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# Sustainable public procurement: the Federal Public Institution's shared system

Sustainable  
public  
procurement

9

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## Abstract

**Purpose** – The purpose of this paper is to report the experience of the Federal Public Institution with sustainable public procurement through the mechanism of shared acquisitions.

**Design/methodology/approach** – The analysis adopted a qualitative approach and an empirical investigation of MPF's experience, based on a documentary research and participant observation.

**Findings** – The results allow the authors to demonstrate the economic, environmental and social advantages of the procurement made by MPF, thus granting to this new model of acquisition governance, the adherence to the organization's institutional mission.

**Research limitations/implications** – This is a single case study.

**Practical implications** – It is a promising path that optimizes the institution's use of its budgetary, human, logistical and information technology resources, focusing on the quality and sustainability of public biddings.

**Social implications** – The process of collective construction, improvement of knowledge management, standardization, procedural and scale economies, and the use of sustainability criteria are the main reasons for the implementation of the sustainable shared acquisitions system in the institution.

**Originality/value** – This is a development process of a new paradigm of procurement at MPF.

**Keywords** Shared acquisitions, Sustainable public procurement, MPF

**Paper type** Research paper

## 1. Introduction

Society has increasingly required effective actions by public and private organizations to foster a socially fair, economically efficient and environmentally responsible market, moving toward what is expected from sustainable development (Preuss and Walker, 2011; Magalhães, 2012), understood as the “development that meets the needs of the present generation, without compromising the ability of future generations to meet their own needs” (Organização das Nações Unidas, 1991, p. 41).

This perspective requires the State to adopt initiatives toward sustainable development in the country, which demands public managers to align to new paradigms and courses of the

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Brazilian public administration. Among its actions is the contracting for carrying out its activities, when government acts as a major buyer of goods and services. In 2014, the Brazilian Government spent 20.2 percent of gross domestic product (GDP) on consumption expenses, according to data from the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística, 2014), a fact that strengthens the financial potential of this activity.

At the international level, these values vary, in developed countries, between eight and 25 percent of their GDP (Organization for Economic Cooperation and Development, 2008; United Nations Environment Programme and Procurement Capacity Development Center, 2012; European Commission, 2011; Walker and Brammer, 2012). In developing countries, in turn, this number is close to 30 percent of GDP (Preuss and Walker, 2011, United Nations Environment Programme and Procurement Capacity Development Center, 2012), and in the so-called emerging countries, it exceeds 30 percent of GDP (International Institute for Sustainable Development (IISD), 2010; United Nations Environment Programme, 2011).

In this sense, the organizational development of the units that deal with the activities related to contracting is essential, so that managers can have a more strategic vision, with a multidisciplinary background, in an environment of dialogue between legal, administrative, economic, environmental and social sciences, among others, in order to grant efficiency and effectiveness to these activities. Also, they must comply with the constitutional obligation of not harming the environment and society by them. To do this, institutional convergence between the so-called middle areas and end areas is relentless. Administrative activities must adhere to the mission, to institutional values and to strategic planning, as well as to the several administrative and finalistic projects and processes of their bodies (Silva, 2016).

Therefore, this study aims to analyze how sustainable public procurement was established at the Federal Public Institution. More specifically, it seeks to identify the reasons and main implications of adopting the sustainable shared acquisitions system in this government body. From the methodological standpoint, this study adopted a qualitative approach and an empirical investigation of MPF's experience, based on a documentary research and participant observation.

To make sustainable development possible through public consumption, MPF prepared its Institutional Strategic Planning (ISP) for the period 2011-2020, and one of its goals is: "To provide an institutional performance which is strategic, effective, fast, transparent and sustainable"[1].

The Administration Secretariat (SA), a unit linked to MPF's General Secretariat, has the challenge of promoting management instruments and tools that guide the subordinate units to act with a focus on strategy, aiming to continuously improve the quality of their processes.

This system began to be implemented in the second half of 2014, when the SA[2] created a specific unit in its organizational structure, named Coordination of Strategic National Contracting (CCNE). Among its attributions are the shared acquisitions, supported by sustainability criteria, together with all MPF units, through the standardization of goods and services' purchases, seeking to provide greater economy and quality in contracting, based on prior planning. Purchases are made through the Technical Group for Shared Purchases (GTCC), involving all state/regional secretaries and units' management coordinators (Silva, 2016). The first shared acquisitions were already made, and their results are very tangible in terms of procedural, scale and quality gains, as will be described in detail further ahead.

Hence, the Federal Public Institution's system of sustainable shared procurement established a new governance model[3], applying the concept of sustainability throughout the contracting life cycle. This model is a kind of compass, so that workers and units involved in contracting can act in a systemic and integrated way, in order to optimize human, logistical and budgetary resources, among others.

This procurement model requires the effort of several teams and units of the institution, which effectively participated in the GTCC, under the coordination of the SA (Silva, 2016). Besides the attributions related to the support and the achievement of sustainable shared acquisitions, this group improves the quality of MPF's planning for contracting. With this goal, the so-called menu of shared purchases is prepared – an instrument that defines the shared contracting to be made in the next two years[4]. There are different objects for contracting, such as goods of common use, services and information technology, among others. A differential of the menu is that the units of other States can also manage the shared purchases. So, it is a way to take advantage of the expertise accumulated by the units and, at the same time, to motivate their workers. This study contributes to a reflection on the implementation process of this system, besides pointing to the various challenges for its accomplishment, which grants a strategic tone to MPF procurement, focusing on its institutional mission.

With this purpose, the paper is divided into five parts. After this brief introduction, we present the theoretical framework on “Sustainable public procurement”, highlighting its insertion in the Brazilian scenario in recent years, and approaching such debate to the shared purchase mechanism. Next, we describe the “Methodology” used in this study. The fourth section presents the MPF case, emphasizing the main reasons for the implementation of a shared acquisitions system, together with its main developments. At the end, we present the final considerations.

## 2. Sustainable public procurement

In this study, sustainable public procurement is understood as the process by which public organizations, in order to meet their needs for goods, services and construction works, rate the actual costs of their acquisitions, seeking to generate benefits not only to public administration, but also for the society and the economy, by minimizing damages to the environment. This concept is fully in line with the definition made by the Sustainable Public Procurement Task Force of the 2003 Marrakech Process, and has already been adopted by several countries; hence, it is no longer a new concept in the international and national scenes.

According to Betiol (2013), sustainable public procurement programs have been developed in OECD countries, including the European Union, the USA, Canada, Australia, New Zealand and Japan. In emerging countries, it is possible to identify Brazil, China, India, and more recently South Africa, as countries that have been investing on this theme, either through strict norms, or through programs or practices in sustainable contracting (Perera *et al.*, 2007).

From the papers by Erdmenger (2003), Betiol (2013), and Alencastro *et al.* (2014), we can extract a historical review of the topic's entry into the agenda of European countries, highlighting that the first countries to deal with the subject were Germany, which has a sustainable public procurement policy since 1986[5], followed by Austria, Denmark, the Netherlands and Sweden. As early as the 1970s, Germany had developed a government green label called “Blue Angel,” which pointed to products that had environmental criteria of sustainability. Since the 1980s, Austria has a number of cities that have put into practice the process of sustainable procurement, based on the 1993 bidding law, which defined that environmental issues needed to be taken into consideration in bidding processes. Denmark has a mandatory adhesion norm for sustainable public procurement in government bodies since 1994. In the Netherlands, public contracting is recognized as an environmental protection policy since 1990, and the market has responded to this government demand by producing with sustainability criteria. Finally, in Sweden, the theme has been discussed since 1990.

The requirement to observe attributes of environmental and social sustainability in public contracting aims to achieve the public interest, and is supported by international agreements that Brazil has signed, by the constitutional and legal order, by public policies established in the country, and by infralegal norms (Betiol, 2013).

At the international level, Brazil started to commit to sustainable production and consumption at the United Nations Conference on Environment and Development (ECO-92), when it signed the Global Agenda 21 (United Nations Department of Economic and Social Affairs, 1992)[6].

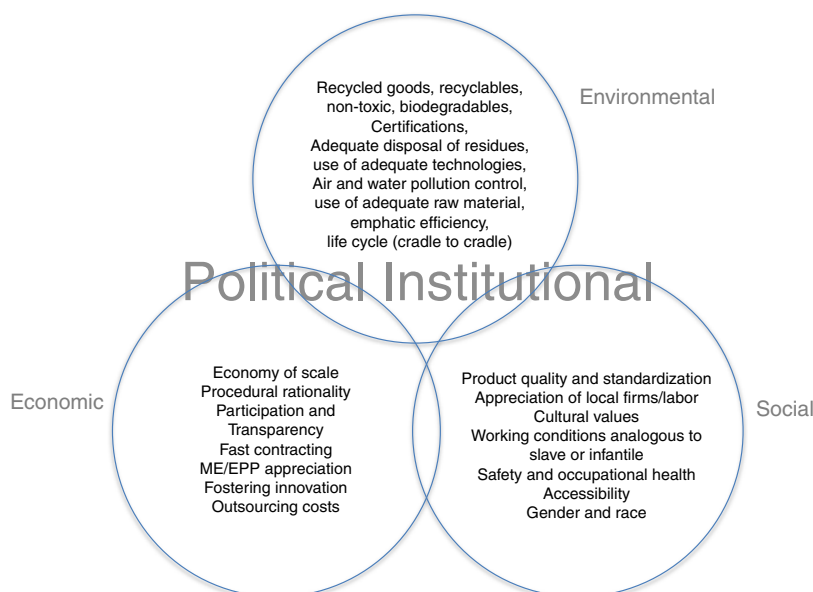
Approximately ten years later, the Brazilian Agenda 21 was published, strengthening the country's commitment to sustainable development, with a view of effective participation of the state, the market and the organized civil society. Until then, the topic "sustainable public procurement" had always been treated timidly in the semantic universe of sustainable production and consumption, and could be seen in organizations' practices, through an effort of the servants, who considered it to be more a strategic agenda for the public body than a normative orientation (Betiol, 2013). In 2007, Brazil started to give more prominence to the issue at the international level, when it joined the so-called Marrakech Process[7], in which "sustainable public procurement" was one of its seven task forces. At Rio +20, an event held 20 years after ECO-92, Brazilian positioning in the official document sent to the United Nations reinforced the role of the state as a driver of sustainable development through public procurement, with Brazil being part of the International Sustainable Public Procurement Initiative (Silva, 2014a). This initiative, in which representatives of several governments took part, has the objective of bringing together international efforts for the promotion of sustainable public procurement, besides examining the existing barriers to its implementation, through the development of tools that enable a more effective performance throughout the world.

The adherence to these international commitments resulted from the perception that public power plays a fundamental role in promoting sustainable development in the country. And one of the ways of this contribution is through its purchasing power in the acquisition of goods and services that include sustainability criteria. It is estimated, as already mentioned, that more than 20 percent of GDP comes from public purchases (Instituto Brasileiro de Geografia e Estatística, 2014). Therefore, the Brazilian State can and should be the driving force behind the development of a new paradigm of production in the market, in order to meet its aspirations for consumption with sustainability attributes.

Speaking about sustainability brings a misconception that we should only be concerned about the environment. However, the question is wider. We must pay attention to the social and economic aspects of the universe of production and consumption. This perspective brings to light the need for a more effective application of the concept of sustainability in public procurement, which seeks to balance the environmental, social and economic pillars in consumption decision making.

In Brazil, the Federal Constitution of 1988 (Brasil, 1988) accepted the principle of efficiency in its Article 37 caput, following the worldwide trend of increasingly advancing in the assessment of management efficiency and effectiveness, besides examining the legality and compliance with the administrative acts. In order to conform to this principle, which is directly related to the legal duty of good administrative management (Mello, 2002), the current context requires public organizations to adopt practices that minimally bring harmony to the economic, social and environmental dimensions of their processes and projects. Thus, it is necessary that workers, managers and decision makers be aligned with the new directions to be taken by governments, society and the market (World Commission on Environment and Development, 1987). Figure 1 defines how the different dimensions of sustainability should interact and which elements can be present in each of them.

The elements in each circle signal to public managers what can be demanded in the purchase announcements for goods and services. These are called "sustainability criteria." Some bidding notices focus more on the economic dimension, others on the social and/or environmental dimensions. The challenge is to establish a balance between the several elements required in these different dimensions (Silva, 2014b).



Source: Silva, 2014b

**Figure 1.**  
The different  
sustainability  
dimensions  
and criteria

In fact, in sustainable public procurement, there have been advances in the legal framework in recent years. A good example is the enforcement of Complementary Acts No. 123 (Lei Complementar No. 123, 2006) and No. 147 (Lei Complementar No. 147, 2014), especially with regard to the valorization of micro-enterprises and small size enterprises (EPP), as well as the local ones. To value small and local suppliers is a key and noteworthy sustainability criterion.

The application of these sustainable criteria in contracting is supported by the principles and legality of the international commitments made by the Brazilian State and its legislation (Betiol, 2013; Villac, 2015). The current Federal Constitution (Brasil, 1988), in its Article 170, subsection VI, establishes as a principle of economic order the environment's defense, including a differential treatment according to the environmental impact of the products and their manufacturing and delivery processes. Article 225 also recommends that everyone has the right to an ecologically balanced environment, a good of common use and essential to a healthy life, so that public power and the community have the duty to defend it and preserve it, for the present and future generations.

Even before the 1988 Constitution, Act No. 6,938 (Lei No. 6.938, 1981) had already brought up the sustainability perspective in the National Policy for the Environment, whose objective is to preserve, improve and recover the environmental quality favorable to life, aiming to ensure, in the country, conditions for socio-economic development, for the interests of national security, and for the protection of the dignity of human life, by establishing harmony between the social, economic and environmental dimensions of development (Souza, 2015).

Still in legal terms, several ordinary laws were published on the matter since 2009. Noteworthy is Act No. 12,349 (Lei No. 12.349, 2010), which included the promotion of sustainable national development as a bidding objective. This regulation defined several clauses included in Article 3 of Act No. 8,666 (5th-12th), many of them focused on the protection of local industry and production, as non-compromising or non-restrictive to competition in bids (Lei No. 8.666, 1993).

It is important to emphasize that Act No. 12,187 (Lei No. 12.187, 2009), which established the National Policy on Climate Change (PNMC), recommends the adoption of preferential criteria in public biddings and competitions for proposals that provide greater saving of

energy, water and other natural resources, and reduced emissions of greenhouse gases and waste (Article 6, XII). Less than a year after PNMC was enacted, Act No. 12,305 (Lei No. 12.305, 2010) was promulgated, and established the National Policy for Solid Waste; in its Article 7, subsection XI, it highlights as one of its objectives the priority in government procurement and contracting of recycled and recyclable products, as well as goods, services and construction works that include criteria compatible with socially and environmentally sustainable consumption patterns (Silva, 2014b).

In the infralegal plan, Normative Instruction No. 1, of January 19, 2010 (Silva, 2014b), from the Secretariat of Logistics and Information Technology of the Ministry of Planning, Budget and Management (SLTI/MPOG), deserves attention. It expressly defines that technical specifications for acquisition of goods and contracting of works and services must contain environmental criteria in the processes of extraction, manufacturing, use and disposal of raw materials, without frustrating the competitive nature of the contest.

After more than two years, in the month of Rio + 20, specifically on World Environment Day, Decree No. 7,746 was published (Decreto No. 7.746, 2012), which regulates Article 3 of Act No. 8,666 (Lei No. 8.666, 1993) and establishes criteria, practices and general guidelines of sustainability in contracting by the federal administration. The decree is another legal instrument that regulates the legal bases of sustainable contracting processes. Next, SLTI/MPOG Regulatory Instruction No. 10, of November 12, 2012, established rules for the elaboration of sustainable logistics management plans, through the encouragement of sustainable contracting practices, as mentioned in Article 11, subsection VI, and in Annex II of that norm (Silva, 2014b). Therefore, in recent years, the advancement in the legal framework oriented to sustainable contracting in Brazil is very clear.

Progress has also taken place in the external control bodies, as we can see both in the norms that regulate the topic as in the collective decisions of the Courts of Accounts. It is up to these bodies, by constitutional resolution, to carry out the accounting, financial, budgetary, operational and patrimonial inspection of the executive branch and of the entities of direct and indirect administration, as to legality, legitimacy, efficiency, application of subsidies and waiver of revenues (Betiol, 2013).

With regard to the Federal Court of Accounts (TCU), a government's agency of external control which acts upon bodies and entities of the public administration, including the MPF, its competencies include the role of environmental manager. This competence allowed it to be more confidently involved in the topic of "sustainable public procurement," through sentences and recommendations, which made managers more secure in their contracting. Normatively, the subject is regulated in Resolution No. 268/2015, which brings significant advances in comparison with former Normative Decision No. 107/2010. Regarding the collective decisions taken by this court, it is possible to highlight some sentences[8] that deal with the issue:

- (1) Sentence 5804/2013 – 2nd Chamber – Recommendation: "[...] the Authority should adopt sustainability criteria in the acquisition of goods, information technology materials, as well as in contracting services or works"; and
- (2) Sentence 5937/2013 – 1st Chamber – Report: "[...] partial adoption of environmental sustainability criteria in the acquisition of goods and in contracting services and works."

The changes pointed out by the legal framework suggest a modification in important paradigms traditionally inserted in the bidding processes, especially in relation to the trinomial price, time and quality (Betiol, 2013). Table I summarizes the main transformations.

Hence, the above-mentioned institutional frameworks have increasingly stimulated that the strategy of including sustainability attributes and criteria be incorporated by the public administration. Although it has been little explored in the literature, it is possible to identify that sustainable public procurement is made through different models and with different purposes, and may be oriented either to a specific practice or supply, or to the

public buyer itself, by changing management processes and governance model, in search of a higher degree of logistical, social and environmental efficiency (Nonato, 2015).

For the purpose of this paper, the shared purchases mechanism is understood as an application model of sustainable public procurement. It is a joint acquisition of goods and services that generate less environmental impact, more social justice and economic efficiency, with economy of scale, carried out by public organizations of different sectors or between units of the same public organization, aiming to foster sustainable production and consumption in the country (Silva, 2016). Although not a completely new idea, since it was a strategy in the nineteenth century in England (Betiol, 2013), it is innovative in approaching the topic of sustainability, as will be demonstrated through the MPF case.

### 3. Methodology

The research is qualitative (Strauss and Corbin, 2008) and departs from a critical interpretive premise in which the phenomenon of sustainable procurement is examined through the actors' view and their interaction with the organizational environment, so as to understand the different versions and meanings that are built in everyday life, and surround this topic (Pozzebon, 2004).

As mentioned before, a single case study was conducted for the development of the research (Gerring, 2004; Stake, 1995). According to Stake (1995), the case is "a specific unit, a delimited system whose parts are integrated," and may be intrinsic, instrumental, or collective (p. 436). We chose to adopt the intrinsic case study, since there was an interest to investigate and achieve a better understanding of the phenomenon in the light of MPF's experience.

Regarding the analytical dimension of the case, data collection was based on direct observation and documentary analysis. Within MPF, direct observation was done between June 2014 and September 2015, and it was possible due to the professional insertion of the first author, a servant of MPF's SA, who works at the Coordination of Strategic National Contracting (CCNE)/SA-PGR. This condition allowed to follow up and intervene in the elaboration of the ISP "2011-2020" of that body, as well as in the creation of the technical group of shared purchases.

Considering that the SA has a national character, its performance also allowed a relevant communication with the Offices of Federal Circuit Prosecution (PR) in order to follow up the implementation of the shared purchases system. Among the key actors for data collection, we can highlight the regional and state administration secretaries linked to the PRs, besides MPF's secretariat of planning and budget.

In this sense, we used data triangulation for direct observation and secondary data, which allowed obtaining additional information – not always documented – on the topic under study. This technique made possible the analysis of the measures and actions that contributed to the results achieved with the implementation of MPF's system.

The documentary analysis, in turn, was based on records of the previous, concomitant and subsequent activities conducted until the effective implementation of the shared

Procurement model	Traditional	Sustainable
Price Term	"Less": short-term idea "Minimum"	"Better": analysis of property's total cost Adapted to facilitate the entry and adjustment of new sustainable players
Quality	Comply to patterns of quality check	Consider the impacts and the attributes that go along with the product life cycle (from extraction to disposal)

**Table I.**  
Paradigm changes in  
sustainable public  
procurement



purchases system, in order to subsidize the analysis of the reasons and implications of this process. Among the documents examined, we can highlight:

- MPF's administrative internal regiment;
- Normative Instrument 01/2010 – Ministry of Planning, Budget and Management (MPOG);
- Decree No. 7.746 (2012);
- Normative Instrument 10/2012 – MPOG;
- Resolution National Council of Justice (CNJ) No. 201/2015; and
- Resolution National Council of Prosecution Services No. 81/2012.

In addition, we searched the sentences of the Federal Court of Accounts (TCU) that dealt with sustainable public procurement during the defined period, as well as meeting minutes and official communication documents provided by the body concerned.

Thus, considering the perspective proposed by Pozzebon *et al.* (2014), this study follows the dialogical principles of authenticity, since it presents interaction between the authors and the empirical material examined; criticality, as it challenges conventional thinking about government procurement; and plausibility, since it allows to broaden the reflections about the specific context.

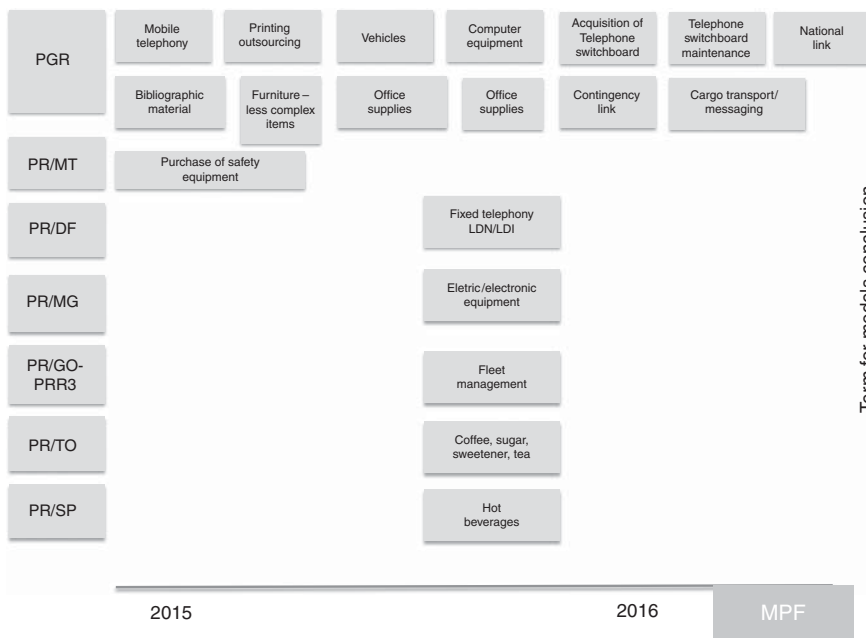
#### 4. The case of the Federal Public Institution

In this section, we show the stages related to the implementation of MPF's system of sustainable shared procurement:

- (1) Creation of a Coordination of Strategic National Contracting (CCNE) in the internal regiment, whose attributions are described in Order SG/MPF No. 382/2015 (Portaria SG/MPF No. 382, 2015).
- (2) The creation of the Technical Group of Shared Purchases (GTCC, integrated by the administration managers of the 32 units in Brazil).
- (3) The definition of the 2015/2016 menu of MPF's shared procurement. As already mentioned, units can voluntarily apply to manage a shared purchase, which is a factor of motivation and recognition for the teams.

Figure 2 shows the planning of the shared purchases for 2015/2016 of the Office of the Prosecutor General (PGR) and of the Offices of Federal Circuit Prosecution (PR) that will manage them.

- (4) The inclusion of sustainability criteria in the public bids is a premise for contracting sharing. The following are some examples of these criteria and attributes that are already in use for the institution's purchases, divided into environmental, social and economic:
  - Environmental.  
To meet legal requirements with regard to local, state and federal laws that regulate aspects related to:
    - use and consumption of forest products or by-products;
    - water pollution control;
    - air pollution control;
    - use of appropriate technologies;
    - use of appropriate raw material;



Term for models conclusion

**Figure 2.**  
MPF menu of shared  
purchases 2015/2016

**Source:** Administration Secretariat/MPF

- appropriate disposal of residues; and
- environmental licenses and specific authorizations (Silva, 2014b).  
Requirement of Federal Technical Register at the Brazilian Institute of the Environment and Renewable Natural Resources.

All goods should not contain hazardous substances above the concentration recommended by the guideline Restriction of Certain Hazardous Substances, such as:

- Mercury (Hg);
- Lead (Pb);
- Hexavalent Chromium (Cr VI);
- Cadmium (Cd);
- Biphenyl polibromates (PBB); and
- Diphenyl polibromate ethers.

Goods made, totally or in part, of recycled material, non-toxic and biodegradable, according to Brazilian Technical Norms ABNT NBR 15448-1 and 15448-2.

Paper, furniture and other products made of wood (certification Ceflor of Inmetro (National Institute of Metrology, Quality and Technology) or FSC (Forest Stewardship Council), recycled).

Sample with report from a laboratory accredited by Inmetro.

Goods preferentially accommodated in appropriate individual packing, with the least possible volume, and using recyclable materials, in order to guarantee maximum protection during transportation and storage.

- Social.
  - Working conditions in the contracted firms should comply with the rules defined by the Ministry of Labor and Employment regarding safety and occupational health (Order No. 3.214 – NR 1 a 35 – 1978). (Silva, 2014a).
  - Enforcement of Complementary Act No. 147 (Lei Complementar No. 147, 2014), by valuing local firms and ME/EPP, preferably 10 percent of local and regional.
  - Declaration of non-existence of child labor.
  - Declaration of no workers in situation analogous to slave labor.
  - Allocation of vacancies for rehabilitees and disabled Act No. 8.213 (Lei No. 8.213, 1991).
  - Requirement of a periodical declaration of capacity regarding health, safety, and occupational health from the company that supplies the contracted product or service.
  - Accessibility in public buildings according to Act No. 10.098 (Lei No. 10.098, 2000) and Decree No. 5.296 (Decreto No. 5.296, 2004).
  - Gender and race quotas:
- Economic.
  - Not the lowest price, but the best price.
  - Economies of scale and procedures included in pricing.
  - Whenever possible, involve all units.
  - Valorization of local and regional enterprises and ME/EPP – Complementary Act No. 147 (Lei Complementar No. 147, 2014).
  - Use of price bank in market research.
  - Better planning in order to have longer delivery terms.
  - Warranty aligned to the demand for more durable goods.

#### *4.1 Main reasons for establishing the shared procurement system at MPF*

The several units of the Federal Public Institution generally bid on the same objects, generating unnecessary procedural costs, since they could make shared purchases, combining economy, organizational efficiency and quality in procurement. The following are the main reasons for implementing a shared procurement system.

*4.1.1 Collective construction.* The alignment of the philosophy of purchase management with the systemic approach adds value to MPF as a whole, since the units begin to think and act together, which characterizes institutional convergence, with the background of collective construction. This is a promising course for any management model, since the units start to feel themselves as part of the development process, as well as part of the results – which is a motivational factor for the institution’s workers, who, instead of being submitted to an autocratic process, are building agents of this participative management (Silva, 2016).

The perspective of network governance in the public sector (Goldsmith and Eggers, 2006) is opposed to traditional and hierarchical models that have led Brazilian bureaucracy to a crisis, typified by process dysfunction and strategy deficiency, as mapped by Matias-Pereira (2009). The more horizontal action with institutionalized channels that allow the involvement and participation of civil servants is in line with the challenges of implementing environmental management in the public sector (Abreu *et al.*, 2012; Quintas, 2006).

*4.1.2 Standardization.* A principle used by MPF to grant feasibility to its new pattern of purchases and contracting was standardization. This principle is regulated in subsection I of Article 15 of Act No. 8,666 (Lei No. 8.666, 1993), and states that management needs to

follow, whenever possible, the compatibility of technical specifications and performance, with proper care not to restrict competition. This principle aims to combine the optimization of public spending with the quality of the acquisitions of goods and services (Silva, 2016).

For Justen (2004), it is an instrument that rationalizes the administrative activity, allowing cost reduction and optimizing the utilization of resources. It means that standardization eliminates variations concerning both the selection of products, at the time of contracting, and their use and conservation, among other aspects.

In addition to standardization being treated in the legal universe as a relevant element in contracting, administrative science has already addressed the subject historically, in studies of quality management, production management, logistics, planning and certifications, among other areas of knowledge. Hence, standardization is a central element for the continuous improvement in the quality of MPF's contracting (Silva, 2016).

*4.1.3 Economy of scale.* Economy of scale, which is present in economic studies, indicates that large scale production reduces the costs of raw material and production, and has a strong correlation with competition. According to Kotler (2000), price is a flexible element that can be quickly changed, and price competition is the biggest problem faced by companies. According to the marketing approach, the simplest pricing is done through the prices charged by competitors. The author understands that when this happens, the organization's policy is oriented toward competition and depends on consumer behavior (Silva, 2016).

This perspective can be seen in public procurement, since the acquisition of goods in larger quantities increases companies' willingness to offer lower prices, including for sustainable goods (Silva and Barki, 2012). If the units of the Federal Public Institution buy together, the likelihood of achieving greater economic advantage will also be higher. This already happened in the first shared procurement made after the system's implementation in 2015, which will be shown ahead.

*4.1.4 Knowledge management.* The idea that knowledge is an ongoing process fits very well into the system of sustainable shared procurement, since its contents are dynamic, immersed in a normative environment and in a market that is constantly changing (Silva, 2016). In this sense, it is of utmost importance that managers and workers involved with the topic be trained and, at the same time, become knowledge multipliers, so that it may be disseminated among the largest possible number of servants in the organization.

The technical intellectual contribution of the institution's workforce is significant. There are several professionals and technical units that have a lot of accumulated knowledge on the specifications and acquisitions of different contracting objects. This knowledge is generally used within each administrative unit and by its staff, adding value only to this unit and not to the whole organization. With shared purchases, regional administrative units that have a specific knowledge in the acquisition of some object can either manage it or contribute to the elaboration of a term of reference, or still collaborate in other stages of the process.

*4.1.5 Procedural saving.* With contracting under this new model, there is a significant procedural saving, since for each shared purchase 31 units no longer make a bid, which results in an economy of several organizational resources. According to the Brazil Institute of Public Affairs (Instituto Negócios Públicos do Brasil, 2014), the cost of a bidding process is estimated at R\$12,849.00. In shared contracting, there is a managing body and several participating agencies, which considerably reduce the procedural cost, depending on the number of entities involved. If all MPF units participate in this modality, the procedural saving will be at least of R\$398,319.00 for each shared acquisition made, in addition to the economy of scale in each one (Silva, 2016).

*4.1.6 Sustainability.* As the Federal Public Institution began to include sustainability criteria in its shared procurement, all units that did not apply such criteria in their bidding

documents started to have them implicit in their contracting procedures. The reason is that they have become participants or managers in purchases that include these sustainability criteria as the basic premise of their model.

#### 4.2 Results and discussion

The accomplishment of shared purchases by the Federal Public Institution, based on the methodology described, already presents concrete results. With the first purchases, the institution, besides applying sustainability criteria, registered the following gains at the procedural and scale levels.

*4.2.1 Procedural level.* As already mentioned, the cost of a bidding process is estimated at R\$12,849.00 (Instituto Negócios Públicos do Brasil, 2014). In shared contracting, in which there is a managing body and several participating agencies, the procedural cost is considerably reduced, depending on the number of entities involved. For the Coordination of Strategic National Contracting (CCNE), in the first six shared acquisitions, if each unit/body was to carry out its individual bid, there would be a procedural cost estimated at R\$2,210,028.00. With the new system, the procedural cost was estimated at R\$77,094.00, which represented an economy of R\$2,132,934.00.

*4.2.2 Economy of scale.* Economy of scale is obtained by the increase in the quantity of objects bidden. In the first five purchases made since 2015, there was an economy of scale of about 30.38 percent, in relation to the estimated average price.

The calculation of the scale gain over the estimated value before the public session may be a somewhat misleading indicator, since it will depend on the quality of market research. One way to demonstrate more accurately this gain in a shared purchase is to make the comparative analysis between the last acquisition and the current one. According to MPF's CCNE, the real economy of the first five contracting through the new system was of 11.76 percent, compared to the value of the last procurement, adjusted by (Market General Price Index) of the last 12 months (Silva, 2016).

### 5. Final considerations

This paper sought to examine the establishment of sustainable public procurement at MPF, through the development of the shared purchase system. The results demonstrate that this process involved the support of all units linked to the institution, a motivational element that made a difference for the project's success. The proposed governance model, participative and collectively built, favored the creation of an atmosphere of collaboration between the several actors involved in the topic.

It is a model that drives the process of quality improvement of MPF contracting. The quality perspective is directly related to the application of sustainability criteria throughout the contracting life cycle. There is a process of developing a new paradigm in contracting carried out by the institution, which begins to materialize with the first results presented in this paper.

The new governance model has sustainability, allied to quality, as its background. The guideline is to think, plan, act, and above all, to build together a procurement management increasingly professional at MPF.

The near future is challenging, if we consider that the process is in the stage of maturation, which demands workers and managers to channel efforts so as to promote continuous improvements, from the experience of each shared purchase. The following years are already planned through the menu of sustainable shared procurement, with the joint challenge of several units in managing and/or collaborating with the process as a whole.

As limitations, we can highlight that the estimates about the effective expenses in governmental procurement were based on secondary data, because remaking the calculations would bring a complexity that goes beyond the limits of this research.

In addition, the case shows gains regarding economy of scale and procedures, but we need more studies to measure the gains in terms of social and environmental aspects.

In fact, in spite of such limitations, shared public procurement emerges as an important tool to help break down internal resistance to the adoption of sustainable public purchases, since it responds to the paradigm that “sustainable product is necessarily more expensive.” In this sense, the case brings the opportunity to disseminate this experience in other places and contexts. This is a promising course to optimize the use of budgetary, human, logistical and information technology resources of MPF, with a focus on the quality and sustainability in contracting.

## Notes

1. Prepared according to the Balanced Scorecard (BSC) methodology, the MPF strategic map is the graphical representation of ISP 2011-2020. Available at: [www.modernizacao.mpf.mp.br/pei-2011-2020/mapas-estrategicos](http://www.modernizacao.mpf.mp.br/pei-2011-2020/mapas-estrategicos)
2. The Secretary of Administration conceived a project of sustainable shared procurement in the Executive Branch – one of the winners of the 16th Innovation Prize in the Federal Management.
3. “Public sector governance essentially includes the mechanisms of leadership, strategy and control used to assess, direct and monitor the performance of management, in order to implement public policies and the provision of services in the interest of society” (Lei Complementar No. 147, 2014).
4. Purchases are divided into national, regional and state, and are defined according to each object.
5. Information collected on a technical visit to Germany’s Federal Agency for the Environment, at Dessau, on June 7, 2012, during a meeting that took place from 10 a.m. to 4 p.m.
6. ECO-92 took place in June 3-14, 1992, in the city of Rio de Janeiro, and also became known as Rio-92. Available at: [www.senado.gov.br/noticias/Jornal/emdiscussao/rio20/a-rio20/conferencia-rio-92-sobre-o-meio-ambiente-do-planeta-desenvolvimento-sustentavel-dos-paises.aspx](http://www.senado.gov.br/noticias/Jornal/emdiscussao/rio20/a-rio20/conferencia-rio-92-sobre-o-meio-ambiente-do-planeta-desenvolvimento-sustentavel-dos-paises.aspx)
7. Named after the city that held the meeting, the Marrakech Process began in 2003, to grant applicability and a concrete expression to the concept of sustainable consumption and production (SCP), resulting in the “Global Framework for Action on SCP.” Available at: [www.mma.gov.br/responsabilidade-socioambiental/producao-e-consumo-sustentavel/plano-nacional/processo-de-marrakesh](http://www.mma.gov.br/responsabilidade-socioambiental/producao-e-consumo-sustentavel/plano-nacional/processo-de-marrakesh)
8. The sentences are available for consultation on TCU’s page, through research: <http://portal.tcu.gov.br/cidadao/cidadao.htm>
9. MPF already has a standard clause for reverse logistics in its terms of reference. With this measure, care must be taken in price formation, in market knowledge, especially from the manufacturers that have their “sectorial agreements” implemented, as well as from the suppliers that possess a structure to carry out collection and disposal. It is essential that the manager be careful to minimize the risks of having void and/or failed items in the bidding. The categories of goods that will not be subject to the reverse logistics clauses in the bidding announcements, duly justified, should have their responsible disposal. In this sense, the Administration Secretariat of the Federal Public Institution has published, in the second half of 2014, a standard bid for donation with sustainability criteria. It is essential that units adjust their processes according to it.

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