Assessment of Mining Activities within Environmental Impact Assessment Process in Turkey: In Terms of Regulations and Resolutions of State Council

Dr. Deniz ÇOLAKKADIOĞLU

Department of Landscape Architecture, Hatay Mustafa Kemal University, Hatay, TURKEY

Abstract

When the dimensions of its environmental and social impacts are taken into consideration, mining activities should take place in the main part of the activities to which the EIA process is necessary to be applied. However, the mining activities have always been tried to be kept out of the EIA scope as of the first years in which the EIA process started to be applied in Turkey. In this study, the place of the mining activities having importance within the scope of the economic development policies of Turkey has been assessed within the EIA application process existent in the state for twenty-five years. The assessment has been conducted within the scope of the legal regulation provisions oriented to keep the mining activities out of the scope of EIA process and the legal resolutions related to these provisions and the efficiency of EIA process has been examined within the scope of the mining activities. The experience of the similar problems encountered in Turkey regarding the application of EIA is possible in many developing countries. The enforcement of all legal regulation provisions which prevent the applicability of EIA process having a past of more than 25 years as of the preparation of EIA reports and above 25 years as of the enforcement of Environment Law no. 2872 in an efficient way in Turkey, are against its essence within the scope of the principle of taking precaution and contradict with other regulations related to the protection of the environment should be ended.

Keywords: environmental impact assessment; mining activities; regulation; state council resolutions.

1. Introduction

The mining sector is one of the two most important economic activity areas in terms of meeting human needs together with the agriculture sector. The mining sector is very significant for the state economies with the inputs it provides to other sectors as well as directly with export for the first time and import afterward. For this reason, the mining sector has an inevitable property for the states in the preparation of economic development policies and plans.

While the production of approximately 90 types of mines is conducted today, production is conducted in around 60 types of mines in Turkey. While Turkey has partly sufficient resources for 50 types of mines, the reservoirs and qualities of 27 types of mines and minerals currently known today are insufficient for mining. In these terms, it could be said that Turkey takes place among the states partly sufficient for itself in terms of mine resources and variety. The first rank among the mines in which Turkey is rich is occupied by boron minerals forming 72% of the world reserves. In addition to boron; trona, rock salt, sodium sulfate, perlite, pumice, feldspar, bentonite, barite, magnesite, gypsum, strontium salts, zeolite, sepiolite, marble and natural stones, quartz, quartzite, emery stone, bauxite, chrome and lignite are also the resources in which Turkey is rich (Ministry of Economy, 2016).

Mining, one of the sectors that many countries, including Turkey, can not give up between their economic resources, is characterised as one of the most intensive sources of environmental (Adiansyah et al., 2015; Amezaga et al., 2011; Dutta, 2012; Edraki et al., 2014; Gomez et al., 2015; Mudd, 2010; Newbold, 2006; Schoenberger, 2016; VanZyl et al., 2007) and social (Hilson, 2002; Jenkins and Yakovleva, 2006) disruption.

Mining activities raise various environmental impacts depending on their size, geology, types of minerals, exploitation and processing methods employed (Christmann et al., 2007). Morphological changes, loss of biodiversity, erosion, contamination of surface water, groundwater and soil; noise, air, and visual pollution are the main environmental hazards produced by mining operations (Gomez and Herbert, 2015; Lechner et al., 2017; Marnika et al., 2015; Schoenberger, 2016; Vintro et al., 2014). These impacts directly threaten the life of the living beings under some conditions and they may cause to the decrease in the quality and comfort of human life under some other conditions (Appiah and Osman, 2014; Pietrzyk-Sokulska et al., 2015). For this reason; as in other sectors, the most important methods for determining the possible environmental impacts in the earliest stage (Christmann et al., 2007; Gomez and Herbert, 2015), proceeding to investment by taking the necessary precautions for the construction and operation stages and benefitting from the mining richness with recycling applications to nature should be determined also in the mining activities.

One of the methods developed to get to know and predict effects on the environment is the Environmental Impact Assessment (EIA) method (Robinson, 2005). EIA is a process in which an analysis and assessment is made in the effect of particular human activity on the environment (Toro et al., 2010).

EIA firstly started to be applied in the USA with National Environmental Policy Act-NEPA entering into force on 01.01.1970 and afterward, it became one of the most rapidly expanding and accepted methods among other states, particularly the European states. In Turkey, EIA was first taken to the legal system with the article no. 10 of the "Environmental Law" dd. 09.08.1983 and no. 2872 following the article no. 56 (Everybody has the right to live in a healthy and balanced environment. Developing the environment, protecting the environmental health and preventing environmental pollution are the tasks of the State and citizens) on "environmental right" in the 1982 Constitution. EIA applications started with the first EIA Regulation on 07.02.1993 10 years after the Environmental Law entered in force. Following the publication of EIA Regulation on 07.02.1993, amendments have been made in some parts of the Regulation for 12 times and in the whole of it for 6 times with different justifications such as the studies of conformity to EU laws and increasing the activity of EIA process.

A total of 4503 EIA reports have been prepared until 2017 as of 1993 in which EIA legally started to be applied in Turkey. Among them, 4457 reports have been resulted with positive resolutions and 46 reports have been resulted in negative resolutions. The selection-elimination process has been applied to 55229 projects within the same period and while 54357 ea. of these projects have been resulted as "EIA not Required", EIA process has been applied to only 872 ea. of them. The distribution results of EIA resolutions according to the regions and sectors also reflect the general information about the industrial investments, state and region priorities, development tendencies and policies of our state.

EIA Regulation is a regulation determining the liabilities necessary to be carried out by the miner as per the legislation in force in environmental terms at the stage of the planning of the mining activities. According to this regulation, the environmental impacts to be formed by the mining activity in the operation stage and/or after leaving the area are determined beforehand. EIA reports prepared for this purpose could be assessed as a part of the mine operation planning studies as specified by Ozkahraman and Ceylan (1999). However; the mining activities necessary to be assessed within the scope of the EIA process due to their environmental and social impacts have always been tried to be kept out of the EIA scope as of the first years in which EIA process started to be applied in Turkey.

In this study, the place of the mining activities having importance within the scope of the economic development policies of Turkey has been assessed within the EIA application process existent in the state for twenty-five years. The assessment has been conducted within the scope of the legal regulation provisions oriented to keep the mining activities out of the scope of EIA process and the legal resolutions related to these provisions and the efficiency of EIA process has been examined within the scope of the mining activities.

2. Changing the place of mining activities in the EIA process

EIA Regulation has been amended 18 times in total as the whole for 6 times and in some articles for 12 times in Turkey. The discussions within the scope of the mentioned amendments have generally been carried out in the issues of for which activities and projects EIA is necessary and whether all the projects possible to have a certain impact on the environment should take place within the scope of EIA. The activities within the scope of EIA regulation are basically classified with 2 lists. The activities taking place in Attachment-1 list are the activities subjected to EIA process with the liability of directly preparing EIA report (Table 1) The activities in Attachment-2 list are those determined with the selection-elimination studies for which whether EIA report is necessary or not (Table 2).

Table 1. Mining activities with the obligation of EIA report prepared according to the EIA Regulations (Official Gazette, 2002a; 2003; 2004a; 2008; 2011a; 2013b; 2014).

Mining	Regulation and Amendments						
Activities	2002	2003	2004	2008	2011	2013	2014
Projects of extracting raw material or putting them through all kinds of processes	*Area wi hectares an within the Quarry Reg *Those w capacity of m ³ /year an	nd above scope of gulation ith the 100 000	 *Putting 1st and 2nd group mines taking place in the amended article no. 2 of the Mine Law dd. 04.06.1985 and no. 3213 through all kinds of processes * Those with the capacity of 100 000 m³/year and above. 		*Crushing- screening- washing plants (1. (a) and 2. (a) group mines in the Mine Law no. 3213 and earthworks materials) *Those with 400 000 tons/year		*The plants conducting at least one of the crushing, screening and ore dressing processes * Those with 400 000 tons/year
Strip mining and ore dressing plants	Areas witl and ab		Areas with 25 ha and above, but except for the ore dressing plants	Areas with 25 ha and above			and above, ore dressing
Coal extraction and ore dressing plants with the strip mining method	150 ha and above	Above 150 ha	Those exceeding 150 hectares, but except for ore dressing plants	Above 150 ha	Those exceeding 150 hectares, but except for ore dressing plants		ept for ore

Ore enrichment plants	*Except for crushing and screening *Except for iron ore *Those with 20 000 tons/year and above	Those which biological, chemical, electrolytic or heat process methods are applied	* Those which biological, chemical, electrolytic or heat process methods are applied *Waste plants related to these plants
-----------------------	--	--	--

There is mostly an amendment related to the mining activities in the attachments of each new Regulation entering into force. The amendments have been mostly carried out in the issues of whether the mining activities will be taken to the scope of EIA and if they will be taken, which activities will be assessed within the scope of EIA.

Table 2. Mining activities to which selection-elimination criteria will be applied in EIA Regulations (Official Gazette, 1997; 2000a; 2002a; 2003; 2004a; 2008; 2009; 2011a; 2013b; 2014).

M:	Regulation and Amendments									
Mining Activities	199 7	200 0	200 2	200 3	200 4	200 8	200 9	201 1	2013	2014
Prospecting	V		activ with m sou	ecting vities 3 000 Inding above			✓	✓	V	. 🗸
The processes of extracting raw material, pit operations and/or ore dressing preparation	to Qu	rding arries lation	m ³ /ye ab accore Qua	000 ar and ove ling to rries lation	mines N	nd 2 nd (s accord Aine La 23 m ³ /yea	ing to w 5 000		shing-Scr urning p	0
Mine extraction (not in Attachment- 1)	V	V	V	V	V	V	~	V	~	2 🗸
Salt extraction and all kinds of operating plants		√	50	000 to:	ns/year	and ab	ove		alt action	Except for screen ng- packag ng

Block or piece marble, extractio, and processing of the stones with decorative purposes	5 000 m³/year and above	And 10 ha and 5 000 above, m ³ /year 5 000 and m ³ /ye above ar and above
Marble cutting, processing, and sizing facilities	100 000 m ² and 250 00 above	00m² and above
Extraction and storage of coal gas	1 000 000m³/year an	d above
Facilities in which carbon dioxide and other gases are extracted, stored or processed	10 000 ton/year and above	No capacit y Except for worksh op-type filling facilitie s
Ore dressing and enrichment facilities	$\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark$	And waste facilities

3. Legal Process Related to Taking Prospecting Activities within EIA Scope

Many cases have been opened to exclude the prospecting activities from the Regulation lists and keep them out of the scope of EIA in the process from 1997 in which prospecting activities have been taken to the scope of EIA up to today (Table 3).

Table 3. Cases opened related to the prospecting activities in the EIA process and legal resolutions (Official Gazette, 1997; 2004b; 2006; 2009; 2011a; 2014).

Legal Regulation and Related Provision	Opened Case and Resolution		
<u>23.06.1997 EIA Regulation</u> Article no. 18 in Attachment-2: " <i>Prospecting</i> "	In the case opened for excluding prospecting activities from EIA scope, State Council Department no. 6 decided to reject the case . (Date: 19.11.1998, Docket no: 1997/4496, Resolution No: 1998/5631 upon the appellate procedure of the reached resolution, State Council Administrative Case Departments General Board Docket no: 1999/272, Resolution no: 1999/704)		
Law on making Amendment in the Mine	Constitutional Court has been applied for the		
<u>Law dd. 26.05.2004 and no. 5177 and in</u>	cancellation of the related provision.		
<u>some Laws</u>	Constitutional Court decided that there is no		

Article no. 28: "Petroleum, geothermal resources, and prospecting activities are out of the scope of Environmental Impact Assessment."	need for reaching a resolution in the issue of the terminated request related to this clause due to the fact that the mentioned provision was amended with the article no. 7 of the Law no. 5491 dd. 26.4.2006 (Date: 15.01.2009, Docket no: 2006/70, Resolution no: 2009/7, Official Gazette dd. 11.06.2009 and no. 27255)
Law on Making Amendment in the Environment Law dd. 26.04.2006 and no. 5491Article no. 7: "	Constitutional Court has been applied for the cancellation of the related provision. Constitutional Court has decided to the cancellation of the related provision. (Date: 15.01.2009, Docket no: 2006/99, Resolution no: 2009/9, Official Gazette dd. 08.07.2009 and no. 27282).
Regulation on Making Amendment in EIARegulation dd. 19.12.2009Article no. 1.: Prospecting Activitiesa) Beam prosecutions conducted on 500 m³per hectare,b) Prospecting drillings above 5000m withinthe license areac) Geothermal prospecting drillings above10000m within the license areaç) Petroleum and natural gas prospectingdrillings conducted on 10 ea. drillings andabove per hectare within the license area	The case has been opened in the issue of terminating the threshold values. State Council Department no. 6 decided to the suspension of the execution of the related provision . (Execution suspension resolution of the State Council Department no. 6 dd. 10.12.2010 and docket no. 2010/2186).
Regulation on Making Amendment in EIARegulation dd. 30.06.2011Article no. 5.:"Ministry is applied with "Prospecting	State Council Department no. 14 decided to suspend the execution in the case opened related to the mentioned provision. (The resolution of the State Council Department no. 14 dd. 28.02.2013 and docket no. 2011/15130).
EIA Regulation dd. 25.11.2014 Attachment-2 Article no. 49/b Cutting, processing and sizing facilities of marble and decorative stones with the annual capacity of 5 000m ³ and/or 25 000 m ² and above	The case was opened for the related provision of the Regulation. Suspension of execution and cancellation requests were rejected with the resolution of State Council Department no. 14 with docket no. 2015/592.

The first case opened in this process is related to excluding the prospecting activities taking place in 1997 EIA Regulation attachment-2 list from EIA scope. State Council Department no. 6 decided to reject the case with the justification "...There is no contradiction to law and legislation in the inclusion of prospecting activities clear to cause damage in nature in the List of Preliminary Research to Which Environmental Impact Assessment Will Be Applied for the purpose of rendering harmless the wastes and residues which may cause to environmental pollution and taking precautions in

this issue by taking all the impacts possible to be made in environment into consideration". In this way; the attempt to exclude prospecting activities from the EIA process has remained inconclusive.

Although there was a resolution reached by the State Council in which the negative impacts of the prospecting activities on environment were specified, "prospecting activities" were excluded from the scope of EIA process with the article no. 2 of the Regulation on Making Amendment in EIA Regulation on 26.10.2000. 2 years after the mentioned amendment, a new EIA Regulation was prepared within the scope of EU conformity process and it entered into force on 06.06.2002. Prospecting activities took place in the article no. 34 of 2002 EIA Regulation Attachment-2 list with threshold value as "the research studies conducted with 3000 m drilling and above in total in the same area". The same provision took place also in the 4th EIA Regulation published in Official Gazette dd. 16.12.2003 and no. 25318.

Following 2 years in which prospecting activities were included in the EIA process, the Law on Making Amendment in the Mine Law dd. 26.05.2004 and no. 5177 and in Some Laws was published in the Official Gazette no. 25483 and entered into force. The clause "Petroleum, geothermal resources, and prospective activities are out of the scope of environmental impact assessment (EIA)" was added to the article no. 28 of the mentioned Law and article no. 10 of the Environment Law dd. 09.08.1983 and no. 2872 and the prospecting activities were excluded from the scope of the EIA process. The cancellation of the related provision was demanded with the justification that it is against the Constitution of T.R. and international contracts (World Nature Condition and Stockholm Declaration). During the continuation of the Constitutional Court process, the Law on Making Amendment in Environment Law dd. 26.04.2006 and no. 5491 entered into force. The provision "Petroleum, geothermal resources and prospective activities are out of the scope of environmental impact assessment" was added to the article no. 10 and clause no. 3 of the Environment Law dd. 09.08.1983 and no. 2872 and to the article no. 7 of the Law no. 5491.

Constitutional Court was applied for the cancellation of the mentioned provision. Constitutional Court decided to the cancellation of the related provision with the justification "It is clear that the prospecting activities kept out of the scope of EIA may cause to changes in the biological diversity of nature, these changes may have long term effects and for this reason, they have a risk for the environment. In this respect, the foresight of EIA is a requisite for the liability of the protection of the environment given to the State in the article no. 56 of the Constitution for the purpose of being able to terminate and prevent the existent risks in the prospecting activities within the scope of the law. Keeping the petroleum, geothermal resources and prospecting activities out of the scope of the constitution". Because the mentioned provision of the Law on making amendment in the Mine Law and Some Laws was amended with the article no. 5177 was concluded as "there is no need for reaching a resolution in the issue of the terminated request".

In accordance with the cancellation resolution of the Constitutional Court, prospecting activities were taken to the scope of EIA again with the article no. 1 of the Regulation on Making Amendment in the EIA Regulation dd. 19.12.2009. The threshold values of prospecting activities were specified with the mentioned article. The case was opened for the removal of the threshold values of the prospecting activities in Attachment-2 list. The execution of the related article was suspended with the resolution of the State Council Department no. 6 dd. 10.12.2010 and no. 2010/2186. Upon the resolution of the State Council, Regulation on Making Amendment in EIA Regulation dd. 30.06.2011 in which prospecting activities were rearranged was published in Official Gazette and entered into force. With the regulation, prospecting activities (drilling, splitting) are assessed within the scope of EIA regulation without considering the threshold values. Ministry of Environment and Urbanization is applied with "Prospecting Activity Elimination-Control Form" taking place in the Attachment-6 of the Regulation for the purpose of examining the environmental impacts of the activity regarding the prospecting activities with the article no. 5 of the Regulation amendment dd. 2011. Ministry examines and assesses the submitted form and decides in the issue of whether the activity will be carried out or not.

License owners starting their prospecting activities as a result of the application made to the Ministry with Prospecting Activity Screening-Control Form encounter with the requirement that drilling should also be made in the points they have not foreseen in the form as a result of the data attained from especially the drillings they have conducted. As specified by Akpinar (2012), mineral deposits that cannot be seen underground are sought with the drilling activities. Firstly the drilling is planned in the area, but a need occurs as to revising them after the activities start. In addition; project introduction file preparation process for the prospecting activities will only occur in the event that the ministry sees it necessary. In the event that the ministry does not see it necessary, the process will be completed with a single form filled with an environmental engineer and a geologist. The case was opened for the cancellation of the mentioned provision and State Council Department no. 14 decided to suspend the execution in the opened case (the resolution of State Council Department no. 14 dd. 28.02.2013 and docket no. 2011/15130).

Following the resolution of the State Council, 6th EIA Regulation was published in the Official Gazette no. 28784 and entered into force in Turkey on 03.10.2013. The preparation of the project introduction file is necessary for the prospecting activities with the article no. 26 of EIA Regulation dd. 2013 related to the prospecting activities. In this way; with this Regulation provision, the way for the preparation of the EIA report for the prospecting activities in Turkey was cleared. Today, EIA Regulation dd. 25.11.2014 amended two times on 09.02.2016 and 26.05.2017 is in force. Prospecting activities in 2014 EIA Regulation are conducted within the scope of Selection-Elimination Process except for the "site visit" procedure determined for the Attachment-2 list of the Regulation.

A case of objection was opened against the capacity limitation specified in the article no. 49/b of Attachment-2 list of 2014 EIA Regulation. As a result of the conducted assessments, it has been expressed that "*Extraction of the mines (Those not taking* place in attachment-1 list) were taken to the scope and therefore, all marble extraction activities have been taken within the scope of Regulation without any capacity limit anymore" taking place in paragraph an of the article no. 49 of Attachment-2 list. In this situation, it was specified that no contradiction to the law was observed in the mentioned article and that it was decided to reject the request of the suspension of execution. Regarding the opened cases, amendments were made in EIA Regulation on 26.05.2017 for the purpose of conducting the necessary corrections in Attachment-1 and Attachment-2 lists and carrying out the EIA process in a more rapid and efficient way by taking into consideration the decisions reached by the Board of State Council Administrative Case Departments and the articles whose execution was suspended. In the mentioned amendment; regarding the mining activities, the processes of the extraction of mines were taken to the scope of EIA process with the strip mining method up to 25 hectares without considering the magnitude of the license area.

4. Legal Regulations and Judicial Resolutions Keeping the Mining Activities out of the Process of EIA

Mainly the attachments belonging to EIA Regulations and the related judicial resolutions have determined the place of mining activities within the EIA process in Turkey. However; in addition to them, many activities including the mining activities have been tried to be excluded from the scope of EIA with different legal regulation provisions, mainly the provisional articles added to EIA Regulations (Table 4).

The attempts to exclude some projects from the EIA process have especially been tried to be carried out with the provisional articles of EIA Regulations. The activities related to mobile float electricity power plants, petroleum, petrochemical or chemical product storages to be used in the power plants and ports, piers and decks have been exempt from the scope of EIA up to certain dates with provisional articles (with the Regulation on the Addition of Provisional Article to EIA Regulation dd. 29.09.2000) and in addition to the mentioned activities; the projects of petroleum and gas pipelines taken to investment program, energy transmission lines, highways, express roads, state roads, and provincial roads have also been exempt from the scope of EIA up to certain dates with provisional articles (with 06.06.2002 EIA Regulation and 16.12.2003 EIA Regulation).

The attempt to exclude some projects from the EIA process in a way that it will also cover mining activities was most clearly carried out with the provisional article no. 3 of EIA Regulation dd. 17.07.2008 (Table 4). However; there passed a very long time like fifteen years from the year 1993 in which the first regulation specified in the provisional article no. 3 entered into force up to the year 2008 in which this Regulation entered into force. Within this period of time; the regulations providing an exemption of the projects whose investment did not start for a certain time from the EIA process again are both against the purpose of EIA and it does not have any legal base in terms of the principle for the protection of the environment. Nevertheless, the provision "the projects certified to have started the production and/or operation before this date" remained in force with the decision of the Council of State.

Despite the resolution of the State Council, the provisional article in which some activities were excluded from EIA process in a way that the mining activities will be included in the Regulation on Making Amendment in EIA Regulation dd. 14.04.2011 took place again. In the mentioned provisional article, the projects in production and/or operating stage were kept out of the scope of EIA. However; the attempt to exempt the projects from EIA process whose investment started up to 17.07.2015 for the activities in Attachment-1 list and up to 17.07.2013 for the activities in Attachment-2 list is a very negative improvement in terms of the applicability of EIA in an efficient way in Turkey.

Table 4. The related legal regulation provisions and judicial resolutions regulating the place of the mining activities in the EIA process (adapted from Yücel, 2013).

place of the mining activities in the EIA process	
Legal Regulation and Related Provision	Opened Case and Resolution
17.07.2008 EIA Regulation	
"Provisional Article no. 3 – On condition that	
the permits necessary to be taken in the	
Environment Law and other related regulations	
will be reserved, these Regulation provisions are	It was rejected with the Resolution of
not applied to the projects whose application	the State Council Department no. 6 dd.
projects were approved before the Environmental	02.02.2011 docket no. 2008/8999 and
Impact Assessment Regulation published in the	resolution no. $2011/165$. The provision
Official Gazette dd. 07.02.1993 and no. 21489 or	"to the projects certified to have started
whose permit, license or approval or	production and/or operation before this
expropriation decision were taken from the	<u>date</u> " remained in force.
authorized agencies as per the other related	
legislation or which were taken to the investment	
program or whose local zoning plans were	
approved or <u>to the projects which started</u>	
production and/or operation before this date."	
<u>Regulation on Making Amendment in EIA</u>	
<u>Regulation dd. 14.04.2011</u> "Provisional Article no 2 (1) Pofore the	
"Provisional Article no. $3 - (1)$ Before the	
Regulation of Environmental Impact Assessment published in the Official Gazette dd. 07.02.1993	
and no. 21489;	
,	It was rejected with the Resolution of
On condition that the permits necessary to be taken in the Environment Law and other related	the State Council Department no. 14 dd.
regulations will be reserved, these Regulation	10.01.2013 docket no. $2011/13522$ and
provisions are not applied	resolution no. 2013/4. The provision " to
a) to the projects certified to have started their	the projects certified to have started
production and/or operation,	production and/or operation" remained
b) from the projects whose application projects	in force.
were approved or permit, license or approval or	
expropriation decisions were taken from the	
authorized agencies as per the other related	
legislation or which were taken to the investment	
program or whose local zoning plans were	
approved to the projects whose investment	
started	

 until 17.07.2015 for the projects taking place in attachment-1 List of this Regulation,
 until 17.07.2013 for the projects taking place in attachment-2 List."

Regulation on Making Amendment in EIA Regulation dd. 05.04.2013

"Provisional Article no. 3 - (1) On condition that the permits necessary to be taken in the Environment Law and other related regulations will be reserved, these Regulation provisions are not applied to the projects taken to the public investment program before 23.06.1997 and whose planning stage passed as of 05.04.2013 or whose tender was made or which started their production or operation and the structures and facilities obligatory for the performance of them."

Law on Making Amendment in Social Insurances and General Health Insurance Law and Some Laws dd. 29 .05. 2013

Law No. 6486 Acceptance Date: 21/5/2013 Article no. 12 – The following provisional article was added to the Environment Law dd. 09.08.1983 and no. 2872.

"Provisional Article no. 3 – The projects took to the public investment program before 23.06.1997, whose planning stage passed and the tender process started or which started their production or operation and the structures and facilities obligatory for the performance of them are out of the scope of EIA."

03.10.2013 EIA Regulation

Projects out of legal scope

Provisional article no. 2 – The projects took to the public investment program before 23.06.1997, whose planning stage passed as of 29.05.2013 and the tender process started or which started their production or operation and the structures and facilities obligatory for the performance of them are out of the scope of Environmental Impact Assessment."

25.11.2014 EIA Regulation Projects out of legal scope

Provisional article ARTICLE NO. 3 – The projects which were taken to the public investment program before 23.06.1997 and which started their production or operation as of 29.05.2013 and the structures and facilities obligatory for the performance of them are out of the scope of Environmental Impact Assessment."

This article was cancelled by the State Council on 01.04.2014.

The provision "...whose planning stage passed and the tender process started or..." was abolished with the Resolution of the Constitutional Court dd. 03.07.2014 docket no. 2013/89 and resolution no. 2014/116.

The cancellation of the provisional article no. 2 was decided with the Resolution of the State Council Department no. 14 dd. 13.04.2016 docket no. 2013/10651 and resolution no. 2016/2826.

The request for the finalization of the activities of the operations which did not fulfill their EIA liabilities, but despite this, which passed to the production stage and provided employment, was not assessed as applicable for Turkey which is at the development stage in terms of economy. For this reason; as a result of the cases of objection opened for the related provision, the State Council decided to keep the related provision in force.

Another attempt in the issue of keeping the activities out of the scope of EIA was carried out with the Regulation in Making Amendment in EIA Regulation dd. 2013. As per the provisional article no. 3 of the Regulation, the projects passed to the stage of planning and started production or operation as of 05.04.2013 was exempt from EIA process. However; as a result of the opened cases of the objection, State Council canceled the related provision and did not allow the assessment of the projects within the scope of the provisional article out of the EIA process.

Except for the EIA Regulations, the attempts of excluding the mining activities out of the EIA process continued with different legal regulations. The mentioned attempt is the provisional article no. 3 added to the Environment Law and the Law on Making Amendment in Social Insurances and General Health Insurance Law and Some Laws dd. 29.05.2013 and no. 6486. In the related article, they were taken to the public investment program before 23.06.1997 and the projects whose planning stage passed and tender process started or which started their production or operation and the structures and facilities obligatory for the performance of them were kept out of the scope of EIA as of the date in which this article entered into force. While the related Law was in force, EIA Regulation dd. 2013 entered into force. Projects exempt from EIA process also took place in the provisional article no. 2 of EIA Regulation dd. 2013 as similar to the article no. 12 of the Law no. 6486.

Case of cancellation was opened to Constitutional Court for the cancellation of the article no. 12 of the Law no. 6486 and suspension of execution. According to the justification of their requests submitted to the Constitutional Court, it was specified that great projects are tried to be kept out of EIA process with this article of the law and it means the provision of "pardon" in terms of EIA also for the projects that started production or operation as well as the planned projects. Constitutional Court abolished the provision "..... whose planning stage passed and the tender process started or..." in its decision dd. 03.07.2014 and rejected the request of cancellation for the part out of this. In this way; the projects that started production and/or operation was kept exempt from the EIA process with the justifications of the state development and public welfare. In accordance with the related resolution of the Constitutional Court, except for the projects whose planning stage passed and the tender process started in EIA Regulation dd. 2014 in force in Turkey, the projects started their production or operation was exempted from the EIA process as of 29.05.2013.

5. Conclusions and discussions

When the dimensions of its environmental and social impacts are taken into consideration, mining activities should take place in the main part of the activities to which the EIA process is necessary to be applied. EIA which is important in terms of determining the impacts on the environment and ensuring to take precautions before the impacts occur is a process which takes a certain amount of time and has also the possibility for the activity not to occur as a result. In addition; mining activities are those not having any place alternative and requiring great costs. Therefore; factors regarding production and investment such as reserve, tenor, and cost have been valid for years in the operation of the mining sector in Turkey. However; together with the enforcement of 1997 EIA Regulation, environmental criteria as well as the criteria regarding production and investment have also started to become efficient in reaching decisions in the issue of whether mining activities should be carried out or not in Turkey.

The inclusion of mining activities in the EIA process occurred approximately 15 years after the year 1983 in which EIA took place in the legal system in Turkey. During the mentioned 15 years, many mining activities in our country very rich in mineral deposits were conducted out of the EIA process which was in legislation but did not start to be applied yet. The commencement of the application of the EIA process for mining activities with 1997 EIA Regulation was assessed as a late, but positive development by the parties with the priority of environmental protection in Turkey. However; after a short time, the fact that this positive development did not have any sustainability was encountered.

The investors in mining sector acted reluctantly in the issue of the inclusion of mining activities in EIA process due to the reasons such as the significant contributions of mining activities to the state economy, high-costing investment process and EIA process to take time. Together with the inclusion of mining activities in EIA scope; in the same year, both objections and legal attempts started within the direction of excluding the mining activities out of EIA scope. This situation provided the occurrence of another party which considers the fact that mining activities should be assessed within EIA scope and this party took place in the judicial process within the direction that the mining activities within EIA scope has been determined by the struggle of both mentioned parties in Turkey in the process of more than 25 years together with the enforcement of the Regulation.

When this struggle is objectively assessed, it is seen that the expectations of both parties did not realize in this process. Together with the preparation of EIA reports, neither the economic growth was prevented, nor was environmental pressures completely prevented or decreased at the desired level. Therefore; one of the two main results necessary to be obtained from this process is that the application of EIA process to the process did not cause to economic loss; the other one is that it is necessary to conduct EIA process in a more efficient way in Turkey for the applicability of the principle of taking precaution.

There have always been criticisms related to the EIA reports and the application of the Regulation within the scope of activity issue and it will continue to be existent. The best applied EIA model is not a point necessary to be reached, but it is maybe the development process realized with the intention of reaching this aim. Therefore; the actual problem related to EIA in Turkey is our intention within the scope of the purpose of EIA. One of the most discussed issues related to EIA in Turkey to be which activities EIA should be applied to is also proof for this situation. Today's science and technology provide us with the dimensions of the environmental impacts of each project as data including the mining activities. At this stage; discussing which projects EIA should be applied to be only to show the intention/purposelessness within EIA application process. Another proof for this situation is the effort to try to keep some investments/activities/projects out of the scope of EIA, mainly mining, with provisional articles or laws as contradictory to the purpose and definition of EIA.

International experiences indicate that political factors have been the driving forces behind the introduction and practice of EIA (Elliott and Thomas, 2009; Ortolano and Sheperd, 1995). The challenges for EIA are political rather than technical. In order to make EIA more than a ritual, changes in attitudes and behaviors of political leaders. The experience of the similar problems encountered in Turkey regarding the application of EIA is possible in many developing countries. The enforcement of all legal regulation provisions which prevent the applicability of EIA process having a past of more than 25 years as of the preparation of EIA reports and above 25 years as of the enforcement of Environment Law no. 2872 in an efficient way in Turkey, are against its essence within the scope of the principle of taking precaution and contradict with other regulations related to the protection of the environment should be ended. In other words, no activities having an impact or expected to have an impact on the environment after this moment should be excluded from the scope of EIA and the related provisional article/articles in the Regulation should be abolished.

References

- Adiansyah, J.S., Rosano, M., Vink, S., Keir, G., 2015. A framework for a sustainable approach to mine tailings management: disposal strategies. J.Clean Prod. 108, 1050-1062. https://doi.org/10.1016/j.jclepro.2015.07.139.
- [2]. Akpinar, A.C., 2012. Prospecting and EIA. Journal of Turkey Miners Association. 41,47-49.
- [3]. Amezaga, J.M., Rötting, T.S., Younger, P.L., Nairn, R.W., Noles, A., Oyarzun, R., Quintanilla, J., 2011. A rich vein? Mining and the pursuit of sustainability. Environ. Sci. Technol. 45(1), 21–26. http://dx.doi.org/10.1021/es101430e.
- [4]. Appiah, D.O., Osman, B., 2014. Environmental impact assessment: insights from mining communities in Ghana. J.Environ.Assess.PolicyManag.16(4), 20. http: //dx.doi.org/10.1142/S1464333214500318.
- [5]. Christmann, P., Arvanitidis, N., Martins, L., Recoché, G., Solar, S., 2007. Towards the sustainable use of mineral resources: a European geological surveys perspective. Miner. Energy Raw Mater. Rep. 22 (3-4), 88-104. https://doi.org/10.1080/14041040701405662.
- [6]. Dutta, S., Lawson, R. and Marcinko, D., 2012. Paradigms for sustainable development: implications of management theory. Corp. Soc. Responsib. Environ. Mgmt. 19 (1), 1-10. doi:10.1002/csr.259.
- [7]. Edraki, M., Baumgartl, T., Manlapig, E., Bradshaw, D., Franks, D.M., Moran, C.J., 2014. Designing mine tailings for better environmental, social and economic outcomes: a review of alternative approaches. J. Clean Prod. 84, 411-420. https://doi.org/10.1016/j.jclepro.2014.04.079.

- [8]. Elliott, M., Thomas, I., 2009. Environmental impact assessment in Australia: theory and practice. (Third ed.) Australia Federation Press, ISBN: 9781862877115, pp: 170-279.
- [9]. Gomez, J.C., Herbert, J.H., 2015. Environmental analysis of mining operations: dynamic tools for impact assessment. Miner. Eng. 76, 87-96. https://doi.org/10.1016/j.mineng.2014.10.024.
- [10]. Hilson,
 G., 2002. An overview of land use conflicts in mining communities. Land use policy 19, 65-73. http://dx.doi.org/10.1016/S0264-8377(01)00043-6.
- [11]. Jenkins, H., Yakovleva, N., 2006. Corporate social responsibility in the mining industry: exploring trends in social and environmental disclosure. J. Clean. Prod. 14, 271e284. https://doi.org/10.1016/j.jclepro.2004.10.004.
- [12]. Lechner, A.M., McIntyre, N., Witt, K., Raymond, C.M., Arnold, S., Scott, M., Rifkin, W., 2017. Challenges of integrated modelling in mining regions to address social, environmental and economic impacts. Environ. Model. Softw. 93, 268-281. https://doi.org/10.1016/j.envsoft.2017.03.020.
- [13]. Marnika, E., Christodoulou, E., Xenidis, A., 2015. Sustainable development indicators for minin sites in protected areas: tool development, ranking and scoring of potential environmental impacts and assessment of management scenarious. J. Clean. Prod. 101, 59-70. https://doi.org/10.1016/j.jclepro.2015.03.098.
- [14]. Ministry of Economy, 2016. Ministry of Economy, General Directorate of Exports General Directorate of Mineral, Metal and Forest Products. Sectoral Reports, Mining Sector Report.
- [15]. Ministry of Environment and Urbanization, 2017. Environmenatl Impact Assessment General Directorate of Allowance and Audit, EIA Resoulution (1993-2017).
- [16]. Mudd, G.M., 2010. The environmental sustainability of mining in Australia key mega-trends and looming constraints. Resour. Policy. 35, 98-115. https://doi.org/10.1016/j.resourpol.2009.12.001.
- [17]. Newbold, J., 2006. Chile's environmental momentum: ISO 14001 and the largescale mining industry: case studies from the state and private sector. J. Clean. Prod. 14, 248-261. 10.1016/j.jclepro.2004.05.010.
- [18]. Official Gazette, 2014. Environmental impact assessment regulation 29186. Turkish Official Gazette (25 November).
- [19]. Official Gazette, 2013. Environmental impact assessment regulation 28784. Turkish Official Gazette (16 October).
- [20]. Official Gazette, 2011b. Regulation on Conducting Amendment in EIA Regulation 27980. Turkish Official Gazette (30 June).
- [21]. Official Gazette, 2008. Environmental impact assessment regulation 26939. Turkish Official Gazette (17 July).
- [22]. Official Gazette, 2006. Law on making amendment in the Environmental Law dd. 26.04.2006 and no 5491 26167 Turkish Official Gazette (26 April).
- [23]. Official Gazette, 2004a. Regulation on Conducting Amendment in EIA Regulation 25672. Turkish Official Gazette (16 December).
- [24]. Official Gazette, 2004b. Law on making amendment in the Mine Law dd. 26.05.2004 and no. 5177 and in some Laws 25483 Turkish Official Gazette (5 June).
- [25]. Official Gazette, 2003. Environmental impact assessment regulation 25318. Turkish Official Gazette (16 December).
- [26]. Official Gazette, 2002a. Environmental impact assessment regulation 24777. Turkish Official Gazette (6 June).

- [27]. Official Gazette, 2000a. Regulation on the Addition of an Article to Article 28 of the EIA Regulation 24020. Turkish Official Gazette (14 April).
- [28]. Official Gazette, 1997. Environmental impact assessment regulation 23028. Turkish Official Gazette (23 June).
- [29]. Ortolano, L., Sheperd, A., 1995. Environmental impact assessment: challenges and opportunities. Impact Assess. 13, 3-30. https://doi.org/10.1080/07349165.1995.9726076.
- [30]. Ozkahraman, H.T., Ceylan, H., 1999. Impact of EIA Regulation on Turkish Mining.
 3rd Industrial Raw Materials Symposium, 14-15 October 1999, İzmir.
- [31]. Pietrzyk-Sokulska, E., Uberman, R., Kulczycka, J., 2015. The impact of mining on the environment in Poland – myths and reality. Miner. Resour. Manag. 31(1), 45–64. DOI 10.1515/gospo-2015-0009.
- [32]. Robinson, C., 2005. A tool for all seasons risk assessment meets the unique needs of each stage over the life of a mine. Canad. Min. J. 126 (3), 21–23, ISSN: 0008-4492.
- [33]. Schoenberger, E., 2016. Environmentally sustainable mining: the case of tailings storage. Resour. Policy. 49, 119-128. https://doi.org/10.1016/j.resourpol.2016.04.009.
- [34]. Toro, J., Requena, I., Zamorano, M., 2010. Environmental impact assessment in Colombia:critical analysis and proposals for improvement. Environ. Impact Assess. Rev. 30, 247-261. https://doi.org/10.1016/j.eiar.2009.09.001.
- [35]. Van Zyl, D., Lohry, J., Reid, R., 2007. Evaluation of resource management plans in Nevada using seven questions to sustainability. In: Proceedings of the 3rd International Conference on Sustainable Development Indicators in the Mineral Industries, pp. 403-410.
- [36]. Vintro, C., Sanmiquel, L., Freijo, M., 2014. Environmental sustainability in the mining sector: evidence from Catalon companies. J. Clean Prod. 84, 155-163. https://doi.org/10.1016/j.jclepro.2013.12.069.
- [37]. Yücel, M., 2013. What does "Social Insurance and General Health Insurance.... Law with no 6486" Means? International Environmental Impact Assessment Congress, 8-10 November 2013, Istanbul, Proceedings Book, 129-141.