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# USE OF THE PUBLIC DIGITAL BOOKKEEPING SYSTEM IN SOCIO-ENVIRONMENTAL MANAGEMENT IN BRAZIL

### \*1Francisco Arapiraca dos Santos and <sup>2</sup>Ricardo José Rocha Amorim

<sup>1</sup>MSc Candidate in the Postgraduate Program in Human Ecology and Auxiliary Professor at State University of Bahia, Senhor do Bonfim, BA, Brazil

<sup>2</sup>PhD in Electronics and Computing from the University of Santiago de Compostela, Associate Professor at State University of Bahia, Senhor do Bonfim, BA, Brazil

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### ABSTRACT

In Brazil, due to the growth and evolution of the businesses in volume and values, the registration system has become obsolete and difficult to control by state and federal treasure offices. Without a technological intervention, it would be unfeasible to monitor and control the wealth generated by the nation. Therefore, in 2003, the National Treasury created the Public Digital Bookkeeping System (SPED), which aims to change the compliance with ancillary obligations by taxpayers, replacing all documents in paper, books and accounting and tax documents, for an electronic document model, through a security cryptography. Thus, the main objective of this work was to investigate whether the adoption of SPED obligation reduced the consumption of natural resources at the national level. For this, a research was carried out on the obligations included in the SPED package, in order to quantify the gain brought about by the reduction of deforestation and water consumption from papermaking, based on data available and provided by government websites. Also, we sought to identify other aspects relevant to social and environmental management in terms of reducing the impact on the environment. To answer the great question of this research, we compared the results of the data collected in fifteen years of implementation of the SPED project, which brought relevant results for socio-environmental management and reduction of impact to the environment.

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## **INTRODUCTION**

In the postmodern world social economic configuration, the terms "socio-environmental actions and attitudes" have been highlighted, motivated by a large number of people around the world, and by the thought of the impacts of their actions, in a positive way to the environment, with the need to balance the planetary ecosystem. According to SEBRAE (2013), there are companies and organizations that already quantify the impacts of the use of proactive actions in the focus on socio-environmental vision, bringing important positive results to Brazil. In this sense, society has increasingly charged citizens and companies for environmental projects that act more inclusively. According to Mingay (2007), the use of Information Technology (IT), aims to minimize the expenses with the environment more and more common in our society.

According to Makower (2009), Green IT is the result of the idea of controlling digital resources against their environmental impacts. Through its correct use, it generates competitive advantages for companies, reducing expenses, increasing productivity, quality of services and, finally, an improvement in the economic results of the entities. According to Tucci and Mendes (2006) and Ruiz (2015), sustainability is a trademark in the use of the resources of modern companies since the 1980s, with population growth and dependence on fossil fuels. The idea of sustainable development emerged in 1987, from a UN demonstration that discussed the current model of economic development. Thus, sustainable development is understood as meeting the needs of present generations without compromising the availability of resources to meet the needs of future generations. In this sense, modern media and large economic corporations realize that in order to achieve better financial results, they have to associate their profitability with socio-environmental responsibility. Through consumers eager for the needs of acquiring products, this has

<sup>\*</sup>Corresponding author: Francisco Arapiraca dos Santos

MSc candidate in the Postgraduate Program in Human Ecology and Auxiliary Professor at State University of Bahia, Senhor do Bonfim, BA, Brazil

led to the emergence of green clients and green companies that, according to Tachizawa and Andrade (2012), oblige companies and governments in general to organize in front of the consumption of natural resources without control or preservation. Symantec Corporation<sup>1</sup> reveals that green IT is now essential and is part of enterprise planning, according to the executives themselves. The importance to the business, society and future of the planet, makes green IT gain more and more space and highlight to the technical community that, through research and development, have acted directly in the success and technological innovation that assists sustainable development. Green IT can be defined as a set of practices that can ensure that a company's activity has a lower environmental impact. With this, it is possible to make the organization achieve a good socio-environmental reputation. According to Gartner Group<sup>2</sup> (2018), companies are beginning to invest in the use of green IT to better manage their productive capacity in new product development, mindful of modifying the current source of fossil energy used since the 1980s across the globe to less environmentally aggressive energies. Green IT reduces the impact on the environment, such as the generation of electronic waste and digital waste files. In this sense, there is a Federal Government action in Brazil to organize the inspection processes and the main tool used is IT, with generation of digital files often generated.

In Brazil, faced with the growth and evolution of the businesses in volume and values, the registration system became obsolete and difficult to control by the secretaries of state and union farm. Without a technological intervention it would be unfeasible to inspect and control the wealth generated by the nation. Thus, on December 19, 2003, a Constitutional Amendment was issued, No. 42, which amended the Federal Constitution of 1988, in its article 37, item XXII, as follows<sup>3</sup>:

XXII - the tax administrations of the Union, the States, the Federal Districts and the Municipalities, activities essential to the functioning of the State, exercised by specific career servers, will have priority resources for carrying out their activities and will act in an integrated manner, including the sharing of registers and tax information, in the form of the law or agreement. According to Azevedo and Mariano (2012), in 2003, Brazil initiated the creation by the National Treasury of the Public Digital Bookkeeping System - SPED, which aims to change the fulfillment of ancillary obligations by taxpayers, replacing all documents in paper, books and accounting and tax documents, for electronic document, through a security cryptography called digital certification. The deployment of SPED throughout Brazil has had numerous steps and control

processes adopted to guarantee the legal security and validity of operations, as well as to integrate processes through the use of digital tools and software, with direct impacts on the social and environmental management of companies and Brazilian government, with the introduction of control of socialenvironmental responsibility of the taxpayers, in a compulsory manner. In this way, we believe that the inclusion of SPED is of importance to the socio-environmental management of companies throughout Brazil and allows bring content relevant for social and environmental management in relation to the reduction of impacts to the environment, considering the implementation of this system for storage properly. Thus, the research sought to identify the impact of SPED on the sustainable socio-environmental management of the entities. In order to investigate whether the obligation to adopt SPED reduces the consumption of natural resources at the national level, as well as to identify other aspects relevant for social and environmental management in relation to the reduction of the impact on the environment, a survey was carried out on obligations included in the package of the SPED and quantified the gain brought in front of the reduction of deforestation, paper consumption water consumption, based on data available and provided by government websites. This paper is divided into five sections, including the introduction, the second section presents the literature review, followed by the methodology, the analysis of the results found and, in the last section, is the presentation of the research results.

### Theoretical Foundation

Capitalism and modern society, stimulated by the technological revolution, have aggravated the degradation of the planet, triggering a social behavior of the consuming waste in relation to environmental and economic resources, with growing social, economic and environmental inequalities, according to (LIGHT, LIGHT and AMANTI, 2008). Green IT, according to Mingay (2009, p.16): "is a tool that enables the environmental sustainability of companies and their entire structure, provided that it is used with a focus on improving management and increasing its results." It can be inferred in approaches on the direct use of Green IT and its understandings that it refers to the proper use of material resources in the sustainable management of digital waste. In the use of online servers there is an increasing demand for storage and processing of the data, in the processes of the entities. Therefore, it is necessary to search for solutions that aim to reduce the idleness of processing, through the virtualization of networks, servers and applications, which consists of the recreation of end user environments in a single mainframe (Vergara, 2013). This leads to increased energy consumption and increased waste of digital waste. From these problems, rulers, civil society and corporate corporations propose measures for the preservation of the planet for the perpetuation of the human race. In this way, it is urgent to research and implement new techniques of consumption of resources without harming the environment, as well as maintaining relations of profitability of companies, government economy. According to Ruiz (2015) and Segundo Tucci and Mendes (2006), Green IT or Green Computing advises on the effective use of socio-technical resources and movements, where internal policies of the entities and external government dynamize the creation of research that products and practices to mitigate or reduce the harmful effects on the environment and society caused by the use of information technology.

<sup>&</sup>lt;sup>1</sup>SYMANTEC CORPORATION Founded in 1982, the company operates in several technology segments with expertise in cyber security, recognized worldwide as one of the largest technology companies operating in more than 35 countries, is open to the site and is accessible online at , https://www.symantec.com/en/br

<sup>&</sup>lt;sup>2</sup> GARTNER GROUP is the world's leading technology research and consulting firm, providing companies with the insights, advice and tools they need to reach their mission-critical priorities and build tomorrow's organizations, is open to the site and is accessible online at https://www.gartner.com/.

<sup>&</sup>lt;sup>3</sup>Translated into English by the authors. Original text: "XXII – as administrações tributarias da União, dos Estados, dos Distritos Federais e dos Municípios, atividades essenciais ao funcionamento do Estado, exercidas por servidores de carreiras especificas, terão recursos prioritários para a realização de suas atividades e atuarão de forma integrada, inclusive com o compartilhamento de cadastros e de informações fiscais, na forma da lei ou convênio".

| Initials | Description    | Objective                                       | Bookkeeping Covered                                   | Start    | Period |
|----------|----------------|---|---|----------|--------|
| ECD      | Digital        | Substitution of the paper bookkeeping by the    | I - Daily Book and its auxiliaries, if any; II - Book | Calendar | Yearly |
|          | Bookkeeping    | bookkeeping transmitted by file, ie,            | Reason and its auxiliaries, if any; III - Daily       | year     |        |
|          | Accounting     | corresponds to the obligation to transmit, in   | Balance Sheets, Balance Sheets and deposition         | 2009     |        |
|          |                | digital version.                                | records of the settlements transcribed therein.       |          |        |
| ECF      | Tax Accounting | The Fiscal Accounting Bookkeeping (ECF)         | Use of ECD balances and accounts for initial          | Calendar | Yearly |
|          | Bookkeeping    | replaces the Declaration of Economic-Fiscal     | completion of the ECF. Electronic Book of             | year     |        |
|          |                | Information of the Legal Entity (DIPJ)          | Calculation of Real Profit and Electronic Book of     | 2014     |        |
|          |                |   | Calculation of the CSLL Calculation Base.             |          |        |
| EFD      | Bookkeeping    | In the bookkeeping of the Contribution to PIS / | I - Book of entry; II - Book of Exit; III - Book of   | Calendar | Monthl |
| Contrib  | Digital Tax    | Pasep and Cofins and the digital bookkeeping    | assessment of contributions.                          | year     | У      |
| utions   | Contributions  | of the Social Security Contribution on Gross    |   | 2015     |        |
| EED      | D 11           | Revenue.  |   | 1 /2000  | N 41   |
| EFD      | Bookkeeping    | Bookkeeping that reports changes in taxes Tax   | It consists of a set of tax documents and other       | Jan/2009 | Monthl |
| ICMS/I   | Digital Tax    | on the Circulation of Goods and Services and    | information of interest to the State Treasury of the  |          | У      |
| PI       | ICMS e IPI     | Tax on Industrialized Products.                 | federated units and to the Federal Revenue Office     |          |        |
|          |                |   | of Brazil, as well as the registry of taxation        |          |        |
| NIE -    | Electronic     | The Desired was developed in an intermeted      | Practiced by the taxpayer.                            | I /2014  | Deiler |
| INF-C    | Electronic     | manner, by the State Transvery and Enderal      | within the national territory                         | Jan/2014 | Daily  |
|          | mvoice         | Revenue Departments of Brazil                   | within the national territory.                        |          |        |
|          |                | Revenue Departments of Bluzh.                   |   |          |        |

Table 1. Examples of some Accessory Obligations covered by SPED

Font: The authors

Computerization has grown rapidly in modern society and, irrefutably, generating an increase in productivity in the various economic sectors, as well as facilitating our existence by the speed with which it acquires or generates data, information, knowledge, knowledge and skills (Cardoso, 2012 , pp. 217). Thus it has the perspective of influencing the significant vision of changes that occur all over the planet, being disseminated by globalization. In the context of sustainable socio-environmental management and its impacts, consumers are becoming more informed and demanding by charging companies, environmental initiatives and results. The commitment to sustainability and the use of environmentally responsible practices results in improved systems performance (Murugesan, 2008). It is necessary to evaluate the need to measure the best suitability of the environmental management in counterpart to increase the performance of the hardware to obtain effective results in the management of digital waste. In corporate management the good practices of corporate governance in sustainable environmental management have a focus on the use of Green IT to meet the needs of the company and stakeholders. Among the specific governance standards for green companies are the Global Report Initiative (GRI) and the International Organization for Standardization (ISO) with the 14,001 standard that guides, specifies and helps in the improvement of an environmental management system (Makower, 2009). The precepts of sustainable environmental management and information technology have been in correlation in the modern formation of the companies, being vital to the maximization of the results its conscious use of Green IT (Lunardi, Alves and Salles, 2012).

Accounting science and Green IT allow new characteristics to be given to the economic and financial transactions and analyzes of companies, with the introduction of new managerial models. According to Ludícibus (2014), the purpose of accounting is to provide information to multiple users in order to provide rational decisions. With this, the computer science offers a set of technologies to attend to several users, making that, at the moment the accounting can use of electronic documents. Regarding the ancillary obligation, Alexandre (2010) defines as "the benefits of doing or not doing certain acts in fulfillment of the interest of the fiscal exercise of the State".

They are understood as instrumental duties, which assist the Treasury in its activities. Thus, to check as an example of ancillary obligations the bookkeeping of fiscal and accounting books, issuance of invoices and among others. National Tax Code - CTN, Law 5,172, dated October 25, 1966, fulfills the functions of the supplementary law required by the Federal Constitution of 1988, establishes primary and accessory tax obligations for all taxpayers in the country (article 113, § 2, CTN). The main tax obligation is the payment of the tax and the accessory tax liability are the other bureaucratic procedures that will serve as the basis for the payment of the tax and future supervision defined by law. What it generates for the companies accumulates of data and need of storage of information with use of hardware and software more efficient, in the management of the digital archives, like the emission of the invoice of sale of merchandise or service, emission of the guides of collection of the tributes , bookkeeping of fiscal books, preparation and dispatch of tax returns, financial statements, payroll, pay stubs, paychecks, preparation and sending of social statements. Taxpayer is any person, physical or juridical, who carries out, with regularity or in volume that characterizes commercial purpose, operations of circulation of goods or services of interstate and intermunicipal transportation and communication, even if operations and benefits start in the outside.

The "obligation is ancillary when, by virtue of law, one must do something, which is authorized by the National Treasury, all in the interest of tax collection or inspection" (BRAZIL, 1966), as statements are sent over the internet which generates to municipal, state and federal governments, with numerous economic, financial and social information from all sectors of the economy and for the companies the need for their generation and storage. The Public Digital Bookkeeping System - SPED was introduced through Decree No. 6,022, dated January 22, 2007, which consists of a program implemented by the Brazilian Federal Government, within the scope of the Federal Revenue Secretariat, charged with modernizing the management of obligations "The modernization of the sending and receiving of files destined for the Federal Revenue Secretariat, which will be of great value both in the economy of the companies, and in the fiscal management of the taxpayers, to maximize the result of all those involved "(BRAZIL, 2012). Thus, all documentation

provided to inspection agencies would no longer be sent in paper, but in digital files, duly protected by the technology of the Federal Revenue Secretariat. The issuance of an electronic invoice and the storage of its XML file, Extensible Markup Language, is the markup language used by the Federal Revenue Service (SRF) to "create documents with hierarchically organized data, such as texts, balance sheets, database, it aggregates codes that can be applied to data or texts, generated in its national environment SPED - Public System of Digital Bookkeeping "(BRASIL, 2007). The creation of this system was a great national landmark for socio-environmental and sustainable management, since it stopped using a paper invoice being replaced by the XML file, making the process of issuing and receiving notes quick and easy, more traceable, in a fiscalization process and management. In addition to these data, there are numerous other data that are transmitted to the National Treasury, called ancillary demonstrations, which are generated by companies and sent in XML format, for storage, where the company must keep them for the legal term of 05 years, obligatorily, liability of penalties provided for in the tax rules. The program of the Public Digital Bookkeeping System - SPED, is open by the website and is accessible online at http://sped.rfb.gov.br/, where all the advisory obligations that are linked can be viewed, as described in table 01 with some examples of Accessory Obligations:

The large volume of these data is recorded, sent and stored both by the SRF, and by the taxpayer companies, it is gigantic, the volume of these files added throughout the national territory causes an accumulation of data, which both entities and taxpayers must know manage and save the National Treasury as well. In a simplified way, the company issuing NF-e will generate an electronic file containing the tax information of the commercial operation, which must be digitally signed, in order to guarantee the integrity of the data and the authorship of the issuer. This electronic file, which will correspond to the Electronic Invoice (NF-e), will then be transmitted over the Internet to the Tax Department of the taxpayer's jurisdiction, which will pre-validate the file and return a receipt (Use Authorization) protocol, without which there can be no transit of the goods. The NF-e will also be transmitted to the Federal Revenue, which will be the national repository of all NF-e issued and, in the case of interstate operation, to the Treasury Department of destination of the operation and Suframa, in the case of goods destined to the areas encouraged. The Finance Secretaries and the Brazil's Federal Revenue (RFB) will make available, through the Internet, to the recipient and other legitimate interested parties, who hold the access key of the electronic document. Dealing with the NF-e project in specific was inspired by Chilean model.

It began in April 2005, at the National Meeting of State Tax Administrators (ENCAT), where it was officially signed by the ENAT Protocol 03/2005, and instituted by the SINIEF<sup>4</sup> Adjustment 07/05 of 09/30/2005. As described on SEFAZ's website (2008), it is a document issued and stored electronically, of digital existence only, in order to document commercial transactions whose legal validity is guaranteed by the digital signature of the issuer and the authorization of use granted by SEFAZ. It consists of the implementation of a national electronic tax document model that replaces the

current system of issuing the paper tax document. NF-e is valid in all Brazilian states and will replace the Model 1 and 1-A Tax Credits in all cases provided for in the legislation in which these documents may be used. In order to follow the transit of the merchandise, a simplified graphic representation of the Electronic Invoice, entitled DANFE (Electronic Document of the Electronic Invoice), will be printed on common paper, in a single way, which will contain a printed, highlighted, access key for consultation of the NF-e on the Internet and a two-dimensional bar code that will facilitate the capture and confirmation of NF-e information by fiscal units according to Fabretti (2015). The DANFE is not an invoice, nor does it replace an invoice, serving only as an auxiliary tool to consult the NF-e, as it contains the access key of the NF-e, which allows the holder of this document to confirm the effective existence of the NF- and through the National Environment (RFB) or SEFAZ website on the Internet.

The recipient taxpayer, who is not a NF-e issuer, may write the data contained in the DANFE for the NF-e bookkeeping, and its validity will be linked to the effective existence of the NF-e in the tax administration archives involved in the process, of the issuance of the Authorization for Use. The issuer taxpayer of the NF-e will carry out the bookkeeping from the NF-e issued and received. According to Fabretti (2015), for taxpayers and tax authorities, the Electronic Invoice is a digital file, whose format of the fields is standardized by legislation. This file is legally validated by the digital signature of the sender, certified by an entity accredited by the Brazilian Public Key Infrastructure (ICP-Brasil), containing the issuer's CNPJ (a number in the national legal entity registry), in order to guarantee the authorship of the document, simplifying the taxpayer obligations and allowing, at the same time, real-time monitoring of commercial operations by the Treasury. The document assumes security to the seller, buyer and tax authorities, since the digital signature proves that a certain company "A" effectively carries out an operation with company "B", and, automatically, the Treasury is informed about the transaction. It is important to note that the authorization of the Treasury in real time does not imply validation of the information in the content of the document. This means that if the document issuer uses an improper operation code or does not highlight the tax correctly, among other inaccuracies, it will not be exempted from penalty due to the fact that the document has been validated, since, a validation of form, to prove the fact, not a validation of content. In the process, there is no checking of the data contained in the document. The electronic note is part of a larger Revenue project to replace the issuance of paper and tax books by electronic documents with digital certification, which can also be viewed on the portal. The accounting of companies including cash books, financial statements and balance sheets and fiscal accounting made digitally. Electronic documents were standardized for all tax administrations and sent to a single SPED database. This database will be accessed by federal, state and municipal governments. But each tax administration will only be able to access the information about the taxes that are of its sphere.

Regarding the management of physical data and digital conversion according to Law 8846 of 01/21/94, the invoice is a document that proves a transaction made in the establishment, whether the purchase of a product or service. And issuing invoices, writing fiscal books, maintaining and preserving books and documents, making statements in own forms,

<sup>&</sup>lt;sup>4</sup>National System of Economicand Fiscal Information

registering with the CNPJ, State and Municipality, give birth to a principal obligation, that is, to pay a tax or an ancillary obligation that is a according to Fabretti (2015). According to the National Tax Code (CTN), in articles 114 and 115, the triggering event of the principal obligation is the situation defined in law as necessary and sufficient to its occurrence; and the event generating the ancillary obligation is any situation that, according to the applicable legislation, requires the practice or abstention of an act that does not constitute a principal obligation. Only in the state of São Paulo are stored 3.6 billion tax bills, which are available to the Treasury for inspection for a period of up to 5 years. These data represent the dynamism of the national economy and, on the other hand, can represent 5% of Brazilian companies' revenues. The project provides for investments in technology park and information systems, with new technologies, increasing the capacity of service of the federative units.

## **MATERIALS AND METHODS**

By the object of study and objectives of the work, exploratory research was used, since it provides greater familiarity with the problem, with the purpose of constructing hypotheses, improving ideas or discovering intuitions, through an understanding studied in Silva (2013). It will be used a bibliographical survey focusing on the management of the digital archives and their obligatoriness, both in books and articles in Brazil and abroad, later, analyzes and conclusions of the problem raised. The research according to Gil (2008), emphasized the importance of the researcher to have direct contact with the studied situation. Where the qualitativequalitative approaches will be used, since the research aims to understand some specific phenomenon, describing the facts and quantitative, since the results found were initially tabulated in an Excel worksheet and later analyzed through graphs and descriptive statistics using a weighted moving average to facilitate comparison and understanding according to Duarte (2010). The data were organized in electronic spreadsheets, tabulated, presented and analyzed, being demonstrated through the graphs. Thus, evidence of the data collected and the analysis of the information collected in response to the research problem question. The method used allows establishing a relationship between observed reality and the existing theory (MICHEL, 2009).

The research was carried out in companies and public agencies based on the data collected by the Secretariat of the Federal Revenue Secretariat, Secretaries of state farms in the figure of the centralizing body of the actions of the National Council of Finance Policy CONFAZ, removed from the Public System of Bookkeeping Digital SPED. The research brought relevant content for social and environmental management in relation to the reduction of impacts to the environment with the implementation of SPED for the storage of these data in an appropriate way, as well as in the acquisition and disposal of hardware, and whether it is done correctly or indistinctly. The need to present and identify the impacts of the Public Digital Bookkeeping System - SPED, through the use of green IT, to better manage the material resources of companies and public agencies, especially those that aggressively degenerate nature and interfere in our medium as are the hardware equipment, which has in its composition batteries and capacitors, product highly toxic to human life and the environment, according to IPT, (2017).

According to Almeida (2016), the Treasury, even without the intention, has led to a drastic reduction in the consumption of environmental resources such as paper, water and consequently in deforestation, as well as the agility of federal supervision in its analyzes, thus crossing these diverse data with other obligations sent by the taxpayer and identifying evasion, evasion and fraud. To answer the question of this research will be compared the results of the data collected in fifteen years of implementation of the SPED project, on the generation of the files in substitution for the previously required physical accessory obligations, available on the website of the Federal Revenue of Brazil and portal of SPED in years from 2006 to 2019.

Aiming to answer the question of research, it is sought to verify if there are indications that refuse or not, the following hypotheses:

- The obligation of the Public Digital Bookkeeping System reduced the consumption of natural resources in the generation of the national scope.
- The obligation of the Public System of Digital Bookkeeping helps the socio-environmental management, through the Green IT of the companies in the optimization of the resources consumed in the national scope.

Data Analysis: In 2006, the obligation to issue a tax form, model A1, according to the complementary law, should include four copies of invoices, one for the taxpayer, one for the establishment, one for the destination and one for inspection, NF-e is the mission of a follow-up road, the Document of Monitoring of the Electronic Invoice - DANFE, that is, reduced four-way to a follow-up route that in the future should be extinguished in the face of new technologies. The social-environmental parameter did not enter into discussion in the implementation of the NF-e and Sped project, which is easily detected in the analysis of the objectives and assumptions of the fiscal governmental programs, which indicates the importance used in the rationalization of the governmental actions for the fiscalization, in terms of reducing consumption of natural resources such as deforestation and water consumption. According to Sabbag (2011), Fiscal Digital Bookkeeping consists of the modernization of the current system of compliance with ancillary obligations, transmitted by taxpayers to tax administrations and inspection bodies, using digital certification for the purpose of signing electronic documents, thus guaranteeing the their legal form only in their digital form. Analyzing the application of the NFe system, we noticed the existence of 21.099 billion NF-e issued within the national territory on February 10, 2019, of merchandise which refers us to the volume of and reduction of the environmental impact through the digital control of electronic federal revenue data. The use of water is also a trademark in papermaking, according to studies by the Akatu *Institute<sup>5</sup>* and the *Water Footprint Network<sup>6</sup>* (WFN) entities

<sup>&</sup>lt;sup>5</sup>The Akatu Institute was founded by Conscious Consuming, founded in 2000 within the Ethos Instituteof Business and Social

Responsibility. It is open onthe website andisaccessible online at https://www.akatu.org.br/akatu-na-midia / wood-panel-production-of-paper-sheet-a4-need-of-10-liters-of-water.

<sup>&</sup>lt;sup>6</sup>Waterfootprint Network, WWF-Brazilwascreated in 1996. It is a non-governmental organization of Brazilian civil society and constituted as a non-profit civil association that works to change the current trajectory of environmental degradation, acting in 67 projects

#### Table 2. Resources Not Consumed



Font: The authors.

worldwide, in analyzes performed for each sheet of paper requires 10 liters of water, which further aggravates plus the use of nonrenewable resources by papermaking. In comparative analysis of the amount of water already saved by the non-issue of invoices only with the NF-e project, there was a decrease of approximately 843.96 billion liters of water, analyzed that it was stopped issuing 21.099 billion billions tax forms printed on a checkbook. According to the website Thinking Green, a standard tree in paper production, which is eucalyptus, is capable of producing 20 reams of paper. As each ream has 500 sheets, 20 reams have 10 thousand A4 sheets of 75 g / m2 of weight per trunk. If a tree is capable of giving life to 10 thousand of these leaves, it means that to produce a sheet of paper it takes 1 / 10,000 of tree. Using this composition we can reach the amount of 8,439,600 thousand trees, not deforested, since for an NFe generated and transmitted, in the model 01 of manual tax invoice was composed of 4 (four) tracks of sheets of paper, which were spared, that is to say, saved, thus 84,396, billions of leaves are not generated, which corresponds to approximately 1,403 soccer fields similar to the one of Maracanã stadium, in space of 1.2 m2 by average tree. But it is far from the desire of the Federal Revenue Secretariat to reduce the consumption of environmental resources and their impacts on paper generation, water consumption and deforestation, as well as the accumulation of physical archives. Its macro objective is the search for data integration by optimizing control, inspection and revenue and maximizing the resources to maintain the state machine.

#### **Final Considerations and Future Works**

It is observed that the main objective of the SPED project was not exactly to benefit the taxpayer, but rather the Brazilian

as as to the reduction of cost with the printing of fiscal books, do not surpass the increase (Sabbag, 2011), facilitating the collection and control of the reported archives, as well as the costs of printing management reports for the monitoring and monitoring of the SPED generation process, as a real beneficiary of the implementation, through standardization of the processes and organization of the digital files to the Brazilian Treasury, it is necessary to take into account investments in technology and skilled labor, which generate extremely high costs with no time due to planning the entities. However, we must take into account the positive side, such as the valuation of accounting professionals and information technology, and the way to the end of unfair competition that is often practiced by some companies that try to circumvent the tax system to get prices more affordable than competitors. The great majority of companies even claiming to have complete control in fulfilling the obligation ends up showing a lot of difficulty in accessing information and that they do not have full knowledge becoming vulnerable to penalties.

The study shows that there is still a need to change the culture of many companies, demonstrating that adaptation to the new fiscal requirements established with SPED is essential. It is fundamental that companies and professionals are aware that the supervision is increasingly prepared to inhibit and penalize illegal practices in the tax area. By virtue of this we need to understand the need to invest in technology and qualified professionals, and to work fiscal management in an intelligent way for transparency and cost reduction. We emphasize the confirmation of the hypotheses of the research in reducing the consumption of renewable environmental resources in a progressive scale frete the adoption of the Public System of Digital Bookkeeping - SPED, that reduced the consumption of natural resources in the Brazilian national scope according to the analyzed data. As well as the use of Green IT for the optimization of the processes and consumption of resources in the social and environmental management of Brazil, with the hiring of more qualified professionals and implementation of the digital data in the daily life of companies that are tributary

in the Amazon, Cerrado, Pantanal, Atlantic Forest and Caatinga, besides the marine ecosystems, in the Braziliancoast, is open by the site and is accessible online at https://www.wwf.org.br/?uNewsID=36762.

taxpayers. In the study of the research the need arises to evaluate the impacts of the generation and storage of fiscal data of the taxpayers throughout the national territory, which I consider, an important correlation frees the need for new hardware and software, prepared with the platform tested together with the file layouts validation provided by the National Treasury, thus providing greater energy consumption and non-renewable resources, thus generating new Electronic Electronic Waste - REE according to CETESB (2015), which through inappropriate disposal can cause contamination of the soil and water sources and should be addressed in future research.

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