

# **PVO Commodity Management and Accountability**

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for

Food Aid Management

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Food Aid Management is an association of private voluntary organizations dedicated to improving the efficiency and effectiveness of food aid. From time to time we are able to publish documents of interest to food aid managers.

This document, PVO Commodity Management and Accountability, was written by Lizette Echols while she was serving as a member of Food Aid Management's Accountability Task Force.

It introduces the reader to the controversial and often confusing subject of commodity accountability, leading him step-by-step through the process of gathering useful information. Lizette also provides us with a thought-provoking view of the PVO's relationship with counterpart organizations.

We hope you will find this paper useful and welcome your comments. Please feel free to duplicate or use this paper in any way which will improve food aid.

Sincerely,



Thomas E. Zopf  
Director

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## **Overview of Current Situation**

During the past decade the complexity of and pressures on food aid programming increased many fold. Contributing factors included the growing demand that food aid programs be justified in terms of sustainable development impact. There was a decline of available cash resources because of expanding needs and costs. There was also the persistent expansion of populations vulnerable to chronic hunger, despite advances in agricultural production. Finally, an increasing number of donor agencies and Private Voluntary Organizations (PVOs) looked to food aid to assuage hunger or finance development.

Hunger projections for the 1990s indicate an increasing competition for the anticipated stocks of donated food. The pressures on PVOs and their counterparts to improve the effectiveness and efficiency of their food-use programs through better design and management may be expected to intensify beyond the current levels.

In recent years much heat and little light has been generated by discussions of PVO management accountability in food-use programs. PVOs contend that donor standards are unrealistic, auditors are arbitrary and often prejudiced against food aid and PVOs, and that donors are not willing to pay for the rising and heavy costs of accountability. They further argue that the growing number of food aid donors, each requiring a different set of reports widely varying in levels of detail, are compromising the PVO's ability to get the job done.

Donors, under increasing public pressure for solid, clear accounting and solid results from such programs have become more frustrated and skeptical of PVO reports, of the efficacy of PVO field-monitoring systems, and even of the PVO commitment to and possession of accountability standards.

Relatively new entrants in the food aid field, donors and PVOs alike, are confused and discouraged by the apparent complexity and tension surrounding the issue of accountability. Even some PVOs with a long tradition in food programming are reassessing their continued involvement in that field, primarily because of the accountability issue.

Conceptual and pragmatic difficulties must be clarified and overcome before significant advances can be made on that issue. Two crucial problem areas are:

1. The PVO perception that donor regulations are conflicting, unrealistic, and often arbitrarily applied versus the donor's perception that PVOs either lack or imperfectly comply with adequate accountability standards;
2. The increasing tension between donors and PVOs over the proliferation of reporting requirements. Donors apparently consider PVO reporting to be deficient in thoroughness and accuracy and PVOs resent the fact that "paper accountability"--as epitomized in reporting systems dictated by central bureaucracies--absorbs a growing proportion of PVO financial and human resources which interferes with getting the job done in the field.

This paper briefly examines some of the causes of the above problems. It attempts to put into clear perspective various aspects of PVO food program management which appear to be shrouded with misconceptions. Most importantly, it reviews points which PVOs might find useful to consider when designing management systems and their attendant information systems.

## **Causality and Clearer Perspectives**

When one examines the causes of the aforementioned points of contention, one finds there is truth on both sides of the conflict. One also sees the need for clearer definition and understanding of the following subjects:

1. The meaning and substance of the term standards in contrast to other terms denoting their practical application.
2. The donor's role in food aid programming and consequent need to know.
3. The PVO's management role in and control over food aid programs.
4. The difference between donor reports and accountability.
5. The role of information in food aid program management and the key considerations in the design of efficient management information systems.

### Standards

The arguments over standards most often concern procedures, systems, and regulations. Regulations are not standards, but rather are the pragmatic expressions of or means to achieve the ideal state of being or behavior set forth in standards. A recent study of PVO documents suggests that most have established accountability standards for their food aid programs in project effectiveness and resource use that are at least as rigorous as those set by the principal donors. However, the same review finds many PVOs with ill-defined procedures or imperfectly designed systems to ensure that their high standards are met.

Conversely, one sees donors trying to ensure accountability by imposing centrally designed and unilaterally applied systems and procedures, some with regulatory

force, on the PVO community. Quite often such are mistakenly assumed to be standards. Understandably, many tensions and problems arise from the imposition of these procedures and systems.

To attain maximum efficiency and effectiveness, procedures and systems must be generated from management realities in the field. If the field represents a universe of relatively homogeneous operating conditions, a single system and set of procedures may function adequately for all action sites.

For example, in managing commodity budgeting and marine shipments, the operational realities are mainly uniform and can be controlled through a single system. In the field management of projects (even projects of the same type such as Maternal-Child Health or Food for Work) that homogeneity does not exist. Cultural differences, varying program objectives and operating conditions have a major impact on management realities.

No single system or set of procedures will function well for the management of food aid projects, whether they are classified by ultimate objective (relief or development) or by temporal considerations (emergency, rehabilitation, or long-term development) or by operational mode (FFW, MCH, Vulnerable Group Feeding, School Feeding). Thus the burden of designing and operating field management systems rests with the PVOs and their counterparts--more specifically with PVO field offices rather than with their central headquarters.

Donors and PVO head offices should reach agreement on a clearly defined set of standards, freed from the confusing intrusion of systems and procedures which try to impose uniformity, ignoring the true complexity of food project management in the field. Beyond the setting of clear, mutually acceptable standards, donors and PVO head offices must clarify what they need to know. They must outline what they need to know in what level of detail and how often to fulfill their own limited management role in food aid programs and to satisfy their accounting responsibility to their various constituents.

Management Roles--The Need for Information by the Donor, PVO, and Counterpart

The determination of management roles and consequent information needs represent another facet of the accountability problem. Here there is major confusion.

The individual donor is not a single entity but is comprised of an executive agency, a body of legislators that, in turn, represents a body of individual citizens to whom they are accountable. The individual PVO is also not a single entity. It is made up of field offices, accountable to both headquarters and local counterparts, and head offices divided into executive and policy-making groups accountable to donors composed of government agencies, foundations, and private individuals.

Those distinctions often are not sufficiently clarified particularly when information needs are being assessed. In fact the only people at PVO and donor headquarters with a management role in food programs are those responsible for the actual transfer of food and cash resources and for reports on their use. This represents an extremely limited, but important, management role.

It requires information on specific food needs, current stocks and consumption rates; on transport options and costs, and on storage capabilities and constraints. Ultimately these people need to know if the food reached its destination on time and if it was used for the intended purpose. They need to know how much food was lost and why--and which losses can be recovered or avoided in the future.

Policy makers at PVO and donor headquarters share similar information needs in substance, form, and frequency. They need to know who is receiving benefit from the program, in what way, and to what degree relative to the costs involved. They need to know why the program is or is not having the intended impact. This is not management information, even though management information systems may contribute to providing it. This information is not efficiently generated by routine

monitoring or accounting systems. Such information should be generated by evaluation systems that have a different data base and a much longer time cycle for collection and analysis.

A cursory review of existing so-called management reports required by PVO and donor headquarters finds an undifferentiated mix of management and policy making information, submitted with unnecessary frequency with unnecessary amounts of detail. This reflects a fundamental confusion about roles and information needs at the top that has major implications at the field level. The energy, personnel, and financial resources needed to collect, collate, analyze, and present the data to provide such information is considerable and, because the information is unnecessary (either in detail or frequency required), it is wasteful and counterproductive. It diverts PVO and counterpart resources from project implementation.

Counterpart governments are both victims and perpetrators of such wastage: victims because they are required by donors to use their scarce financial and human resources to satisfy unnecessary levels of the donor's "need to know"; perpetrators in that they, too, are unclear about their own management and policy-making roles and consequent information needs. Thus, they add even more confusion and wastage to an already messy situation.

Consider this example: for some reason (probably related to the women's movement and pressure on policy-makers to appear sympathetic), some food programs are required to provide gender specific information on beneficiaries. Mistakenly, the collection of data related to such information is demanded of the routine field monitoring systems--even though the donor may only request such information on an annual basis.

Counterpart governments often take the mistake even further, requiring teachers to record and report monthly on the gender of their students. This seemingly simple request involves the use of more complex recording and reporting formats by thousands of teachers, adding up to thousands of hours wasted daily in the collection of unnecessary data.

Food program management does not use and therefore does not need such information. Policy makers, both at donor and counterpart government levels, may need such (though one must question its importance), but that can be generated far more efficiently by random-sampling. For example, a government or PVO policy maker needs to know what percentage of the beneficiary population over a two-year period was female. They do not need to know and can do nothing with information received monthly or annually that 265,000 girls participated in the school lunch program. Absolute numbers have little relevance for policy makers. Even for those responsible for higher levels of program management, they are generally meaningless because they are of highly restricted use value for day-to-day management.

To calculate monthly local transport requirements, a food project or feeding site manager needs to know, on the average, how many people may be expected to eat what amount. Knowing the sex of the consumer has no management relevance.

A thornier, more complex issue centers around the management role of PVO field offices. From much of the language of current regulations and discussion on PVO food programs, it is implied that PVO field offices exercise almost total management control over food program resources, site personnel, and their activities. This was true a few decades ago but is no longer the case.

For many reasons, such as the costs and numbers of beneficiaries involved (hundreds of thousands or millions in many PVO country programs), food-based PVO programs tend to be much larger and less susceptible to direct PVO control than the PVO's normal cash-funded development programming. Many PVO food programs are components of national-scale efforts, operating through central government agencies and institutions with similar objectives. Here we are speaking of MCH, School Feeding, Pre-School Feeding, as well as FFW and large-scale emergency relief programs. These are by nature, by objectives, and in operational terms, institutional programs. This is true in the developed and underdeveloped countries alike.

The fact that PVOs involved in such programs in the underdeveloped countries are not in complete management control of the commodity resource is little appreciated by donors.

In fact, they may not even control the initial food storage point, much less any personnel or infrastructure concerned in the transmission, disbursement, or final use of the commodity. Managerially, the PVO's role in those cases is indirect, though critical. In the final analysis, it resides in assisting the counterpart agency in the design of effective and efficient implementation and information systems, including the generation and validation of accurate accounting information.

The PVO field staff cannot and should not be made responsible for the generation or collection of data from all project sites in their program universe. They possess no management authority over the site personnel who perform the project activities (including food disbursements), keep the daily records, and prepare the initial reports. They do not control the hiring, firing, or advancement of such personnel--nor do they pay their salaries. The PVOs, therefore, cannot be held responsible if such tasks are not done or are done poorly. They can and should, however, be held responsible and accountable for knowing and reporting on what is happening in their program universe. More significantly, the PVO should be held accountable for ensuring that the counterpart has instituted appropriate implementation and information systems, for knowing where and why such systems might be failing and, finally, for ensuring that procedures for quantifying and recovering avoidable losses and overcoming other management problems are operational.

The above describes the PVO's minimal management role which, in today's programming environment, is quite prevalent. Obviously, PVOs that continue to directly manage the storage, transport, and distribution of commodity using their own staff must be held as accountable as their actual control over the food indicates.

However, in actual terms, the management role in food-based programs of most PVOs is that of management consultant and food-use auditor. Current donor regulations do not always appreciate that reality--perhaps because such

regulations were formulated decades ago when PVO food programs required more direct PVO control.

In today's world a direct management role for PVOs in many food-based programs is neither necessary nor desirable. Many third-world governments have achieved levels of institutional sophistication and capability to allocate and transfer resources. Although they might sometimes need or desire outside advice to do such tasks more efficiently, they do not need PVOs to do such tasks for them.

Many PVOs and donor agencies have advanced in the sophistication of their own development theories to incorporate the growth of local village-based management or national institutional capabilities as a maxim for sustainable development. Thus no matter what operational capability a third-world government may have, both PVOs and donors are anxious to design programs which minimize the PVOs' direct control over project activities and resources. This is a necessary and important trend in development practice. Unfortunately, the same thought energy has not been applied to redefining the PVO's new management role and consequent accountability. This needs to be done.

#### Paper Accountability Versus True Accountability

It is through the sharing of information that one party discharges its accountability responsibilities to another party. In organizations such information is generally passed by means of a more or less formalized set of reports, submitted at prescribed intervals. The act of reporting to donors, appears to have become synonymous with accountability itself. Thus, if a PVO submits the required donor reports at the required frequency, it presumably fulfills the mandates of accountability. Some PVOs have designed their field information systems primarily to satisfy donors' reporting requirements. This can be called "paper accountability." Ironically, these same PVOs often experience unfavorable donor audits citing poor management or flawed accountability.

The problem stems from confusion of paper accountability with true accountability. They differ in three ways: quality, scope, and intent. True accountability has:

Quality: The information transmitted has reliability, objectivity, relevance, consistency, comparability, clarity, comprehensiveness, and materiality. These terms are normally used to define criteria for accounting information in financial reports but apply equally to information generated by all aspects of PVO commodity program management.

Scope: True accountability encompasses more than reporting to outside parties. All reports in the program management system used for direct oversight functions of control, planning, and feedback are included. The information presented in inventory, shipment, transport, and distribution reports is a key element in management accountability and should have the characteristics listed under Quality.

Intent: One expects the recipient of the shared information will use it to make a decision or take action. For donor public and policy-makers, the decision centers on the continued resource support of the program. For program management participants, the information provides the basis for immediate or future action to be taken in the deployment of all resources. All information supplied to assist a decision-making process (whether generated through evaluation, routine record keeping, or monitoring) comprises program accountability. The PVO and counterpart are responsible for: providing such information in its primal form; handling its processing, analysis, and validation; and seeing that it meets the criteria discussed above in Quality.

True accountability is different from paper accountability, where the act of reporting is considered the end in itself. The purpose of true accountability is to support informed decision making and action.

Much of the information supplied by PVOs to food donors and aid agencies constitutes paper accountability. It does not represent a summary of information

derived from functional accountability systems for program and site management. Neither does it reflect the donor's or aid agency's need to know. Rather, the required information in donor formats might be characterized as that which the donor thinks it wants or ought to know without reference to its actual usage. The truth of this observation may be tested by simply asking the question, "How has this been used in decision making?" A similar question can be used to test the validity of a prescribed reporting schedule: "When is this information needed to make some decision?"

Another indication that PVO reporting to the donor is largely paper accountability is that the information requested is often extraneous to achieving PVO and counterpart program objectives and providing tight management. Paper accountability elicits one of three field responses, none of them desirable.

In the first response the PVO or counterpart simply makes up information basing its reports on false data and guesses. This may occur when the donor wants information that is too ambiguous, costly, dangerous, or inaccessible for collection and validation at the necessary frequency. This is the worst-case scenario.

In the second response the PVO and counterpart design management information systems mainly to fulfill donor reporting requirements, which do not fulfill their own needs, and results, inescapably, in poor management. This unfortunate scenario is likely to occur when the PVO or counterpart has not yet established its own information system and does not have the financial or human resources to satisfy both its own and the donor's information requirements.

The last response often happens when the PVO or counterpart does have its own system, as often happens with large, institutionalized programs. They then use their own system to gather extraneous data for the donor, as well as that needed for their own purposes. This weakens management by using limited resources in unproductive pursuits.

## Management Information Systems

### Definitions:

Management: A process of integrating assets, implementation, and information systems to achieve a set of objectives. Management includes both the planning and control of a dynamic process. Management is distinct from program design or programming in that programming concerns justifying what the program is to accomplish and why, whereas project design merely says how it is to be accomplished through day-to-day action.

System: A mechanism for combining various components into a working relationship to achieve some objective.

Implementation (or Action) Systems: Mechanisms for getting certain actions performed (shipping commodities, transporting commodities to sites, distributing food to beneficiaries).

Information Systems: Mechanisms for finding out what has been done and what still needs to be done to do something. For example: financial accounting systems, inventory tracing systems, audit or monitoring systems.

Information: A configuration of data that has meaning in relation to meeting a specific objective.

Data: Bits or pieces of reality (emotional, mental, physical) which may or may not be pertinent to achieving some objective. Data has no value unless it can be used as information to achieve some end.

Reality: Simply, what happens without reference to its personal or universal validity, meaning, or value. If something has been thought, felt, created, or done, it has happened. It is reality.

Purpose of Management Information Systems:

To function effectively, managers need constant and reliable feedback about their implementation systems. That feedback is provided through specially designed information systems. The efficiency of such systems is dependent on their ability to provide the feedback needed by their related action systems' need to know, at the least possible cost, to accomplish its own aim.

Management's action systems, distinguished on the basis of their purpose, may be presented thus:

1. Supply of assets (including transport).
2. Maintenance of assets.
3. Processing or conversion of assets for specific resource use.
4. Distribution or use of resources (including staff).
5. Removal of waste or unusable assets.
6. Scheduling resource use.
7. Preventing resource loss or wastage.

Beyond those specific action purposes, management's overriding goal is to ensure achievement of the overall program goal as defined in the program design plan or organization's purpose and policy statement.

Key Elements:

The validity of any information system depends on its ability to achieve the ends of its related action system. Its efficiency is judged on its performance of that task

with the minimum possible resource use, including personnel time, energy, and knowledge assets.

No information system should be designed without first identifying the purpose of the information, when it is needed, and in what form. Information systems must be designed from end-to-beginning. Each information system must contain three main components:

1. Data;
2. Processing, including data collection, validation, arrangement, summary, and analysis;
3. Presentation of information including mechanisms to ensure that it reaches the right party at the right time with sufficient amount of comprehensible detail. It should be in an understandable form which permits correct interpretation and application (relevance, comparability, reliability, etc.).

In practice, information systems too often start with the identification of relevant data and its collection. In design, information systems must be approached from the form and purpose of the information itself.

The suggested progression in information system design is set forth below:

1. Clarify the objectives of the action system for which the information system is to be created.
2. Define the various parties in the action system and their need to know to fulfill their specific roles. Clarify the timing and frequency, the form and the level of detail of the information needed.
3. Design the appropriate report formats for presenting the information to various parties including the schedule for presentation, paying special attention to the following points:

- a. The information included has high-use value to the recipient.
  - b. An adequate level of specificity and comprehensiveness is available to permit effective decision making.
  - c. The information is so expressed and arranged in the report to facilitate understanding and comparative analysis.
  - d. The format itself does not inhibit the transfer of information or distort its meaning. Proper spacing, choice of words, and juxtaposition of information are important considerations in formatting. Mode of information transmittal (verbally or through letter or manually prepared reports or via computer printouts, graphs, etc.) may inhibit or encourage use of information, depending on the recipient's expertise and expectations.
4. Determine what data is needed to generate each bit of information and where it can be found. Find the level of specificity and objectivity required of each data bit related to the use to which the information is to be put. If the required data base does not currently exist in accessible form, the systems designer must either find some way to create it or delete the information from the report format. It is here that the designer decides what data is needed, in what form, and which source will provide it with the necessary specificity and objectivity.
5. Determine the means through which data is to be collected, recorded, rechecked, and transferred for processing. Pay close attention to feasibility and costs, including time, as well as the feasibility and costs involved in validation of data. Determine who is to do it, and when, and how data collection is to proceed. This specifically involves the design of record formats to note routine transactions or current perceptions. Formats for daily inventory control, attendance and distribution records, waybills, etc. fall under this category.

6. Determine how the data is to be processed. Know the steps needed to convert the desired information into usable form. Then determine how and when this processing is to take place and who will be responsible. In this stage of design (preparing computer calculation logic, etc.), one again checks to see if the data base is fully adequate for generating the information. Further revisions of the format may be necessary.

7. Following the same procedures, design the system for validating the above information. This is the monitoring or audit system. Pay particular attention to how often such validation is needed, how the task can be most efficiently accomplished, and how disparities between the original and monitoring reports will be handled.

8. Test both the information and information validation systems in the field context. Adjust as necessary. Over a period of time, examine how and to what effect the generated information is used. Revise the system to exclude suspect or seldom-used information.

Before leaving this general discussion of information systems design, I would like to pose a question for thought to PVOs and donors alike: What are the implications one should consider (in terms of system effectiveness and efficiency) in designing data collection instruments (record and interview formats) before one designs the report format and content?

## Management Information Systems for Commodity Programs

### Concepts and Principles:

Each action system in a management environment should have a related information system which includes:

- o Data collection formats such as records or questionnaires;
- o Reports on all data collected;
- o Validation documents (monitoring or audit reports on the information previously reported).

When action systems interface, the information systems must also. This becomes clearer when we separate the various action systems of food program management, clarify their purpose and that of related information systems, and note the patterns of interaction.

The following activity circles exist whether it is the PVO or the counterpart who directly manages the events. The number of circles is reduced if the donated food is monetized and the resultant cash is not transferred to the beneficiary. However, circles will be added if the food is sold and the resultant cash is transferred to the beneficiary in the form of local currency, locally purchased commodity, or material input such as seeds, tools, fertilizer, etc.

Each category below is a circle representing the basic activity configuration of food programs, regardless of type such as emergency relief, institutional feeding, FFW, etc.

- o Receipt: Includes acceptance of marine shipments and internal deliveries at project and site warehouses.

- o Storage: At port, project, and site warehouses.
- o Transfer: Marine and internal conveyance of food.
- o Delivery: Resource consigned to another party, including distribution to beneficiaries.

If we chose to express the same activities using accounting terms, we would characterize them as receipt, banking, transfers, and expense.

For each activity circle, the following set of questions must be answered in the order given:

1. What is the ultimate purpose of the activity?
2. Who is directly responsible for managing the activity?
3. What precisely are their responsibilities?
4. What do they need to know and when do they need the information to discharge their responsibilities?
5. With what other activity circles does this set interact? On which points? What information needs to be shared at these points?
6. Who has direct oversight authority over these related activity circles? What are their management responsibilities and information needs?
7. From what data sources can all the above needed information be generated? Which source offers the best combination of reliability (including objectivity), relevance, comparability, accessibility, and feasibility?
8. By what means can the data be most objectively and efficiently collected?

9. How will the data be processed into reports for management?
10. How will the information be validated? How often, by whom, and using what data sources?
11. How will discrepancies between original and validation reports be handled? Who is responsible for follow-up action etc.?

It should be apparent that the above circles are not designated by the locale of activity, but by the operational purpose. The physical management reality is the commodity management environment, often described by the place of action: port, warehouse, site, etc. The conceptual reality is that each locale shares certain action functions: a project warehouse receives, stores, and dispatches commodity; a project site receives, stores, and disburses commodity to beneficiaries. Each locale usually has entirely different personnel, operating modes, and may even report to different authorities. The project warehouse manager may report directly to the PVO, but site personnel may report directly to the Ministry of Health or Education.

The design of integrated management information systems must consider both physical and conceptual realities. If this is not done, information from each locale may not be comparable or consistent. For instance, recording and reporting storage transactions is usually called inventory. If the program manager and counterpart need to know monthly how much undisbursed commodity is physically present in the country, they need to know how much is at the port, in project warehouses, in transit, and in site storerooms. They also might need to have the total amounts broken down by commodity type. The record keeping and reporting documents designed for port, warehouse, trucking, and site personnel must provide for collection of that data, its expression as report data in similar terms, and allow for submission of the reports at the same intervals. Only then can the information be considered complete. The responsibility for inventory information is not only that of the warehouse personnel.

Of equal importance is the integration of information of different activity circles with each physical operating entity, such as a warehouse. Conceptually, the warehouse manager must control three functions: receipt, storage, and delivery. These activities are interrelated because they all concern commodity flow. The records and reports for each separate activity must have information in form and content comparable to related activities.

A simple example of incompatible information would be a waybill which registers commodity amounts by standard container types such as bags, tins, and boxes and a warehouse inventory record which quantifies the same commodities by weight. This incompatibility not only unnecessarily confuses the process of receiving commodities into the warehouse, it also inhibits the process of validation.

The waybill functions as both a record and an internal report. It is a report between the dispatching and receiving points on what was sent and when. It is the record for the dispatcher, transporter, and recipient for noting the three transactions of commodity transfer.

The waybill also records the results of two validation procedures:

1. When the transport agent receives the commodity, he validates the dispatching warehouses' presumed transfers.
2. When the recipient takes over the commodity from the transport agent, the amount shown on the waybill is again validated to attest that what was reported dispatched and carried was actually received in the stated quantity and condition.

Both validation procedures require some sort of physical count, comparing the commodity present to waybill statements. If the dispatcher records disbursement from inventory or inventory records in weight measures, but reports the transfer quantity on the waybill by container type, his inventory records and transfer report will not jibe. Moreover, it is unclear which standard of measurement should be used for the physical counts.

The above example might appear too obvious to be realistic, but it occurs all too frequently in PVO systems. Often the original lapse in complementary information is adjusted by simply recording commodity amounts using two or more measurement standards. One can find inventory systems recording commodity by international standard weights and volumes at the dispatching warehouses, by local weights and volumes at the project sites, and in a waybill which expresses the quantity transferred in all four ways. This is cumbersome and inefficient.

It also weakens accountability because such systems increase the possibilities for error and conscious distortion of information. Information, like energy, loses something in transmission such as accuracy, focus, objectivity, or clarity. The more times a single piece of information changes hands or is converted to a different expression, the greater the loss. The quality of information is generally highest when it most closely reflects the original data base and is processed through the fewest possible intermediaries.

Another example of information loss or distortion due to faulty system design occurs in the recording and reporting of commodity losses. Unlike cash, commodity is particularly vulnerable to several types of loss:

- o Damage due to water, sun, wind, insects, bacteria, and mold;
- o Losses due to spillage, pests, and theft;
- o Degeneration due to aging.

Traditionally, PVOs have, in the design of their information systems, been conscientious in tracking and discriminating the types of losses when dealing with marine shipments and program warehouse inventories. The systems tend to break down or lose focus when tracking the same type of losses through the internal transport and project site storage systems.

Often a waybill format has space only for the recipient to certify that the consignment has arrived, but no space to record what quantities were actually received and in what condition.

In other words, the recipient has no opportunity to attest to losses of any type, much less describe their character. It is also not uncommon to find the site inventory formats, often PVO-designed, lacking space to note and discriminate losses which might occur during storage at the site. This means that effective inventory tracking ceases when the commodity leaves the program warehouse.

Consequently, both the transport agent and site personnel are placed unjustly in the disadvantageous position of being required to accept responsibility for inventory over which they have no authority or means to document losses.

This design failure in the system probably stems from a mistaken realization that the activity circle of storage encompasses only program warehouses. To be fully operational and accountable, each involved entity must be allowed to track and report inventory in a similar way as the program warehouse personnel.

#### Clarifying Management's Need to Know

Separating the commodity management environment into activity circles rather than locales of action also helps to clarify information needs for both internal and external accountability--providing information which can be used to get things done. Listed below are some very basic information needs for managing each activity circle:

##### **Handling Commodity Receipt**

- o Quantity of commodity reportedly sent, by type.
- o Condition of commodity reportedly sent, by type.
- o Identity of sender, proof of authorization.
- o Identity of entity responsible for transport.
- o Point of departure.
- o Intended point of delivery.
- o Actual date of arrival.
- o Actual amount of commodity received, by type.

- o Actual condition of commodity received, by type.
- o Amount and type of losses occurring during transit.
- o Intended purpose of commodity transfer.

### **Storage of Commodity**

- o Date of commodity addition to inventory, by type.
- o Intended purpose of commodity (if necessary).
- o Amount, condition, and approximate age of commodity by type, added to inventory; location of commodity in storehouse.
- o Donor of added inventory (if necessary).
- o Amount, condition, and approximate age of commodity, by type, and location in storehouse, deleted from inventory.
- o Date of deletion.
- o Reason for deletion:
  - o Authorized disbursement/distribution.
  - o Loss due to conditions of storage, handling.
  - o Loss due to degeneration, aging to the point of being unfit for consumption.
  - o Loss due to unexplained causes, possibly theft.
- o Actions taken to avoid or recover losses.
- o Actions taken to eliminate stocks unfit for consumption.
- o Amount of unfit stocks not yet removed from warehouse but removed from usable inventory, by type.

### **Transport of Commodity**

- o Point of commodity receipt.
- o Person authorizing commodity transfer.
- o Date of receipt.
- o Amount, condition, and type of commodity actually received.
- o Date of delivery--intended and actual.

- o Identity of entity responsible for actual transport.
- o Identity of entity--intended and actual--responsible for receiving delivery.
- o Point of authorized delivery.
- o Point of actual delivery.
- o Amount, condition, and type of commodity actually delivered.
- o Amount and nature, by type, actually delivered.
- o Amount and nature, by commodity type, of losses occurring during transport:
  - o Loss due to handling, storage.
  - o Loss due to degeneration.
  - o Loss due to unexplained causes, possibly theft.
  - o Actions taken to avoid or recover losses.
- o Amount, by commodity, by type, refused by recipient and restored to sender.

#### **Distribution and Disbursement of Commodity**

- o Amount of commodity, by type, intended for transfer to recipient.
- o Identity of intended recipient.
- o Purpose of transfer (if necessary).
- o Identity of actual recipient.
- o Actual time of transfer.
- o Identity of entity authorizing transfer.
- o Identity of entity making the transfer.
- o Amount and nature of losses occurring during transfer.
- o Actions taken to avoid or recover losses.
- o Actual amount and condition, by type, of commodity received by the intended recipient.

It will be observed that the information needs of all activity circles, for management purposes, are very similar. Recognizing that fact simplifies the task of designing integrated information flows between circles and between sites of action where the activity circles overlap.

Oversight and coordination of all the above activity circles are the responsibilities of the program manager who may be a PVO or counterpart representative. One must ask if the information needs listed above also conform with the program manager's knowledge requirements. For operational responsibility, the manager's task is to ensure that the commodity reaches the intended beneficiary in the proper amount, condition, and at the promised time. This should be done with minimal waste of time and resources.

To accomplish this, the manager must know on a continuous basis the position, quantity, and condition of all commodity in the program pipeline. He or she must know who is in actual control of it at any given time and when or why wastage and losses are occurring. The information generated within and used by the activity circles, if properly collated and summarized, will provide that operational information to the program manager.

It must be emphasized, however, that the manager needs the information in a different form from that of those responsible for handling the daily tasks. The manager generally does not need and cannot use the level of detail required for daily oversight. The program manager's job entails assessing and improving the performance of each person and action information system functioning under his domain so the level of information should be cast in comparative form. The warehouse manager needs to know how much commodity was lost enroute by various trucking firms in a given period, but the program manager needs to compare their performances in deciding what firms to use. He or she compares the percentage of commodity arriving safely, in good condition, and on time.

In preparing accurate commodity budgets, such as the Annual Estimate of Requests (AER), and subsequent requests for commodity transfers, such as call forwards, and in processing claims for missing commodities, the manager needs composite figures in quantifiable terms about amounts of inventory, numbers of sites and beneficiaries to be served, etc. Such comprehensive information is easily compiled from the routine information on daily transactions. This comprehensive information may be needed on a far less frequent basis than the performance type.

The information would be shared with those managing the provision of commodity so that they can assess the validity of the commodity request in terms of amount, type, delivery schedule, etc. and act accordingly.

Management information comprises part, but not all, of the information needed by decision makers responsible for short-term and long-term planning. Short-term should mean, in this context, annual planning of project activities and resource allocations. Long-term denotes multi-year program planning reflecting revision of objectives, donor policy shifts and allocation decisions.

### Short Term Planning Information

For short-term planning, PVOs, counterparts, and the donor's agents require an annual summary report containing the comprehensive information discussed above and a comparative statement showing end-of-year actual figures against that same year's planned activities and financial as well as commodity budgets. The annual report should also contain comparative information on key elements of management performance and on beneficiary behavior. Key points in management performance would include:

- o Accuracy and timeliness of reports from various management levels and components;
- o Efficiency in minimizing wastage and loss;
- o Effectiveness in the timely achievement of annual targets.

It is assumed that during a given year various changes in management procedures and systems are made in response to feedback given in routine reporting. One can often see the effect of such changes by a comparative analysis of the performance information summarized in monthly reports. One can also compare the cumulative average performance indicators against those of previous years. By doing so, one can learn whether the pattern is a result of linear development or a cyclical fluctuation influenced by factors beyond management control.

Similarly, beneficiary or participant behavior patterns can, in part, be studied through a comparative analysis of management information generated within the current and previous years. Here we do not refer to program impact information such as eighty percent of the children in an MCH program graduated from a supplementary feeding activity during the year and 50 percent of the graduates were admitted within four years hereafter. That is not information needed for day-to-day management or short-term planning. Rather, it is needed for long-term program planning of objectives and revised approaches. This data should not be collected through a management information system. It is evaluation information which can be compiled periodically and much more efficiently by baseline and continuing studies of sample groups.

The beneficiary/participant behavior patterns encompass such things as:

- o Attendance patterns at feeding centers;
- o Participation rates in project activities;
- o Consumption patterns of various donated foods.

Management often needs this information for annual planning of allocations, food-flow timing, and commodity types.

Some behavior is influenced by factors outside of management control, such as agricultural cycles or cultural practices. In those cases, management needs to know about them, but does not require continuous feedback that would be gathered during background or needs assessment studies. It does, however, require feedback on those aspects of beneficiary/participant behavior which may be affected by changes occurring in management, in contrast to changes in program objectives and content. Points of behavior which may be altered by the manner in which a program is implemented and are legitimate concerns of management include:

1. Attendance patterns may be affected by the delivery of a certain type of commodity during a season of relatively scarce local availability.

2. Participation levels may be affected by the timing and manner in which health education talks are presented.
3. Beneficiary acceptance of the donated commodity may be affected by the packaging or type of commodity used.

The manager's need to know goes beyond simply being informed of what is happening to program resources. Management needs to know if each entity, including the beneficiary/participant, is performing according to expectations. Such information also forms part of management accountability and can be gleaned from management information systems.

#### Long-Term Planning Information

Decision makers responsible for determining food-aid policy and multi-year allocations and those who design specific uses for food aid in individual programs often require the same type of information. Broad categories of their information requirements are outlined below:

1. Location, magnitude, nature and cause of food needs.
2. Physical and institutional capability of recipient counterparts and cooperating agencies to handle food aid;
3. Ability of counterparts and cooperating agencies to ensure that food aid is used for the intended purposes and accounted for.
4. Effectiveness of various programs in achieving the planned impact on the lives of the beneficiary group.

The sources and mechanisms for providing the above information are not identical. Sometimes this fact is not sufficiently understood. It is not unusual, for instance, to find management information systems burdened with the tasks of

needs assessment or impact evaluation. Though the latter tasks definitely form key elements of program accountability, they are related to but not germane to management accountability. Management's responsibility is to ensure that promised actions are done. It is not to justify the need for the actions in the first place or proving their effect or impact.

As discussed, before designing an information system one must clarify the purpose of the action system it is to serve. Failure to do so results in ineffective information systems and inefficient use of resources.

Consider, for instance, when a PVO's project site monitoring system requires data collection on household food needs or consumption patterns. Such data is used by the PVO and counterpart to cover its responsibility for needs research. One must ask what is the usefulness of the information, gathered through a monitoring mechanism, in fulfilling that responsibility.

First of all, the information is inadequate and not complete. In all probability, it covers only a small part of the program universe at any given time. It includes no information on household needs for families not included in the program. It is untimely because needs assessment information is required at the outset to determine program coverage. Also the information on household food needs lacks the requisite depth and detail needed to fully understand the magnitude, nature, and causes of family food needs because the monitor does not have enough time to collect the appropriate, complementary data or to canvass a large enough sample.

Finally, the validity of data itself must be questioned because inappropriate or insufficiently trained personnel may be asked to handle this type of research. They may ask the wrong questions, fail to notice significant disparities or need for further clarification, or simply be incapable of assessing the importance of what they hear and see because they are not equipped conceptually to handle social science interviews. The result is poor scientific research and virtually nothing of value to management.

In fact the foregoing system represents a negative impact on management. Monitoring staff is diverted from gathering data actually needed for management decision-making which weakens the effectiveness and efficiency of the system. This useless data has to be reported, processed, and presented which further diverts management's attention and time.

Needs assessment research is better accomplished through focused, in-depth special studies covering a representative sample of the entire problem area. Such studies would be handled by observers and interviewers trained to collect data and specialists experienced in this field for data analysis and interpretation. Ideally, such research should be completed prior to program design.

Another example involves the frequent inclusion of impact-related data in management information systems. To assess impact of program interventions, one must study whether a fundamental and sustained change has occurred in the beneficiary's, participant's, or counterpart institution's behavior as a postulated result of certain program interventions. It is impossible to study change without collecting data reflecting before and after conditions related to program interventions. Management information systems are focused on current events and on collecting data about the implementation process, rather than impact.

Impact information should be gathered only when one postulates that sufficient changes will have occurred to permit measurement or the concerned decision makers need to make decisions. The specific questions asked in an impact study are based on testing the correctness of certain hypotheses which postulate that certain actions will produce specific results concerning the quality of the beneficiary's life.

Data collected which is irrelevant to testing those hypotheses, however interesting, weakens the scientific rigor demanded of impact research. Consider the probable negative effects on both management and impact research of attempting to use site monitoring systems for gathering data on postulated changes in weaning practices of participant mothers.

Before leaving the subject of impact evaluation, it is important to note that the information generated for management purposes is, indirectly, absolutely essential to the evaluation process. Evaluation tests the validity of hypotheses which state "If I do this, that will be the result?" Impact studies examine results. Cumulative management information confirms to what degree the planned action was actually done. Such determination cannot be made without knowing to what extent various types of resources have actually been brought into play. Management information systems should provide that information.

### The Ultimate Need to Know

The final and most important component of management's need to know and the foundation of its accountability is the assurance that the information it uses in making action decisions and which it reports to others for planning decisions is accurate and true. The manager relies on reported reality, generally being several steps removed from the basis of the data. Assurance of the truth and accuracy of reports is gained by periodically returning as close as possible to the original data base, using an impartial witness to prepare an independent report on the findings. Assurance comes from comparing the two reports. The procedure used in making such a comparison is variously known as auditing, monitoring, or end-use checking.

In the context of management information systems, the terms truth and accuracy have special meanings which need to be clarified. Management is concerned with truth and accuracy of those who are responsible for recording, usually on a daily basis, what they have heard, observed, or have themselves done. They ultimately summarize the above data in a report. Accuracy means that they record as clearly as possible what they have heard, observed, and done with minimum distortion due to faulty perception or errors.

Truth means that they record the data faithfully without deliberate falsehood or personal bias. Truth here is not necessarily based on existential reality. For example, a project participant, such as a MCH mother, tells health post personnel

that she feeds all the donated commodity to her children, that they like it, etc. She may also say that she participates because the health education sessions are very helpful. None of this may be existentially true. She may do or feel nothing as she says and her children may loathe the food. If health post personnel are asked to record what she says and they do this accurately and in good faith, then that constitutes the "truth and accuracy" of the information.

To validate it, management would have to have someone else interview the woman to see if the expressed reality was recorded properly. Managerially, it would be unjust to hold the site personnel accountable for recording what the mother actually felt and did simply because management did not ask for that type of information. Management ultimately needs that type of information for short-term and long-term planning, but it is most efficiently gathered through in-depth evaluation research using data collectors skilled in eliciting and observing the hidden realities.

Management concerns daily implementation so it needs to know what is happening, regardless of the reasons why, in the environment over which it has effective influence. It needs to be assured that the information on that point is truthfully recorded and reported. Management presumably controls the site personnel, not the mother. Management is concerned with knowing the accuracy of those responsible for providing the requested information. Therefore management needs to clarify what it precisely needs to know and will hold its reporters accountable for providing. That same clarity should be reflected in the design of the reports' validity checks.

We have said that every action or implementation system must have a related information system to provide continuous feedback on what has been accomplished and what needs to be done. Similarly, every information system must have a subsystem of validity checks on the original information itself. Such checks almost always involve revisiting only a sample of the reported reality situations.

## Auditing Mechanisms

Listed below are the most commonly used and effective auditing mechanisms for validating reports and records used to provide information on each activity circle in the commodity management environment.

1. Receipt: For marine or other inter-country commodity shipments, there is an independent surveyor's report based on physical count or weighing plus inspection of delivered commodity. This is properly compared to the bill of lading which functions as the original report on delivery. Sometimes donors also request, as a validation document, the outturn report prepared by the host government's port authorities. For PVO purposes, this is not an adequate validation procedure. The host government is usually the recipient and the port authorities have management responsibilities for commodity handling and storage. Neither party can be termed impartial nor can their reports on commodity receipts be considered adequately objective to serve as validation of Bills of Lading information.

For commodity receipts at warehouse or sites, the waybill information is immediately validated by physical count and inspection by the receiving party. Later, independent observers revalidate to some degree the above by conducting physical counts of stocks compared to inventory records showing additions, deletions, and current balance which have occurred since the subject commodity delivery.

2. Storage: This involves physical count and inspection of current stocks by an impartial observer. The findings are compared to the status of commodity described, as of audit day, in the daily inventory records. To validate reports of missing commodity (that which is recorded as deleted from inventory because it was "unfit for consumption" or "stolen"), the audit involves examination of the destruction certificates issued by local health authorities or police reports attesting to the official notification of suspected theft. If either of these documents are considered suspect, the auditor must determine its validity with the issuing authorities.

The delay often involved before the reported damaged commodities are officially destroyed provides increased opportunities for illegal stock withdrawals by persons in charge of inventory. It is advisable to have a way of verifying damaged stocks before they are officially destroyed. The police, local community representatives, employees in another department, etc. may be asked to perform that check.

3. Transport: Physical inspection and counts of what is on- and offloaded via a Bill of Lading or waybill. Transporters may use their own staff to verify what the dispatching authority reports turned over. Management compares reports of the dispatcher, transporter, and recipient. If it suspects collusion between any two of those parties, it should have an outside party spot check, through physical count, a sample of the commodity while in transit.

4. Delivery: A physical count and inspection of commodity turned over at the port to the transporter or at warehouses by the transporter can be used to verify the surveyor's report in the first instance or waybill in the second. Intermediate physical checks may be necessary, depending on how often the commodity changes hands. At each point of transfer there should be a validity check.

The recipient's physical verification and report can usually be considered adequate validation of the turnover activity. When management suspects collusion between the two parties involved, a physical count by an impartial observer may be necessary on either a routine or audit basis.

An exception is validating the commodity turned over at entry port. The host government, though technically the recipient, cannot validate the turnover with an outturn report because the PVO, not the host government, is legally responsible for pursuing claims against the shipping company.

5. Disbursements: Validation checks on reported disbursements to beneficiaries or participants may be done by:

- a. Observing distributions and comparing the findings to recorded distributions to the same group on recent similar days.
- b. Interviewing beneficiaries or participants (parents who collect the commodity for their children) regarding the amount and condition of commodity received during the most recent distribution and comparing those statements to the site records of the same event.
- c. Doing a physical count of the last received commodity present in the beneficiary household versus site records of the same event.

The last method is not recommended. Besides being far too costly, the validity of the auditor's data would depend on accurate understanding of too many variables. The first method is best in achieving objectivity, but is often not possible.

#### Designing Systems for Truth and Accuracy

When designing management information and their validation systems, one should keep in mind that information may be distorted at the following points:

1. In the original data collection records;
2. In the summary reports on that data;
3. In the data collection records and reports for validation;
4. In the analysis and interpretation of information at all levels.

It is also important to remember that information may be distorted with or without conscious intent. Distortions due to calculation and transcribing errors,

misunderstanding of instructions, formats, etc. are honest distortions. These can be remedied by providing more training, more accurate measurements, clearer instructions, and better formats.

People may also deliberately distort information in order to secure some personal advantage such as status or money or because they are afraid to record the truth.

To prepare an adequate response to distortion, management must be able to assess its probable cause and intent. Frequently reports are distorted because their preparers correctly perceive that they will be punished by their supervisors or donors for transmitting bad news. The correct management response is to institute procedures to protect and to reward honest reporting. To punish people for lying would be a disastrous response.

No matter how tightly designed and run a management system may be, there will always be some individuals who put personal gain above all other considerations. No workable action or information system could be designed on the supposition that all persons in the system will abuse it. Similarly, no realistic management system would be predicated on the assumption that all persons within the system will operate above reproach. The systems must provide the basis for identifying where, why, and to what degree abuses are occurring.

Comparative analysis of reports from all sites on the same points is an excellent method requiring no additional data for determining the relative seriousness and probable cause of a reported problem--including a problem in reporting.

Assume we have ten project warehouses, eight of which report they have lost, on the average, five percent of a particular commodity due to insect infestation during the previous month. The other two warehouses report a thirty percent loss. Management has good reason to believe that it has a major problem with twenty percent of its warehouses and to suspect it is a reporting, not a physical, problem due neither to error nor misunderstanding. Its suspicions are strengthened when warehouse monitoring confirms that the loss figures reported by the first eight warehouses conform to current balances and physical inventories. Of course they

will find in the other two warehouses that the stock balances and records bear out their reports, too--that the 30-percent reported infected and destroyed is indeed missing. But, without further investigation, their reports should not be accepted. Management has reason to invest in further audit checks:

In another example, a program has 2000 project sites. Every month 95 percent of the sites report that they distribute the full, authorized ration to the precise number of authorized beneficiaries. Random sample monitoring, however, reveals that 85 percent of the sites visited are serving a beneficiary group averaging 50 percent more than authorized levels. Obviously there is a widespread distortion of the information both on ration sizes given and people served.

Management needs to create an environment in which personnel feel safe in reporting that the system is malfunctioning or the expectations are unrealistic. Sometimes it is management's failure to accommodate actual beneficiary needs or to have better targeting of beneficiaries which results in untruthful reporting. The personnel report what they feel management wants to hear. Too many times they must justify current stock balances on the basis of the number of authorized rations given to authorized beneficiaries.

The importance to the manager of being able to assess the truth and accuracy of the information received for immediate decision making and for onward transmission cannot be overstated. This is a critical element of accountability. A management information system is only truly accountable when it has procedures in place for checking the validity of each internal reporting mechanism.

## **Special Design Considerations for Tracking Site Activities (Site Monitoring or End-use Checking)**

### Reasons for Special Attention to Site Activities

We focus on the commodity management system at the project site where food is transferred to the beneficiary/participant because:

1. This is the most important point in program management in terms of the beneficiary and the ultimate purpose of a food aid program.
2. It is the most complex and unpredictable area of food program management--and the one usually least susceptible to direct PVO control.
3. Imperfect information or ineffective information systems at this level of operations have the most profound effect on PVO/counterpart management capabilities and accountability.
4. Site information and monitoring systems must be designed to suit the specific objectives, obligations, and operational constraints of individual programs. This is contrasted to the more predictable working environments at port, in warehouses, and in commodity transport;
5. This is the most crucial point of PVO and counterpart interaction and hence the need for information exchange. In this area the majority of management problems occur and many PVO/counterpart systems break down.

Site personnel are responsible for the receipt, storage and distribution of commodity and for keeping records and preparing reports on these activities. At this level one often finds counterpart staff or volunteers who are overworked, underpaid, ill-supervised and poorly supported. They may also be ill-trained and functionally illiterate or well-educated specialists with no experience in

administration or commodity handling. Commodity management may represent only a fraction of their duties, one which they may consider incidental to their main objective or even unacceptably onerous.

The main challenge rests with creating the simplest, most efficient action and accountability systems without sacrificing effectiveness. To do so, the designer must make himself fully conversant with the special constraints, obligations, and available resources which might affect staff and participant behavior in this work environment.

The significant differences which exist between countries and between institutions precludes using a model applicable to all. Instead we will focus on the minimum actions and data collection needed to validate reported occurrences and outline the essential knowledge needed to maintain basic accountability standards.

#### Site Activities and Minimum Information Needs

The first activity to consider is the site's receipt of commodity or commodity-generated resources. At this point, resource responsibility is transferred from transporter to site personnel. They should have the right to record and report on the actual nature of that transaction such as the amounts they received, when, and in what condition.

They should also have the right to refuse or return any commodity for which they do not choose to accept responsibility and to report such action. Those rights, being granted, constitute their authority and the power they need to execute their responsibilities.

The primary document for recording and reporting back on individual site receipt transactions is the waybill. The waybill's format must include space for the recipient to note the delivery date, quantity and condition of each commodity received. Space must also be given to note the quantity and type of commodity not being accepted and the reason for its rejection.

The above information can only be generated from data collected during a physical count and inspection of commodity by a site representative at the point of transfer. This might be a full or sample count depending on the amount and mix of commodity involved, but it is an action which cannot be omitted if accountability is to be maintained.

Waybill formats which allow space for only the signature of the recipient encourage site personnel to dispense with physical checks because there is no point in validating someone else's report of reality when that is the reality for which one must accept responsibility. This is an example of the profound effect formats themselves have on not only what information people ultimately transmit, but also on what they actually do. These formats signal management's expectations and people respond accordingly.

Management, through carelessly designed information systems, often sows the seeds for its own unfulfilled expectations. No matter how many guidelines, warnings, or instructions it issues to staff outlining its real expectations, the formats it issues for feedback information will, in large part, dictate staff behavior.

Another common error occurs when management expects staff to perform certain acts and observe certain events but, in its reporting formats, only requests information on what staff feel or think about those acts rather than what they observe, thus emphasizing subjective reality. If staff are being held accountable for what they feel or think rather than what they do or observe, they cannot be blamed for devoting more energy and attention to the former.

It sounds like an absurd scenario, but it happens all too often. We often hear the argument that the reporter's judgement and feelings are more important to know than the often disparaged "number crunching" which reports in quantifiable terms what was done and how often a certain event was observed.

We have also heard the false contention that qualitative information is synonymous with subjective reality but quantitative information is somehow equated with superficial "objective" reality. This is a false dichotomy and causes mass confusion in information systems and staff perception of management's priorities.

The above applies equally to another activity circle at the project site--commodity storage. The physical actions concerned are protecting commodity from damage due to weather, insects, rodents, improper movement, placement, and stacking, and from theft. Moreover in inventory management the practice of "first in, first out" is expected to be followed to ensure that the highest possible nutritional value is transferred to the beneficiary.

Management expects site personnel to be aware of losses which occur due to damage or theft, and to initiate actions to recoup losses and prevent further ones. Inventory records and reporting formats must include space for staff to note such occurrences, including those losses discovered as a result of periodic physical inventory counts.

To manage inventory within the described expectations, one needs to record the normal, daily transactions (additions and deletions) and to periodically check the amount and condition of stock balances to:

- o Validate accuracy of daily records;
- o Identity and quantify losses;
- o Reconcile and correct the records.

Losses represent a deletion from inventory and must be noted as such in the records. Physical audit checks are absolutely necessary for stock management and inventory accountability. Because commodity is vulnerable to damage and loss from natural causes, monthly checks are advisable. Management should require staff to record and report their actual findings and give staff the right and means to reconcile their books to reflect actual balances.

In distribution at the site, one has the same information needs, but there is a difference in the size and nature of the recipient group and the absence of a waybill-type document to record and authenticate the actual fact of transfer.

Site personnel are expected to:

- o Identify those meeting the criteria of being authorized beneficiaries;
- o Ensure that beneficiaries receive the commodity in the planned amounts and condition at the scheduled frequency;
- o Perform necessary actions to ensure that the beneficiary (or those who control commodity in his or her behalf) extracts maximum value from the resource;
- o Faithfully record, report, and substantiate that all the above activities are performed.

This is an extremely tall order considering that a single site may serve hundreds, even thousands, of beneficiaries, often none of whom are under any type of management control. This is the point at which management systems cease exercising effective control and program messages are expected to create the desired beneficiary response.

Managerially, what we must know is that the intended resource transfer has transferred to the right people, in the right amounts, and at the right time. We must also know, for program, rather than simply resource accountability, that site personnel are performing with the beneficiaries and participants those non-accounting activities that have been established as essential to program objectives.

Management needs to provide sites with record and report formats which capture that information. The mistake is often made of requiring site staff to use the daily inventory record format to enter data on distributions to beneficiaries.

Conceptually, storage and distribution are different activities with different responsibilities and often handled by different personnel. Just as the project warehouse inventory record cannot take the place of a waybill for documenting the transfer of a commodity, the site inventory records cannot document a record for transfer to the beneficiary.

The combining of inventory and disbursement records is a poor accounting practice which encourages information distortion. There is a strong human tendency to make everything "come out right" to tidy up loose ends. This tendency leads us to gloss over actual discrepancies and to distort reality. It is certainly encouraged when a format requires a person to note, side by side, the amount deleted from inventory for distribution and the amount actually distributed to beneficiaries. Very few people could resist the temptation to make those amounts agree--contrary to whatever actually occurred. This is another common example in PVO commodity management where the format itself negatively influences staff behavior and encourages information distortion.

## **PVO and Counterpart Roles in Commodity Programs**

PVO commodity program objectives can often significantly differ from the counterpart's institutional objective. This is a key point for consideration in defining the PVO's role and management/program accountability.

One major difference is that PVO programs usually have an expiration time, whereas the counterpart institution's activities are usually perpetual and the achievement of objectives are repetitive and cyclical in nature. Governments and societies establish institutions to ensure that certain segments of the population have access to certain goods and services necessary for the individual's well-being and effective participation in society.

Most societies have institutions particularly focused on assisting the most vulnerable groups: the ill, aged, young, mothers, victims of disaster and unrest, and the poor. Many institutions use food to address immediate needs and, by alleviating the pressure of immediate needs, allow such groups to invest their meager time, energy, and resources to prepare for the future by improving their health, skills, capital, savings, and living conditions. Institutions devoted to mother-child health, education, employment creation, and economic subsidies for the poor are representative of those giving assistance to vulnerable groups.

PVOs handling commodities are usually heavily involved with these institutions because of the nature of the beneficiary concerned and the fact that many third-world governments must presently depend on donated food to support these programs.

Beyond facilitating the delivery and sometimes the disbursement of food aid, we should consider defining the PVO's role in relationship to the counterpart's needs and the PVO's own organizational purpose. Almost every PVO in the food aid field, whether responding to emergency or to long-term needs, has the humanitarian objective of fulfilling the needs of a specific group. A major aspect of the PVO's role is to ensure that the food aid reaches the intended target group.

This, however, is just one aspect of the PVO role. PVOs recognize the tendency of human problems to recur time and time again unless their causes or an adequate mitigating response is addressed. Most PVOs insist on "sustainable development impact" as an essential program component in attacking the initial cause or preparing an adequate social response to recurrent problems.

If PVO staff and beneficiary groups do not directly interact, what development interventions by the PVO can be said to result in significant change? Realistically, PVOs operating through counterpart institutions cannot claim such direct involvement and thus should not assume development objectives which depend on direct interaction. But PVOs do attempt to do this, often with the donor's encouragement because they demand program justification on developmental grounds and narrowly define the parameters of development.

When a PVO tries to make an MCH institution take on an additional task such as improving agricultural production, providing resource training to mothers to establish small businesses, encouraging cooperative marketing groups, and promoting community action to build latrines, roads, and market places, what is happening? The PVO is trying to fulfill its own development objectives by forcing an institution that has its own purpose and capabilities to address situations outside of its capacity and influence.

An MCH institution is not designed to provide agricultural or community development extension services, but to enlighten and encourage participating mothers and fathers in feeding, hygiene, and immunization practices to protect their children and enhance their well-being. They are not designed to address the ultimate causes, beyond ignorance, of ill health in mothers and children, but to assist them in overcoming and dealing with the resultant problems.

Problems have cultural, social, religious, political, environmental, or purely economic bases. However much a PVO may wish it otherwise, most institutions are not capable of dealing with that level of causality. Neither can the PVO hope to have any influence on such causality unless it is directly involved with the beneficiary.

What, then, are legitimate PVO development objectives in large, institutionally based food programs? We are left with the PVO's role in enhancing the institution itself through direct interaction to respond to and serve the needs of generation after generation of vulnerable groups.

The PVO development focus is on the institution, not the beneficiary. In a limited time, the PVO assists the counterpart institutions in attaining sustainable systems for action, feedback, and validation of information which will provide the needed goods and services effectively. The development objective in such programs center on building response capability.

We are talking about the way decisions are made, implemented, reported on, and validated within an institutional management system. The PVO's developmental role would thus focus on assisting the counterpart in its improved handling of the above management aspects.

Creation of efficient management systems which can be operated by both the PVO and the counterpart achieves both the humanitarian aim of meeting beneficiary needs, but also the PVO development aims. The systems cannot be considered successfully implemented development activities unless the counterpart handles their operation efficiently. If the PVO sets up a highly efficient internal food transport and storage system, but has its own staff, rather than the counterpart staff, managing every step of the process, it cannot be seen as performing its own development role. Neither can a PVO which sets up and manages all facets of the management information systems without counterpart partnership be considered as fulfilling its development role.

It is not uncommon today to find counterparts managing all aspects of the action system including commodity handling and project activities. That is an encouraging advance. Not so encouraging is that related management information systems still remain largely under PVO control--systems designed more to satisfy donor requests for information than to provide a basis for counterpart management. Some donors often demand that the PVO staff visit and report on each site at least two or three times a year as a way to discharge its management and accountability responsibilities.

The PVO has no direct management authority over the site personnel, no matter how many visits are made. No one visiting a site twice a year can hope to gather the information needed for anyone's management purposes. It is not realistic to assume that a handful of PVO staff (even hundreds of them) can, in managerial or information terms, directly handle thousands of sites.

Another instance of misdirected PVO effort occurs when PVOs are expected to audit counterpart warehouses and make claims for discovered losses. Technically and legally there is no loss unless the beneficiary does not receive the intended amount of commodity. What if the counterpart makes up for losses incurred in its own transport/storage system, using its own commodity? Does the PVO or donor then have any basis for making claims or for auditing this aspect of counterpart management? Unless the counterpart requests the PVO to assist in improving the institution's capability in this area, there is no managerial or development objective being served.

Finally, reflect on the ultimate purpose, developmental impact, and efficiency of PVO information systems which are designed only to collect data on losses for documenting claims. These claims are served three times to authorities responsible for repayment. If not paid, they are passed to the donor agency for further action--and are immediately dropped.

In India, Peru, and Guatemala and many other countries, an immense amount of PVO and counterpart staff time and energy is spent on this procedure--all to satisfy some ostensibly legal requirement of the donor. What is the managerial impact of such a system?

If those in control of resources not held strictly responsible for them, what is the justification, from a management standpoint, for going through expensive efforts to document their inefficiencies or corruption? Are not spurious accountability systems, wherein no one pays the price for lying, every bit as socially, politically, and institutionally damaging as ill-conceived dam or road or forestry projects are on the physical environment? Social and political institutions operate, in large part, on public trust. Spurious accountability, producing reports on which no action is taken, is the surest way to destroy public trust.

What is the PVO's development role in food-based programs? Isn't it continuing to assist counterparts in the design and operation of efficient and effective action systems--particularly in Africa where institutions are relatively weak? PVOs and counterparts should focus on improving the design of management information and validation system, including taking appropriate action for information discrepancies.

In terms of program content versus systems design, the PVO's development role continues to be:

- o Advising the counterpart on the most effective interventions to sponsor;
- o Advising on the manner of targeting of the intervention's execution; and
- o Training the counterpart staff on the implementation.

One hopes, in light of the above discussion, that PVOs will not propose interventions that lie beyond the counterparts' institutional mandate and capabilities.

## **PVO Management Role at End-Use Point**

PVOs most often fail their counterparts and compromise their own development objectives at the end-use points, particularly in the design of site record and report formats and procedures to validate site information and to see that information reaches those who need it.

PVOs generally handle that design work and thus exercise their greatest control, albeit indirect, over the manner in which the counterpart staff expend their time and energy. We note that at this critical juncture, where the program interventions actually occur is where the information systems most often fail.

Data collection is unnecessarily detailed and operationally onerous or complicated. Records omit space for describing significant aspects of responsibility and require tracking of non-pertinent events. Sometimes they erroneously combine events which, in accounting discipline, should be handled separately. Reports are demanded with unnecessary frequency and levels of detail and are sent to people having no responsibility for taking follow-up action. Some reports which are useless for routine management are considered necessary to fulfill donor requirements.

To improve the situation, the PVO must first clarify its management responsibility and role at end-use point for the donor, the counterpart, and the beneficiary:

For the donor: The resources should reach the beneficiary as intended and the postulated impact should be achieved. The former is traced by end-use checking and the latter by evaluation.

For the counterpart: Action and information systems and other interventions put in place should be efficient, reliable, feasible for counterpart operation, and managerially sound. The latter assumes that information generated for management purposes meets the criteria of relevance, objectivity, comparability, comprehensiveness and clarity.

For the beneficiary: That which is promised is done. If not, steps should be taken by management to ensure that promised actions in the future take place.

The PVO has no direct management control over the end-use point actions. Its effective power can be realized by assisting the counterpart to:

1. Identify the resource transfers and related interventions necessary to achieve institutional objectives;
2. Design appropriate record keeping and reporting systems for the institution which includes information validation systems;
3. Design institutional means to respond productively to management system failures--including the prevention and recovery of resource wastage, misuse, or misappropriation.
4. Train its personnel in resource management and execution of related program tasks;
5. Design effective methods of needs research, including beneficiary targeting and impact assessment.

Through the above interventions, the PVO can best fulfill its ultimate responsibility to the beneficiary, its accountability responsibilities to the donor, its program obligations to the counterpart, and its own organizational objectives in humanitarian and development terms.

In designing end-use information and validation systems, the PVO needs to clarify what the counterpart operation, at each level, needs to know for:

1. Deploying personnel and resources in an effective and efficient manner for accomplishing daily tasks.

2. Ensuring that requisite guidance and support are available for expediting work.
3. Identifying and overcoming operational problems as quickly as possible
4. Planning future deployment and use of personnel resources based on an accurate assessment of the current situation and relevant behavior of staff, beneficiaries, and supervisors.
5. Assessing truth and accuracy of information used by management.

End-use systems that produce the above information for counterpart management will also serve the PVO's and donor's more limited management roles in the program.

Neither the PVO nor the donor should overburden the management information system by demanding that it supply:

- o Information for assessing needs;
- o Background information on all sites;
- o Baseline information of status quo before the project began; and
- o Evaluation information to measure changes (vis-a-vis baseline) in terms of program hypotheses.

To attempt to make one system and thus one set of people fulfill all program needs is a false economy. Staff should not be required to repeat on monthly or quarterly reports details concerning site location, population of coverage area, number of authorized beneficiaries, etc. No routine management use can be made of continuous reporting on the age, sex, and names of authorized beneficiaries.

When designing any information system one should ask: How is the information going to be used? When is it needed? To make full use of the information, how much detail and what manner of presentation should be used?

We are now talking about designing an information system for routine management at the site level. To provide complete information on each activity circle, records and reports must include pertinent details on commodity receipts, storage, and distribution. These activities should be treated as separate functions each with its own recording format although the summary information from all may be included in a single report format.

A single copy of the waybill may serve as a receipt record if it has space for site staff to note the actual amount and condition of commodity received, the amount actually accepted, and the date of that transfer.

For storage, the site must maintain a daily inventory record tracking additions and deletions to stock, the date of those transactions, and the losses, by category, incurred during storage.

Finally, site staff should keep a transactional record of disbursements to beneficiaries noting the transfer date, the type and actual amounts transferred, the identity of the recipient (by name, group, village--as needed). Where possible, the last record should have space to include a verifiable indication from the recipient that the recorded transfer occurred.

Management may also need to know that certain interventions, such as health education sessions, beneficiary growth monitoring, etc. are being performed. It may require site personnel to record and periodically report on their daily performance of specific tasks. A simple activity diary could meet this requirement if the type of data requested is verifiable.

Site reporting formats should consolidate or summarize the data in the records.

The report formats should be designed before the record formats. There are three essential rules to follow:

1. No record format should require entry of data which is not reported and no report should include information that is not used for the function intended.
2. No reports should be made unless the information is needed at that time.
3. No information should be included in a report that cannot be verified, preferably in a simple, inexpensive manner.

The validation rule does not exclude using subjective information. This information is quantifiable: X percent of respondents said they had this opinion on that subject. It can be validated by canvassing a representative sample of the same or similar group on the same point to see whether a similar percentage respond in the same way.

In designing site formats, one should avoid asking site personnel to judge events rather than record them. The data they are asked to record should be that which they have done, observed, and heard from identifiable sources without first being filtered through their own feelings or interpretive analysis.

One should also minimize requiring the staff to give calculated sums or percentages. Information distortion due to the reporter's insidious subjectivity or simple calculation error is enormously difficult and costly to identify through a validation system.

It is also difficult to hold people accountable for the accuracy of their value judgements. This type of accountability weakness appears in site monitoring formats when the reporter is asked to rate some aspect of the management environment, rather than simply describe its actual state.

Generally, this type of information should be avoided in report formats. Sometimes, however, it can serve management needs in the most cost-effective way, as long as its intended use and validity are clear from the outset.

As an example, let us consider the condition of school kitchens. If program managers are responsible for providing certain equipment and operational training to school kitchens, they must know, in detail, what actually exists and what is happening operationally. Rating information will not be adequate. If, however, the community is programatically responsible, management needs to know if it is taking its responsibility seriously. It asks site personnel to rate the adequacy of kitchen utensils and operations. It does not ask the number of pots nor does it ask staff to rate community participation.

Subjective information can be used but must be handled with care in the process of site monitoring or auditing. The process of audit involves comparing the data recorded in daily transactions to the actual figures substantiated by the auditor through personal observation and interviews with recipients or outside participants or observers of the recorded event.

For the most part auditing or monitoring involves recollection of the same data appearing in site records, not summary reports. For instance, the auditor compares today's actual commodity balances in the storehouse against the recorded inventory balances for the same day. Actually he does not compare; management does that. He simple records his finding in both areas.

Even for auditors and monitors, requests for calculated or judgemental information should be minimized. In some cases the auditor's judgment will serve management's need and be most cost-effective. For example, management needs to know if the site storehouses are functionally secure. They do not ask site personnel to report continuously on the attributes of the storehouse because they do not have the resources to improve the physical structure and they are only interested in the functional, not the physical, security. It gleans information on functional security by a comparative analysis of the theft losses as reported by sites. Management asks its monitors to validate the theft losses reported and

requests the monitor to rate the storehouse security infrastructure as "good, fair, or poor" against a clear set of criteria.

The information management is seeking here is whether commodity losses directly correlate to physical infrastructure, whether physical security criteria are inadequate in certain program areas, or whether the security problem is procedural rather than physical.

If the physical criteria for various security ratings are clearly enunciated, management can make better use of the monitor's judgment than his detailed description of infrastructure.

#### Achieving Efficiency in Site Monitoring

As soon as a PVO has assisted the counterpart in designing a site record and reporting system, it then needs to design cost-effective means for validating the information generated. In many PVO commodity programs, PVO staff themselves perform the monitoring and audit tasks. Nonetheless, the counterpart will eventually have to operate this system. Although site monitoring satisfies donor requirements, that is not its primary purpose. Monitoring is an integral part of any management information system and the touchstone of its internal accountability.

For the PVO working in community programs, the development challenge is to create for its counterpart institutions a highly efficient, effective mechanism for assessing the truth and accuracy of the information received on a routine basis from hundreds or thousands of management points.

The character of monitoring and audit information, like other types of information, is dictated by its overriding purpose. We say it is to assess the truth and accuracy of reported information. To do so, it must provide the means for measuring the magnitude of disparity, as well as the frequency and locale of its occurrence. It should permit management to assess the magnitude of problems in systems design, operational procedures, resource use, and staff performance, including their ability and good faith in providing information.

As an example of the use of monitoring information for routine management, visualize a program universe of 1000 sites. Management requires a quarterly report from all sites, giving information on stock balances as of the last day of the reporting period. The most recent reports indicate that 2,000 metric tons were in site storerooms on that day. But subsequent monitoring visits to a representative sample of sites indicate that on the average for every 100 kilos recorded, 80 kilos were actually found. This means that the inventory reports on balances can be trusted up to 80 percent. The last routine reports also produced the same accuracy percentage. Management uses this 80 percent accuracy figure to predict that of the 2,000 metric ton balance previously reported, 1600 metric ton were available for use at the end of this last reporting period. This information is used to plan the next food deliveries.

Management then does a comparative analysis of accuracy performance of sites in the monitoring sample to better learn the prevalence and probable cause of the inventory reporting problem. If 95 percent of the sample sites had inventory records with 98 percent accuracy, but the remaining 5 percent had accuracy percentages far below the average 80 percent, then management can assume that the problem does not lie with faulty system design or inadequate training. Further, if the worst performing sample sites all reported to the same supervisor, management has reason to suspect the supervisor may be a part of the problem.

Monitoring information is usable in the above ways only if it represents the reality present at all the sites at the same time. Monitoring systems based on incremental coverage of sites (such as where each site must be visited twice a year or where sites selected for monitoring are those with perceived problems) cannot generate representative information. Such systems characterize much of current PVO monitoring efforts, which is probably due to a misunderstanding of the PVO's management role. In temporarily assuming the active role as end-use monitors, PVO staff are functioning as auditors, a role for which they lack the authority and time to handle.

The functions of audit and direct management are mutually exclusive and must be performed by different agents. If they are not, the result is poor accountability,

defective management, unnecessary inter-staff tension and compulsion, and the PVO's and counterpart's waste of time and resources.

The management effectiveness of monitoring information is severely compromised unless the information produced meets three crucial tests: objectivity, representativeness, and timeliness. Like any accounting information it should have the characteristics of relevance, comparability, and comprehensiveness. If the content, structure, and intended purpose of the overall management system are clear, it is relatively easy to fashion the context and form of the monitoring system which mirrors and complements it.

### Achieving Monitoring Objectivity

To satisfy the objectivity criterion, we have already discussed the need for employing a set of people not responsible for management or supervision. Sometimes the ideal situation is not possible because of staff shortages. In such cases every attempt should then be made to separate the performance of monitoring and management duties. The same person should not be asked to perform audit and management tasks on the same day at the same site. A supervisor may be used to audit sites over which he has no authority or, at the very least, perform different functions on different days.

There are further means to ensure objectivity. We know to avoid data sources which cannot be re-examined at a later date, to use with great care information based on the reporter's calculations or interpretation, and to design formats that encourage informants to record actual, not expected, happenings.

A comparative analysis of monitoring reports may be used by managers to assess the credibility of monitoring personnel. If a manager notes that two out of fifteen staff monitors consistently report half the site commodity loss rates found by their colleagues at similar sites, he has reason to doubt the credibility of these two monitors. If all sites have an equal chance of being visited by any one of the monitors, the validity of this judgement will be that much surer. No individual mon-

itor should have a series of sites he always visits. He should be informed as late as possible about the sites on his upcoming schedule. Thus, through random deployment and surprise monitoring schedules, the manager discourages the formation of special relationships between monitors and site staff and strengthens his own basis for judging individual performance.

That is not all that can be done. In large commodity programs, it is advisable that the monitors be closely supervised and their reports randomly re-validated by their supervisors. This is particularly important when PVO monitoring reports are the basis of making missing commodity claims against the counterpart. It is also good management practice.

### Monitoring Representativeness

When there are relatively few sites (under fifty), it is a conceivable, but expensive, procedure to monitor all sites within a few days. By covering all the sites at a given time, one can achieve representativeness.

It should be understood that time is a critical factor here. To study the status quo of a set of phenomena, time must be held constant. If one wishes to compare sets of phenomena as they are affected by time, the data on the phenomena should be collected at regular intervals. Consider if management needs to know, for instance, in planning the next commodity deliveries what the current stocks are at all the sites. It will not have the needed information or complete picture if it collects inventory data on half the sites at the beginning of the month and the balance at the end of the month.

Suppose that management needs to understand the pattern of inventory usage throughout the year for planning deliveries. It may need that information on monthly, quarterly, or other interval basis, depending on its own delivery capabilities and site storage capacity. Inventory data must be collected at regular, set intervals to generate a pattern which permits comparative analysis and prediction. Thus data on 20 days' usage is not comparable to that covering 45 days without conversion to daily usage rates.

Time plays a crucial role in achieving representativeness. Effective monitoring can be done in one of two ways: (a) Monitoring all sites at the same time; and (b) monitoring a representative, randomly selected sample of sites at a given time. The first option is rarely feasible because of the generally large size of commodity programs. Neither the PVO nor counterpart could afford to provide transportation for such a huge monitoring staff.

### Random Sampling

We are left with representative, random sampling for site monitoring. Determination of appropriate sample size and actual sample selection (a different sample for each monitoring period) is not difficult because of the usual homogeneity of the program in terms of management objectives and operational circumstances.

The form, content, timing, and data base of information is dictated by its intended use. If one is determining sample size, the significant variables and needed timing for evaluating program impact must be considered.

Age group, sex, economic status, religion, cultural base, etc. may have to be used to get representative categories for evaluation sampling. This must be done for any factor which is expected to have a significant influence on the response but is not uniformly applicable. If religious affiliation is expected to have no bearing on beneficiary consumption patterns, there is no need to use it as a category. If the religion does have a major influence, but most of the beneficiaries belong to the same religion, the importance of this factor in sampling is nil.

In achieving representativeness in monitoring samples, management must identify the factors which might cause perceptible operational differences between the sites. Some factors, not controlled by management but which might influence employee performance, are:

- o Available staff and support infrastructure such as health posts versus health centers;

- o Accessibility of site to supervision and supply such as urban versus rural;
- o Type of institution such as private versus public or MCH versus school feeding versus pre-school feeding;
- o Size of catchment area for staff to cover with services.

Management must determine whether these variables are significant or not. This is another reason why site monitoring systems should be designed in the field, tailored to individual programs.

When the variables are identified and the sites categorized accordingly, one then randomly selects the same percentage of project sites from each category. This automatically gives proportional representation for reflecting frequency and prevalence for the total program. For example if we have 100 health centers and 600 health posts and have determined a 10-percent sample is adequate, we then include 10 centers and 60 posts in our sample for each monitoring period. This mirrors the one to six occurrence in the program.

To determine adequate sample size, one must have a high enough sample percentage to allow representation of each significant category. If one category has less than 10 sites, one cannot take a 10-percent sample. If management includes one site from this category each monitoring period, it weakens the representational validity of its overall findings. The more advisable course is to increase the sample percentage or reassess the significance of maintaining a category containing so few sites.

The greater the homogeneity, the smaller the sample size is required to achieve representativeness. A 5-percent sample may be perfectly adequate to reflect the status quo in a 1000-site program. Assume that this percentage represents the most efficient sample size in achieving representativeness and in the expenditure of resources. A larger-than-necessary sample size is less efficient and less effective.

Management may decide that it wants monitoring staff to visit more sites than necessary for information other than monitoring data. Or it may feel that monitoring visits have enough positive impact on site management behavior that it justifies the costs of additional visits. Consequently they may decide to audit one site in every ten instead of one in every twenty.

Before making that decision, management must be clear on the following points:

1. In our example the 5-percent sample represents the best cost-effectiveness and highest efficiencies (such as staff/vehicle use) for getting the necessary audit or monitoring information.
2. Use of staff to cover a larger-than-necessary sample is dictated by a purpose which has nothing to do with information needs and the additional costs must be justified on that basis.
3. If sample monitoring must be done in the shortest possible time and include randomly selected sites, additional monitoring visits to increase management presence at sites may not be the most efficient option. It may be better to increase the number of training or supervisory visits rather than the sample size for monitoring.

### The Importance of Timeliness in Monitoring

We have already discussed the importance of time in achieving sample representativeness. It is also vital in making use of monitoring information. There is a difference in the terms auditing and monitoring. In normal parlance, the term audit is used to mean an examination of an organization's financial transactions and accountability systems to see if they follow generally accepted accounting principles.

Generally an audit is performed yearly by an accredited, independent accounting firm to validate the organization's financial statements to the concerned public.

Some organization's audit procedures are specifically designed to give more frequent feedback to management which is more in tune with what we call monitoring. Monitoring, however, examines a wider field than financial or even resource transactions. In commodity-based programs, it also contains information about site personnel's specific duties. It also may have information about the participant group if it has had a specific role in implementing project activities or supplying certain resources.

Monitoring, as used here, means validating all information from project sites on activities important for program implementation. For program management purposes, monitoring must be done on a continual basis--far more frequently than once a year. For validation purposes, it should be done shortly after each report submission from all sites in the program.

A representative, random sample monitoring system, designed to collect data on the same management points covered in the site reports, can be used by management to provide continuous feedback information on operational performance in key management areas. The information, based on a small sample, will mirror the management realities of the program. It will permit management to track accomplishments, identify problem areas, and carry on routine planning. Monitoring reports on a representative sample can take the place of reports from all sites in the program.

Universal reporting is needed by management to provide the comprehensive information on the actual status of all sites such as the total tonnage balances in site warehouses. Managers, however, make greater and more frequent use of comparative rather than comprehensive information in their daily decision making.

The need for continuous feedback on sites has long been recognized in commodity programming, but the type of continuous information needed has been less understood. This has resulted in management information systems which require monthly reporting from all sites even though comprehensive information might be needed only quarterly. This represents an enormous loss of staff time and energy at the site level, where efficiency is vital.

Random-sampling monitoring, using a different representative sample each time and conducted on a monthly basis, can more efficiently provide the needed feedback. Its use allows management to set up a less onerous reporting schedule for sites. It reduces the paperwork and processing time spent at intermediate levels needed for report checking and consolidating. Random-sampling monitoring keeps managers fully in touch with project sites. It also provides the validity check on site reports needed by management to maintain accountability.