

## The Approach of Public in Turkish Fishkills Cases

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Received: 03.02.2017

Accepted: 03.05.2017

### Abstract

As soon as the fishkills in Türkiye is occurred, although there isn't a legislation describing and referring the application which will be made, the cases are being evaluated with six laws and three regulations covering the area of responsibility of Agriculture and Livestock Ministry of Environment and the Ministry of Urbanism and the Ministry of Interior and Municipalities. According to the 1982 Constitution of the Republic of Türkiye "Everyone has the right to live in a healthy and balanced environment. To improve the environment, protect the environment, health and prevent pollution of the environment is the duty of the state and its citizens". In this context; NGOs, universities, government agencies and institutions are indirectly related in the case of fishkills in Türkiye, which is seen as the environmental disaster. The purpose of this study is that to give suggestions for the solution of the problem by determining public approach of fishkills cases occurring within the intrastate.

**Keywords:** Fishkills, environment, public approach, legislation, Türkiye.

### Öz

#### Türkiye Balık Ölümleri Vakalarına Kamusal Yaklaşım

Türkiye'de balık ölümlerinin gerçekleştiği anda, yapılacak uygulamaları anlatan, yönlendiren bir mevzuat olmamakla birlikte Gıda, Tarım ve Hayvancılık Bakanlığı, Çevre ve Şehircilik Bakanlığı, İçişleri Bakanlığı ve Belediyelerin sorumluluk alanlarını kapsayan 6 kanun ve 3 yönetmelik ile vakalar değerlendirilmektedir. Türkiye Cumhuriyeti 1982 Anayasası'na göre "Herkes, sağlıklı ve dengeli bir çevrede yaşama hakkına sahiptir. Çevreyi geliştirmek, çevre sağlığını korumak ve çevre kirlenmesini önlemek Devletin ve vatandaşların ödevidir". Bu kapsamda; Türkiye'de de çevre felaketi olarak görülen balık ölümleri vakasında sivil toplum kuruluşları, üniversiteler, resmi kurum ve kuruluşlar dolaylı ilgilidir. Bu çalışmanın amacı ise ülke sınırları içerisinde meydana gelen balık ölümü vakalarında kamusal yaklaşımları belirleyerek sorunun çözümüne yönelik önerilerde bulunmaktır.

**Anahtar Kelimeler:** Balık ölümü, çevre, kamusal yaklaşım, mevzuat, Türkiye.

### Introduction

Dying of wild or cultured fish species in mass suddenly and unexpectedly is a widely observed incident around the globe that is defined as fish deaths or "fishkills" (Lugg, 2000; La

and Cooke, 2010). Fishkills could cause both loss of fish with economic value and loss of recreation by negatively effecting on nutrient balance and food chain (Holmlund and Hammer,

1999). Apart from these, fishkills is the evidence of a serious environmental problem and if this problem is caused by toxic chemical effect, it may also threaten the human and public health (Meyer and Barclay, 1990).

While in some countries, such as the Americas (North Carolina), at least 25 fish deaths are taken under review as "fishkills" (NCDENR, 1999), there is no identification about this issue in Türkiye. According to the 1982 Constitution of the Republic of Türkiye "Everyone has the right to live in a healthy and balanced environment (Anonim, 1982). To improve the environment, protect the health of environment and prevent pollution of the environment is the duty of the state and its citizens." In this context; NGOs, universities, government agencies and institutions are directly or indirectly related to the case of fishkills in Türkiye, which is seen as the environmental disaster. The purpose of this study is to determine the common applications and justifications of the public approaches to the fishkills cases with a view to make suggestions towards resolving of an issue on which a number of institutions in Türkiye have joint responsibility.

### **Municipality and Metropolitans Municipalities**

There are 51 municipalities and 30 metropolitans municipalities (Anonim, 2015a). "Environment" departments or branches are established in municipalities with Municipality Law. No: 5393 (Anonim, 2005a), in Metropolitans Municipalities with the Law No: 5216 Metropolitan Municipality (Anonim, 2004a), and these units act with the authority given by the Environmental Law No. 2872 (EL) (Anonim, 1983). When General Direc-

torates of Water and Sewerage Authority (GMWSA) (located in the metropolitan municipalities) determines any activities to fishkills causing by polluting the environment, it gives information to the provincial directorate of environment and urbanism (PDEU), Metropolitan Mayor or relevant mayoralty in order to stopping, preventing and remove of this activity by force of Regulation on Discharge of Wastewaters to Sewerage Network (RGWSN) (Anonim, 2015b), as necessary.

If GMWSA is determined that an administrative sanction is required for an administrative action to be issued as a result of its inspection and evaluation, it duly informs PDEU for arrangement of such administrative sanction through an official report confirming the pollution source and through the administrative opinion it will issue. Once again, according to the result of the official report, if a conclusion is reached towards that the action in question or the situation contrary to the provisions of the RGWSN is deemed to constitute a crime falling under the scope of the relevant articles of the Turkish Penal Code (TPC) (Anonim, 2004b), then it is denounced a crime to the office of chief public prosecutor who shall take legal proceedings for the crime in question, and the consequences of the process are followed.

### **Ministry of Environment and Urbanization (MEU)**

MEU carries out the "conservation-oriented sustainable environment" task according to the EL No 2872. By this law, the principles for protection, improvement and pollution prevention of the environment were determined and its limits were drawn by the Water Pollution Control Regulation (WPCR) (Anonim, 2004c) amended on 31.12.2014.

Within this regulation sectoral discharge parameters have been determined for protection in ecosystem together with flora and fauna of surface and ground waters. The control of water pollution by these parameters is aimed and the administrative penalty is being applied to the sectors which fail to meet these values in accordance with the related article of the EL. Furthermore, It may make an allegation to office of chief public prosecutor in accordance with the article "*the environment is deliberately and/or polluted with taxation*" of the TPC. On this basis, water samples and fish from the environment in the fishkills cases are taken and analyzed by PDEU. According to the results, water sample can be taken from the nearest institution/organization/sector that may cause water pollution and the source of pollution can be determined. Administrative penalty is applied when determined.

### **Ministry of Food, Agriculture and Livestock (MoFAL)**

MFAL has been assigned "to protect of fishing and aquaculture resources, identifying areas of production and aquaculture, and taking precautions to protect these areas from losses" in accordance with Fisheries Law No: 1380 (FL) (Anonim, 1971). The mentioned law, defines the prohibited substances to be poured into acquisition field and wastes made harmless as well and is referred to Fisheries Regulation (Anonim, 1995).

By MoFAL, in accordance with this regulation, testing are conducted on the fishkills in MoFAL laboratories, by taking fish and water samples from the receiving environment. When the source of fishkills is detected, facilities which cause fishkills by changing water quality are penalized with

administrative fines according to the FL. The Court decides to stop the activity causing the problem and to make the facilities not to damage the aquatic ecosystem at their own expense. When it is determined that the illegality has been terminated, the Court permits the maintenance of the activity. Furthermore, It may make an allegation to office of chief public prosecutor in accordance with the article "*the environment is deliberately and/or polluted with taxation*" of the TPC.

### **Ministry of Interior (MI)**

The General Directorate of Security and the Gendarmerie General Command (GGC) take part in fishkills within the Ministry of the Interior, which is responsible for ensuring the protection and safety of coastal and territorial waters. Based on the Police Duties and Powers Law No. 2559 (Anonim, 1934), Police can take necessary precautions to be carried out by the relevant institutions and organizations in a healthy way to be made surveys in the field of fishkills in the case of complaint, notification or request.

The authority in places where there is no police is in the jandarm. The GGC attaches importance to issue that the protection of the environment and ecological balance and, if possible, to restore the old health to the harmful environment. For this reason, GGC have set up Natural Life Protection Teams and Environmental Protection Teams (EPT) in the Provincial Gendarmerie Commands so as to research on environmental pollution and its sources in its responsible areas, sending the results of the research as a report to relevant institutions and organizations in order to make the necessary actions. A total of 44 Provincial Gendarmerie Command EPT have been formed in 38

provinces in terms of environmental protection activities. On fishkills notification in these provinces, the water sample taken in accordance with the legislation is handed over to the PDEU (URL, 1). The official report kept by the determination of the institutions-organizations that cause the fishkills by polluting the water is send to PDEU for ensure the application of administrative fines pursuant to the relevant article of the EL (URL,2).

### **Civil Society Organizations and Universities**

NGOs established in accordance with the Law on Associations and Foundations can cooperate with universities by warning to concerned in case of any fishkills events. When the universities determine the cause of fishkills by their researching, they apply to the Governorship for needed to do.

### **Conclusion**

According to Turkish legislation in terms of protecting the environment, more than one agency or organization have a voice in water. For this reason, when there is a case of death of any fish, more than one agency is involved in the event or can not be found responsible for the issue. The process mostly started with the notification of the citizens ends mainly gendarmes and with Governor orders Governorship PDEU or, the Provincial Directorate of Food Agriculture and Livestock. In this regard the authority gap has been identified, and it was concluded that the need to prevent environmental disaster by analyzing the issue as soon as possible. Our suggestions of solution are these.

### **Solution Suggestion 1**

Duties can be shared between the MEU

which has a a sustainable protection of the environment and the supervisory authority, and MFAL, which has the task and authority to protect the aquaculture sites. For this, sectoral pollution parameters should be determined by the MEU or the Ministry of Forestry and Water Affairs (MFWA) and the parameters and values which cause to accumulation or death in the fish by concentration values in the aquatic ecosystem should be determined by the MFAL. When the case occurs, MFAL can take the fish and water sample and evaluate it with the selective parameters to determine the problem. If the reason is sectoral, it can be followed by the end result by reporting it to the MEU. MEU may give not only administrative fine, but also enforce sanctions with the decision of stopping the activity until the problem is solved to the sector, which is the source of the problem and by making a denunciation to the Public Prosecutor's Office may share the results with the public.

### **Solution Suggestion 2**

The MEU and the MFAL are performing their duties with 81 provinces and the Gendarmerie EPT has fulfilled their duties at 38 provinces. The gendarmerie, which is authorized by both the Law No. 1380 and the Law No. 2872, fulfills its duties 7/24 and is transferred to the scene before the other institutions.

Gendarmerie can be operative and effective in these provinces when considering the presence of specialist personnel in environmental teams. The EPT may determine the problem by analyzing the fish and water analysis parameters that should be taken into consideration in the predetermined fishkills and apply the legislation with the authority given and make a denunciation to the Public Prosecutor's Office. In the other 44 provinces, if there is a laboratory of the ministry within the provincial borders, the provincial organization

of the Ministry may initiate the necessary criminal process involving administrative and activity stopping and the results can be shared with the public.

### Solution Suggestion 3

The sectoral pollutants of MEU or MFWA may determine, parameters of pollutants in fish and water in MFAL and may be transferred all steps of the case (sampling, analysis, punishment, monitoring) to the Municipalities.

For the whole solution proposals, the personnel who take water and fish sampling should be trained, the analysis parameters should be selected according to the source of the problem, the hot spots where has toxic effect around the water resources can be detected and monitored frequently, the process may be shared with the public and the provision of awareness of the people can contribute to the solution.

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