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**CHALLENGES AND TRENDS IN THE MODERNIZATION OF
STATISTICAL SYSTEMS**

Institutional organization

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A. Institutional Organization

I. What is meant by “organization?”

The concept of “organization,” often mistakenly confined to mere structure, is very broad. An organization, sometimes erroneously defined as the elements in an organizational chart, is actually a well-defined, complex system characterized by the interaction of many variables, including objectives, strategies, organizational structure and human resources.

Organizational structure is a formal system of working relationships by which the interacting tasks of many individuals and groups must be coordinated to meet a common purpose. Coordination is the critical, necessary element by which the organizations takes shape and assumes a particular structure. The organization is a set of working relationships established expressly to meet the organization’s objectives.

The concept of “structure” is likewise complex, comprising many tasks: subdivision of tasks into organizational units and job positions, a hierarchy of authority, and formal lines of communication. Organizational charts are a familiar graphic representation of the organizational structure.

Structure is the skeleton. Although the organizational chart is a drawing of the skeleton, an organism is more than a mere skeleton. The skeleton lends shape and consistency, providing the organism with a scaffolding to sustain it, but the skeleton is not the totality of the organism.

II. How are the National Institutes of Statistics (INEs) organized?

The most common types of organizational structure are:

Functional structure, organized around technical specializations. Examples include universities, generally structured by specialty: separate schools for science, engineering, medicine, social science and law.

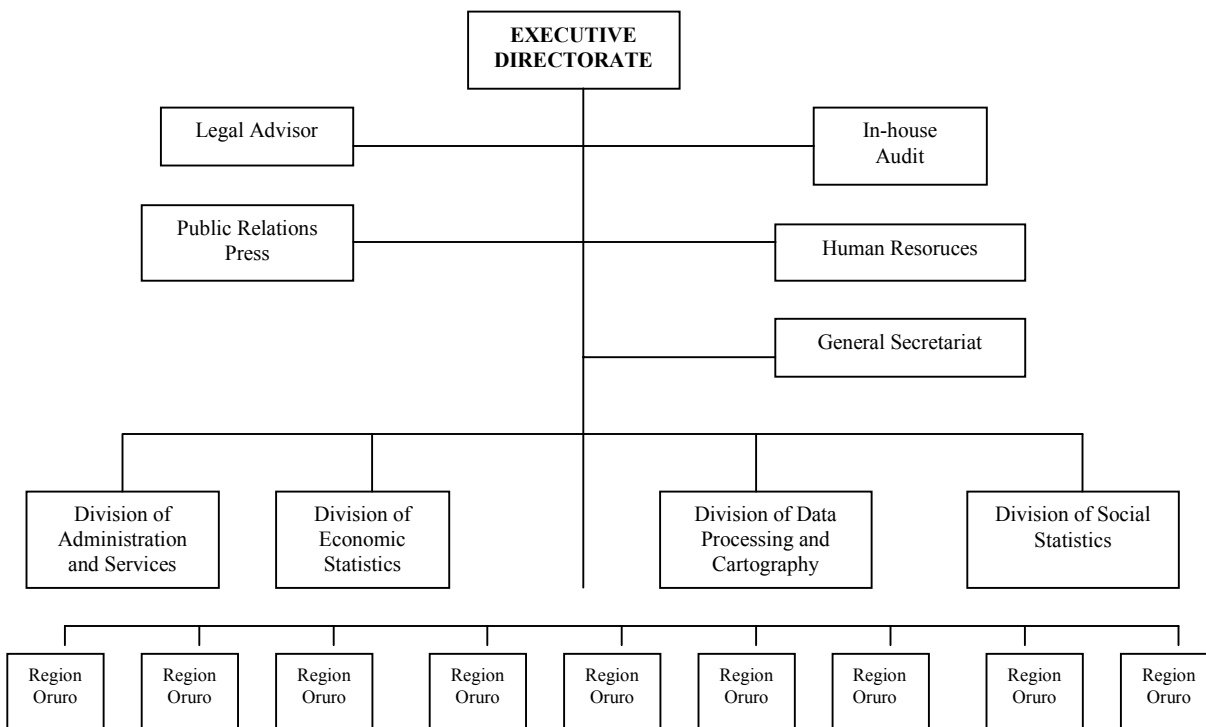
Divisional structure, organized according to output. This type of structure may be oriented toward clients, products or geographic coverage. A banking institution, for example, is divided on the basis of clientele: departments of corporate banking, commercial banking, personal banking, and more.

Project structure, whose basic rationale of division is by projects, that is, by organized sets of activities in pursuit of a given objective, that cease to exist when the project is completed.

Matrix structure, which has two intersecting structures: functional divisions by specialty, and a project structure. For example, an industrial research institute may have a basic structure of engineering departments, one for each field of specialization, to carry out services and projects for technological development. Depending on the specific needs of each case, multidisciplinary

project teams are put together with people from different departments, working under a project coordinator.

The following organizational chart shows the functional structure of the INE's. To a greater or lesser degree, the major advantage of this structure is the presence of highly specialized human resources. Nevertheless, this advantage is often obscured by the drawbacks of the system, as in such an organization, divisions answer directly to the top executive authority and have a strictly vertical structure. Possibilities for joint activities are thus very limited, and the production chain and its in-house clients are difficult to identify.



The vertical nature of the organizational rationale in this structure is easier to see in the relationships with regional offices. These offices to report to the Executive Director, and the resulting bottleneck interferes with regional coordination and hinders the delivery of data for generating statistics and indicators. The divorce between divisions and regional offices is clearly in evidence.

The resulting environment is characterized by:

- ! A budget which, although small, remains undisbursed, resulting in delayed salary payments, slow service, and long waits for the acquisition and assignment of materials and assets; statistical activities naturally suffer.

- ! Inadequate infrastructure, including antiquated and rickety buildings, equipment, furniture, and management and information systems.
- ! Little motivation among staff members.
- ! Unclear in-house rules.
- ! Poor internal communication.
- ! Few opportunities for participation, creativity and constructive criticism.
- ! Political and party interference in appointments.

In such an environment, the organizational culture and climate are easy to predict:

- ! Little sense of accountability.
- ! A short-term mentality.
- ! Informal communication, mostly in the form of corridor chat and rumors.
- ! A sense of insecurity.
- ! An occasional feeling of embarrassment at belonging to the entity.

III. Proposed organization

Given such an internal and external environment, a reform process is clearly in order to address organizational conditions that have become a problem. The fundamental motivation for reform must be the desire to build an institution of excellence, able to respond to a changing world, learn constantly, and focus its service on clients, whether in-house or external. Reform should serve to consolidate dynamic, fast-moving INEs able to respond to a shifting environment and serve as true models of public management offering high-quality services with efficiency and transparency, and an institutional system whose most basic feature should be that it creates value for the public.¹

The task of reorganizing the INEs entails making decisions on courses of action that will bring about a future situation defined as the objective. The strategy for change must include at least:

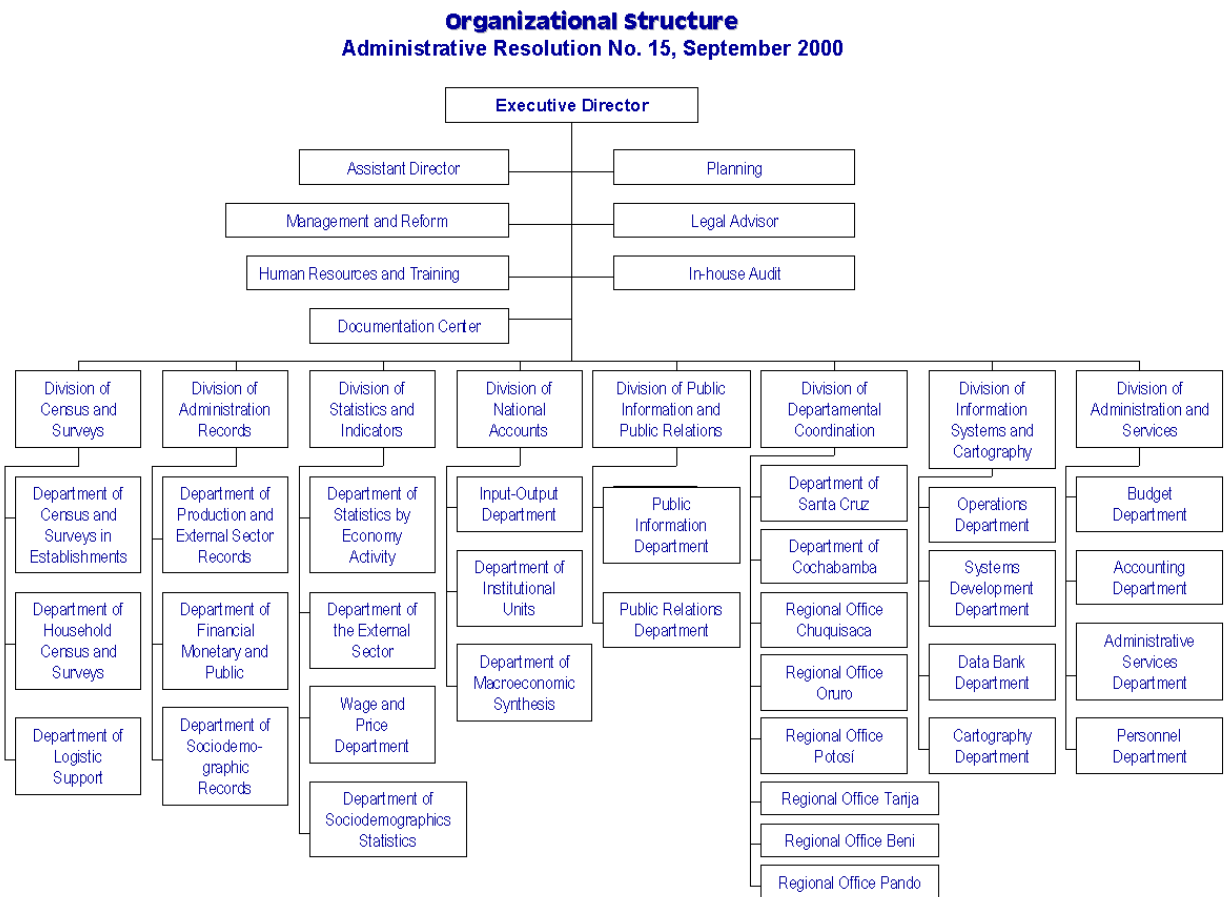
- a. ***Set objectives:*** define the organization's *raison d'être* and its mission and vision. If the mission is already defined, note should be taken; otherwise, it needs to be defined.
- b. ***Analyse the current organization to*** gauge how great a distance separates current reality from the mission and performance targets. The result is commonly known as an assessment or diagnosis; it includes strengths, weaknesses, opportunities and threats in the environment.

¹ Generation of Public Value.

- c. **Decide what changes are** needed, identify issues to be resolved, and distinguish causal factors from effects.
- d. **Design the future organization**, identifying alternative means to achieve set objectives. This is the time for creativity and imagination, exploring different approaches to solve problems identified. Particular effort should be made to evaluate available options before designing a target organization aligned with the predefined mission and vision.
- e. **Plan organizational changes**, defining the **overall** strategy for the exercise. Answer the following questions:
 - i. Was the process conducted with broad participation?
 - ii. Was the process handled confidentially, or was information made widely available?
 - iii. Is transition to the target organization feasible?
 - iv. What should be changed first? Structure, systems, infrastructure?
- f. **Institute organizational changes**; decide how the changeover will be organized, secure leadership and participation.
- g. **Follow-up and monitoring**, comparing the design with established objectives and making necessary corrective decisions.

The result is a process of creative tension in which the institutional vision is compared to reality. With this process it becomes possible to face the challenge of creating a new organizational structure based on the very nature of the tasks involved in generating statistics and indicators. It takes the many levels—technical, support, and administration—into account and then brings all of them together in an organization focused on client service. The working paradigm is production by demand, which implies close contact with users and other producers of statistics.

This new proposed structure can be illustrated as follows:



The new organization clearly adopts a matrix structure. Clients, both in-house and external, set the process in motion and, through their needs, give momentum to institutional performance. This structure situates specialization within the essential processes of generation of statistics and indicators.

Thus the basic sources of information, which are the point where the whole process begins, find their institutional home within two divisions. From there they eventually flow into the Division of Statistics and Indicators whose products, for the most part, are fed into the Division of National Accounts; specialists in this division define the framework that will give meaning and body to the indicators. The Division of Public Information and Public Relations is responsible for disseminating information.

This structure makes good use of functional specialization with a client focus. For example, if a specific information request calls for a national survey, the Division of Census and Surveys interacts with the Division of Statistics and Indicators and the Division of Departmental Coordination. One person is made responsible for coordination, and responsibilities are assigned to each professional on the working team that will be carrying out the project.

The structure is built on a new philosophy. According to this view, the generation of statistics and indicators is so centered around the interaction of economic and social forces that the two become mutually dependent. This excludes any possibility of estrangement between the generation and handling of statistical information.

The new structure entails a logical process that begins when data are first collected from basic sources of information, including censuses, surveys and administrative records. The process unfolds with total transparency, in close cooperation with users and other producers of basic statistics, to produce reliable, useful, timely statistics and indicators which in the end are given a uniform structure using the national accounts as a framework.

Another critical component at this technical level is dissemination of statistical information and relationships with clients and other producers. It is a level that requires logistical and operational support, which it receives from the Division of Information Systems and Cartography and the Division of Administration and Services. This support enables it to conduct its activities efficiently and effectively, while the Division of Departmental Coordination oversees the interaction of all the other units.

The entire process requires sampling frames, information systems, and other tools that cut across the many activities described above, and that come together in the Division of Information Systems and Cartography. The generation of statistical information encompasses the entire national spectrum, and for this purpose, coordination with regional offices is of paramount importance, both in collecting and in disseminating data.

This process-oriented matrix structure clearly reflects the logic involved in producing statistical information.

In a process such as this, the specific functions of each component part of the proposed organizational structure for the INEs can be easily identified and defined. The result is a new kind of process-based organization which cannot function successfully without coordination. It demands close contact among area directors and leaders of staff units, and a vehicle for them to analyse and set the course for the institution, perhaps by creating a Management and Modernization Committee.

With the new proposed structure, the functions assigned to each proposed division and unit can be clearly identified, as follows:

Executive Director

This is the top executive authority and official voice of the institution, whose major responsibility is to define, plan, coordinate and supervise institutional policies and actions. The work requires support from:

The Legal Advisor, who suggests and carries out action on matters of a legal and administrative nature, drafts administrative decisions, contracts, agreements, etc., and serves as the institution's legal defense in all administrative or judicial proceedings that may arise.

In-house Audit, which operates independently to provide advisory assistance on administrative and financial matters, verifies compliance with rules, regulations and instruments for internal control, analyses the results and efficiency of operations, and double-checks records and financial statements to make sure they are reliable.

Operational planning, in coordination with area offices and department heads, draws up annual plans of operation and monitors the performance of planned activities and tasks. This office is responsible for fitting short-term plans to long-term goals.

Human Resources and Training manages the institute's human resources. It sets training policies to develop and improve the technical and managerial skills of staff members and thus consolidate a team that upholds the institution's values and principles and is capable of meeting institutional objectives.

Documentation Center is responsible for organizing and safeguarding documentation and Institute archives.

The General Secretariat manages correspondence, receives, dispatches and files all documents, and provides photocopy services.

Assistant Director

The Assistant Director, who assumes top managerial functions whenever the Executive Director is absent, must coordinate the activities of all eight departments that comprise the organic structure of the INE, and carry out activities for inter-institutional relations.

Division of Census and Surveys

The main task of this division is to collect data from households, economic establishments and agricultural operations through censuses and surveys and send them to the Division of Information Systems and Cartography to be processed. The results are fed into the Division of National Accounts and the Division of Statistics and Indicators, where they are transformed into indicators. This division also prepares directories of economic establishments, prepares sampling frames and statistical designs, and keeps the country's statistical cartography up to date.

Division of Administrative Records

This division collects data from specific sectors: health, education, employment, housing and basic services, customs, and so forth. The figures then undergo consistency analysis and are forwarded to the other divisions to be processed into statistics and indicators.

Division of National Accounts

This division prepares statistics and indicators of the country's economic and social structure. It is an internal client of the Division of Statistics and Indicators, whose information it uses to prepare such statistics and indicators as overall and regional Gross Domestic Product, input-output tables, social accounting matrices, financial accounts, and other composites.

Division of Statistics and Indicators

This division develops information on production volume, prices and wages by economic activity and foreign trade, and social issues such as health, education, housing, basic services, poverty, nutrition, social security, citizen security, and others. It uses census and survey data and administrative records from both public and private institutions.

It develops up-to-the-minute statistics and economic indicators such as the Consumer Price Index, foreign investment figures, views of the business sector, and tourism statistics. It also produces social statistics to support the design, follow-up and evaluation of development policies.

The Division of Statistics and Indicators produces demographic information, population forecasts and indicators of health, education, housing, basic services, Social Security, employment, poverty, social expenditures and investment, human development, and the like. It generates statistics and indicators for constructing the social accounting matrix.

This division works closely with its users to ascertain their information needs, translate them into indicators and variables, and formulate questions to be incorporated into census and survey forms or administrative records, depending on the reliability of the source. In other words, it is responsible for keeping the producers of statistical information closely attuned to their users.

Division of Departmental Coordination

This division monitors and supervises regional or field offices. It must regularly tabulate economic and social information from censuses, surveys and administrative records, disseminate all the information produced, and ensure good inter-institutional relations in the regions.

Division of Information Systems and Cartography

This division is in charge of organizing and processing statistical and cartographic information and developing systems for collecting and consulting information. It centralizes and validates data, administers and supervises the installation and operation of hardware and software, safeguards institutional information, supplies cartographic material for census and survey field work, and develops suitable technology for gaining access to information over the Internet, CD-ROM, or other media.

Division of Administration and Services

This division organizes the institution's human and financial resources. It prepares administrative regulations and procedures, hires and appraises personnel, and makes sure physical and financial resources are used rationally.

Division of Public Information and Public Relations

The central task of this division is to keep information accessible and inform the public about statistical and institutional activities. It regularly releases information to the news media, the public sector, the private sector, and others. It plans public-information campaigns when census or survey time approaches. It is responsible for publications and for service to the public through the library, Web page, and databases.

National statistics bureaus, by adopting an organizational structure of this kind, will be equipped to rise to the challenges of a globalised world and take their place in a society completely immersed in the information age. Information is a public good, and because of its effect on the general welfare, it is incumbent on the State and those of us who are responsible for generating and using information to shoulder the obligation of making it better every day.