

Toward an Integrated Agricultural Information Consolidation Scheme for Farmers in the Nigerian Rural Areas

by

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ABSTRACT: It is assumed that farmers in the Nigerian rural areas require three types of information: technology-oriented, product-demand oriented, and input-supply oriented. Extension workers have been disseminating the first type of information to the inadvertent neglect of the other two types. The farmers have not been able to take advantage of product-demand and input-supply information because of their distance from the source of this information. The high incidence of illiteracy among farmers renders a normal print medium unacceptable in the dissemination of information. A new approach toward agricultural information handling and dissemination methods is proposed. Agricultural librarians in Nigeria should reprocess and repackage this information in more appropriate media. The repackaged information could be disseminated by the extension workers in conjunction with technology information. A much closer and complimentary cooperation between extension workers and agricultural librarians is needed to achieve this.

RESUME: C'est un fait acquis que les cultivateurs des secteurs ruraux du Nigéria ont besoin de trois catégories d'information, soit: une information orientée sur la technologie, la seconde sur les débouchés de la production et la troisième sur les fournitures de produits chimiques agricoles, intrants. Outre le fait que les expansionnistes diffusent le premier type d'information en négligeant, par inadvertance, les deux autres, il convient de remarquer que les cultivateurs ne sont pour la plupart, pas en mesure de les mettre à profit, en raison de la distance les séparant des sources d'information et du taux élevé d'analphabétisme du milieu rural, qui annule la portée de l'information imprimée. Or c'est justement sous la forme de littérature imprimée que se présentent l'étude des débouchés des produits agricoles et les données sur la fourniture des produits chimiques agricoles d'appoint. Il découle de ces considérations que l'orientation donnée jusqu'à présent aux méthodes de présentation et de diffusion de l'information relative aux deux points cités plus haut, doit être remaniée. Les bibliothèques spécialisées en agriculture doivent se convaincre d'apporter des réformes à leurs envois de documentation afin que l'information soit réellement à la portée des cultivateurs. Une fois la nouvelle présentation mise au point, les expansionnistes se chargeront de diffuser efficacement et simultanément les trois catégories d'information. Cette proposition a pour but de renforcer la coopération entre les travailleurs expansionnistes et les bibliothèques d'agriculture, sur des bases complémentaires.

RESUMEN: Se asume que los agricultores en las áreas rurales de Nigeria requieren de tres tipos de información, a saber: orientada hacia tecnología, orientada hacia la demanda de productos y orientada hacia la oferta de insumos. Los extensionistas han estado difundiendo el primer tipo de información con una negligencia inadvertida hacia los otros dos tipos de información. Los agricultores no han podido aprovechar los dos últimos tipos de información, debido a las distancias de las fuentes de dicha información a las localidades de los agricultores y al alto grado de analfabetismo entre estos agricultores, lo cual hace que los medios impresos en los que viene esta información, sean intelectualmente inaceptables para los agricultores. Es como resultado de estos obstáculos que se propone un nuevo enfoque del manejo de la información agrícola y del método de difusión de la información sobre demanda de productos y oferta de insumos. Los bibliotecarios agrícolas de Nigeria deben, por necesidad, dedicarse a reprocesar y reempacar los tipos de información sobre demanda de productos y oferta de insumos en medios aceptables intelectualmente por los agricultores. A su vez, la información reempacada se le entrega a los extensionistas quienes simultáneamente la difundirán junto con el tipo de información tecnológica. Un factor crucial de esta propuesta es la necesidad de desarrollar una colaboración más estrecha entre los extensionistas y los bibliotecarios agrícolas, con base en una relación complementaria.

ZUSAMMENFASSUNG: Es wird angenommen, dass Landwirte in nigerianischen laendlichen Bereichen drei Informationstypen benoetigen, naemlich: den Technologie-orientierten, den Produkt-Nachfrage-orientierten und den Betriebsaufwand-Angebot-orientierten. Solange die Berater nur den ersten Informationstyp verteilen und die beiden anderen Informationstypen vernachlaessigen, sind die Landwirte nicht in der Lage, aus den beiden anderen Informationstypen Nutzen zu ziehen. Der Grund liegt in der Entfernung der Informationsquellen von den Wohnsitzen der Landwirte und im hohen Anteil von Analphabeten unter den Landwirten, der Gedrucktes - und Druck ist das Medium dieser Informationstypen - intellektuell unannehmbar fuer die Landwirte macht. Wegen dieses Mangels wird ein neues Verhalten in Bezug auf landwirtschaftliche Informationshandhabung und Verteilungsmethode von Informationen ueber Produkt-Nachfrage und Betriebsaufwand-Angebot vorgeschlagen. Die landwirtschaftlichen Bibliothekare in Nigeria muessen die Informationstypen "Produkt-Nachfrage" und "Betriebskosten-Angebot" notwendigerweise in einer fuer die Landwirte intellektuell annehmbaren Form aufbereiten. Die neu gestalteten Informationstypen muessen danach den Beratern ausgehaendigt werden, die sie dann zusammen mit dem Informationstyp "Technologie" verteilen werden. Ein besonders zu betonender Faktor dieses Vorschlages ist die Notwendigkeit, eine engere Zusammenarbeit zwischen den Beratern und den landwirtschaftlichen Bibliothekaren auf einer sich ergaenzenden Basis zu entwickeln.

INTRODUCTION—THE STATE OF AGRICULTURE

Before the advent of the oil industry in Nigeria, agriculture was the mainstay of the country's economy, employing over 60% of the estimated 1983 population of 91 million (Federal Office of Statistics—1983, 1984; Central Bank of Nigeria, 1983.) Cocoa, coffee, palm products, groundnuts and many other agro-allied products were important in foreign exchange. This preeminence of agriculture among the different sectors of the economy led to 16 out of a total of 22 research institutes being designated as agricultural research institutes by the federal government. However, the ascendancy of the oil industry from the 1970's onwards inadvertently relegated agriculture to the background. The "free flow" of money in the country at that time literally killed the agricultural industry. Farmers were no longer getting value for their investments, and many became disenchanted and abandoned their farms for more lucrative jobs in other sectors. The immediate consequence of this was the mass drift to the urban centers. This trend reached its peak in 1983 when the index of agricultural production declined substantially—by about 9.4% compared to increases of 2.7% in 1982; and 2.5% in 1980.

The continuous decline in the country's agricultural production resulted in a heavy reliance on the importation of food items (rice, vegetable cooking oil, milk and livestock products) and, as a consequence, in a trade deficit balance of payment. This was further aggravated by the slump in the oil market. Nigeria's oil boom of the 1970's has become its oil doom of the 1980's. Efforts are now being made to restore agriculture through

research and the provision of incentives to farmers. Incentives range from subsidized agricultural inputs to facilities for agricultural loans from financial institutions.

AGRICULTURE IN NIGERIA

Agriculture in Nigeria is largely characterized by fragmented small farm holdings. Small farmers, unlike their counterparts in developed countries, hardly grow crops or raise livestock beyond the subsistence level. However, the few existing commercial farmers are known to be realizing good returns from their investments through good management supported by good agricultural information sources. The low output of the small farmers has been attributed to numerous factors including the lack of communication of modern agricultural technological innovations by extension workers. Other reasons include inadequate information or the complete absence of information for small farmers concerning inputs (e.g., fertilizers, pesticides, and the correct application of chemicals) and credit facilities; and also the improper channelling of information on government agricultural policy.

Thus, it was the objective of this study to identify the types of information which the farmers require, and to discuss ways in which agricultural librarians can be of assistance to small farmers in Nigeria in supplying their information needs. It is assumed that small farmers, like their commercial counterparts, require three basic types of information in order to function effectively; product-demand oriented information; input-supply information and production-technology information.

PRODUCT-DEMAND INFORMATION

Product-demand oriented information is that information that a farmer requires in order to determine what proportion of his product surplus is marketable, and thus determine the desired output vis à vis the resources at his disposal. Available information includes seasonal prices for commodities, as released by the various commodity boards; Consumer Price Indices, published by the Federal Office of Statistics; and reports of market surveys for agricultural products.

Small farmers are presumed to require this kind of information because they are interested not only in meeting their own food requirements, but also in selling off their surpluses to provide a cash flow with which to meet personal and family expenses.

INPUT-SUPPLY ORIENTED INFORMATION

Input-supply information is what a farmer requires in order to maximize his investments. It includes such things as information on tractor hiring services, credit facilities from agro-financial institutions, and sources for obtaining viable seedlings, as well as prices and sources of supply, and information and local agriculture liaison service centers.

PRODUCTION-TECHNOLOGY ORIENTED INFORMATION

Technology-oriented information, normally a result of research and development, is that information which can lead to increased agricultural productivity when utilized with the appropriate inputs. The main sources of this information are scientific publications such as journals, symposia, and conference proceedings, all of which may be unintelligible to small farmers, whether literate or illiterate. The extent to which this information has been assimilated by the farmers can be estimated by the extent to which it has been incorporated in agricultural practice.

CONSTRAINTS TO THE DISSEMINATION OF INFORMATION

Information flow. Extension workers have concentrated their efforts on technological information to the neglect of product-demand and input-

supply information. This creates an imbalance in the information flow. The three types of information should be disseminated simultaneously, as a complete package.

Communication. Rural Nigeria is characterized by inadequate infrastructural facilities: roads, communications, library facilities, and electricity supplies are poor and impede the dissemination of information to the farmers. For example, where road networks exist in rural areas, most of them become waterlogged during the wet seasons, cutting the inhabitants off from both the urban and other rural settlements. During these periods extension workers are often unable to see the farmers in the fields.

Illiteracy. The high incidence of illiteracy among the majority of Nigeria's small farmers is a major hinderance to the assimilation by the farmers of any information that is presented in a written form. The extension worker's *Advisory Leaflets*, the government's agricultural policy, and lending policies of financial houses become ineffective in such a situation. Some individuals give these publications to the farmers in the belief that their children or the local "teachers" in the community will act as translators. As logical as this may sound, the proposition is fraught with dangers, such as the unavoidable misinterpretations in translation. A translator will only translate within the limits of his or her educational level, and his perception of the subject matter. Information, where it is available, is mostly in a print medium which is inappropriate to small farmers.

SOLUTION AND DISCUSSION

If Nigeria is to meet her projected agricultural production requirements, there is a need to augment, among other things, the information resources for farmers. The dissemination of scientific information to the farmers by the extension workers can only be meaningful if product-demand and input-supply information is simultaneously made available.

It is imperative that the extension workers and the agricultural librarians or information workers evolve a concerted and complimentary cooperation in the dissemination of information. Before the extension workers meet the farmers in the field to disseminate a reprocessed version of technology information, the librarians should be

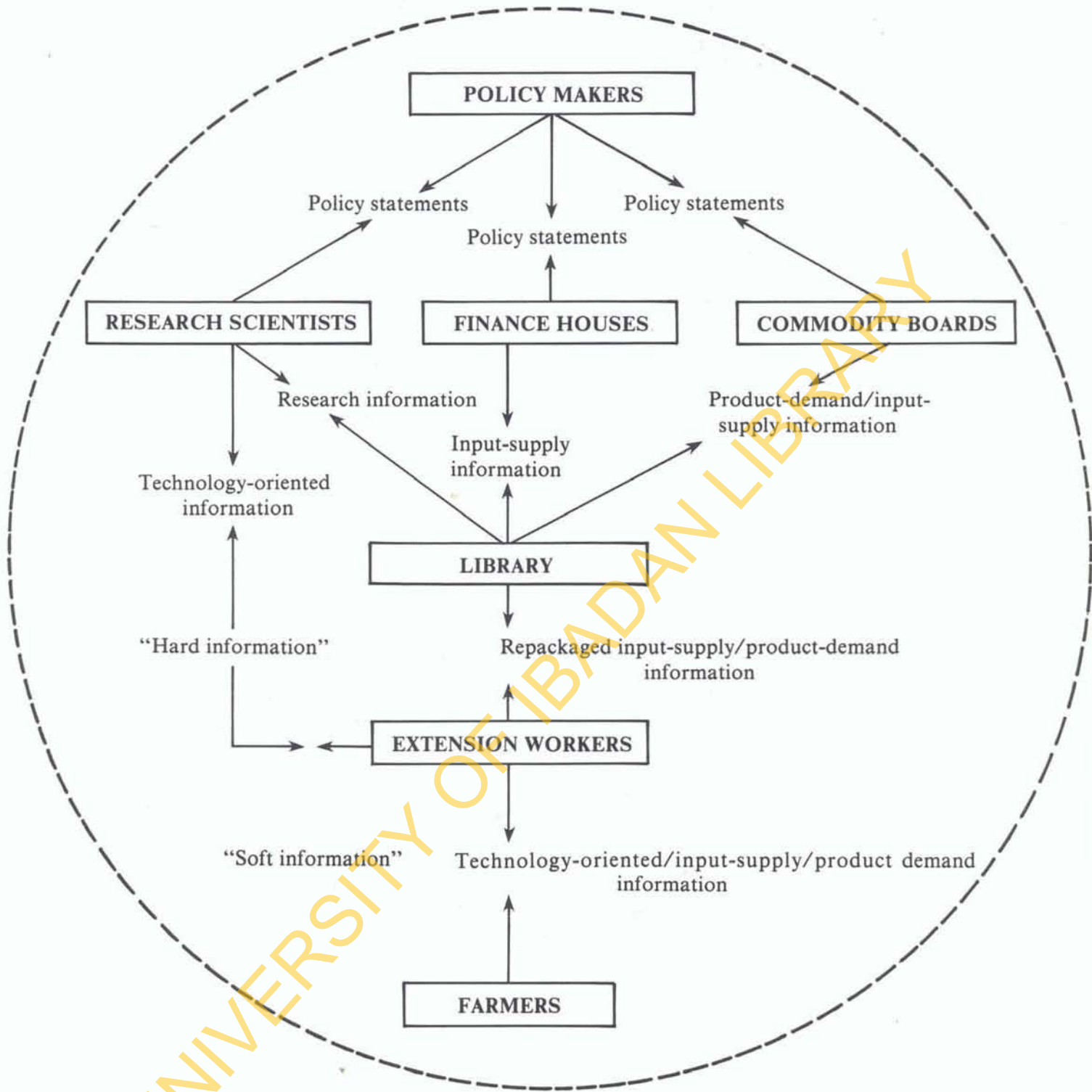


Figure 1. Integrated agricultural information consolidation model.

consulted (see Fig. 1) and supply relevant and repackaged ancilliary information of an input-supply and product-demand nature. This supportive role, apart from complementing the work of the research scholars, would assist the farmers in making decisions on new scientific innovations,

and could help in the optimum utilization of other available resources, as well as reducing the time delay between technological innovation and the adoption of new methods by farmers.

This implies that agricultural librarians should attempt to strike a balance between the print and

non-print media as far as their collections are concerned. Information *per se* should be emphasized, as opposed to the size of the collection. In essence, the librarians must operate within the context of the conceptual framework of information consolidation.

The librarians must not only have the capability to identify sources of information of value to the farmers from the financial houses, commodity boards, government policy makers or from any other sources, but must also be capable of restructuring such information through the process of analysis, synthesis, and repackaging in a format other than print. Such repackaging should take into consideration the prevailing illiteracy, cultural divergence, and idiosyncracies of the small farmers. An enormous implication of this is the effect on finance, personnel, and infrastructural facilities. The librarian would be expected to convince the management of the institution of the need for an additional budgetary allocation.

CONCLUSION

The dissemination of agricultural research results alone cannot help farmers to increase the level of agricultural yield. Research results can only have a meaningful impact on the farmers production level if backed up by ancillary information such as product-demand and input-supply information.

The high incidence of illiteracy among small farmers, who constitute a very large percentage of the Nigerian population, has rendered the print medium unacceptable as a means of disseminating information. As a result, information needs to be reprocessed and repackaged in other media such as cassette recordings, films, and radio.

The resulting advances in agriculture could not only reduce the farmers input cost in terms of money, time, and labor, but would go a long way toward increasing the level of agricultural productivity in the country.

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