

# Ecological Modernization and Eco-Marxist Perspectives: Globalization and Gold Mining Development in Turkey

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## Introduction

Within environmental sociology, one of the central debates is between an ecological modernization perspective and an eco-Marxist perspective. Both theoretical perspectives have dealt with the environmental implications of globalization. While Mol (2002) examined the consequences of globalization for ecological modernization studies, eco-Marxist treadmill theorists, maintain that there has been little systematic application of the treadmill logic to analyses of globalization.

Both perspectives offer persuasive and internally consistent arguments; however, the use of more empirical cases is necessary to critically evaluate their claims and assumptions. In this regard, cyanide-leach mining at the Ovacik mine in Turkey offers an excellent opportunity.

Many countries have adopted policies of economic liberalization since the 1980s in order to attract foreign investment. Gill conceptualizes these policies as “disciplinary neoliberalism,” in which a discourse of political economy endorses the power of capital through the extension and deepening of market values and disciplines in social life. Of course, the global extension and deepening of disciplinary neoliberalism does not take place automatically. Rather, disciplinary neoliberalism involves political and legal reforms of constitutions, laws, property rights, and various institutional arrangements by nation-states. For example, since 1985 more than 90 countries have adopted new mining laws or revised existing legal codes in an effort to attract foreign investment in the mining sector of their economies. Bridge examines how neoliberal policy reforms in the developing world have driven changes in the geography of primary sector (i.e., extractive) activities globally and analyzes new data on direct investment in the international mining industry. The adoption of neoliberal globalization policies in Turkey has increased gold mining there by international companies since the 1980s. Cyanide-leach gold mining carries tremendous social and environmental risks in the form of water, air, and land pollution, adverse human health impacts, depletion and degradation of natural resources, and the loss of biodiversity, to name a few. According to the U.S. EPA Toxics Release Inventory for 2001, the mining industry is the largest source of toxic releases in the U.S. The toxic threat of an ecologically unsustainable development project triggered the environmental conflict in Bergama during the 1990s and resulted in struggles by various civil society groups in Turkey.

The main purpose of this article is to critically evaluate the claims and assumptions of ecological modernization and eco-Marxist perspectives through analyzing the gold-mining conflict in Turkey in the age of globalization. The ecological modernization theory is useful in analyzing the institutionalization of environmental policies and regulations in Turkey in relation to European Union (E.U.) integration. However, it falls short in terms of analyzing the outcomes of the environmental policy conflict among the Turkish state, private companies, and civil society. An eco-Marxist perspective is more useful in critically assessing specific struggles, such as the environmental conflict in the Ovacik gold mine case.

## Ecological Modernization versus Eco-Marxist Perspectives

“Ecological modernization” is a relatively new concept, developed in the early 1980s by German sociologist, Joseph Huber. Ecological modernization theory aims to “analyze how contemporary industrialized societies deal with environmental crises.” It focuses on (existing and programmed) environmental reforms in social practices, institutional designs, and societal and policy discourses to safeguard societies’ sustenance bases. It analyzes the environmental origins and environmental consequences of social change. One of the core premises of ecological modernization theory is that ecological interests and criteria are slowly but steadily catching up with economic criteria in organizing and designing global production and consumption.

Historically, the theory developed in three consecutive stages. The first stage, lasting until the late 1980s, placed emphasis on technological innovations to bring about environmental reforms. In the second stage, from the late 1980s to the mid-1990s, focus shifted from a determinist technology perspective to the synergy between the market and the state, and the role of human agency, institutions, and culture in environmental reforms. In the third stage, from the mid-1990s to the present, the theory has been applied to non-European nations, increasing its focus on changing global dynamics.

One of its leading theorists, Mol, states that “the ecological modernization theory focuses on the growing independence, ‘emancipation,’ or empowerment of the ecological perspective or sphere from the basic three analytical spheres or perspectives in modern society: political, economic, and socio-ideological or societal.” Mol argues that in the economic domain, ecological rationality has begun to challenge the dominant economic rationality. Proponents of this theory consider:

...capitalism neither as an essential precondition for, nor as the key obstruction to, stringent or radical environmental reform. They rather focus on redirecting and transforming “free market capitalism” in such a way that it less and less obstructs, and increasingly contributes to, the preservation of society’s sustenance base in a fundamental/structural way.

Ecological modernization proponents argue that modern economic institutions and mechanisms can be reformed and transformed according to the criteria of ecological rationality. These transformations are grouped in four clusters:

- First, modern science and technology are not evaluated for their role in causing environmental problems but instead are valued for their actual and potential role in curing and preventing them. From this point of view, science and technology should not be viewed as the problem but should be seen as a means to solve environmental problems. Modern science and technology are seen as principle institutions in “ecologizing” the economy.
- Second, attention is paid to the “increasing importance of market dynamics and economic agents ... as carriers of ecological restructuring and reform.” Procedures, credit institutions, insurance companies, the utility sector, and business associations are said to increasingly turn into social carriers of ecological restructuring, innovation, and reform (along with state agencies and new social movements).
- Third, political modernization is hypothesized to be taking place where the structure and the function of the nation-state is changing from one that is exclusive, centralized, and

bureaucratic to one that is more decentralized, flexible, inclusive, and participatory. Supranational organizations such as the World Bank, World Trade Organization (WTO), International Monetary Fund (IMF), and the United Nations have been increasingly involving themselves in various forms of policy formations, which Mol and Sonnenfeld say “undermines the nation-state’s traditional role in environmental reform.” Mol argues that institutions such as the E.U. and NAFTA. “are probably of greater relevance for the future taming of transnational capitalism.”

- Fourth, ecological modernization proponents maintain that global social movements have been increasingly involved in public and private decision-making institutions (within the state and the market) regarding environmental reforms, in contrast to having been limited to the periphery or even being outside of such processes and institutions in the 1970s and 1980s. They see social movements playing a central role in the environmental transformation of contemporary society in collaboration with government agencies and business firms.

### **Eco-Marxist Perspective**

According to this perspective, the origin of environmental problems is located in the political economy of advanced capitalist societies. Capitalist economies behave like a “treadmill of production” that continuously creates ecological harm through a self-reinforcing mechanism of increasing rates of production and consumption. The “treadmill of production” concept holds that modern capitalism and the modern state display a fundamental logic of promoting economic growth and private capital accumulation. The imperatives of a capitalist economic system (i.e. profit maximization and competition) push human societies to increasingly extract resources (withdrawals) and to deposit wastes and by-products (additions). State agencies and officials prefer economic growth both to ensure tax revenues and enhance officials’ likelihood of re-election. Thus, the role of the state in capitalist society is to facilitate the conditions for capital growth. The treadmill of production is directly linked to the ecological crisis, since economic growth and accumulation require natural resource extraction, which contributes to pollution. The key claim is that capital-intensive economic expansion is intrinsic to capitalist market societies because of the structure of the economy and the role of the state. Furthermore, capital-intensive economic expansion has an intrinsic tendency toward environmental degradation.

Eco-Marxists reject the notion that capitalism can somehow be reformed on ecological lines, as ecological modernization suggests. Rather, they hold that the logic of capitalist production inevitably results in environmental degradation, since production necessitates the appropriation of nature. At the same time, the unchecked use of raw materials and resultant pollution can undermine the biophysical basis of production itself as capitalism treats nature as a free good. This argument is the “second contradiction of capitalism” thesis formulated by James O’Connor. “Capitalism [is] a crisis-ridden system ... that combine[s] the power of capitalist production relations and productive forces [which] self-destruct by impairing or destroying rather than reproducing their own conditions.”

Eco-Marxist theorists also doubt that technology and science will solve environmental problems in the long run. O’Connor points out that the history of industrial capitalism shows that “technologies have been chosen on the basis of their effects on costs and sales, not on the environment.”

Treadmill theorists have begun to reconsider the notion of a treadmill of production within the context of globalization and the transition to post-Fordism. They assert that in the age of globalization with its increase in the mobility of financial and industrial capital, a “transnational treadmill” has emerged. They contend that “transnational treadmill market actors” predominate over “national institutions of the nation-state, and its society.” They argue that neoliberal policies of economic globalization have allowed not only the movement of capital and technology, but also the transformation of social and environmental costs to non-Western societies. Eco-Marxist theorists posit that globalization also reinforces national treadmills of production, and thus contributes to the global ecological crisis.

### **Ecological Modernization: The European Union, Turkey’s Candidacy, and Environmental Policy**

On August 9, 1949, Turkey became a member of the Council of Europe, which was the first European intergovernmental organization. The Council of Europe has close to 200 European treaties or conventions, including the European Convention for Human Rights and Fundamental Freedoms, the European Convention for the Prevention of Torture, and the Framework Convention for the Protection of National Minorities. The Convention formed three institutions, all of which have supranational powers that Turkey accepted. These are the European Commission of Human Rights, the European Court of Human Rights (ECHR), and the Committee of Ministers of the Council of Europe. Turkey ratified Article 25 of the European Convention on Human Rights and Fundamental Freedoms and recognized the right of individual petition in 1987, which gives individuals the right to petition the European Commission of Human Rights after domestic resources are exhausted. There have been about 1,500 petitions from Turkey to the European Commission of Human Rights, including one about the Ovacik gold mine case.

For years, Turkey has sought membership in the E.U. On September 12, 1963, Turkey signed an Association Agreement, the Ankara Treaty, with the European Community (E.C.) and became an associate member. On April 14, 1987, Turkey applied for full membership to the E.C. Ten years later at the 1997 Luxembourg Summit, the European Council decided not to include Turkey among the list of candidate countries nor start accession negotiations. In March 1998, the Commission prepared a European Strategy for Turkey, and the Council adopted it in June 1998. Turkey then approved the pre-accession criteria that the European Union had adopted at the Copenhagen European Council of June 1993. Finally, the E.U. granted the desired candidacy status to Turkey in Helsinki in December 1999. On November 8, 2000, the European Commission approved an Accession Partnership Document for Turkey, which was adopted by the Council on March 8, 2001. Turkey then adopted its National Program for the Adoption of the *acquis* (the body of E.U. law and regulations) on March 19, 2001. In the Copenhagen summit of December 2002, E.U. leaders agreed to review Turkey’s candidacy based on its ability to meet the political aspects of the Copenhagen criteria. The E.U. has thus far denied Turkey entry, citing human rights violations and the lack of “true” democracy. However, negotiations for membership began between the E.U. and Turkey on October 2005, and they are expected to last for at least a decade.

Ecological modernization provides the framework within which the E.U. not only frames and tackles its environmental problems but also marries economic growth to its environmental protection policies. Ecological modernization requires the integration of environmental policy into other areas of governmental action, such as economic activity, reform of the tax system along

ecological lines, taxing exploitation of environmental resources, and the development of clean technology. The E.U. has been initiating these policy developments, and member and candidate countries have been adopting them.

As Roggeband and Verloo indicate, the structure of policy-making within the E.U. has changed the nature of policy-making in Turkey. Thus, the E.U. set large portions of Turkey's policy agendas in several areas. For example, Turkey integrated environmental concerns into its development policy. The preface of the Turkish National Environmental Action Plan (NEAP), prepared in 1995, states that:

In order to achieve the country's environmental objectives, the NEAP (i) proposes a number of actions for developing an effective environmental management system; (ii) emphasizes the need for enhancing environmental information and awareness; (iii) includes a set of new investment proposals on different thematic areas; (iv) builds the first steps to adopt E.U. environmental standards and regulations at a feasible pace for integration with the E.U. in the long term.

The Turkish national environmental policy, which was articulated in the Seventh Five-Year Development Plan (1996-2000), emphasized protection and improvement of the environment with emphasis on pollution prevention rather than clean-up, the polluter pays principle, and ensuring that environmental policies are in accordance with E.U. norms and international standards.

Turkey's desire to become a member of the E.U. has also played an important role in the recent rapid development of environmental regulations and legislation within the country. Turkey ratified various environmental conventions, treaties, agreements, declarations, and protocols, and to some extent, modified its national environmental policies accordingly. By 1997, the country had become party to 38 conventions, signed 29 declarations, and enacted 15 bilateral agreements on environmental protection and management, which, according to the Constitution, have the "effect of law." Since then, Turkey has continued to work on making its environmental regulations compatible with environmental regulations of the E.U. As laid out in the Copenhagen criteria, candidate states need to meet accession criteria and adopt the bulk of E.U. legislation in the areas of human rights, democratization, economic conditions, and environment through approximation, transportation, and adoption of the *acquis*. "Under the Treaty, all the new members of the E.U. must comply with the full ... (body of European community law), including all environmental directives and regulations." According to the E.U. 2003 regular report on Turkey's progress toward accession, some of the preconditions for its full membership are that it strengthen its approach to environmental issues, increase democratization, and improve its human rights record, with special emphasis on making structural and legal adjustments in these areas. As a formal candidate for membership in the E.U., Turkey's environmental, human rights, and democratization records have come under heavy scrutiny.

Certainly, passing environmental laws and adopting regulations compatible with E.U. environmental regulations is only the first step. Implementing and enforcing them are also important. Yet, so far, the implementation of such environmental laws has been extremely ineffective. The adoption of an economic development plan predicated upon cyanide-leach gold mining and recent neoliberal policies are in reality contradictory to Turkey's stated environmental goals. The E.U. Regular Report on Turkey points out this contradiction:

Despite the adoption of a number of regulations on nature protection, legal harmonization remains low. A framework law on nature protection and implementing legislation transposing the provisions

of the birds and habitats *acquis* needs to be adopted. Steps need to be taken to ensure implementation. Legislative changes foreseen regarding Natural Heritage and a new Mining Law may seriously hamper progress on nature protection.

According to the E.U., the problem lies in the Turkish state's incomplete adoption of E.U. standards of regulation and enforcement. But, in reality, as the eco-Marxist perspective argues, the root causes of the problem lie in the contradiction between capitalist economic growth and environmental protection, and the state's primary role in producing conditions for capital accumulation. Thus, the adoption of these E.U. environmental regulations by Turkey is merely symbolic in the sense that they have had no real power to prevent the movement of environmentally risky cyanide-leach gold mining to Turkey.

The ecological modernization contention that environmental problems can be, and indeed have been, addressed through the structures and processes of modernity has been strongly criticized by European scholars, who argue that the empirical basis of the modernization theory—that is, the extent to which European states or industrial sectors have undergone ecological modernization—remains open. In other words, they point out that ecological modernization theory is inconsistent with the reality on the ground, since the ecological crisis continues to get worse, even in European countries.

### **Neoliberal Economic Globalization and Gold Mining: Transfer of Toxic Technology to Turkey**

As with many developing countries, since the 1980s Turkey has adopted neoliberal export-oriented development policies in the hope of attracting economic development. Export-oriented industrialization is defined as a type of “industrialization promoted by transnational firms and their subsidiaries for the manufacture of consumer goods for export to markets primarily in the advanced countries.” The worldwide promotion of export-oriented industrialization has resulted in competition among countries to attract foreign direct investment (FDI). Developing countries have thus been encouraged with money and assistance from the IMF and World Bank with the aim of subverting nationalist economic development models. Turkey's adoption of neoliberal economic policies attracted the global mining industry at a time when disincentives in developed countries—especially the U.S., Australia, and Canada—encouraged the mining sector to move into developing countries. These disincentives included the rise of strong environmental movements against environmental problems, the exhaustion of high tenor mining ore, a decrease in the price of metals during the 1980s, and strengthening environmental policy (at least until 2001.) Mining companies have moved to South America, Africa, and South and Central Asia. Roger Moody noted that state-owned mining assets “are being offered for sale under ‘free market’ privatization” and that “under pressure from the IMF and the World Bank, more than 70 countries have changed their mining laws to make them more attractive to foreign investment.”

Before 1980, mining in Turkey was under the control of state institutions (namely, the General Directorate of Mineral Research and Exploration, and Etibank), as articulated in article 168 of the 1982 Constitution of the Republic of Turkey. This article reads as follows:

Natural wealth and resources shall be placed under the control of, and put at the disposal of the state. The right to explore and exploit resources belongs to the state. The state may delegate this right to individuals or public corporations for specific periods. Of the natural wealth and resources, those to be explored and exploited by the state in partnership with individuals or public corporations, and

those to be directly explored and exploited by individuals or public corporations shall be subject to the explicit permission of the law.

As an extension of liberalization policies, mining Law 3213 of 1985 granted numerous privileges to domestic and foreign capital. Moreover, in 1994 mining was privatized by Article 3996. This meant that with the transition to a “free-market” economy, the state can now grant mineral rights to foreign companies with up to 100 percent foreign ownership as long as the foreign companies are registered in accordance with the laws and regulations of Turkey. The changes in laws and privatization policies began in the 1980s, and since then the foreign direct investment in mining—especially gold mining—has increased. As a result, many multinational corporations, such as Eurogold, Camino and Tuprag, have come to develop natural resources in Turkey. Multinational corporations interested in searching for gold were given authorizations for 560 different sites in Turkey. Currently, 88 foreign companies from various countries are registered for mining, nine specifically for gold explorations.

The Ovacik gold mine in Bergama, run by the Turkish subsidiary of Normandy Mining, Ltd. of Australia, is the first gold mine in Turkey to use cyanide-leach technology in its production process. The Eurogold/Normandy firm registered in 1989 for gold reserve prospecting. Following the discovery of the Ovacik gold deposit, applications for an operating permit were registered with the Turkish Ministry of Energy and Natural Resources, which granted the environmental permit in 1994. The construction of the process plant, tailings pond, and associated infrastructure was initiated in 1996 and completed at the end of 1997. However, the mine was not fully commissioned until June 2001, mainly due to grassroots environmental resistance. In June 2001, Turkish officials granted a permit to the firm to begin “trial production,” and the mine has been operating since. The Ovacik gold mine is located in a heavily populated area close to seventeen villages that includes fertile soil and historical and cultural artifacts.

### **Role of Social Movements in Taming Global Capitalism and Protecting the Environment: The Bergama Environmental Movement**

Throughout the 1990s, as Eurogold/Normandy tried to obtain permits from the Turkish government, a grassroots environmental effort to halt the Ovacik gold mine began in the seventeen nearby villages, prompted by the former Bergama mayor, Sefa Taskin; the Bergama Environment, Art and Cultural Society; and some Bergama political party leaders. Over time, many local, national, and international civil society organizations also supported the grassroots effort, which developed out of a collaboration composed of potentially affected villagers; local activists; former Bergama city government officials (particularly left-oriented local party leaders); regional and national engineering-based organizations, such as the Turkish Engineer and Architecture Occupational Organization (TMMOB); environmental organizations; public health organizations; university professors; the Izmir Bar Association; and environmental rights lawyers.

Friedhelm Korte, a leading geochemist at the Institute of Chemistry at the Technical University of Munich, Germany who has conducted extensive research on the ecological and social impacts of cyanide use in mining, is the scientific advisor for the grassroots struggle in Bergama. Turkish geochemical, expert Ismail Duman, and many others have also worked to reveal the hidden risks and uncertainties of the use of cyanide-leach technology in mining. Since the 1990s, a network of national and international independent scientists and experts has called for banning cyanide-leaching technology in mining not only in the Ovacik gold mine but worldwide.

The European Parliament, the Green Party in Germany, and the international human rights organization Food First Information and Action Network (FIAN), which advocates for the right to food, has called for urgent action to prevent the imminent destruction of the Edremit region, a major agricultural region in Turkey, from gold mining. This collaboration has been supported by international NGOs and advocacy networks working on cyanide and ecology, such as Greenpeace, FIAN, the U.S. Mining Policy Center, Mine Watch in England, and the Mineral Policy Institute in Australia.

### **Strategies and Legal Actions by the Bergama Environmental Movement**

In 1993, a report on the proposed cyanide-leaching gold mining projects in the Aegean region was prepared and submitted to the European Parliament. As a result, the European Parliament called upon the Turkish government to ban cyanide-leaching technology use in gold mine production. On November 17, 1994, the European Parliament discussed these issues and produced a report that argued that the potential damage from the project to underground water and rivers would affect not only the surrounding local environment but also the Mediterranean Sea. The nearby Greek Island of Lesbos (Midilli) was seen as particularly at risk. Because the potential damage to the environment would not remain local but would expand its impact regionally, cyanide-leaching technology use in the Ovacik gold mine in Bergama became a European issue.

In 1994, 652 citizens from local villages and the Bergama district petitioned against the Turkish Ministry of Environment and the Eurogold company in the Izmir Administrative Court in an attempt to halt the project. Initially, the Izmir Administrative Court ruled in favor of Eurogold/Normandy. But activists and lawyers appealed, and on May 13, 1997, the Court of Appeal decided that the gold mine had to shut down its operation due to the fact that it did not serve any public interest.

In 1997 at the end of the three-year-long judicial process, the Higher Administrative Court in Izmir, 6th Chamber, decided that Eurogold/Normandy must shut down the Ovacik mine because it violated Turkish constitutional and environmental law. Specifically, the court held that the ministerial act violated the principles stipulated in Constitutional Article 17, which says “everyone has the right to life and the right to develop and protect his/her material and spiritual entity,” and Article 56, which says “everyone has the right to live in a healthy, decent environment. It is the duty of the state and citizens to improve the natural environment and to prevent environmental pollution.” Legal experts cited this as a precedent-setting case, since the court based its decision on the right to live in a healthy environment. The decision also rejected the common corporate practice of “cost-shifting” and was set to affect 560 other contracts in Turkey.

The legal victory, however, proved short-lived. The Turkish government’s first response was simply to not enforce the court’s decision. In response, some movement activists and lawyers associated with the Izmir Bar Association took the case to an international organization, the European Court of Human Rights. In 2003, it found the state of Turkey guilty for refusing to implement national and local court decisions and obliged the Turkish government to pay 3,000 Euros to each of the plaintiffs.

The fact that a transnational network that has developed strategies and taken actions at the national and international levels emerged to halt the project seems to support the notion of



ecological modernization theory that social movements play a significant role in transforming a society in the direction of ecological rationality. However, this social movement has had only a limited impact on Turkish state behavior.

### **Role of Science and Technology in Environmental Protection**

Amidst continuing demands to halt the project in 1997, company officials tried to find new ways to break the resistance and convince government officials and local communities in Bergama that the social and ecological risks of cyanide leaching in gold mining could be effectively minimized, if not eliminated by adding a chemical detoxification system to the production process. Eurogold/Normandy announced that the firm was going to add a chemical detoxification system developed by the Canadian company, Inco Technical Services, Ltd. The INCO SO<sub>2</sub>/AIR method was added for the decomposition of cyanide at the Ovacik mine in 1997.

After installing this technology, the Ovacik gold mine was repackaged as a major green economic development project—one with the most stringent environmental standards in the world. Furthermore, the former director of the company, Jack Testard, claimed the mine was the first to have such high international environmental standards and a such strong commitment to social responsibility. He continues to argue that in the U.S., Canada, Europe, Australia, South Africa, New Zealand, and many other “civilized” countries, more than 100 mines with this type of technology have contributed significantly to the production of wealth and have proudly done so in an environmentally consciousness way.” Former Australian Environment Minister, Ros Kelly, who was a member of Normandy Mining’s international board, argued that there can be no serious objections to the Ovacik mine on environmental grounds, because its environmental mitigation operations are “way in excess of any mine in Australia.” She added that in contrast to Normandy’s Australian operations, which might not have detoxification plants or double-lined tailings dams, the Ovacik mine in Bergama has a “policy of exceeding normal standards.”

Eurogold/Normandy officials continue to insist that detoxification technology will render the cyanide solution harmless. Company representatives also erroneously claimed that the U.S.-based Sierra Club has stopped protesting against cyanide heap leaching. It also has been reported that Eurogold/Normandy spent about US \$100,000 a year on a public relations campaign to convince the public that the Ovacik gold mine is “bringing life not death” to the area.

Meanwhile, in the face of the court’s ruling to shut down the mine, the Turkish government began searching for ways to allow gold mining to continue. The following quote by Imren Aykut, the former Minister of Environment, best represents the official government line:

[T]he State does not poison its own people. If cyanide is detrimental, why do other countries use it? Cyanide-leaching methods have been used safely [around the world].

The Vice Undersecretary for Prime Ministry, Fusun Karaoglu, argued that the resistance to the Ovacik gold mine has blocked foreign direct investment into Turkey, costing the country important revenue.<sup>91</sup> The former Turkish Prime Minister, Bulent Ecevit, claimed that the Court of Appeal’s decision citing defense of the right to life damaged Turkey’s reputation as an attractive venue for investment in the eyes of foreign corporations.

The Turkish government also announced that it found the court decision ambiguous, and in August 1999 the Turkish Prime Ministry requested that the Scientific and Technical Research Council of Turkey (TUBITAK), the country's preeminent scientific research organization, assess whether or not Eurogold/Normandy had made enough improvements in the mine to operate without harming the environment. During this time, the media reported that Australian government officials, including the Prime Minister, the Minister of Natural Resources and Energy, the Minister of Foreign Affairs, and the Minister of Environment lobbied strongly on behalf of Eurogold/Normandy. They requested that Turkish officials do whatever necessary to allow the Ovacik gold mine to continue operating in Bergama. The activists are convinced that this lobbying played an important role in the Turkish Prime Ministry's request for TUBITAK's assessment.

TUBITAK's report assessing the risks and possible impact associated with cyanide-leach mining in the Ovacik gold mine came out in 1999 and argued that it would be impossible to mine gold without cyanide. Instead the report claimed that the main focus should be on the question of whether or not the environmental impact and risks of cyanide use met acceptable standards. Furthermore, the report claimed that cyanide use in gold mining in developed countries such as Canada and the U.S. does not pose significant environmental risks. But these claims contradict findings by the Mineral Policy Center in the U.S. that cyanide-leach gold mining is responsible for serious environmental degradation and public health problems. The TUBITAK report claimed that the addition of the detoxification system at Ovacik could minimize the risks to underground water if the tailings pond cracked in the future. It also claimed that human health and environmental risks were within acceptable limits and that the tailings pond was constructed according to sufficiently high standards (which also exceeded Canadian standards).

Hayri Ogut, Eurogold's public relations manager, insists that a detoxification process renders the cyanide solution harmless. "There will not be any other poisonous substances in the water," he insists. Echoing the claims of numerous polluters before him, he says: "You can even drink it." That assertion alarms Glenn C. Miller, Professor of Environmental and Resource Sciences at the University of Nevada, Reno:

If a person from the mining industry suggests that the water is drinkable after the INCO process, ask him if he would drink it or if he would allow his children to drink it. The waste water is still highly contaminated and requires careful management and regulation over the long term.

Korte had previously analyzed this detoxification system in 1995-1996 and concluded that the toxins released after detoxification exceed the levels in the standard proposed by the World Health Organization. Furthermore, measurements show that this detoxification technology is not capable of purifying cyanide compounds and heavy metals in tailings pond waste. Toxic waste combined with various heavy metals and cyanide compounds will stay in the open tailings pond waste and remain an ecological and social threat. In addition, other chemicals are utilized during the detoxification process. Korte and others point out that because the nature and characteristics of chemical reactions are complicated, the end product is difficult to predict. "The INCO-process does not detoxify heavy metals," Korte has written. "In addition, it brings into the atmosphere sulfur oxides and nitrogen compounds." Some other scientists contend that while detoxification may improve the situation over a gold mining operation without any environmental control technology, specific risk-benefit evaluations are not yet available, thus it is not possible to accurately measure the improvement they provide. Geochemist Moran evaluates this detoxification as follows:

This process is often used to treat ores containing iron sulfides, or where iron cyanide complexes are present in the effluents in significant concentrations. It involves the addition of SO<sub>2</sub>, air, and a copper catalyst to breakdown cyanide. While this process does greatly reduce free cyanide concentrations, it results in the formation of several other byproducts that may be toxic to aquatic organisms, such as: cyanate, thiocyanate, sulfate, ammonia, nitrate, some free cyanide, and elevated copper concentrations. Such treated effluents may also contain elevated concentrations of other metals. The INCO process also results in the formation of large volumes of calcium sulfate-rich sludges, which increase the process and disposal costs (Yarar, 1999). Most Canadian gold sites that use the INCO process are able to generate effluents that meet the discharge standards. However, many of these effluents are still toxic to organisms in bioassay tests... Thus, these complex solutions produce toxicity effects we don't understand, probably as a result of synergistic effects, or they contain toxic constituents that are not being detected or regulated.

In conclusion, in contrast to Eurogold/Normandy's claims, the independent scientific community maintains that water with solid waste, heavy metals, and cyanide breakdown compounds such as free cyanides and cyanates will remain in the tailings pond and pose ongoing environmental and social risks, and the ultimate behavior of these compounds is unknown due to a lack of scientific study and understanding. Thus, the debate over the Ovacik mine seriously challenges one of the propositions of ecological modernization theory, namely, that science and technology play the most significant role in environmental protection. On the contrary, the evidence suggests that as long as scientific uncertainty exists, science and technology perpetuate environmental deterioration.

### **Disciplinary Neoliberalism, Constitutionalization, the Turkish State, and the Bergama Environmental Movement**

In 2001, the Turkish Council of Ministry allowed gold mine production and risked violating the 1997 Court of Appeals decision by permitting Eurogold/Normandy to begin its one-year trial production. In Turkey, Prime Ministry circulars cannot officially overrule Court of Appeals decisions. Yet that is precisely what occurred. An analysis of why that happened is in order.

Gill's concept of new constitutionalism offers an explanation. New constitutionalism is defined as the political-judicial complement to the disciplinary neoliberal process of accumulation. According to Gill, the fundamental purpose of new constitutionalism is to *prevent future governments* from counteracting commitments to a disciplinary neoliberal pattern of accumulation. Gill says:

Worldwide, new constitutions were being enacted and old constitutions were being amended. Often, under the guidance of the International Monetary Fund (IMF), the World Bank and other agencies of capitalist world economy, new institutional arrangements were being devised in ways similar to the European architecture of economic governance—to separate politics from economics. What was occurring was the gradual institutionalization of a framework of constitutional constraints theoretically designed to maximize the efficiency of a now potentially global capitalism. In other words, what was being constructed in a range of contexts—national, regional, and international (e.g., through the IMF, the World Bank, and the World Trade Organization (WTO))—was a *de facto* constitution for global capitalism.

As the eco-Marxist perspective argues, the Turkish state has supported economic growth to fuel its need for tax revenue. “The current financial crisis [in 2001] in Turkey has worked in Eurogold/Normandy's favor, as calls have been made for the country to fully exploit its gold reserves—estimated at around 6,500 tons—to help pay for the large domestic debt.” Melda Keskin, Greenpeace Mediterranean co-coordinator, states that:

We've seen in Turkey many instances where a local court—or even a national one—makes a good decision, but then this is simply ignored by the state. Either they continue to operate installations that have been ordered closed, or private companies operating under their protection continue to work.

Turkey's acceptance of international arbitration law between foreign firms and the Turkish state in this case reflects how new constitutionalism works. The main goal of the adoption of international arbitration law is to send a clear message to the foreign investors that they are guaranteed a proper investment environment in Turkey. Turkey is one of the leading countries that has been willing to adopt the Multilateral Agreement on Investment (MAI) in order to attract more foreign investment to generate revenue for external debt payment. By playing a central role in MAI negotiations, Turkey announced that it was ready, though with some reservations, to adopt the MAI.

The MAI is the creation of the Organization for Economic Cooperation and Development (OECD). If adopted by various countries, it would have the authority of an international treaty and thus take precedence over the domestic laws of countries that sign it. Basically, it is the continuation of international commercial arbitration, which has become harmonized through international conventions and regulations as a widely accepted method for settling international commercial disputes.

MAI negotiations in 1995 were intended to provide a multilateral framework for international investment with the liberalization of investment regimes, the protection of investment, and effective settlement procedures. If adopted, the MAI would have allowed foreign investors to sue national and local governments, seek compensation from the state for an investor's loss of income and reputation, and challenge state legislation. It is similar to NAFTA, yet the MAI has not yet been allowed to come into effect due to strong opposition from different groups. All over the world, trade unions, NGOs, and environmental groups have been opposing the MAI in favor of stronger labor rights and consumer and environmental standards.

In mid-1999, Turkish governmental bodies and business sectors began arguing the necessity of including key MAI principles into national legislation to further liberalize, deregulate, and restructure the economy in order to attract more direct foreign investment. That year Turkey unilaterally adopted some of the MAI principles, with the Turkish parliament passing three constitutional amendments. With the amendment to Article 125, Turkey accepted national and international arbitration for settling disputes between foreign investors and the Turkish government. An amendment to Article 47 eliminated all legislative obstacles for privatizing public assets and services. An amendment to Article 155 limited the scope of the domestic administrative law in favor of the private law (arbitration law), bypassing the sanction of the Council of State regarding these concessions. In 2001, the Turkish parliament passed the International Arbitration Law, which remains in effect today. The IMF played an important role in transforming Turkey's laws, by basically bribing the Turkish government to adopt the international arbitration law: In exchange for substituting international arbitration for the sovereignty of Turkish courts, the IMF gave Turkey an additional credit loan.

According to Turkish Constitution Article 90 "international agreements duly put into effect carry the force of law. No appeal to the Constitutional Court can be made with regard to these agreements, on the grounds that they are unconstitutional." The constitutional status of international agreements leads us to suggest that Turkey has already adopted arbitration for settling investment disputes since

when the Washington Convention ... was duly put into effect in 1988 ... The corollary of the approval of the Convention is that Turkey recognizes the jurisdiction of the International Center for Settlement of Investment Disputes (ICSID), established by the Convention, to settle any legal dispute arising directly out of *an investment*, between a contracting state and a national of another contracting state.

The written statement by the Under-Secretariat of the Prime Ministry instructed six ministries to make the necessary changes to allow Eurogold/Normandy to resume its operation. The justification was as follows: Eurogold's investment is a foreign investment, which is subject to international arbitration. The Turkish daily newspaper, *Milliyet*, also reported that Eurogold/Normandy would file a compensation claim for US \$300 million if it were forced to forgo its gold mine operation.

Thus, the adoption of international arbitration law on investment usurped the right of individuals and groups to make use of national judicial systems and judicial remedies. Litigation is one of the most common tools that environmental and community movements all over the world use for redress of their complaints. Lawsuits seek compensation for actual environmental damage and detrimental effects on human health.

The constitutional amendments and new legislation regarding the international arbitration law in Turkey abolished the right to administrative judicial review of environmentally unfriendly investment by the Turkish state. Under this condition, if arbitration is approved for a possible dispute, environmentally concerned citizens can no longer bring a case to administrative courts or the Council of State, which has made landmark decisions devoted to environmental protection, such as the Aliaga decision and the Bergama case. All laws—and environmental laws in particular—as well as the Turkish constitution, which guarantees the right to life and right to live in a healthy environment for every citizen, have been reduced to a “non-tariff barrier to trade” or an “illegal trade barrier.”

Bergama activists and lawyers argue that this is a violation of not only the right to recourse through judicial review, but also of Article 10 of the Turkish constitution, which reads: “all are equal before the law...No privilege shall be granted to any individual, family, group or class.” Izmir Bar Association's Ahmet Okyay argues that “the Prime Ministry's actions do not suit a state of law. Furthermore, a court verdict cannot be ignored with the excuses of having to comply with the international arbitration law and having to attract foreign investment.” The quotation below best summarizes the situation:

Reeling from an economic crisis, Turkey has embraced the IMF-WTO recipes of privatization, deregulation, and unconditional surrender to foreign investors. The Turkish Parliament has been frantically passing legislation to remove obstacles before foreign companies and render the country's environmental and agricultural laws ineffective. The peasants of Bergama led by Oktay Konyar have been in the front of the resistance to this frenzied neoliberalism in Turkey.

## Conclusion

The case study of the cyanide-leach Ovacik gold mine in Turkey challenges the assumptions of the ecological modernization perspective; the eco-Marxist perspective offers a more satisfactory analysis. By concentrating on the interactions among the state, market, and

civil society, this case study offers three main challenges to the ecological modernization perspective. They are the following:

First, contrary to what ecological modernization suggests, there is no compelling evidence that the environment has been emancipated from economic factors in decision-making criteria. In Turkey since the 1980s, economic policies in general and mining policies in particular, have been gradually restructured according to neoliberal economic globalization. Furthermore, the Turkish nation-state has restructured its institutions, reformed its policies, accepted some free trade agreements, and amended its constitution to facilitate the expansion of the global capitalist market. At the same time, in line with the ecological modernization perspective, the Turkish nation-state has revised its environmental policy according to E.U. environmental policy standards and signed numerous international environmental agreements. However, as Wapner points out, compliance to these environmental policy standards is poor, with the Turkish government violating the orders of its own courts since 1997. The outcome of the Ovacik gold mine conflict shows that environmental regulations have had almost no impact on Turkish state behavior. This challenges one of the core premises of the ecological modernization perspective: that E.U.-based environmental regulations would help tame global capitalism and ensure environmental protection. On the contrary, as the eco-Marxist perspective suggests, the adoption of neoliberal economic growth policies to attract direct foreign investment resulted in the transfer of ecologically risky cyanide-leach technology to Turkey. There is no compelling evidence that economic development and environmental protection are compatible in this case; as the eco-Marxist perspective proposes, economic growth and capital accumulation have superseded environmental protection.

Second, the story of the Ovacik gold mine struggle demonstrates that the Turkish state ignored the demands of civil society. The ultimate goal of the Bergama environmental movement is to convince the mining industry and the Turkish state to halt cyanide-leach technology in mining. Neither the industry nor the Turkish state has considered halting it. Contrary to the hypothesis of ecological modernization theory, rather than strengthening the voices of civil society, the synergy between the market and the state suppressed them. Market criteria dominated the agenda even in the face of strong grassroots organization, local and national court rulings, and E.U. demands for ecological protection.

Third, instead of banning cyanide-leach technology, the Turkish state allowed it to continue with the addition of new detoxification technology. However, many independent scientists maintain that advanced pollution control technology such as the detoxification system used in the project does not reduce environmental and health risks as long as cyanide is used in the mining process. This challenges one of the core hypotheses of ecological modernization theory: that the design, performance, and evaluation of processes of production are based on ecological criteria as well as economic criteria. Eco-Marxist analysis argues that they are predominantly based on economic not ecological criteria.

The ecological modernization perspective posits that economy and environment can be reconciled under a global capitalist system with reforms brought by civil society and the state. The story of the Bergama environmental conflict belies this claim. The ecological modernization perspective proposes that economic growth is not the problem, but the solution to environmental problems. The Ovacik gold mine case demonstrates the opposite: neoliberal economic growth policies to attract foreign direct investment resulted in the transfer of ecologically risky technology—cyanide-leach technology—to Turkey. The goal of the Bergama environmental

movement remains to convince the mining industry and the Turkish state to ban cyanide-leach technology in mining altogether. But neither the industry nor the Turkish state has considered a ban, which supports the eco-Marxist claim that there is an inherent conflict between economic growth and environmental protection.

The ecological modernization perspective assumes that supra-national institutions such as the E.U. and the WTO would play an important role in taming global capitalism and solving environmental problems. This case study demonstrates that instead of taming it, the policies and practices of the IMF, the World Bank, and the WTO are designed to expand global capitalism. Some critiques argue that even actors who are widely perceived as adopting a proactive stance toward sustainable development, such as the E.U., have prioritized the economic and commercial dimensions of sustainability at the expense of ecological and social ones. So, if Turkey eventually becomes a member of the E.U., it is debatable whether or not its environment will improve.

Finally, this case study illustrates that local examples of environmental consciousness and strong environmental movements can be overwhelmed by national interests in economic growth and capital accumulation. As the global ecological crisis worsens, global civil society needs to understand clearly the mechanics involved in corporate globalization's usurpation of citizens' rights, resources, health, and environment and come up with more effective ways to resist. Eco-Marxism can offer a way forward.