

Situation Report Environmental crimes in Ethiopia



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Acronyms

APAP	Action for Professionals' Association for the People
BCH	Bio-safety Clearing House
EC	Ethiopian calendar
ECP	Environmental Crime Project
EIA	Environmental impact assessment
EPA	Environmental Protection Authority
EWCA	Ethiopian Wildlife Conservation Authority
EWNRA	Ethiopia Wetlands and Natural Resources Association
FDRE	Federal Democratic Republic of Ethiopia
IBA	Important Bird Area
MEA	Multilateral environmental agreement
REA	Regional Environmental Authority
SNNP	Southern Nations, Nationalities and Peoples Region
TRAFFIC	Wildlife Trade Monitoring Network
UNEP	United Nations Environmental Programme
UNFCCC	UN Framework Convention on Climate Change

Introduction

Ethiopia has a relatively short history of dealing with environmental crimes. This is mainly because the connection between the environment and crime is a relatively new one, dating back only about three decades. Only in the early 1970s were efforts started in Ethiopia to try and explain the relationship between crime and environmental factors.

Brantingham and Brantingham provided one of the most comprehensive explanations of what has developed into the criminological discipline referred to as environmental criminology.¹ The emphasis focused on exploring the patterns of property offenders and analysing the range of social, geographic and perceptual or cognitive factors that influence the situations and settings in which crimes are likely to occur. Environmental criminology has emerged as an established discipline, focusing on social ecology, or structural or environmental factors and their relationship to criminal activity.

The accepted meaning of the term 'environment' is the surroundings or conditions in which a person, animal or plant lives or operates. 'Environment' in the modern context of sustainable development encompasses the physical and social factors of the surroundings of human beings, and includes land, water, atmosphere, climate, sound, odour, taste, energy, waste management, coastal and marine pollution, the biological factors of animals and plants, as well as cultural values, historical sites and monuments, and aesthetics. 'Ecology' is the branch of biology concerned with the relations of organisms to one another and their physical surroundings. The 'natural environment' comprises all living and non-living things that occur naturally on earth or some region thereof.

On the other hand, the term 'crime' is understood as the breach of a rule or law for which some governing authority or force may ultimately prescribe some kind

of punishment. This is, however, a simplistic and lay definition that demands a thorough analysis according to the specific context of the legal system of a country. The definition of the breadth of what is entailed by a crime is highly related to the preferences of the country in question.

From the simplistic definitions given above, one may define an environmental crime as an act committed to harm ecological systems, or the normal functioning of such entities. This definition does not, however, encapsulate all the issues that surround the notion of an environmental crime. 'Ecology', for example, does not only include natural objects, but also the human-made structures that make up a society and how individuals interrelate with these. It also includes the interaction of human beings with their surroundings.

What then entails an environmental crime, or who commits an offense against the environment? This study sets out to examine this complex question by determining what constitutes an environmental crime in Ethiopian jurisprudence. This will be done by examining the legal and institutional regime for combating environmental crimes. The study also examines the main perpetrators of environmental crime in Ethiopia and the main enforcement mechanisms that are in place to deal with the perpetrators. Finally, the study examines the capacity needs that have to be addressed to enhance the enforcement of environmental crimes in Ethiopia.

PURPOSE OF THE STUDY

The study is part of a larger study undertaken by the Environmental Crime Project (ECP) that is being undertaken to determine the nature and extent of environmental crimes in eastern Africa. The study is to cover eight

countries² and result in the publication of the first ever report on the nature and extent of environmental crime in eastern Africa.

METHODOLOGY FOR THE STUDY

The basic methodology used to gather information for this report was twofold: a review of relevant literature and in-depth interviews with key informants and with relevant authorities at the national level.

The ECP aims to enhance law enforcement and policy-making against environmental crimes. As such, the target group for the study was designated government entities, or track-one decision-makers in the law-enforcement and the policy-making fraternities concerned with protection of the environment. However, entities outside government, including official statutory organisations, were also targeted in order to reinforce the official findings. In depth interviews were conducted with the help of a question guideline developed by the researchers to facilitate open-ended but structured interviews.

The questions addressed to interviewees fell into two distinct categories. The first set of questions was aimed at investigating the nature and extent of environmental crime in Ethiopia, while the second set focused on

establishing capacity problems and the needs of relevant government institutions and officials concerned with environmental crime enforcement, as well as management, procedural and substantive practices. Questions to the latter category of interviewees also focused on crime-information management systems employed at different governmental institutions responsible for enforcing environmental laws.

The people interviewed in the first category included law enforcement officers from the Central Bureau of Ethiopia, which also acts as Interpol's representative in the country, the criminal investigations department, the legal and human resources department of the police, the investigative/research arm of the police and governmental agencies responsible for environment management in Ethiopia.

The second set of interviewees was designated as an essential, but not a primary target for the study because of their significant role in the enforcement of environmental law. This category included the judiciary, the bench and/or law society, the Ministry of Foreign Affairs and civil society. It was realised that in order to obtain a better understanding of environmental crimes and enforcement measures in Ethiopia, it was necessary to examine the role played by these non-core, but complementary institutions.

State of the environment in Ethiopia

An Overview

Ethiopia occupies a vast area in the Horn of Africa. It is largely an agrarian country with more than 90 per cent of the population living in the rural areas. Agriculture contributes more than 53 per cent of the country's Gross Domestic Product and accounts for the lion's share of exports.

It is often said that Ethiopia is a biodiversity hotspot. This is mainly because of its unique topography and diverse climatic conditions. Based on vegetation types, Ethiopia's eco-system is divided into nine categories.³ These are Desert and Semi-arid Scrubland; *Acacia* - *Commiphora* (small-leaved deciduous) Woodland; Lowland Semi-evergreen Forest; *Combutum-Terminilia* (broad-leaved deciduous) Woodland; Moist Evergreen Forest; Dry Evergreen Montane Forest; Montane Grassland; Afro-Alpine and Sub-Afro-Alpine Vegetation; and Riparian and Swamp Vegetation.

BIODIVERSITY

Because of its topography and diverse agro-climatic conditions, Ethiopia is endowed with an exceptionally rich fauna and flora. The number of plant species lies in the range of 6 500 to 7 000, of which around 12 per cent are endemic to Ethiopia. The country is also a centre of diversity (often referred to as 'one of the 12 Vavilov centres of crop-genetic diversity') to a number of crops, including *Coffea arabica*, teff, nough or niger seed (*Guizota abyssinica*), enset (*Ensete venticosum*), sorghum, barley, wheat, horse beans, field peas, lentils and linseed.

The diversity in Ethiopia's animal species is also high and comprises 277 terrestrial mammal species, some 861 bird species, 201 species of reptiles, 63 species of amphibians, 150 species of fish and 324 butterfly species. Of these, 31 mammals, 28 birds, 24 amphibians, four fish, nine

reptiles and seven butterflies are endemic to Ethiopia. The country is a centre of origin and diversity for some domestic animals and cattle.⁴

Despite this tremendous natural wealth, the country is not benefitting much from tourism. To date, of the nine national parks designated, only two have been gazetted. There are three sanctuaries, 11 wildlife reserves, 18 controlled hunting areas and 58 national forest priority areas within a total area of about 234 000 km², or 14 per cent of the country's surface area.⁵

Flora

Ethiopia's flora has long been exploited by numerous rural communities, who have succeeded in creating considerable agro-biodiversity through careful selection. In fact, most rural communities depend on harvesting these natural resources. Although comprehensive findings are not readily available, wild plants are used by communities for various medicinal uses, as well as for food, fodder

Table 1 Plant species exposed to extinction

No.	Type of species	Status	
		Depleted	Endangered
1.	Endemic to Ethiopia ■ <i>Enchinops kebericho</i> ■ <i>Boswellia pirottae</i> ■ <i>Lobelia rhynchopetalum</i> ■ <i>Taverniera abyssinica</i>		✓ ✓ ✓ ✓
2.	Indigenous ■ <i>Eragrostis tef</i> ■ <i>Guizotia abyssinica</i> ■ <i>Hagenia abyssinica</i> ■ <i>Plectrantus edulis</i> ■ <i>Juniperus procara</i>	✓	

Source State of the Environment Report, 2003⁶

and household fuel. The endemic species known for their medicinal purposes include: dengetegna (*Taverniera abyssinica*), kebericho (*Enchinops kebericho*), incense tree (*Boswellia pirottae*), gibbira (*Lobellia rhynchoptalum*) and koso tree (*Hagenia abyssinica*).⁶ These species are highly threatened with extinction because of unsustainable use and neglect.

Forest resources

According to an estimate⁷, Ethiopia's high forests during the 1990s covered around 4 million ha, woodlands 29,2 million ha and shrub lands 26,4 million ha.⁸ Bamboo plantations also have a significant representation with 930 000 ha.⁹ In addition, the country has more than 500 000 ha of man-made forest plantations.¹⁰ Forests in Ethiopia are habitats for wild coffee. The rainforests of the west and south-west are particularly known for their coffee variety.

Wildlife

Of the country's 31 endemic mammal species, five are larger mammals, namely Walia Ibex (*Capra walle*), Gelada Baboon (*Theropithecus gelads*), Starck's Hare (*Lepus Starcki*), Mountain Nyala (*Tragelaphus buxtoni*) and Ethiopian Wolf (*Canis simensis*), while the rest are smaller animals that include two species of bats, nine species of insectivores and 15 species of rodents.¹¹ However, these species are highly threatened for various reasons. Amongst the threatened animals of global importance are the Black Rhinoceros (*Diceros bicornis*), Grevy's Zebra (*Equus grevyi*), African Wild Ass (*Equus africanus*), Walia Ibex and Ethiopian Wolf.

Next to habitat destruction, the major cause of wildlife loss in Ethiopia is illegal trafficking in wildlife products. According to a report by John Abdu Essa and Hans Hurni¹²:

'... Ethiopia has been identified as one of the countries known for its expanded unregulated market for wildlife and products of these, and a trafficking zone of wildlife products for neighbouring countries such as Sudan, Kenya and Somalia. The demand for wildlife products in the global market drives the illegal hunting and trafficking. On top of this, poor economic performance and concomitant low per capita income implies high dependence of natural resources. The lack of synergy between different actors, local people, state and non-state actors creates opportune time for unregulated use of resources. The preservationist policy that deprives local people of access to Protected Areas means

increasing law enforcement costs, and unsustainable levels of investment in policing activities ...'

Birds

In terms of its avifauna, Ethiopia is truly richly endowed. Over 69 Important Bird Areas (IBAs) have been identified. The more than 861 bird species recorded are generally categorised into the following three biome assemblages, each differing in the variety and number of bird species it hosts:

- The Afrotropical Highland Biome Species
- The Somali-Massai Biome Species
- The Sudan-Guinea Savannah Biome Species

The bird species that are globally threatened include the White-winged Flufftail (*Sarothrura ayresi*), Nechisar Nightjar (*Caprimulgus solala*), Sidamo Lark (*Heteromira fra sidamoensis*), Great Spotted Eagle (*Aquila clanga*) and Taita Falcon (*Falco fasciinucha*).

ENVIRONMENTAL DEGRADATION

Ethiopia is severely affected by environmental degradation, but the extent varies. For example, environmental degradation is very severe in rural areas where more than 85 per cent of the population lives. In these areas, soil erosion and soil nutrient loss as a result of erosion are the major environmental problems. Land degradation in the rural areas is exacerbated by population growth, overuse of arable land, overgrazing and increased cultivation of marginal lands.

An average of 400 t of fertile soil per hectare is lost every year.¹³ This loss is rampant in areas where the land has lost its vegetative cover and where extensive and unsustainable farming is practiced. The impact of soil erosion is particularly evident in the highlands of the country and the concomitant nutrient loss and decreased agricultural output often exposes the population to food shortages. Siltation brought on by soil erosion is also affecting lake and river systems, and disrupting ecosystems.

Deforestation is another crucial environmental issue in Ethiopia. Encroachment on hitherto intact forests is particularly evident in the southern and south-western regions of the country. The major causes of deforestation are the expansion of arable land, resettlement, deliberately placed and naturally occurring forest fires, and commercial farming.

The introduction of invasive alien species, particularly in the eastern and southern lowlands of Ethiopia, is also a major cause of loss of biodiversity. Although attempts are being made to counter the problem, species like *Prosopis Juliflora* are encroaching on cropland and grazing fields at

a very fast rate. Generally speaking, invasive alien species are 'threatening agricultural land and protected areas, aggressively invading pastoral areas, destroying natural pasture, displacing native trees, forming impenetrable thickets, and reducing grazing potential'.¹⁴

Unsustainable agricultural practices are also threatening most ecosystems in the country, such as investments in massive agricultural projects in the vicinity of protected areas, wetlands, wildlife habitats and corridors. There are allegations that current agro-fuel schemes have been carried out without proper impact assessments on the natural environment.

Wetland ecosystems are continually under threat. The functions of wetlands are not well understood and they are being drained in search of arable land and in an attempt to destroy mosquito hatching areas.

In terms of chemical usage and pollution, the country has accumulated a remarkable amount of obsolete pesticides. These were mostly imported for agricultural use, but as their shelf-life lapsed they were dumped in an unsafe and environmentally unsound manner throughout the country. The National Implementation Plan¹⁵ that

was prepared as a requirement under the Stockholm Convention on Persistent Organic Pollutants has indicated that some of these accumulations are contaminated by toxic chemicals, whose application was restricted under the Convention.

A major environmental concern in urban areas is pollution. There is a serious scarcity of waste disposal facilities and latrines in urban areas. Despite recent efforts by municipalities in most cities to implement sanitary waste management systems, people are still disposing of their waste in public places, waterways, at roadsides etc. Banned plastic bags¹⁶ are still being used widely as a cheap, replaceable wrapping material. According to reports by the Ministry of Health, with an estimated 30 per cent, Ethiopia has some of the lowest sanitation coverage in the world.¹⁷ High concentrations of fluoride are responsible for reduced water quality, particularly in the Rift Valley region. Despite some efforts to ban old cars from the roads, air quality has declined greatly in urban areas over the last couple of years. This is alleged to be causing eye diseases and respiratory tract ailments in some parts of Addis Ababa.¹⁸

The legal framework pertaining to environmental crimes

Article 2(3) of Ethiopia's Environmental Protection Organs Establishment Proclamation No. 295/2002 defines the 'environment' as the totality of all materials, whether in their natural state, or modified, or changed by humans, their external spaces and interactions that affect their quality or quantity, and the welfare of human or other living beings, including, but not restricted to, land, atmosphere, weather and climate, water, living things, sound, odour, taste, social factors and aesthetics.

Even though this piece of legislation provides an overarching definition of the term 'environment', environmental crimes are not distinctly delineated. One may, however, find greater clarity by referring to numerous other statutes and proclamations. The 1995 Constitution of the Federal Democratic Republic of Ethiopia (FDRE), being the supreme law of the land,¹⁹ gives great emphasis to the protection of the environment.

The Constitution grants all persons the right to a clean and healthy environment.²⁰ It also grants every Ethiopian the right to sustainable development,²¹ namely to development that meets the needs of the present generation without compromising the environmental needs of future generations.²² This is the kind of development that can only be achieved with a minimal possible negative impact on the environment. Furthermore, it requires the economic and efficient use of natural resources, and an approach to preservation that protects the natural environment from any harm.²³ Also outlined is the government's duty to hold, on behalf of the people, land and other natural resources, and to deploy these for the common benefit and development of the people.²⁴ The Constitution enumerates a set of environmental objectives under the 'National Policy and Principles and Objectives'.²⁵

Article 92 of the Constitution imposes a duty on both the federal and regional governments and their citizens

to protect the environment. It imposes an obligation on these governments to ensure that developmental projects do not damage the environment. It further assures participatory rights for citizens in the planning and implementation of environmental policies and projects that affect them directly. In addition, Article 85(1) mandates all organs of the federal and regional governments to be guided by constitutional objectives when implementing the country's environmental laws and policies.

Moreover, the Constitution stipulates that international agreements ratified by Ethiopia will become an integral part of the laws of the land.²⁶ To implement the provisions of such international instruments, it appears that national legislation needs to be promulgated. This can be deduced from Article 2(2) of the Federal Negarit Gazette Establishment Proclamation No. 3/1995, which provides that all laws of the Federal Government shall be published in the *Federal Negarit Gazette*. In addition, Article 2(3) of the same law states that all federal and regional legislative, executive and Judiciary organs, as well as natural or juridical person, shall take judicial notice of laws published in the gazette. This, however, seems to be inconsistent with Article 9(4) of the Constitution, which is understood to mean that international instruments will become part of the law of the land immediately upon their ratification. In the legal hierarchy, the Constitution prevails over the Federal Negarit Gazette Establishment Proclamation No. 3/1995.²⁷

Under Article 83 of the Constitution it is stated that all constitutional disputes shall be decided by the House of Federation. Nevertheless, this article by no means contests the authority of the courts to interpret the Constitution. However, the fact that multilateral environmental agreements (MEAs) have not yet been duly published in the *Federal Negarit Gazette*, or been translated into the

working languages of both the federal and regional governments, remains an obstacle to the practical enforcement of the MEAs by domestic courts.

THE REVISED CRIMINAL CODE (2004)

The Revised Criminal Code was adopted in 2004, but was not published in the *Federal Negarit Gazette* until 2006. The code contains the following detailed provisions on criminal activities relating to the environment:

■ *The Act*

'Crime' is defined as an act that is prohibited and made punishable by law. An 'act' consists of the commission or omission of what is prescribed by law.²⁸

■ *The Actor*

Both the individual and/or the corporation will become criminally liable if they are proven to have committed a crime. Criminal law shall apply to any person, whether national or foreign, who has committed a crime in the national territory, specifically the land, air and bodies of water to the extent determined by the Constitution.²⁹ Notwithstanding this, the provision requires the presence of legal, material and moral elements for an act to be considered a crime and for a juridical person to be held criminally liable for punishment under the conditions laid down in Article 34 of the Criminal Code.³⁰ The code refers to a corporation as a 'juridical person' and this therefore includes a body that has governmental or non-governmental and a public or private structure, as well as any legally recognised institution or association set up for commercial, industrial, political, religious or any other purpose.³¹ However, it is important to note that certain 'institutions' that are not legally recognised by Ethiopian law, such as newly emerging industries, may escape criminal responsibility because they fall outside the description of 'juridical person'.

■ *Status of an offender*

The rank, title or status of an offender within a company is disregarded when it comes to criminal culpability or responsibility. It makes anyone criminally liable if he or she happens to commit an offense, regardless of the authority the individual holds in a certain company. A juridical person shall be deemed to have committed a crime and will be punished accordingly where one of its officials or employees commits a crime in connection with the activity of the juridical person with the intent of promoting its interest by an unlawful means or violating its legal duty.³²

■ *The sanction*

Environmental enforcement strategy involves a three-pronged approach, based on regulatory, civil

and criminal enforcement. Severe punishments are stipulated for environmental crimes such as pollution, propagation of an agricultural or forest parasite, contamination of water, contamination of pastureland, mismanagement of hazardous wastes and acts contrary to the environmental impact assessment. A fine of up to 10 000 Birr,³³ or rigorous imprisonment for up to five years, is provided for in instances of discharging pollutants into the environment in contravention of the relevant environmental laws. If such pollution results in serious consequences to the health or life of persons, or to the environment, the term of imprisonment may extend to ten years.³⁴ Imprisonment for up to 15 years is provided for if a person intentionally poisons a well, cistern, spring, waterhole, river or lake.³⁵ If the environmental crimes provided for by a special section of the Criminal Code is imprisonment only, then the punishment shall be a fine not exceeding 10 000 birr. For a crime punishable with imprisonment not exceeding five years, the punishment shall be a fine of up to 20 000 birr. For a crime punishable with rigorous imprisonment of more than five years, but not exceeding ten years, a fine of 100 000 to 500 000 birr shall be imposed. Where only a fine for the specific crime committed is provided for, the fine shall be five fold.³⁶ However, the sanctions stipulated by the Revised Criminal Code hardly encompass all aspects of what are conventionally considered 'environmental crimes' and 'crimes against the wild life', such as illegal animal trafficking, deforestation, illegal hunting etc.

SECTORAL LEGISLATION

The Constitutional framework for environmental protection is also elaborated in the Environmental Protection Organs Establishment Proclamation No. 295/2002, the Public Health Proclamation No. 200/2000, the Environmental Pollution Control Proclamation No. 300/2002, the Environmental Impact Assessment (EIA) Proclamation No. 299/2002, the Development Conservation and Utilisation of Wildlife Proclamation No. 541/2007, and the Forest Development, Conservation and Utilisation Proclamation No. 542/2007.

The EIA Proclamation defines 'environmental impact' as any change to the environment or its components that may affect human health or safety, flora, fauna, soil, air, water or climate.³⁷ Such impact shall be assessed on the basis of the size, location, nature or cumulative effect in comparison with other concurrent impacts.³⁸ EIA is a legal requirement devised to implement the rights granted by the Constitution and protects against the violation of these by any person, particularly if such rights are violated in the guise of development.

To ensure enforcement of EIA, the EIA Proclamation also defines a set of environmental crimes. It provides for criminal liability for operating a development activity without obtaining the requisite authorisation from the Environmental Protection Authority (EPA), or the relevant Regional Environmental Authority (REA).³⁹ Making a false representation in the report, failing to keep the required records and failing to fulfil conditions attached to the authorisation are all offenses punishable by a fine of between 10 000 birr and 100 000 birr. It also provides for an additional fine of not less than 5 000 birr and not more than 10 000 birr for failure to exercise due diligence. In this regard, the Revised Criminal Code also labels certain acts concerning EIA as offences. It provides for imprisonment for a term of up to one year for a person who implements a development project requiring EIA without obtaining the requisite authorisation, or makes a false statement concerning EIA.⁴⁰

On the other hand, the Environmental Pollution Control Proclamation No. 300/2002 imposes a legal duty that, as a general principle, no person shall pollute the environment. If any person is engaged in any field of activity that is likely to cause an environmental hazard, such a person is legally required to install sound technology that will avoid or reduce the impact of any such hazard.⁴¹ This is a precautionary measure by the law to prevent environmental harm before it even happens.

To this effect, environmental inspectors are authorised to seek entry to any premises, to inspect and to seize any instrument.⁴² When a person contravenes any provision of this proclamation or any other relevant law, the inspector on duty shall specify the matter constituting the contravention and may also specify the measures that shall be taken to remedy the contravention. Article 13 of the same proclamation makes the following acts punishable:

- Any act of a person that hinders or obstructs an environmental inspector in the execution of his or her duty.
- Failure of a person to comply with lawful orders of an environmental inspector.
- Refusal to admit an environmental inspector onto any land or entry into any premise.
- Hindering an environmental inspector to obtain access to records.
- Preventing an environmental inspector from checking, copying or extracting any paper, file or any document.
- Withholding, misleading or giving wrong information to an environmental inspector.

If a 'natural person' is found guilty of any one of these crimes, then such a person will be punished by a fine of

not less than 3 000 birr and not more than 10 000 birr. If the offender is a 'juridical person', liability extends to a fine of not less than 10 000 birr and not more than 20 000 birr and the imprisonment of the officer-in-charge for a term of between one and two years, or a fine amounting to between 5 000 birr and 10 000 birr, or both.

A person, who by virtue of the proclamation or any regulation is required to keep records fails to do so or alters them, is punishable by a fine of not less than 10 000 birr and not more than 20 000 birr.⁴³ A person who fails to manage any hazardous waste or another substance according to the relevant laws, mislabels or fails to label, or in any way withholds information about any hazardous waste or other material, or attempts to take part in or aids the illegal trafficking of any hazardous waste or other material, is punishable by a fine of not less than 20 000 birr and not more than 50 000 birr. If the offender is a juridical person, punishment shall be a fine of not less than 50 000 birr and not more than 100 000 birr, while the officer-in-charge shall face imprisonment for a term of between five and ten years, or a fine of not less than 5 000 birr and not more than 10 000 birr, or both.⁴⁴

Article 17 of the Environmental Pollution Control Proclamation also empowers the trial court, in its discretion, to order the confiscation of anything used in the commission of the offence in favour of the state, or to dispose of it in any other way, and to order the offender to bear the cost of cleaning up and disposing of the substance, chemical or equipment.

The Development Conservation and Utilisation of Wildlife Proclamation No. 541/2007 seeks to conserve, manage, develop and properly utilise wildlife resources, and to create the conditions necessary for discharging government obligations assumed under treaties regarding the conservation, development and utilisation of wildlife.⁴⁵ The proclamation makes hunting of any game animal off limits to anyone except to those with hunting permits and to officials of the Ministry of Agricultural and Rural Development. A hunting permit may be issued for the collection of wildlife or wildlife products for scientific purposes.⁴⁶ In addition, a permit may be obtained for any activity of trade in wildlife and their products, including the ownership, sale, transfer, export and import of any processed or unprocessed wildlife product.⁴⁷

The proclamation makes it an offence for any person to commit an act of illegal wildlife hunting or trade, carry out unauthorised activities within wildlife conservation areas, or possess any wildlife or wildlife product without a permit. A person guilty of any of these offences shall be punished with a fine of not less than 5 000 birr and not more than 30 000 birr, or

with imprisonment of not less than one year and not exceeding five years, or both.⁴⁸ Under article 15(4) of the proclamation, wildlife anti-poaching officers are empowered to detain any offender who violates article 16 of the proclamation without a court warrant, and to hand over the offender to the appropriate law enforcing body. Furthermore, with the objectives of ensuring the development, conservation and the sustainable utilisation of the country's wildlife resource, Proclamation No. 575/2008 establishes the Ethiopian wildlife Development and Conservation Authority.

The Forest Development, Conservation and Utilisation Proclamation No. 542/2007 prohibits the cutting down or use of indigenous natural trees from a state forest, settling temporarily or permanently in, grazing domestic animals in, carrying out hunting activity in, keeping bee-hives in a state forest, or removing natural resources from state forest, all of which are punishable offenses.⁴⁹ Furthermore, it is made a prerequisite to obtain a license from the Ministry of Agriculture and Rural Development prior to undertaking large-scale farming, mining, road construction, water drilling, irrigation, dam construction and other similar investment activities.⁵⁰ The proclamation makes the cutting down of trees from a state forest punishable by imprisonment for a term of not less than one year and not more than five years plus a fine 10 000 birr. The setting of fire in a forest shall be punishable by imprisonment of not less than ten years and not more than 15 years, of rigorous imprisonment.⁵¹

An analysis of the legal regime pertinent to environmental crimes in Ethiopia shows that it suffers from inconsistent and contradictory structural arrangements. It also lacks structural hierarchy. This is best illustrated perhaps by the rules governing EIAs. On the one hand, the EIA proclamation makes the conduct of an EIA a mandatory prerequisite before any project is commended. On the other hand, investment licenses are issued to investors by the Investment Office rather than the EPA, even though the Investment Office is ill equipped to review EIA reports. Moreover, this creates confusion as to whether or not conducting an EIA is really a prerequisite. Regardless of the EIA, investors still manage to get the green light to commence their projects.

In addition, the Ministry of Agriculture and Rural Development is in charge of implementing the Forest Development, Conservation and Utilisation Proclamation. This places the department in control of two contradictory tasks, namely the promotion of farming on the one hand and forest conservation on the other. Quite apart from its lack of expertise and research capability, the EPA is in addition faced by the challenge of having to carry out its mandate through another

executive body. It is obvious that this situation reduces its effectiveness in preventing environmental crimes.

PUBLIC INTEREST LITIGATION

It is important to note that in addition to the inherent powers vested in the state to prosecute environmental crimes, members of the public are by law also empowered to prosecute environmental crime through public-interest litigation. Such litigation is a legal action initiated in a court of law for the enforcement of the public or general interest in which the public as a class has a pecuniary or other interest by which the legal rights or liabilities are affected.⁵²

Effective public interest litigation involves a unique bundle of procedures and substantive guarantees of rights. These include procedural flexibility, relaxed rules of standing, a broader interpretation of fundamental freedoms enshrined in the Constitution, remedial flexibility and ongoing judicial participation and supervision.⁵³ Under the Environmental Pollution Control Proclamation *locus standi* is granted to a private individual for initiating action 'against any person' who is allegedly causing or is likely to cause damage to the environment. Article 11 of the proclamation provides as follows:

Right to standing

- Any person shall have, without the need to show any vested interest, the right to lodge a complaint at the authority or the relevant regional environmental agency against any person allegedly causing actual or potential damage to the environment.
- When the authority or regional environmental agency fails to give a decision within 30 days, or when the person who has lodged the complaint is dissatisfied with the decision, he may institute a court case within 60 days from the date the decision was given, or the deadline for decision has elapsed.

Moreover, article 37 of the Constitution gives 'everyone' the right to bring any justifiable matter to a court of law, or to any other competent body with judicial power, for the purpose of seeking to obtain judgment. These provisions enable environmentalists, NGOs and even individuals to institute public interest litigations. However, the practicality of the rights given by the Constitution and article 11 of the proclamation are being tested in court, and the outcome does not look particularly encouraging at this point of time.

In public interest litigation the flexibility and a liberal approach of courts are of great importance in bringing to life the substantive laws enshrined in the Constitution and the Environmental Pollution Control Proclamation.

Unfortunately, in Ethiopia this fact seems to have been overlooked. In *Action for Professionals' Association for the People (APAP) vs. Environmental Protection Authority*,⁵⁴ the first case instituted under article 11 of the Proclamation, the court ruled that article 11(2) did not permit the APAP to sue the EPA. The appellate court upheld this decision. The case has been referred to the Federal Cassation Court to rule on whether or not the APAP or any other private organisation can sue the EPA.

It should be noted that the issue of *locus standi* and public interest litigation pertaining to *any* environmental crime is yet to be resolved since the APAP case was brought under the Environmental Pollution Control Proclamation and not Article 37 of the Constitution, which recognises public standing. There is thus still another opportunity within Ethiopian jurisprudence to test the practical applicability of the constitutional recognition of public standing in the enforcement of the law pertaining to environmental crime.

MULTILATERAL ENVIRONMENTAL AGREEMENTS

As has been noted, treaties enjoy a special place within the Ethiopian legal system. Agreements entered into by government have the force of law even before any formal domestication process ensues.

The government has so far adopted about 15 MEAs (see annexure, which also lists the dates of accession). The country is at different levels with regard to ratifying and implementing the various agreements. Although the ratification of MEAs is not the single most important task of governments, the Ethiopian government has not yet ratified some important treaties, such as the Ramsar Convention on Wetlands, and the Convention on Migratory Species, both of which are important in terms of the specific ecosystems they seek to protect.

Institutional framework for the management of environmental crimes

A number of governmental agencies have been entrusted with the task of overseeing environmental management in Ethiopia. Some of these organs and their mandates are discussed below with respect to their sufficiency and capacity to combat and control environmental crimes.

ENVIRONMENTAL PROTECTION AUTHORITY

The Environmental Organs Establishment Proclamation No. 295/2002 re-established the federal EPA as an autonomous organisation vested with expanded mandates. The law also decentralised the original central structure of environmental management.

REGIONAL ENVIRONMENTAL ENTITIES

Each of the 11 national regional states⁵⁵ is expected under Article 15 of the Environmental Organs Establishment Proclamation No. 295/2002 to establish an independent regional environmental agency, or designate an existing agency for environmental management. In accordance with this, each of the regional states has either formed an independent bureau responsible for environmental matters, or created a department for the environment in one of their bureaus. These regional environmental agencies have important functions with regard to the monitoring of and acting on environmental crimes. Pertinent legal provisions in this respect are charted out under Article 15 of Proclamation No. 295/ 2002 and include the following:

- Coordinating the formulation, implementation, review and revision of regional conservation strategies.
- Environmental monitoring, protection and regulation.

- Ensuring the implementation of federal environmental standards, as well as issuing and implementing no less stringent standards.
- Preparing reports on the respective state of the environment of their respective regions and submitting them to the federal government.

The environmental entities at regional level are, however, constrained to such an extent in their capacity (both with regard to human resources and finance) that they are unable to perform their functions according to expectations. Although more than five years have elapsed since the enactment of the law conferring the mandates above, no single region has so far managed to produce a state of the environment report.

ENVIRONMENTAL COUNCIL

The EPA is directly accountable to the Office of the Prime Minister. An Environmental Council, whose composition is greatly extended and is high in profile,⁵⁶ forms part of the organisational setup of the EPA. The council is very important in the environmental governance history of the country because of the powers vested in it. Under Article 9 of the protocol the following responsibilities are given to the Council:

- To review proposed environmental policies, strategies and laws, and issue recommendations to the government.
- Based on reports submitted to it by the EPA, to evaluate and provide appropriate advice on the implementation of the environmental policy of Ethiopia.
- To review and approve directives, guidelines and environmental standards prepared by the EPA.

The council is thus a critical structure in the national law-making process. Despite this, however, there are practical difficulties in placing draft documentation before the council for review and endorsement. The first meeting of the council⁵⁷ took place in March 2008, nearly five years after the enactment of Proclamation No. 295/2002. If this is any indication of the manner in which the council will be performing its functions, then it is clear that the body is not going to have a very significant impact on addressing environmental crime in Ethiopia.

SECTORAL ENVIRONMENTAL UNITS

It is stipulated by Proclamation No. 295/2002 that every sectoral ministry or agency should establish its own environmental unit to ensure that the environmental standards and laws of the country are complied with at any time during the course of their activities.⁵⁸ This is expected to promote coordination on environmental matters among sectoral ministries and agencies. One relevant mandate conferred on the EPA includes the responsibility to take part in negotiations of international environmental agreements and to ensure their ratification at country level.

ENVIRONMENTAL INSPECTORATE

A set of environmental standards is in force in Ethiopia. Enforcement of these standards is the responsibility of a specialised body of the Environmental Inspectorate constituted under Article 7 of the Environmental Pollution Control Proclamation No. 295/2002. The mandate of the inspectorate, which is to perform its task by continuous monitoring and surveillance, is vast, and is sometimes referred to by commentators as derogatory of the right to privacy as guaranteed by the Constitution. Environmental inspectors are empowered to –

- ensure compliance with environmental standards and related requirements;
- enter any land or premises at any time that seem appropriate to them without prior notice or court order;
- question any person alone or in the presence of witnesses;
- check, copy or extract any paper, file or any other document related to pollution;
- take, free of charge, samples of any material as required and carry out or cause to be carried out tests to determine whether or not such a material causes harm to the environment or to life;
- take photographs, measure, draw or examine any commodity, process or facility in order to ensure compliance with environmental standards; and

- seize any equipment or any other object that is believed to have been used in the commission of an offence related to the environment.

It is illegal to obstruct the conduct of business of environmental inspectors. A person who hinders an inspector in the execution of his or her duties, who fails to comply with a lawful order or requirement made by an inspector, impersonates an inspector, refuses an inspector entry onto any land or into any premises, hinders an inspector from getting access to records, prevents an inspector from checking, copying or extracting any paper, file or any other document, and withholds, misleads or gives wrong information to an inspector, is guilty of a criminal offence punishable by a fine and imprisonment under Article 13 of the proclamation.

In addition, when a person is found guilty of contravening any provision of the country's environmental laws, the inspector on duty may order the immediate cessation of the contravening activity. He must specify the matter constituting the contravention and may also determine the measures that shall be taken to remedy the violation within a given period of time.

ETHIOPIAN WILDLIFE CONSERVATION AUTHORITY (EWCA)

EWCA has responsibility for the management of wildlife in Ethiopia and is the country's focal point for CITES. It was recently placed under the Ministry of Culture and Tourism. Its legislative mandate includes the preparation of draft policies and legislation relating to the development, conservation and utilisation of wildlife resources. EWCA also issue regulations and directives to implement the Wildlife Conservation Proclamation No. 541/2007. It has the following mandate:

- To ensure that wildlife conservation areas are established in accordance with international standards with a view to facilitating their registration by the World Conservation Union.
- To ensure that the international treaties to which Ethiopia is a party, are implemented.
- To develop and administer wildlife conservation areas established by it and to control illegal activities committed in these areas.

Remarkably, EWCA's mandates are comparable to those of the Environmental Inspectorate. If implemented appropriately, the mandates enable the authority to combat many forms of wildlife violations. EWCA has the following powers, amongst others:

- To enter and search any private landholding, building, tent, vehicle, aircraft or boat and to inspect bags or sealed items without a court order where there are sufficient grounds to believe that wildlife or wildlife products are kept illegally.
- To seize and confiscate any wildlife or wildlife products that are the proceeds of an offence, as well as any weapon with which the offence has been committed.
- To detain, without a court order, a person who is found committing an offence and to deliver such a person to the appropriate law enforcement authority.

However, like many government institutions, EWCA lacks total autonomy and has been affected by government reorganisation. In not even a decade it has formed part of two ministries: first the Ministry of Agriculture and Rural Development and then the Ministry of Culture and Tourism.

FEDERAL POLICE COMMISSION

The Federal Police Commission was re-established in 2000, when its mandate over the control of crime in Ethiopia was expanded. According to its establishment proclamation, the commission is empowered to –

- prevent any crime;

- investigate crimes that fall under the jurisdiction of federal courts,
- execute orders and decisions issued by courts having judicial powers;
- safeguard the security of Ethiopia's borders, airports, railway lines and terminals, mining areas and vital institutions of the federal government;
- provide assistance in time of emergency and cooperate with concerned organs;
- render professional and technical advice and support to regional police commissions and, at the requests of regions, give assistance with regard to the prevention and investigation of criminal cases; and
- collect evidence, conduct research and distribute information and statistical data on crime, as well as create a nationwide system for criminal data collection and processing.

Despite this mandate, there appears to be a significant misunderstanding in the police force about its role with regard to environmental crime. This is evident from the low profile environmental crime holds within the Federal Police Commission. In part, this is because crimes of an environmental nature are a relatively new phenomenon in Ethiopia. Training for police officers in environmental law is quite minimal, and the frequency and intensity of courses needs to be enhanced.

Environmental crimes in Ethiopia

It is difficult to locate environmental cases that have gone through the full length of the criminal justice system in Ethiopia since many cases do not appear to be listed as offences against the environment or related subjects. Even where this is not the case, personnel at every level of the court bureaucracy does not seem to appreciate the distinct nature of environmental cases. Case files often disappear in congested filing systems and are not readily available to those wishing to do research. There is no centralised information system that sorts cases by the category of crime, although some efforts are now being made to digitise resolved and pending cases, particularly at the Federal Supreme Court. However, these efforts are not yet comprehensive enough to embrace environmental crimes.

Apart from these problems, an understanding of what constitutes environmental crime is still lacking, even at federal courts, and in the police and prosecutors' offices. Some key respondents, such as a federal court judge⁵⁹ and public prosecutors, have stated that they have never had the opportunity to participate in an environmental law awareness programme. The problem is far more pronounced in the regions, where capacity is at a very minimal level.

CRIMES IN THE FORESTRY SECTOR

Criminal cases concerning the illegal logging and conversion of forest areas into cultivated land are all concentrated in the Masha Woreda, Sheka Zone of the Southern Nations, Nationalities and Peoples Region (SNNP). Together with the Oromiya and Gambella regional states, the SNNP covers just three per cent of the forested area of Ethiopia. The forest area in the Southern Region has decreased tremendously in the last decade. In the 1970s this region's forest coverage was 19,9 per cent, compared to 11,2

per cent today, with most of the shrinkage have occurred in less than two decades. In the SNNP, in order to promote investment in the region, forest land is allocated to investors without the need for adequate feasibility studies, such as EIAs. The area has great economic potential as it is ideal for the cultivation of timber, coffee and other agricultural products, while natural resources such as gold offer additional opportunities for income and wealth creation. Commercial interest in exploitation of the region's resources is resulting in the illegal clearance of forests, especially in Masha Woreda of Sheka Zone, SNNP.

The magnitude of the problem in the forestry sector has led to several cases being prosecuted. The following six cases are an example of the difficulties being experienced.

In *Public Prosecutor vs Shegeche Shegeno & Alemu Ayano* (Masha Woreda Court, Sheka Zone SNNP, Criminal Case 595/99; case closed on 6/10/99 EC⁶⁰), the defendants were accused of committing an act of state forest destruction in violation of article 13(1)(b) of the Forest Development, Conservation and Utilisation Proclamation No. 94/1994 on Monday 18/3/99 EC. The trial date was set for 6/8/99 EC. However, the defendants failed to make their appearance in court and the court issued arrest warrants. Despite four subsequent arrest warrants being issued by the court, the defendants failed to appear in court. The court closed the case on the grounds of failure on the part of the police to apprehend and bring the alleged offenders to court.

In *Public Prosecutor vs Berhanu Seboka* (Masha Woreda Court, Criminal Case 758/99; judgment delivered on 30/9/99 EC), the defendant was accused of committing an act of state forest destruction and cutting down indigenous tree varieties of *Wanza* and *Kerero* on 16/8/99 EC in Wolo Kela Kebele in violation of article 13(1) of

Proclamation No. 94/1994. After conducting a site visit in the company of experts, the court observed that the defendant had trespassed on state forest premises and planted coffee trees after clearing the forest area. The court found the defendant guilty as charged and sentenced him to two months imprisonment.

In *Public prosecutor vs Berhanu Seboka* (Masha Woreda Court, Criminal Case 663/99; judgment delivered on 1/10/99 EC), the defendant was accused of committing an act of state forest destruction, cutting down of *Girar* and *Tid* trees and replacing them with coffee plantations in 1998 EC in Kela Kebele in violation of articles 13(1)(a) and 13(2)(a) of Proclamation No. 94/1994. Three witnesses testified to the fact that the defendant had committed an act of state forest destruction. The defendant, on the other hand, came up with a defence witnesses who established an alibi for the defendant. After conducting a site visit accompanied by experts, the court observed that the defendant had in fact trespassed on and cleared state owned forest, and had planted coffee trees in their place, thereby violating articles 13(1) and 13(2) of Proclamation No. 94/1994 and article 689 of the FDRE Criminal Code. The defendant was found guilty as charged and sentenced to imprisonment.

In *Public Prosecutor vs Demissie Shebto* (Masha Woreda Court, Criminal Case 640/97; judgment delivered on 20/6/98 EC), the defendant was accused of committing an act of state forest destruction in 1997 EC in Gura Shewa, Yina Kebele in violation of article 13(1) of Proclamation No. 94/1994 and article 364(b) of the 1957 Penal Code. The defendant admitted the allegations and the court sentenced him with a mitigated punishment of one-year imprisonment.

In *Public Prosecutor vs Haile Shegu Keno and others* (Masha Woreda Court, Criminal Case 133/99; case closed on 14/4/2000 EC), the defendants were charged with committing an act of illegal timber trade with the full knowledge that the timber was public property on 28/02/98 EC in violation of article 675(1) of the FDRE Criminal Code and article 13(1) (b) of Proclamation No. 94/1994. The defendants were also charged with illegal transportation and trade in public property. As the defendants failed to make a court appearance despite arrest warrants being issued repeatedly, the court dismissed the case, but reserved the public prosecutor's right to reinstate the case.

In *Public Prosecutor vs Tesema Nota and eight others* (Masha Woreda Court, Criminal Case No. 45/98; judgment delivered on 26/11/97 EC), the defendants were accused of committing an act of state forest destruction and illegal cattle grazing within the premises of an internationally designated forest area in violation of article 32(1) (a) of the FDRE Criminal Code and Proclamation No. 94/1994. All the defendants were found guilty as

charged and the court sentenced two defendants to two years' imprisonment and the rest to 1,5 years' imprisonment. The court's decision was upheld on appeal.

CRIMES IN THE WILDLIFE SECTOR

Generally, offences that amount to crimes against wildlife include habitat destruction, illegal poaching, cattle grazing, trade in wildlife products and tree removal for cultivation within legally designated wildlife conservation areas.

Following a 2004 CITES training event that took place in collaboration with the secretariat of the wildlife sector and EWCA, members of the newly constituted committee spent four months preparing for a law enforcement operation targeting souvenir shops in Addis Ababa, which included covert inspection of retail outlets selling ivory, and planning and coordination amongst participating institutions. The action was supported by the Addis Ababa City Council, the Federal Police Commission and the Ministry of Agriculture and Rural Development. In January 2005, 66 outlets in the sub-cities of Addis Ketema, Arada, Bole and Kirkos were raided by 262 officers, including 50 code enforcement guards, 136 policemen, 66 security guards and 10 wildlife inspectors. Around 500 kg of ivory and other illegal wildlife products valued at one million birr were confiscated and charges were laid against personnel in all 66 outlets. The alleged offenders faced a 5 000 birr fine and up to two years of imprisonment. This operation marked a change in traders' attitudes towards ivory sales. Traders are now more reluctant to engage in ivory trade, citing higher levels of enforcement as the main reason.

In September 2004, the Ethiopian Wildlife Conservation Department, the former name of the EWCA, confirmed the existence of 6 097,02 kg of ivory, of which 3 786,25 kg was stored in the Addis Ababa Government Store and at Mago National Park, and 1 790,16 kg was registered ivory in the hands of wildlife traders. However, it was also reported that around 1 700 kg of ivory was stolen during the first half of 2003. Following the 2004 CITES training event, legal action was taken against the keeper of the Addis Ababa Government Store. He was found guilty and fined 1 000 birr and sentenced to five years' imprisonment. He was subsequently released on bail after serving six months.

CRIMES IN PROTECTED AREAS

The Awash National Park: threats posed by sugar factory expansion

A national park is an area designated to the conservation of its wildlife and natural resources, and for the

preservation of the scenic and scientific value of the area, which may include lakes and other aquatic areas.⁶¹ Recently, the Metehara sugar factory proposed the construction of a new road through Awash National Park to transport sugar cane from the plantation to the factory. Although the road would shorten the travelling distance, it would bring with it constant human and vehicular intervention in the park. Moreover, it would make it difficult for park wardens to exercise effective control over the park, and would inevitably result in habitat destruction and ecological imbalances in the park. The modalities of construction, as well as the conclusions of an EIA will determine the legality of the intended project.

The Mago National Park: ongoing threats of encroachment

The most common action taken by park wardens to deal with cattle that are grazing illegally in a national park is to apply what is known as '*Afe Lamma*'.⁶² Whenever cattle cross a designated area they are held and kept in the custody of the park warden until such time that a person presumed to be the owner claims them. The warden then requires the owner to pay *Afe Lamma*, which is usually 10 Birr for each animal. However, such customary punishment may not be sufficient to compensate the park for the risk of cattle having a far more serious impact, such as the spreading of deadly diseases. Recently it was reported that cattle grazing illegally in the Mago National Park were the cause of an outbreak of anthrax,⁶³ to which human beings and wild animals are susceptible. The outbreak of anthrax in Mago resulted in the loss of more than 2 000 Lesser Kudu (*Ambar Ayle*).

The Babilie Elephant Sanctuary: disregard for EIA

'Sanctuary' means an area designated to the conservation of one or more species of wildlife that require high conservation priority.⁶⁴ The most significant elephant population in Ethiopia, about 27 per cent of the country's total elephant stock, is found in the Babilie Elephant Sanctuary, which is situated in a remote and hostile region of eastern Ethiopia. Over the past two decades, elephant numbers have shrunk owing to intensive hunting, as well as increasing pressure on and destruction of their habitats by nearby communities. Since the 1980s alone, Ethiopia has lost about 90 per cent of its elephant population. The dramatic loss of species habitat and open access to poaching for their tusks have been the major causes.

Extensive encroachment by villages, livestock and agriculture on the Babilie sanctuary has increasingly become a severe challenge to the continued existence of

that conservation area. A new threat is posed by the recent activities of a private company called Flora Eco-Power Holding AG, which is engaged in the development of a castor-seed plantation with the objective of meeting the demand for biofuels both nationally and globally. Allegations of serious malpractices accompany the company's good development intentions. It has secured 10 000 ha of land and is alleged to have encroached on the Babilie Elephant Sanctuary. It commenced its activities in March 2007 and with the help of 15 tractors it has cut down several acres of *Acacia Commiphora* in parts of the sanctuary. It is alleged that the company did not carry out an EIA before commencing its activities, or seek authorisation from the competent environmental authority. It is also said that it took no steps to comply with the mandatory requirements of the law before bulldozing the trees in the sanctuary and causing serious damage to the environment.⁶⁵

Abernossa Ranch: environmental impacts of an investment activity

Abernossa ranch was established in 1959 for the purpose of cattle breeding in an area of 4 240 ha of fenced land. It had 15 blocks for rotational grazing purposes. The ranch is said to have played a pivotal role in conserving the remaining Acacia woodland in the area and was declared a heritage site. The forest is home to wild species such as warthog, jackal, red duiker and bushbuck. The tree species found in the forest include those listed in Table 2.⁶⁶

Despite this status and the farm's conserved biodiversity, it was sold to a Pakistan-based investor, the Meriam Dairy Private Limited Company, which has major engagements in horticulture, milk processing, floriculture and poultry farming. The investor is obliged to save only two per cent of the trees on the 2 400 ha of land provided for the investment activity.

Preliminary indications are that no EIA was undertaken on the possible impacts of the investment activities. The communities living in the vicinity were not consulted on the sale of the ranch, nor were they informed that clearance of the forest would lead to serious changes in the ecosystem.⁶⁹

CRIMES RELATING TO POLLUTION AND ILLEGAL DUMPING

Findings from this study indicate that environmental crimes relating to pollution are more prevalent than is to be expected in Ethiopia. The cases unearthed during the course of the study demonstrate a disturbing trend. Most of the cases were not reported to the police and no action was thus taken to make the perpetrators accountable for their violations. Yet a strong legal and institutional

Figure 1 Activities undertaken to accommodate the intended flower farm⁶⁷



Source of photos?

Table 2 Forest destruction as a result of investment activity at Abernossa Ranch⁶⁸

Species	Number of trees within the investment area (2 400 ha)	Total volume of wood	Total number of trees to remain (2%)	Total number of trees to be cut down (98%)	Total volume of wood to remain	Total volume of wood to be cut down
A. sayal	8 960	175 689	179	8 781	3 514	172 175
A. Senegal	5 760	201 844	115	5 645	4 037	197 807
A. tortilis	119 040	6 855 974	2 381	116 659	137 119	6 718 854
B. aegyptiaca	19 200	819 090	384	18 816	16 382	802 708
A. etbaica	1 280	106 284	26	1 254	2 126	104 158
Total	154 240	8 158 881	3 085	151 155	163 178	7 995 703

framework has been put in place to fight environmental crime in Ethiopia.

The cases outlined below demonstrate the issue of poor enforcement of environmental legislation in Ethiopia and the lack of police involvement. Most people interviewed during the course of the study were not aware of the criminal implications of environmental violations and the need to report such crimes to the police.

Chemical smoke

Twenty employees of Freighters International PLC alleged that the neighbouring Stick Trade and Industry PLC was releasing highly concentrated pungent smoke into the atmosphere. They complained of having contracted eye diseases and respiratory tract disorders because of the smoke persistently and incessantly released from the

premises. The Addis Ababa EPA collected the requisite evidence and ordered the alleged offender to stop its activities. They further required the company to identify the constituents of the smoke released into the air. These orders were made on 28 August 2008, but by the time this report was compiled, no measures had been taken against the company, nor had there been any follow-up to ensure compliance with the orders. The case was not referred to the police.

Dynamite blasting near residential areas

Three hundred residents of the Kolfe Keraniyo sub-city petitioned against the Chinese Road Construction Project on the grounds that dynamite was being blasted in the middle of residential houses and that this was creating a hazard for humans and cattle. The complaint was presented to the Kebele Administration, which sought a response from the Addis Ababa EPA. The authority filed a report on the alleged offence, but by the time this report was compiled, no criminal or civil action had been taken against the project, nor had the case been referred to the police.

Release of pollutants to nearby streams

Extreme Hotel at Lidetta sub-city complained that the neighbouring wax factory was releasing pollutants with a foul odour to a nearby stream and that this was affecting its custom. To bring about a permanent solution, the hotel demanded that the factory be relocated to an industrial zone. The Addis Ababa EPA sent a fact-finding mission to the factory and compiled a report recommending that the factory –

- collect its liquid waste and release it in an appropriate place;
- build a slender chimney with an outlet 1 m above the roofs of the surrounding houses; and
- add chemicals to their product to treat any foul odour before it was released into the atmosphere

The EPA also recommended that the Environmental Protection Team of the sub-city should monitor the factory to ensure that the recommendations were implemented. The EPA recommendations were implemented by the factory.

Illegal dumping of construction materials

In Nefas Silk Lafto sub-city, 02 Kebele, Jarra Menafesha, material that had been excavated for the construction of a condominium was being dumped into a nearby tributary of the Akaki River. This resulted in the diversion of the

main course of the stream and the creation of artificial ponds. The blocking of the waterway disrupted a nearby ecosystem. Apart from this, 40 trees had been uprooted in the process of the illegal dumping. The alleged offenders were found to have secured no permit for dumping materials into the river system. The Addis Ababa EPA recommended that the Kebele Administration take remedial measures. However, the case was not referred to the police and no further action was taken.

Suspended particulates in the air

Twenty-six households petitioned for the cessation of the activities of Hailu Tessema Grinding Mill in Kirkos sub-city, Addis Ababa. The mill was alleged to be releasing suspended particulates that travelled across the fences of neighbouring properties and dirtied washing and food items. They also claimed that liquid wastes released by the mill were creating a favourable breeding ground for flies and other insects, and that this was causing disease. The mill was also alleged to be burning coffee husks, which was claimed to expose neighbours to allergic reactions. In a letter dated 4 February 2008, the Addis Ababa EPA instructed the owners to take the following actions:

- Raise the outlet of its chimney at least 2 m above the roofs of neighbouring buildings.
- Muffle the noise being produced by machinery.
- Cease all activities between the hours of 18:00 and 09:00.
- Replace wood-burning boilers with electrically-operated machines.
- Collect liquid wastes and dump it in an appropriate place.

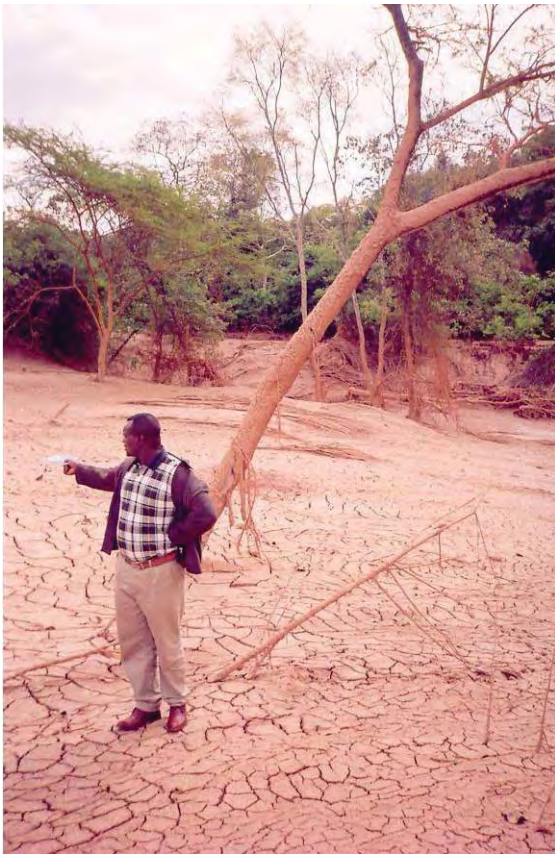
The authority also instructed the enterprise to report on its progress in compliance with the directives. The case was, however, not reported to the police.

Inappropriate chemical utilisation

A complaint was lodged before the Addis Ababa EPA against TNT Chemie Enterprise on the grounds that the warehouse of the enterprise was releasing a foul chemical odour that was believed to be hazardous to humans. The EPA report on a site visit listed the chemicals found, as follows:

- General purpose thinner (chemically unidentified), a flammable liquid with a vapour that forms an explosive mixture.
- Caustic Soda, 99 per cent.
- Acetone.

Figure 2 Some of the damage caused by the flooding from the dams⁷⁰



- A highly flammable chemical from Brenn Tag Company that is an eye irritant.
- A chemical with the commercial name of Voralux HL 106 PoL YoL, as well as an unlabelled chemical.

The site visit also established that the warehouse was built in the middle of a residential area, that the very small warehouse was congested with chemicals and that the person responsible for handling the chemicals was not well versed in ensuring occupational safety and did not have protective devices. The EPA made the following recommendations:

- The chemicals should be ventilated.
- Technical information on the chemicals should be posted on each container.
- The warehouse should be relocated to a more suitable site.
- The chemicals should be stored separately from each other in the warehouse.
- The person handling the chemicals should be given appropriate training.

The general manager agreed to implement the recommended measures. After several months of non-implementation, a letter of warning was issued, threatening appropriate legal action for failure to implement the directive of the EPA. The case was not referred to the police.

A DAM DISASTER AND DISREGARD FOR COMPULSORY EIA PROCEDURES

Kenticha Tantalum Mining Enterprise is located 553 km from Addis Ababa. In October 2007, two storage dams used for the collection of waste water from the mining area cracked and released their contents. The muddy water trailed its way through forests and dwelling houses for 8 km until it discharged into the Mormorra River. The FDRE EPA and the Environmental Protection Bureau of the Oromiya region rapidly made a joint assessment of the state of affairs and released a report in November 2007.

According to the report, the cause of the incident and the total loss incurred could not be established with any accuracy. It was estimated that the flood reached a height 5 m in some areas. The incident polluted the domestic water system of the nearby community, cost the life of one mine employee, disrupted the region's ecosystem, killed 13 goats, four cattle and two donkeys and destroyed the cropland of 24 households. The sediment blocked waterways and ponds, causing a critical water shortage to 56 households and their cattle.

The report confirmed that the mining enterprise was established in 1990, 12 years before EIA legislation came into force. But the audit team found that expansion work requiring an EIA was made in 2004 heedless of mandatory requirements. In addition, an environmental audit conducted by the EPA at the enterprise in 2004 had made it clear that there was a possibility of dam failure and that such a failure would result in a catastrophe. The company appears to have given no attention to this early warning. According to the report, there was an apparent violation of Article 26(3) of Mining Proclamation No. 52/93, which states that a licensee shall conduct mining operations in such a manner as to ensure the health and safety of its agents, employees and other persons, and to minimise damage or pollution to the environment.

This case demonstrates that a great deal of sensitisation still needs to take place in Ethiopia to bring environmental violations to light so that environmental crimes can be reported to the police for prosecution. Sensitisation needs to occur not only among the general public, but also at environmental agency level. Agencies need to be encouraged to report all violations to the police for prosecution.

COMPLAINTS LODGED WITH THE POLICE

It became clear while doing the research for this study that very few environmental violations are reported to police. However, at least a few cases, as outlined below, were found to be registered with the police.

Stolen density gauge containing Cesium-137 and Americium-241

The Ethiopian Radiation Protection Authority reported a missing density gauge (NDT) to the federal police. The density gauge found its way into the country without complying with permit procedures under Proclamation No. 79/1993 and without a declaration being made to the Customs Authority. It was brought into the country by the China Wanbao Engineering Corporation, which had won a bid from the Ethiopian Roads Authority to construction the Debremarkos road. The equipment was allegedly stolen from the construction project by an employee.

A report by the Ethiopian Radiation Protection Authority pointed out that the lost equipment contained highly radioactive elements of *Cesium-137* and *Americium-241*. The elements are carcinogenic for people that came in their vicinity and can also cause ailments that have trans-generational effects. Contact with the lost equipment was said to be fatal. Elements in the equipment could be employed to manufacture dirty bombs. In spite of their best efforts, the police were not able to locate the lost equipment. One thing that came out clearly from this case is that in order to handle a matter of this nature the police required highly specialised expertise, something they did not possess in this case. This highlighted the problem of a lack of adequate human and technical expertise within the Ethiopian police to deal with some of the more complex environmental crimes.

Attempt to release polybags contaminated with Linden and Tiram

This is a case involving forgery and threats to human health. The alleged offenders forged letters purporting to have been issued by the Ministry of National Defence. The letter in question was sent to the Ethiopian Seeds

Enterprise requesting 300 000 used polybags for use in the construction of forts on war fronts. Ethiopian Seeds appears to have been convinced of the authenticity of the request and solicited expert advice from the Crop Protection Department of the Ministry of Agriculture and Rural Development. The department issued a clear statement that the requested bags could be contaminated with the highly toxic chemicals of Linden⁷¹ and Tiram. It advised the enterprise that direct contact with these chemicals would have serious health implications and that the chemicals could pass to other environmental media through the agency of water and wind. It returned the letter to the enterprise with a request for more information about the intended use of the bags before it could authorise their release to the public.

In spite of the clear danger posed by the release of the polybags, the Ethiopian Seeds Enterprise proceeded to authorise the sale of the bags. Fortunately, the federal police intervened and stopped the transaction, and arrested all those who were involved. Preparations are being made to refer the case to the prosecution office.

THE PROBLEMS WITH THE SYSTEM

It can be surmised from the study that Ethiopia, like many of its underdeveloped counterparts, faces several challenges in its efforts to implement environmental legislation. Most of these challenges relate to capacity limitations in the police force and other agencies responsible for enforcing environmental legislation.

There is a general lack of awareness about environmental crime among members of the public, law enforcement agencies and the police. However, even those who are well enough informed to bring complaints generally fail to bring prosecutions to a successful conclusion because of the nature of the system, which has no clear understanding of environmental law. For example, if an environmental offence is reported to the EPA, which is rare, the authority dispatches investigators, does all the requisite research, but in the end does not proceed with prosecution. The reasons for this could either be inadequate knowledge about the next steps to be taken, or simply the result of neglect. Apart from the fact that most cases reported to the EPA are never referred to the police, the few cases that have actually made it to trial have faced considerable impediments during the litigation process because legal professionals and judges do not have the training that enable them to do justice to environmental laws.

Both the public and the judiciary have a distorted perception of what constitutes environmental crime. In most instances offenders are just penalised for trespassing or for having destroyed certain 'property'. The holistic concept of the environment as enshrined in the laws of

Ethiopia and the MEAs to which the country is a signatory is not reflected at all in patchy judicial decisions.

Another form of inconsistency is seen in administrative bodies. Governmental authorities often find themselves in a limbo as a result of contradictory demands. This is best illustrated by the Ministry of Agriculture and Rural Development, which is the administrative body responsible for regulating and developing Ethiopia's extensive agricultural activities. Its founding law demands that rural development is ensured and hence the ministry is expected to support the requirements of a large population. Yet, on the other hand, the same ministry is responsible for safeguarding the country's natural forests, which the general public in essence regards as good cropland.

Then there is the clash between investment and environmental concerns. It is a legal requirement that EIAs are conducted before certain investment projects are implemented. However, Investment Offices have failed to make this legal requirement a prerequisite for granting investment licenses, the reason mainly being

that enforcement of this legal requirement is presumed to hinder the country's development needs. Indeed, calling for EIAs is perceived as undermining the investment incentives that Ethiopia has to offer. Thus investment bureaus at both federal and regional levels seem to have given greater importance to 'easy access' than preventing often far-reaching environmental consequences. The EPA, on its part, has failed to enforce the EIA requirements strongly and to prosecute those who fail to comply.

In spite of the many challenges facing the enforcement of environmental legislation in Ethiopia, there are nevertheless some developments worthy of note. Cooperation between the Wildlife Trade Monitoring Network (TRAFFIC), EWCA, the federal police and the courts in the fight against wildlife crimes in Ethiopia is one such example. Training undertaken in this regard has led to a reduction in the number of reported cases of crime involving wildlife. It has also resulted in greater public sensitisation about wildlife crimes and the prosecution of a greater number of offenders.

Capacity needs to enhance the enforcement of environmental crimes

THE POLICE

The study has revealed that in spite of its elaborate legal and institutional framework, Ethiopia still faces several difficulties that need to be dealt with in order for it to effectively enhance its capacity to enforce environmental legislation. Capacity building, especially training, has been identified as one of the key actions that will remedy the situation. Accordingly, considerable time was spent during the study to identify the training needs of the various authorities dealing with Ethiopia's environmental legislation.

Heading up the list was training for the police and other law enforcement agencies. The police acknowledged that while they had received some training in environmental law, this had covered only a small portion of the force and had been very rudimentary. They called for more targeted training for both federal and regional law enforcement agencies. Police prosecutors also confirmed that while they had received some environmental training as part of ongoing legal education, much of the information received was patchy and lacked the comprehensiveness that would enable them to have a greater understanding of environmental crime and enhance their capacity to enforce the relevant laws.

The dean of training at the Police Training University College suggested that comprehensive training for police officers and prosecutors could be provided through the university college. He recommended that that training in environmental legislation should start with the constabulary and police cadets, and that courses be offered at both undergraduate and postgraduate levels. He observed that the general principles of environmental law could be integrated into the six-month training courses for the constabulary and cadets. The diploma in police science

should have the environmental component incorporated into the training programme. The dean's recommendations were strongly supported by academics at the university college and by the research division of the police.⁷² It was further recommended that comprehensive training should involve a thematic-based course led by experts contracted in for the purpose.

It was noted that the law enforcement agencies could not effectively do their jobs without public support. A corresponding effort was required to raise public awareness. Information should be made available to the public that would enable it to gain greater appreciation of the nature and types of environmental crimes being committed. Sensitisation awareness campaigns on environmental crimes should be targeted at local communities. Community participation in the policing of environmental crimes would assist greatly in complimenting the efforts of an overstretched police force.

The legal commander's office also noted the role that effective management of environmental crime could play in dealing with some of the environmental conflicts facing the country. It was pointed out that the new regions of Ethiopia, in particular the Afar and Somali regions, were a potential epicentre of resource conflict in view of the nomadic lifestyles of the inhabitants, a factor that often led to conflicts over water and pasture.

THE ENVIRONMENTAL PROTECTION AUTHORITY

The EPA reported its involvement in training activities on the basic principles of environmental law for the police, state prosecutors and inspectors. However, the training had been sporadic and had not provided the consistency that was required to enhance the capacities of the

law enforcement agencies. This lack of consistency was blamed on a shortage of resources, rather than on insufficient goodwill on the part of government.

The EPA is mandated to domesticate international environmental conventions to which Ethiopia is a party, among them the Cartagena Protocol, the Basel Convention, the Bamako Convention and the Convention on Trade in Persistent Organic Pollutants. However, with its limited legal staff and administrative predicament, this mandate has been difficult to pursue.

The EPA also has the responsibility of disseminating all legal proclamations to the nine regional authorities. However, it was reported that apart from logistical and financial impediments at the EPA, some regions were still developing their administrative systems and that literacy levels were often too low to enable the enforcement of environmental legislation. There was, therefore, a need to provide such authorities not only with rationalised or judicious environmental proclamations, but also Amharic versions of the same. The EPA draws its authority and funding directly from the Prime Minister's Office. Unfortunately, the EPA's budgetary needs have not always been met as they can be considered to be of lower priority. This has resulted in the EPA at times have insufficient resources to fulfil its mandate, especially when it comes to the production of the Annual State of Environment Reports.

SHORTAGE OF ENVIRONMENTAL INSPECTORS

A shortage of environmental inspectors was identified as one of the key difficulties in enforcing environmental legislation in Ethiopia. It was observed that the requirement for a wide range of specialists to act as environmental inspectors increased training difficulties. The professionals who undertook the role of inspectors served in a range of government agencies that had different organisational cultures. Coordinating and managing their performance had been a Herculean task. The training of environmental inspectors was probably best done by clustering them along professional lines. From its previous training experiences, the EPA noted that joint training between professionals from different government agencies, both at federal and regional levels, created opportunities for better coordination among the agencies. It was therefore proposed that future training should involve inter-agency participation in order to foster coordination.

In the relatively short period since its inception, the EPA has been able to strengthen coordination in environmental protection through joint training with the assistance of the Judicial Training Institute, the Green Customs Initiative and the United Nations Environmental

Programme's (UNEP) thematic training on, for example, the Basel Convention, CITES and other conventions. It was noted that there was a need to position the environment as a security concern in Ethiopia. Processes that could adopt capacity-building and monitoring mechanisms like those of the Bio-safety Clearing House (BCH) should be enhanced.

INADEQUATE ENVIRONMENT CRIME-TRACKING TOOLS IN ETHIOPIA

Crime-tracking tools and mechanisms were explained within the context of new and emerging forms of environmental crime in Ethiopia. The EPA's legal office noted that even though bio-piracy was a major problem in Ethiopia, the lack of a standard mechanism for communicating with other portfolios, for example those dealing with plants and wildlife, had meant that enforcement had been poor. Few lawyers have incorporated environmental law in their practice.

The difficulty of having poor environmental crime-tracking tools and poor coordination mechanisms was illustrated by a case of bio-piracy concerning the Ndoti plant. Ethiopia is the only source of Ndoti, which has components that weaken and kill the freshwater snail that provides a breeding home for bilharzias. Chemical producers in developed countries are exploiting this rare commodity. Because of the absence of a clear mechanism for tracking endangered plant species, plants such as Ndoti are regularly smuggled out of the country. Another example is coffee varieties that are indigenous to Ethiopia.

The EPA and the criminal investigations wing of the federal police also cited the inability or failure of the law to recognise the trade in and the smuggling of cultural heritage properties as a major area in need of reform. There is a dearth of coordinated information-sharing in this regard because of a lack of awareness and the rigidity of the law. It was observed that police have intercepted tourists smuggling century-old walking sticks with rhino horn and engraved handles. Old Ethiopian Orthodox Church crucifixes have also not been spared by this growing form of environmental crime. The feeling is that the only way to reverse this trend is to enhance awareness among the police and the public about the importance of preserving antiquities.

Poor data capturing and a shortage of storage facilities is further exacerbated by the lack of equipment to detect some of the more sophisticated environmental crimes. The EPA strongly advocated for the provision of the necessary equipment to deal effectively with environmental crime. An example is the rampant use of DDT. It was reported that farmers often use DDT to enhance the texture of their coffee berries, even though this is prohibited in

Ethiopia as it actually affects the market value of the crop. However, there is no mechanism to track the use of DDT in the country and it is therefore impossible to enforce the law banning its use.

INADEQUATE INFORMATION MANAGEMENT SYSTEMS

A shortcoming affiliated to a shortage of tools to manage, track and exchange environmental crime relates to information systems management. Generally, there is poor information-sharing between the government agencies responsible for enforcing environmental

legislation. Coordination and information-sharing is particularly important for the EPA and the police, but this hardly ever happens and, when it does, it occurs on an ad hoc basis. Only regular and consistent information-sharing would enhance the enforcement of environmental legislation.

The federal arrangement of Ethiopia's system of government was also presented as a challenge. It was noted that the different regional governments were at different levels of development and that some were lacking well-trained staff in the environmental area. It was therefore not possible to apply a uniform system of approach at national level for dealing with environmental crime.

Notes

- 1 The concept of environmental criminology is saliently captured in Brantingham, Paul J and Brantingham, Patricia L. *Environmental Criminology*. Long Grove: Waveland Press, 1990
- 2 The countries covered in the larger study include Uganda, Kenya, Tanzania, Rwanda, Burundi, Sudan, Seychelles and Ethiopia
- 3 Federal Democratic Republic of Ethiopia, *State of the Environment Report*, 2003
- 4 Government of Ethiopia, *Environmental Policy of Ethiopia*, 1997
- 5 Government of Ethiopia, *National Agenda 21 Implementation Review Report*, 2001
- 6 Federal Democratic Republic of Ethiopia, *State of the Environment Report*, 2003
- 7 Tadesse, Tsegaye. An overview of the forest ecosystems of Ethiopia: extent, trends and future directions. In Mengistu, Seyoum and Camille de Stoop (eds), *Environment for survival: taking stock of Ethiopia's environment*. Addis Ababa: Green Forum Conference Proceedings, No. 1 (2007)
- 8 Ibid.
- 9 Ibid.
- 10 Ibid.
- 11 Available at <http://chora.virtualave.net/biodiversity.htm> (accessed 20 October 2008)
- 12 Essa, John Abdu and Hurni, Hand, *Institutions in protected areas management in Ethiopia: evolution, outcomes and drivers of institutional changes*. Available at http://www.eeacon.org/6th%20Int'l%20papers/John%20Abdu%20JonH_Institutions%20in%20PAs_evolution%20final%20%7Bsub%7D.htm (accessed 20 October 2008)
- 13 Federal Democratic Republic of Ethiopia, *State of the Environment Report*, 2003
- 14 Mckee, Jonathan, *Country Environmental Profile: Ethiopia*, unpublished, 2007
- 15 Available at <http://www.pops.int/documents/implementation/nips/submissions/Final%20NIP%20Ethiopia.pdf> (accessed 20 October 2008)
- 16 Article 8, Solid Waste Management Proclamation No. 513/ 2007
- 17 Mckee Jonathan, *Country Environmental Profile: Ethiopia*, unpublished, 2007
- 18 Interview with Getaneh Gebre, Pollution Control Department, Addis Ababa Environmental Protection Authority
- 19 Article 9(1), Constitution of the Federal Democratic Republic of Ethiopia, Proclamation No. 1/1995
- 20 Article 44, Ibid.
- 21 Article 43(4), Ibid.
- 22 World Commission on Environment and Development, *Our Common Future*, 1987, 43
- 23 Ibid.
- 24 Article 89(5), Constitution of the Federal Democratic Republic of Ethiopia, Proclamation No. 1/1995
- 25 Ibid.
- 26 Article 9(4), *ibid.*
- 27 Article 9(1), *ibid.*
- 28 Article 23(1), Ethiopian Revised Criminal Code, 2004
- 29 Article 11, *ibid.*
- 30 Read together Articles 23(2), 23(3) and Article 34, *ibid.*
- 31 Article 34(4), *ibid.*
- 32 Article 34(1), *ibid.*
- 33 One USD is approximately equivalent to 11 birr (January 2009)
- 34 Article 519, *ibid.*
- 35 Article 517(2), *ibid.*
- 36 Read Article 524 in conjunction with Article 90(3) and 90(4), *ibid.*
- 37 Article 2(4), Environmental Impact Assessment Proclamation No. 299/2002
- 38 Article 4, *ibid.*
- 39 Article 18(2), *ibid.*

- 40 Article 521, Ethiopian Revised Criminal Code of 2004
- 41 Articles 3(1) and 3(3), Environmental Pollution Control Proclamation No. 300/2002
- 42 Article 8, *ibid.*
- 43 Article 14, *ibid.*
- 44 Article 15, *ibid.*
- 45 Article 3, Development Conservation and Utilisation of Wildlife Proclamation No. 541/2007
- 46 Article 9, *ibid.*
- 47 Article 12, *ibid.*
- 48 Article 16(1), *ibid.*
- 49 Article 14, Forest Development, Conservation and Utilisation Proclamation No. 542/2007
- 50 *Ibid.*
- 51 Article 20, *ibid.*
- 52 Black's Law Dictionary, 1990 (7th edit.), 1 229
- 53 See J Cassels, Judicial Activism and Public Interest Litigation in India: Attempting the Impossible?, *American Journal of Comparative Law*, 1989, 498
- 54 Civil File No. 64902, Federal First Instance Court of Ethiopia
- 55 These include the two city states of Addis Ababa and Dire Dawa, which are considered autonomous regions under the 1995 Ethiopian Constitution
- 56 The Environmental Council, created under Article 8 of Proclamation No. 295/2002, is comprised of the Deputy Prime Minister, Chairman; the State Minister, Ministry of Agricultural and Rural Development; the State Minister, Ministry of Mines and Energy; the State Minister, Ministry of Water Resources; the State Minister, Ministry of Public Works and Urban Development; the State Minister, Ministry of Trade and Industries; the Mayor, Addis Ababa City Administration; the Mayor, Dire Dawa City Administration; the Head, National Regional States (all); the President, Ethiopian Chamber of Commerce; the President, Forum for Environment; the President, Confederation of Ethiopian Trade Unions; and the Director- General, EPA
- 57 The composition of the Environmental Council was announced in a letter dated 21 September 2007
- 58 The institutions that have so far complied in implementing this provision by assigning environmental units are the Ethiopian Electric Power Corporation, the Ethiopian Roads Authority, the Ministry of Mines and Energy, the Ministry of Water Resources, and the Ministry of Agriculture and Rural Development. But most of these entities have failed to assign personnel to engage in the task of environmental monitoring, nor have they assigned the required funding
- 59 Interview held with Filipos Aynalem, judge of the Federal High Court
- 60 Dates are according to the Ethiopian calendar (EC). In comparison with the Gregorian calendar generally used throughout the world, the EC has a seven-year lag in the months between January and September, and an eight-year lag during the months between September and December.
- 61 Article 2(8), Wild Life Conservation Proclamation 541/2007
- 62 *Afe Lamma* is a form of customary punishment applied to cattle owners without the need to proceed to a formal court
- 63 Anthrax is an acute infectious disease most common in agricultural areas and primarily in livestock
- 64 Article 2(9), Wild Life Conservation Proclamation 541/2007
- 65 Demeke, Yirmed and Aklilu Negussu Alarm bell for biofuel development in Ethiopia: the case of Babilie Elephant Sanctuary, in Tibebeba Heckett and Negussu Aklilu (eds), *Agrofuel development in Ethiopia: rhetoric, reality and recommendations*, Addis Ababa, unpublished, 2008.
- 66 Alem, Shiferaw, Investment – a threat to the Central Rift Valley of Ethiopia: the case of Abernossa Ranch, unpublished, 2007
- 67 Source: *ibid.*
- 68 Source: *ibid.*
- 69 *Ibid.*
- 70 Source: Assessment report by FDRE and Oromiya EPAs, November 2007
- 71 Linden is one of the chemicals strictly regulated under the Stockholm Convention on Persistent Organic Pollutants. Ethiopia is a party to this Convention (see Annex II).
- 72 It should be noted that the Ethiopia Police University College has made significant efforts to increase the professionalism of Ethiopia's police force and the police forces in neighbouring countries. The university college provides instruction in police science and law at certificate, diploma, undergraduate and postgraduate levels. It has a well-established curriculum that addresses a range of aspects, from international human rights law and policing to humanitarian law. However, environmental law and related crime issues are not addressed adequately. It was noted that this is one of the main aspects the police and the university administrators are seeking to reverse. As such, all efforts that would lead to better-trained instructors and trainees in environmental law, human security and environmental crime were welcomed. See *The Ethiopia Police University College Academic Programme and Calendar, 2007-2008*, EPUC, Addis Ababa, 2008.

Appendix

Multilateral environmental agreements to which Ethiopia is a party

No.	Multilateral environmental agreements	Adoption	Entry into force	Adoption by Ethiopia
1	Convention on Biological Diversity (CBD)	22 May 1992	29 December 1993	31 May 1994 (Proclamation 98/1994)
2	Cartagena Protocol on Biosafety to the Convention on Biological Diversity	January 2000	September 2003	Signed – 24 May 2000 Ratified – 22 Sept 2003 (Proclamation 362/2003)
3	Convention to Combat Desertification	1994	26 December 1996	Ratified – 1997 (Proclamation 80/1997)
4	International Treaty on Plant Genetic Resources for Food and Agriculture	November 2001	June 2004	Ratified – 2003
5	Vienna Convention for the Protection of the Ozone Layer	March 1985		Became a party on January 1996
6	Montreal Protocol on Ozone Depleting Substances	September 1987	1 January 1989	Became a party on January 1996
7	UN Framework Convention on Climate Change (UNFCCC)	1992	March 1994	31 May 1994
8	Kyoto Protocol to the UNFCCC	December 1997	16 February 2005	21 February 2005
9	Stockholm Convention on Persistent Organic Substances	May 2002	17 May 2004	Signed – 17 May 2002 Ratified – 2 July 2002 Proclamation 279/2002
10	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	10 September 1998		Ratified – 2 July 2002 Proclamation 278/2002
11	Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal	1989	1992	Ratified – 31 February 2000 Proclamation 192/2000
12	Basel Ban Amendment	22 September 1995		Ratified – 3 July 2003 Proclamation 356/2003
13	Protocol on Liability and Compensation for Damages Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal	10 December 2000		Ratified – 3 July 2003 Proclamation 357/2007
14	Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa	30 January 1991	22 April 1998	Acceded – 2002 Proclamation 355/2003
15	Convention on International Trade in Endangered Species of Wild Fauna and Flora	Signed – 3 March 1973	Entered into force – 1 July 1975	Ratified – 4 July 1989

