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## **An Evaluation On Regulations And Environmental Accounting Provided By Law 7153\***

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### **ABSTRACT**

*People damage the environment by polluting the it while producing and consuming anti-environmental products. Therefore, ecological changes such as climate changes, global warming, drought, natural disaster are observed in nature. However, these changes began to be noticed by people in the 60s and then transformed into social environmental movements. In the 1970s, efforts to find solutions for environmental problems by the means of international diplomacy increased the level of social sensitivity to the global measure. For this reason, the World Environment and Development Commission was established by the United Nations (UN) in 1983 and studies were initiated to regulate the relations between the environment and socio-economic development. 7153 numbered Environmental Law on 11.29.2018 in Turkey and arrangements which introduced by the Law Amending Certain Laws can also be evaluated in this context. Mentioning the concept of environmental accounting in the Law No. 7153, in this study, evaluations were made on traditional accounting and environmental accounting practices and exemplary accounting records that were given.*

**Keywords:** Environmental Accounting, Environment and Accounting, Environmental law

**Jel Classification:** M40,M49

### **7153 Sayılı Kanunla Getirilen Düzenlemeler ve Çevre Muhasebesi Üzerine Bir Değerlendirme**

#### **ÖZET**

İnsanlar, üretirken ve tüketirken çevreyi kirleterek doğaya zarar vermektedir. Bundan dolayı, doğada iklim değişikliği, küresel ısınma, kuraklık, doğal afet gibi ekolojik değişimler görülmektedir. Ancak bu değişimler 60'lı yıllarda insanlar tarafından fark edilmeye başlanmış ve ardından toplumsal çevre hareketlerine dönüştürülmüştür. 70'li yıllarda çevre sorunlarına ülke yönetimlerinin uluslararası diplomasi yoluyla çözüm arama çalışmaları toplumsal duyarlılık seviyesini küresel boyuta yükseltmiştir. Bu nedenle 1983 yılında Birleşmiş Milletler (BM) tarafından Dünya Çevre ve Kalkınma Komisyonu kurularak çevre ile sosyoekonomik gelişme arasındaki ilişkileri düzenleyen çalışmalar başlatılmıştır. Türkiye'de 10.12.2018 tarihinde yürürlüğe giren 7153 Sayılı Çevre Kanunu Ve Bazı Kanunlarda Değişiklik Yapılmasına Dair Kanununla getirilen düzenlemeler de bu kapsamda değerlendirilebilir. Bu çalışmada, çevre muhasebesi kavramından söz edilerek, 7153 Sayılı Kanunda çevre ile ilgili olarak yapılan düzenlemeler hakkında çevre muhasebesi uygulamaları üzerinden değerlendirilmede bulunulmuş, örnek muhasebe kayıtlarına yer verilmiştir.

**Anahtar Kelimeler:** Çevre Muhasebesi, Çevre ve Muhasebe, Çevre Kanunu

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## **1. INTRODUCTION**

The ecological changes in the last century are considered as a result of the excessive production and consumption due to the alternations such as urbanization, industrialization and technology that started with the industrialization evolution (Çalış, 2013:175-176).

Ecological changes has began to be noticed by people in the 60s and then transformed into social environmental movements. In the 1970s, efforts to find the solutions for environmental problems by the international diplomacy increased the level of social sensitivity to the global scale (Yılmaz, 2018: 80). For this reason, the World Environment and Development Commission was established by the United Nations (UN) in 1983 and studies were initiated to regulate the relations between the environment and socio-economic development. These studies has provided the definition of the concept of sustainable development in which the relationship between environment and development was established, and encouraged member countries to implement a sustainable development strategy ([www.mfa.gov.tr](http://www.mfa.gov.tr)).

The sustainable development strategy has intended to measure the damage to nature and the nature conservation efforts of the production activities and to include them in the national accounts of the countries and in the financial reports of the enterprises. This objective reveals the necessity of environmental accounting (Özkol, 1998:18). Environmental costs can be shown in the national accounts of the countries and in the financial statements of enterprises through the environmental accounting system.

The environmental accounting concept is mentioned in the first part of this study and then the arrangements which were introduced by the Law No. 7153 on the Amendment of the Environmental Law and Certain Laws entered into force on .11.29.2018 are evaluated based on the applied Traditional Accounting and Environmental Accounting practice and examples of accounting records.

## **2. THE CONSEPT OF ENVIRONMENTAL ACCOUNTING**

Concepts such as social responsibility, sustainability, green production and clean environment are related to enterprises as well as public authority. Enterprises are established to produce the goods and services needed by the society. However, the production activities are more harmful to the environment than individuals. Because of that public authorities try to take measures by limiting the negative effects of the enterprises on the environment via legal arrangements (Yılmaz and Şahin, 2013:110). This situation reveals the necessity of a system that allows enterprises to examine the negative effects they have on the environment (Ergin and Okutmuş, 2007:160). However, it is very difficult for businesses to measure their impact on the environment and the changes in these effects. In assessing the environmental impact of enterprises, it is may be easiest to take into account the economic values of environmental activities (Ergin and Okutmuş, 2007:147).

The efforts to include the accounts related to environmental values in an accounting system were first initiated in the United States in the early 1970s and then a study called “Natural Resource Accounting Model” was conducted by Norwegians. Due to its increasing

importance, many studies have been conducted on this subject till this date (Deniz and Türker, 2012:116).

Showing the environmental information in the accounting system varies according to the scope of the information. In this study, the environmental accounting policies comprise the carbon emission by the public that are expressed with the concept of green accounting and the accounting policies which include the environmental information of the enterprises that are expressed through the concept of environmental accounting. In this text, the emissioned carbon by the people that are expressed by the environmental accounting policies survied the concept of green accounting and accounting policies including the environmental information of enterprises. However, in some studies, it has been seen that environmental accounting and green accounting concepts are used interchangeably by ignoring the differences between enterprises and public environmental policies (Bezirci, 2011: 64).

In general Environmental accounting in literature is “ *the use of environmental resources and accounting for the effects that may arise from the use of these resources*” (Cite: Deniz and Türker, 2012:116) and “ *environmental accounting is an information system that produces the information that explains formation of environmental resources, usage of the resources, increases and decreases at the resources as a result of businesses activities and environmental status of businesses and informs to relavent persons and organizations*” (Korukoğlu, 2015: 84) as in the definitions; defining and reporting of the changes are declared in the environmental economical resources.

The European Environment Agency identifies environmental accounting in the same way as “ *a systematic presentation of data on environmentally significant stocks and flows generated in addition to traditional economic accounts in order to provide detailed recording of the environmental consequences of an economic activities*” (TÜSİAD, 2005).

In this sense, for environmental accounting, it can be said that the environmental information of the enterprises that were displayed within the accounting system and the scope of the accounting system is expanded (Bircan, 2003:121).

Accordingly, the main objective of environmental accounting is to monitor the changes in natural resources and environment as a result of commercial activities and to determine their economic values; According to the principle of the social responsibility and the sustainable development, principles are to ensure taking part in the national accounts of the countries and the financial statements of the enterprises. In this way, the environmental costs concealed expenses within accounts in traditional accounting applications and it becomes visible to the public and the stakeholders in the financial statements of the enterprises (Deniz and Türker, 2012: 116).

### **3. ACCOUNTING OF ENVIRONMENTAL ARRANGEMENTS BY THE LAW NO. 7153**

The public authority makes legal arrangements to limit the effects of enterprises on environmental pollution and to ensure that they take measures. Businesses may have to undertake a variety of costs or liabilities due to these arrangements. The arrangements introduced with the Law No. 7153 on the Amendment of the Environmental Law and Certain

Laws which came into force on 10.12.2018 with the aim of protecting the environment and preventing and eliminating the environmental pollution can be evaluated within this scope.

### **3.1. Environmental Arrangements introduced by Law No. 7153**

By Article 1 of the Law No. 7153, Article 3 of the Environment Law No. 2872 (1/h) is changed as "in order to protection of the environment, compulsory standards for the prevention and elimination of environmental pollution, tax, fee, contribution, promotion of renewable energy resources and clean technologies, recycling participation share, reduction of plastic bag and use of plastic packaging, deposit practice, emission fee, pollution cost and the provision of collateral for pollution prevention and market-based mechanisms such as carbon emission trade and economic instruments and incentives can be used" (Law No. 7153).

In order to ensure the prevention of environmental pollution by reducing the use of 31 different materials polluting and damaging the environment mentioned in the list numbered 1 in the annex of the Law; It was decided to collect the recycling share for some products, to receive a deposit for packages to be determined by the Ministry and to sell the plastic bags to the user or the consumer with Money (Law No. 7153).

The practice of this regulation has been clarified with the Additional Article 13. Accordingly, the base fee to be applied at the sales points for the bag will not be less than 25 cents per piece (including taxes). Base charge will be determined by the commission to be established by the Ministry and updated for each year. In addition, the bags collected in this groundwork at the point of sale should be subject to 18% VAT (Value Added Tax) and must be shown in the invoice or invoice-like document together with the sales item and number. The use of barcodes in the bags to be sold has been made compulsory (Law No. 7153).

### **3.2. Accounting Record Of Environmental Arrangements Introduced By Law No. 7153**

In this study the fact that some of the arrangements introduced by Law No. 7153 does not come into the force and the accounting records of all the materials listed in Annex 1 that shall exceed the scope of the study. The sale of the plastic bags explained with Annex Article 13 to the user or the consumer at the points of sale, and the accounting records related to the collection of the share participation fee from the handbags are shown in the Annex 1 list.

With the regulation made under the Law No. 7153, in the Environmental Law No. 2872, the paid bag application is evaluated in terms of traditional accounting; The bag is used as a material in the enterprises and as packaging material before the legal regulation. Therefore, it is seen as a service element offered to customers. It is included in the expense accounts in the accounting records. After the legal regulation, the bag has become a trade good for the enterprises. In the accounting records of enterprises; The bag will be followed the account of "153 Commercial Goods", "Recycling Participation Share" and "Value Added Tax" accounted as "360 Taxes and Funds Payables". Therefore, there will be significant differences in accounting of the transactions related to the bags in the enterprises. Hence, there will be significant differences in accounting of the transactions related to the bags in the enterprises.

### 3.2.1. Accounting Record Related To Payables Bag Before The Arrangements

Before the regulation when the accounting records related to the payable bag of the enterprises are investigated, three different applications are encountered.

1-In practice, some businesses follow the bags in the 150.Raw Material and Supplies account, ones not consumed directly in production are according to the function; "730. General Production Costs "or 740. Service Cost of Expenses or 750 Research and Development Expenses or "760 Marketing Sales and Distribution Expenses" or "770 General Administrative Expenses" is accounted as a cost to the active side (Sayın, 2001: 3-4). Accordingly, the accounting record of the enterprise for the purchase and consumption of bags is as follows;

-----/-----	
150.Raw Material and Supplies	XXX
150.01 Packing materials	
191 Deductible VAT	XX
320 Suppliers	XXX
Purchase of packaging materials (The bag)	
-----/-----	
770 General Administrative Expenses	XXX
150. Raw Material and Supplies	XXX
150.01. Packing materials	
Consumption record of packaging material (The bag)	
-----/-----	

2- Some businesses anticipate that the bag will be consumed by the end of the period and it is not necessary to follow up the inventory. In the period when the bag is purchased, "770 General Administrative Expenses" or 760 Marketing Sales and Distribution Expenses" is accounted as expense to the active side (Sayın, 2001: 4). In the accounting records, the account statements of the enterprises showing the bag as exhausted without pursuing the inventory shall be as follows;

-----/-----	
770 General Administrative Expenses	XXX
191 Deductible VAT	XX
102. Banks	XXX
Packaging materials (The bag) purchase and consumption	
-----/-----	

3- Service and trade enterprises that do not produce goods follow the stock of the bag. However, since they do not think of the bag as "Raw materials and Supplies", "150. Raw materials and Supplies" Instead of following the "157. Other Inventories" account. In case of consumption, "770 General Management Expenses" account or "760 Marketing Sales and Distribution Expenses" is accounted as expense to the active side. However, the nature of "157 Other Inventories" measure The Uniform Chart of Accounts (THP) discloses that items such as products, residues and scrap, which cannot be included in the stock follow-up the accounts numbered 150, 151, 152 and 153, should be recorded in this account (Sayın,

2001:5). Accordingly, the accounting record of the enterprise for the purchase and consumption of bags is as follows;

157. Other Inventories	XXX
157.01 Packing materials	
191 Deductible VAT	XX
320 Suppliers	XXX
Purchase of packaging materials (The bag)	
770 General Administrative Expenses	XXX
157. Other Inventories	XXX
157.01 Packing materials	
Consumption of packaging material (The bag)	

### **3.2.2. Accounting Of The Bag According To The Arrangements**

There are no environmental arrangements in the Uniform Accounting System and Accounting Standards and Financial Reporting Standards (Doğan and Ceran, 1998:53-54). The costs and expenses related to the environment are monitored according to the traditional accounting system and generally hidden within the expense accounts (Özkol, 1998: 16). Therefore, it should be ensured that these accounts can be classified (Ergin ve Okutmuş, 2007:149) as "environmental expenses, environmental costs, environmental liabilities or environmental goods" in separate accounts so that the costs or expenses related to the environment are not ignored or hidden. If this is not possible, costs and expenses related to the environment may be monitored in sub-accounts or regulatory accounts specified in the footnotes and shown in the environmental report in the traditional accounting system (Haftaci ve Soylu, 2008:111-112).

According to the payable bag arrangement, businesses do not have any expenses for protecting or repairing the natural resources consumed and polluted environment. On the contrary, it was transformed into trade goods due to the fact of selling the bags by with cost. Then, in case of the sale of bags, "Recycle participation Share" and "VAT" liability arises for the enterprises.

According to the new regulation, the enterprises are the "Recycle Participation Share" and "VAT" liability arised from the sale of the bag, it may be accounted for under the "360 Taxes and Funds payables" account, in the "360.01. Environmental Taxes and Funds payables" sub-account, under the " 190 Deferred VAT account, on the 190.01 Environment deferred VAT sub-account and may be disclosed in balance sheet footnotes. Such accounting of the obligations arises from the sale of the bag shall be appropriate in the environmental accounting system.

According to new regulation, accounting record of the enterprise for the purchase and consumption of bags is as follows;

153 Trade Goods	XXX
153.01 Packing materials	
191 Dedutable VAT	XX
320 Suppliers	XXX
Purchase of Trade Goods (The bag)	/
100 Cash	XXX
600 Domestic Sales	XXX
391 VAT Calculated	XX
Trade Goods to sell for cash (The bag)	/

At this stage, it would be appropriate to briefly explain the procedures related to the Declaration of Payment and Payment of the Recycle Participation Share.

The enterprises have to declare the information, about the sale of the bags on the information system between 1st and 15th of the following month. Declaring the recycle participation share, until the last day of the second month following the declaration period, the Ministry of Environment must be paid to through the bank account (Law No. 7153).

If it is determined by Ministry that the recycling share has not been declared or has been declared uncompleted, the Company is compromised and it should be paid within 1 month. Otherwise, due to delayed time until the date of payment from the period of the last day to be declared, a fine at the rate of default interest would be calculated according to the Article 51 of the Law No. 6183 On The Collection Procedures of Public Assets (Law No. 7153).

Businesses are required to calculate the Recovery Participation Share on the last day of each month. The amount to be paid is calculated by the information system after the information should be declared and entered into the information system (Law No. 7153).

Accordingly, the accounting records related to the calculation, declaration and payment of the Recovery Participation Share Amount are as follows;

621 Cost Of Trade Good Sold	XXX
153 Trade Good	XXX
The cost of the bag in ..... (month)	/

The enterprises have to declare the information about the sale of the bags on the information system between 1st and 15th of the following month (Law No. 7153). The accounting records related to the Declaration of The Recycling Participation Share are as below;

-----/-----  
770 General Administrative Expenses or XXX  
760 Marketing Sales and Distribution Expenses  
360 Taxes and Fund Payables XXX

Declaration of the Recycling Participation Share in ..... (month)

-----/-----  
Declaring the recycle participation share; Until the last day of the second month following the declaration period, the Ministry of Environment must be paid through the bank account (Law No. 7153).

-----/-----  
360 Taxes and Fund Payables XXX  
102 Banks XXX  
Paying the amount of the Recycling Participation Share in ..... (month) to the Ministry account

#### **4. CONCLUSION**

When ecological changes due to environmental problems started to affect human health and well-being negatively, environmental consciousness has started to develop on behalf of humanism. This consciousness has transformed into a social sanction by influencing people's preferences. This situation has caused the enterprises to be sensitive and the environment to be socially responsible. Henceforth, the enterprises considered the need to share their impact on the environment with the public and started to use the environmental accounting system. In this way, businesses will be able to follow up the costs and expenses related to the environment in detail and share them with the people and institutions that need information by declaring them in their financial statements due to their social responsibility.

As a result, the bag has become a trade good for businesses with the regulation. However, Recycling Participation Share and VAT is a legal obligation arising from a commercial transaction, not an expenses for the environment or enterprises. According to this, the environmental expenses of the enterprises can be listed in the sub-account of the related account according to the environmental accounting within the traditional accounting system and the disclosures can be made in the footnotes of the balance sheet.

#### **REFERENCES**

Bezirci,M.- Özpeynirci,R.- Duman,H. (2011), "Sosyal Sorumluluk Kavramı Bağlamında Yeşil Muhasebe Eğitimi: Bir Alan Araştırması" Muhasebe Bilim Dünyası, (3)

Bircan, K. (2003), Aydın ilindeki firmaların neden olduğu çevre kirliliği ve bu kirliliğin sosyal sorumluluk içerisinde çözülmesi ve bir model önerisi (Yayınlanmamış Yüksek Lisans Tezi), Adnan Menderes Üniversitesi Sosyal Bilimler Enstitüsü: Aydın. adudspace.adu.edu.tr:8080/jspui/bitstream/11607/359/7/tez.doc, (Web. May 2019)

Çalış, Y. E. (2013), “Çevresel Maliyetlerin Muhasebeleştirilmesi”, Marmara Üniversitesi İ.İ.B. Dergisi, 34(1)

Deniz, T. - Türker, A. (2012), “Çevresel Muhasebe ve Uygulamaları”, Journal of the Faculty of Forestry, Istanbul University, 62(1), ss. 115-132

Doğan, Z.- Ceran Y. (1998), “Çevre Muhasebesi Konusunda Yapılan Çalışmalara Genel Bir Bakış”, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 5(5)

Ergin, H.- Okutmuş, E. (2007), “Çevre Muhasebesi: Çevre Maliyetleri Ve Çevre Raporlaması”, Yönetim Bilimleri Dergisi, 5(1).

Gönen, S.- Güven, Z. (2014), “Çevresel Maliyetlerin Muhasebeleştirilmesine Yönelik Bir Seramik Fabrikasında Uygulama”, Muhasebe ve Finans Dergisi, (63),ss.39-58.

Haftacı, V.- Soylu, K. (2008), “Çevresel Bilgilerin Muhasebesi ve Raporlanması”, Kocaeli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (15) 2008 / 1, ss. 92-113

Korukoğlu, A. (2015), “İşletmelerde Çevre Muhasebesi ve Diğer Çevresel Faaliyetlerin Gerçekleşme Durumunun Araştırılması”, Ege Stratejik Araştırmalar Dergisi, 6(1), ss.83-111

Özkol, E. (1998), “Çevre Muhasebesi”, Dokuz Eylül Üniversitesi İ.İ.B.F. Dergisi, 13(1),ss.15-26.

Sayıñ, K.Ş. (2001), “İşletme Malzemeleri Ve Muhasebeleştirilmesi”, İSMMO Mali Çözüm Dergisi, <https://issuu.com/istanbulsmmmmodasi/docs/malicozum54?e=25078185/58370305>, (Web. May 2019)

TÜSİAD (2005), Şirketlerin Yeni Yönetim Aracı: Çevresel Muhasebe,[online], <http://www.tusiad.org>. (Web. February 2019).

Yılmaz, V. (2018), “Sürdürülebilir Kalkınma Ve Yeşil Büyüme Arasındaki İlişki”, Uluslararası Yönetim, Eğitim ve Ekonomi Perspektifleri Dergisi (JIMEP), 6 (2)

Yılmaz, Z.- Şahin, Z. (2017), “Muhasebe Dersi Alan Öğrencilerin Yeşil Muhasebe Konusundaki Algıları ve Farkındalıkları”, Balkan ve Yakın Doğu Sosyal Bilimler Dergisi, 3(1), ss.110-122

7153 Sayılı Çevre Kanunu Ve Bazı Kanunlarda Değişiklik Yapılmasına Dair Kanun, R. Gazete: Date: 10.12.2018 Number: 30621

2872 Sayılı Çevre Kanunu, R. Gazete: Date: 11.8.1983 Number: 18132

<http://www.mfa.gov.tr/surdurulebilir-kalkinma.tr.mfa>, (Web. May 2019)

