

Wall-to-Wall Fieldwork: Some Guidelines for Secondary Data Collection in Developing Countries

The issues and some rules on using other people's data were previously aired in Naga (January 1988, p. 6-7) by Daniel Pauly. It seems to be both a perennial and widespread problem for researchers. We asked Gregory Scott of the Centro Internacional de la Papa (CIP) in Peru to summarize his views as they relate to the broad agricultural world. The message applies as well to fisheries and aquaculture as it does to other produce.¹

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Introduction

Most researchers studying farm and food problems consider information gathering intended to understand these activities as fieldwork in farmers' fields, in markets or amongst a group of consumers.

Little has been written about "wall-to-wall" fieldwork, i.e., the collection of secondary data in offices, libraries

and laboratories.² Consequently, many researchers tend to underestimate the potential, the process and the problems associated with this type of data collection. The under-emphasis of secondary data reflects in part the tendency amongst some agricultural researchers to consider such numbers to be only regularly published government statistics. In fact, secondary data also include: primary data collected and published by other researchers; results of government research with limited circulation; and even unpublished data or non-numeric information, e.g., maps. Any data collection exercise should begin with some hard thinking about what type of information is really necessary – be it primary or secondary. Furthermore, once secondary data are found, their accuracy must be assessed before they can be effectively utilized.

Why Collect Secondary Data?

There are at least three reasons to consider collecting secondary data either in lieu of or in addition to primary information. First, secondary data typically cost less time and money to collect than primary data.

Second, secondary data can help define the scope for collection of primary statistics. Secondary data are frequently asserted to be highly inaccurate and therefore primary data are indispensable to get a reliable picture of the situation. However, some secondary data must be collected and analyzed to substantiate this assumption. More often than not, the degree of inaccuracy varies across types of secondary data. Hence primary data may be necessary for some purposes but by no means all.

Third, secondary data can serve to qualify, if not corroborate, primary data. Collection of any information is almost by definition restricted to a particular time and place. One way to put such information in perspective is to compare

¹This is a revised and abbreviated version of a paper presented at the Inaugural Planning Workshop on the User's Perspective with Agricultural Research and Development (UPWARD), 3-5 April 1990, Baguio City, Philippines.

²For a general review of agricultural statistics in developing countries and proposed methods to improve their collection, see Idaikkadar, N.M. 1979. *Agricultural statistics*. Pergamon Press, New York.

the findings based on primary data with those from secondary sources.

What Kinds of Secondary Data Are Available?

Many more categories of secondary data can be collected in developing countries than is frequently realized. The following discussion – by no means intended to be exhaustive – focuses on four categories of secondary data.

Policy and Development Trends

Often one of the most frustrating aspects of food systems research relates to policy implications. Food systems researchers can participate, albeit in absentia, in any number of policy debates to the extent that they are willing to analyze policy papers – written by or for policymakers – that are often quite readily available, e.g., the current Five-Year Plan. A brief revision of these documents can sharpen the focus of the study being undertaken. The basic point is that secondary data can help illustrate the relevance of research not just to a small group of fellow scientists but also to decisionmakers.

Food Production

Four general areas where secondary data can be useful for understanding food production systems are: production trends; location and timing of planting; types of farmers; and costs of production.

Detailed data collection on the production of a particular commodity at a particular time and place can often raise questions about its importance relative to other crops, or production this year in comparison with previous years. Collecting primary data on area planted in different crops is one way to estimate their relative importance. Another would be to review available secondary statistics. At a minimum, consulting the secondary data can help alert the researcher as to the types of crops that are grown and therefore that

should be considered in primary data collection.

Comparing production statistics for different regions can facilitate identification of major and minor areas of production. Extending the tabulation of secondary data to include several different points in time can provide interesting indications of how the location of output may have shifted over time.

In most developing countries, food crops are grown by more than one type of farmer. Researchers can attempt to develop a typology of farmers based on a formal survey or a series of informal interviews. Alternatively, secondary sources can be consulted such as comparing results of farm surveys carried out in different parts of the country.

Production costs for a particular food crop – including the share of total costs

output sold; (iii) prices; (iv) margins; and (v) volumes sold. Often this type of sensitive, economic information is said to be unavailable or unreliable, but without checking one will never know.

One of the most basic issues for any food marketing system is the importance of foreign trade. The volume and value of imports plus exports provide one measure of this importance. There may be genuine concern about the accuracy of official trade statistics, but if nothing else they constitute a convenient benchmark against which the results of primary data collection can be compared.

Food systems researchers are frequently tempted to collect price data so as to be sure of their accuracy. While Holtzman indicates the problems and pitfalls in the use of government price data, he also points out that “researchers

need not be paralyzed if data collection methods fall short of the ideal.³ Rather, analysts need to view prices as approximations which provide insights into the workings of markets, the relative scarcity of resources and incentives facing food system participants.”

Policymakers in most developing countries have a keen interest in the size and evolution of marketing margins for agricultural commodities, particularly those for basic foodstuffs. However, a separate survey questionnaire and reasonable sample size for each type of market participant may require considerable resources.

An analysis of secondary data can provide some general idea of the relative size of the marketing margin of different middlemen. In so doing, it can indicate which margin(s) may merit more detailed data collection.

Food Consumption

Perhaps the most basic consumption statistic about any food commodity is the level of annual per capita consumption. This number – albeit an

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spent on particular inputs (e.g., seed, fertilizer) – can offer extremely useful insights into production patterns. For example, how important are seed costs? Does pesticide use represent a major expense? Deriving estimates of such costs based on primary data collection can require a tremendous amount of time and energy. Alternatively, an approximation of these costs can be formulated using results of previously published farm surveys.

Marketing

Secondary data useful for understanding marketing systems in developing countries include statistics on: (i) foreign trade; (ii) percentage of

³Holtzman, J.S. 1986. *Rapid reconnaissance guidelines for agricultural marketing and food system research in developing countries*. MSU International Development Papers. Working Paper No. 30. Department of Agricultural Economics, Michigan State University, East Lansing.

Table 1. Practitioner's guide to secondary data. Where to find them (● = best bet; ■ = worth a try).

Type of data required	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Agricultural policy	●		●	■	●					■			■	■		
Strategic planning	●		●	■	●					■				■		
Marketing projects	●				●					●	●			●		■
Economic indicators	■		●	●	●					●	■					
Production, area, yield	●					●				●			■	■		
Costs of production	●		●		■		●		■					■		
Farm prices	●		■		■	■	●		■	●	■					■
Farm credit	●		■	■	■	■	●						■	■		■
Farm output projection	●				●											
Farm calendar	●															
Varieties	●								●					■		
Food balance sheets	●		■		●	●				●		■				
Food expenditures	●	■	●	■		●				●			■			
Food consumption	●					●				■		●				■
Nutrition intake	●		■							■		●				■
Foreign trade volume and value	●	●	●	■	■	■				●	■					
Domestic trade volume and value	●	●						■		■						
Urban prices and price indices	●	●		■	■			●								
Income and price elasticities	■		●		■					●		■	●			
Marketing infrastructure	●	●						●		■				■		
Marketing margins	●	●	■		■	■		■						■		
Employment patterns			●	■		●				●			■	■		■
Rainfall patterns	●				■				●	■						●
Maps	●				●			■		●			■			

Where to find them: 1. Ministry of Agriculture; 2. Ministry of Commerce; 3. Ministry of Economics and Finance; 4. Central Bank; 5. Planning Office; 6. National Bureau of Statistics; 7. Agrarian Bank; 8. Central Market Administrative Office; 9. Experimental Station; 10. FAO/World Bank Office; 11. Foreign Embassy; 12. Nutrition Institute; 13. University Library; 14. Bilateral Agricultural Project Office; 15. Weather Station; 16. NGO Office

average for all locations, times of year and types of consumers – provides a benchmark against which to measure various other consumption indicators. A variety of secondary sources can be consulted to estimate this statistic: published results of household consumption or nutrition surveys; findings based on farmer interviews; and estimates published by the Ministry of Agriculture or Bureau of Statistics derived from national production and estimated utilization patterns. Some combination of the above can serve as a check on the veracity of any single estimate.

Where to Find Secondary Data

Typically, many more institutions have information about food production, consumption and marketing than may be first apparent. These include: (i) public sector sources; (ii) multilateral and bilateral agencies; and (iii) private sector sources.

Given that so many different institutions and locations have some secondary data – and not every organization may have the same statistics, the attached guideline indicates which

type of data are most likely to be found where (Table 1). It includes most likely (“best bet”) and possible (“worth a try”) locations for each subset of data indicated.



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