On the other hand, one study shows that every government function has been expanded since 1900 [15]. In spite of the disagreement upon the expansion or contraction of the relative role of government, it is rather clear that the quality of that role casts a great deal upon the quality of life of a society. Unless proper policies are adopted there is no doubt that social brutalities and unrests will be the outgrowth of social disequilibrium that is rooted in the behavioral and environmental structure of societies. Following are some illustrations of obvious gaps or imbalances that have developed:

The attainment gap

Over the last decade a gap has been developed between aspirations and attainment of what was promised to the minority groups and what has been done for them. Pockets of unemployment in the central core cities have persisted and in many cases enlarged. Housing segregation from 1940 to 1960 has widened.

The credibility gap

A private survey revealed that the public mistrust of large corporations and the government is at an equal level.

The generation gap

Segregation of society into age cohorts has intensified the lack of communication, direction, harmony and national respect.

The employment gap

The core of unemployed is moving toward a status of unemployability and long-run or permanent unemployment.

Social indicators derived from social information, and structured in accordance with the absolute, relative and autonomous indicators, require intra- and inter-comparisons, as well as a trade-off analysis for public policy measures. The policies to achieve social stability and social growth require the adoption of that set of activities which will optimize or sub-optimize the stated national goals. Such a trade-off analysis will lead to the establishment of national priorities in terms of specific functional areas, such as agriculture, education, manpower training, transportation, health, urban development, social welfare, national defense, housing, natural resources, research and development, and other functions.

The amount of investment made in any one of these functions is determined by a mechanism of marginal benefit–cost analysis (including synergies and complementarities) which allocates limited available resources into an area of national needs and keeps in prospect the short, intermediate and long-term implications. Once these functions are measured in terms of dollar expenditures (present and future) then realistic operational targets are set and an implementation strategy is devised. Such an overall scheme requires periodic review and adjustment since the process is a dynamic one, and changes will take place. Therefore, policy instruments need to be sensitive to these changes and adopt the necessary flexibility to conveniently and effectively respond to these changes.

No doubt there are a number of unresolved problems regarding the conceptual and political development of social indicators, not the least of which is the organizational and institutional framework for such a scheme. Moreover, a great deal of effort is needed to clarify, define and interpret the meaning of many of the issues that surround this important topic. Who is going to use social indicators and in what way? What administrative and political issues and bottlenecks will result, when and if such indicators are seriously used for public policy measures? An important characteristic of public good or services is the indivisibility of their benefits—the output cannot be divided into units of which an individual can be given exclusive possession [16].

Other issues that require a great deal of scrutiny are as follows:

1. A definition of the quality of a good life, setting up standards and units of measurement, methods of measurement, strategies and the implementation of policies, as well as the organizational framework necessary for such a process.
2. The design of an information system for such a social indicator, including data analysis and simulations.
3. Development of methodology to accurately estimate the costs of our short-falls as well as the costs and anticipated benefits of actually fulfilling existing goals and standards.
4. Establishing a priority between and among various indicators (absolute, relative and autonomous).
5. Methodology to include qualitative factors into the system.
6. Methodology to provide links between local and national interests, links between physical and nonphysical characteristics and links between specific and general indicators.

Such a scheme requires inter- and intra-trade-off analyses between complementary as well as competitive objectives, goals, priorities, targets, etc.

It is generally recognised that some cost in price instability (inflation) is associated with employment stability (full employment). And economic justice (in terms of welfare and distribution of income) may slow down the rate of economic growth. Theoretically,

that combination is chosen which optimizes social ends in such a way that the marginal utility of each objective per unit of investment is equated to the marginal utility of every other objective per unit of investment. However, such a theoretical notion has not been translated into practical application due to the indivisibility of the units of objectives, lack of availability of units of measurement for these objectives and the difficulty of making cross-comparisons between the utilities of various objectives. The development of PPBS, including cost–benefit and cost–effectiveness and the systems approach, lends itself to some promise of methodological breakthrough for quantification of the relative merits of various alternative measures to reach predetermined objectives. The approach adheres to the notion of sub-optimization by means of maintaining some balance among various objectives.

Nevertheless, this process is designed for an operational and practical approach to set priorities for national policy planning. It takes into account the entire spectrum of national objectives, identifies several plausible and probabilistic alternatives to suboptimize among these objectives, and through the use of marginal benefit–cost analysis, it chooses that alternative which is responsive to a majority of the plausible alternatives, while observing a balance between the short- and the long-time horizons.

REFERENCES AND NOTES

1. A statement by the Council of Economic Advisors.
2. Agenda for the Nation, p. 7. The Brookings Institution (1968).
3. JOHN K. GALBRAITH, *The Affluent Society*. Hougton Miffin (1958).
4. See statement by former Secretary of Health, Education and Welfare, Mr. WILLIAM J. COHEN, in *Toward a Social Report*. U.S. Department of Health, Education and Welfare (1969).
5. Interest in discussing a wide range of public issues was initiated by the late DWIGHT D. EISENHOWER when he set up the President's Commission on National Goals and requested a broad outline of coordinated national policies and programs to "set up a series of goals in various areas of national activity". See, *Goals for Americans*. National Planning Association (1960). Interest in the development of social account or indicators was formally inaugurated in March (1966), when the President of the United States directed the Secretary of Health Education and Welfare to develop social statistics and indicators to supplement the economic reports of the President. Subsequently, a group of consultants was organized into a "Panel on Social Indicators" under the chairmanship of Professor Daniel Bell of Columbia University, and Mr. William Gorham, Assistant Secretary for Program Coordination, Department of Health, Education and Welfare. A preliminary report on environment, headed by Professor HARVEY PERLOFF, was issued in May (1967). It is off to a promising start and the content of this report is quite good. Moreover, a document, *Toward the Development of a Social Indicator*, was presented on January 11 (1969). See Statement of WILLIAM GORHAM, Assistant Secretary for Program Coordination, Department of Health, Education and Welfare, before the Senate Subcommittee on Government Research, Committee on Government Operations, July 26 (1967).
6. CHARLES B. CAREY and K. W. YARNOLD, American '75 Conference, TM(L)–3102, System Development Corporation, September 28 (1966).
7. M. OLSON, JR., An Agenda for the Development of Measures of Progress of a Racial or Ethnic Group, Working Paper, U.S. Dept. of Health, Education and Welfare, February 6 (1968)
8. *Toward a Social Report, op. cit.*, p. 97.
9. A. F. BURNS and W. C. MITCHELL, *Measuring Business Cycles*. National Bureau of Economic Research, New York (1946).
10. GEOFFREY H. MOORE, Statistical Indicators of Cyclical Revivals and Recessions, Occasional Paper 31, National Bureau of Economic Research (1950).
11. HENRY M. PLATT, Economic Indicators: Their Use in Business Forecasting, Tuck Bulletin No. 21. The Maos Tuck School of Business Administration, Dartmouth College, January (1969).

12. *Toward a Social Report, op. cit.*, p. 20.
13. JOHN KENNETH GALBRAITH, *The New Industrial State*. Houghton Mifflin Company (1967).
    Also, see *Review of National Science Policy*. U.S. Paris, OECD (1968).
14. ADOLPH WAGNER was a 19th century fiscal theorist. See CHARLES J. BULLOCK, *Selected
    Readings in Public Finance*, p. 32. Ginn, New York (1924). Also, see COLIN CLARK,
    Public Finance and Change in the Value of Money, *Econ. J.* p. 376, December (1945).
15. SOLOMON FABRICANT, *The Trend of Government Activity in the United States Since* 1900,
    pp. 82, 83. National Bureau of Economic Research, New York (1952).
16. HOWARD R. BOWEN, *Towards Social Economy*, p. 173. Rinehart, New York (1948).

filed in speech bk.