

# THE EXPERIENCE OF THE NATIONAL GENERAL AUDITING OFFICE OF COLOMBIA

**Alfonso Reyes Alvarado**

*e-mail:* areyes@uniandes.edu.co

Professor: Department of Industrial Engineering  
Universidad de los Andes

## 1. EXPOSING THE PROBLEM

### 1.1 Normative Context

In spite of the fact that Colombia has the oldest and most stable democracy in all of Latin America, it has been characterized by a state of permanent violence that has directly affected four generations of Colombians. In the so called “*Thousand Days War*”, at the end of the 19th and beginning of the 20th Centuries, thousands of people lost their lives, or lost a close relative. Shortly after the end of this internal conflict, in the forties, the country saw the rise of *guerrilla* groups that had been inspired in the Communist ideal of the times, namely due to the fact that there were increasingly larger social differences in the country and that many political leaders of the opposition had been brutally murdered. This is how the FARC (*Fuerzas Armadas Revolucionarias de Colombia*<sup>1</sup>), as the armed portion of Colombia’s Communist Party, came into being. This is the world’s oldest standing *guerrilla* movement, with more that fifty years of existence.

Another five *guerrilla* groups, but more notably the ELN (*Ejército de Liberación Nacional*<sup>2</sup>) and the 19th of April Movement (M-19)<sup>3</sup>, with their military capacity, gave a clear message that the agreement that the two main political parties had signed to alternate power during four-year periods<sup>4</sup>, had not succeeded in eliminating the gross existing social inequalities in the country.

An unprecedented student-led movement in the eighties, together with the accomodating attitude of the government at that time, opened up the possibility of reflecting openly on the institutional crisis that the country was facing. The result was a national outcry that brought about a Constitutional Assembly that reformed the country’s Constitution in 1991.

During 1990, and through a democratic process, the representatives to this Assembly were elected. For the first time, a very heterogeneous group, representing the great cultural and political diversity of the country assembled with the purpose of rethinking the Colombian state. Representatives of the black minorities, of the indigenous populations, and of the three

---

<sup>1</sup> Colombian Revolutionary Armed Forces.

<sup>2</sup> National Liberation Army (founded in the sixties).

<sup>3</sup> Founded in the seventies.

<sup>4</sup> This agreement came to be known as the “National Front” and it was made in Spain in 1957.

## The Experience Of The National General Auditing Office Of Colombia

*guerilla* groups that had received an amnesty, together with the two traditional political parties, collaborated in drafting a new constitution, **The Constitution of 1991**.

This new constitution opened up a space to start modernizing the Colombian state. Many national institutions were profoundly modified. For example, in the justice sector, the Public Prosecuting Office<sup>5</sup> was created. This turned an old project of changing an *inquisitive* and rigid punitive system into a reality. The new *accusative* penal system has proven much more effective during its still short life. Likewise, the Judiciary Upper Council<sup>6</sup>, that gave administrative autonomy to the judicial power, was created and the constitutional control function became a separate entity. In the past this function had been served by the Supreme Court, but now the Constitutional Court was created for this purpose, thus giving coherence to all the legal system within the spirit of the new constitution and playing a key role in the overall process.

However, one of the most important changes that the new constitution brought about, had to do with the regulatory mechanisms in all the public entities. It was established that all public entities should have an internal control system. In practice, the new constitution was recognizing the futility of an external and police-like mechanism undertaken by organisms such as the National General Auditing Office<sup>7</sup> (NGAO), and proposing a mechanism whereby each public entity should assume responsibility for creating its own internal control system.

This article refers to this radical change and the manner in which control is perceived in public entities and, in particular, to the process of change that was initiated by the NGAO to comply with the spirit of the new constitution.

### 1.2 Historical Context

The function of the NGAO in Colombia has gone through three clearly defined phases. The first one extends from its creation by the Kemmerer Mission in 1923 until 1970. The second is a transition phase from 1970 to 1990. The third phase begins with the new Constitution of 1991.

The three control pillars established by the Kemmerer Mission were: a prior and perceptible control; a “total” control; and the internal presence of an external agent to perform the internal control of the public entities. This translated into the creation of an NGAO office in each public entity; its main function was to revise and approve all the contracts drawn by each entity.

Therefore, the NGAO had a huge payroll of some twenty thousand employees throughout the whole country. It was believed, naïvely perhaps, that by controlling the public entities in this manner the problem of corruption would be minimized. Naturally, what happened as a result of this was that the NGAO became the co-administrator of each public entity; its offices became one more link of the heavy bureaucratic chain that slowed down the hiring process

---

<sup>5</sup> Fiscalía General de la Nación.

<sup>6</sup> Consejo Superior de la Judicatura.

<sup>7</sup> Contraloría General de la República.

## The Experience Of The National General Auditing Office Of Colombia

and, therefore, it became an easy prey for illegal pressures from those who wanted a more expeditious hiring process.

This interpretation of control on the part of the NGAO not only turned it into a very inefficient organization - it was impossible to exercise an effective control in this way - but it also made all the public entities inefficient as well since the supervising presence of the NGAO within them was so stifling.

Specifically, the control function was concentrated in gathering and recording extensive amounts of data about past events after some process of analysis. The data was recorded in large, cumbersome reports that made their way into the Comptroller General's office through a long and tedious bureaucratic chain. Of course, these reports had a short-lived utility as news, but no more. Firstly, the fact that these reports referred to past events made it very difficult to ensure that the same problems would not occur again since the said entity had undergone changes in the meantime. Secondly, the fact that these reports were centralized in the main office of the NGAO made it difficult or impossible for the individual entities to correct the faults that had been observed. Thirdly, the audited entity did not engage in a learning process that would allow it to improve its own internal control mechanisms.

This manner of exercising control within the NGAO led to the development of police-like practices designed to uncover the important cases of corruption in public entities. Metaphorically speaking, we could say that its function became more and more like that of a coroner who could explain in great detail the causes of death of a public entity and, in Colombia, this meant trying to revive the *corpse* (or corrupt entity) using resources that should have been better employed in social investment. This vision was so embedded in the minds of all the employees of the NGAO that the effectiveness of an audit was measured in terms of the number of reports that could be written per year and the indicator of effectiveness for them was the amount of money that could be detected as a result of corrupt practices. Nonetheless, no one could realize that, year after year, even though the guilty parties were removed from office and sometimes the public entities themselves changed, the practices that generated corruption remained intact. Neither did they observe the perverse nature of their indicator of effectiveness that meant that the NGAO was being more effective insofar as the public entities were more corrupt, because only in this way could they detect further embezzlements.

It is in this setting that we see the emergence of a new constitution that establishes that the control that must be exercised by the NGAO should be subsequent and selective and that all public entities must have their own internal control systems. For obvious reasons, the question that began to be asked throughout the NGAO was: *What is the role of the NGAO under this new constitutional mandate?*

To find an answer to this question and to study its structural implications, a three-year project was designed. Colombian and foreign experts participated in this project. This article will illustrate the application of tools taken from organizational cybernetics that were used in this project.

## The Experience Of The National General Auditing Office Of Colombia

### 2. RETHINKING THE ROLE OF THE NATIONAL GENERAL AUDITING OFFICE

As was previously mentioned, the representatives to the Constitutional Assembly, who wanted to encourage the development of self-control systems in public entities, questioned the role of the NGAO. After many sessions and long debates over this issue, with the consulting team for this project, the managers in charge of the NGAO at that time decided to interpret the role of the NGAO as one that would ensure that the public entities would use their resources effectively instead of detecting the largest possible number of irregularities in their use.

This new perspective implied that the main role of the NGAO was to ensure the high quality of internal control systems within each public entity. It would, in turn, simply exercise **second order control** over these control systems.

If this new perspective in the NGAO's mission could be accomplished, it would mean a direct benefit on the NGAO as well as in each public entity. These could solve their own problems internally more quickly and the NGAO could make better use of its limited infrastructure by applying second order control over all the public entities that it had to audit.

The auditing teams, on the other hand, would no longer be exercising police-like functions, but would become consultants in internal control for each public entity. They did not have to give up their investigative capacity to do this either. Thus, the effectiveness of the NGAO would no longer be measured in terms of the amount of money that it could recover after a long, public trial, but, rather, in terms of how effective each audited public entity had become.

It was clear that to achieve this change in the most important control agency of the Colombian state would have enormous repercussions on all the other public entities and on the Colombian state in general. However, given the complexity of the NGAO, and the culture that dominated the whole organization, it would not be easy to change practices from one day to the next. A cultural change had to take place so that the employees could shift from their former functions to the new ones that the new role demanded. This new cultural change had to facilitate the creation of new ways of relating to each other, both personally as well as within entities, internally and externally.

#### 2.1 Redefining Auditing Practices

To fulfill the new mission within the NGAO it became necessary to redefine the common auditing practices. This is how the organizational auditing practices began to be developed. The purpose of these practices was to encourage a process of self-diagnosis within the audited entity to find their structural faults. These faults referred basically to recurrent problems in their communication and control mechanisms that made it difficult or impossible for them to achieve their proposed goals. If they could not define and agree on their mission and on the tasks that had to be performed, then there was a problem, so they had to make sure that these tasks could be fulfilled in the best possible manner with the resources at hand.

Having been thus defined, the organizational auditing practices had four characteristics that contrasted with the traditional auditing practices, namely:

## The Experience Of The National General Auditing Office Of Colombia

- To facilitate an internal process of reflection within each entity. Therefore, the auditing teams had to include employees of the audited public entity.
- The primary sources of the information for the audit would be semi-structured interviews and discussion workshops.
- The audit report was not an end in itself but simply a means to encourage agreements between the entity and the NGAO. The parts of this agreement might be of three types<sup>8</sup>:
  - *Operational*: when there were changes that the audited entity could effect on its own, in no more than six months, without modifying its internal regulations.
  - *Strategic*: when the required changes involved a change in the internal regulations of the entity, but not in the legislation. These changes would take between six months and a year and they were changes in strategy to achieve a purpose.
  - *Normative*: when it was necessary to effect changes that went beyond the competencies of the top managers of the entity and a legal or constitutional reform was necessary. In this case, the NGAO would open up instances to discuss these changes with the appropriate agents to see how they could be effected.
- The objective of each audit was not to pinpoint a particular employee, but to observe the relationships between the different actors (internally and externally) who were participating in the realization of the purpose of each entity.

During 1997 and 1998 fifty-two organizational audits took place in 52 public entities. Each one of these audits left an important lesson within the entity and to the auditing team on the problems of the entity and on how to understand the entity as such. But before analyzing the achievements of this project it is important to show the contributions of organizational cybernetics to the development of new auditing practices.

### 2.2 Using the Viable System Model: VIPLAN

The new auditing practices strove to detect, concurrently with the audited entity, any fault within the internal control system. To find the foci of lack of control it was decided to use the Viable System Model (VSM) [Beer 1979, 1981, 1985] and the VIPLAN method. This method, developed by professor Raul Espejo - now at the University of Lincoln in England - provides three tools that can be used as diagnostic tools as such and that help to elaborate the Model of the Viable System for a focused organization. These tools are: declaration of identity, unfolding of complexity, and analysis of discretionality.

#### 2.2.1 Declaration of Identity

If you model an organization by means of a black box to represent the processes that transform input (or raw materials) into the goods or services that it provides, it is possible to identify six constitutive elements within this process. These elements can be thus identified with the anagram TASCOI:

---

<sup>8</sup> This classification is related to Markus Schwaninger's categories developed in his paper "Model of Systemic Control" also published in this proceedings.

## The Experience Of The National General Auditing Office Of Colombia

- *Transformation*: refers to the process of conversion of raw materials or input into goods and services. It can be expressed generically as: Given X (input) to produce Y (goods and services) through Z (activities) with the purpose of W.
- *Actors*: the agents who bring about the transformation.
- *Suppliers*: provide the materials required for the transformation.
- *Clients*: those who will benefit or suffer the consequences of the transformation.
- *Owners*: those who have a holistic vision of the organization and the capacity to modify the transformation.
- *Interveners*: those who, being external agents to the organization, can directly affect the transformation with their actions.

In this way, the declaration of identity allows us to establish the primary activities of the organization and its relevant stakeholders through a process of analysis. Likewise, it points towards the main generators of complexity for the said organization.

### 2.2.2 Unfolding of Complexity

Based on the declaration of identity of an organization it is possible to establish its missionary activities. A grouping of these activities in different descriptive logical levels allows a primary vision of the structure of the system<sup>9</sup>. If we graph this grouping we have a tree-like diagram in which each level presents the necessary and logical activities to bring about the purpose of the organization at that level. Each activity on each level can be subdivided logically in similar primary subactivities. This diagram does not represent a hierarchy, but simply relationships of constitution or inclusion in activities at different logical levels. As we descend our tree from top to bottom these activities will be increasingly disaggregated. This is why this is called *unfolding of complexity*.

Some organizations can group their activities regionally. When this is the case, the regional organization can be included as part of the unfolding of complexity.

The definition of unfolding of complexity should be clear enough to establish that this is a tool of analysis and not a photographic representation of the organization that is being scrutinized. It is simply a way of representing graphically the way to organize the missionary activities of this particular organization. This means that it is possible to elaborate many unfoldings of complexity for the same organization and that each may focus on different aspects of the relationship with other parts of the organization.

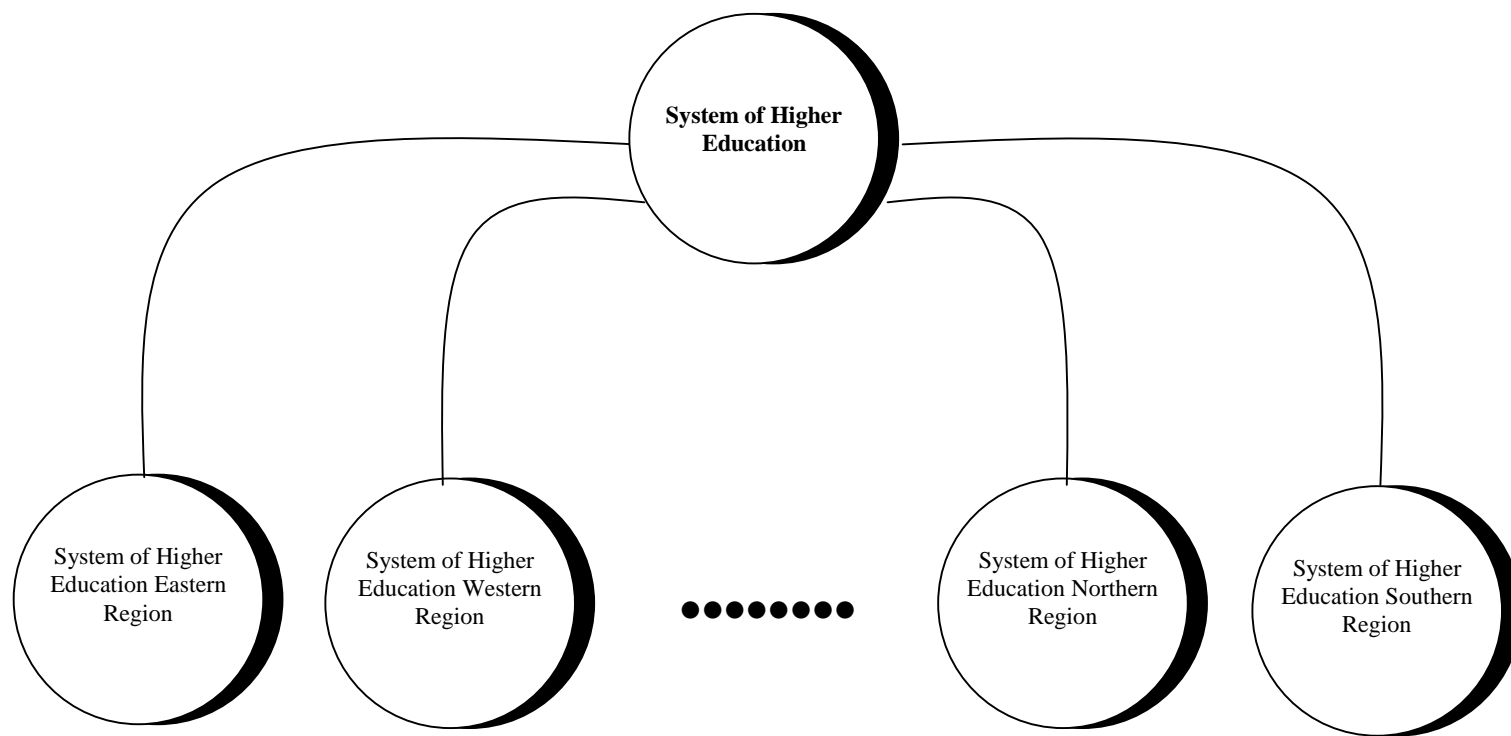
The diagram that follows illustrates an unfolding of complexity for a system of higher learning. On the first level (from bottom to top) we find the activities performed by universities and polytechnic institutes. With respect to formal education, these institutions offer their services according to three cycles according to their certified capacity. At the same time, these institutions are ascribed to a regional instance that oversees the correct performance of higher education in the corresponding region.

---

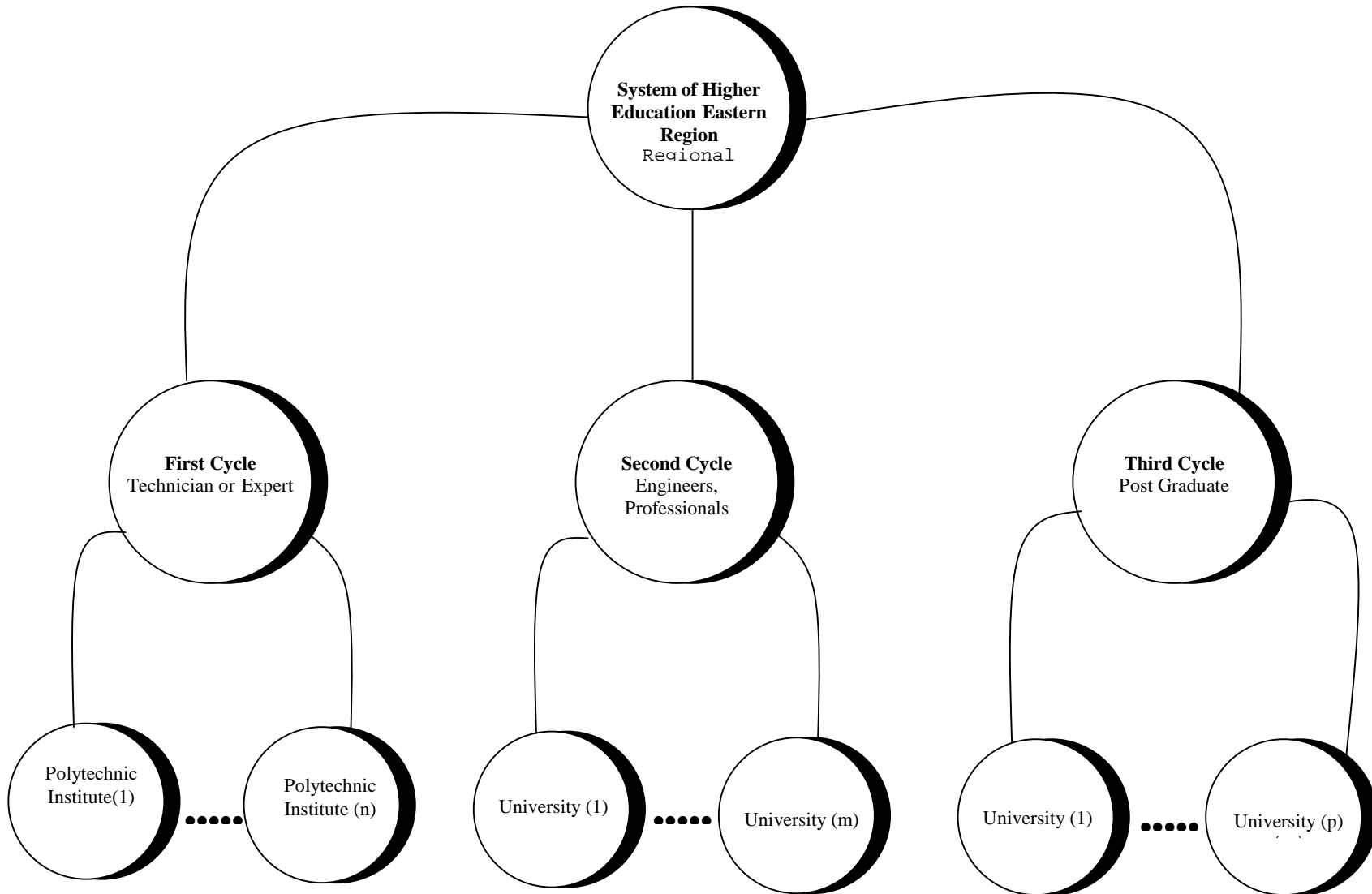
<sup>9</sup> Here we mean by structure a set of resources and relations that recurrently constitute the primary activities of an organization [Espejo et al 1996].

# The Experience Of The National General Auditing Office Of Colombia

**Figure 1. Unfolding of complexity of a System of Higher Education**



# The Experience Of The National General Auditing Office Of Colombia



## The Experience Of The National General Auditing Office Of Colombia

### 2.2.3 Distribution of Discretionality

The purpose of this tool is to discuss the relationship that exists between the missionary activities, that have been identified through the previous tools, and the support activities that are necessary to effectively perform those activities. Therefore, it is necessary to identify initially which would be these support activities in a level of disaggregation equivalent to the last logical level of the unfolding of complexity.

Once these support activities have been identified the method suggests that a matrix be constructed to analyze their relationship with the missionary activities. The columns on the matrix would correspond to the support activities and the lines to the missionary activities.

This matrix allows us to relate each support activity with a missionary activity at each logical level of the unfolding of complexity. The criteria for analysis will be the discretionality defined as delegation plus acting capacity. Therefore, the point that appears on the intersection is interpreted as meaning that this missionary activity (line) has the ability (discretion) to perform (with its own resources) the respective support activity (column). Another form of interpretation is saying that the corresponding support activity (column) is decentralized from the respective missionary (line) activity.

In this manner, it is possible to analyze the desired level of discretionality of each support activity with respect to each one of the missionary activities. This matrix is also a good guideline to decide the degree of centralization or decentralization within an organization because it focuses attention on the level of discretion that each missionary activity must have with respect to the support activities that sustain it. Please note that this also allows us to qualify the debate about centralization or decentralization in an organization, in a methodical way. For example, it is probable that it would be very sensible to centralize some support activities and to decentralize others, partially or completely.

Whether something is sensible or not depends entirely on the relationship that one wishes to have between activities (missionary or support) as well as the level of technology that one wishes to use. An appropriate use of technology can help to decentralize a support activity while keeping the resources centralized. For example, if the legal advice activity is a support activity that requires highly trained professionals, it is possible to concentrate this resource (trained personnel) in the central offices of the organization and decentralizing the support activity that would be performed through an electronic mail system that operates on a network within the organization.

The following diagram illustrates an example of a matrix showing a distribution of discretion for a higher education system.

## The Experience Of The National General Auditing Office Of Colombia

**Figure 2. An example of a discretionality matrix for a higher education system**

Support activities related with the regulating capacity of a higher education system.	Evaluating academic programs	Regulating a Welfare Fund	Accreditation of programs	Designing and observing quality indices of the higher education system	Managing a National Information System for the SHE	Supporting and monitoring the development of local educational projects	Other functions related with regulation and control
<b>System of Higher Education (SHE)</b>	●	●	●	●	●		●
<b>SHE Eastern Region</b>	●		●	●	●	●	●
<b>First Cycle (Technician or Expert)</b>	●		●	●			
Polytechnic Institute(1)			●	●	●		
Polytechnic Institute(2)			●	●	●		
.....							
Polytechnic Institute(n)			●	●	●		
<b>Second Cycle (Engineers, Professionals)</b>	●		●	●			
University (1)			●	●	●		
University (2)			●	●	●		
.....							
University (m)			●	●	●		
<b>Third Cycle (Post Graduate)</b>	●		●	●			
University (1)			●	●	●		
University (2)			●	●	●		
.....							
University (p)			●	●	●		
<b>SHE Western Region</b>	●		●	●	●	●	●
.....							
<b>SHE Central Region</b>	●		●	●	●	●	●
<b>First Cycle (Technician or Expert)</b>	●		●	●			
Polytechnic Institute(1)			●	●	●		
Polytechnic Institute(2)			●	●	●		
.....							
Polytechnic Institute(n)			●	●	●		
<b>Second Cycle (Engineers, Professionals)</b>	●		●	●			
University (1)			●	●	●		
University (2)			●	●	●		
.....							
University (m)			●	●	●		
<b>Third Cycle (Post Graduate)</b>	●		●	●			
University (1)			●	●	●		
University (2)			●	●	●		
.....							
University (p)			●	●	●		

## The Experience Of The National General Auditing Office Of Colombia

### 2.2.4 Use of the Viable System Model (VSM)

Apart from the three tools that were mentioned previously, the auditors that were using these new practices also used the VSM as a diagnostic tool. However, it was very important to emphasize that the system in focus had to be determined carefully in order to make good use of the model. For example, it did not make sense to make a viable model of a ministry since a ministry is an organism that defines policies and is not viable in itself. To clarify this, the organizational audit distinguished four types of state, or public entities.

#### 2.2.4.1 Policy Regulating Entities

A policy regulating entity is not an autonomous entity. It is an entity whose reason for existing is justified as long as it forms part of a larger system that contains it. Its aggregate value consists in its capacity to define and maintain the identity of the system through the definition of rules and policies. It is characteristic of these entities that the necessary actions to execute these policies be carried out by other entities that also form part of the larger system. This is precisely the case of the ministries in the Colombian state. Each ministry defines and maintains the identity of one sector. For example, the Ministry of Health does this with the health sector and the Ministry of Justice does this with the justice sector.

From this perspective, an organizational audit to these entities focuses on observing how effectively they are going through the process of defining and maintaining the identity of their sector. This implies studying in detail at least three aspects. Firstly, that the policies that are being generated are being effectively developed by the entities within the sector that have been charged with their implementation. Secondly, that the generating process of these policies should produce, as a result, the implementation of the policies, that is, the recognition of the executing capacity of the entities within each sector and, at the same time, a response to the development program of the government at that time. Thirdly, that these policies be legitimate, that is, that they should be supported by a majority of citizens who will be affected by their implementation.

With respect to the first aspect, and as part of the organizational and management audit, it was important to observe the monitoring mechanisms that each entity was using to ensure the correct implementation of the policies on the part of all the entities within the sector. It was possible that this monitoring function was not being executed by the policy regulating entity, but by another entity within the sector (this would be the case of the superintendencies). In this case, the policy regulating entity should have a mechanism to ensure that the monitoring mechanism was being done effectively. In any case, deficiencies in these mechanisms would easily lead to irrelevant policies, or, in the case of a ministry, to legislation that would not be obeyed.

With respect to the second aspect, the organizational and management audit had to focus on observing the process through which the policies were agreed upon at government level and at the level of the entities that would have to execute them. In this respect, the main function of the policy regulating entity is in the design and supervision of this mechanism

## **The Experience Of The National General Auditing Office Of Colombia**

for agreement. If the government entities failed to be involved, the policies would find no support in the legislature and would probably never become national laws. If the entities charged with the implementation of the policies failed to be involved, it could be a tacit signal that their capacity to implement them was not being recognized. Again these faults could lead to irrelevant policies or, in the case of a ministry, to legislation that could not be put into practice.

With respect to the third aspect, the audit focused on observing the mechanisms that the policy regulating entity had to measure the degree to which the policies were accepted or rejected by the public in general. Faults in, or lack of these mechanisms could mean that policies or laws were being generated without public support.

### **2.2.4.2. Function Regulating Entities**

A function regulating entity is not an autonomous entity. As with the policy regulating entities, its reason for being has meaning insofar as it forms part of a larger system that contains it. Its aggregate value stems from the fact that it supports the primary activities executed by the system. For this reason, the organizational and management audit focused on observing the effectiveness of the support functions that it was carrying out *vis a vis* the purpose of the system that contained it.

These support functions could be classified into *control*, *monitoring*, or *coordination* functions. Any function regulating entity could be executing one or more of these functions. For example, a superintendency executes primarily monitoring functions over other entities of the sector to which it belongs, while the National Planning Office (NPO) executes all three functions at national level. To observe its effectiveness it became necessary to understand and to analyze the communication mechanisms through which the NPO communicated with the entities that it supported in its sector.

### **2.2.4.3. Primary Entities**

Primary entities are entities that can be studied with the criteria of viability of the Viable System Model.

### **2.2.4.4. Mixed Entities**

Mixed entities are those that, at the same time, execute both primary as well as support activities. There may exist dysfunctional mixed entities. These are entities that, based on their identity, should be regulating policies or functions within their sector, but that find themselves executing primary activities within the aforementioned sector. Likewise, there can be entities that legitimately are executing both types of activities.

The organizational and management audit initially had to determine if the entity was functional or dysfunctional according to the previous criteria. Once this question had been

## **The Experience Of The National General Auditing Office Of Colombia**

answered the criteria for policy regulating, function regulating, or primary entities could be applicable.

### **2.3 The Organization of the New Auditing Practices**

The new auditing practices were accompanied by a radical change in the way that the NGAO related to the audited entities in order to perform its control functions. An organization that could trespass geographical, institutional, and hierarchical barriers that were found in the traditional audits, was designed. This organization was composed of four work teams.

#### **2.3.1 Auditing Team**

Traditionally, the auditing teams were composed only of employees of the NGAO that understood their work as that of policing, scrutinizing, or being vigilant of public embezzlements and of bringing to justice those responsible for these embezzlements. This kind of relationship, over a period of many months, between members of the auditing teams of the NGAO and those of the audited entity, was characterized by suspicion on the part of the former and shrewdness on the part of the latter. It was common knowledge that there were two big lies in the NGAO. One was that the auditing team always presented itself with the sentence, "We are here to serve you!" and the manager of the audited entity would reply, "Welcome!" when neither was true.

To encourage a different type of relationship between the audited entity and the NGAO, mixed teams were set up for the execution of the new practices. These teams had an average of eight members, four of whom came from the NGAO and the other four from the audited entity. The group as a whole was responsible for the execution of the new auditing practices. In this way the relationship that was created within each team, between the NGAO and the audited entity, was one of mutual trust and cooperation. The team saw its work as a combined effort to determine possible faults in the internal control mechanism of the audited entity that would allow a better use of its resources.

#### **2.3.2. Technical Team**

This team was made up of intermediate level NGAO employees and a project consultant. The function of this team was to provide logistic support to the auditing team so that it could carry out its work.

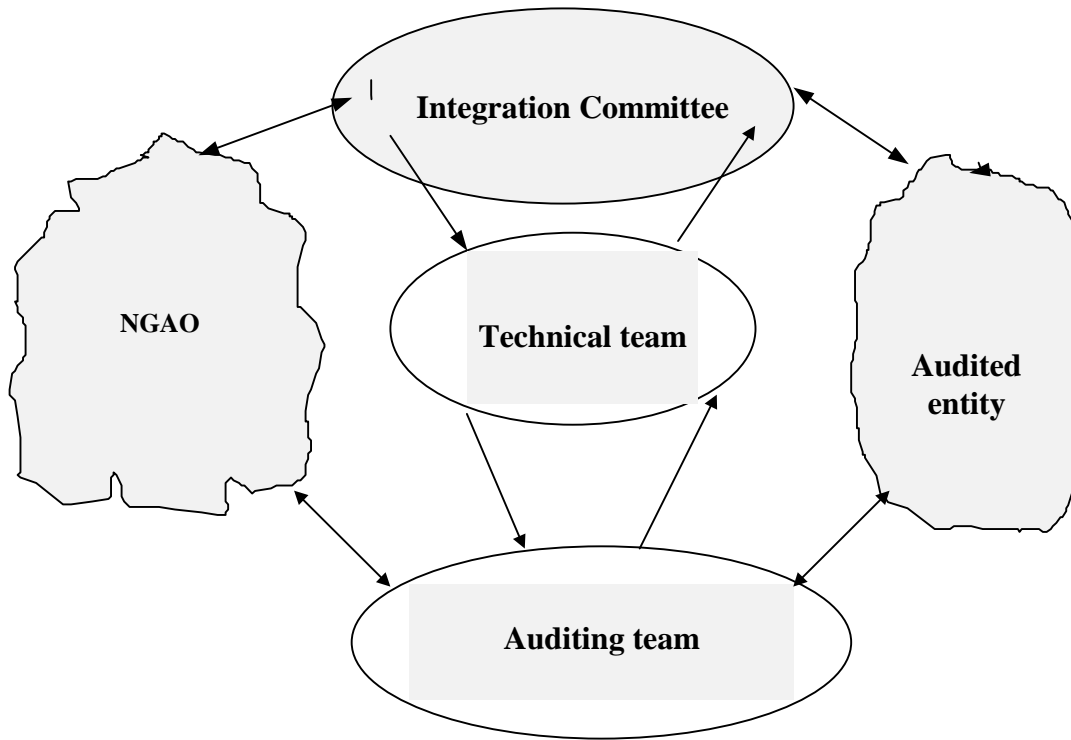
#### **2.3.3 Integration Committee**

This team was composed of two higher ranking employees of the NGAO and one higher ranking employee of the audited entity. The latter could ask for the participation of other employees depending on the needs of the audit. The responsibility of the integration committee focused on facilitating the development of new auditing practices by assigning the necessary resources. But, more importantly, it was responsible for ensuring the good

## The Experience Of The National General Auditing Office Of Colombia

quality of the communication mechanisms with the audited entity, the quality of the auditing reports, and of making sure that the NGAO made decisions and acted accordingly.

These three teams interacted recurrently among themselves, both with the NGAO as well as with the audited entity, as shown in the following diagram:



**Figure 3. Structural support of the organizational audit**

### 2.3.4 Management Committee

Finally, there was one committee that was responsible for directing the whole project. This committee was composed by: the main project consultant, the Assistant General Comptroller, and four higher ranking officers of the NGAO.

This organization, that allowed direct involvement of the audited entities in the process, was kept throughout two and a half years. In this time, fifty audits were conducted in fifty important public entities in the country.

### 2.4 Designing a Learning Process for the New Auditing Practices

An interesting challenge during the development of the project was to actually set in motion the new auditing practices. The essence of the problem was the police-like culture that was so embedded in the minds of the NGAO employees after fifteen years of daily police routine. It was clear that it would not be enough to present a new set of categories or

## **The Experience Of The National General Auditing Office Of Colombia**

innovative tools to understand the concept of organizational control in a different way. There was a risk that these would be interpreted and used from a mechanical point of view. And this is what actually happened with the first two prototypes. The auditors tried to fit their observations into the observation tools that were employed for the purpose. To encourage a flexible use of the tools, a learning process was developed to show the “conversational use” of the methodological tools that were an integral part of the new auditing practices. This learning process was developed through three different types of workshops.

### **2.4.1 Epistemological/Ontological Workshops**

The purpose of these workshops was to effect a paradigm shift in the auditors by means of exercises and reflection on the results of these exercises. In this way, the workshops encouraged an appropriate epistemological and ontological anchor with the new practices that were required. Some of the distinctions that the students had to learn were: first and second order control, observe the observer, model, speech acts and types of conversation, judgments and statements, trust, communication as coordination of actions, purpose, and effectiveness. Members of the auditing teams, of the support teams, and some employees of the audited entities attended these workshops<sup>10</sup>.

The participants worked in groups and reflected upon their own daily actions. The workshops combined practical exercises of observation and dialogues with the trainers in which each participant could observe the actions that were necessary in order to produce satisfactory results. Since the objective was to change old practices, the exercises were recurrent and always connected with the trainees’ daily routine work.

Each workshop had a duration of twenty hours distributed as follows: Thursday afternoon, all day Friday, and Saturday morning. Twenty of these workshops were conducted and they covered nearly one thousand employees of the NGAO and of the audited entities in different parts of the country. Between one workshop and another an interim period of three weeks was used to research different problems. These research projects were subsequently used as material for the next workshops.

### **2.4.2 Methodological Workshop**

The objective of this workshop was to go into depth in the basic tools and concepts needed to put into effect the new auditing practices. From April 1997 to July 1998 there was one weekly workshop on Wednesdays. The emphasis in each workshop was on developing practical exercises on the specific application of the new auditing tools. The workshop was also an appropriate venue to discuss the doubts about the application of these tools on specific public entities and to develop shared standards that would make their coordinated application easier. This is where the practical use of the three aforementioned tools and of the modelling with the VSM took place.

---

<sup>10</sup> A more detailed description of these workshops can be found in [CGR 1998].

## **The Experience Of The National General Auditing Office Of Colombia**

### **2.4.3 Poietic Workshop**

The objective of this workshop was to encourage individual self-learning in some of the new auditing tools. For this purpose, the NGAO purchased VIPLAN<sup>11</sup>. The system was translated and adapted to the Colombian context and in particular to the NGAO. Subsequently, it was installed in the NGAO's Training School. The Systems Department set up a room with 25 computers with this tool. 225 auditors used it over a period of four months.

A permanent tutor was present to clear up doubts in the use of the system, or on its basic concepts. The trainee could do exercises that were then saved in the network's server to be discussed afterwards with a tutor. VIPLAN was set up in all the regional offices of the NGAO and in each one of the audited entities.

### **2.5 Reconstruction of the Relationship Between the NGAO and the Audited Entities**

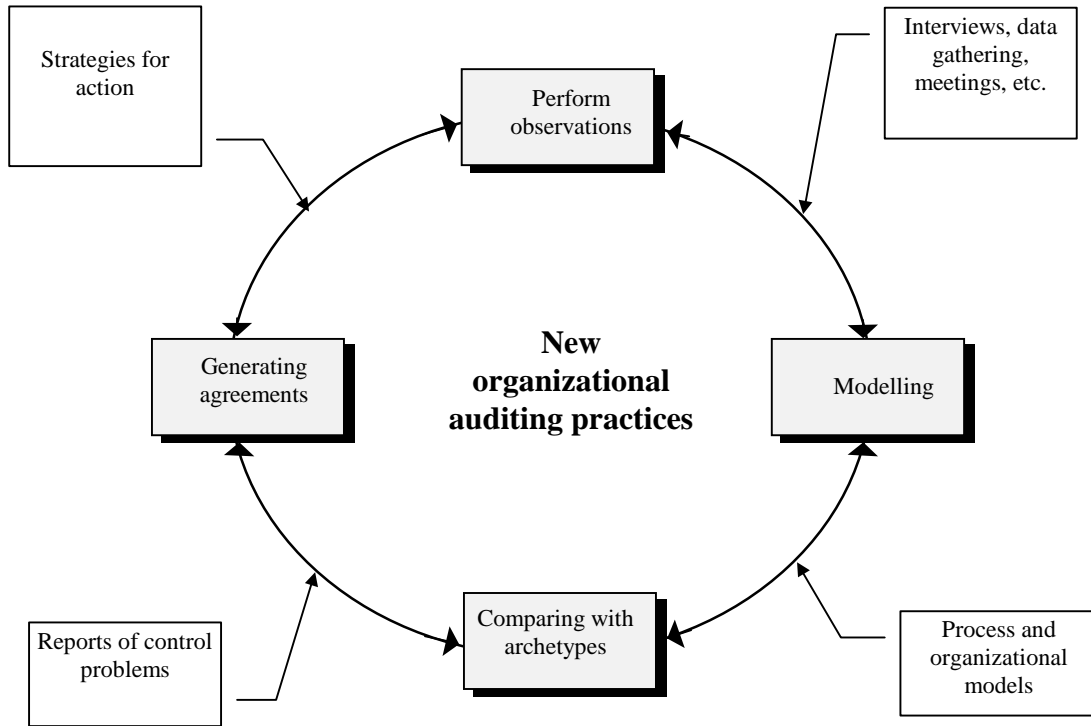
The following diagram synthesizes what has been expressed previously. It is a set of two diagrams that express the control relationship that exists between the NGAO and its audited entities.

In the following diagram it is possible to observe generically the auditing process as a cyclical process constituted by four general phases: Make observations, model, compare with archetypes, and generate agreements. The archetypes refer to structural aspects that encourage loss of control and that seem to be invariantly recurrent on the part of the NGAO in all the audited entities. These archetypes were constructed throughout the project by using a graphic language developed by Professor Raúl Espejo. In this manner, it was hoped that the NGAO auditors themselves would be updating these archetypes as they used their new practices.

---

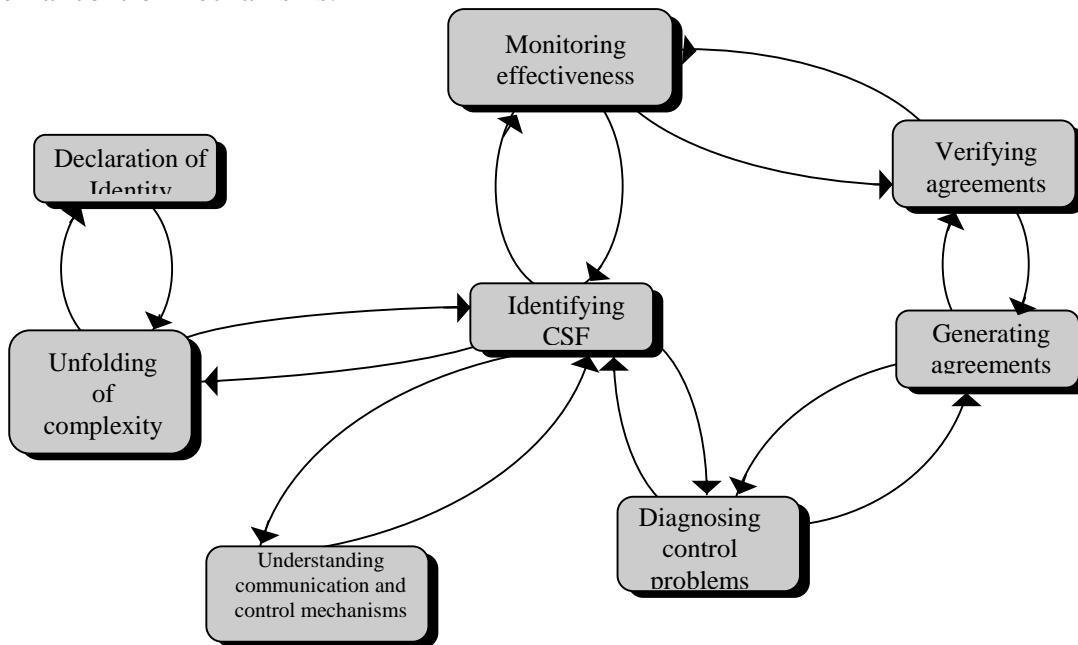
<sup>11</sup> An electronic book on organizational cybernetics and organizational diagnosis by Syncho Ltd., United Kingdom, 1997 (Spanish Version).

## The Experience Of The National General Auditing Office Of Colombia



**Figure 4. A general model of the organizational auditing process**

The second diagram presents a more detailed integration of the auditing process that focuses on determining, in conjunction with the audited entity, the possible faults in its internal control mechanisms.



**Figure 5. A detailed model of the organizational auditing process**

## The Experience Of The National General Auditing Office Of Colombia

### 3. SYNTEGRATION AS A FORUM TO REFLECT ON ENVIRONMENTAL CONTROL

Apart from the new distinctions and methodological tools mentioned previously, an explicit use of the syntegegration protocol [Beer 1994], to give support to certain specific audits, in particular one that had to do with regulating the environment at national level, was made.

In effect, the Constitutional Assembly that drafted the 1991 Constitution, expressed its concern about the environment. To channel this concern, the legislature created the Ministry of the Environment and passed a law that defined a system to protect the environment in which many public entities were created or reformed to achieve this goal. At the same time, the Colombian population was beginning to be more conscious of environmental problems and of protecting the environment. Increasingly more NGO's were created, and more public debates on this topic were generated.

The NGAO, as part of its project of change and institutional strengthening, decided to participate in this debate and the chosen tool to effect this was a syntegegration.

On November, 1996, in Gorgona Island, off the Pacific coast of Colombia, a syntegegration took place. The opening question was: "*How can we organize the state and the population to preserve Colombia's environment?*" A total of 32 people, taken from different spheres of society, attended this meeting. Among others, the minister and vice-minister of the newly created Ministry of the Environment, the assistant comptroller, directors of institutes related to the environment, two congressmen, a representative from the indigenous populations, a representative of the black population, representatives from ecological and feminist movements, the vice-minister of agriculture, a former member of a *guerrilla* group, and some university professors, among others, were present.

A continuous debate, during four consecutive days, between actors of diverse points of view on the environmental topic, produced as a result a set of inter institutional agreements that came to be known as the *Gorgona Manifesto*. This was made possible by the synergic power of the syntegegration.

This experience enriched the environmental debate in the country and served as an example of the type of meeting that should be held to discuss similar topics within the broader context of the new control discourse that the NGAO was developing and encouraging.

### 4. THE NEW AUDIT AS A LEARNING PROCESS

The conversational use of the methodological tools, that were used in the new auditing practices, as well as the fact that mixed teams were constituted, made it possible to understand the new practices as a mutual learning process.

## The Experience Of The National General Auditing Office Of Colombia

This learning process took place in two directions. Firstly, if the audited entity did not have an explicit internal control system, the auditing process made it possible to develop the system when it was evident that there were control faults in the structure of the audited entity. Secondly, if the entity did have an explicit internal control system, the new audit permitted a quality control of this system and the methodological tools thus became powerful tools for observation and assessment of the said control system.

But this learning process also took place in the opposite direction because it allowed the NGAO to gain a new understanding of the audited entities. In fact, the traditional audit was organized according to types of audit. There were physical, fiscal, legal, financial, systems, etc. audits, each one responding to a different criterion for observation. In most cases, these audits took place in different offices of the entity and with different auditing teams. The result was a partial and fragmented understanding of the entity.

In contrast, the new auditing practices started with, and maintained throughout the entire process, a holistic view of the audited entity. This made it possible to develop a better understanding of the work performed by the entity, its relationship with its surroundings, and the structural problems that encouraged undesirable internal practices. In fact this was a new way of studying the generalized corruption in government entities.

But apart from the knowledge acquired by the NGAO on the “organization in use”<sup>12</sup> in each of the audited entities, the new auditing practices also made it possible to gain an understanding of the sector in which the entities were inserted. Among others, audits were performed in the sectors of education, justice, telecommunications, physical infrastructure, energy, environment, and health<sup>13</sup>. These new audits gave a more global understanding of the particular structural problems in all the public entities. It was, in a sense, a more aggregated audit, at a different recursive level. The sector’s vision of the audit allowed the NGAO to redesign itself in a way that made it compatible with the state’s vision of the sector that it had to audit<sup>14</sup>.

Finally, the project promoted a subsequent level of recursion whereby the NGAO was not observing entities or sectors in particular, but, rather, transverse problems that they all had. That is how the study of recurrent public problems began, such as administrative corruption, overcrowding in prisons, inappropriate public expenditure and the like. With this, the project sought to provide the NGAO (as one of the main regulators within the Colombian state) with an understanding of the structural relationships between entities that were generating recurrent breakdowns (or transverse problems). At this level the project did not pretend to develop a global vision of the Colombian state, but, rather, to explore different hypotheses that could explain, from a structural perspective, why these problems

---

<sup>12</sup> In public entities we distinguish between “exposed organization” (determined by the legal norms that have created it, and the functions that they regulate) and “organization in use” (the recurrent activities and daily practices of its personnel).

<sup>13</sup> These sector audits were reported in [CGR 1998b].

<sup>14</sup> Taken from Conant - Ashby’s Theorem that “Any good regulator of a system must be a good model of the system” [Conant et al 1970].

## The Experience Of The National General Auditing Office Of Colombia

were being generated. This also had structural implications for the NGAO. It eventually derived in a proposal of a law to effect structural changes.

### 5. THE NEW CONTROL DISCOURSE BASED ON ORGANIZATIONAL CYBERNETICS

The development of a new control discourse at state level clearly went beyond the limits of the NGAO. To formulate the new discourse it was necessary to involve the Executive Branch and other branches of the government. The objective was to present, to the public in general, the conceptual foundations of this new discourse in a clear and accessible manner. This would provide a frame of reference for the recently created function of internal control in all the public entities as well as for the functions of the NGAO itself.

The main aspect of this new discourse was the recognition of the importance of *self-control* and its relationship with the concept of responsibility (personal and institutional) as a basis to preserve cohesiveness throughout the entire organization. As previously expressed, this discourse meant to interpret the relevant norms that had been established by the 1991 Constitution.

The new control discourse was associated with a substantial change in the comprehension of the concept of control in organizations and, likewise, in the manner in which the audits had to be understood and performed.

As we have mentioned, the new Constitution mandates that all public entities should have internal control systems. These systems must allow them to detect and correct faults in their mechanisms of internal control. This is why the traditional idea of external control on the part of the NGAO had to be rethought. This process of reflection led to the distinctions between extrinsic and intrinsic control, second order control, and second degree control.

*Intrinsic control* is associated with the performance of any activity within an organization. It can be a missionary activity, or a support activity. Among these we find the regulation, planning, and the negotiation of resources activities. This intrinsic control seeks to ensure that these activities comply with the agreed purpose through feedback mechanisms (to measure the effectiveness of the processes) and decision-making mechanisms as well as mechanisms to develop actions that will respond to and anticipate undesirable results. By definition, intrinsic control is a part of the activities performed within the organization.

*Extrinsic control*, on the other hand, is performed by an agent or entity that is external to the organization under scrutiny. We distinguish two types of extrinsic control within the new auditing NGAO practices. The first is **second degree control**. This control recognizes the fact that many audited entities already have a private auditing agent such as Price Waterhouse, or McKinsey. In these cases, a direct intervention on the part of the NGAO is not justified. What is done in these cases is an audit to the contract signed between the

## **The Experience Of The National General Auditing Office Of Colombia**

auditors and the audited entity. Thus, a second degree audit is an audit to the relationship that exists between the public entity and its private auditors.

The other type of extrinsic control is the one mentioned previously whereby the NGAO audited a public entity to make sure that it had the necessary and sufficient internal control mechanisms to fulfill its purpose. In other words, it is an external control to the internal control of the entity. This is why it is referred to as **second order control**.

The four aforementioned concepts (extrinsic control, intrinsic control, second degree control, and second order control) all form part of the **New Control Discourse** that the NGAO developed as part of its project of institutional strengthening.

### **6. FINAL THOUGHTS**

During the three years in which this change and institutional strengthening project of the NGAO was under way, many people participated. Around 1000 public servants (between auditors and personnel) were in-serviced in the new control discourse and in the new auditing practices. 52 public entities, at national level, adopted the new auditing practices. The results of these audits were compiled and published by the NGAO itself.

Another subproduct of the project was the development of a new graduate course at Universidad de Los Andes in designs of internal control systems. This specialization course, which lasts one year, has already seen five generations of graduates. 250 professionals, from different sectors, both public and private, have gone through this course.

The project has also divulged concepts of organizational cybernetics, and methodological tools such as VSM, Viplan, and synteintegration, within public entities. This has all been aimed at a better use of the limited public resources, at an understanding of the control relationships that exist within public entities, and the encouragement of relationships of mutual trust between entities and between the government and the general public.

The project illustrates how organizational cybernetics can greatly contribute to an understanding of complex phenomena such as corruption and state regulation, the former from a structural point of view and the latter from a conversational point of view that can encourage mutual learning.

### **7. ACKNOWLEDGEMENTS**

We would like to recognize explicitly the participation of some people in this project. Firstly, professor Raúl Espejo, as scientific director of the project; Germán Bula Escobar, great driving force of the project from his position of assistant general comptroller at that time; Angela Espinosa, Ernesto Lleras, and Roberto Zarama as pillars in the development of

## The Experience Of The National General Auditing Office Of Colombia

the project; Markus Schawaninger as international consultant during the project; Catalina Ramírez, Julia Díaz, and José Bermeo for their logistic support in the in-service workshops.

Finally, we would like to recognize Heinz von Foerster and Stafford Beer for their conceptual and spiritual support throughout the project, for their participation in the forum “Which is the NGAO That We Want for Colombia’s Future?” in Cartagena de Indias in June, 1996, and especially for their animated conversation in an old house of the magical town of Mompox, on the banks of the Magdalena River.

### 7. REFERENCES

- Beer, S. [1979]. *The Heart of the Enterprise*, Chichester, John Wiley & Sons.
- Beer, S. [1981]. *Brain of the Firm*, Chichester, John Wiley & Sons.
- Beer, S. [1985]. *Diagnosing the System for Organization*, Chichester, John Wiley & Sons.
- Beer, S. [1994]. *Beyond Dispute: The Invention of Team Syntegrity*, Chichester, John Wiley & Sons.
- CGR [1998a]. *La Construcción de un nuevo discurso de control*, Bogotá, Contraloría General de la República de Colombia.
- CGR [1998b]. *El Estado del Estado*, Bogotá, Contraloría General de la República de Colombia.
- Conant, R. and Ashby, R. [1970]. *Every good regulator of a system must be a model of that system*, International journal of Systems Sciences, 1(2), pp. 89-97.
- Espejo, R., Schumman, W., Schwaninger, M., Bilello, U. [1996]. *Organizational Transformation and Learning: A Cybernetic Approach to Management*, Chichester, John Wiley and Sons.

Translated from Spanish to English by Rebeca Donoso,  
Bogotá, Colombia,  
April, 2000.