Research note

Numerical Governance and Expertise: The FAO Before WID

Lynne Phillips and Suzan Ilcan[1]

INTRODUCTION

Nicholas Rose has noted the intimate connection between counting populations and governing them. By classifying people into categories (age, gender, education, marital status, etc.) and according to patterns (of birth, unemployment, migration, illness, etc.), the needs and deficiencies of a country and its people are confirmed, assuring particular "strategies of governance" (1999). Our previous work has shown that during the post-World War II development era the United Nations (UN) played a major role in creating new knowledge about agriculture, food, labour, and people in "underdeveloped" countries (Ilcan & Phillips 2000). Underlying this new knowledge was a penchant for producing numerical data, as indicated in the massive data banks of the UN. In this paper we look specifically at the Food and Agricultural Organization (FAO) of the UN - and its early mandate to compile central registries of comparable nation-based censuses and statistics - in order to discuss the implications of "governing by numbers" for our historical understanding of rural populations.

We are particularly interested in understanding how certain modes of calculation became integral to the FAO's early concern to gauge gender and rurality in these contexts. It has been noted by some authors (Moser 1993, 59) that during the period after World War II and before the emergence of an explicit women and development (WID) orientation, the social welfare orientation of development was "gender blind" and only involved a passive role for women, if women were recognized at all in the process. However, viewed through the lens of numerical governance, one can see how gender and other social relations were indeed mobilized through a rearrangement of the rural in this early period.

We begin by discussing the FAO's historical focus on rural social welfare. On the premise that global food shortages had reached crisis proportions, the FAO's efforts to improve rural welfare became calculable as a science that demanded refined methods to define and monitor the problems that experts were to address.

THE SCIENCE OF RURAL SOCIAL WELFARE

After World War II, the FAO, among other organizations, played a significant role in identifying "poverty" and "food shortages" as Third World problems to be remedied. The identification of these problems politicised rural social welfare, and introduced the need for scientific investigation and remedies. The FAO officially emerged with the signing of its Constitution in 1945 at the first conference session held in Quebec City. At this conference, it was made clear by the chair of the session, Lester B. Pearson, that the FAO "will bring the findings of science to the workers in food and agriculture, forestry and fisheries, everywhere; and it will bring the practical problems of these workers everywhere to the attention of the scientists" (1945, 3).

As a specialized agency of the UN, the FAO was to help governments improve the "nutritional status of people" and the "welfare of agricultural producers," (Tolley 1949) as well as bring about a more just environment for families living with poverty, illness, or poor dietary health. It was understood that the welfare of food

producing families and that of food itself were interdependent. Recognizing such interdependence called for a reorientation of primary resources to meet nutritional needs and to supply needed foods to populations all over the world (FAO, 1945). In the name of "rural social welfare," the objectives of the FAO and member governments included: measures to bring adequate nutrition within reach of all rural people; measures to make available to rural people everywhere the benefits of modern science for adequate health, sanitation, housing, electricity, and education; and provisions for improving conditions of all rural people (FAO 1945, 4).

Through informal conferences held with representatives of the FAO, ILO, the World Bank, and the International Monetary Fund, it was recognized that the population data furnished by member nations were lacking in international comparability and could not be relied upon. Therefore, in 1947 it was thought that new data needed to be collected in order to remedy the global issues of rural social welfare. For this purpose, the UN and its Specialized Agencies demanded a whole range of statistical data. These data included: a table of estimates of the total population of all countries; estimates of population by sex and age groups; estimates of the labour force, by sex and age, of population by urban-rural classifications, and of numbers of families, households, married couples for the purpose of analysing trends in various commodities and for the study of housing requirements; and statistics and estimates relating to literacy and educational levels needed for studies on international economic and social problems (UN 1947, 2-3).

In line with the scientific objectives to improve rural social welfare, a broader FAO mandate involved promoting national and international action on issues related to developing scientific knowledge on nutrition, food, and agriculture, and improving the spread of public knowledge on nutritional and agricultural science and practice (UN 1975, 902). Numerous FAO missions were introduced to help solve food and agricultural problems in member countries and to recommend appropriate changes. The FAO also studied methods of processing agricultural products, "improving" nutrition and agricultural production, and controlling infestations. This form of FAO activity relied upon an expert knowledge-base that was established through FAO programmes, such as technical assistance. At the end of 1951, a total of 171 FAO experts were drawn from 38 countries and were working in 35 countries, on questions ranging from land, water, and forest development to nutrition and agricultural economics. During the same time, a total of 95 fellows were appointed under the FAO fellowship programme for training local agricultural leadership. By the end of 1951, the FAO had undertaken to involve an additional 122 experts and to provide training facilities for a further 156 fellows (UN 1952, 879).

In these early years, the FAO was not only involved in producing a science of rural social welfare through a reliance on professional expertise; it also fostered the development of numerical techniques of governance to remedy the problems associated with rural social welfare.

NUMERICAL TECHNIQUES OF GOVERNANCE

I. The Production of Census Knowledge

In 1930, the International Institute of Agriculture (FAO's predecessor) launched the first World Census of Agriculture. Assessing the food problem required a holistic and replicable methodology found in the regular application of multiple censuses on population, housing, and agriculture. In the production of census knowledge every decade thereafter, we are able to witness how particular domains became conceived, marked, and calculated.

A global census of agriculture not only accounts for the amount of food that exists in the world, but publicizes who is and who is not using "modern" technology and fertilizers, exhibiting "satisfactory" land tenure patterns, or demonstrating "normal" employment practices.

There are a number of points to be made about these world censuses. First, by the 1940s, an interest in the World Situation had created a new space calculable through the trade of particular products. Within the decade of the 1940s, a dichotomy of North and South corresponded with "modern" and "underdeveloped" agriculture. This dichotomy took hold through the use of an emerging language of science, experts, and efficiency on the one hand and of poverty, the

needy, and the disadvantaged on the other (FAO 1949a, 2-3). Censuses of the "World" enabled FAO experts to envision a "gap" that needed to be closed in order to address the "global food problem." Closing the gap involved particular solutions from the experts, usually in the form of technical assistance ("better" tools, seeds, and advice).

Second, within the context of these censuses, countless systems of classification were created in order to develop a grid of comparability. All known crops of international importance were named and indexed. Food was broken down into particular nutrients, such as calories, proteins, and vitamins; production levels could be forecast (e.g., citrus production could be forecast through the "limb counts" of trees); a whole range of soil types were identified and assessed in terms of their need for "requisites"; and crops once thought of as relatively synonymous became distinguished as different items. Through these systems of classification, censuses further developed agriculture as a calculable space.

Third, a problem emerged in how to take account of global diversity and national needs and still meet the goal of standardizing agriculture and agricultural populations. In the 1950 census, the problem was resolved by developing two lists of agricultural questions, a short list "limited to those items which are of major importance in the world's agriculture" which all participating countries were asked to consider (FAO 1948, 4) and a long list which was more detailed and recommended for "countries with a more developed system of agricultural statistics" (FAO 1958, 11). That lists existed at all reflects the FAO's efforts to ensure comparability and to discourage the inclusion of crops or practices of insufficient quantity to be of value to the global scene. By the 1960s, the FAO could refer to diversities as regional adaptations to the global picture, rather than as distinctions that needed to be considered on their own terms (FAO 1969a).

Census "agents," trained in the science of standardization, produced new knowledge pertinent to rural social welfare within very specific, "globalist," parameters. It was through world censuses that rural diversity was placed into a single moral universe called the food problem - the social order through which such diversity was thereafter compelled to be understood and governed.

2. The Production of Commodity Knowledge

The information produced by FAO specialists on the situation of nutrition, food, and commodity production in countries around the globe became known as "commodity intelligence." Such technical information was transmitted to member Governments through commodity bulletins and reports. In the area of nutrition, for example, the FAO issued reports designed to enable member Governments to obtain basic standardized information. These reports included information on calorie requirements, food composition tables, and dietary surveys (UN 1975, 906).

Commodity intelligence was not simply technical information that the FAO compiled on food supplies, consumption levels, or nutritional deficiencies of member countries. It was information that was produced through the promotion of research, education, and extension services and through the use of specialized knowledge on food consumption, food conservation and technologies, land use and management practices, agricultural and soil science methods, and water conservation practices. Such specialized commodity knowledge not only relied upon the power of expertise, but it promoted the further development of comparable national statistics, agricultural censuses, and international classification methods, the bases of which remain in assessments of food and agriculture today. [2]

As early as 1950, the FAO requested data from 36 member Governments on the nature of each development project planned or under execution in their respective countries, its present technical status, methods of domestic and foreign financing, and the need for foreign investment. These and other similar data were transformed into information based upon world wide food surveys and classifications. For example, one popular statistical method of obtaining information on food consumption at the national level was, and still is today, the preparation of "food balance sheets."[3] The data presented in food balance sheets were used to make a "rough assessment of the adequacy of total available supplies in relation to the needs of the people" and this assessment was thought to "indicate the direction in which food supplies need to be adjusted" (FAO 1949b, 3-4). In 1950, a new set of 44 food balance sheets was issued covering

all the principle food commodities classified in eleven food groups for 35 countries. Through this numerical technique, information on the production, utilization, and consumption of national food supplies would be made available, and policies, programmes, and documentation would be initiated in light of this information.

GOVERNING POPULATIONS THROUGH EXPERT KNOWLEDGE

The FAO mandate to improve rural social welfare required a labour of documentation from statistics, censuses, and surveys, to a new genre of explorations of rural domains that attempted to render rural populations knowable and calculable in new ways. This process demanded expert knowledge and linked professional experts to advisory committees and training centres. FAO standing advisory committees were a case in point as they consisted of world experts who determined how much food should be produced, consumed, and monitored for particular populations. Their activities were initially carried out through the development of training centres designed to remodel existing knowledge on the science of food and on food producing families. Training Centres in statistical methods, in particular, were established throughout the world as part of the FAO's "Technical Assistance Programme." The purpose of these Centres was "to impart instructions in census principles and techniques," learn from countries with longer census experience, show how things fit "into an overall census programme" and "to promote uniformity" (FAO 1969b, 15).

Statistical training centres were introduced in Far East, Near East, and Latin American countries to further develop statistical skills and know-how for numerous participants, consultants, and government employees. They were set up to assist governments in collecting population and agricultural statistics. In 1949, for example, a Statistical Training Centre for the Near East was established in Cairo. It provided training to a variety of personnel, such as economic and statistical analysts, on issues relating to the sources of data for economic analysis in other countries and the methods of data collection (e.g., tax records, birth certificates, price control records).[4]

Professional knowledge, training, expert skills and knowledgeable judgements animated and legitimated a complex FAO bureaucracy dedicated to improve rural social welfare.

CONCLUSION

An historical consideration of the Food and Agriculture Organization (FAO) of the United Nations reveals how numbers have been integral to the international governance of food, people, and land since the 1940s. Calculation by number was an especially effective mode of assessment in the highly politicised and dynamic environment of the 1940s to 1960s: numbers offer the illusion not only of taming chaotic spaces (since such spaces appear to become more easily "knowable" and docile through numerical calculation) but also of political disinterest (since statistical methodologies are seemingly objectively-derived). Our analysis suggests that the FAO offered a genre of explorations of the "other" world by rendering this world knowable and calculable in a new way. Through the use of censuses and statistical information, "underdeveloped" populations and their governable spaces became inscribed, compared with others, and ranked in terms of such indicators as "rate of growth." These postcolonial statistics gradually revealed an underdeveloped population as a domain with its own specificity and with social risks for its inhabitants. In this sense, we owe much of our knowledge about the world today to particular numerical strategies that attempted to reduce the complexity of social relations in rural "welfare" contexts in the name of governing food production.

This brief review offers further insight into current criticisms of how human beings became constructed and abused as "populations" within the development agenda of the last century (Escobar 1995; Rahnema and Bawtree 1997; Sachs 1992). Feminist authors have pointed to the particular damage done to our understanding of women's relationships, lives, and work through this "accounting" approach to the world, and the need to deconstruct this knowledge if development is truly to benefit women in the future (Duden 1992; Harcourt 1994; Waring 1990). However, the deep connection between numbers and governance, as indicated in this assessment of the work of the FAO, indicates that such a deconstruction

represents not just an alternative development perspective but a major political challenge.

Numerical governance reduced the political and cultural complexity of the social relations that organized agriculture in most of the world, and brought to the fore food as a discrete commodity and the techniques that ensured its increased production. This creation of new calculable spaces shifted conceptions of gender (and race) in ways that we still do not fully understand. Any contemporary analyses of the multiple relationships between women and food must be cognizant of the deep and pervasive impact that this historical reconceptualization has had on how we assess some of the world's social problems.

ENDNOTES

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2. The remarkable similarity in approach can be seen in the *Programme for the World Census of Agriculture 2000*, FAO Statistical Development Series, No.5, FAO, Rome, 1995.

3. In a lecture on the purpose of statistical training centres, the Director of Economics and Statistics Division of the FAO, H. R. Tolley, explained that nutritional status is studied by collecting and analysing statistics of the consumption of different foods. For the FAO this is done by means of "food balance sheets." Such food balance sheets calculate for each raw food product: the quantity produced; the net importation or exportation; the quantity used for purposes other than human food; the total supply remaining for human food; the supply per capita in kilograms per year, and the average nutrition value per capita per day in terms of total calories and of proteins and fats (H.R. Tolley 1949).

4. For more information on this Centre, see: C.A. Gibbons, 1949, "Statistical Training Centre for the Near East: Agricultural Statistics," Lecture 1. FAO Microfiche# 63490-63493; M. H. Hansen (Assistant Director, Bureau of Census, U.S.), 1949. "Statistical Training Centre for the Near East: Lectures by Mr. M.H. Hansen. Sampling Methods." FAO Microfiche #63494.

REFERENCES

Duden, B. "Population," *The Development Dictionary*, Wolfgang Sachs, ed. London: Zed Books, 1992.

Escobar, A. *Encountering Development: The Making and Unmaking of the Third World.* Princeton: Princeton University Press, 1995.

FAO. *Report on the First Session of the Conference of the FAO, Quebec City, Canada, Oct.16-Nov.1, 1945.* Washington, D.C.: FAO, 1945

_____. *Program for the 1950 World Census of Agriculture.* Washington, D.C.: FAO, 1948.

_____. *The State of Food and Agriculture: a Survey of World Conditions and Prospects.* Washington, D.C.: FAO, 1949a.

_____. "Dietary Surveys: Their Technique and Interpretation," *FAO Nutritional Studies*, No. 4, Washington, D.C., 1949b.

_____. "Census Methodology," *Report on the 1950 World Census of Agriculture*, Vol. II. Rome: FAO, 1958.

_____."Methodology," *Report on the 1960 World Census of Agriculture*, Vol. III. Rome: FAO, 1969a.

_____."Programme, Concepts, and Scope," *Report on the 1960 World Census of Agriculture*, Vol. II. Rome: FAO, 1969b.

Harcourt, W. "Negotiating Positions in the Sustainable Development Debate: Situating the Feminist Perspective," *Feminist Perspectives on Sustainable Development,* W. Harcourt, ed.. London: Zed, 1994.

Ilcan, Suzan and Lynne Phillips. "Mapping Populations: The United Nations, Globalization, and Engendered Spaces, 1948-1960," *Alternatives* 25 (2000): 467-89.

Moser, Caroline. *Gender Planning and Development: Theory, Practice and Training.* London & New York: Routledge, 1993.

Pearson, L. B. *Report on the First Session of the Conference of the FAO, Quebec City, Canada, Oct. 16-Nov. 1, 1945*, FAO, 1946.

Rahnema, M. and V. Bawtree, eds. *The Post-Development Reader.* London: Zed, 1997.

Rose, Nicholas. *Powers of Freedom: Reframing Political Thought*. Cambridge: Cambridge University Press, 1999.

Sachs, W., ed. *The Development Dictionary: a Guide to Knowledge as Power*. London: Zed, 1992.

Tolley, H. R. "Purpose of Statistical Training Centres," *Statistical Training Centre for the Near East*. Lectures by H.R. Tolley, Director of Economics and Statistics Division. 1-17 October, 1949. FAO Microfiche #63490 (no page numbers).

UN. "Development of Population Data and Estimates – Memorandum Submitted by the Secretariat," Economic and Social Council. E/CN.3/27. August, 1947, pp. 3-5.

_____. *1951 Annual Review of United Nations Affairs*. New York: New York University, in cooperation with the Department of Public Information of the United Nations, 1952.

_____. *Yearbook of the United Nations, 1950*. Department of Public Information, UN: NY, Klaus Reprint Co., Melwood, NY, 1975.

Waring, M. *If Women Counted: A New Feminist Economics*. (Paperback) New York: Harper Collins, 1990.