
Human Rights Costs of Development: Case of Two Neighbours - Armenia and Turkey

Author: Sofia Manukyan

M.A. in Theory and Practice of Human Rights/University of Essex

M.A. in European Studies/Yerevan State Linguistic University

Istanbul 2015

Acknowledgment

This research is carried out as part of Turkey-Armenia Fellowship Scheme established by Hrant Dink Foundation within the framework of the programme “Support to the Armenia-Turkey Normalisation Process” financed by the European Union. The research was implemented at Human Rights Law Research Centre of Istanbul Bilgi University.

Disclaimer

The research reflects only the author’s views and the EU, Hrant Dink Foundation or Istanbul Bilgi University are not liable for any use that may be made of the information contained therein. The views expressed in this paper are the sole responsibility of the author and do not reflect the views of the abovementioned institutions.

Abstract

Thinking of the situation between Turkey and Armenia, issues like history, closed borders, absence of diplomatic ties spring up in mind. However, there is at least one more area that needs to be discussed and acted upon, if not for the sake of dispersing certain stereotypes, then at least for the sake of ensuring adequate standards of living for the current and future generations in the region.

Energy and natural resources play a key role in the development plans of both Turkey and Armenia. National strategies, regulations and policies are therefore adopted in these sectors as key contributors to the states' development plans, with the goal to merge the increase of the quality of lives of people with least harms to the environment. Sustainability is therefore central in these plans with particular stress on developing renewable sources. However, on practice both governments have favoured investments in more conventional energy and natural resource sectors, which in its turn is having its costly impact on the environment, humans' health and general standards of living in the region. Such practices have not only contradicted both states' official policies, but have also led to violation of a set of human rights recognized by both countries.

This paper is therefore a compilation of regulations, official policies and practices in the sector of energy and natural resources in Armenia and Turkey. Parallel to states' sustainability rhetoric this paper displays the outcomes of activities in this sector which have a counter effect on human development and nature preservation. The objective of this work is, therefore, to expose the set of human rights violated as a result of the disconnection between policies and actions in Turkey and Armenia in the sector of energy and natural resources.

Table of Contents

Energy and Natural Resources as Key for Development in Turkey and Armenia	
Turkey's Energy Sector: Facts	5
Turkey's Natural Resources: Facts	6
Armenia's Energy Sector: Facts	7
Armenia's Natural Resources: Facts	8
Regulation of the Energy and Natural Resource Sectors in Turkey and Armenia: Laws, State/Non-State Actors, National Policies	
Turkey's Energy Sector: Plans and Policies	10
Plans and Policies in Turkey's Natural Resource Sector	13
Armenia's Energy Sector: Plans and Policies	16
Plans and Policies in Armenia's Natural Resource Sector	19
Human Rights Impacts of Development in Turkey and Armenia	
Environmental and Health Impacts in Turkey and Armenia	22
Impacts of Development on Labour Rights in Turkey and Armenia	37
Incompatibility of Cultural Heritage Preservation with Development Plans in Turkey and Armenia	45
Concluding Remarks	51

Energy and Natural Resources as Key for Development in Turkey and Armenia

Turkey's Energy Sector: Facts

As stated in the Tenth Development Plan of Turkey for the period of 2014-2018¹, plans in the energy production sector include the utilization of domestic resources based on promotion of renewable energy on the one hand, as well as opening domestic coal mines to the private sector and investing into nuclear energy plants on the other hand, all steps aimed at ensuring Turkey's energy security.² The plan emphasizes the importance of the private sector and expresses the need for greater investments in the sector. Additionally, it continues to prioritize Turkey's role as a transit and terminal country between energy producers and consumers.³

In its energy sector, around 90 percent of electricity in Turkey comes from oil, gas, coal-fired plants, while 10 percent comes from hydro plants and 1 percent from renewable sources. Since its energy self-sufficiency is only about 30 percent, Turkey therefore has to import oil, gas from countries, such as Azerbaijan, Russia, Iran and Saudi Arabia. Turkey's oil and gas reserves, located in the southeast, are explored and produced by state oil company TPAO (Türkiye Petrolleri Anonim Ortaklığı).⁴ Companies, such as Shell, ExxonMobil are also involved, however, the activities of foreign companies are limited to joint ventures with TPAO.⁵ Apart from the south eastern region, there are also some reserves in the Black Sea, where TPAO, as well as Chevron and ExxonMobil are producing. Other companies, such as Total, ConocoPhillips, Eni, Austria's OMV are as well present.⁶

In terms of gas, Turkey plans to act as a bridge for countries in the Caspian Sea and Middle East region to European markets. One reflection of these plans is Baku-Tbilisi-Ceyhan oil and gas pipeline network, running from the Caspian Sea through Baku to Tbilisi and then to the port of Ceyhan in Turkey. British Petroleum, being the major shareholder, operates the pipeline. Additionally, Ceyhan is connected with Kirkuk pipeline in Iraq, transporting oil to

¹ Ministry of Development of the Republic of Turkey, Brochure of Tenth Development Plan (2014-2018), July 2013, <[http://www.mod.gov.tr/Lists/DevelopmentPlans/Attachments/4/Brochure%20of%20Tenth%20Development%20Plan%20\(2014-2018\).pdf](http://www.mod.gov.tr/Lists/DevelopmentPlans/Attachments/4/Brochure%20of%20Tenth%20Development%20Plan%20(2014-2018).pdf)>

² E. Caglar & O. Acar, *An Assessment on the Tenth Development Plan*, TEPAV, August 2013, <http://www.tepav.org.tr/upload/files/1378461158-4.An_Assessment_on_the_Tenth_Development_Plan.pdf>

³ *ibid.*

⁴ G. Hiscock, *Earth Wars: The Battle for Global Resources*, Wiley, ProQuest ebrary, Singapore, 2012, pp. 231-233

⁵ U.S. Energy Information Administration, *Turkey: Overview*, U.S. Department of Energy, Washington, 2014, <<http://www.eia.gov/countries/cab.cfm?fips=tu>>

⁶ G. Hiscock, *loc. cit.*

Europe. Other gas transportation plans include Interconnector Turkey-Greece-Italy (of which Turkey-Greece is already operational) and Trans Anatolian Pipeline (TANAP) (an alternative to Nabucco natural gas pipeline project), both designed to move Caspian Sea gas through Turkey to Europe.⁷

To satisfy its growing demand for energy, Turkey looks for diversification of the sector and among plans is the development of nuclear plants (three by 2023). It has therefore signed an agreement with Russia in 2010 to build Turkey's first nuclear power plant in Akkuyu, on the Mediterranean coast. Additionally, coal-fired stations remain important energy source, with 40 percent of lignite located in south-eastern part of Turkey and hard coal located in Zonguldak basin of north-western Turkey.⁸ It is of importance to notice that coal sector as well (around its 90 percent as of 2012) is dominated by state-owned enterprises, i.e. Turkish Coal Enterprises, Electricity Generation Company, Turkish Hard Coal Enterprises, while the share of the private sector has been 6.9 percent.⁹

Overall, Turkey plans to invest around 10 billion Turkish lira (around 4.42 billion USD) for increasing its energy efficiency and production through local resources, parallel to strengthening its role as a transit state for regional resources. Thus, its four year energy plan envisages opening of wells using unconventional extraction and production methods in the regions of Thrace and south-eastern Turkey, drilling for finding hydrocarbon reserves in the Black Sea, the Mediterranean region, Thrace, south-eastern, eastern and central Turkey, drilling for gas hydrates to the west of the Black Sea and other activities in the sector.¹⁰ Active shale gas exploration activities have already started in the Southeast Anatolia and the Thrace Basins by TPAO and Royal Dutch Shell Turkey branch.¹¹

Turkey's Natural Resources: Facts

Among the objectives of Turkey's Development plan is also the extension of environmentally friendly practices and ensuring sustainability in the use of natural resources.¹² Of the latter,

⁷ G. Hiscock, loc. cit.

⁸ U.S. Energy Information Administration, loc. cit.

⁹ Turkey, European Association for Coal and Lignite, 2014
<<http://www.euracoal.org/pages/layout1sp.php?idpage=475>>

¹⁰ H. Atesh, *Government Launches TL10b Energy Investment*, Daily Sabah, November 2014,
<<http://www.dailysabah.com/energy/2014/11/12/government-launches-tl-10b-energy-investment>>

¹¹ Today's Zaman, *Concerns on shale gas and fracking technique: Turkey's case*, January 2014 <
http://www.todayszaman.com/todays-think-tanks_concerns-on-shale-gas-and-fracking-technique-turkeys-case_336225.html>

¹² Ministry of Development of the Republic of Turkey, loc. cit.

Turkey has deposits of iron ore, copper, gold, marble, mercury¹³ etc. As Turkey's Investment Support and Promotion Agency states in its 2014 report,¹⁴ however, in some regions mining has been limited to surface excavations, while in entire south-eastern region mineral wealth has been unexploited so far.

Armenia's Energy Sector: Facts

Armenia's energy resources are limited. It has no oil or natural gas reserves. Over 70 percent of its electricity demand is satisfied through nuclear and thermal generation which relies on imported energy. Armenia imports oil, oil products, gas, nuclear fuel from Iran, Russia.¹⁵ Gazprom Armenia (formerly ArmRosgazprom), the subsidiary of Russian gas monopolist Gazprom and now owned by the latter with 100 percent stock, runs the natural gas pipelines from Russia to Armenia, as well as the section of the pipeline in Armenia that supplies gas from Iran.^{16 17}

Nuclear power plant provides 30-40 percent of electricity, while hydroelectric plants satisfy around 20-35 percent of the country's needs, depending greatly on the level of precipitation which varies greatly. Thermal power plants satisfy around 30-35 percent of the electricity needs.¹⁸ While the fifth power unit at the Hrazdan Thermal Power Plant is purchased and constructed by Gazprom Armenia, the sole nuclear power plant in Armenia is owned by the Government of Armenia. Inter RAO-UES (a subsidiary of Russian companies RAO-UES and RosEnergoAtom) manages its financial operations.¹⁹

In the hydroelectric sector major plants are owned by a subsidiary of RAO-UES of Russia, RAO Nordic and the Government of Armenia. Plans have been set for building medium-sized hydro plants with the Government of Iran. Some minor plants are funded by the

¹³ CIA World Factbook, Turkey, 2014, <<https://www.cia.gov/library/publications/the-world-factbook/geos/tu.html>>

¹⁴ Turkey's Mining Industry, Investment Support and Promotion Agency, Republic of Turkey Prime Ministry, Feb. 2014, <<http://www.invest.gov.tr/en-US/infocenter/publications/Documents/Mining.Industry.pdf>>

¹⁵ UNEP, *Armenia: Energy and Environment Sector*, <<http://www.unep.org/GC/GCSS-IX/Documents/Armenia-1G.pdf>>

¹⁶ Gazprom, *Gazprom increasing its stake in ArmRosgazprom to 100 per cent*, Jan. 2014, <<http://www.gazprom.com/press/news/2014/january/article182633/>>

¹⁷ A. E. Kramer, *Resolving a Supply Dispute, Armenia to Buy Russian Gas*, The New York Times, April 2006, <http://www.nytimes.com/2006/04/07/business/worldbusiness/07gas.html?_r=0>

¹⁸ UNEP, loc. cit.

¹⁹ A. Balabanyan, et al, *Charged Decisions: Difficult Choices in Armenia's Energy Sector*, World Bank, October 2011, <<http://r2e2.am/wp-content/uploads/2012/07/Charged-DecisionsDifficult-Choices-in-Armenias-Energy-Sector.pdf>>, pp 51-52

European Bank for Reconstruction and Development (EBRD), the World Bank, and Cascade Credit (a universal credit organization).²⁰

In the renewable energy sector, while the most technologically developed renewable source in Armenia is hydropower, there is also a great potential for generation of solar energy due to its geographical location.²¹ Energy generation from wind and bio-fuels in their turn are planned to cover 30 percent or more of energy demand by 2030.²² The government-owned wind power plant Lori 1 was set up in 2005 in the northern part of the country, while another wind field is being planned. Construction of a geothermal power plant in Syunik province is as well provisioned while World Bank is financing field investigations for other potential geothermal sites.²³ There is also the potential for biogas production, however, only one biogas facility based on organic waste from poultry located at Lusakert Biogas plant operates so far.²⁴

As stated in its development strategy for 2014-2025 adopted in March 2014, Armenian government plans to implement an energy program aimed at maximum use of own sources, with strong emphasis on renewable sources. It also plans to continue developing nuclear energy and constructing a new energy block, while enhancing the security of the existing block of the nuclear power station. The plan also envisages diversification of energy supplies and regional integration.²⁵

Armenia's Natural Resources: Facts

One of the main sectors of the Armenian economy - mineral industry - accounts for over half of the country's exports.²⁶ Armenia possesses significant resources of copper, gold, iron, lead, molybdenum, zinc. There are also resources of such construction materials as basalt, granite, limestone, marble, tuff. Semiprecious stones such as agate, jasper, obsidian, as well as other

²⁰ A. Balabanyan, et al, loc. cit.

²¹ Armenian Development Agency, *Renewable Energy Sector Overview*, 2014 <www.ada.am/files/1226/documents/RENEWABLE-ENERGY.pdf>

²² *ibid.*

²³ A. Balabanyan, et al, loc. cit.

²⁴ Armenian Development Agency, loc. cit.

²⁵ Armenia Development Strategy for 2014-2025, Annex to RA Government Decree # 442-N, March 2014, <www.minfin.am/index.php?fl=78&lang=3>

²⁶ Armenian Mining Network, *Mining in Armenia*, 2014, <<http://www.armenianminingnetwork.com/mining-in-armenia/>>

non-metallic minerals, such as bentonite, diatomite, perlite, zeolite also exist throughout the country.²⁷

The major areas contributing to the sector include copper molybdenum, iron, lead and zinc ores. Armenia is also a significant gold producer as compared with other countries within the Commonwealth of Independent States.²⁸

Around 670 solid mineral mines, with some 30 metal mines are currently registered in the state inventory of mineral resources.²⁹ 400 of these are currently exploited, with 22 of these being metal mines.³⁰ There are around 15 tailings in the country occupying several million cubic meters and an area of around 700 hectares. The tailings are not utilized, which leaves a great amount of poly-metals unprocessed.³¹

Some of the companies currently operating in Armenia's mineral sector include Lydian International (Toronto Stock Exchange), Fortune Oil (London Stock Exchange), Global Gold Corp (U.S.), GeoProMining (Russia), Vallex Group (Armenia), etc.³²

There are plans to increase the production of copper and molybdenum. Additionally, the government aims at exporting semi-finished metal products instead of raw material.³³ It will continue developing its facilities for processing copper, gold, molybdenum. Several new gold and iron ore mining projects were being planned in 2011 and will operate for 3-5 years. Due to operations being located near environmentally sensitive, as well as inhabited areas, this will prolong the realization of these projects as a result of concerns raised by the public. Therefore, the success of the projects in the mining sector will also greatly depend on the government's ability to follow international and local regulations in this sector for consolidating interests of all of the stakeholders – environmental groups, investors and local populations.³⁴

²⁷ International Business Publications, *Armenia: Mineral, Mining Sector Investment and Business Guide*, Vol. 1, Washington DC, 2013, p. 27

²⁸ Armenian Mining Network, loc. cit.

²⁹ Armenian Development Agency, *Natural Resources*, <<http://www.ada.am/eng/about-armenia/general-info/natural-resources/>>

³⁰ Ministry of Economy of the Republic of Armenia, *Investment Guide – Armenia: Natural resources*, 2013 <http://www.globalspc.am/download/Invest_Guide_web.pdf>, p. 47

³¹ Ministry of Energy and Natural Resources of the Republic of Armenia, *Mining Resources*, <http://www.minenergy.am/en/page/472>

³² Armenian Mining Network, loc. cit.

³³ International Business Publications, loc. cit.

³⁴ E. Safirova, *The Mineral Industry of Armenia*, 2011 Minerals Yearbook, U.S. Geological Survey, June 2013, <<http://minerals.usgs.gov/minerals/pubs/country/2011/myb3-2011-am.pdf>>

Regulation of the Energy and Natural Resource Sectors in Armenia and Turkey: Laws, State/Non-State Actors, National Policies

Turkey's Energy Sector: Plans and Policies

The rapid growth in demand in all areas of energy sector for the past several years urges the Turkish government to take active steps aimed at ensuring its energy security. For that reason, the objectives it has set out for the upcoming years include diversification of energy supply routes and source countries, as well as increase of renewable sources. In this way it also aims at becoming a secure energy partner for Europe.³⁵

However, the prioritization of the energy sector, according to International Energy Agency (IEA) 2009 report, “has attracted more focus than market reform and environmental protection”.³⁶ Still, the report expresses belief of a better balancing of these three policies in the future based on Turkey's steps already taken for in-depth review in 2005.³⁷

Making energy affordable demands large investment in the energy infrastructure and market, which in its turn needs reforms. Therefore, Turkey has taken steps aimed at full liberalisation of the energy sector, establishment of competitive markets and an investor-friendly environment. It is also upgrading its legislation to meet the EU standards.³⁸

As such, Turkey ratified the Energy Charter Treaty and the Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) back in 2001, which committed Turkey to design and implement policies aimed at improving energy efficiency and reducing energy sector's negative impact on the environment.³⁹

The prioritization of renewable energy generation has been reflected in the Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy adopted in 2005, which aims to expand the utilization of renewable energy sources and benefit from

³⁵ Turkey's Energy Strategy, Ministry of Foreign Affairs, 2011, <<http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa>>

³⁶ Energy Policies of IEA Countries: Turkey, 2009 Review, IEA/OECD, 2010, p. 7, <<http://www.iea.org/publications/freepublications/publication/turkey2009.pdf>>

³⁷ *ibid.*

³⁸ International Energy Agency, Turkey: Energy efficiency at the heart of energy policy. *In: Energy Policy Highlights*, 2014, p.48, <http://www.iea.org/publications/freepublications/publication/energy_policy_highlights_2013.pdf>

³⁹ Energy Charter Secretariat, *In-Depth Energy Efficiency Policy Review of the Republic of Turkey*, Belgium, 2014, <http://www.encharter.org/fileadmin/user_upload/Publications/Turkey_EE_2014_ENG.pdf>

these sources in a secure, economic and qualified manner.⁴⁰ The Energy Efficiency Law adopted in 2007 in its turn is aimed at increasing energy resource usage efficiency, reduction of energy cost burden on the economy, as well as environmental protection.⁴¹ Additionally, Turkey acceded to the International Renewable Energy Agency (IRENA) in 2009 and adopted the Ministry of Energy and Natural Resources (MENR) Strategic Plan (2010-2014). The latter sets a goal to reach 30 percent of its power from renewable sources by centenary of the establishment of the Turkish Republic, i.e. 2023.⁴² This goal is to be achieved through installation and enhancement of hydroelectric dams, wind plants, geothermal power plants, and solar energy stations.⁴³ Within the frameworks of the Strategic Plan the Renewable Energy Law was adopted in 2010 with its subsequent *economic instruments and financial policies*.⁴⁴

The formulation of the political framework for the activities in the sphere of efficient energy usage and ensuring the public-private-NGO collaboration in this direction is in its turn reflected in the Energy Efficiency Strategy Paper published in 2012.⁴⁵ Overall, the Energy Efficiency law together with the Energy Efficiency Strategy Paper are envisaged to create *legal and institutional platform* for increasing energy efficiency.⁴⁶

The banking system in Turkey in its turn initiated financing of renewable projects, among which the Industrial Development Bank of Turkey, for example, has been supplying low interest loans to renewable projects.⁴⁷ It has financed 65 hydroelectricity projects, two wind power plants, two geothermal power plants, one biomass power plant.⁴⁸ Also a few private sector companies have invested particularly in the wind power.⁴⁹

⁴⁰ International Energy Agency, Global Renewable Energy, Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy - No. 5346

⁴¹ International Energy Agency, Global Renewable Energy, Regulating and Promoting Energy Efficiency

⁴² International Energy Agency, Global Renewable Energy, Strategic Plan 2010

⁴³ Energy Charter Secretariat, loc. cit.

⁴⁴ International Energy Agency, Global Renewable Energy, Renewable Energy Law 2010

⁴⁵ Energy Charter Secretariat, loc. cit.

⁴⁶ International Energy Agency, Energy Policy Highlights, loc. cit.

⁴⁷ B. Dursun & C. Gokcol, *Impacts of the renewable energy law on the developments of wind energy in Turkey*, Renewable and Sustainable Energy Reviews vol. 40, Turkey, August 2014, p. 322

⁴⁸ Turkey's Renewable Energy Sector from a Global Perspective, PricewaterhouseCoopers Turkey, 2012, <https://www.pwc.com/tr/tr_TR/tr/publications/industrial/energy/assets/Renewable-report-11-April-2012.pdf>

⁴⁹ B. Dursun & C. Gokcol, loc. cit.

The General Directorate for Renewable Energy of the Ministry of Energy and Natural Resources has also initiated a support programme back in 2009 aimed at providing investment support for efficiency improvement projects with a maximum payback period of five years.⁵⁰

However, the number of applicants for this program has been small due to the lack of awareness of the importance of energy efficiency, as identified in the International Energy Agency's report, as well as due to long periods necessary for assessing and approving projects as a result of insufficient documentation preparations and weak energy consultancy firms.⁵¹

Legal restrictions also hindered for example wind electricity production, since for producing it, permission of the Ministry of Energy is necessary for importing the machinery the manufacturing of which is absent in Turkey.⁵²

As for the role of foreign investments in the renewable sector, around 3 billion USD have been set up from International Financial Institutions for energy efficiency and renewable energy investments (though the government currently does not treat energy efficiency projects as a special category of investments).⁵³ World Bank alone has set up around 202 million USD loan for building renewable-energy-sourced electricity generation. These loans are to finance 30-40 percent of associated capital costs and in this way increase privately owned and operated power generation of renewable sources.⁵⁴

However, obstacles, among which excessive bureaucracy, difficulties in licensing processes, weak judicial system, high technology costs, regulatory risk, as well as high inflation, political and macroeconomic uncertainties, environmental impact assessment and feasibility problems have slowed down the investment flow in the renewable sector, leading to e.g. the first solar power plant being established only in July 2012, while the potential of Turkey in this area has been considered highest in Europe after Spain.^{55 56}

⁵⁰ International Energy Agency, Energy Policy Highlights, loc. cit.

⁵¹ *ibid.*

⁵² B. Dursun & C. Gokcol, loc. cit.

⁵³ Energy Charter Secretariat, loc. cit.

⁵⁴ I. Yüksel & H. Arman, *Energy and Environmental Policies in Turkey*, Energy Sources, Part B: Economics, Planning, and Policy, vol. 9:1, Taylor & Francis, Turkey-UAE, August 2013, p.63

⁵⁵ Energy Charter Secretariat, *Turkey: Review of the Investment Climate and Market Structure in the Energy Sector*, Brussels, 2007 <http://www.encharter.org/fileadmin/user_upload/document/Investment_-_id_-_Turkey_-_2007_-_ENG.pdf>

⁵⁶ A. Orhon, *Booming Foreign Investment in Turkey and Some Major Concerns*, International Law News Archive, Boston Bar Association, Feb. 2013 <<http://www.bostonbar.org/sections/international-law/news-archive/2013/02/25/booming-foreign-investment-in-turkey-and-some-major-concerns>>

Generally, despite the growth in use of hydropower, geothermal and solar thermal energy since 1990, the use of natural gas has increased and the plans of obtaining nuclear energy have been declared as a response to the growing electricity demands.⁵⁷

Plans and Policies in Turkey's Natural Resource Sector

The natural resource sector in Turkey has been undergoing reforms in recent years and is getting more liberalized with more foreign investments and less state owned companies in the industry. If a few years ago around 85 percent of the sector was state-owned, currently this number has gone down to around 15 percent. As the sector develops, the goal has been set to reach 15 billion USD of exports by 2023. In 2012 the exports grew to around 4 billion USD.⁵⁸

The new legislation and rich geology are the main factors attracting the foreign investors to this industry, with interest growing especially in *gold* mining, where Turkey has already become Europe's biggest producer. Apart from British, Canadian and Australian companies, relatively new companies from Turkey's Anatolian region have emerged in this sector (referred to as *Anatolian Tigers*), who have previously built their capital through the construction sector.⁵⁹ As of now around 15 percent of the country has been explored, this meaning that Turkey has chances to be counted among top 15 gold producing nations by 2016.⁶⁰

With demands rising in energy, mining of domestic *coal* reserves in its turn is identified by the government as a crucial step for energy independence and as part of its 2023 Visions, coal-fired power is set to meet 10 percent of the country's energy needs.⁶¹ The growth of production in this sector is attributed to sector's privatization process, since despite its 90 percent being under state-owned enterprises, 35 percent of the state production is carried out by private subcontractors. It is expected that continuous privatization will increase improvements in exploration and production in coal mining sector.⁶²

⁵⁷ R. Z. Yarbay, A.Ş. Güler & E. Yaman, *Renewable Energy Sources and Policies in Turkey*, 6th International Advanced Technologies Symposium, 2011, Turkey <<http://web.firat.edu.tr/iats/cd/subjects/Energy/ETE-33.pdf>>

⁵⁸ M. Smith, *Turkey's Mining Industry Comes of Age*, Engineering and Mining Journal, Dec. 2013 <<http://www.e-mj.com/features/3500-turkey-s-mining-industry-comes-of-age.html#.VJqchV4Cs>>

⁵⁹ *ibid.*

⁶⁰ *ibid.*

⁶¹ Mining in Turkey, *Coal: Feeding Turkey's Appetite for Energy*, Global Business Reports, Energy and Mining Journal, 2014 <http://gbreports.com/wp-content/uploads/2014/08/Turkey_Mining2014.pdf>

⁶² *ibid.*

Additionally, despite its adverse effect on the environment and health, as well as the global renewable trends (as well as Turkey's own strategies on renewable sources), construction of around 50 large-scale coal projects, in addition to its 15 existing coal-fired power plants has been approved by the Energy Market Regulatory Agency.^{63 64}

Meanwhile, foreign investors also show interest in the development of *metal* deposits and the interest for metal exploration is expected to grow in the near future.⁶⁵

While the Ministry of Energy and Natural Resources is responsible for implementation and administration of the new laws,⁶⁶ the General Directorate of Mining Affairs, acting within the same Ministry, is the body regulating the mineral industry⁶⁷ and granting licenses for mining activities.⁶⁸ Mining Law of 1985 (amended in 2010), Mining Activities Permitting Regulation of 2005 and Mining Law Implementation Regulation of 2010 (all of which being occasionally amended) regulate mining activities in Turkey. Based on Mining Law of 1985 and Article 168 of the Constitution, natural resources belong to the state. The state is the one permitting Turkish citizens or Turkish legal entities to explore and operate natural resources, while foreign persons or legal entities, through Foreign Direct Investment Law of 2003, are authorized to establish companies in Turkey holding mining rights under its Mining Law.^{69 70}

Ministry of Environment and Forestry in its turn enforces the Environmental Law of 1983 and the Regulation on Environmental Impact Assessment of 2008, the latter, however, being simplified as a result of amendments to the Mining Law in 2010.⁷¹ One of the main purposes of the amendment was putting an end to a practice of buying mining licenses and later re-selling it at a higher cost, at the same time issuing fake reports on their activities.⁷² The new

⁶³ S. Ocak, *Coal's firepower to rule on coasts*, Hurriyet Daily News, 2008

<<http://www.hurriyet.com.tr/english/domestic/11417787.asp>>

⁶⁴ A. Stefanova & D. Popov, *Black clouds looming: How Turkey's coal spree is threatening local economies on the Black Sea*, Greenpeace Mediterranean, CEE Bankwatch Network, October 2013

<<http://bankwatch.org/sites/default/files/BlackCloudsLooming-TurkeyCoal.pdf>>

⁶⁵ P. M. Mobbs, *The Mineral Industry of Turkey*, 2012 Minerals Yearbook, U.S. Geological Survey, July 2014
<<http://minerals.usgs.gov/minerals/pubs/country/2012/myb3-2012-tu.pdf>>

⁶⁶ Madencilik Turkiye, *Mining: Turkey*, Mining & Earth Sciences Magazine, Vol. 2 No 2, March 2012
<http://www.madencilik-turkiye.com/engdergi/sayi2/MiningTurkey_sayi2.pdf>

⁶⁷ P. M. Mobbs, loc. cit.

⁶⁸ S. Erdogan, *Mining Law and its Implementation in Turkey*, Workshop on Geological Surveys and the Extractive Industry, Ankara, November 2013, <<http://www.mta.gov.tr/v2.0/duyuru/duyurular/20131106-jeolojik-arastirmalar-calistayi/1-Gun/mining-workshop.pdf>>

⁶⁹ Mining in Turkey – Ten Things to Know, Norton Rose Fulbright, May 2013,

<<http://www.nortonrosefulbright.com/knowledge/publications/80049/mining-in-turkey-ten-things-to-know>>

⁷⁰ P. M. Mobbs, loc. cit.

⁷¹ Mining in Turkey – Ten Things to Know, loc. cit.

⁷² Madencilik Turkiye, loc. cit.

law put an end to this through demanding evidence from the potential explorer of its financial ability to operate a mining site after its purchase.⁷³

Another purpose of the amendment was *reducing fatalities in mining accidents*, highest in Europe, through tightening health and safety requirements and implementing steps, such as ensuring presence of mining engineers and technical staff at mining facilities.⁷⁴ Currently, stricter safety measures are being considered, including qualified engineering presence at mines, in the draft submitted for consideration by the Parliament in December 2014 (it is assumed that overall there are no substantial changes in the current draft).⁷⁵

As for the environmental impact assessments, the amendment of the Mining Law of 2010 simplified the procedure for obtaining necessary environmental permits through preventing the restriction of mining activities by secondary legislation or discretionary practices by other governmental authorities. As a result the amendment provides that mining activities can only be restricted by laws and the Ministry of Energy and Natural Resources.⁷⁶ Environmental impact assessment remains one of the necessary components for obtaining mine operating permit, however *not for mine exploration procedures*.⁷⁷ At the same time, the environmental impact assessment for other mining activities should be finalized by the Ministry of Environment and Forestry within three months following the application.⁷⁸ This step of making exploration campaigns more effective and less bureaucratic is believed to attract more investors.⁷⁹ The Ministry of Energy and Natural Resources in its turn can prohibit mining activities in specific areas, provided that the relevant public authorities inform the General Directorate of Mining Affairs of the special protection areas, such as national parks, preserved forests, coastlines, military areas, etc.^{80 81}

As for sustainability agenda in the mining sector, the Development Plan for Turkey for 2014-2018 declares plans of increasing environmentally friendly practices and ensuring that natural

⁷³ Madencilik Turkiye, loc. cit.

⁷⁴ *ibid.*

⁷⁵ N. Shemer, *Turkey law signals shifting ground*, Mining Journal, January 2015 < <http://www.mining-journal.com/world/europemiddle-east/turkey-law-signals-shifting-ground/> >

⁷⁶ S. Onder, Special report- Turkish Mining Law, Cakmak Avukatlık Bürosu, July 2010 <http://www.cakmak.av.tr/articles/Mining_Metals/Streamlining%20Permits%20An%20amendment%20to%20the%20mining%20law%20is%20intended%20to%20make%20mining%20more%20efficient.pdf>

⁷⁷ S. Erdogan, loc. cit.

⁷⁸ M. Yildirim-Ozturk & S. Onder, *A new mining law for Turkey*, Çakmak Ortak Avukat Bürosu, <http://www.cakmak.av.tr/articles/Mining_Metals/A%20New%20Mining%20Law%20for%20Turkey.pdf>

⁷⁹ Mining in Turkey, Global Business Reports, Engineering & Mining Journal, January 2012, <http://www.fenimining.com/upload/dosyalar/m_rapor_1359494665.pdf>

⁸⁰ Amendments to the Mining Law, Cakmak Avukatlık Bürosu, June 2010, <http://www.cakmak.av.tr/articles/Mining_Metals/Amendments%20to%20the%20Mining%20Law.pdf>

⁸¹ Mining in Turkey – Ten Things to Know, loc. cit.

resources are used sustainably. The development plan for 2007-2013 in its turn underlined that mismanagement in sustainable usage of natural resources had not been addressed before and thus it declared that steps would be taken particularly in mining sector to comply with the environmental legislation and that protection and utilization of natural resources will be planned taking into consideration the future generations.⁸²

Strategies of the General Directorate of Mining Affairs in the mining sector include carrying out mining operations guided with environmentally sustainable concepts, operation of mines in accordance with occupational safety and health standards, closure of gaps in the legal framework and realization of effective, lawful and transparent management in the sector, as well as increase of employees' knowledge and skills in the sector.⁸³

Finally, the Ministry of Energy and Natural Resources in its turn underlined in its energy and environment management statement for the 21st OSCE Economic and Environmental Forum its target to increase “the effectiveness of the control and supervisions for compliance with the sustainable mining and sustainable environment principles in the mining operations”.⁸⁴

Armenia's Energy Sector: Plans and Policies

Weak regional interconnections, absence of domestic oil, coal or natural gas reserves and thus electricity generation reliance on imported nuclear fuel and natural gas – these are risks that may lead to supply interruptions, price fluctuations, as well as energy outages in the Republic of Armenia (RoA).⁸⁵ ⁸⁶ For these reasons one of the major goals of the national policy in the energy sector is the energy conservation, as well as diversification of its sources, relying on renewable alternatives. Corresponding policies have thus been established and adopted for efficient regulation of the sector.⁸⁷

These policies are based on 1992 UN Environment and Development Conference, Agenda 21 “Global Sustainable Development Action Plan”, 2002 Johannesburg Sustainable

⁸² Development Plans, Ministry of Development of Republic of Turkey, 2013 <<http://www.mod.gov.tr/Pages/DevelopmentPlans.aspx>>

⁸³ S. Erdogan, loc. cit.

⁸⁴ Ministry of Energy and Natural Resources of Republic of Turkey, *Energy and Environment Management of Turkey*, 21st OSCE Economic and Environmental Forum, April 2013 <<http://www.osce.org/eea/100810?download=true>>

⁸⁵ Strategy for Armenia, Document of the European Bank for Reconstruction and Development, May 2012 <<http://www.ebrd.com/documents/strategy-and-policy-coordination/strategy-for-armenia.pdf>>

⁸⁶ A. Gharabegian, *Armenia Prepares Renewable Roadmap Amid Energy Crisis*, Renewable Energy World, July 2013 <<http://www.renewableenergyworld.com/rea/news/article/2013/07/armenia-prepares-renewable-roadmap-amid-energy-crisis>>

⁸⁷ “RIO+20” National Assessment Report, United Nations Armenia Office, Yerevan, 2012 <https://sustainabledevelopment.un.org/content/documents/800Armenia_Report_Final.pdf>

Development Summit, number of environmental conventions ratified by the Republic of Armenia (RA), as well as Poverty Reduction Program and the Energy Law. The strategies, therefore, outline the following goals: ensuring safety in the energy sector, including enhancing security of Armenian nuclear power station's 2nd energy block (currently the date set for closing the nuclear power plant is 2026⁸⁸) and replacement of old power plants with ones equipped with new technologies, diversification of the imported and domestic energy resources, ensuring maximum utilization of generating capacity, ensuring efficient use of domestic energy resources and alternative sources of energy as well as implementing economic and legal mechanisms for this purpose.⁸⁹ Currently, the share of renewable resources in the energy sector is 23 percent, while the state's projections are to raise this figure to 50 percent by 2020.⁹⁰

Institutional reforms of the sector are as well part of the strategies.⁹¹ Currently the main body managing all aspects of energy sector is the Ministry of Energy and Natural Resources, while the Renewable Resources and Energy Efficiency Fund is a quasi-governmental organization involved in renewable energy research and financing.⁹²

The 2001 Law on Energy of the Republic of Armenia regulates the general energy-related issues, while the law on Energy Saving and Renewable Energy, the main legal act on renewable energy adopted in 2004, defines principles of the state policy on development of energy saving and renewable energy and the mechanisms of enforcing these policies.⁹³ ⁹⁴ Some of the positive outcomes of the adopted law and the respective steps taken in the area are the development of the market for small hydropower stations and presence of incentives for further investments in this sector. Moreover, according to the estimates of European Bank for Reconstruction and Development, with right policies the contribution of the renewable electricity in Armenia may increase by fivefold in 2020.⁹⁵ Apart from reliability and

⁸⁸ Country Program Snapshot, World Bank Group - Armenia Partnership, 2014

<<http://www.worldbank.org/content/dam/Worldbank/document/Armenia-Snapshot.pdf>>

⁸⁹ Energy Sector Development Strategy in the Context of Economic Development in Armenia, N1 resolution of N 24 protocol, adopted in June 23, 2005 session

<<http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan042544.pdf>>

⁹⁰ V. Vorotnikov, Renewable Resources Will Help Armenia Avoid Energy Crisis, Renewable Energy World, July 2013 <<http://www.renewableenergyworld.com/rea/news/article/2013/07/renewable-resources-will-help-armenia-avoid-energy-crisis>>

⁹¹ Energy Sector Development Strategy in the Context of Economic Development in Armenia, loc. cit.

⁹² A. Gharabegian, loc. cit.

⁹³ Danish Energy Management A/S, *Renewable Energy Roadmap for Armenia*, Task 4 Report, May 2011

<<http://r2e2.am/wp-content/uploads/2012/07/Renewable-Energy-Roadmap-for-Armenia.pdf>>

⁹⁴ V. Odabashian & S. Khachatryan, Renewable Energy in the Republic of Armenia, Noravank, No. 1 (3), 2008 <http://www.noravank.am/upload/pdf/340_en.pdf>

⁹⁵ Strategy for Armenia, Document of the European Bank for Reconstruction and Development, loc. cit.

affordability in power supply, this also means reduction of negative impact on the environment caused by conventional energy resources, thus minimizing the adverse effect of hazardous emissions on the health of the population.⁹⁶

Armenia's National Program on Energy Saving and Renewable Energy of 2007 defines frameworks for achieving goals among which is the development of energy saving and renewable systems through developing and applying modern technologies and management practices.^{97 98} There are already number of international organizations and programs involved in renewable energy sector of Armenia, among which are *TACIS* specializing in energy saving software development, *Alliance to Save Energy* of *USAID* working towards establishing the Armenian energy saving board assisting the Ministry of Energy, *Armenian Fund for Renewable Resources and Energy Efficiency* realizing loan and grant projects for developing energy saving and renewable energy.⁹⁹

Number of barriers, however, are identified in the World Bank Group's Climate Investment Funds' report, as well as Danish Management Group in terms of further development of renewable energy sector in Armenia, among which are high cost of investments necessary in this sector, lack of the experience of the authorities with many renewable energy technology, weak coordination between different authorities leading to difficulties in obtaining necessary permits and thus resulting in little transparency in procedures, as well as no uniformity in environmental regulation and enforcement for all renewable energy technologies and no clearly defined responsibilities for enforcing regulations within the Government.^{100 101}

For these reasons, European Bank for Reconstruction and Development has expressed its readiness to invest in financially viable renewable energy projects –wind, hydro and biomass – as well as finance energy efficiency programs and strengthen *legal framework*.¹⁰²

⁹⁶ V. Odabashian & S. Khachatryan, loc. cit.

⁹⁷ Global Renewable Energy, *National Program on Energy Savings and Renewable Energy 2007*, International Energy Agency, May 2013

⁹⁸ Scientific Research Institute of Energy for the Alliance to Save Energy, *National Program on Energy Saving and Renewable Energy of Republic of Armenia*, USAID, Yerevan, 2007 <http://www.ase.org/sites/ase.org/files/national_program_english.pdf >

⁹⁹ V. Odabashian & S. Khachatryan, loc. cit.

¹⁰⁰ Climate Investment funds, *Scaling Up Renewable Energy Program, Investment Plan for Armenia*, World Bank Groups, April 2014

<https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Armenia%20SREP%20Investment%20Plan_final.pdf >

¹⁰¹ Danish Energy Management, loc. cit.

¹⁰² Strategy for Armenia, Document of the European Bank for Reconstruction and Development, loc. cit.

Plans and Policies in Armenia's Natural Resource Sector

Despite mining being one of the main branches of Armenia's economy ranging seventh in the world in mine production (2010)¹⁰³ and with exports annually growing at 29 percent (as of 2003-2010) and amounting to 230 million USD (2010),¹⁰⁴ there had been no policy regulating the sector and setting standards prior to 2010.¹⁰⁵ In recent years, steps have been made at improving the regulation of the sector. With the assistance of the World Bank a new mining law was developed in line with international standards and adopted in 2011, which is expected to increase transparency, environmental protection, as well as public revenues through reforming the taxation system.¹⁰⁶

The Bank also supported the drafting of Law on Environmental Impact Assessment (EIA), which was adopted in 2014 and which transferred the function of defining the scope of work for the environmental impact assessments from applicants to the public authorities (in previous law the applicants proposed such a scope and authorities had no legal basis to demand otherwise).¹⁰⁷

However, environmentalists have emphasised the failure of the new EIA law in simplifying the processes of environmental impact assessment and public participation mechanisms, as well as in clearly identifying the specific actors responsible for ensuring public participation.¹⁰⁸ The new code is also not clear in terms of waste regulation,¹⁰⁹ while the Law on Targeted Use of Environmental Charges Paid by Mining Companies omits provisions for fee payments for disposal of mining residues and tailing dams.¹¹⁰ In December 2014 a draft of

¹⁰³ A. G. Hakobyan, *Industrial Policy Strategic Priorities and Peculiarities in the Republic of Armenia*, International Conference on Education, Economics and Humanities, Kuala Lumpur, January 2014 <<http://psrcentre.org/images/extramages/14%20114506.pdf> >

¹⁰⁴ Strategy of Export-Led Industrial Policy of the Republic of Armenia, Ministry of Economy, Yerevan, 2011 <http://www.idf.am/uploads/files/Industrial_Policy_Framework.pdf >

¹⁰⁵ The Greens Union of Armenia, *Armenia Must Change Its Mining Policy*, August 2008, <<http://www.keghart.com/Greens-Mining>>

¹⁰⁶ Strategy for Armenia, Document of the European Bank for Reconstruction and Development, loc. cit.

¹⁰⁷ A. Amirkhanian, *AUA Hosts Experts and the Public to Discuss Armenia's Draft Law on Environmental Impact Assessment*, AUA Newsroom, February 2014 <<http://newsroom.aua.am/2014/02/04/aua-hosts-experts-and-the-public-to-discuss-armenias-draft-law-on-environmental-impact-assessment/>>

¹⁰⁸ Environmentalists Addressing Letter to Armenian President in Regards with Law "Environmental Impact Assessment and Expertise", EcoLur, July 2014 <<http://ecolur.org/en/news/dialog-with-officials/environmentalists-addressing-letter-to-armenian-president-in-regards-with-law-venvironmental-impact-assessment-and-expertisev/6406/>>

¹⁰⁹ Hakob Sanasaryan, Preventing the misuse of Armenia's resources, Azad Hye, June 2011 <http://www.azad-hye.net/article/article_view.asp?re=432lgh45>

¹¹⁰ Sustainable and Strategic Decision Making in Mining: Armenia, World Bank, January 2014 <http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/09/08/000470435_20140908105313/Rendered/PDF/884680v20Box385316B00PUBLIC0.pdf >

the latter law was submitted for the Parliament's consideration, which suggests more targeted use of the money paid by the companies for their use of environment, concentrating on alleviating damages inflicted to *health* of the local population.¹¹¹

Since in terms of sustainability, the aftermath of mine exploitation is as important as the exploration process itself, the Code on Earth Entrails was adopted in 2012, which requires submission of the shut-down plan of the mine attached to the application for mine exploration permission. This Code requires outlining set of actions aimed at infrastructure dismantling, recovery of the landscape, as well as monitoring of the site with industrial tailing for ensuring *safety and health* of the neighbouring communities.¹¹²

Other laws regulating the sector are Law on Exploration of Natural Resources and Environmental Protection, Land Code, Water Code, Code on Sub-Surface Resources, laws on Environmental Protection and Use of Natural Resources, Law on Concessions.¹¹³

The Agency of Mineral Resources within the Ministry of Energy and Natural Resources monitors exploration and production operations, while State Mining Inspectorate monitors the compliance of the operators with the requirements of the laws and legal requirements in the area. Subsoil Concession Agency is responsible for ensuring reasonable and comprehensive utilization of natural resources, as well as use and protection of natural resources.¹¹⁴

With mining sector playing a key role in the Armenian economy, however, having no specific policy in the field, other national strategies have come to cover the issue of sustainability in mining sector. As such, Armenia Development Strategy for 2014-2025 adopted in March 2014 has a section on *Environmental Problems and Planned Measures*, which states that parallel to government's measures aimed at economic development, it plans to take steps at reducing environmental risks associated with the expansion of the mining industry, illegal forest logging and overexploitation of water resources.¹¹⁵ For this purpose it plans to develop and adopt Law on Environmental Protection Policy with improved legislation. It also plans to draft methodology for assessing environmental pollution and overuse of natural resources, as well as gradually increase nature use fees, revise nature use charging rates operating in the

¹¹¹ Draft Law on Targeted Use of Environmental Charges Paid by Mining Companies (in Armenian), December 2014 <<http://www.parliament.am/drafts.php?sel=showdraft&DraftID=36226&lang=arm&enc=utf8>>

¹¹² RIO+20 National Assessment Report, Yerevan, 2012 <https://sustainabledevelopment.un.org/content/documents/800Armenia_Report_Final.pdf>

¹¹³ Ministry of Economy of the Republic of Armenia, *Investment Guide – Armenia: Natural resources*, loc. cit.

¹¹⁴ Ministry of Energy and Natural Resources, Government of the Republic of Armenia <<http://www.gov.am/en/structure/7/>>

¹¹⁵ Armenia Development Strategy for 2014-2025, loc. cit.

current system of taxes and permits, in this way moving towards greener economy. Another plan is to create mechanisms which will prevent current negative trends in the change of land status and its degradation. The latter step is particularly aimed at reducing waste disposal from mining and other sectors, which in its turn is planned to ensure means for sustainable management of tailing sites and landfills. Other plans include monitoring the lands for establishing a database on soil conditions of all lands and particularly areas near the mines.¹¹⁶

National Security Strategy of Armenia as well mentions the importance of efficient use and protection of country's mineral and natural resources, properly regulated utilization of the natural resources, supervision of the storage of hazardous chemicals, radioactive material and waste, as well as planning of comprehensive environmental regulations and protection, all of which directed at forming favourable environment for the present and future generations.¹¹⁷

Other strategies, such as the strategy of European Bank for Reconstruction and Development for Armenia, states readiness to support mining operations in Armenia particularly of those investors, who demonstrate high standards of environmental and social protection. The Bank plans to support projects that aim to build new refining capacities. The bank also plans to carry out monitoring of projects, assessing their risks and opportunities, and in case of high risks, it will support designing a monitoring plan “as part of the project commitments in the legal documentation with the Bank”.¹¹⁸

¹¹⁶ Armenia Development Strategy for 2014-2025, loc. cit.

¹¹⁷ National Security Strategy of the Republic of Armenia, approved at the session of National Security Council at the RA President office on January, 2007 <http://www.mfa.am/u_files/file/doctrine/Doctrineeng.pdf>

¹¹⁸ Strategy for Armenia, Document of the European Bank for Reconstruction and Development, loc. cit.

Human Rights Impacts of Development in Turkey and Armenia

Environmental and Health Impacts in Turkey and Armenia

In its Environment and Climate Change section of the Communication “Enlargement Strategy and Main Challenges 2014-2015”, the European Commission put the conclusion that while “Turkey has made some progress in aligning legislation in the fields of environment and climate change, [...] enforcement remains weak.” The Commission sees the conciliation of growth and environmental concerns as a major challenge, while changes Turkey made to legislation on Environmental Impact Assessment and nature protection raise serious concerns.¹¹⁹

The Communication calls for stronger political commitment as well as better cooperation and coordination between various institutions with responsibilities in the fields of environment and climate change. Additionally, the Communication lists areas for improvements, including *public participation and access to justice* in environmental matters which would allow solving disputes on investment decisions which impact the environment, preparation and implementation of *waste management plans*, including legislation that aligns with the Mining Waste Directive (Directive of the European Parliament and of the Council of the European Union), identification of potential *Natura 2000 sites* (main component of EU nature and biodiversity policy identifying Special Areas of Conservation and Special Protection Areas designed by the EU Member States and accession states), which would prevent the negative trend of investing in wetlands, forests, natural site areas with the permission of the state, adoption of legislation that will implement Industrial Emissions Directive (Directive of the European Parliament and of the Council of the European Union) for *controlling industrial pollution*, as well as identification of a *greenhouse gas emission reduction target* in the national climate change action plan.¹²⁰

An illustration of negative performance in greenhouse gas emissions is Turkey’s ranking among countries with very poor record in curbing CO₂ omissions, along with Algeria, Australia, Canada, Russia. The data is issued by Germanwatch and the Climate Action Network for 58 countries responsible for more than 90 percent of global energy-related CO₂

¹¹⁹ Enlargement Strategy and Main Challenges 2014-2015: Turkey 2014 Progress Report, European Commission, Brussels, October 2014 <http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-turkey-progress-report_en.pdf>

¹²⁰ *ibid.*

emissions. The report also indicates poor record of Turkey in terms of policy evaluation for emission prevention.¹²¹

United Nations Turkey also highlights in its Development Agenda of Turkey for post-2015 the existence of number of laws and regulations in the area of environmental protection and lack of their implementation, as a result of which economic development continues harming natural surroundings. The Agenda therefore calls on more local participation in decision-making processes, access to environmental information, environmental health and justice through steps such as ratification and implementation of the Aarhus Convention.¹²²

Against this background, Turkey on the one hand continues even stronger support for conventional energy projects, on the other hand it exacerbates the environmental conditions through mishandling environmental impact assessments for various energy and natural resource projects, in this way skipping its obligation under Article 12 of International Covenant on Economic, Social and Cultural Rights (ICESCR) to improve all aspects of environmental and industrial hygiene for realizing everyone's right "to the enjoyment of the highest attainable standard of physical and mental health".¹²³

In November 2014, amended version of Environmental Impact Assessment (EIA) Regulation entered into force. Although it envisages public accessibility of the EIA report and thus possibility for public intervention during its preparation and not after its finalization as before,¹²⁴ it exempts a number of projects from the EIA reports, including hydroelectric power plants with capacity of/under 10MWm, water projects with capacity less than 100 million m³/year, dams and small lakes with capacity under 10 million m³/year, projects for reconstruction of agricultural lands, as well as projects for transformation of forest areas for using them for other purposes.¹²⁵

Another drawback affecting the environment and local livelihoods is the so called "rapid expropriation" or "immediate expropriation" law, adopted in 2011, which authorizes immediate seizure of target property for specific projects based on the court order without

¹²¹ J. Burck, F. Marten & Ch. Bals, *The Climate Change Performance Index Results 2014*, Germanwatch-Climate Action Network Europe < <https://germanwatch.org/en/download/8599.pdf> >

¹²² United Nations Turkey, *Development Agenda of Turkey for Post-2015*, National Consultations Report, 2013 <<http://www.un.org.tr/v3/templates/allcss/report2015.pdf>>

¹²³ International Covenant on Economic, Social and Cultural Rights, Office of the High Commissioner for Human Rights < <http://www.ohchr.org/EN/ProfessionalInterest/Pages/ICESCR.aspx> >

¹²⁴ Esin Attorney Partnership, *Turkey establishes new set of rules for Environmental Impact Assessment*, December 2014 <<http://www.esin.av.tr/2014/12/10/turkey-establishes-new-set-of-rules-for-environmental-impact-assessment/>>

¹²⁵ *ibid.*

further steps required for a regular expropriation.¹²⁶ Initially, this law was to be considered in three situations: after natural disasters, at times where there is a risk of a natural disaster or if the confiscation is for the public good.¹²⁷ However, the latter criterion has been numerously abused as this law has resulted in expropriation of large amounts of land for use by energy companies without regards to the value of these lands in terms of environment or local history. The number of cases with rapid expropriation has grown from 11 cases in 2011 to 250 in 2013.¹²⁸

One such example of rapid expropriation was the case of the village Yirca, where the villagers opposed a coal power plant project which would result in cutting around 250,000 trees according to one scholar's estimates.¹²⁹ The construction was halted under the pressure of the local community and Greenpeace in Turkey,¹³⁰ the latter stressing the contradiction of the plan with the legislation banning building power plants on olive groves,¹³¹ as well as the absence of publicly available EIA report.¹³² However, the decision of the Council of States ordering suspension of the construction of the plant was issued two days after around 6000 half-century-old olive trees were cut.¹³³

Speaking of coal extraction, Turkey has substantially increased the significance of coal in its development plans, while the impact of coal extraction and operation of coal-fired power plants on environment and health has been somewhat neglected. Bankwatch Network's 2013 report highlights the incomplete character of environmental impact assessments for specifically coal power plants, as well as lack of access to information on environmental, social and economic impacts of the proposed coal projects and authorities' disregard of public

¹²⁶ E. Rencber & Z. Şener, *A Guideline For Investors: The Expropriation Regime Under Turkish Law*, TerraLex, October 2013 <<http://www.terralex.org/publication/pc16d0960ab/a-guideline-for-investors-the-expropriation-regime-under-turkish-law>>

¹²⁷ S. S. Demirezen, *Gov't assisted land expropriation damages nature, favours companies*, Hurriyet Daily News, November 2014 <<http://www.hurriyetdailynews.com/govt-assisted-land-expropriation-damages-nature-favors-companies.aspx?pageID=238&nID=74191&NewsCatID=340>>

¹²⁸ *ibid.*

¹²⁹ S. Ocak, *Turkey's Ordeal with Trees: Top 10 Mass Deforestation Sites*, Hurriyet Daily News, December 2014 <<http://www.hurriyetdailynews.com/turkeys-ordeal-with-trees-top-10-mass-deforestation-sites.aspx?pageID=238&nID=75114&NewsCatID=340>>

¹³⁰ Today's Zaman, *Council of State rules against power plant project on Soma olive grove*, November 2014 <http://www.todayszaman.com/national_council-of-state-rules-against-power-plant-project-on-soma-olive-grove_364020.html>

¹³¹ *ibid.*

¹³² Bianet, *Environmental Effect Impact Report Suspended For Fossil Plant*, December 2014 <<http://bianet.org/english/environment/160838-environmental-effect-impact-report-suspended-for-fossil-plant>>

¹³³ Hurriyet Daily News, *Justice for olive trees blocks coal plant plan*, November 2014 <<http://www.hurriyetdailynews.com/justice-for-olive-trees-blocks-coal-plant-plan.aspx?pageID=238&nID=74190&NewsCatID=340>>

concerns. The report also criticises the absence of a strategy by international financial institutions involved in Turkey's energy sector addressing the challenges.¹³⁴

In its 2014 report Greenpeace Mediterranean reflected upon health threats posed by 22 active coal-fired power plants in Turkey, stating that only in 2010 around 7900 people died from health hazards caused by coal-fired power plants across Turkey. Considering that the number of coal-fired power plants is planned to reach 80, the report estimates that Turkey will become 4th country with greatest health risk from coal after China, India and Russia.¹³⁵ The report mentions Afshin-Elbistan and Soma coal-fired plants spreading the highest level of toxic substances and posing highest health risks not just in Turkey but in Europe as well.¹³⁶

Bankwatch Network's report in its turn draws attention to health problems in Zonguldak province, a traditional coal mining area in Turkey, where a number of severe health problems were recorded throughout years, among these underdeveloped lungs of around 20 percent of new-borns, asthma and chronic obstructive pulmonary disease, raising rates of cancer.¹³⁷ Additionally, the field visit revealed water contamination of the local tributary resulted by leaking ash, as well as domestic animals grazing on the edges of the ash pond, all of these and other mismanagements questioning the measures taken to prevent contamination.¹³⁸

World Health Organization data on Turkey from 2002 shows that around 27 000 deaths per year occurred due to diarrhoea caused by polluted water/bad hygiene, indoor and outdoor air pollution,¹³⁹ while the data for 2004 shows increase to around 30 000 deaths.¹⁴⁰

In the meantime, several coal plants are planned to be built near Turkey's first nuclear power plant in the Mediterranean district of Akkuyu for providing necessary energy for the nuclear

¹³⁴ A. Stefanova & D. Popov, *Black Clouds Looming: How Turkey's Coal Spree is threatening local economies on the Black Sea*, CEE Bankwatch Network, Greenpeace Mediterranean, October 2013 <<http://bankwatch.org/sites/default/files/BlackCloudsLooming-TurkeyCoal.pdf>>

¹³⁵ Today's Zaman, *Greenpeace warns about threat of Turkey's coal-fired power plants*, May 2014 <<http://www.todayszaman.com/news-349015-greenpeace-warns-about-threat-of-turkeys-coal-fired-power-plants.html>>

¹³⁶ *ibid.*

¹³⁷ A. Stefanova & D. Popov, *loc. cit.*

¹³⁸ *ibid.*

¹³⁹ E. Dahlberg, *Turkey Environmental and Climate Change Policy Brief*, University of Gothenburg, Sweden, February 2009 <<http://sidaenvironmenthelpdesk.se/wordpress3/wp-content/uploads/2013/04/Turkey-Environment-and-Climate-Change-Policy-Brief-Draft-090213.pdf>>

¹⁴⁰ World Health Organization, *Environmental Burden of Disease Country Profiles: Turkey*, Global Health Observatory data, Geneva, 2009 <http://www.who.int/quantifying_ehimpacts/national/countryprofile/turkey.pdf?ua=1>

plant's construction works.¹⁴¹ The nuclear plant itself, which will be built and operated by Russian state-run energy firm Rosatom,¹⁴² has received a positive EIA report, which however raised opposition of experts, environmental activists and NGOs, who are concerned about the lack of transparency in EIA report preparation, lack of clarity on nuclear waste disposal, negative impact on the social and economic situation of the local communities,¹⁴³ as well as negative environmental impact of the plant on the ecosystem caused, among other factors, by usage of water from the Mediterranean sea for cooling the four reactors which will then be poured back to the sea.¹⁴⁴ According to experts, such systems are designated for operating near cold seas, while in warmer waters they will cause irreparable damage to the sea ecosystem. Additionally, some 220 000 trees are estimated to be cut.¹⁴⁵

The Akkuyu plant still in its projection phase, there are already plans to build Turkey's second nuclear power plant near town Sinop in the Black Sea region in cooperation with Japanese, French and Turkish companies.¹⁴⁶ On April 1st 2015 an international agreement between Turkey and Japan for the construction of this plant has already been accepted by the Turkish Parliament's General Assembly, which sets legal framework for plant's construction.¹⁴⁷ In November 2014 discussions were held between electricity companies in Turkey, the U.S., as well as State Nuclear Power Technology Corporation of China to start negotiations for developing Turkey's third nuclear power plant.^{148 149}

Non-renewable energy plans such as nuclear power plant construction is not the sole platform for cooperation between Turkey and Russia. In addition to buying half of its natural gas from Russia, plans to import around three billion cubic meters of natural gas from Russia and

¹⁴¹ Hurriyet Daily News, *Coal plants on the way at site of Turkey's first nuclear plant, former minister claims*, December 2014 <<http://www.hurriyetdailynews.com/coal-plants-on-the-way-at-site-of-turkeys-first-nuclear-plant-former-minister-claims.aspx?pageID=238&nID=75222&NewsCatID=348>>

¹⁴² Daily Sabah, *Turkey's first nuclear plant's environmental report approved*, December 2014 <<http://www.dailysabah.com/energy/2014/12/01/turkeys-first-nuclear-plants-environmental-report-approved>>

¹⁴³ Deutsche Welle, *Turkey set to get nuclear reactors*, December 2014 <<http://www.dw.de/turkey-set-to-get-nuclear-reactors/a-18153038>>

¹⁴⁴ Hurriyet Daily News, *Ministry approves controversial environmental report of Turkey's first nuclear plant*, December 2014 <<http://www.hurriyetdailynews.com/ministry-approves-controversial-environmental-report-of-turkeys-first-nuclear-plant.aspx?pageID=238&nID=75049&NewsCatID=348>>

¹⁴⁵ S. Ocak, *Turkey's Ordeal with Trees: Top 10 mass deforestation sites*, loc. cit.

¹⁴⁶ Daily Sabah, *Turkey's first nuclear plant's environmental report approved*, loc. cit.

¹⁴⁷ Hurriyet Daily News, *Turkish parliament accepts int'l agreement for 2nd nuclear power plant*, April 2015 <<http://www.hurriyetdailynews.com/turkish-parliament-accepts-intl-agreement-for-2nd-nuclear-power-plant.aspx?pageID=238&nID=80477&NewsCatID=348>>

¹⁴⁸ Daily Sabah, *Turkey's first nuclear plant's environmental report approved*, loc. cit.

¹⁴⁹ World Nuclear News, *Tripartite agreement on third Turkish plant*, November 2014 <<http://www.world-nuclear-news.org/NN-Tripartite-agreement-on-third-Turkish-plant-2411147.html>>

construction of a new pipeline under the Black Sea for the transportation of that gas are on top of Turkey's energy agenda.¹⁵⁰ Anglo-Dutch multinational oil-and-gas company Shell, in cooperation with Turkish Petroleum, will as well dive deep in Black Sea waters for carrying out oil and gas exploration activities, while Anglo-French oil and gas company N.V. Turkse Perenco and U.S.-based energy company DMLP will carry out oil exploration activities in Turkey's eastern region – Diyarbakir province.¹⁵¹ Having no specific regulation in line with international standards in the area of environmental and earthquake management for hydraulic fracturing for shale gas, Turkish state-run TPAO and foreign companies have already got fully engaged in exploring Thrace Basin and Southeast Anatolian Basin for shale gas.^{152 153}

Although hydropower is considered as a renewable energy, in Turkey the realization of such projects in the past years has also raised number of concerns. Today, hydropower is country's second largest domestic energy source after coal¹⁵⁴ and by 2023 around 4000 hydroelectric schemes are envisaged.¹⁵⁵ However, only in 2009-2011 around 100 lawsuits were filed against hydropower projects, of which 39 projects out of 41 heard were halted.¹⁵⁶ Still, despite the decisions, construction would often go on with the help of the police and gendarmerie.¹⁵⁷ The fear of those who oppose hydropower plants is based on negative practices and consequences in hydropower sector. Among these is the little water release to the river basin endangering species in and along the river since each hydro plant is allowed to take 90 percent of water from the river.¹⁵⁸ Environmental engineers consider this standard amount of 10 percent water release as problematic since it neglects the diverse nature of rivers. According to them, around 40-60 percent of water is necessary for sustaining the

¹⁵⁰ A. Albayrak, *Turkey's gas deals with Russia raise concerns of dependence*, Today's Zaman, Demeber 2014 <http://www.todayszaman.com/business_turkeys-gas-deals-with-russia-raise-concerns-of-dependency_365960.html>

¹⁵¹ G. Yildirim & M. Temizer, *Shell, Turkish Petroleum to explore Black Sea in 2015*, Anadolu Agency, December 2014 <<http://www.aa.com.tr/en/turkey/435460--shell-turkish-petroleum-to-explore-black-sea-in-2015>>

¹⁵² M. Tokyay, *Turkey explores opportunities in shale gas*, Southeast European Times, 2013 <http://turkey.setimes.com/en_GB/articles/ses/articles/features/departments/economy/2013/03/05/feature-01>

¹⁵³ Today's Zaman, *Concerns on shale gas and fracking technique: Turkey's case*, January 2014 <http://www.todayszaman.com/todays-think-tanks_concerns-on-shale-gas-and-fracking-technique-turkeys-case_336225.html>

¹⁵⁴ International Water Power, *Hydropower: a view from Turkey*, September 2014 <<http://www.waterpowermagazine.com/opinion/opinionhydropower-a-view-from-turkey-4358162/>>

¹⁵⁵ F. Gibbonsand & L. Moore, *Turkey's Great Leap Forward risks cultural and environmental bankruptcy*, Ankara, May 2011 <<http://www.theguardian.com/world/2011/may/29/turkey-nuclear-hydro-power-development>>

¹⁵⁶ *ibid.*

¹⁵⁷ *ibid.*

¹⁵⁸ *ibid.*

ecosystems of rivers.¹⁵⁹ Other negative practices in hydropower sector are logging of trees thus causing increased landslides, excavation waste being disposed to the river basin, lack of supervision during the construction ensuring environmental commitments of the investors are kept.¹⁶⁰

Some of the hydropower projects opposed by locals and environmentalists include hydroelectric power plants in Rize's Ikizdere Valley. Despite valley's status as a natural conservation area granted in 2010, 24 hydroelectric power plants are planned here.¹⁶¹ Moreover, 21 hydropower projects are licensed on one river separated only by a distance of 100-200 meters.¹⁶²

Generally, the Black Sea region, where Ikizdere is situated, is one of the three main areas where a big number of hydropower projects are being constructed or planned, two others being south eastern Turkey and Thracian basin. However, other regions also have the chance to taste the impacts of this "renewable" energy source. Not far from Mediterranean resort town Kemer in the coastal province of Antalya, hydroelectric power plant is planned on Kesme Bogazi gorge flowing in the Beydaglari National Park. As experts warn, this construction will lead to extinction of 111 plant species of which 32 are endemic.¹⁶³ Another location at Machahel basin near the border with Georgia, the only biosphere reserve in Turkey recognized by the UNESCO, also faces hydroelectric power plant constructions.¹⁶⁴

The list of hydropower projects is long. An issue to highlight is the huge amount of money flowing into Turkey from institutions like World Bank, European Investment Bank, the German Bank of Reconstruction and the Islamic Development Bank aimed at expanding renewable energy sector. Still, it is specifically hydropower sector that benefits from these investments¹⁶⁵ despite the negative impacts, which creates basis for questioning the legitimacy of these development funds.

¹⁵⁹ M. Islar, *Privatised Hydropower Development in Turkey: A Case of Water Grabbing?*, Water Alternatives, Vol. 5 (2), 2012 <<http://www.water-alternatives.org/index.php/volume5/v5issue2/175-a5-2-11/file>>

¹⁶⁰ PricewaterhouseCoopers-Turkey, loc. cit.

¹⁶¹ Today's Zaman, *Rize villagers protest hydroelectric plant construction*, May 2014

<http://www.todayszaman.com/national_rize-villagers-protest-hydroelectric-plant-construction_346849.html>

¹⁶² M. Islar, loc. cit.

¹⁶³ Hurriyet Daily News, *Environment Ministry gives green light to build hydroelectric plant in national park*, July 2013, < <http://www.hurriyetdailynews.com/environment-ministry-gives-green-light-to-build-hydroelectric-plant-in-national-park.aspx?pageID=238&nID=51299&NewsCatID=340>>

¹⁶⁴ S. Ocak, *Turkey's Ordeal with Trees: Top 10 mass deforestation sites*, loc. cit

¹⁶⁵ M. Islar, loc. cit.

Speaking of Turkey's attitude towards national parks and reserves, a mining project threatening natural reserve in Kaz Mountains was approved in 2014 to be carried out by a Canadian company Alamos Gold. The gold mining project will impact not only the endemic plants in the reserve, but its waste waters risk polluting the lake Ciger. Additionally, the local administration in Chanakkale warned that water resources of 24 villages will be contaminated to which the company responded with a suggestion to build an artificial pond. It is uncertain, however, whether the artificial pond will be enough to solve the water problem.¹⁶⁶

In the meantime, 200 000 trees were cut in Chaldagi in Aegean province of Manisa, where nickel mining projects are taking place. Plans for a new extraction project, however, have particularly enraged the locals, who fear for the future of agriculture, as well as for the fate of 2 million trees.¹⁶⁷

Another foreign company, English mining company Stratex International PLC is impacting the ecosystem near Ordu city in Turkey's Black Sea Region through its gold extracting project. In addition to destruction of hundred acres of forest, the mine has also exploited the spring water in the area forcing the residents to use tankers. The company also plans to increase its area of mining activities through changing the legal status of the area. These factors have pushed 12 villages to join a lawsuit against the mine.¹⁶⁸ The president of the Commission of Public Health and Ecology of Turkish Union of Chambers of Engineers and Architects has warned that if cyanide is used for gold extraction in this region of heavy precipitations, health and ecosystem will be threatened all over the Black Sea Region.¹⁶⁹

The list of mining projects threatening health and environment is also not short. When identifying the root causes of such irresponsible planning of energy and natural resource projects, Critical Ecosystem Partnership Fund locates such mismanagement in the Caucasus region including Turkey, Armenia, Georgia, Azerbaijan, Iran and Russia in their political and institutional domain. Despite having signed many international agreements, the Fund sees the

¹⁶⁶ Hurriyet Daily News, *Fate of preserved lake in the storied Kaz Mountains entrusted to gold miners*, November 2014 <<http://www.hurriyetdailynews.com/fate-of-preserved-lake-in-the-storied-kaz-mountains-entrusted-to-gold-miners.aspx?pageID=238&nID=74275&NewsCatID=340>>

¹⁶⁷ Hurriyet Daily News, *Activists denounce 'savage mining' in Manisa, as project could wipe out two million trees*, November 2014 <<http://www.hurriyetdailynews.com/activists-denounce-savage-mining-in-manisa-as-project-could-wipe-out-two-million-trees.aspx?pageID=238&nID=74786&NewsCatID=340>>

¹⁶⁸ Northern Forests Defence, *Turkey: Villagers Confront Black Sea Region Mine*, Housing and Land Rights Network, January 2015 <<http://www.hic-mena.org/news.php?id=pmtkaA==#.VPB2fPmUdUV>>

¹⁶⁹ *ibid.*

ineffectiveness of internal policies, conflicting legislations, poor regional coordination as reasons for environmental and social degradation in the region.¹⁷⁰

Linking bad governance, corruption practices and environmental degradation, the report highlights corrupt practices that deteriorate the environment. Some of these practices include state institutions with officials having discretionary powers and with institutions having low level of accountability and transparency; monopolies, whether state controlled or controlled by corporations, which support corruption within the economic sectors in the environmental field; export partners of these corrupt countries, which deteriorate corrupt activities thus degrading the environment by providing the demand for natural resources.¹⁷¹

Indeed, on the 17th and 25th of December, 2013 two corruption investigations became public in Turkey, which led to four ministers resigning from their posts following the publicity of the investigation. Among these was Minister of Environment and Urban Planning Erdogan Bayraktar.¹⁷² However, all the prosecutors and police officers investigating the case were removed from their posts and the corruption investigations were dropped by the new prosecutors.¹⁷³ Moreover, in January 2015 members of parliament voted against legal proceedings being taken in relation to the former ministers.¹⁷⁴

Armenia in its turn also faces institutional shortcomings when it comes to transparency and accountability specifically in environmental affairs. As Transparency International's report on Corruption and Environment denotes, corruption in Armenia is present both in business and government. Despite legislative measures to end corruption e.g. in forestry sector, the enforcement of the laws is weak and one reason for this is the absence of institutional history of forestry management before 1990s.¹⁷⁵

Social Watch report on the link between environment and corruption in Armenia names mining and forestry sectors as particularly vulnerable to decision making affected by corruption. It lists such problems as non-enforcement of environmental restrictions in many

¹⁷⁰ Transparency International, *Corruption and the Environment*, Environmental Science and Policy Workshop Columbia University, April 2006 <<http://mpaenvironment.ei.columbia.edu/files/2014/06/Transparency-International-final-report.pdf>>

¹⁷¹ *ibid.*

¹⁷² E. Hava, *Turkey biggest loser in global corruption ranking, survey shows*, Today's Zaman, December 2014 <http://www.todayszaman.com/anasayfa_turkey-biggest-loser-in-global-corruption-ranking-survey-shows_366038.html>

¹⁷³ *ibid.*

¹⁷⁴ Anadolu Agency, *No pressure on vote over ex-ministers' trial: Davutoglu*, January 2015 <<http://www.aa.com.tr/en/s/453514--no-pressure-on-vote-over-ex-ministers-trial-davutoglu>>

¹⁷⁵ Transparency International, *Corruption and the Environment*, loc. cit.

mining operations, failure of the government to stop the destruction of forests as a result of illegal logging, improper reclassification and allocation of many forest areas to private individuals.¹⁷⁶

European Union Action to Fight Environmental Crime highlights in its research “Environmental Crime in Armenia” the threats to environment in Armenia, including lack of governmental accountability, bad governance and systemic corruption.¹⁷⁷ It notes that often environmental protection is compromised with “the economic interests of business elites who occupy key positions in the parliament and the executive branch”.¹⁷⁸ The case of the former Minister of Environmental Protection, who revoked a mining license from a foreign company after it refused to pay several million dollar bribe, is another indicator that corruption reaches the highest ranks of the government.¹⁷⁹

The situation of exploitation of natural resources that takes place with limited public access to information¹⁸⁰ has recently been exacerbated by the new Law on Environmental Impact Assessment and Expertise adopted in 2014, which threatens to further complicate public participation in decision making processes linked to environment and livelihoods.¹⁸¹

In addition to vague environmental laws in Armenia, the situation becomes especially critical when presidential decrees contradict environmental laws, which in addition to being unconstitutional, undermines the laws that are envisaged to protect the environment.¹⁸²

The pressure from the investors (which sometimes are the local political figures at the same time) in its turn undermines the adequacy of environmental inspections, which leads to non-enforcement of laws and regulations and thus environmental degradation as a result of various projects. The EIAs prepared for projects are often just a formality to show that the project

¹⁷⁶ S. Aslanyan, *Undermining the Environment: Armenia*, Center for the Development of Civil Society, 2012 <http://www.socialwatch.org/sites/default/files/armenia2012_eng.pdf>

¹⁷⁷ Ch. Stefes & K. Weingartner, *Environmental crime in Armenia: A case study on mining*, EFFACE, Ecologic Institute, Berlin, 2015 <http://efface.eu/sites/default/files/EFFACE_Environmental%20crime%20in%20Armenia_A%20case%20study%20on%20mining.pdf>

¹⁷⁸ *ibid.*

¹⁷⁹ *ibid.*

¹⁸⁰ Policy Forum Armenia, *The State of Armenia's Environment*, December 2010, <http://www.policyforumarmenia.org/sites/default/files/documents/files/PFA_Environmental_Report.pdf>

¹⁸¹ Transparency International Anticorruption Center, *Civil society representatives' Open Letter to the World Bank*, Armenia, July 2014 <<http://transparency.am/en/news/view/814>>

¹⁸² Ch. Stefes & K. Weingartner, *loc. cit.*

complies with the law: so far many EIAs have not been comprehensive and have not covered all environmental concerns of the projects.¹⁸³

In the sector of hydropower, for example, which is the most advanced renewable energy technology in Armenia, the number of small hydropower projects has grown from 28 in the 1990s to over 80 in 2010¹⁸⁴ and was planned to reach 141 in 2011.¹⁸⁵ In fact already in 2012 around 134 small hydropower projects were operational with another 69 being at the construction stage.¹⁸⁶ However, ecologists and farmers have warned against overexploitation of Armenia's small rivers by these hydro projects. Environmental organizations point at state's policies favouring the business interests at the cost of environment and local farmers.¹⁸⁷

A research on the social and ecological impacts of 47 small hydropower stations in Armenia showed that the load of 28 rivers is within the norm, while 16 are in a crisis and 3 in a disastrous state.¹⁸⁸ The research also disclosed that the environmental impact analyses of these projects do not meet Armenia's law on EIA, as well as Armenia's Water and Forest Codes and other laws. Additionally, it denotes that decisions were made without consideration of the opinions of the local populations, while the corresponding agencies within the Ministry of Environment did not work transparently, restricting the access to protocols of public hearings, opinions and conclusions of environmental expertise.¹⁸⁹

Bad governance has resulted in opposition in various regions of Armenia. In 2013 villagers of Byurakan in Aragatsotn region blocked the highway expressing their discontent over construction of a new small hydropower plant in addition to existing three on the river Amberd. Residents of Marts village in northern Lori region pushed the pipes for the construction of a small hydro plant down the gorge as a sign of their opposition to the construction. Villagers of Shatin in Vayots Dzor region as well opposed the construction of a

¹⁸³ Policy Forum Armenia, loc. cit.

¹⁸⁴ A. Gharabegian, A. Hambarian & K. Touryan, *Small Hydro Power Plants in Armenia*, The Armenian Weekly, Armenia, June 2012 <<http://armenianweekly.com/2012/06/11/small-hydro-power-plants-in-armenia/>>

¹⁸⁵ Ecolur, *Small Hydro Power Plants in Armenia Destroy Ecosystems*, April 2011 <<http://www.ecolur.org/en/news/sos/small-hydro-power-plants-in-armenia-destroy-ecosystems/2304/>>

¹⁸⁶ S. Avagyan, *Small Hydro Power Plants and the Economy in Armenia* (text in Arm.), News.am, October 2012 <<http://news.am/arm/news/125084.html>>

¹⁸⁷ S. Valieva, *Armenia: An Unsustainable Road to Energy Security*, Generation C Magazine, January 2015 <<http://www.generation-c.org/armenia-an-unsustainable-road-to-energy-security/>>

¹⁸⁸ V. Burnazyan, T. Grigoryan & M. Yeritsyan, *Analysis of Socio-Ecological Impact of Small Hydro Power Plants* (text in Arm.), Open Society Foundations-Armenia, 2014 <<http://www.osf.am/wp-content/uploads/2014/05/VictoriaBurnazyan-policyPaper.pdf>>

¹⁸⁹ *ibid.*

hydro plant on the river Yeghegis.¹⁹⁰ The reasons for complaint in all these and other cases are the same – water insufficiency, absence of public discussion prior to constructions and insufficient environmental impact assessments. Meanwhile, the reason why investments go particularly to hydropower projects is that there are guarantees that the loans of the investors would be returned together with interests,¹⁹¹ which makes the situation quite similar to the situation of Turkey.

The report “Environmental Crime in Armenia” goes further stressing that “the way mining is conducted in Armenia has disastrous consequences for the country’s environment and the well-being of its citizens”.¹⁹² There are around 400 mines in Armenia, of these 22 metal mines, which directly impact lives of some 215.000 people or 7 percent of the country’s population.¹⁹³ Since mining is a profitable sector in Armenia, environmental restrictions are not enforced for many mining projects as a result of corrupt practices.¹⁹⁴ This leads to irresponsible mining causing deforestation and destruction of arable land, pollution of lakes, rivers, soil and air, in this way endangering health and subsistence of Armenia’s inhabitants.¹⁹⁵ Meanwhile, the government continues abusing its power and reclassifying many forest areas without due justification, allocating these lands to private individuals.¹⁹⁶

Vagueness in environmental regulations especially in mining sector is another undermining factor. For approving mining license an EIA is required, however, in Armenia the absence of guidelines as to who should undertake such an assessment and through which methodologies eventually results in positive reports for the mining companies regardless of the impact.¹⁹⁷ Add to this the lowest fees in the world for exploiting natural resources¹⁹⁸ and lowest fees for the disposal of mining waste,¹⁹⁹ and Armenia becomes a heaven for irresponsible thus cheap mining.

For example, town of Alaverdi has the only facility in Armenia for copper smelting, thus copper ore that is mined in Kajaran copper-molybdenum mine is sent to Alaverdi. Despite its

¹⁹⁰ G. Mkrtchyan, *Power Struggle: Villagers say HPPs being exploited at expense of their resources*, ArmeniaNow, May 2013 <http://armenianow.com/society/46104/hydropower_plants_byurakan_amberd_river>

¹⁹¹ *ibid.*

¹⁹² Ch. Stefes & K. Weingartner, *loc. cit.*

¹⁹³ Asbarez, *Lab Tools to Let Mining Communities Detect Health Risks*, October 2014 <<http://asbarez.com/127620/lab-tools-to-let-mining-communities-detect-health-risks/>>

¹⁹⁴ Policy Forum Armenia, *loc. cit.*

¹⁹⁵ Ch. Stefes & K. Weingartner, *loc. cit.*

¹⁹⁶ Policy Forum Armenia, *loc. cit.*

¹⁹⁷ Ch. Stefes & K. Weingartner, *loc. cit.*

¹⁹⁸ *ibid.*

¹⁹⁹ *ibid.*

small production volume, for years it has negatively affected the air quality and resulted in high incidence of fatal diseases.²⁰⁰ The reasons for this have been not only filters that have been out of order for years, the function of which is to capture dust and toxic substances, but also the absence of provisions reducing the negative environmental impact.²⁰¹ Such negligence has led to increase in number of cancer diagnosis in town, with around 733 cases of malignant tumours registered at the Alaverdi Medical Centre only in 2014. 139 patients of those registered at the centre died.²⁰² Out of 550 women checked at the centre 543 had breast related health problems, while in case of men 380 out of 500 had prostate related health problems.²⁰³

Another source of concern is the open pit mining in Armenia, which, in comparison to underground mining, is cheaper thus more profitable. Companies as a result give preference to this type of activities despite the more negative impacts on environment, landscape and ecosystems.²⁰⁴ This has been the case of Teghout, where several hundred hectares of forest cover mineral reserves of copper and molybdenum. In 2008 the government gave a permission to proceed with open pit mining activities without due consideration of the impacts on health and environment.²⁰⁵ The experts, meanwhile, calculate that 1000 ha of the forest will be negatively impacted as a result of mining, numerous plant and animal species will be lost, of which 6 plants and 29 animals are in the Red Book of Armenia (a book of Armenia's rare and endangered animals). In addition, mining activities will generate around 500 million tons of tailing waste and 600 million tons of solid waste which will have direct impact on the health of the population.²⁰⁶ Compliance Committee of the Aarhus Convention has twice issued its decisions that the Armenian government violated the Convention as a result of not ensuring public participation in decision making as well as hindering access to justice for environmental matters.²⁰⁷ NGOs added other laws and conventions to this list of violated regulations, including Armenia's Land Code, Water Code, Mineral Code, the UN

²⁰⁰ Ch. Stuhlberger, *Mining in Armenia*, Zoï Environment Network, March 2012

<http://www.armeniatree.org/thethreat/resources/2012_Zoi_Environment_Network_Mining_in_Armenia.pdf>

²⁰¹ *ibid.*

²⁰² L. Paremuzyan, *Cancer Screenings in Northern Armenian Mining Town Reveal a Growing Health Problem*, Hetq Investigative Journalists, March 2015 < <http://hetq.am/eng/news/58871/cancer-screenings-in-northern-armenian-mining-town-reveal-a-growing-health-problem.html>>

²⁰³ A1plus, *404 women out of 550 checked in Alaverdi have tumours* (article in Armenian), April 2015

<<http://www.a1plus.am/1376549.html>>

²⁰⁴ Ch. Stuhlberger, *loc. cit.*

²⁰⁵ *ibid.*

²⁰⁶ Save Teghut Civic Initiative, *The Cause*, September 2012 < <http://teghut.am/en/the-cause/>>

²⁰⁷ *ibid.*

Framework Convention on Climate Change, the UN Convention on Biodiversity, the UN Convention on Combating Desertification, etc.²⁰⁸

Gold open pit mining project in Amulsar is yet another undertaking with more risks rather than benefits for the population and environment in the area. According to the EIA of the project, 660 ha of land will be used for mining and around 373.6 tons of heavy metals and toxic elements that accompany the gold, will be generated as waste. This will pose risks for agricultural lands and waters, especially because most of the infrastructures of the project are located near strategic water resources of Armenia –Arpa and Vorotan rivers, Kechout and Spandaryan reservoirs.²⁰⁹

However, in addition to that, reserves of around 100 tons of uranium exist in Amulsar mine, which according to the Scientific-Expert Committee on Lake Sevan Preservation are a potential source of contamination of the area with radioactive isotopes as a result of mining activities. The EIA provides no details on plans to mitigate any such risks, nor does it cover steps for reducing risks from heap leach facility.²¹⁰ Meanwhile, this facility will be constructed on 145 ha of agricultural land and orchards which in its turn will impact around 5289 households.²¹¹ On this occasion, local NGOs have expressed their concern among others on the involvement of European Bank for Reconstruction and Development in supporting the Amulsar project regardless of its negative impacts on the environment and human rights violations.²¹² Residents have as well raised their concerns through an official letter sent to the investors and experts, demanding a more thorough analysis of the situation. Among the issues raised in the letter is the contradiction between company's claims that it complies with international standards and the actual operation of a heap leach facility in a distance of 500 meters from the community. The international standards require building such facilities 30 km away from residential areas.²¹³

²⁰⁸ Teghut Defense Group, *Armenia: Anthropogenic Environmental Disaster in the Making*, December 2010
<http://teghut.am/wp-content/uploads/2012/02/Teghut_Bulletin_2010-December_eng.pdf>

²⁰⁹ Ecolur, *Environmental Expertise Must Turn Down Amulsar Project*, September 2014
<<http://www.ecolur.org/en/news/amulsar/environmental-expertise-must-turn-down-amulsar-project/6620/>>

²¹⁰ *ibid.*

²¹¹ *ibid.*

²¹² Complaint submitted to the Chief Compliance Officer at the European Bank for Reconstruction and Development, July 2014

<<http://www.ecolur.org/files/uploads/pdf/Amulsar%20complaint%20and%20EBRD%20answer/complainttoebrd2.pdf>>

²¹³ Ecolur, *Open Letter to “Geoteam” Company from Residents Concerned with Future of Gndevaz and Vayots Dzor*, March 2015 <<http://ecolur.org/en/news/mining/open-letter-to-quotgeoteamquot-company-from-residents-concerned-with-future-of-gndevaz-and-vayots-dzor/7118/>>

In 2012 a group of experts evaluated 25 sites in 5 regions of Armenia impacted by mining and other industrial activities. In 2013 they reported that agricultural and residential soil samples in these locations contain heavy metal concentrations which are above the internationally accepted maximum levels.²¹⁴ While these heavy metals - arsenic, lead, cadmium, chromium- pose health risks such as cancer and infertility, the tailings and dumps in these locations had no proper fencing and adequate monitoring. As a result cases of accidents resulting in leaks of toxic wastes, usage of tailings as pastures and gardens, as well as their usage as construction materials by locals have been occasional.²¹⁵

Cases in both Armenia and Turkey not only show major disconnection between states' official policies and the actual practices, but also stark violation of not only local, but also international laws. Among these is International Covenant on Economic, Social and Cultural Rights (ICESCR), ratified by both Armenia and Turkey. The Covenant, as well as the General Comments which explain the content of each article and States' obligations under these articles, are United Nation's most significant tools in protecting economic, social cultural rights of individuals and peoples. Of particular relevance for health and environmental protection are Articles 11 and 12.

Article 12 declares that the States under this Covenant recognize everyone's right to the "enjoyment of the highest attainable standard of physical and mental health". The Article clarifies that for this purpose States must take steps which, among others, will improve all aspects of environmental and industrial hygiene.²¹⁶ The Committee on Economic, Social and Cultural Rights explains that this right to health implies steps on behalf of the States such as provision of access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions, populations' active participation in all health-related decision-making at the community, national and international levels.²¹⁷ Moreover, the Committee notes that improvement of environmental and industrial hygiene means taking preventive measures for ensuring adequate supply of water, prevention and reduction of the population's exposure to harmful

²¹⁴ School of Public Health & Acopian Centre for the Environment, *AUA Evaluates 25 Toxic Waste Sites Near Communities in Armenia*, American university of Armenia, April 2013

<<http://newsroom.aua.am/2013/04/04/aua-evaluates-25-toxic-waste-sites-near-communities-in-armenia/>>

²¹⁵ *ibid.*

²¹⁶ International Covenant on Economic, Social and Cultural Rights, Article 12, 1976

<<http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx> >

²¹⁷ CESCR General Comment No. 14: The Right to the Highest Attainable Standard of Health (Art. 12), August 2000 <<http://www.refworld.org/docid/4538838d0.html>>

substances and detrimental environmental conditions that directly or indirectly impact human health. The Committee clearly highlights, that the state violates this right when, among other negligences, it fails “to enact or enforce laws to prevent the pollution of water, air and soil by extractive [...] industries”, as well as when it takes no proper measures to protect persons within its jurisdiction from infringements of the right to health by third parties – individuals, groups, corporations.²¹⁸

Article 11 in its turn declares states’ recognition of everyone’s right to an adequate standard of living for him/herself and his/her family, including adequate food, clothing and housing and continuous improvement of living conditions.²¹⁹ The Committee recognizes that “the right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival”.²²⁰ The Committee recognizes Article 11 and 12 as interconnected since the environmental hygiene necessary for the protection of right to health also envisages steps preventing threats to health from unsafe and toxic water conditions. Therefore, the state will be in violation of Article 11 and 12, if it fails to prevent third parties from interfering in any way with the enjoyment of the right to water. This includes the obligation to adopt effective legislative measures that will restrain, for example, “third parties from polluting and inequitably extracting from water resources, including natural sources, wells and other water distribution systems”.²²¹

Impacts of Development on Labour Rights in Turkey and Armenia

Labour rights that are impacted as a result of energy and natural resource projects will be viewed from two perspectives: perspective of occupational safety and health and the perspective of the right to work.

According to Social Security Institution of the Republic of Turkey the total number of work related accidents in 2013 was 74 871, while the analysis of Turkish Statistical Institute

²¹⁸ CESCR General Comment No. 14, loc. cit.

²¹⁹ International Covenant on Economic, Social and Cultural Rights, Article 11, 1976
<<http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx> >

²²⁰ CESCR General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), January 2003
<<http://www.refworld.org/publisher,CESCR,GENERAL,,4538838d11,0.html>>

²²¹ *ibid.*

concluded that this number stands at 706 000 in 2013.²²² Around 10 percent of these accidents take place in mining and quarrying sector, another 5,2 percent is in the electricity, gas, steam, water and sewage sector and 4,3 percent stands for construction sector.²²³ The difference between statistics is explained by the size of the informal employment in Turkey or non-reporting of minor accidents. For the same reason, the number of work related accidents with fatal outcome is also approximate. While the official number for 2012 stood at 744, other surveys put this number at 1000-3000 persons per year.²²⁴ For 2013 the Istanbul Workers' Health and Job Safety Assembly reported 1235 work-related deaths, while in 2014 only during the first 6 months this number stood at 946. Most of the fatalities in 2014 were recorded in the sector of mining, construction and agriculture.²²⁵

As a result, Turkey is ranked third in the world in terms of work accidents.²²⁶ According to Presidential Audit Board's report some of the reasons of accidents particularly in mining sector are insufficient attention of the employers to control measures, insufficient numbers of experienced specialists on occupational safety and health, lack of risk assessment methods, lack of definitions describing responsibilities and duties of institutions related to the management of occupational safety and health.²²⁷

As for occupational diseases, pneumoconiosis is the most frequent diagnosis among occupational diseases in mining, with 14 percent lignite miners in Turkey suffering from it. However, many occupational diseases are estimated to go unreported.²²⁸

A study by the University of Gothenburg outlines one more factor that negatively affects health and safety practices in mining sector in Turkey - widespread application of sub-contracting and out-sourcing. Sub-contracting negatively affects unionization rate which is already weak in Turkey (9.68% in 2014, down from 57.5% in 2003²²⁹). As a result unions lose their power to demand work with higher safety standards. Additionally, sub-contracting

²²² Sendika, *Safety at work in Turkey: more (fatal) accidents but improving working conditions*, December 2014 <<http://www.sendika.org/2014/12/safety-at-work-in-turkey-more-fatal-accidents-but-improving-working-conditions/>>

²²³ *ibid.*

²²⁴ *ibid.*

²²⁵ Today's Zaman, *Job safety concerns peak as 946 die in accidents in H1*, July 2014

<http://www.todayszaman.com/anasayfa_job-safety-concerns-peak-as-946-die-in-accidents-in-h1_352128.html>

²²⁶ E. K. Elgstrand & E. Vingård, *Occupational Safety and Health in Mining*, No. 47(2), University of Gothenburg, 2013 <https://gupea.ub.gu.se/bitstream/2077/32882/1/gupea_2077_32882_1.pdf>

²²⁷ *ibid.*

²²⁸ *ibid.*

²²⁹ M. Cetingulec, *New Turkish law deals blow to unions*, Al-Monitor, November 2014 <<http://www.al-monitor.com/pulse/originals/2014/11/turkey-model-de-unionized-informant-workers.html#>>

makes it difficult to define responsibilities of the sub-contractor and the employer in relation to safety and health services. Thus the report highlights the need to ban sub-contracting in mining activities.²³⁰

The report also suggests not just translating European Union directives on occupational safety and health, which has so far led to incompatibilities between the directives and national laws in Turkey, but harmonizing them with the local regulations and adopting new laws when necessary.²³¹

Experts conclude that the reason for increase in accidents particularly in mining sector is the result of companies' efforts to cut production costs at the expense of wages and safety for the sake of winning tenders to operate mines.²³² This negative practice has led to numerous deaths. On May 13, 2014 coal mine accident occurred in the town of Soma in Manisa province as a result of fire that broke out inside the mine resulting in the death of 301 miners.²³³ On October 28, 2014 another coal mine accident in Ermenek of Karaman province occurred killing 18 miners.²³⁴ In each case there have been motions and warnings prior to accidents for examinations of the mines. In case of Soma coal mine, the government had blocked a motion in the Parliament brought by the opposition two weeks before the accident, which suggested making inquiries into safety of the mine.²³⁵ The company running Ermenek mine was also warned prior to the accident that the mine contained risks for mining activities. According to the warning note in the technical supervision book, there were gas entrapments²³⁶ as well as waters that had accumulated in former production mine sections during years,²³⁷ the latter eventually flooding the mine and killing the miners.

²³⁰ E. K. Elgstrand & E. Vingård, loc. cit.

²³¹ *ibid.*

²³² V. Kotsev, *Turkey Has One Of World's Worst Mining Safety Records, And Experts Say Privatization Is Part Of The Problem*, International Business Times, May 2014 <<http://www.ibtimes.com/turkey-has-one-worlds-worst-mining-safety-records-experts-say-privatization-part-problem-1585775>>

²³³ B. Shen, *Soma mining accident report proposals disregarded: CHP deputy*, Hurriyet Daily News, Manisa, March 2015 <<http://www.hurriyetdailynews.com/soma-mining-accident-report-proposals-disregarded-chp-deputy-.aspx?pageID=238&nID=79766&NewsCatID=338>>

²³⁴ Today's Zaman, *Warning given in Ermenek 3 days before deadly accident, experts say*, Istanbul, November 2014 <http://www.todayszaman.com/business_warning-given-in-ermenek-3-days-before-deadly-accident-experts-say_365423.html>

²³⁵ V. Kotsev, loc. cit.

²³⁶ Today's Zaman, *Warning given in Ermenek 3 days before deadly accident, experts say*, loc. cit.

²³⁷ B. Sarioglu, *Expert report finds Turkey's mining directorate at fault for role in Ermenek mine disaster*, Ankara, November 2014 <<http://www.hurriyetdailynews.com/expert-report-finds-turkeys-mining-directorate-at-fault-for-role-in-ermenek-mine-disaster.aspx?pageID=238&nID=74810&NewsCatID=341>>

Some other cases are Zonguldak's coal mine accidents in January 2013 caused by a gas leak killing 8 miners²³⁸ and accident in May 2010 that killed 30 miners, an explosion in Balıkesir Province in February 2010 that killed 13 miners, a methane gas explosion in Bursa province in December 2009 that killed 19 miners.²³⁹

Overall, before Soma mine disaster, around 1308 fatal accidents occurred in mining industry starting from 2000. Some of the causes of fatalities have been gas explosions, pit collapses, carbon-monoxide poisonings.²⁴⁰

The political opposition sees corruption as one of the main reasons for government's inaction in ensuring safety of mines.²⁴¹ Interestingly enough, a research by Hurriyet Daily columnist revealed that while only 1800 of 14000 mines in Turkey have insured workers, all the machinery in these mines have been covered by insurance policy.²⁴²

In the aftermath of mining tragedies, Turkey eventually ratified International Labour Organisation's (ILO) Safety and Health in Mines Convention in December 2014.²⁴³ In January of the same year it had ratified ILO's Promotional Framework for Occupational Safety and Health Convention, while ILO's Occupational Safety and Health Convention was ratified by Turkey back in 2005. It is, however, inevitable that ratifications of international conventions, as well as changes in national legislations, will not be functional unless change of mentality happens not only among the employees and employers, as the prime minister claimed in November 2014,²⁴⁴ but also among the government's officials and their attitude towards development programs.

Apart from safe and healthy working conditions, which are declared as integral part of just and favourable conditions of work under Article 7 of the ICESCR, remuneration that provides

²³⁸ Hurriyet Daily News, *Mine explosion kills at least eight in Zonguldak*, January 2013

<<http://www.hurriyetdailynews.com/mine-explosion-kills-at-least-eight-in-zonguldak.aspx?pageID=238&nID=38572&NewsCatID=341>>

²³⁹ F. Bermingham, *Turkey's Sorry History of Coal Mining Disasters*, International Business Times, May 2014 <<http://www.ibtimes.co.uk/soma-disaster-turkeys-sorry-history-coal-mining-disasters-1448506>>

²⁴⁰ E. Senerdem, *Turkey's mining safety: Bleak track record*, BBC News, May 2014 <<http://www.bbc.com/news/world-europe-27414972>>

²⁴¹ V. Kotsev, loc. cit.

²⁴² Today's Zaman, *Workers insured in only 1,800 out of 14,000 mines*, Istanbul, November 2014

<http://www.todayszaman.com/business_workers-insured-in-only-1800-out-of-14000-mines_364104.html>

²⁴³ Today's Zaman, *Turkey ratifies ILO convention on mine safety*, December 2014

<http://www.todayszaman.com/national_turkey-ratifies-ilo-convention-on-mine-safety_366140.html>

²⁴⁴ Hurriyet Daily News, *Turkey in bid to reduce huge toll of workplace deaths*, November 2014

<<http://www.hurriyetdailynews.com/turkey-in-bid-to-reduce-huge-toll-of-workplace-deaths.aspx?pageID=238&nID=74247&NewsCatID=347>>

fair wages and decent living for the worker and his/her family is also a component of just and favourable conditions of work.²⁴⁵ The Committee on Economic, Social and Cultural Rights recognizes that this right should be exercised also through ensuring that “privatization measures do not undermine worker’s rights”, and that states take all measures to protect person’s right to work from infringement by third parties – individuals, groups and corporations.²⁴⁶

However, this component of Article 7 was also not guaranteed for example in cases of Ermenek and Soma mines. Workers of Ermenek mine were not paid wages for three months.²⁴⁷ Workers of one of the mines in Soma town in their turn marched to capital of Turkey in October 2014 demanding their unpaid wages.²⁴⁸

Article 7 is thus firmly interconnected with Article 6 of the same Covenant, which recognizes everyone’s right to work, more precisely, everyone’s right to have the opportunity to gain his/her living by work which he/she chooses or accepts.²⁴⁹

However, decisions to expropriate lands for energy projects, often under rapid expropriation law, have led to violation of the right of individuals and communities to gain their living by work and provide decent living for themselves and their families. This has been the case in 15 provinces in Turkey, where decisions to expropriate lands for energy projects meant destruction of olive groves – a concern not only for producers and olive industry, but also for local communities.²⁵⁰ In Yirca village of Manisa province, for example, the locals protested against the decision to construct thermal power plant in a location where they had cultivated thousands of olive trees for years. As the villagers guarded their olive groves, the private security guards of the company removed them from the grove using force to proceed with

²⁴⁵ International Covenant on Economic, Social and Cultural Rights, Article 7, 1976

<<http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx> >

²⁴⁶ CESCR General Comment No. 18: The Right to Work (Arts. 6 of the Covenant), November 2005 <

<http://www.refworld.org/publisher,CESCR,GENERAL,,4415453b4,0.html>>

²⁴⁷ Hurriyet Daily News, *Trapped Turkish miners were not paid for three months*, October 2014

<<http://www.hurriyetdailynews.com/trapped-turkish-miners-were-not-paid-for-three-months.aspx?pageID=238&nID=73651&NewsCatID=341>>

²⁴⁸ Hurriyet Daily News, *Miners from disaster-struck Soma start march to Ankara to denounce unpaid wages*, October 2014 <<http://www.hurriyetdailynews.com/miners-from-disaster-struck-soma-start-march-to-ankara-to-denounce-unpaid-wages.aspx?pageID=238&nID=73583&NewsCatID=347>>

²⁴⁹ International Covenant on Economic, Social and Cultural Rights, Article 6, 1976

<<http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx> >

²⁵⁰ Today’s Zaman, *Gov’t energy plant move threatens Turkish role as olive exporter*, October 2014 <

http://www.todayszaman.com/business_govt-energy-plant-move-threatens-turkish-role-as-olive-exporter_362756.html>

logging of the trees.²⁵¹ After the trees were wiped out, villagers and activists accused the police and the local officials for not taking measures to prevent the private company from interfering with their rights.²⁵² The same day a decision by the Council of State suspended the project.²⁵³

Another direct impact of an energy project on the right to work and the right to gain living has been the plan to construct a coal-fired thermal power plant in a touristic Black Sea port of Amasra. During a protest in 2014 residents expressed fear for losing their sources of income, some in fishing,²⁵⁴ others in service sectors,²⁵⁵ especially since Amasra is a popular touristic destination thanks to its cultural heritage and natural sights. Overall, annually 400.000 tourists look for accommodation in Bartın province, where Amasra is located, which creates employment and business opportunities for the whole province.²⁵⁶

The same articles of the ICESCR that are aimed to protect the right to work (Article 6) and just and favourable conditions of work (Article 7) are also occasionally violated in Armenia.

Deno Gold Mining, which is one of the subsidiaries of a Canadian-based international mining company Dundee Precious Metals Inc. and is exploiting gold deposits in Kapan, has been experiencing periodic strikes since 2009. Some of the reasons for protests have been dangerous working conditions, unpaid salaries, dismissals, as well as unjustified terminations triggered by strikes.²⁵⁷ Since 2006 there were 6 deaths reported by Armenian press that occurred in the mine with only one of the investigation results of these cases being known.

²⁵¹ Today's Zaman, *6000 trees uprooted in Soma, locals locked up by company, 1 injured*, November 2014 <http://www.todayszaman.com/anasayfa_6000-trees-uprooted-in-soma-locals-locked-up-by-company-1-injured_363762.html>

²⁵² Hurriyet Daily News, *Energy firm's security beats locals as more trees wiped out in Soma olive grove*, November 2014 <<http://www.hurriyetdailynews.com/energy-firms-security-beats-locals-as-more-trees-wiped-out-in-soma-olive-grove.aspx?pageID=238&nID=74005&NewsCatID=340>>

²⁵³ Hurriyet Daily News, *Turkish court suspends energy project hours after trees wiped out*, November 2014 <<http://www.hurriyetdailynews.com/turkish-court-suspends-energy-project-hours-after-trees-wiped-out.aspx?pageID=238&nID=74046&NewsCatID=339>>

²⁵⁴ Hurriyet Daily News, *Black Sea port city residents protest new coal plant project by land and sea*, June 2014 <<http://www.hurriyetdailynews.com/black-sea-port-city-residents-protest-new-coal-plant-project-by-land-and-sea.aspx?pageID=238&nID=67484&NewsCatID=340>>

²⁵⁵ N. Babacan, *Turkish environment minister defends criticized plant project in Black Sea port*, Hurriyet Daily News, June 2014 <<http://www.hurriyetdailynews.com/turkish-environment-minister-defends-criticized-plant-project-in-black-sea-port.aspx?pageID=238&nID=67980&NewsCatID=340>>

²⁵⁶ A. Stefanova & D. Popov, loc. cit.

²⁵⁷ Pan-Armenian Environmental Front, *Mining Company Threatens Residents, Environment of Kapan*, Asbarez.com, May 2013 <<http://asbarez.com/110030/mining-company-threatens-residents-environment-of-kapan/>>

Investigation revealed a number of working conditions that were not in accordance with safety and health requirements.²⁵⁸

Many workers of this company had to turn to court for justice. One of the miners was fired as a result of the company's reluctance to transfer him to another workplace and cover his health expenses after he fell sick as a result of his work in the mine. After a lawsuit against the company he was able to restore his rights and receive medical treatment. Others too managed to restore their rights, i.e. get their salaries for 2005-2007 night shifts in 2011, thanks to the court decision.²⁵⁹

Meanwhile, experts question the legitimacy of financial support from European Bank for Reconstruction and Development (EBRD) to Dundee Precious Metals Inc. for its operations in Armenia taking into consideration its negative environmental and labour performance.²⁶⁰

Back in 2012, the miners of another facility - Akhtala Mine-Enrichment Plant - turned to the president of the Republic of Armenia expressing their concern over the company's neglect of their demands for reasonable salaries, adequate working standards (criticizing absence of working uniforms, no break for lunch and rest), safe conditions at work. They also expressed their concern over the fact that while a rope way, a sewage treatment plant, a hospital, a kindergarten, electrical distribution networks and a few other facilities in the town belong to the company, no investment has been made for years, depriving the town from the respective services.²⁶¹ ²⁶² More recently, as thirteen employees of the plant were fired after signing a petition with demands for better working conditions and higher salary, a new wave of protest led to promises of rehiring the employees and improving working conditions.²⁶³

²⁵⁸ Pan-Armenian Environmental Front, *Mining Company Threatens Residents, Environment of Kapan*, loc. cit.

²⁵⁹ *ibid.*

²⁶⁰ CEE Bankwatch Network, *Armenia gold mining problems cast shadow over renewed EBRD financing*, May 2013, <<http://bankwatch.org/bwmail/56/armenia-gold-mining-problems-cast-shadow-over-renewed-ebrd-financing>>

²⁶¹ Hetq Investigative Journalists, *Open letter of Akhtala Mine Enrichment Plant's Workers to the President* (in Armenian), February 2012 <<http://hetq.am/arm/news/10886/akhtalayi-lernaharstacman-kombinati-ashkhatakicneri-bac-namaky-nakhagahin.html>>

²⁶² L. Paremuzyan, *Akhtala Miners Work in Substandard Conditions*, Hetq Investigative Journalists, March 2012 <<http://hetq.am/eng/news/11680/akhtala-miners-work-in-substandard-conditions.html>>

²⁶³ L. Paremuzyan, *Akhtala Mining Takes Back Workers Fired Over Wage, Safety Demands*, Hetq Investigative Journalists, February 2015 <<http://hetq.am/eng/news/58625/akhtala-mining-takes-back-workers-fired-over-wage-safety-demands.html>>

While there is data scarcity on work related injuries and deaths in energy and mining sector in Armenia, some data from the Armenian Mining Control Department points at 41 deaths and many more injuries in mining sector for the period of 1995 to 2005.²⁶⁴

Apart from unfair working conditions and breach of Article 7 of ICESCR, a research by Acopian Center for the Environment and College of Business and Economics highlights that while mining comprises more than 20 percent of the Armenian exports and has a tendency of growth, it also increases income inequality thus deepening poverty in regions of Armenia.²⁶⁵

Mining sector, according to some reports, is indeed a key contributor to the national economy, with ore concentrates and metals that are produced in Armenia comprising over half of the country's exports.²⁶⁶ Additionally, according to the report by the Ministry of Economy of Armenia, in 2012 mining has been one of the three sectors with large foreign investment concentration – 94 million USD.²⁶⁷ However, on the other hand low prices at which the residents are forced to sell their properties for mine operations, health costs that miners have to bear themselves as a result of absence of health insurance,²⁶⁸ contamination and degradation of lands on which the local communities depend for their subsistence in its turn leads to income inequality and poverty.

Cases, such as tailings of Deno Gold Mining, which deprive Geghanush community of walnut trees, cause birth defects among the domestic cattle, contaminate agricultural products thus making it impossible to sell them in the market²⁶⁹ lead to the breach of the ultimate component of the right to work in Article 6 – opportunity to gain one's living by his/her work.

Hydropower projects also pose challenges for gaining one's living through farming in Armenia as the plants exhaust irrigation waters. Especially in summers, the operation of hydropower plants is problematic, since water tends to evaporate in small rivers this way threatening the local economies.²⁷⁰ Villagers in Marts village in Lori province, for example,

²⁶⁴ S. Petrosyan, *If you die, it's your fault*, Hetq Investigative Journalists, June 2005
<<http://hetq.am/eng/news/9110/if-you-die-its-your-fault.html> >

²⁶⁵ A. Grigoryan, *The impact of mining sector on growth, inequality, and poverty: Evidence from Armenia*, American University of Armenia, April 2013 <http://newsroom.aua.am/files/2013/04/mining_grigoryan.pdf>

²⁶⁶ Strategy for Armenia, Document of the European Bank for Reconstruction and Development, loc. cit.

²⁶⁷ Ministry of Economy of the Republic of Armenia, *Investment Guide – Armenia: Natural resources*, loc. cit.

²⁶⁸ American University of Armenia, *AUA Study: Mining in Armenia Creates Poverty, Income Inequality*, Yerevan, April 2013 <<http://newsroom.aua.am/2013/04/15/aua-study-mining-in-armenia-creates-poverty-income-inequality/>>

²⁶⁹ CEE Bankwatch Network, *Between a rock and a hard place: how the local communities pay the cost of EBRD-financed gold mining projects*, Czech Republic, November 2009

<http://bankwatch.org/documents/btw_a_rock_and_a_hard_place_web.pdf>

²⁷⁰ S. Valieva, loc. cit.

opposed the construction of the small hydropower back in 2013 expressing concerns that the latter would leave around 30 hectares of forage area dry and thus the livestock without hay, at the same time endangering their orchards.²⁷¹

Taking into consideration that most of Armenia's agricultural production, which forms around 20 percent of country's GDP, is grown on small farms for both self-consumption and for the urban population, access to water is also important for country's food security.²⁷²

In addition to the concerns of reduction of water resources, a survey among the inhabitants of 12 communities in Armenia brought to light a few more issues of concern, among these the loss of fish in the rivers and deterioration of sights used for tourism purposes, which have led to decrease in incomes.²⁷³

Concluding, it is thus clear that following Committee's General Comment No. 18, governments of both Armenia and Turkey have a long way to go for fulfilling their obligation to respect the right to work, i.e. everyone's right to the opportunity to gain his/her living by work that he/she chooses coupled with the right to just and fair conditions of work. In parallel to respecting and fulfilling this right, both states also have to take measures to safeguard it from infringement by third parties such as individuals, groups or corporations.²⁷⁴

Incompatibility of Cultural Heritage Preservation with Development Plans in Turkey and Armenia

Ilisu Dam is one of the 22 dams of the South-eastern Anatolian Project (GAP), a regional development project with investment plans in water resource management, as well as in agriculture, energy, transportation, healthcare and other sectors in the south east of Turkey.²⁷⁵ Completion of particularly Ilisu Dam hydropower project located on the river Tigris is calculated to create a reservoir on an area of 313 square kilometres.²⁷⁶ This will in its turn threaten to submerge around 300 archaeological sites including old Mesopotamian town of

²⁷¹ G. Mkrtychyan, loc. cit.

²⁷² S. Valieva, loc. cit.

²⁷³ V. Burnazyan, T. Grigoryan & M. Yeritsyan, loc. cit.

²⁷⁴ CESCR, General Comment No. 18: The Right to Work, November 2005
<<http://www.refworld.org/publisher,CESCR,GENERAL,,4415453b4,0.html>>

²⁷⁵ J. Neyer & N. Hildyard, The Birecik, Ermenek and Ilisu Projects: No Lessons Learnt. In: ECA Watch, A Trojan Horse for Large Dams, September 2005 <http://m-h-s.org/ilisu/upload/PDF/Analysen/Risiko_Megastaudamm.pdf>

²⁷⁶ Ministry of Foreign Affairs of Republic of Turkey, *Ilisu Dam*, 2011 <<http://www.mfa.gov.tr/ilisu-dam.en.mfa>>

Hasankeyf with history of around 12 000 years.²⁷⁷ This old town and the cliffs surrounding it host numerous human-made caves, a Roman fortress built some time in 300 A. D., ruins of a 12th century palace, 15th century mosque and cylindrical tomb, etc.²⁷⁸

The official stance on the issue is as follows: “If the 65 million people of Turkey are to be enabled to enjoy a modern lifestyle, there will be occasions when the interests of archaeology have to be subordinated to those of economic development”,²⁷⁹ after all “[...] almost every town in Turkey is a major archaeological site”.²⁸⁰ It is believed that this dam, through generating 2 percent of Turkey’s current electricity supply, will contribute to the plans of decreasing Turkey’s dependency from imported energy.²⁸¹ For this reason, as well as for the reasons of creating jobs, irrigating dry areas and decreasing inner migration to the richer west of the country,²⁸² the project continued²⁸³ even after the withdrawal of the financial support from Germany, Austria and Switzerland.²⁸⁴

The state’s plan for Hasankeyf is therefore to have archaeologists excavate, document and transfer²⁸⁵ as many remnants of the old town as possible,²⁸⁶ despite the claims of the latter that only one-fifth of archaeological sites have been uncovered with up to 85 percent of the sites being under the threat of floods.²⁸⁷

²⁷⁷ Dam construction in Turkey and its impact on economic, cultural and social rights, Submission to the UN CESCR by CounterCurrent – GegenStrömung, March 2011 <http://m-h-s.org/ilisu/upload/PDF/2011/CESCR_Parallel_report_by_CounterCurrent_on_Turkish_dams_2011-03-14_f.pdf

²⁷⁸ D. M. Bolz, *Endangered Site: The City of Hasankeyf, Turkey*, Smithsonian Magazine, March 2009 <<http://www.smithsonianmag.com/travel/endangered-site-the-city-of-hasankeyf-turkey-51947364/?no-ist=&page=1>>

²⁷⁹ Ilisu Dam, Ministry of Foreign Affairs of Republic of Turkey, 2011 <<http://www.mfa.gov.tr/ilisu-dam.en.mfa>>

²⁸⁰ *ibid.*

²⁸¹ A. Katz, *Discover the Cultural Treasure Turkey Threatens to Flood*, Time, March 2015 <<http://time.com/3679027/mathias-depardon-gold-rivers-ilisu-dam-turkey/>>

²⁸² F. Gibbonsand & L. Moore, *Turkey's Great Leap Forward risks cultural and environmental bankruptcy*, Ankara, The Guardian, May 2011 <<http://www.theguardian.com/world/2011/may/29/turkey-nuclear-hydro-power-development>>

²⁸³ J. Harte, *Rare Footage of Ilisu: The Dam That Will Flood Homes and History Across Southern Turkey*, National Geographic, August 2013 <<http://voices.nationalgeographic.com/2013/08/22/rare-footage-of-ilisu-the-dam-that-will-flood-homes-and-history-across-southern-turkey/>>

²⁸⁴ Amnesty International, *German, Swiss and Austrian governments withdraw financial support for Turkey’s Ilisu dam project where human rights violations were a risk*, July 2009 <<https://www.amnesty.org/en/documents/EUR44/004/2009/en/>>

²⁸⁵ Banktrack, *Ilisu Dam: Social Impact*, Netherlands, 2012 <http://www.banktrack.org/show/dodgydeals/ilisu_dam#tab_dodgydeals_issues>

²⁸⁶ A. Katz, *loc. cit.*

²⁸⁷ J. Harte, *New Dam in Turkey Threatens to Flood Ancient City and Archaeological Sites*, National Geographic, February 2014 <<http://news.nationalgeographic.com/news/2014/02/140221-tigris-river-dam-hasankeyf-turkey-iraq-water/>>

The statement released by Kurdish Human Rights Project in its turn highlights that the dam project will submerge evidence of first agricultural practices, remnants of empires including Roman and Assyrian, heritage of Kurds, Armenians, Assyrians and indigenous tribes, as well as sacred spots from several traditions in Muslim and Christian faiths, some of which are still used for religious practices.²⁸⁸ Therefore, as the president of World Archaeological Congress stated back in 2001, such water management plans will have an impact that is “far beyond the purely physical confines of Hasankeyf itself”.²⁸⁹ The project on the one hand will erase the heritage that belongs to the humanity, on the other hand it will disconnect the locals from the objects that are crucial part of their identity.²⁹⁰

Other challenges brought by this project, aside from artefacts’ and inhabitants’ relocation, will be elimination of tourism in the area and therefore deprivation of locals from their income particularly because the plans to transfer the monuments to an archaeological park have been announced by the experts working for European Export Credit Agencies (ECAs) as not plausible in terms of attracting tourists.²⁹¹

On the other side of the country, in Izmir province, a world heritage – an ancient Roman thermal spa of Allianoi dating back to 2nd century was lost to the plans of building Yortanlı dam on the river Ilya.²⁹² The ancient site was discovered in 1990s and in 2001 the Ministry of Culture and Tourism designated it as a first class archaeological site.²⁹³ However, already in 2010, despite the worldwide pleas and won court cases²⁹⁴ and after the discovered artefacts were transported to the archaeological museum in Bergama,²⁹⁵ the site was first covered with sand²⁹⁶ and then submerged under the water.²⁹⁷ The suggestions for alternative development

²⁸⁸ Kurdish Human Rights Project, Re-emergence of discredited Ilisu Dam project: Turkish dams violate EU standards and human rights, < <http://www.khrp.org/khrp-news/news-archive/2005-news/30-reemergence-of-discredited-ilisu-dam-project-turkish-dams-violate-eu-standards-and-human-rights.html>>

²⁸⁹ World Archaeological Bulletin, Letter of the President of the World Archaeological Congress to the Prime Minister Tony Blair, January 2001
<<http://www.worldarchaeologicalcongress.org/site/bulletin/wab13/dams.html>>

²⁹⁰ *ibid.*

²⁹¹ Submission to the UN CESCR by CounterCurrent – GegenStrömung, loc. cit.

²⁹² Environmental Justice Atlas, *Allianoi Ancient City and Yortanlı Dam: Turkey*, Bogazici University EJOLT Team, April 2014, <<http://ejatlas.org/conflict/allianoi-ancient-city-and-yortanlı-dam-turkey>>

²⁹³ Submission to the UN CESCR by CounterCurrent – GegenStrömung, loc. cit.

²⁹⁴ *ibid.*

²⁹⁵ L. Allsop, *Turkish dam plan “threatens” remarkable Roman ruins*, CNN World’s Treasures, October 2010
<<http://edition.cnn.com/2010/WORLD/europe/10/06/allianoi.flooding/index.html>>

²⁹⁶ Hurriyet Daily News, *Turkish officials bury ancient city of Allianoi under sand*, Istanbul, December 2010
<<http://www.hurriyetdailynews.com/default.aspx?pageid=438&n=allianoi-completely-buried-in-sand-2010-12-13>>

²⁹⁷ O. Erbil, *Former head of Allianoi not given permission for dig*, Hurriyet Daily News, Izmir, March 2015
<<http://www.hurriyetdailynews.com/former-head-of-allianoi-not-given-permission-for-dig.aspx?pageID=238&nID=79534&NewsCatID=375>>

of the area particularly for tourism purposes were overrun by the plans to increase productivity in agricultural sector in the region through the dam's reservoir.²⁹⁸ While the plan to construct a dam for irrigation purposes seems to be in the interest of the villagers supporting their right to sustain themselves (as discussed above), a policy clash of the government in terms of developing the agricultural sector is obvious in this case, since only a few kilometres south west to the dam Bergama gold mine has been operational for the past several years. Carrying out open-pit mining, in addition to underground mining technique, as well as using cyanide leaching method in this mine has been considered to pose serious risks for environment, population's health and agriculture in the region.²⁹⁹

In October 2014 yet another case was won at the court cancelling construction of three hydroelectric plants and a dam in Munzur valley and the national park - an area, which is not only home to huge amount of flora and fauna species, but also a sacred place for Alevi community in Dersim, the only province in Turkey with Alevi majority.³⁰⁰ ³⁰¹ The river Munzur is a symbolic and religious site for Alevis, who honour its waters as the source of life.³⁰² In addition, the relocation of the local population as a result of dam construction would threaten the existence of a small Kurdish dialect Kirmancki spoken mostly among Kurds in Dersim (the majority of Kurds use Kurmanci dialect).³⁰³ The ruling is believed to become a precedent for other projects planned in natural reserves specifically along the Black Sea coast and Taurus Mountains.³⁰⁴ However, certain degree of scepticism remains towards the companies and the government itself respecting court decisions considering the previously mentioned violations.

Some other cultural sites threatened by energy and natural resource extraction projects are 9th-11th century Georgian churches and places of pilgrimage in Coruh valley, which face inundation as construction of Yusufeli dam is carried out on the river Coruh - 70km southwest

²⁹⁸ Environmental Justice Atlas, loc. cit.

²⁹⁹ Environmental Justice Atlas, *Bergama Gold Mine, Turkey*, April 2014, < <https://ejatlas.org/conflict/bergama-gold-mine-turkey>>

³⁰⁰ Hurriyet Daily News, *Landmark victory for ecologists as court aborts fourth energy project in eastern Turkish valley*, Tunceli, November 2014 < <http://www.hurriyetdailynews.com/landmark-victory-for-ecologists-as-court-aborts-fourth-energy-project-in-eastern-turkish-valley.aspx?pageID=238&nID=73847&NewsCatID=340>>

³⁰¹ E. Ayboga, *20,000 demonstrated against dams on Munzur River*, FIVAS <<http://www.fivas.org/sider/tekst.asp?side=317>>

³⁰² Submission to the UN CESCR by CounterCurrent – GegenStrömung, loc. cit.

³⁰³ *ibid.*

³⁰⁴ Hurriyet Daily News, *Landmark victory for ecologists as court aborts fourth energy project in eastern Turkish valley*, loc. cit.

of the city Artvin.³⁰⁵ ³⁰⁶ A gold mining project in mountains Kaz along Turkey's north-western Aegean Coast threatens two archaeological sites, one of which is a first degree archaeological site - Kirac Tepe - located only some 500 meters to the north of the mining project.³⁰⁷ Another coal mining project hinders excavations in Seyitomer tumulus in the province Kutahya, as the company proceeds with its coal extraction plans. The company that privatized the coal fields from Turkish Coal Enterprises, no longer plans to fund excavations in the area which have led to findings dating back to Bronze Age and Roman period.³⁰⁸

In Armenia too mining projects pose a threat to cultural heritage of the country. In forest Teghout, extraction of copper and molybdenum will not only be problematic in terms of environmental protection, but also in terms of preservation of historical sites discovered in recent years. As a result of excavations three monuments of early Bronze Age were discovered (around 5000 year old) and registered with the Agency for the Protection of Monuments.³⁰⁹ According to the head of the archaeological expedition there are many more historical and cultural monuments to be found on the territory. Archaeologists are thus concerned for the sites and items found so far and yet to be discovered. One such threatened site is the medieval church in Kharatadzor which according to the mining project will remain under the tailings.³¹⁰

Gold open pit mining project in Amulsar in its turn threatens archaeological sites in the area dating back to 3rd millennium B.C. As the company has not presented plans for the sites' preservation, which include ancient dwellings and cemeteries,³¹¹ there are risks that mining activities such as explosions will damage the sites.³¹²

³⁰⁵ Submission to the UN CESCR by CounterCurrent – GegenStrömung, loc. cit.

³⁰⁶ Today's Zaman, *Foundation of Turkey's tallest dam, Yusufeli, laid in Artvin*, February 2013 <http://www.todayszaman.com/national_foundation-of-turkeys-tallest-dam-yusufeli-laid-in-artvin_308216.html>

³⁰⁷ Hurriyet Daily News, *Fate of preserved lake in the storied Kaz Mountains entrusted to gold miners*, Chanakale, November 2014 <<http://www.hurriyetdailynews.com/fate-of-preserved-lake-in-the-storied-kaz-mountains-entrusted-to-gold-miners.aspx?pageID=238&nID=74275&NewsCatID=340>>

³⁰⁸ O. Erbil, *Coal firm aims to halt excavations at Neolithic tumulus in western Turkey*, Hurriyet Daily News, Istanbul, March 2015 <<http://www.hurriyetdailynews.com/coal-firm-aims-to-halt-excavations-at-neolithic-tumulus-in-western-turkey.aspx?pageID=238&nID=79770&NewsCatID=341>>

³⁰⁹ G. Abrahamyan, *Teghut Concerns: Archaeologist says ancient sites another reason against mining in endangered forest*, Armenia Now, January 2012

<http://www.armenianow.com/social/environment/35031/save_teghut_protest_copper_mine#comment-207500>
³¹⁰ *ibid.*

³¹¹ H. Simonyan, *A Letter to the Deputy Minister of the RA Ministry of Culture*, December 2012 <<http://www.ecolor.org/files/uploads/pdf/amulsar.pdf>>

³¹² Save Teghut Civic Initiative, *Reject any support for mining in Amoulsar*, Yerevan, November 2014 <<http://teghut.am/en/2014/11/call-upon-armenians-to-reject-investments-amoulsar-mining-project-2/>>

Another gold open pit mining project in Lori region threatens Fioletovo and Lermontovo villages³¹³ inhabited by Molokans, minority communities living in these villages for around 200 years and practicing their own language, religion and culture.³¹⁴ The secluded lifestyle which omits technologies of any kind, let alone the knowledge of tools for protecting their rights, put these communities and their lifestyle under the threat of disappearance since the gold mining project located in a distance of 1 km from the settlements³¹⁵ will heavily impact their agriculture, the only income source for the communities.

In this context it is necessary to mention that the UN Committee on Economic, Social and Cultural Rights considers factors such as lifestyle, language, religion or belief systems, customs and traditions etc. as inseparable aspects of culture,³¹⁶ for practicing which, it is necessary that the State on the one hand does not interfere with the exercise of cultural practices as well as with the access to cultural goods and services, and on the other hand it takes actions ensuring access and preservation of cultural goods for promoting cultural life.³¹⁷

Among such cultural goods and services the availability of which the State has the obligation to ensure, the Committee includes shared open spaces necessary for cultural interaction, such as parks, seas, rivers, forests, reserves etc. as well as intangible cultural goods such as languages, beliefs, customs, etc. all of which form the identity and the cultural diversity of individuals and communities.³¹⁸

Importantly, the full realization of Article 15 of the ICESCR which declares everyone's right to take part in cultural life, also entails steps on behalf of the State to preserve, protect, develop and transmit cultures to the future generations.³¹⁹ Apart from this the State has the obligation to ensure everyone's access to the cultural and linguistic heritage as well as the free exercise of their cultural identity and practices.

³¹³ Ecolur, *Fioletovo Open Pit Gold Mining Project Submitted for Environmental Expertise*, July 2014 <<http://www.ecolur.org/en/news/mining/fioletovo-open-pit-gold-mining-project-submitted-for-environmental-expertise/6422/>>

³¹⁴ Radio Liberty, *Armenia's Molokan Christians*, May 2013 <<http://www.rferl.org/media/photogallery/village-armenia-molokans-christians/24974599.html>>

³¹⁵ Ecolur, *Letter to Minister: Rights of Fioletovo Villagers Violated During Public Discussion of EIA of Fioletovo Gold Mining Project*, January 2015 <<http://www.ecolur.org/en/news/sos/letter-to-minister-rights-of-fioletovo-villagers-violated-during-public-discussion-of-eia-of-fioletovo-gold-mining-project/6931/>>

³¹⁶ CESCR, General Comment No. 21, Paragraph 13, December 2009 <<http://www.refworld.org/publisher,CESCR,GENERAL,,4ed35bae2,0.html>>

³¹⁷ General Comment No. 21, para 6, op. cit.

³¹⁸ *ibid.* para 16

³¹⁹ *ibid.* para 50

The State's failure to abstain from interference with the practice of cultural life, including failure to prevent the interference by third parties will contain violation of Article 15 as will the non-elimination of obstacles to access cultural life.³²⁰

Concluding Remarks

Like any other developing country, Armenia and Turkey, while having various stages of economic development, face the need to merge economic development plans with sustainability not only on policy level, but on practice. This step is not a mere attempt to keep up with global trends and countries with more successful experience of sustainable development, but it is within both states' obligations under the UN Covenants to take steps to respect, protect and fulfil the human rights that are affected by projects in the area of energy and natural resource extraction.

It is important to mention that the list of human rights affected by these projects is not limited to the rights discussed in this paper. There are more rights affected, including the right to housing recognized under Article 11 of the ICESCR, right to peaceful assembly under Article 21 of International Covenant on Civil and Political Rights (ICCPR), rights of minorities under Article 27 of the ICCPR, right of access to information under Article 19 of the ICCPR, etc. The states also have extraterritorial obligations, for example, when it comes to dam projects that impact water flow of rivers running to Iraq, Syria and Georgia from Turkey, or mining projects that impact water quality of rivers running to Iran, Azerbaijan and Georgia from Armenia.

It is thus necessary to consult, among others, with bodies with expertise in human rights protection such as the ombudsman's office, NGOs and international organizations working in the area, when drafting and implementing development projects that will represent interests of all stakeholders. With such an approach where the protection of environment, human rights and economic progress are viewed as inseparable pillars of development, sustainability will cease to be a mere aspiration.

However, there are two more conditions to consider for bringing responsible development from paper to practical level: elimination of corruption and mindful cooperation between the states and the international financial institutions, as well as international companies. Local communities, representatives of civic initiatives and generally aware citizens have an

³²⁰ General Comment No. 21, para 60-65, op. cit.

important role in shifting mentality from corrupt to more responsible practices. One step towards achieving this is increased public participation in decision making related to energy and natural resource projects. Access to information related to such projects is thus equally important, whether related to the scale of the project and its impacts, or concerning the investment flows in the respective projects. Lack of transparency in these matters, otherwise, results in ineffective public participation in decision making.

International financial institutions in their turn have no less important role in the process of responsible development, since they often endorse projects which contradict the sustainability goals. For example, European Investment Bank (EIB) and EBRD have for years supported banks in Turkey, such as Garanti Bank, Ish Bank etc. which contrary to more sustainable energy projects, have in their turn financed construction of coal power plants in Turkey.³²¹ Similarly, EBRD and International Finance Corporation (IFC) have supported Amulsar open pit mining project and heap leach mining in Armenia against which there is a considerable resistance from local communities and environmental organizations.³²²

It is often difficult to access information on the final beneficiaries of financial institutions or terms of contracts signed between the state and an international company. However, for a more productive engagement of the society in decision making processes related to issues that directly impact their lives, as well as for avoiding further escalation of tension between the society members, the state and the business sector, as well as for avoiding complicity in human rights violations, international financial institutions, as well as international companies, in addition to acting more transparently, have to shift their cooperation with states from solely profit oriented approach towards more provident sustainable development.

One example of such a providence is the biogas plant launched in Armenia in 2008 by Lusakert Pedigree Poultry Plant LLC, Vekst Foundation (Norway), the Danish Carbon Fund and BIGADAN (Denmark), which operates on organic waste from poultry and has since its operation created more than 9 000 MW of electric power, reducing atmospheric emission of CO₂ by 37 000 tons.³²³

³²¹ A. Stefanova & D. Popov, loc. cit.

³²² Ecolur, *IFC and EBRD Running PR Campaign in Support of Amulsar Project*, October 2014 <<http://www.ecolur.org/en/news/mining/ifc-and-ebrd-running-pr-campaign-in-support-of-amulsar-project/6711/>>

³²³ S. Gevorgyan, *Smell of Progress: Chicken farms hatch Armenia's first biogas station*, Armenia Now, February 2009 <http://www.armenianow.com/features/9448/smell_of_progress_chicken_farms_ha>

Yet, another example is from Aydin in Turkey, where an Ankara-based Aydiner Company bought coal mines in 2007 and instead of using its underground resources, it converted the area into an organic olive grove by planting more than 13 000 trees. This olive plantation has already become one of the main economic resources in the area, creating workplaces for the locals³²⁴ and demonstrating that development of local economies can in its turn be an important factor in the overall development of the state and that development can thus go hand in hand with sustainability.

³²⁴ E. Ipekeshen, *A sustainable model in the Aegean: Coal mine field converted to organic olive plantation*, Hurriyet Daily News, Aydin, December 2014 < <http://www.hurriyetdailynews.com/a-sustainable-model-in-the-aegean-coal-mine-field-converted-to-organic-olive-plantation-.aspx?pageID=238&nID=75330&NewsCatID=340>>