The executive summary of the "Occupational Health and Safety in the Mining Sector with Reference to the Soma Coal Mine Accident Special Report"

In order to preserve right to life, provide sustainable development prioritizing the person and carry out developmentalist policies, it is necessary to renew the viewpoint for mining sector. Right here, responsibilities one by one land with the state, supervision mechanisms, managers, unions and employers. However, securing and persevering the right to life first of all is incumbent upon state.

The mine accident, which occurred in Soma district of Manisa governorate and resulted in the loss of lives of more than 300 coal miners, gave way to questioning of the efficacy of the occupational health and safety supervisions performed by the state within this frame, our Institution, on the basis of the authority bestowed by the Law. No. 6328, has examined the role of the administration in the occupational health and safety. The Report, which was completed as a result of examinations and research, was submitted on 29 December 2014 to the Turkish Grand National Assembly and Prime Ministry.

During the preparations of the Report, information and documents are requested from the relevant parties which are Ministry of Energy and Natural Resources (Directorate general of Mining), Ministry of Labor and Social Security (Labor Inspection Board and Directorate General of Occupational Health and Safety), Directorate General of Turkish Hard Coal Enterprise, Directorate General of Turkish Coal Enterprises, Social Security Institution, Soma District Governorship, Disaster and Emergency Management Administration, Union of Turkish Bar Associations, Turkish Union of Chambers and Exchange Commodities, Turkish Pharmacists' Association. Departments of Mining of Hacettepe University and METU, Hak-İs Confederation, Turk-İş Confederation, Turkish Confederation of Employer Associations. The Ombudsman together with his team, who are charged by the Chief Ombudsman carried out on the spot investigations and observations and met with the relevant parties on 18-20 August 2014 in İzmir, Manisa and Soma; and on 31 October 2014 in Ermenek. In that vein, interviews with the representatives of Labor Inspection İzmir Group Presidency, Manisa Social Security Provincial Directorate, Ministry of Family and Social Policies Manisa Provincial Directorate, Manisa Provincial Disaster and emergency Directorate (AFAD), Manisa Bar Association, Soma District Governorate, Soma Municipality, branch of Union of Coal Miners Ege Region, Soma Trade and Union Chamber, Community Volunteers Foundation, Directorate of Social Care Center, Eynez Enterprise of Soma Incorporated Company were held; on the spot investigations were conducted in the mine. Moreover, meetings were held with those miners who survived from the accident and their views and suggestions were heard. Condolences were also sent to the relatives of those who lost their lives.

The examinations and investigations taking into account the universal values, national and international legislation as well as the case law of the ECHR, on the basis of the views of the reputable political scientist and economists, brought forward the fact that the "unexamined bureaucratic domination" is a threat to our country. The supervision of the state and bureaucracy, which are huge instruments, is meaningful if it is not of words but of deeds. The contrary case leads to the annihilation of state.

Thus, there is no doubt that more than the government, the administration and those high level bureaucrats in the administration are liable for the Soma mine accident. Political liability is a position that the ministers will decide upon their own democratic and political cultures and assume responsibility. There are affirmative examples that public opinion expect in the developed democracies.

From another point, as also pointed out in our decision for Taksim Gezi Park events, it is expected that the necessary democratic attitude against this disaster be adopted by the bureaucrats, who utilize the administrative function, before the politicians. It should not be an exaggerated evaluation to consider that they should leave their posts before their dismissal by the political authority. According to us, the assessment of chain of negligence is underwhelmed for the events. When negligence and conscious negligence (which exist) are linked, aggravated crime will be in question. It should be noted that the prosecution has not been staged at the time this Report was issued.

The culture of impunity is also criticized by the EU. It was identified that no investigation permit was warranted for the responsible as far as the press reported.

The people, who are authorized for all processes from the stage of licensing, planning, licensing of operations, contracting the royalty and service procurement, preparing the technical specifications about the contracts, determining the work order and production volume, pricing the mines, supervising the work, are to be held liable for this accident. For as much as there is the responsibility inherently there authority exists.

The culture of liability prevailing in the developed democracies is expected to come in to existence in our country. Any catastrophe bigger than this has not been encountered. It has been observed that those responsible in the past and in the present has not done what has been needed. Doing the necessary is vital for social expectations, public good, giving chance to experience and farsighted bureaucrats.

In the experts' report prepared within the frame of the investigation by Soma Chief Public Prosecutor's Office for the accident; many points inconsistent with the occupational health in the mines were found out. It was explicitly pointed out in this report that the public officials (Directorate General of Turkish Coal Enterprises, Directorate General of Mining, those officials of Labour Inspection Board supervising from 2010 onwards), who did not give the necessary sanctions were genuinely faulty.

It is expected that after performing the essential prosecution and it necessary, the judiciary will punish the responsible administrators. In addition, despite the clear determinations, there is news in the press that investigation allowance was not allowed for the related administrators. This fatal situation, in addition to shaking the justice feeling in the society, is also a bad example for the public officials who did not adopt the necessary precautions for the occupational accidents. In order to ensure that the officials responsible for inspection dully perform their duties and thus prevent reoccurrence of such events jeopardizing the feeling of justice in the society, in case the workers lose their lives as a result of occupational accidents; it should be ensured that for the investigations to be performed for those officials who ignored their supervision duties, the provisions of the Law no. 4483 on Judging the Civil Servants and Other

Public Officials will not be applied and hence the public prosecutors will carry out the required investigation without any permissions.

Within the scope of this Report, during the examinations, investigations and meeting as an answer to the question of "how could we make the mining convenient for occupational health and safety?", it was observed that Turkish Grand National Assembly being in the first place, various public administrations, universities, trade associations and NGOs drew up tens of reports, views and articles and depicted determinations and suggestions as solution to the problem.

Furthermore, the fact that mining accidents resulting in deaths are experienced necessitate reviewing our perspective as a society on the problem and listening sincerely the scientists' voice. From another point, placing the safety culture embracing the whole society is of great importance. This point is outstanding for comprehending and internalizing fully the responsibility fell on both the public administrations and the employers, employees and other actors in the sector and each individual in the society without falling into the trap of taking it naturally.

Within the frame of the Report prepared on the basis of these thoughts and opinions, the assessments about the solution proposals for the current legislation and implementation in our country, occupational safety system and management conditions, administrative structure and other areas pertaining to this problem are presented below.

1. The main point arising after the investigations for the subject matter of the Special Report is the need for a strong and competent institution in the mining sector, which is dangerous and risky in terms of occupational health and safety. Besides, when the main institution in the sector, Directorate General of Mining, is evaluated regarding the administrative structuring, human resources and technical capacity, it seems far away from fulfilling this need. As its details are included in the Report, it is understood that the Directorate has not carried out properly its duties for monitoring the compliance of mining activities with the project, especially, the principles about occupational health and safety due to both institutional and legal reasons.

In this vein, it is necessary that in order for the Directorate to fully perform its function, it should be restructured, strengthened in terms of organization as well as staff. Personnel structure, physical and technical facilities should be in such a form to lead the sector, which is about our national treasure, and execute its monitoring, evaluation and inspection duties efficiently and effectively required for the proper design of the inspection system from the very beginning of mining activities.

2. Even though the inspections are being carried out by the Directorate General of Mining and Labor Inspection Board, to ensure the safety of the system wholly, it is deduced that the inspection as to the compliance of the enterprise with the project cannot be spate from the occupational health and safety.

Therefore, taking into consideration that the mining sector is in the highly hazardous occupation and the inspections in this sector require a separate expertise, the duty of inspection should be assigned to the Directorate General of Mining, rather than the Labor Inspection Board

affiliated to Ministry of Labor and Social Security. In this process, to enhance the quality of the inspections, the mining and geology engineers in the leading institutions of the sector such as Directorate General of Turkish Hard Coal Enterprise, Directorate General of Turkish Coal Enterprises, Directorate General of Mineral Research and Exploration, Labor Inspection Board should transfer their experience and knowledge to those responsible for inspection in Directorate General of Mining.

3. The investigations and controls by the primary licensing institution, namely Directorate General of Mining, on mining sector, where the varied branches of engineering nest and the quality and quantity of the personnel are of critical importance.

Therefore, occupational health and safety being in the first place, to ensure the efficiency and effectiveness of the supervision at all stages of mining activities, a unit solely responsible with supervision should be established; specialization in the supervisions should be guaranteed via employing experts educated in technical fields such as mining, geology, electricity, electronics.

- **4.** To solve the problems emanating from assignment of supervision duties to those who are not solely charged with supervision at the weekends, local organizations of Directorate General of Mining should be established so as to sustain the supervision especially at the coal mines with dense mining activities
- **5.** In addition, it is observed that the personnel of the Directorate General of mining are composed of those without on the spot experience, hence, the personnel of institutions such as Directorate General of Turkish Hard Coal Enterprise, Directorate General of Turkish Coal Enterprises, Directorate General of Electricity Generation Company are temporarily employed, the personnel employed for supervisions encounter problems about both employee personnel rights and facilities (vehicle, per-diem etc.)

Hence, revision of the facilities offered to this personnel and raising the level of these facilities to a level that will not allow non-protection of the distance with the employer and "being in need" of the employer are essential for the proper conduct of supervisions.

6. To strengthen the supervisory, regulatory and preventive role of Directorate General of Mining, which is the main institution, it should be in actual cooperation with Directorate General of Turkish Hard Coal Enterprise, Directorate General of Turkish Coal Enterprises, Directorate General of Mineral Research and Exploration, universities, research institutions etc.

In this vein, strengthening the relations with the Directorate General of Mineral Research and Exploration, which is the prominent actor in the sector become more of an issue. Sharing the current data and information via a shared data base will give way to increase in the efficiency and contribute to maximum utilization of underground sources and ensure that risk factors in the occupational health and safety are known beforehand to err on the side of caution.

7. Moving from the fact that the actors in the mining sector (Occupational Health and safety Institute, international accredited institutions, universities, unions, independent supervision mechanisms, trade associations etc.) are liable for securing the system to a certain extent and collectively, to make the supervisions transparent, trustworthy and lasting in terms of occupational health and safety, it is deemed necessary that universal and periodical

investigations are carried out through a commission/organization where all these institutions are represented.

8. It is not enough to regard the occupational health and safety as an issue to be considered only in production. The competence sought at the licensing stage, the quality of the activities in searching period, the security of the data, the design of the mine should be deliberated as important variables in terms of occupational health and safety.

It is necessary that the mining activities be well-planned, implemented and supervised not only in production stage, but also at all stages.

- **9.** In the issuing of the mineral rights defined as the permissions for the search, finding and running; determining competence criteria at international standards, updating them in the light of developing technology and evaluating whether the mineral right owners own these criteria throughout ownership, setting up a system pursuing the quality, experience and competence of the coal mine enterprises to prevent irreparable or unrecoverable damages are vital.
- 10. With the frame of the duty, authority and responsibility of the state as stipulated by the articles 49 and 168 of the Constitution and the regulatory and supervisory role of the administration and taking the Oruk/ Turkey decision of ECHR, in the issue of rights and permissions at all stages of the mining activities, detailed precautions should be included in the legislation, serious and deterrent sanctions should be implemented for those acting improperly to ensure the occupational health and safety at the maximum level on the basis of right to life.
- 11. In order to ensure that the officials responsible for inspection dully perform their duties and thus prevent reoccurrence of such events jeopardizing the feeling of justice in the society, in case the workers lose their lives as a result of occupational accidents; it should be ensured that for the investigations to be performed for those officials who ignored their supervision duties, the provisions of the Law no. 4483 on Judging the Civil Servants and Other Public Officials will not be applied and hence the public prosecutors will carry out the required investigation without any permissions.
- 12. There is no doubt that more than the government, the administration and those high level bureaucrats in the administration are liable for the Soma mine accident. It is expected that the against this catastrophe bureaucrats display the necessary democratic behavior before the politicians. It should not be an exaggerated evaluation to consider that they should leave their posts before their dismissal by the political authority.
- 13. Taking into consideration the inconvenience of system based solely on declaration at all stages of mining, the implementation founded upon declaration should be rapidly abandoned. Any administrative decision or approval should be given on the basis of the criteria determined via proven data after introducing the necessary legislative amendment.
- 14. Directorate General of Mining, the responsible unit from mining of the Ministry of Energy and Natural Resources is held liable for "monitoring whether the mining activities are carried out in accordance with the occupational health and safety principles" through the legislative amendment in 2010. Currently, the Directorate rather than focusing on the occupational health and safety criteria during licensing, it focuses on management criteria.

Therefore, during the investigations for issuing by the Directorate licenses for projects, in addition to the convenience of the project for production, primarily the convenience of the project to the occupational health and safety should be considered.

15. It is contemplated that it is not sustainable in terms of scale economy to have different business with diverse expertise and competence by dividing into small pieces our mines, upon which the next generations have rights as they are non-renewable. It is also considered that the dividing the coal reserves into artificial areas rather than the natural borders is a wrong approach and to prevent the loss of resources, it is required that planning and management policy for the basin be created.

For the rational utilization of our mines without giving way to loss of resources, in the management of the coal vessel spread over a large basin, rather than managing the basin after braking them into pieces, basin mining, where the basin is considered as a whole, should be implemented.

16. Without evaluating the real potential of the mines, which are our national fortunes, the activities performed by more than one management in the same basin, result both in the non-acceptance of the occupational health and safety costs of the employer who takes on short-run contracts and endanger the work as well as the worker security and production losses in terms of scale economy.

Therefore, it is essential that basin mining plan be prepared to ensure sustainability as well as occupational health and safety for our coal reserves. This plan should be put into implementation after its evaluation by all parties to the subject.

17. Preparation of the production project without fully determining the borders of the area brings about problems in terms of occupational health and safety. Hence before running the mines, any kind of research should be conducted comprising all different branches of engineering, the problems should be analyzed holistically. Therefore, the coal mines should be considered as a whole, air conditioning, shipping, occupational health and safety investigations should be projected considering the whole basin.

The performance of independent, uninformed, different but simultaneous planning and production in the same basin, which gives way to affecting each other negatively, should not be allowed. Accordingly, developing a system enabling continuous and one-to-one cooperation with the Directorate General of Mineral Research and Exploration, a researcher institution, responsible with producing any kind of info, providing infrastructure for all of the actors in the mining sector as well as with the Directorate General of Mining issuing licenses for mine research and production and put this system into life as soon as possible.

18. It is observed that the coal enterprises began production without any enough capital and knowledge, this results in both the wrong management of reserves and deficiencies in occupational health and safety precautions or their negligence. Non-acquisition of enough and qualified info at the preparation stage of research and management projects leads to incorrect determination of risks and dangers at the production stage. These issues giving way to projects inappropriate with the reserve to mine prepare the ground for insecure working conditions in terms of occupational health and safety.

Therefore, as it is the case in the research and management stages with best practices, the creation of mine research standards and the production after the right data via enough budget and time should be ensured.

- 19. The ores are the values that we deposit from next generations. Their most economic employment and the utilization of the acquired value added for the common welfare of the next generations are essential. The profitable producing of mines in the present time does not necessarily indicate its sustainability. The cost-benefit analysis without considering the rights of next generations will give way to a system where the possible maximum gain is picked up by the coal enterprises in return for a production system ruining the country's resources. When the production is carried out at specific places where the grade of the mineral ore is high, put differently at the richest place, and the production at the rest of the places where the grade is low could turn out to be non-economic. Even in some circumstances, since there occurs physical studies in the first area, it will not be technically possible to make studies in other areas. In fact, if the basin is considered as a whole, the production at the whole will become more economic.
- **20.** The high risk of capital in the mining sector obliges the implementation of economies of scale. As a result of the great fixed investment made during the examination and research of the mine, the management project is surrendered as it is deemed impracticable economically. The mining, which requires the economies of scale, features the contemplation on alternative methods for the acquisition of necessary capital. When the implementations in the world are analyzed, it is observed that the legal and private persons demanding to carry on a business in this sector accumulate capital in the stock markets with reference to detailed and trustworthy reports on the mines and ores they find.

At this point, the content, level of detailing and reliability of the reports on the results of research activities grow in importance. In many countries standard criteria for the research activities, the results, reporting and the professionals executing these functions are set. It is necessary that similar implementations are put into life, the CRIRSCO standards developed for reporting the mine reserves and resources are accepted as in Australia, Canada, South Africa, the US and Britain and/or the national codes coinciding with the national standards are elaborated as in many other countries.

- 21. It is considered that Directorate General of Mineral Research and Exploration; which set its strategic target as redounding the underground sources in such way to generate value added, confidently and economically meeting the growing demand for energy and industrial raw material, diversifying and developing the supply resources; should, by assuming a leading role in the system, prepare the scientific and technologic infrastructure for transition to basin mining and scale economies, determine the international standards adapted to our conditions to obtain maximum efficiency from underground resources, monitor the competence of the firms in terms of these standards before the licensing/certification application to Directorate General of Mining and/or have them monitored by an accredited institution and in some way, endorse the application.
- 22. It is thought that when the fact that many of the accidents occur in the mines which are run by private sector agents via royalty or service procurement and the negative effects of

these procedures on both the laborers and on the efficiency of the mines are taken together, whatever its name, such an implementation, what is called service procurement or royalty but which carries the characteristics of subcontracting in itself, should be removed. The introduction of legal arrangement which allows working of the license owners in the mines and thus, the revision of the mining sector are essential.

- 23. As the high number and size of the mine sites owned by the Directorate General of Turkish Coal Enterprises as well as the troubles to be encountered by the Directorate in its current structure during their management are considered together, the issue of strengthening the structure of the Directorate and making rational and practical plans enabling the realization of profitableness and efficiency principles should be sensitively dwelled upon.
- **24.** When the need for time to actualize the strengthening and amelioration activities mentioned in the paragraph above is taken into consideration, renting via royalty and similar contracts the mining areas currently owned but cannot be run by the Directorate General of Turkish Coal Enterprises could be continued; however, even in such a case, the continuation of responsibility resulting from being the primary employer should be ensured via a provision to be introduced in Law on Mines. Moreover, the relation of the royalty with the Law on Mines and the legal emptiness in this area should be filled by clear and explicit regulations. Accordingly, the hand-over of the mining areas as a whole to the private agents by the Directorate General of Turkish Coal Enterprises; the bans on transfer of the whole or any part of the area of the private agent with the right to management to another person and on private-private royalty implementations are considered proper.
- **25.** In this direction, all the criteria via law, regulation, directives etc. sought from the Directorate General of Turkish Coal Enterprises as owner of license should be looked for all real and private persons who will deal with operating activities via royalty or similar contracts and "financial competence" brought in Law no. 5995 requirement should be given prominence.
- 26. The provisions of the contracts between the Directorate General of Turkish Coal Enterprises and those engaged in operating activities via royalty and similar contracts should be put into effect after their approval and/or assent by the Directorate General of Mining and annotation of these contracts to Mining Registry should be compulsory. In the royalties to ne annotated in the mining registry, the details on the types of the transactions for which the owner of the royalty should deal with the Directorate General of Mining and the rights arising from annotation in terms of law on licenses should be set via a regulation.
- **27.** In the implementation the royalty, since the short term contracts are risky for the royalty contractor, with the performance of financial responsibilities towards the Directorate General of Turkish Coal Enterprises and gaining profits motives, the royalty contractor err seeing the investments for occupational health and safety precautions as costs, the measures as extra costs factors. Therefore, a minimum time condition should be set for contracting.
- **28.** The conclusion is reached that details of the content of the controls Directorate General of Turkish Coal Enterprises owning the production licensing of the mines having the characteristics of public property should be well-analyzed, the quantity and quality of the personnel conducting the controls about the mining sector where different branches of

engineering nest with each other should be enhanced, in summary, the Directorate should be bestowed with the mechanisms to follow the compliance of the activities in the assigned areas with the royalty contracts as well as the occupational health and safety rules and necessary legal regulations should be actualized.

- 29. As it is case in the subject-matter mine, via accepting by the Directorate General of Turkish Coal Enterprises of the production more than the annual manufacturing schedule, the upper limit for coal production is totally left to firms' initiatives. Control of the compliance of rapid increase with project and determining the results of rapid increase for the occupational health and safety are incumbent upon the Directorate General of Turkish Coal Enterprises. Hence, via evaluation by Directorate General of Turkish Coal Enterprises of the financial and technical capacity of the firm, the features of the environment and coal, the competence of the project etc., the Directorate should determine the maximum annual production, and thus, prevent production race and ambition as well as keep aloof from leading the firms for production strain.
- **30.** In the mines with high number of laborers, due to the negativities for health and safety at work caused by the safety implementations under the initiative of gang master rather than adoption of the standard safety conditions; the system of subcontracting what is called gang master but which is banned in the contracts, should not disperse and to remove it, legal sanctions should be introduced, such persons should be followed and these implementations should be prevented via disincentive sanctions.
- **31.** The article 10 of Safety and Health in Mines Convention (no. 176), to which Turkey is also a party, requires the establishment of a system so that the names of all persons who are underground can be accurately known at any time, as well as their probable location. It should be ensured that the employer establish an electronic tracking system in accordance with the technological developments of the day (GPRS etc.) to determine where the person in the underground is. In this sense, passing into law of the provision in the Occupational Health Package in this direction will be beneficial.
- **32.** Within the scope of the employers' responsibility of adopting necessary emergency precautions, again taking into consideration the conditions of the underground and technological developments of the day, precautions for getting the employer established baffle plates (illuminated or phosphoric ways etc.) should be adopted.
- **33.** Even though the "Central Gas Monitoring Directive" promulgated by Directorate General of Turkish Hard Coal Enterprise reveals the importance for security of the gas censors in the coal mines, it is essential that a regulation for all mines and provisions for having the employers and the controller Directorate General of Turkish Coal Enterprise take precautions for transmitting data even in the case of disasters be introduced. It is also necessary that the regulations of censors are supervised both in management plan and during implementation of the plan.
- **34.** Currently, standards for in-room calibration of censors are not obligatory but advisory. It is necessary that for the calibration of such censors, an accredited organization/institution should be determined by the Turkish Standardization Institute or as an

accredited institution the Institution itself should make the calibrations and obligatory standards should be introduced for this equipment.

- **35.** Considering the fact that concrete event based regulations disturb the feeling of justice in the society, it will be more equal and just to make regulations for provision of the social assistance for all laborers, who lose their lives as a result of work accident, in the very dangerous work places category including the mines as it was the case with the social assistance regulations benefited by the families of the laborers who lost their lives in Soma accident and those regulations planned to be introduced for Ermenek suffers.
- 36. Even though the delivery of the trainings to mine workers in form, content and target as envisaged in the legislation is incumbent upon the employer, it is understood that the employer does not carry out this responsibility in reality. It is without doubt that necessary sanctions will be implemented for non-performance of this responsibility by the employer; however in order not to witness such problems in the future, the state assume supervision responsibility. It considered beneficial that the administrative authority, which will execute this supervision duty, instead of relying on the declaration of the employer, should establish a system whereby the declaration of training institutions are required and both individuals and also the unions could deliver their opinions about the trainings without any pressure.

Although the ban on employing those without occupational competence document in the occupations which are dangerous and hazardous and whose standards are promulgated by Professional Qualifications Institution and which are indicated in the communiques is considered affirmative, an exam should be made by the Institution right after the induction trainings delivered by the employer and those who pass the exam should be certified to work in underground mines. The in-service trainings should also be followed by the Institution and it should be ensured that certificate of those who do not attend be canceled.

- 37. To have a culture of occupational health and safety in the employers, trainings should be provided so as to develop a consciousness confirming that the precautions in this area are not cost factors, to the contrary, result from respect for human dignity enhancing the accord between the employer and employee as well as protects the commercial credit of the employer. Conducting trainings to the employers in cooperation with the Occupational Health and Safety Institute and Directorate General of Mining should be ensured and the trainings should be explanatory in terms of legal responsibilities and technological developments in this area.
- **38.** State could provide some incentive and support mechanisms for research on occupational health and safety in the mining sector. In this frame, to increase the contribution form the universities and ensure private sector- administration- university cooperation, Scientific and Technological Research Council of Turkey and Ministry of Science, Industry and Technology should produce incentive and support mechanisms.
- **39.** It is deemed that the delivery of the recurrent and compulsory trainings, which take into account the sector and technological developments and are based upon the research and experiences, by Occupational Health and Safety Institute and the Directorate General of Mining being in the first instance, with the coordination of universities and international organizations as well as all other related institutions and organizations, towards the employer, worker, unions,

superintendents and occupational safety specialists will contribute to the culture of occupational health and safety. Via the cooperation of the Directorate General of Mining, the occupational knowledge of the occupational safety specialists will be enhanced and the perspectives of mining and occupational health and safety will be brought together.

- **40.** In all sectors generally and in the mining sector specifically, the trainings on occupational health and safety should be delivered in primary and higher education. Therefore, activities (having compulsory trainings in the curriculum, holding conferences, information meetings, distribution of prepared hand books to students) for constituting a consciousness among students in the basic education emphasizing that occupational health and safety is a requisite of respect to life and especially trainings for the candidate engineers in the higher education should be provided.
- **41.** The Directorate of Occupational Health and Safety Institution, which is converted into Presidency of Occupational Health and Safety Research and Development Institution via the Draft Law on "Amendments to the Law on Occupational Health and Safety and Some Laws and Statutory Decrees", should carry out its activities on sectorial basis and thus ensure specialization.
- **42.** A provision for the utilization of the administrative fines issued as a result of activities against occupational health and safety for the trainings delivered to the workers is envisaged in the Draft Law mentioned above. Within the frame of the responsibilities of the unions, confederations and employers, it is considered that they should pay a certain amount to the fund and their consciousness as well as responsibilities should be increased by ensuring their participation to the trainings about occupational health in the mining sector within the scope of their liabilities.
- **43.** Instead of allocating the educating human resources, technological investments, research infrastructure to the universities with really low quotas; on the basis of the needs, it is contemplated that the resources should be allocated to low number of departments via a decrease in the departments and quotas. Thus, contribution will be made to prepare the grounds for having mine engineering education at world standards and the quality of the educated emine engineers will be enhanced.
- **44.** After corrections made in the departments and quota of mine engineering in the light of country's need, furnishing our universities with necessary technological investments in the frame of best practices, planning the education in such a way to enhance on the spot experience, developing education programs based upon three dimension virtual reality instruments, providing mechanisms such as scholarships etc. to experience foreign country's implementations should be procured.
- **45.** In order to make the unions more active in occupational health and safety, the participation of the unions to the occupational health and safety supervisions will both augment their consciousness and responsibility and contribute to having more transparent and efficient supervisions.
- **46.** Some precautions like spending for activities on occupational health and safety of the enough part of the fees collected from workers by unions and confederations, giving priority

to projects the occupational health and safety to be realized via the administrative fines, analyzing the benefits and negativities of the pervious projects could also be adopted.

- **47.** When the fact that the mines are dispersed into different regions in our country, rather than having rescue crew on every occasion kilometers beyond in case of an accident; the establishment of rescue stations on basin basis with high capacity in terms of physically and well-trained human resources will speed up the efficient involvement to the mine accident and increase the possibility for the workers stuck in the mine to surrender.
- **48.** It is thought that psycho-social support activities carried out after the accident continue during amelioration period and it will be more beneficial to carry them out in a planned way in coordination with the state and civil society organization.
- **49.** It is essential that the assistance in kind and in cash made after the accident be coordinated by Disaster and Emergency Management Administration and thus the assistance be distributed more just.
- **50.** In the current legislation, the duties and responsibilities of technical and permanent superintendents are not clearly identified. It is observed that the job definitions of the technical and permanent superintendents, technical crew are virtually the same.

It is required by the legal provisions promulgated by the relevant Ministries that for each mine technical superintendent, occupational safety specialist, permanent superintendent or responsible director should be employed in each mine for beginning a business or having working license. The persons with these titles and qualifications, who work permanently or on contractual basis, carry some responsibilities as defined in legal provisions. In addition, the arrangement of similar or parallel duties as separate ones result in the employment of more than one person for similar services. This situation both brings about unnecessary costs for the mine firms and duty overlap among these people.

As a matter of fact, it is observed that whereas within the scope of their duties technical superintendent and occupational safety specialists are liable for ensuring a safe and sustainable work environment, the permanent superintendent and technical crew are responsible for planning and supervising the management activities, again, in case the permanent superintendents have the qualifications of occupational safety specialist, they could carry out its the duties and responsibilities. In this frame, the confusion as to the duty-responsibility among the technical and permanent superintendents and occupational safety specialist should be over and the duties as well as responsibilities should be determined via accurate divisions.

51. Another criticism frequently uttered by public opinion is the inability of the superintendents to act "independently" from the employer given that the payment of fees of superintendents is realized by the firms owning or managing the licenses whose supervision is carried out by these very same superintendents, the firms have the right to repeal the superintendents' contracts with the firms or the superintendents' have concerns about their removal.

It is a necessity that the activities in the mines be performed in accordance with the occupational health and safety rules and its realization is possible with the "independent" decisions adopted by the technical and permanent superintendents. In order for them dully

perform their duties and implement the provisions of the legislation, if necessary, a safe structure independent form the employer is needed. In this case, it will be beneficial to pay the fees through the deductions, which are made from firms in the sector, collected in a common fund, to ensure that they contract with legal entities in the form of union or cooperative rather than the employer, to establish the administration of this structure in a mixed model composed of the representatives of workers, employers, public authority, thus to convert this implementation into a corporate form open to the supervision of public authorities, independent from the employer moreover, in order to enable the permanent and technical superintendents and occupational safety specialists to act independently, regulations for restoring job security, repealing of the work contracts only on the grounds of warranty, which is different approach from the general perspective of Labor Law, should be introduced.

52. It is comprehended that the expected results are not obtained from the workplace doctor implementation and that this implementation is not efficient enough. Therefore, the workplace doctor should observe and learn each feature of the workplace, should know difficulties and stress encountered by the worker, should not be a person who only examines and acts in emergency. The profession of workplace doctor, rather than being treater, should be conducted in such a way that highlights the preventive function, participates to the production-administration function with occupational sensibility by sharing the protection and development of occupational health with the employees.

As a requisite of occupational duty, sensibility and responsibility, the workplace doctors should analyze the potential accident and illness before the illness or wounding and develop a systematic and continuous prevention, protection and monitoring program.

The presence of the universities among the institutions to provide trainings for workplace doctors is of great importance. During medical education more emphasis should be placed upon occupational health and industrial diseases. It should also be ensured that each doctor approach the issue by considering the working conditions, risk evaluation, legal responsibility of employer and employee.

- **53.** Even though some views on the inappropriateness of the rescue chambers due to the geological structure of the mines in Turkey are expressed, it is not possible to tell that every mine is in the same structure. Hence, when the fact that human life should be separately evaluated from any kind of cost concerns, legal regulations should be made for the rescue chambers in the mines except for those mines which are not suitable for rescue chambers in terms of geological structure and technical reasons.
- **54.** It is known that shift change is carried out inhumane in various mines, the production is carried out until workers in the other shift arrive at the production point and a working method to be called as "hand-to-hand" where the pickaxes never stop is applied. As it is case with the best practices, regulations should be introduced ensuring that the shifts are not made in the mines but above the ground and the controls in the mine about occupational safety be guaranteed via leaving a certain time between shifts, thus, the occupational safety problems resulting from the simultaneous presence in underground of the workers in the same shift be prevented and exceeding the legal working hours be precluded.