



# Compliance with international environmental standards and expectations: review of international developments

by J. Glazewski\* and S. Posnik†

## Introduction

The mining industry in South Africa has developed its own environmental guidelines in the form of an *Aide-Mémoire*<sup>1</sup>, which is an extension of the previous rehabilitation provisions to include all aspects of the environment and all phases of a mining operation. This development, at the time, recognized an international trend towards the formalization of environmental management in mining practice, which resulted from the realization of the large environmental liabilities that mines could face, particularly on closure. Over the past decade the international environmental focus in the mining industry has moved from operational management, to the reduction of liability on mine closure. Mine closure guidelines are being developed internationally by nations (for example, SRK, 1998<sup>2</sup>) and by large mining groups (for example, Rio Tinto, 1998<sup>3</sup>). In South Africa the Department of Minerals and Energy (DME) is presently reviewing the *Aide-Mémoire* to bring it in line with international and local developments and a separate mine closure plan is being considered.

The main pieces of recent legislation and policy that have influenced South African environmental regulation for mining are the Constitution Act, 108 of 1996, the White Paper on Environmental Management Policy for South Africa, 1998, the National Environmental Management Act (NEMA), 107 of 1998 and the National Water Act, 36 of 1998. International law and its underlying principles have been incorporated into this South African legislation and policy. With the promulgation of the NEMA, the international norms of environmental management have been provided for, such as sustainable development, the precautionary principle, the preventative principle and the polluter pays principle. Co-ordination with other state departments and consistency between the NEMA and other legislation that impinges on environmental control is evident in recent legislation and the revised *Aide-Mémoire* for the mining industry should reflect these norms and standards.

This paper presents a review of the international developments in environmental norms and standards that apply to the mining industry. International environmental trends are summarized. Comment is made on the incorporation of the international dimension into South African law, policy and guidelines and some discussion is presented on the Minerals Act 50 of 1991 and the NEMA. The paper ends with a case study from Queensland, Australia<sup>4</sup>, which illustrates some of the factors that influence the standard of environmental practice, despite international pressures and internal legislation. The success of environmental management in the mining industry is not realized by the

existence of internationally acceptable law, but is directly influenced by the choices made at a political level. Is economic growth or environmental and social stewardship the real motivator of government action?

## The international dimension

### *Mining and sustainable development*

The notion of sustainable development is the cornerstone underlying all of the rapidly developing international environmental law norms and standards. Sustainable development is also the anchor which underpins the national environmental management principles laid down in the domestic National Environmental Management Act, 107 of 1998 (NEMA). The founding principle provides:

'[e]nvironmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably'<sup>5</sup>.

The commitment to sustainable development is evident in the subsequent provision, which states that '[d]evelopment must be socially, environmentally and economically sustainable'<sup>6</sup>. This is followed by the provision that 'sustainable development requires the consideration of all relevant factors...' and elaborates this by a further eight sub-principles<sup>7</sup>. These eight are crucial and stipulate internationally emerging environmental norms, such as the precautionary principle, the preventive principle and the polluter pays principle<sup>8</sup>.

The internationally accepted definition of sustainable development is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'<sup>9</sup>. But it is immediately evident that the notion of sustainability is difficult to apply to minerals, which by their nature are non-renewable, and their extraction destroys the resource. This is, however, a narrow definition of sustainable development. A more expanded and comprehensive definition of sustainable development emphasizes long-term macro-economic growth rather than short-term financial gains:

\* *Institute of Marine and Environmental Law, University of Cape Town.*

† *Sue Posnik and Associates, Environmental Consultants cc.*

© *The South African Institute of Mining and Metallurgy, 2000. SA ISSN 0038-223X/3.00 + 0.00. First presented at the SAIMM Colloquium National Environmental Management Act—Implications for the Mining and Metallurgical Industry, Nov. 1999.*

## Compliance with international environmental standards and expectations

... improving the quality of human life while living within the carrying capacity of supporting ecosystems. A *sustainable economy* is the product of sustainable development. It maintains its natural resource base. It can continue to develop by adapting, and through improvements in knowledge, organization, technical efficiency and wisdom<sup>10</sup>.

In Australia, a country blessed with abundant mineral wealth like South Africa, the notion of sustainable development has been modified to ‘..ecologically sustainable development’ (ESD), which is described as:

development that improves the total quality of life, both now and for the future, in a way that maintains the ecological processes on which life depends<sup>11</sup>.

It is evident that this approach can comfortably accommodate non-renewable resource extraction under the umbrella of sustainability. Sustainability in the minerals context ultimately depends on how the extracted minerals are utilized—is the mineral in question benefited in South Africa, providing jobs and social security for local communities or is the raw material exported to the USA, for example, where it provides vital components to send rockets to Mars?

### **Trends in international environmental law**

In a comprehensive review of trends in international environmental law affecting the mining industry, George Pring *et al.* make some important observations<sup>12</sup>. First, they point out that there is a growing body of international legal regulation affecting every phase of the mineral industry’s future, from access to process to final closure<sup>13</sup>. More specifically, they state that the minerals industry is entering a new era as we enter the 21st century in that the minerals industry is facing changes and opportunities that will dramatically influence its opportunities and successes in years to come. These changes can be seen in various areas: in shifts in supply availability, consumer demand, political restructuring, economic transformations, social and unilateral developments, changing public attitudes about mining and minerals and the emergence of the new international paradigm of sustainable development, referred to above. In the South African context, one can add a further feature, namely the restructuring of the major mine houses and mining conglomerates.

Pring *et al.* predict that, in the international context, the mining industry is entering into an era of increased regulation, affecting all phases of activity from exploration and extraction to processing and rehabilitation. This increased regulation is occurring at both the national and international level. At the national level, more countries are adopting framework environmental laws and more detailed standards. More significantly, these authorities point to the increase in international environmental law—a growing body of legal authorities at the multi-national or multi-institutional level that operate both directly to regulate the industry and indirectly to promote more stringent national laws. The authors point out that the concept of sustainability is being applied to mining insofar as its requirements encourage the rational use of non-renewable resources and the preservation of a country’s social, cultural, economic and environmental resources<sup>14</sup>. They further point out that the temptation to ignore international law should be avoided and endorse an

observation that ‘almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time’.<sup>15</sup>

Finally as regards international law, these authors point out firstly, that customary international law impacts the mining industry in that the principles of customary international law inhibit mining activities in areas beyond national jurisdiction, for example, mining the deep sea-bed or on the Antarctic continent. Secondly, and more importantly, they identify five categories of international treaties which place certain geographic areas off-limits to mining and other forms of development<sup>16</sup>. These can be summarized as follows:

- *Special area preservation.* Since the 1940s there has been an emergence of treaties and national laws to protect parks, wilderness, wild and scenic rivers, wetlands, coastal regions, and similar national areas, as well as areas valued for historical, cultural, palaeontological and related reasons. The pre-eminent example is the 1972 UN Educational, Scientific and Cultural Organization (UNESCO) Convention for the Protection of the World Cultural and Natural Heritage, which obliges countries to protect listed heritage sites. A topical example is a proposal to build a hotel-casino complex on the Zambian side of the Victoria Falls. The declared heritage site straddles the Zambian and Zimbabwean borders.
- *Biological protection laws.* The chief example here is the Convention on Biological Diversity which South Africa has adopted. The Convention emphasizes the equitable sharing of benefits with the country from which resources are taken. Similarly, the 1983 Convention on the Conservation of Migratory Species of Wild Animals (Bonn), obligates 52 countries to protect endangered and threatened wild animals that migrate between countries.
- *‘Global commons’ protection laws.* Three vast areas with mineral potential are outside the limits of national jurisdiction: Antarctica, the deep sea-bed and outer space. Pring *et al.* emphasize that no longer is the minerals industry able to have free reign in these areas as a result of these various treaties<sup>17</sup>.
- *Environmental impact assessment treaties.* Pring *et al.* comment that one of the strongest trends in global mining, which can only be expected to spread, is the requirement of environmental impact assessment<sup>18</sup>. Environmental assessment is generally applied in South Africa and although mining has been omitted from the list of activities requiring environmental impact assessment under regulations made under the Environment Conservation Act, 73 of 1989<sup>19</sup>, the mining industry has set its own environmental impact and rehabilitation requirements through the Environmental Management Programme Report (EMPR).
- *Public participation requirements.* A new development with far-reaching implications for the mineral industry in the international context is the adoption of the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters<sup>20</sup>. Access to information in

## Compliance with international environmental standards and expectations

the South African context is a Constitutional requirement and is currently being addressed by Parliament in the form of the Open Democracy Bill. The Bill is expected to be passed very soon.

Furthermore it should be noted that a number of international environmental treaties, to which South Africa is a party, have an impact on the mining industry. As regards the generation and transboundary movement of hazardous waste, the Basel Convention on the transboundary movement of hazardous waste and its disposal, is also relevant. As regards common spaces such as the deep seabed or Antarctica, the Law of the Sea Convention 1982 (LOSC) and the Antarctic Treaty Regime are relevant. As regards air pollution, the minerals sector should also take note of the UN Framework Climate Change Convention (FCCC) which has been ratified by South Africa. It is also considering adopting the Kyoto protocol under the FCCC. More generally as regards air pollution, a Heavy Metals Protocol has been adopted under the 1979 Convention on Long-Range Transboundary Air Pollution. The Vienna Convention on the Protection of the Ozone Layer is also relevant to the minerals sector.

### **International trends: summary**

In summary, one can list over two dozen discrete but interrelated international trends which are pushing the mineral resources industry into this new regulatory era<sup>21</sup>:

- Globally, every phase of mineral development—from exploration through end product marketing and restoration liability—is being subjected to increasing levels of government regulation.
- ‘Sustainable development’ continues to evolve as the new standard for regulating all forms of economic development, including mineral resources.
- The public and regulator perception of the minerals industry is changing from viewing it as a provider of beneficial goods and services to viewing it as another ‘chemical industry’ and creator of ‘chemical wastes’.
- Mining is losing its status as both a preferred land use and preferred economic activity.
- While the primary regulatory mechanisms will remain national environmental law, international law is increasingly affecting the mineral industry both directly and indirectly.
- Multi-national approaches to environmental issues are on the rise, and nations are increasingly surrendering portions of their sovereignty over natural resources by adopting international treaties and other agreements.
- Principles adopted as ‘soft’, non-binding, or aspirational international law develop over time into ‘hard’, binding, regulatory international law.
- International Governmental Organizations (IGOs) are reorganizing to integrate sustainable development into their planning, operational budgets and programme requirements.
- International financial organizations (IFOs) are increasingly taking sustainable development into account and placing ‘green conditionalities’ on their loans and other aid.
- National laws and definitions of ‘industry standards’, reasonableness, best practices, best available technologies, and so on, are evolving from international laws and standards.
- Access to lands for exploration, mining, processing, and so on, is becoming more restricted or banned under both international and national law.
- Mineral activities in large areas of the Earth, particularly the ‘global commons’ such as the deep sea-bed and Antarctica, are becoming subject to international regulation or prohibition.
- Minimum water, air and other quality standards are becoming more uniform worldwide.
- Transboundary pollution is more and more being subject to bilateral, regional and/or international regulatory approaches.
- International trade agreements are growing in importance and are becoming vehicles for additional restrictions or outright bans on environmentally unpopular minerals, processes, by-products, and products.
- Courts are beginning to impose ‘home’ country legal standards and liability on mineral operations carried out in other countries.
- The mineral industry itself is expanding international environmental law by adopting self-governing codes of conduct, guidelines for best practices and intra-company rules.
- The public participation of NGOs and individuals is expanding worldwide, often providing a force for policy and regulatory reform and monitoring.
- Increasing recognition of the rights of indigenous and tribal peoples and local communities is resulting in their greater participation in the mineral project decision process and in the distribution of fiscal and other benefits.
- Consumer environmental awareness is growing worldwide and will increasingly play a role in the demand for end products and legal controls.
- The Internet provides IGOs, NGOs and individuals with exponentially increased ability to collect, analyse, and disseminate information, including data useful for pressuring companies over perceived environmental shortcomings.
- The spectre of ‘retroactive liability’ (à la the US ‘Superfund’ law) means the mineral industry may not safely rely on current non-stringent national environmental laws, but must plan now to hit the moving target of future ‘international standards’.
- Weak to non-existent national compliance with or implementation of international environmental laws cannot be counted upon as a continuing safe harbour, for the same reason.
- A growing number of international and national health and environmental regulations are being adopted based on the ‘precautionary principle’, not necessarily on scientific data.
- European nations are the leaders in trying to ‘internationalize’ regulations on minerals—principally through three entities, the European Union (EU), the Organization for Economic Co-operation and Development (OCED) and the UN Economic Commission for Europe (UNECE). While this is ostensibly to ‘level the playing field’, in some cases economic protectionism is the driving force.
- The development, expansion, and changes in interna-

## Compliance with international environmental standards and expectations

tional law now routinely occur in Conference of the Parties (COP) meetings and international government organizations (IGOs) committees and workgroups, expert panels, and other international venues, making it critically important that these activities be regularly monitored, researched, and participated in by all parties concerned with the long-term future of the mineral resources industry.

### Offshore minerals

Sight should not be lost of the fact that South Africa, apart from terrestrial minerals, also enjoys offshore mineral resources, such as diamonds off the west coast and oil and gas reserves off the south coast. International law has a long history of regulation and exploitation of offshore minerals. The history of this goes back to the 1945 declaration of President Truman of the US where he proclaimed that the resources of the seabed and subsoil pertained to the US. This culminated in acceptance of the continental shelf doctrine in the LOSC whereby coastal states have the right to mine the seabed and subsoil. This has been endorsed in the South African Maritime Zones Act, 15 of 1994.

### The incorporation of the international dimension into South African law

#### International law and the South African Constitution

Historically the South African legal system has had difficulty in embracing international law for political reasons but, as pointed out by Dugard, recent events have paved the way for, what he terms, a 'renaissance of international law' both in foreign policy and in the jurisprudence of the courts<sup>22</sup>. This new elevated status of international law in South African domestic law has been formalized by the Constitution in Chapter 14<sup>23</sup>, which also sets out the respective roles of the executive and legislative arms of government in this regard.

Firstly, the Constitution confirms the common law position that customary international law is law in the Republic unless it is inconsistent with the Constitution or an Act of Parliament<sup>24</sup>. It also confirms that all international agreements, which were binding on the Republic prior to the enactment of the Constitution, continue to be in force<sup>25</sup>. Secondly, it provides that, when interpreting legislation, courts must prefer any reasonable interpretation of the legislation that is consistent with international law over any alternative interpretation that is inconsistent with international law<sup>26</sup>. This section is complemented by a provision in the Bill of Rights chapter, which states that '...in interpreting the Bill of Rights, a court, tribunal or forum...must consider international law...'<sup>27</sup>

Finally, the Constitution deals with the respective rights and obligations of the executive and legislative arms of government regarding the adoption of international agreements. The negotiation and signature of all international agreements is the responsibility of the executive<sup>28</sup> but it is binding on the Republic internationally only after approval of both the National Assembly and National Council of Provinces (NCOP)<sup>29</sup>. An exception is if it is an international agreement of a technical, administrative, or executive nature, or an agreement which does not require ratification

or accession, it must simply be tabled in the Assembly or NCOP within a reasonable time<sup>30</sup>. The National Environmental Management Act, 107 of 1998, also includes a chapter on International Obligations and Agreements, which is now dealt with. It is thus clear that the Constitution firmly embeds international law into South African law.

#### The NEMA and international environmental law

One of the principles of the National Environmental Management Act, 107 of 1998 provides:

'Global and international responsibilities relating to the environment must be discharged in the national interest'<sup>31</sup>,

thus acknowledging South Africa's international responsibilities including its environmental responsibilities. More specifically, chapter 6 of the NEMA provides for 'International Obligations and Agreements'. Chapter 6 of the NEMA comprises of three sections<sup>32</sup>, which are largely declaratory of existing practice, and adds only minor substantive additions to it. This chapter is probably motivated by the fact that, although international law generally is a matter which falls under the jurisdiction of the Department of Foreign Affairs, the Department of Environment Affairs and Tourism has become actively involved in negotiating and implementing the many international environmental conventions which have come into being in the recent past. The above illustrates the prominence that the South African legislature places on international environmental obligations.

Particularly important is section 25(3) of the NEMA however, which supersedes and refines a similar provision in the Environment Conservation Act, 73 of 1989, empowering the Minister to pass domestic legislation or regulations to give effect to any international instrument, which South Africa is a party to.

#### Policy and guideline documents

*White Paper: A Minerals and Mining Policy for South Africa*<sup>33</sup>

The White Paper (the Minerals White Paper) demonstrates the new government's commitment to sustainable development in the mining industry in chapter 4 entitled 'Environmental Management'. It acknowledges the constitutional environmental right and specifically states that 'it is essential to integrate environmental impact management into all economic development activities and that this is in the interest of government's overarching goal of sustainable development'<sup>34</sup>. It also states that a balance should be maintained between encouraging economic development and preserving high standards of environmental management<sup>35</sup>.

It then sets out a number of specific points which give substance to its commitment to sustainable development, namely that<sup>36</sup>:

- Conservation areas including parks, reserves, wilderness areas, and cultural and archaeological sites should be protected
- The rehabilitation of defunct and derelict mines which are a risk to the environment, public safety and human health should be appropriately regulated
- The environmental damage caused by the mining

## Compliance with international environmental standards and expectations

industry should be managed and contained irrespective of the size of the mine

- The rehabilitation of land for post-mine use should be ensured and carried out to standards that permit its use for the purpose set out in the EMPR and closure should only be granted only after satisfying that there are no foreseeable residual impacts that will be inherited by parties acquiring such land
- Communities directly affected by mining should participate in environmental impact assessment studies at the planning stage
- South Africa should comply with international environmental standards to meet international obligations;
- The lack of capacity in the Department of Minerals and Energy to enforce existing environmental provisions should be addressed
- Environmental management for the minerals industry should be improved by expanding the scope of EMPRs, which presently address the physical environment, to include assessment of the impact on the social environment
- A conflict of interest between the promotion of the minerals industry and the enforcement of environmental standards within the Department of Minerals and Energy should be prevented by providing a clear separation of powers
- Land-use decisions should be based on economic efficiency and mining should not enjoy a claim to precedence.

Chapter 4 of the White Paper then goes on to commit government to a number of principles, all of which will contribute to sustainable development<sup>37</sup>. The most important of these are highlighted here:

- *Impact assessment*. As regards impact assessment, it states that the process of considering the granting of a prospecting or mining licence and the approval of an environmental management programme will run concurrently<sup>38</sup>.
- *Precautionary principle*. It specifically acknowledges the precautionary principle stating: 'during decision-making a risk averse and cautious approach that recognizes the limits of current environmental management expertise will be adopted where there is uncertainty, action is required to limit the risk. This will include consideration of the "no-go" option'.<sup>39</sup>
- *Polluter pays principle*. According to the White Paper this will be applied in the regulation and enforcement of environmental management. The mining entrepreneur will be responsible for all costs pertaining to the impact of the operation on the environment. Government may accept responsibility where the mining entrepreneur or company no longer exists or is incapable of meeting rehabilitation requirements, but it leaves the option open to recover such rehabilitation costs from the responsible person.<sup>40</sup>
- *Public participation*. In the light of *The Director: Mineral Development Gauteng Region and Sasol Mining (Pty) Ltd v Save the Vaal Environment*<sup>41</sup> and others, it is pertinent to note that the White Paper states that 'equitable and effective consultation with

interested and affected parties will be undertaken proactively to ensure public participation in the decision-making process and the *audi alteram partem* (hear the other side) rule shall apply in all decision-making'<sup>42</sup>.

- *Integrated Environmental Management (IEM)*. The White Paper states that 'the principles of IEM will be applied to environmental management in the mining industry. These must be amplified to include cradle-to-grave management of environmental impacts in all phases of a mine's life...'<sup>43</sup>.
- *Planning law*. The principle of multiple land use will be adhered to in planning decisions and contending options will be assessed and prioritized on economic, social and environmental grounds<sup>44</sup>.
- *Waste management*. The mining industry will be required to reduce pollution and encouraged to promote a culture of waste minimization and creative recycling and re-use of waste products<sup>45</sup>.

*Aide-Mémoire for the Preparation of Environmental Management Programme Reports for Prospecting and Mining (Aide-Mémoire)*<sup>46</sup>.

The *Aide-Mémoire* gives practical effect to the international trend towards environmental assessment by setting out the required contents of the EMPR<sup>47</sup>.

### **The Minerals Act, 50 of 1991**

#### *History and objective of the Act*

The first Act to regulate the mining industry in South Africa was the Mines and Works Act, 12 of 1911. It was succeeded by the Mines and Works Act, 27 of 1956, which in turn was replaced by the current statute, the Minerals Act, 50 of 1991<sup>48</sup>. Fuggle and Rabie point out that environmental concerns were badly neglected in early mining legislation. More recently mining has been excluded from the list of activities requiring environmental assessment laid down under regulations made under the Environment Conservation Act, 73 of 1989.

Today the position has changed dramatically in that the Department of Minerals and Energy is required to prepare environmental implementation plans under the NEMA referred to in more detail below. The object of the Minerals Act is to regulate the prospecting for and the optimal exploitation, processing and utilization of minerals; to regulate the orderly utilization of and the rehabilitation of the surface of land during and after prospecting and mining operations and related matters<sup>49</sup>. Thus, while it pays some heed to environmental concerns, this is limited to rehabilitation. However, the Department has in the recent past shown that environment is becoming considered in prospecting and mining activities in the requirements of the *Aide-Mémoire*. These are simply guidelines however and have no legislative basis. More importantly the Department of Minerals made important new EMP regulations in June 1999 which indicate that environmental issues are taking centre-stage in the Department<sup>50</sup>.

#### *Environmental considerations*

The core environmental provisions of the Act are contained in Chapter 6 titled Rehabilitation of Surface<sup>51</sup>. These provisions are limited to prescriptions relating to rehabili-

## Compliance with international environmental standards and expectations

tation of the surface of the land affected by prospecting and mining activities but have effectively been expanded by regulations as described below. A layout and rehabilitation programme has to be submitted before and during mining and prospecting activities. In addition, an environmental management programme (EMP) has to be carried out simultaneously with mining, and to the satisfaction of the Department of Minerals and Energy<sup>52</sup>. Thus, while the Minerals Act does not refer specifically to the international dimension, recent developments show that increasing attention is being paid to international considerations

Important new EMP regulations were passed in June 1999 to supplement the existing regulations made under the repealed Mines and Works Act but specifically preserved by the Mineral Act<sup>53</sup>. It is worth noting that one regulation in particular deals with the international dimension. Regulation 5.18.3 provides for internationally recognized standards for environmental management systems and states:

The holder of a prospecting permit or mining authorisation whose prospecting and mining operations have been certified in terms of internationally recognised standards for environmental management systems, may on application to the Director: Mineral Development and provided that proof of such certification and compliance thereto is furnished, be exempted from the provisions of regulation 5.18(b), but reports shall be compiled and submitted in accordance with regulation 5.18.4 to demonstrate that performance assessments or the relevant environmental management programme are being conducted to the satisfaction of the Director: Mineral Development.

### ***The National Environmental Management Act, 107 of 1998***

#### ***Introduction***

The foundation stone of the NEMA is a set of bed-rock national environmental principles set out in Chapter 1 of the Act and which endorse the internationally emerging norm of sustainable development discussed above. These principles which 'apply throughout the Republic and...' in respect of a number of listed criteria. Three preliminary points should be noted in this regard; firstly, the principles apply to the geographical area of the Republic rather than to all organs of state and legal persons. By limiting their application to 'the Republic', the principles do not apply beyond territorial waters, that is to areas falling under the jurisdiction of the Republic but outside it, for example to the 200 naut. mile exclusive economic zone where South Africa exercises jurisdiction over the conservation and exploitation of marine resources although this area does not constitute the Republic.

A second, and related point, is that while it is clear that the principles apply to all organs of state it is not altogether clear that they also apply to private legal persons, that is to the private sector in general. It appears, not from a general reading of the criteria listed in the sub-section, which either specifically refer to organs of state or refer to duties, which can only be carried out by organs of state or institutions established under the Act. However, it is suggested that the principles are applicable not only to organs of state but also to private juristic persons in the same way that the environ-

mental right has horizontal application.

Finally, although the NEMA repeals section 2 of the Environment Conservation Act (ECA) which empowered the Minister to declare the general environmental and other policies declared under the ECA, it specifically preserves anything done under the ECA provided it is not inconsistent with, nor overridden by, the NEMA. Thus Part 1 of the ECA, which provides for an Environmental Policy, and Part 5, headed Control of Activities which may have a Detrimental Effect on the Environment, which essentially provides for environmental assessment have not been repealed by the NEMA. They are however not dealt with here.

#### ***Socially, environmentally and economically sustainable development***

Turning to the principles themselves, eighteen in all, they provide a laudable and sound footing for environmental management in South Africa.

#### ***The principles***

The 18 principles cover a wide spectrum of aspects and include many internationally recognized but emerging environmental law norms as well as norms included in international environmental conventions. These are echoed in the eight sub-principles of sustainable development referred to above. Thus, for example, the preventive principle is reflected in the phrase that the disturbance of ecosystems and loss of biological diversity are to be 'avoided, or...minimized and remedied'; and in the directive that disturbance of the landscape and the nation's cultural heritage is avoided and where it cannot be altogether avoided is minimized and remedied; and in the precept that the negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimized and remedied.

The precautionary principle is manifest in the principle that 'a risk-averse and cautious approach is applied which takes into account the limits of current knowledge about the consequences of decisions and actions'. The polluter pays principle is reflected in the directive that:

'[t]he costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.'

The public trust doctrine is manifest in the provision that:

'[t]he environment is held in trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage'

While the principles reflect international trends they are not exclusively foreign importations. Some of the other principles are peculiar to South Africa and reflect the need to redress the country's apartheid past. For example, it is provided that:

[e]quitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special

## Compliance with international environmental standards and expectations

measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.

The principles are detailed and complex and provide limitless potential for decision-makers and the courts to develop a cohesive and body of generally acceptable environmental management practices in the mining sector.

### *Environmental implementation plans and environmental management plans*

One of the chief mechanisms in the NEMA to give effect to the national environmental management principles referred to above, is the requirement that the provinces and certain national government departments prepare either environmental *implementation* plans or environmental *management* plans. National government departments listed in Schedule 1 of the NEMA are those which exercise functions which 'may affect the environment' and which have to prepare environmental *implementation* plans<sup>54</sup>. National departments listed in Schedule 2 have to prepare environmental *management* plans being national departments which exercising functions that 'involve the management of the environment'<sup>55</sup>. The Departments of Minerals and Energy is listed only in Schedule 2 and thus has to prepare only environmental *management* plans although its activities clearly 'affect the environment' and should logically fall into Schedule 1.

### **The Mine Health and Safety Act, 29 of 1969**

The long title of the Mine Health and Safety Act, 29 of 1969 states that one of the purposes of the Act is to give effect to the public international law obligations of the Republic relating to mining health and safety. It thereby shows South Africa's commitment to giving effect to international trends.

This Act must be seen in the context of its predecessor, the Mines and Works Act of 1956, because regulations made under it have been specifically preserved by the Minerals Act, 50 of 1991<sup>56</sup>. The original regulations were amplified in June 1999 by an amendment which essentially adds further regulations under the general title 'Performance assessment and monitoring of environmental management programme' (EMP)<sup>57</sup>. They mark an impressive step towards ensuring environmental protection, and deal mainly with the auditing and monitoring of EMPs<sup>58</sup>. The focus is two main objectives: compliance with the EMP, and appropriateness and effectiveness of the EMP<sup>59</sup>. The regulations define and elaborate on the EMP provided for in the Minerals Act as well as the *Aide-Mémoire* by providing for various aspects of the EMP. In the context of the international flavour of this paper it is worth highlighting just one regulation titled 'Internationally recognized standards for environmental management systems'<sup>60</sup>. It states:

The holder of a prospecting permit or mining authorization whose prospecting and mining operations have been certified in terms of internationally recognized standards for environmental management systems may, on application to the Director: Mineral Development and provided that proof of such certification and compliance thereto is furnished, be exempted from provisions of regulation 5.18 (b), but reports shall be compiled and submitted in accordance with regulation 5.18.4 to demonstrate

that performance assessments of the relevant environmental management programme are being conducted to the satisfaction of the Director: Mineral Development.<sup>61</sup>

### **Environmental practice and the role of the public sector**

Most nations have incorporated international norms and standards into their environmental law in some manner. Nonetheless varying standards of environmental practice exist in different countries. Reasons for this are varied and complex and include the resilience of the legal framework, the country's institutional capacity, and social and economic pressures. A major factor in the success of any environmental legislation is the role of the public sector, that is, government.

Environmental impact assessment (EIA) has been adopted in many countries as an environmental policy support process. It is a process that systematically examines the potential social and environmental consequences of a proposed development. In his review of EIA in Queensland, Australia, B. Moon<sup>62</sup> comments that the effectiveness of EIA is influenced by a government's intention—is economic growth or environmental and social stewardship the real motivator for government decisions?<sup>63</sup> Economic growth is required to keep governments in money and political parties in power and there is no doubt that the economic benefits from resource exploitation, for example, are attractive to governments, particularly in countries in social and economic need. Moon points out that the implicit assumption made in the EIA process is that the governing body will undertake its stewardship role with an enlightened and conscientious mind<sup>64</sup> and this is not always true. He illustrates this with a description of the strategies adopted by various governments in Queensland, Australia over the past three decades. This example is summarized below.

Queensland, Australia, has a tradition of agricultural and mineral exploitation being the engine for economic growth and unprocessed raw materials the dominant economic sector. Moon concludes that this focus most probably influenced by the State making resource rents the primary means of raising State-based revenue. In 1971 Queensland became the first Australian government to introduce legislation for the enactment of EIA. The lack of specific guidelines for EIA at the time resulted in EIAs becoming merely a tool to ameliorate protracted conflicts over contentious development proposals.

After a quarter of a century of a conservative government proactive towards land development and resource exploitation, in 1989 Queensland voters elected a replacement government espousing social democratic principles. Within a year the newly elected government had enacted legislation that considerably strengthened aspects of EIA procedure. In 1990 the status of EIA had been raised to a powerful decision-making tool in land-use planning legislation making EIA effective in promoting good environmental practice. This commitment to the environment challenged the traditional stance towards resource exploitation and also compromised the State's revenue-gathering structure.

A drastic reduction in investment occurred around the

## Compliance with international environmental standards and expectations

same time, due more to the combined effect of a national recession and the reduction of Japanese investment into Queensland. The strict environmental laws were cited as the primary cause. The reduction of development applications, the increase of public opposition to development and the flagging state revenues prompted the government to review the EIA implementation process in Queensland. The fact that the EIA process had possibly removed inappropriate development was not recognized.

In 1992 the Queensland government implemented a strategy to alter the effect of the EIA process, astutely recognizing that government not only determines the actuality of an EIA, but also controls the integrity of assessment quality by its influence over the Terms of Reference of the EIA. They achieved this by:

- ▶ Changing the designated development to undergo an EIA to be defined not by the type of activity but by the scale (or size) of the activity
- ▶ Discarding flexibility and standardizing Terms of Reference for each category of designated development
- ▶ Giving the government the discretionary power to exclude impact issues from the Terms of Reference and to waive the need for an EIA altogether. A formal justification process was not required to underpin these decisions.

The repercussions of this were:

- ▶ A disregard for the fact that certain types of small-scale activities can result in significant environmental impact and that the cumulative effects of a number of small-scale activities could be harmful to the environment
- ▶ A question mark on the integrity of EIAs due to the discretionary nature of the EIA policies. 'EIA can be bypassed for reasons of political and/or economic expediency, or it can be used to prevent politically unwanted developments'<sup>65</sup>.

In 1995 a second blow was dealt to EIA effectiveness in Queensland when the EIA assessment and review process was renamed impact assessment (IA), thus 'delinking' the process from the legislative definition of 'environment'. This meant that the full nature of an impact had to be specified in the Terms of Reference, which, once approved, determined the brief of the EIA. There was no requirement to broaden the scope of the EIA at a later stage, if the nature of the impact was found to be too narrow. The result of this was that primary impacts became the focus of EIAs, with secondary and tertiary impacts being neglected and a broad definition of the term 'environment' could be limited by a narrow Terms of Reference. Moon comments that one of the consequences of this is that for problems that cannot easily be solved or fixed the questions may never be posed in the Terms of Reference.

The review of EIA in Queensland, Australia, by Moon illustrates that the law in itself is neither effective nor ineffective, but the capacity for political manipulation to facilitate particular outcomes circumscribes its effectiveness. He states that 'vaguely written (Terms of Reference) coupled to a lack of accountability (by government) has generated an outcome where the land-development industry now believes that the EIA process is a means to down-play potential

problems and highlight the benefits of project genesis. .... (EIA is) a tool for project proponents to avert criticism of their proposed project'<sup>66</sup>. The desire for economic development has overtaken the government's responsibility for environmental stewardship.

The case study also identifies a fatal flaw in the EIA process: '...effective EIA rests on a government committed to providing social and environmental propriety in the process of screening and scoping, sincerely constructing competent and convincing terms of reference that not only embrace the relevant impact issues to the appropriate depth (thus compelling the assessor to properly investigate) but also inculcate a credible EIS (Environmental Impact Statement) review structure'<sup>67</sup>.

This example can be applied to many different countries with good international environmental principles in their mining legislation. The pressure from different sectors on government decision-making and the government's accountability to enhance social equity and environmental management through environmental processes, such as the EIA, all determine the effectiveness of environmental legislation. In countries where there is a reliance on resource exploitation and the export of raw material, the transparency of, and accountability for, decisions on the environment are essential to prove the government's commitment to international environmental principles. A credible, science-based, analytical technique is not sufficient.

### Conclusions

There is no doubt that recent times have seen a greater acknowledgement and acceptance by the South African mineral sector and law-makers of international trends and developments. Trends in international environmental law have been incorporated into the local environmental and mining legislation, particularly over the past two years. The new elevated status of international law in South African domestic law has been formalized in the Constitution, which is the supreme law of the land. The NEMA, the White Paper on Minerals and Mining Policy for South Africa and the new EMP regulations (June 1999) acknowledge South Africa's international responsibilities, as required by the Constitution. The requirement in the NEMA that the Department of Minerals and Energy prepares environmental management plans means that the Department of Environmental Affairs and Tourism exercises some influence over mineral activities.

All over the world environmental regulation in mining is increasing and industry norms and standards set by multinational companies, international lending agencies and environmental groups are influencing national laws and standards. Non-binding, aspirational law is, over time, becoming binding, regulatory international law. The notion of sustainable development, the cornerstone of international environmental law norms and standards, continues to evolve as a new standard for regulating all forms of economic development, including mineral resources. The 'non-renewable' nature of mineral exploitation makes the term 'sustainable development' open to interpretation, and difficult to apply in its strictest sense.

## Compliance with international environmental standards and expectations

The effectiveness of environmental law differs between nations. Reasons for this are varied, such as, the legal framework, institutional capacity and social and economic factors. The potential for governments to politically manipulate the outcome of an environmental process for other ends, such as economic growth, limits the effectiveness of environmental regulation. Political will and a commitment by government to their environmental and social stewardship role with an enlightened and conscientious mind is a necessary ingredient for effective application of environmental processes. The case study summarized here illustrates that, even in a country with internationally recognized environmental legislation and sufficient resources to apply the laws, environmental impact assessment (EIA), a process adopted by many countries as an environmental policy support process, can be negatively influenced by the government's intention. In Queensland, Australia, the effectiveness of EIA was reduced by the desire for economic development overtaking the government's responsibility for environmental stewardship. Economic development is sorely needed in South Africa and the test of the effectiveness of the environmental law will be determined by the choices government makes between stewardship and economic growth.

### References

1. Department of Mineral and Energy Affairs, *Aide-Mémoire for the Preparation of Environmental Management Programme Reports for Prospecting and Mining*, 1992.
2. SRK Consulting (United Kingdom), *A Technical Framework for Mine Closure Planning*. Prepared for the Mineral Industry Research Organization, United Kingdom, 1998.
3. Rio Tinto Health, Safety and Environment (Rio Tinto). *Closure Planning Guideline*. Prepared by Rio Tinto Technical Services, Australia, (B-01-12.05), 22 October 1998.
4. MOON, B. 'Environmental impact assessment in Queensland, Australia: a governmental massacre!' 1998, *Impact Assessment and Project Appraisal* 1(1) pp. 33-47.
5. Section 2 (2). This is significantly different wording to a previous version of the Bill which stated: 'development must be sustainable so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs'.
6. Section 2 (3).
7. Section 2 (4) (a) (i) to (viii).
8. Section 2 (2) (a) (viii).
9. UNCED (Brundtland) Report.
10. MUNRO, D.A. and HOLDGATE, M.W. (eds) 'Caring for the Earth: A Strategy for Sustainable Living' IUCN 1991.
11. BOER, B. 'Institutionalizing Sustainable development' (1995) 30 *Willamette Law Review*<sup>50</sup>.
12. PRING, G.R., OTTO, J., and NAITO, K. 'Trends in International Environmental Law Affecting the Minerals Industry' (1999) 17 (1 and 2) *Journal of Energy and Natural Resources Law* 39 and 151.
13. Pring *et al.* fn 12.
14. Pring *et al.* fn 12.
15. An observation made by Professor Louis Henkin in *How Nations Behave—Law and Foreign Policy*, 1979 quoted in Pring *et al.* fn 12.
16. Pring *et al.* fn 12.
17. Pring *et al.* fn 12.
18. Pring *et al.* fn 12.
19. R1182 to R1184 in *Government Gazette* 18261 dated 5 September 1997.
20. 25 June 1998 <<http://www.unece.org/press/98env15e.htm>>.
21. Adapted from Pring *et al.* fn 12.
22. DUGARD, J. *International Law: a South African Perspective*, Juta, 1994 22.
23. KEIGHTLEY, R. Sections 231 to 233. 'Public International Law and the Final Constitution' (1996) (12) *SAJHR* 405.
24. Section 232.
25. Section 231 (5).
26. Section 233.
27. Section 39 (1) (b)
28. Section 231 (1).
29. Section 231 (2).
30. Section 231 (3). The complexities of this section are dealt with by Keightley fn 23 at 409.
31. Section (2) (4) (n).
32. Sections 25 to 27.
33. Department of Minerals and Energy, N2359/1998, *Government Gazette* 19344 dated 20 October 1998.
34. At page 55.
35. Para 4.3.1 (i) of the White Paper.
36. Para 4.3.3.
37. Para 4.4.
38. Para 4.4 (i).
39. Para 4.4 (ii).
40. Para 4.4 (iii).
41. 1999 (2) SA 709 SCA.
42. Para 4.4 (iv).
43. Para 4.4 (viii).
44. Para 4.4 (x).
45. Para 4.4 (xi).
46. Department of Mineral and Energy Affairs, 1992.
47. At 9-33.
48. Some of the regulations made under the Mines and Works Act still remain in place.
49. Long Title.
50. R 801 in *Government Gazette* 20219 dated 25 June 1999. These regulations are referred to in 3.6.
51. Ss 38 to 42.
52. S 39.
53. S 68 (2) of the Mineral Act. R801 in *Government Gazette* 20219 dated 25 June 1999.
54. S 11 (1).
55. S 11 (2).
56. S 68 (2).
57. R 801 in *Government Gazette* 20219 dated 25 June 1999.
58. It should be noted that the Minerals Act 1991 s63 (1) (d) (viii) authorizes the Minister of Minerals and Energy to promulgate regulations pertaining to the monitoring and auditing of EMP's.
59. See generally <http://dme.gov.za/minerals/auditing&monitoring.htm>.
60. Reg 5.18.3.
61. No. R. 801 *Government Gazette* 25 June 1999.
62. MOON, B. 'Environmental impact assessment in Queensland, Australia: a governmental massacre!'. 1998, *Impact Assessment and Project Appraisal* 1 (1) pp. 33-47.
63. Moon 34.
64. Moon pp. 34-35.
65. Moon 39.
66. Moon 40.
67. Moon 40. ◆

