



Environmental Protection and the Eighteenth Amendment



National Impact Assessment Programme

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Acronyms and abbreviations

ADP	annual development programme
EEZ	exclusive economic zone
EIA	environmental impact assessment
Eighteenth Amendment	Constitution (Eighteenth Amendment) Act 2010
EPA	environmental protection agency
EPO	environmental protection order
GB	Gilgit-Baltistan
ICT	Islamabad Capital Territory
IEE	initial environmental examination
IUCN	International Union for Conservation of Nature
KP	Khyber Pakhtunkhwa
LGO	Local Government Ordinance 2001
MEA	multilateral environmental agreement
NEQS	National Environmental Quality Standards
NIAP	National Impact Assessment Programme
NWFP	North-West Frontier Province (now Khyber Pakhtunkhwa)
Pak EPA	Pakistan Environmental Protection Agency
PEPA 1997	Pakistan Environmental Protection Act 1997
SDF	sustainable development fund
SEA	strategic environmental assessment

Executive Summary

The Constitution (Eighteenth Amendment) Act 2010 gives provincial governments exclusive powers to legislate on the subject of “environmental pollution and ecology”. The implications of this shift in jurisdiction are analysed in this study.

When the Pakistan Environmental Protection Act (PEPA) 1997 operated as a federal law, any contradictory provisions in other laws, whether federal or provincial, were nullified because PEPA 1997 had overriding effect. But this is no longer the case. With environmental protection legislation operating at the provincial level, all federal laws now override it.

Prior to the enactment of the Eighteenth Amendment, PEPA 1997 governed all operations and activities that have the potential to cause environmental damage. This included subjects such as nuclear power for which only the federal government may legislate. This too is no longer the case. The federal government retains exclusive authority over a number of subjects that should be regulated by environmental law but the ambit of that law will now no longer extend to them.

Provincial governments have ahead of them the task of formulating their own environmental legislation. But, as the analysis in this study will show, this is no simple matter. A great number of critically important issues will need to be considered before any provincial legislative action can begin.

This study is divided into three parts. Part I discusses the implications of the Eighteenth Amendment on environmental protection legislation, Part II examines in depth the provisions of PEPA 1997 to highlight issues related to the substance of the law and Part III summarises comments received from environmental protection agencies concerning the problems they have faced in implementing PEPA 1997. The findings of this study will be used to prepare a draft Provincial Environmental Act.

Part I: Impact of the Eighteenth Amendment

An effective environmental protection law depends, among other things, on the establishment of a uniform protection regime across the country. Another factor that contributes to effectiveness is the comprehensiveness of the legislation in terms of the activities and processes it covers. An analysis of

PEPA 1997 provisions, examined in the light of the amended Fourth Schedule to the Constitution, raises a number of issues on both counts.

Matters under federal authority, jurisdictional conflict

Currently, the federal government retains legislative jurisdiction over a number of subjects, many of which involve activities or processes that have a direct impact on the environment and so require regulation. But with environmental matters now under the exclusive authority of the provinces, it is not clear how such activities are to be regulated. Areas in which this problem arises include the following:

- Environmental impact assessment for projects and activities on the Federal Legislative List (for example, nuclear power plants, major ports, highways).
- Import of hazardous waste (import is a federal subject).
- Control of pollution in maritime zones, accidents at sea (provinces have limited powers in the marine jurisdiction).
- Regulation of hazardous substances on the Federal List (for example, radioactive materials, nuclear waste).
- Environmental protection orders related to matters on the Federal List (for example, pollution from ships, an accident at a nuclear facility).
- Standards for emissions and noise from facilities on the Federal List (for example, airports).
- Offences and penalties with respect to matters on the Federal List.
- International treaties, conventions and agreements related to the environment (implementation of treaties, reporting).
- Inter-provincial coordination in environmental matters (uniformity in emissions standards, EIA procedures and requirements, penalties); the extent of influence that provincial governments will have in the decisions of the Council of Common Interests.
- National planning, surveys and research,

meteorological organisations (environmental planning, planning for sustainable development, climate change studies, mitigation planning for climate change).

- Foreign loans and foreign aid (access to donor funding for provincial environmental projects).
- Taxation (environmental fiscal reform measures, green taxes).
- Copyright, inventions, trademarks (benefit sharing for genetic resources, intellectual property rights with respect to traditional knowledge associated with genetic resources).
- Jurisdiction of environmental tribunals with respect to matters in the Federal List.
- Environmental offences related to matters in the Federal List.
- Federal regulatory authorities and their role with respect to environmental matters (for example, nuclear regulatory authorities, regulatory authorities for sectors such as energy, aviation, shipping and telecommunications).

Overlap with federal laws governing other sectors

With environmental protection legislation now a provincial matter, issues arise about the interaction of such laws with federal legislation. Prior to the Eighteenth Amendment, any inconsistency between PEPA 1997 provisions and those of other laws was nullified by the fact that PEPA 1997 had overriding effect. This is no longer the case. Subjects governed exclusively by federal laws which will now take precedence over provincial environmental law are as follows:

- Shipping (jurisdiction over marine waters for pollution control, oil spills, environmental protection along the coastline, accidents in ports).
- Oil and gas, mining (oil and gas exploration, petroleum production, certain types of mining and mineral development activities).
- Nuclear energy, nuclear waste ("nuclear damage", governed by federal law, does not cover damage to natural resources and the

environment; no requirements for impact assessment).

Similarly, the following subjects are either wholly or partly governed by federal law:

- highways
- railways
- power generation and electricity
- factories
- pesticides
- imports
- quarantine
- public health
- dangerous cargo and explosives
- land acquisition (in the national interest as well as specifically for mining)
- cantonment areas.

Overlap with other provincial legislation

Assuming that provincial environmental laws are provided overriding effect, at the provincial level the issue is not so much of jurisdictional conflict as it is of duplication. Contradictory provisions in other provincial legislation will be nullified, leaving many laws with sections that have no legal effect. There are, however, some cases where overlaps or duplication may occur. These are as follows:

- Local government laws (duplication, but also an opportunity to develop a hierarchy of environmental protection measures).
- Development authority laws (most contain no environmental protection provisions, some allow activities that undermine the fundamental objectives of environmental protection).
- Laws governing certain types of industry and processes.

Uniformity

There are concerns about the administrative consequences of differing protection regimes in different provinces, and the procedural difficulties and inter-provincial conflict that could arise as a result. There is in addition the question of Pakistan's international obligations under various multilateral environmental agreements (MEAs), since the "implementing of treaties and agreements" remains a federal subject.

Although the provinces are now in charge of environmental matters, many operations, activities and processes remain beyond their reach. Nor is it clear how environmental impact assessment requirements will apply in the case of such projects. The Pakistan Environmental Protection Agency (Pak-EPA) is now responsible only for Islamabad and the 'special areas', while provincial EPAs have not been delegated powers with respect to matters on the Federal List.

As provinces develop their own environmental legislation, it is of the utmost importance that they agree to adopt common standards which can subsequently be strengthened by individual provinces but not weakened. In addition, the federal and provincial governments should begin immediately to negotiate a delegation of powers so that subjects on the Federal List do not escape the net of environmental regulation. For Pakistan's international commitments under environmental treaties, meanwhile, a coordinating mechanism is required.

Additional measures and considerations

There are a number of parallel measures that will be required for the environmental protection legislative regime to function properly as a whole. They include the following:

- Rules and regulations under PEPA must be adapted and reissued along with the provincial environmental law.
- Draft rules under preparation need to be finalised.
- New instruments are needed to cover matters that have not yet been properly addressed in the law.
- Guidelines issued by environmental protection agencies for specific sectors should be assessed, amended if necessary, and adopted by all the provinces.
- Requirements for the implementation of multilateral environmental agreements must be included in provincial environmental laws, and a mechanism for reporting needs to be developed.

Part II: Review of PEPA 1997 provisions

In the coming months, provinces will be working to finalise their environmental laws in order to take up the challenge of environmental management at the provincial level. Whether the text of PEPA 1997 is used as a template and amended, or whether new legislation is drafted from scratch, this exercise provides an opportunity to address some of the shortcomings of PEPA 1997. The more important of these are as follows:

- Definitions: certain key terms have been omitted (for example, marine pollution, biological waste); some definitions are inconsistent or outdated (for example, pesticides, agricultural waste).
- Lack of clarity in certain provisions (for example, environmental laboratories, pollution charge, functioning and jurisdiction of environmental tribunals and environmental magistrates).
- Procedures need to be simplified, clarified or refined (for example, procedures related to environmental protection orders, environmental impact assessment, environmental protection agencies). In some cases, procedures have not yet been defined (clean-up requirements, follow-up procedures, consultation).
- Environmental tribunals and environmental magistrates (powers, jurisdiction, procedures for hearing complaints); appeals and the role of the High Court; suo moto powers.
- Role of the police, enforcement responsibility of EPA officers.
- Penalties need to be reassessed, and revised based on the environmental impact of offences rather than the type of offence. The purpose of administrative penalties needs to be clarified.
- Funding for mechanisms created under PEPA 1997 is not guaranteed (for example, sustainable development funds); funds recovered under PEPA 1997 are not

channelled back into environmental work; new sources of revenue should be introduced (for example, environmental taxes).

- Environmental quality and emissions standards must be uniform, and no variations should be permitted with respect to geographical area unless it is to strengthen the standards. The relevant provisions must be amended.

The review of PEPA 1997 also brings to light areas that have not so far been covered by the law. These include the following subjects:

- Public participation must be an integral part of all procedures.
- Access to information must be guaranteed, and situations where information may be withheld must be specified and kept to a minimum.
- Strategic environmental assessment (SEA) is becoming standard best practice in many countries and should be introduced in Pakistan.
- Environmental audits should be required, covering all types of industrial and commercial operations with a potential impact on the environment regardless of scale or of when they began operations.
- The 'polluter pays' principle should be properly integrated into the law, with provisions for follow-up inspections and procedures to ensure that clean-up is carried out at the polluter's expense.
- Cross-border or transboundary issues need to be taken into account with respect to the country's participation in international environmental programmes as well as concerning cross-boundary pollution issues between provinces.

Part III: EPA experience in enforcement

EPA members from all four provinces, along with Gilgit-Baltistan, were asked to provide their assessment of issues that arise in the implementation of PEPA 1997 in its current form. The purpose of this exercise was to collect information that could be used to amend the law

in order to improve its operation. Their comments cover a broad range of issues, including the following:¹

- Scope of the law: coastal provinces are concerned that the scope of PEPA 1997 does not extend to marine waters.
 - Definitions: EPAs have noted that a number of key definitions are missing from PEPA 1997 (for example, marine pollution, commercial activity, contamination, ambient air, coastal waters, coastal pollution, marine pollution, polluter, littering).
 - Assessment and evaluation mechanisms are required for entities established under PEPA 1997 (for example, the Environmental Protection Council, the sustainable development fund).
 - Functions, procedures and mechanisms need to be streamlined (for example, functions of the EPAs, working procedures for the sustainable development fund, mechanisms for issuing environmental protection orders, procedures for levying the pollution charge).
 - Funding, finances, management: financing for the sustainable development fund is not guaranteed or fixed; a separate account should be established into which monies collected from fees and charges are paid; all fines and fees relating to IEE, EIA, environmental reports and laboratory analysis should be deposited in a separate fund.
 - Discharges and emissions, environmental quality standards: certain types of discharges have not been included (for example, discharges from processes); the recipient (receiving source) of discharges is not taken into account; EPAs do not have the power to add sources of pollution to the list of emissions regulated by PEPA 1997; rules are needed to regulate vehicle emissions; pollution charges should be specified and should be determined annually.
 - Environmental impact assessment: the IEE/EIA Regulations 2000 should be revised, with greater clarity introduced in the categorisation of projects and activities;
- small-scale projects which do not need to undertake an IEE or EIA should be required instead to submit an environmental report; the director-general of the EPA should have the power to issue a stay order, to halt all project activity (temporarily or permanently) and to impose spot fines.
 - Hazardous substances and waste: licensing provisions should be revised; a list should be developed of hazardous substances that are to be regulated under the law.
 - Environmental tribunals, environmental magistrates: provisions on the selection of tribunal members need to be amended; a separate account should be set up into which fines imposed by the tribunal can be paid; the role of environmental magistrates needs to be clarified.
 - Environmental protection orders: procedures and mechanisms are not clearly defined; it is not clear how penalties are to be collected; the director-general of the EPA should have the power to levy spot fines on those violating environmental protection orders.
 - Offences and penalties need to be rationalised; current penalties do not keep up with inflation; pollution charges should be revised annually; procedures for the determination of pollution charges are unclear.
- In addition to these matters, many EPAs have expressed concerns that PEPA 1997 in its current form fails to address certain issues. Apart from the need to cover maritime zones, and marine and coastal pollution, these include:
- solid waste disposal
 - radiation and radioactive waste
 - vibrations
 - pollution or environmental damage from commercial activities
 - littering and damage to the physical environment
 - municipal services, sanitation, solid waste management, safe drinking water.

¹ The Punjab EPA did not provide its comments in the prescribed format.

To be fair, some of these matters were covered in detail under the provincial Local Government Ordinances of 2001. Those Ordinances are no longer in force but it is only a matter of time before all provinces enact new or amended local government legislation. Rather than duplicating provisions on municipal services, it is advisable that broad powers are provided under provincial environmental law for the management of such services at the local level, and that specific provisions in this regard are dealt with in local government laws.

Next steps

The findings of this study are to be used to prepare a draft Provincial Environmental Act. Given the complexity of the issues raised here, the opinion of legal experts will be sought once the draft has been finalised. The draft Act will then be submitted to the provinces for their feedback. A final draft will then be prepared by each province and submitted for approval to the provincial assembly.

INTRODUCTION: LEGISLATIVE JURISDICTION FOR ENVIRONMENTAL MATTERS

On 8 April 2010 the National Assembly amended the Constitution of the Islamic Republic of Pakistan 1973. Among the changes introduced by the Constitution (Eighteenth Amendment) Act 2010² is one that promises to have far-reaching effects on environmental protection.

Legislative jurisdiction for various subjects—and, by extension, executive authority related to those subjects—is specified in the Constitution.³ Here, prior to the Eighteenth Amendment, subject matter jurisdiction was divided into two categories: matters on the Federal List were subjects over which the National Assembly held exclusive legislative authority, and matters on the Concurrent List were those for which both the national and provincial assemblies could frame laws. Matters not mentioned in either list fell under the exclusive legislative competence of the provinces. Before the Eighteenth Amendment was enacted, the subject of “environmental pollution and ecology” appeared in the Concurrent List, allowing both federal and provincial assemblies to frame laws governing natural resources and environmental management.

In practise, subject matter jurisdiction as spelled out in the Constitution prior to the Eighteenth Amendment did not create crippling jurisdictional or substantive conflict. As noted in earlier analyses of federal and provincial environmental laws,⁴ many overlaps and inconsistencies did exist but none were so serious as to disrupt the functioning of environmental protection legislation. Perhaps a key reason for this state of relatively effective regulation—on paper, at least, if not in terms of enforcement or implementation—was the existence of the Pakistan Environmental Protection Act (PEPA) 1997, a federal law with overriding effect. As such, any conflicting provisions in federal or provincial law stood nullified to the extent of the inconsistency.

With the enactment of the Eighteenth Amendment, however, this equilibrium is disturbed. Among the other changes affected to the Constitution, the

² Act No. X of 2010 dated 19 April 2010. The Constitution (Eighteenth Amendment) Bill 2010 was passed by the National Assembly on 8 April 2010 and by the Senate on 15 April 2010. It received the assent of the President on 19 April 2010.

³ Article 70(4) and Articles 141–144, read with the Fourth Schedule.

⁴ See IUCN law reviews (IUCN Pakistan 2003, 2004, 2005, 2007, 2008).

Eighteenth Amendment abolishes the Concurrent Legislative List. A few subjects on that list have been added to the amended Federal List but “environmental pollution and ecology” is not one of them.⁵ As a result, the provinces now have exclusive jurisdiction to frame laws on the subject.

One immediate consequence of this new state of affairs is that the federal PEPA 1997 now applies only to the Islamabad Capital Territory and those areas not included in any province. It is

understood that PEPA 1997 will remain in force in the provinces, but only until it is repealed or amended by them.⁶ This process is underway, and provincial governments are preparing to enact their own environmental legislation.⁷ In doing so, however, a number of questions arise about the scope and effectiveness of environmental protection legislation operating at the provincial level. How these questions are addressed will determine the effectiveness of environmental protection laws in the future.

⁵ Subjects previously on the Concurrent List which have been added to the Federal List under the Eighteenth Amendment include boilers (added to Part I) and electricity (Part II).

⁶ Constitution of 1973, Article 270AA(6), as amended by the Constitution (Eighteenth Amendment) Act 2010. Also see Hamid 2011.

⁷ Under the National Impact Assessment Programme (NIAP), IUCN Pakistan is assisting provincial governments in this regard. The final form such legislation will take is yet to be determined. PEPA 1997 may be amended and re-issued as a provincial law or an entirely new provincial environmental law may be drafted. One of the purposes of the present study is to assist in identifying which of these options is preferable.

PART I: IMPACT OF THE EIGHTEENTH AMENDMENT

An effective environmental protection law depends, among other things, on the establishment of a uniform protection regime across the country. Another factor that contributes to effectiveness is the comprehensiveness of the legislation in terms of the activities and processes it covers. An analysis of PEPA 1997 provisions, examined in the light of the amended Fourth Schedule to the Constitution, raises a number of issues on both counts.

1. Federal-provincial jurisdiction issues in PEPA 1997

Currently, a number of subjects remain under federal jurisdiction.⁸ Many of these involve activities or processes that have a direct impact on the environment and so require regulation. But with environmental matters now under the exclusive authority of the provinces,⁹ it is not clear how activities on the Federal List are to be regulated.

1.1 Environmental impact assessment

No proponent of a project shall commence construction or operation unless he has filed with the Federal Agency an initial environmental examination or, where the project is likely to cause an adverse environmental effect, and environmental impact assessment, and has obtained from the Federal Agency approval in respect thereof.

PEPA 1997, section 12

One of the most important regulatory tools established by PEPA 1997 is the system of environmental impact assessment (EIA) and initial environmental examination (IEE). Regulations framed under PEPA 1997 specify the type of projects and activities that must carry out IEE or EIA before beginning operations. Many such activities and projects, however, are exclusively federal subjects (see Box 1). It is not clear how such activities are to be regulated.

Will provincial environmental protection agencies (EPAs) be responsible for overseeing the EIA process even in sectors that fall under federal jurisdiction? In the case of activities such as the construction of major ports or the development of military infrastructure, this would mean that federal agencies and military authorities would be answerable to provincial EPAs. In the case of private-sector activities, such as the construction of power plants or the

⁸ For the full list, see Annex 1.

⁹ Except for the Islamabad Capital Territory and those areas not included in any province. This should be understood wherever provincial legislative jurisdiction is discussed.

development of natural gas exploration projects, would proponents be expected to deal separately with federal and provincial agencies for different aspects of project approval?

A possible way to address this issue would be for the federal government to delegate to provincial EPAs all powers and responsibilities with respect to the EIA process, regardless of subject matter jurisdiction. In the absence of delegation, provincial EPAs are themselves uncertain of how to proceed.

Box 1: Processes and activities that must be subject to environmental impact assessment

The following processes and activities, which are included in the Federal Legislative List, should be subject to environmental impact assessment:

- Military, naval and air force works
- Cantonment areas and authorities
- Telephones, wireless, broadcasting and other communications infrastructure
- Nuclear energy production and infrastructure
- National highways and strategic roads
- Facilities for the carriage of passengers and goods by sea or by air
- Aircraft and air navigation facilities and infrastructure
- Railways
- Mineral oil and natural gas production and distribution facilities and infrastructure
- Production of dangerously inflammable substances
- Development of industries under federal control
- Pakistan Water and Power Development Authority
- Electricity generation and distribution infrastructure and facilities
- Major ports and port authorities
- Seamen's and marine hospitals, hospitals connected with port quarantine

Source: Constitution of the Islamic Republic of Pakistan 1973, Fourth Schedule.

1.2 Hazardous waste

No person shall import hazardous waste into Pakistan and its territorial waters, Exclusive Economic Zone and historic waters.

PEPA 1997, section 13

Another tool under PEPA 1997 to regulate activities that pose a threat to the environment is the ban on the import of hazardous waste. This provision is now rendered problematic because the subject of imports is a federal matter and so cannot be legislated by the provinces. As such, it is not clear how this provision could be retained in a provincial law.

There is the additional question of legislative jurisdiction over the various maritime zones mentioned in PEPA 1997, section 13. The federal Territorial Waters and Maritime Zones Act 1976 gives the federal government powers to control activities within the continental shelf and the exclusive economic zone (EEZ), so these maritime zones would be excluded from the ambit of a provincial law. From the language of the 1976 Act it is not clear to what extent provincial governments have jurisdiction over historic waters and territorial waters. This uncertainty has implications for other aspects of environmental protection as well, as discussed below, with respect to matters such as maritime pollution, oil spills and other accidents at sea.

It goes without saying that the import of hazardous waste must continue to be prohibited or it must, at the very least, be strictly and comprehensively regulated. In the absence of provincial legislative authority over the subject of imports, other federal laws (imports, territorial waters, and so on) will have to be amended to include provisions governing the import and regulation of hazardous waste. Another option would be for the federal government to once again delegate authority to the provinces specifically for the purpose of regulating the import of hazardous waste.

1.3 Hazardous substances

no person shall generate, collect, consign, transport, treat, dispose of, store, handle or import any hazardous substance except under a licence issued by the Federal Agency and in such manner as may be prescribed.

PEPA 1997, section 14

PEPA 1997 regulates the handling of hazardous substances, including transport and disposal. At the same time, “inter-provincial trade and commerce” (which presumably includes transportation across provincial borders) is a federal subject. In this case, the conflict could be resolved by allowing licences to be issued by provincial EPAs.

1.4 Environmental protection order

Where the Federal Agency or a Provincial Agency is satisfied that the discharge or emission of any effluent, waste, air pollutant or noise, or the disposal of waste, or the handling of hazardous substances, or any other act or omission is likely to occur, or is occurring, or has occurred, in violation of the provisions of this Act, rules or regulations or of the conditions of a licence, and is likely to cause, or is causing or has caused an adverse environmental effect, the Federal Agency or, as the case may be, the Provincial Agency may, after giving the person responsible for such discharge, emission, disposal, handling, act or omission an opportunity of being heard, by order direct such person to take such measures that the Federal Agency or Provincial Agency may consider necessary within such period as may be specified in the order.

PEPA 1997, section 16

The environmental protection order (EPO) can serve as an important mechanism to prevent environmental damage from occurring or to stop polluting activities before the harm they cause becomes severe. Besides putting a stop to such activities, an EPO may also call for measures to remedy the damage caused and to restore the environment to its previous condition.¹⁰ In this way, the EPO not only provides an additional layer of protection for matters covered by other provisions of PEPA 1997 but also extends the ambit of the law to activities and processes not explicitly mentioned in the law.

The Federal Legislative List includes a significant number of installations and activities that could cause severe environmental damage, such as in the case of an accident (see Box 2). Marine

pollution caused by an accident at sea is one such example. An accident at a nuclear facility is another. It is not clear what power provincial authorities possess to issue EPOs in such situations.

As with the IEE/EIA regime, one possible solution is for the federal government to delegate authority to provincial agencies in all matters related to the issuing of EPOs. (Other issues related to this provision are discussed below.)

Box 2: Processes and activities with the potential to cause adverse environmental impacts, particularly in the case of an accident

The following processes and activities, as specified in the Fourth Schedule, have the potential to cause pollution and other environmental impacts, such as following an accident:

- Military, naval and air force installations
- Maritime shipping
- Carriage of passengers and goods by sea or by air
- Aircraft, airports and air traffic
- Import and export of hazardous substances, including hazardous waste
- Inter-provincial transport of hazardous substances, including hazardous waste
- Railways
- Mineral oil and natural gas production
- Storage or transport of dangerously inflammable substances

Source: Constitution of the Islamic Republic of Pakistan 1973, Fourth Schedule.

1.5 Control of emissions

(1) no person shall discharge or emit or allow the discharge or emission of any effluent or waste or air pollutant or noise in an amount, concentration or level which is in excess of the National Environmental Quality Standards

(2) The Federal Government may levy a pollution charge on any person who contravenes or fails to comply with the provisions of sub-section (1).

PEPA 1997, section 11

¹⁰ PEPA, section 16(2)(a) and 16(2)(d).

Apart from the environmental damage that may be caused by accidents, many of the activities in the Federal List are also those which produce potentially harmful emissions (see Box 2). The same broad concerns arise with respect to controlling emissions and imposing penalties. It is not clear whether provincial EPAs have the power to enforce the legislation in areas that fall under federal jurisdiction. (Other issues related to the NEQS are discussed below.)

1.6 Offences and penalties

(1) Whoever contravenes or fails to comply with the provisions of sections 11, 12, 13 or section 16 or any order issued thereunder shall be punishable with fine which may extend to one million rupees, and in the case of a continuing contravention or failure, with an additional fine which may extend to one hundred thousand rupees for every day during which such contravention or failure continues:

(2) Whoever contravenes or fails to comply with the provisions of section 14 or 15 or any rule or regulation or conditions of any licence, any order or direction, issued by the Council or by the Federal Agency or Provincial Agency, shall be punishable with fine which may extend to one hundred thousand rupees, and in case of continuing contravention or failure with an additional fine which extend to one thousand rupees for every day during which such contravention continues.

PEPA 1997, section 17

As discussed above, the ambit of provincial law does not extend to many activities that have an impact on the environment. The same holds true for offences and penalties. Section 17(1) penalties apply to discharges and emissions (section 11), IEE/EIA (section 12), the import of hazardous waste (section 13), and environmental protection orders (section 16). Matters to which section 17(2) penalties apply include the handling of hazardous substances (section 14).

Matters under federal jurisdiction need to be taken into account in penalties for environmental offences. For example, oil spills at sea are now governed solely by the federal Merchant Shipping Ordinance 2001. “Major ports” are also on the

Federal Legislative List, so pollution or an accident in port waters would not fall under the purview of provincial law. Similarly, nuclear energy production is governed by the Pakistan Nuclear Regulatory Authority Ordinance 2001.

Once again, the federal government will in this case need to delegate powers to the provinces or some separate mechanism will need to be developed at the federal level.

2. Subjects that remain under federal jurisdiction

Under the amended Fourth Schedule, the federal government retains a number of subjects that are directly or indirectly related to environmental governance and the management of natural resources (see Box 3).

2.1 International treaties, conventions and agreements

Participation in international treaties and agreements, and the implementation of treaties and agreements, remain matters for the federal government. Legislation related to multilateral environmental agreements (MEAs) is also the responsibility of the federal government, while implementation will need to be carried out at the provincial level. Even though “ecology” is now a provincial subject, law making on the subject cannot technically be carried out by the provinces, and in this case delegation would be counter-productive in the absence of a means to ensure consistency in legislative provisions across the country. Moreover, if such provisions are to be uniform throughout the country, there is the issue of duplication of effort to consider in allowing provinces to frame their own implementing legislation.

Reporting is another area where difficulties may arise, since the secretariats of conventions accept compliance data from national entities. In this case, a centralised mechanism will be required at the federal level to collect and compile data gathered by the provinces, and to submit it to convention secretariats.

2.2 Inter-provincial matters and coordination

Inter-provincial matters appear in Part II of the Federal List. Broadly interpreted, such subjects include the movement of hazardous goods and substances between provinces, transboundary pollution and emissions, and coordination for environmental protection. Once provincial environmental legislation is adopted, inter-provincial issues will likely include the need for uniformity in emissions standards, EIA procedures and requirements, as well as penalties for offences.

Box 3: General areas of jurisdictional conflict

The following matters, as specified in the Fourth Schedule, have an impact on environmental governance but remain under the exclusive jurisdiction of the federal government:

- International treaties, conventions and agreements; implementation of treaties and agreements
- Inter-provincial matters and coordination
- National planning, planning and coordination of scientific and technological research
- Geological surveys and meteorological organisations
- Standards in institutions for higher education and research, scientific and technical institutions
- Foreign loans and foreign aid
- Various duties and taxes (income, corporations, imports, mineral oil, natural gas, minerals used in the generation of nuclear energy, industrial production, transport by air, rail or sea)
- Copyright, inventions, trademarks
- Fishing and fisheries beyond territorial waters
- Jurisdiction and powers of all courts, except the Supreme Court, with respect to any of the matters in the Federal Legislative List
- Offences against laws with respect to any of the matters in the Federal Legislative List, Part I
- Inquiries and statistics for the purposes of any of the matters in Federal Legislative List, Part I
- Matters which under the Constitution are within the legislative competence of Parliament or relate to the Federation
- All regulatory authorities established under a federal law

Source: Constitution of the Islamic Republic of Pakistan 1973, Fourth Schedule.

The Council of Common Interests is to “formulate and regulate policies” for such matters.¹¹

Provincial chief ministers are members of the Council, along with the prime minister and three members from the federal government.¹² In theory, this allows the provinces some say in the decisions that are taken but the full extent of this influence is not known.

2.3 National planning, surveys and research

“National planning” includes environmental planning and planning for sustainable development. If this task is to be carried out at the federal level, then provinces are left with the responsibility merely of implementation. A mechanism will therefore be needed to ensure provincial input in the planning stage.

The same can be said for the surveys and research that go into environmental planning. Currently, the federal government is responsible for the planning and coordination of scientific and technological research, as well as geological surveys. In the case of environmental management studies, for example, the beneficiaries for this type of research are the provincial authorities who are responsible for environmental management. The work of meteorological organisations is also important not only for environmental management but also with respect to climate change, and mitigation planning for climate change, whereas implementation will be overseen by the provinces.

The federal government retains responsibility for standards in higher education and research institutions, and scientific and technical institutions, as well as “inquiries and statistics”. It will therefore need to be mindful of the needs of the provinces, in the case of institutes for environmental studies, research and training.

2.4 Foreign loans and foreign aid

A great deal of work in the environment sector is funded by foreign donors. While it is unlikely that

¹¹ See Constitution, Art. 153–154.

¹² See Constitution, Art. 153(2).

the provision of aid per se will be affected by the fact that ‘environment’ is now a provincial subject, what is worth considering is whether provincial governments will be able to fully and directly access all avenues of funding that are available.

Donors will need to be consulted, to see if their priorities and requirements are affected by the shift in responsibility to the provincial level. In terms of funding specifically intended for environmental projects, logistics also need to be considered. For example, will all foreign aid for such work go directly to provincial authorities, or will the federal government retain some role as a vetting or coordinating authority? It will also need to be taken into account whether project management and administrative costs will increase if the federal government plays an intermediary role in donor-funded environmental programmes.

2.5 Taxation

Environmental fiscal reform is urgently needed in Pakistan.¹³ Without green taxes and other environment-friendly fiscal measures, it will become increasingly difficult to finance environmental projects in the future.

In terms of duties and taxation, the federal government retains exclusive jurisdiction over a wide range of tax-related areas, including taxes on income, corporations, imports, mineral oil, natural gas, minerals for use in the generation of nuclear energy, industrial production, and transport by air, rail or sea, as well as customs and export duties.

Although green taxes have not been introduced directly anywhere in the country, it is worth keeping in mind that they should be, and that a mechanism will need to be worked out for provinces to be able to either levy such taxes directly or receive their share of funds from the taxes so gathered by the federal government.

2.6 Copyright, inventions, trademarks

Another area where little work has been done so far, but where legislative measures are planned for the future, is benefit sharing for genetic resources. Draft legislation is being prepared but it is currently not clear whether this will be issued in the form of an Act of Parliament or as rules. Whatever the type of instrument, it is to be issued by federal authorities, whereas implementation with respect to natural resources is the responsibility of the provinces (“ecology”). While input from the provinces is being actively sought, the fact remains that the legal instrument governing their activities will be a federal one. How this conforms to the devolution of responsibility set out in the Eighteenth Amendment is not clear.

2.7 Other matters

The federal government retains authority over a number of other areas that affect natural resources and environmental management.

One such subject involves the jurisdiction and powers of all courts, except for the Supreme Court, with respect to any of the matters in the Federal Legislative List. In the case of provincial environmental tribunals, this does not pose an issue. But a point to consider is the tribunal in which cases concerning the Islamabad Capital Territory and other areas not included in any province will be heard. A broader issue, and one not directly related to the Federal List but nonetheless important, is the forum in which environmental cases will be heard when the case involves a matter that is on the Federal List. The complexities in such cases for the EIA regime have been discussed above. Similar difficulties arise in the hearing of cases by the environmental tribunals.

Offences against laws governing matters in the Federal List will include the penalties related to all matters discussed in this and the previous section. Wherever an overlap or conflict occurs in

¹³ For a detailed discussion on EFR potential and options, see IUCN Pakistan’s environmental fiscal reform studies (IUCN Pakistan 2009a, 2009b, 2009c, 2009d, 2009e).

terms of executive or legislative authority, a similar conflict arises in terms of penalties for offences.

All regulatory authorities established under federal law also remain under federal jurisdiction. In the case of nuclear regulatory authorities, as well as those governing sectors like energy, aviation, shipping and telecommunications, once again it will need to be kept in mind that the impact of such activities on the environment will need to be managed and mitigated at the provincial level.

3. Part II of the Federal Legislative List

153. Council of Common Interests.

- (1) There shall be a Council of Common Interests, in this Chapter referred to as the Council, to be appointed by the President.
- (2) The Council shall consist of-
 - (a) the Prime Minister who shall be the Chairman of the Council;
 - (b) the Chief Ministers of the Provinces;
 - (c) three members from the Federal Government to be nominated by the Prime Minister from time to time.

154. Functions and rules of procedure.

- (1) The Council shall formulate and regulate policies in relation to matters in Part II of the Federal Legislative List and shall exercise supervision and control over related institutions.

Constitution of 1973, Articles 153 and 154

The discussion so far has covered matters in the Federal List without distinguishing between those in Part I and in Part II. The latter are subjects for which the Council of Common Interests is to “formulate and regulate policies”.¹⁴ The provinces have some say in such matters, since provincial chief ministers are members of the Council. The degree to which they are able to influence Council decisions is another matter altogether. What effect this has, or will have, on environmental protection and legislation at the

provincial level remains to be assessed. But in terms of influencing national policy on these subjects, the mechanism does allow provincial governments some say in specific areas (see Box 4).

Box 4: Part II of the Federal List

The following matters are decided by the Council of Common Interests:

- Railways
- Major ports and port authorities
- Electricity generation and distribution infrastructure and facilities
- Mineral oil and natural gas production and distribution facilities and infrastructure
- Development of industries under federal control
- Pakistan Water and Power Development Authority
- Dangerously inflammable substances
- Regulatory authorities established under a federal law
- Inter-provincial matters and coordination
- National planning, planning and coordination of scientific and technological research
- Standards in institutions for higher education and research, scientific and technical institutions
- Offences against laws related to matters in the Federal List, Part II
- Inquiries and statistics related to matters in the Federal List, Part II
- Fees related to matters in the Federal List, Part II (not including court fees)
- Matters incidental or ancillary to any matter in the Federal List, Part II

Source: Constitution of the Islamic Republic of Pakistan 1973, Fourth Schedule.

4. Overlap with federal laws governing other sectors

With environmental protection legislation now a provincial matter, issues arise about the interaction of such laws with federal legislation. Prior to the Eighteenth Amendment, any inconsistency between PEPA 1997 provisions and those of other laws was nullified by the fact that

¹⁴ See Constitution, Art. 153–154. Subjects previously in Part I of the Federal List that have been moved to Part II include major ports and port authorities, regulatory authorities established under federal law, and national planning.

PEPA 1997 had overriding effect. This is no longer the case as far as provincial environmental laws are concerned.¹⁵ In fact, once the provinces enact their own environmental protection legislation, the issue will arise of federal laws in other, overlapping sectors, which will have overriding effect merely by the fact that they have been enacted by the National Assembly.¹⁶

In almost all cases, this will require that the body of federal law is re-examined, with an eye to identifying jurisdiction issues and addressing them through amendments in either federal or provincial law.¹⁷ Some of the key areas in which this will be necessary are discussed in this section.

4.1 Shipping

The matter of jurisdiction over marine waters will be of concern to coastal provinces since they are now charged with environmental protection along the country's shoreline. In considering offences under PEPA 1997 (section 17), matters under federal jurisdiction need to be taken into account. For example, oil spills at sea and other accidents in the marine jurisdiction will be a matter for federal law. An accident occurring in a major port will likely be a federal matter as well.

Currently, two pieces of federal legislation apply. The first of these is the Territorial Waters and Maritime Zones Act 1976, which provides for the delimitation of Pakistan's territorial waters, contiguous zone, continental shelf and exclusive economic zone (EEZ). This law also mentions the protection of marine resources and gives the federal government exclusive rights with respect

to the continental shelf, including the right to preserve and protect the marine environment, and control or prevent pollution (section 5(2)(d)). The federal government has the power to make rules for the conservation and management of resources, and for the preservation and protection of the marine environment and prevention and control of marine pollution (section 14).

The second is the Pakistan Merchant Shipping Ordinance 2001. This comprehensive law includes detailed provisions concerning pollution from ships (chapter 43, sections 552–575).¹⁸ It prohibits the dumping of any waste into the sea and imposes stiff penalties: imprisonment for a minimum term of two years and a maximum fine of 1 million US dollars (section 567), as well as clean-up charges (section 574).

In addition, there are a number of federal laws governing ports and harbours,¹⁹ and transport by boat and ship.²⁰ Each of these will need to be assessed as well.

4.2 Oil and gas, mining

Oil and gas exploration is governed by federal law,²¹ as are petroleum production,²² and mining and mineral development.²³ Some powers, mainly in the matter of making rules, are delegated to provincial governments under these laws.

These extractive processes all have the potential to cause serious environmental damage and need to be brought under the regulatory framework of environmental law. This is particularly important because the federal laws contain no provisions

¹⁵ Presumably, the federal PEPA 1997 will continue to have overriding effect, but its scope has been narrowed to cover the Islamabad Capital Territory and areas not included in any province, thereby making it irrelevant for the purposes of this discussion.

¹⁶ Simply by virtue of the hierarchy of legal instruments, whereby a federal law overrides conflicting provisions of a provincial law.

¹⁷ For an analysis of federal law governing natural resources and the environment, see IUCN Pakistan's law review (IUCN Pakistan 2005).

¹⁸ It is worth noting that these provisions aim to implement the requirements of the International Convention for the Prevention of Pollution from Ships (1973), as modified by the Protocol of 1978, one of the few MEAs that finds a mention in federal law.

¹⁹ See the Karachi Port Trust Act 1886, Ports Act 1908, Port Qasim Authority Act 1973 and Korangi Fisheries Harbour Authority Ordinance 1982.

²⁰ See the Ferries Act 1878, Carriage of Goods by Sea Act 1925, and Dangerous Cargoes Act 1953.

²¹ See, inter alia, the Regulation of Mines and Oil Fields and Mineral Development (Government Control) Act 1948, and the Oil and Gas Regulatory Authority Ordinance 2002.

²² See the Petroleum Act 1934.

²³ See the Mines Act 1923, and the Regulation of Mines and Oil Fields and Mineral Development (Government Control) Act 1948.

related to environmental protection, the use of appropriate mining techniques or the restoration of the environment once mining activities have ceased.

It is worth mentioning that land acquisition for mining is also governed by a federal law,²⁴ and this may cause conflict if acquisition is authorised at the federal level, for example, in the case of land that is protected under provincial law.

It is possible that provinces can use their rule-making powers to regulate some extractive processes.²⁵ But for a comprehensive system of coverage, the entire body of law governing the sector will need to be assessed, and environmental protection clauses developed and integrated.

4.3 Nuclear energy, nuclear waste

The Pakistan Nuclear Regulatory Authority Ordinance 2001 is the main law governing this sector.²⁶ The Ordinance defines the term “nuclear damage” to encompass loss of life, personal injury and damage to property but does not cover damage to natural resources and the environment. Nor does it set out any requirements for impact assessment.

This omission did not give rise to serious concern while PEPA 1997 operated as a federal law. Its provisions, with overriding effect, could be used to challenge pollution and punish offenders, and its requirements for EIA would apply to nuclear installations. But the Eighteenth Amendment creates a jurisdictional conflict, since nuclear energy, and by extension nuclear waste, remains a federal subject. This is particularly troubling because, under the federal Ordinance, it is not mandatory for those applying for a license to

undertake activities which involve radioactive materials or which produce radiation to demonstrate that these activities would not be hazardous to the environment (section 19(3)). Rather, this matter is left to the discretion of the Nuclear Regulatory Authority. The Ordinance also allows the Authority to permit the discharge of radioactive waste into the environment (section 22). In other federal laws governing the extraction of minerals,²⁷ all powers have been delegated to the “appropriate government”, which is once again the federal government in the case of radioactive minerals.

Under the Eighteenth Amendment, nuclear energy is a federal subject. It is not clear whether nuclear waste is also a federal subject but it seems more than likely that this is so. In that case, all provisions on this subject will need to be excised from the provincial environmental law, leaving the sector to operate under virtually no environmental regulation. Another option would be for the federal government to delegate pollution-related regulation to the province in which such facilities are located but this seems unlikely as well. The only viable option, then, is for federal law to address the issue of nuclear waste, the handling of nuclear substances, and the environmental impact of such activities. This is a matter of the utmost importance, since Pakistan cannot afford to leave the subject of nuclear waste unregulated.

4.4 Other sectors

There are number of other sectors where federal law now prevails.²⁸ The following subjects are either wholly or partly governed by federal law:

- Highways (National Highway Authority Act 1991)
- Railways (Railways Act 1890)

²⁴ See the Land Acquisition (Mines) Act 1885.

²⁵ The provinces are permitted to make rules for certain types of mining activities. Some environmental provisions have been included in such provincial rules. See, for example, the Balochistan Minor Minerals Concession Rules 2000 and the Balochistan Mineral Rules 2002.

²⁶ This law establishes the Pakistan Nuclear Regulatory Authority and the Directorate of Nuclear Safety and Radiation Protection (section 3). Most of its provisions are administrative in nature.

²⁷ See the Mines Act 1923 (section 29), and the Regulation of Mines and Oil Fields and Mineral Development (Government Control) Act 1948 (section 6).

²⁸ For a detailed discussion of their provisions, see IUCN Pakistan's law review (IUCN Pakistan 2005).

- Power generation and electricity (Electricity Act 1910, West Pakistan Water and Power Development Authority Act 1958, Electricity Control Ordinance 1965, Regulation of Generation, Transmission and Distribution of Electric Power Act 1997)
- Factories (Factories Act 1934)
- Pesticides (Agricultural Pesticides Ordinance 1971)
- Imports (Imports and Exports (Control) Act 1950, Export Processing Zones Authority Ordinance 1980)
- Quarantine (Pakistan Plant Quarantine Act 1976, Pakistan Animal Quarantine (Import and Export of Animals and Animal Products) Ordinance 1979)
- Public health (Public Health (Emergency Provisions) Ordinance 1994)
- Dangerous cargo and explosives (Explosives Act 1884, Explosive Substances Act 1908, Dangerous Cargoes Act 1953)
- Land acquisition (Land Acquisition (Mines) Act 1885, Land Acquisition Act 1894)
- Cantonment areas (Cantonment Ordinance 2002).

The implications on environmental management at the provincial level will need to be addressed.

5. Overlap with other provincial legislation

At the provincial level the issue is not so much one of inconsistency as it is of duplication. Presumably environmental law in its provincial incarnation will override other provincial laws. What this will do is merely to render null and void any provisions in other provincial laws that contradict. The issue will then possibly be to amend those laws, or to leave them unaltered but with substantive sections inoperative. There are, however, some cases where overlaps or duplication may occur. These are discussed in this section.

5.1 Local government laws

Local government laws are one area where additional difficulties may arise. Leaving aside the

current confusion that has been created by the lapse of the Provincial Local Government Ordinances of 2001 and the inability of provincial governments to enact a suitable replacement, there is the issue now of what provisions may be included when new local government laws are eventually enacted. As far as environmental protection clauses (pollution, the dumping of waste, and so on) are concerned, this will depend to some extent on what form provincial environmental laws may take and the degree of substantive change that is made. If PEPA 1997 is adapted as a provincial law, the task of preparing local government laws may be simplified by the fact that a great deal is already clear about the scope of PEPA 1997 provisions. But if new provincial laws are to be developed from scratch, local government legislation will need to be linked substantively to the new laws in order for both pieces of legislation to work effectively. There may be an opportunity to develop a hierarchy of sorts for environmental protection measures, with minor offences dealt with in local government laws and environmental legislation governing the more serious offences. This is also assuming that in such a scenario the provincial environmental protection law and not the local government law will have overriding effect. If not, further complications are likely to arise.

5.2 Development authority laws

There are scores of provincial laws governing the establishment and operation of various 'development authorities' in specified areas across the country. Most such laws contain no provisions for environmental protection. Some even allow provincial governments or development authorities powers that undermine the fundamental objectives of environmental protection. At the time that PEPA 1997 as a federal law took precedence, this was not technically an issue, since any harm done under the provisions of a provincial development authority law could in theory be challenged under the provisions of PEPA 1997. It is hoped that this will continue to be the case when provincial environmental legislation is finally enacted. For this would be the only way in which provincial

governments could retain control over activities that have the potential to cause grave environmental damage.

5.3 Laws governing certain types of industry and processes

Issues surrounding development authority laws apply as well to the legislation that governs various types of industrial and commercial processes. Since many such operations generate emissions and pollution, it is necessary for their functioning to be monitored and regulated.

5.4 Other provincial laws

In a number of sectors, provincial laws already govern activities and processes that have an impact on the environment.²⁹ If provincial environmental law is provided overriding effect, this situation will be unlikely to create any procedural hurdles or implementation difficulties, since conflicting provisions in other laws will be inoperative. The only matter, then, is for provincial environmental law to be as comprehensive as possible, to cover all potential threats to natural resources and the environment.

6. Uniformity³⁰

One of the benefits of a federal law governing environmental protection is that it sets standards applicable to the entire country. In such cases, federal law provides a baseline of minimum requirements while the provinces are usually free to legislate more stringently than the centre. This is true in the case of mechanisms for environmental protection (environmental quality standards, caps on emissions and environmental impact assessment requirements) as well as for offences under the law and the penalties prescribed. In the absence of a federal law, these common minimum standards no longer exist.

Even prior to the Eighteenth Amendment, PEPA 1997 did permit certain requirements to be relaxed, allowing exceptions to be granted, as virtually all Pakistani laws do. But following the Eighteenth Amendment, the problem is that without a fixed point of reference or baseline, a free-for-all could easily ensue.

There are concerns about the administrative consequences of differing protection regimes, and it does not take much imagination to foresee the procedural difficulties and inter-provincial conflict that could arise. Water is one such area. Both water quality and supply are already poorly managed, and without uniform standards in all provinces, these issues are likely to be exacerbated.³¹

There is in addition the question of Pakistan's international obligations under various MEAs. The "implementing of treaties and agreements" remains a federal subject, which means that legislation aiming to comply with the terms of MEAs must be issued by the National Assembly. Treaty commitments come with the responsibility of reporting to convention secretariats on compliance, which is also a task for the federal government. It has not been explained how Pakistan will comply with its international obligations under MEAs now that the provinces hold exclusive authority for environmental matters.

Although the provinces are now in charge of environmental matters, many operations, activities and processes remain beyond their reach.³² Subjects of particular concern in this regard include nuclear power, airports and military installations, highways, telecommunications infrastructure, electricity, and major ports. It is not clear how environmental safety regulations related to such matters can be enforced by

²⁹ For a detailed assessment of provincial environmental laws, see IUCN Pakistan's law reviews (IUCN Pakistan 2003, 2004, 2005, 2007, 2008).

³⁰ Excerpted from Pastakia 2012.

³¹ For example, when effluents dumped into rivers upstream travel downstream to provinces where water quality standards are higher, how is this situation to be handled? What happens if emissions from a factory located along an inter-provincial border spread to a neighbouring province where emissions controls are stronger?

³² The question of legislative jurisdiction and, by extension, executive authority for subjects that remain on the Federal List has already been discussed above and so is not repeated here.

provincial authorities. Nor is it clear how EIA requirements will apply in the case of such projects, since the Pakistan Environmental Protection Agency (Pak-EPA) is now responsible only for Islamabad and the ‘special areas’. Provincial EPAs, meanwhile, have not been delegated powers with respect to matters on the Federal List. This creates a major loophole in the law, with provincial EPAs currently uncertain about their authority. One could argue that as long as PEPA 1997 continues to apply by default, regulation for federal subjects will not be affected, even if only in theory. But it is simply a matter of time before new provincial legislation is enacted and when that happens the loophole opens.

These are just some of the issues that appear not to have been thought through while the Eighteenth Amendment was being drafted. As it seems unlikely that the Amendment will be withdrawn, it now remains for those affected by these changes to struggle with the consequences.

As provinces develop their own environmental laws, it is of the utmost importance that they agree to adopt common standards which can subsequently be strengthened by individual provinces but not weakened. In the matter of jurisdictional conflict, the federal and provincial governments should begin immediately to negotiate a delegation of powers so that subjects on the Federal List do not escape the net of environmental regulation. For Pakistan’s international commitments under environmental treaties, meanwhile, a coordinating mechanism is required.

Before each provincial environmental law is finalised, it must also be reviewed by a team of experts from all provinces to ensure that provincial laws do not conflict and thereby undermine the effectiveness of environmental protection in the country as a whole.

7. Additional considerations

Besides the issues discussed above, related primarily to jurisdiction, there are a few matters that should be kept in mind as the provinces prepare their environmental legislation. These relate for the most part to additional or parallel measures that will be required for the environmental protection legislative regime to function properly as a whole.

7.1 Federal rules and regulations under PEPA 1997

The enactment of provincial legislation alone, in whatever form, will not put in place a comprehensive system of legal protections. PEPA 1997 remains in force in all the provinces until adapted, repealed or amended, as do the rules and regulations that have been issued under this law (see Box 5). These rules and regulations must be adapted and reissued along with the provincial environmental act. Otherwise, many of the mechanisms provided under the law will be rendered inoperable.

Box 5: Rules and regulations under PEPA 1997

The following rules and regulations have been issued under PEPA 1997:

- Biosafety Rules 2005
- Environmental Samples Rules 2001
- Environmental Tribunal Rules 1999
- Environmental Tribunals (Procedure and Functions) Rules 2008
- Hospital Waste Management Rules 2005
- IEE and EIA Regulations 2000
- NEQS (Certification of Environmental Laboratories) Regulations 2000
- NEQS (Self Monitoring and Reporting by Industry) Rules 2001
- Pollution Charge for Industry (Calculation and Collection) Rules 2001
- Provincial Sustainable Development Fund (Utilization) Rules 2003
- Provincial Sustainable Development Fund Board (Procedure) Rules 2001

The following draft rules have been prepared:

- (draft) Hazardous Substance Rules 2003
- (draft) IEE and EIA Penalty Rules 2011

Source: Pakistan Environmental Protection Agency website.

It is not worthwhile to attempt redrafting these instruments. Much work in the way of rule making remains to be carried out even with the existing rules and regulations in force. Draft rules under preparation also need to be finalised. So the focus must be to adapt and reissue existing rules and regulations, finalise the draft rules, and begin the work of drafting new instruments to cover matters that have not yet been properly addressed in the law.³³

7.2 Guidelines issued by environmental protection agencies

Work has also been done by the Pak EPA, as well as the EPAs in Balochistan and Khyber-Pakhtunkhwa, to prepare sector-specific guidelines for environmental reporting (see Annex 4). These should be assessed, amended if necessary, and adopted by all the provinces.

7.3 Multilateral environmental agreements

Pakistan is a party to a number of MEAs. (For the full list, see Annex 2.) So far, no specific implementing legislation has been framed.³⁴ Responsibility to do so lies with the federal government, since the subject appears on the Federal Legislative List.

The issue has been discussed above but bears repeating: with implementing legislation for MEAs

a federal matter, provinces will find themselves in a position where they must simultaneously consider the requirements of federal MEA laws as well as their own provincial environmental legislation. This may in turn create difficulties if the provisions of provincial laws conflict. In terms of autonomy, too, it would seem that the purpose of eliminating the Concurrent Legislative List is undermined if the implementation of MEAs remains with the federal government.

Since no federal MEA-specific legislation is in the statute books so far, the point is at the moment hypothetical. And there is every possibility that MEA implementation laws, if or when enacted, will complement rather than contradict the broader environmental protection legal regime. So far it is not clear what form such legislation may take. If it is in the form of Acts of Parliament, federal law will prevail. If, on the other hand, legislating for implementation is done through rules and regulations, it remains to be seen which laws they are issued under and in what manner these instruments will interact with provincial laws.

Options here may include drafting a single instrument to be adopted by all the provinces, or delegating legislative authority to the provinces.

³³ For a detailed analysis of the rules and regulations issued under PEPA 1997, see Annex 6.

³⁴ Some federal laws take into account the provisions of international treaties. Draft laws are being prepared for the implementation of other MEAs.

PART II: REVIEW OF PEPA 1997 PROVISIONS

Part I discusses federal–provincial jurisdictional conflicts and other issues that arise in the implementation of PEPA 1997 following the abolition of the Concurrent Legislative List. In the coming months, provinces will be working to finalise their environmental laws in order to take up the challenge of environmental management at the provincial level. Whether the text of PEPA 1997 is used as a template and amended, or whether new legislation is drafted from scratch, this exercise provides an opportunity to address some of the other shortcomings of PEPA 1997. A detailed analysis of PEPA 1997 provisions is provided in Annex 3. Some of the key issues are discussed below.³⁵

1. Definitions

Although PEPA 1997’s definitions are fairly comprehensive, certain key terms have been omitted. Marine pollution is one such term, which is not specifically mentioned. This is of concern to coastal provinces, especially considering the fact that their jurisdiction over the coastal zone under federal law remains uncertain.

There are some inconsistencies in the definitions as well, which are examined in full in Annex 3. For example, pesticides are included in the definition of “agricultural waste” (section 2(ii)) but specifically excluded from the definition of “hazardous substance” (section 2(xviii)). Certain definitions should be added, such as one for the term “biological waste” that includes medical waste as well as waste from sources such as slaughterhouses.

2. Lack of clarity in certain provisions

Much of the uncertainty that now exists in PEPA 1997 has to do with the shifting of powers under the Eighteenth Amendment. There are, however, other areas of uncertainty as well, which should now be addressed. For example, PEPA 1997’s provisions on environmental laboratories are problematic. Under section 6(1)(k), the EPA authorises or approves laboratories for environmental testing. But in section 6(2)(e), the EPA is required to “establish and maintain” laboratories. It is not clear if, under the law, the EPA is meant to operate its

³⁵ Since federal–provincial jurisdiction issues have been discussed at length in Part I, they will not be repeated here.

own laboratories for the purposes of environmental testing, or whether it is only meant to nominate laboratories to act as “licensed laboratories” for the purposes of this Act. If various types of laboratories are to carry out different tasks, then their roles need to be specified.

Section 11 provides for the imposition of a pollution charge, but does not explain whether this charge is similar to a ticket issued for traffic offences, whether it applies to repeat offences, and what measures are to be taken if the offence continues. It also fails to specify whether the pollution charge is to be levied in cases where the NEQS have been relaxed (section 6(1)(g)). Section 11(4) is problematic as well because it implies that only industrial operations are governed by these provisions.

There are also provisions concerning the operation and jurisdiction of environmental tribunals that are not framed with precision and need to be refined. Other provisions where lack of clarity is a concern are discussed in greater detail in the remainder of this Part.

3. Procedures

Many of the procedures specified in the law need to be simplified, clarified or streamlined. In some cases, procedures have not yet been defined, impairing the operation of certain provisions.

3.1 Environmental protection orders

It is not clear how matters covered by an EPO are brought to the EPA's attention. Violations of the law could be detected during routine inspections, or a dangerous polluting event could occur suddenly. Provisions should be added to cover these contingencies. Nor is it specified if members of the public or other concerned parties are permitted to appeal to the EPA for the imposition of an EPO. Finally, the procedure for issuing an EPO is not specified.

The other point that needs to be considered is that, ideally, the EPO should function as an

emergency injunction. In that case, the provisions allowing persons being held to account an opportunity to be heard (section 16(1)) may be counter-productive in terms of the time that is lost.

3.2 Environmental impact assessment

The current impact assessment regime needs to be streamlined and updated. Under PEPA 1997, projects either submit an IEE or an EIA, depending on the scale of operations, but a vast range of smaller projects escape the net of impact assessment. International best practise in the field of impact assessment has, however, evolved since the 1990s. Today, a more robust and carefully calibrated regime is recommended. The steps for impact assessment should begin with screening for all projects that have a potential to affect the environment, regardless of scale. Depending on the results, initial screening should be followed by an IEE or EIA. The law needs to spell out the various steps involved in impact assessment, and to specify the relationship between these various steps. Screening and IEE must always be carried out, and EIA may be called for on the basis of IEE findings.

3.3 Environmental protection agencies

For the purpose of this analysis, the provisions concerning the Pakistan Environmental Protection Agency ('Federal Agency', section 7) are read to refer to the provincial agencies, since the latter now have primary responsibility for environmental management. Under section 7, EPAs have a wide range of powers but procedures for the exercise of these powers are not specified.

For example, EPAs may summon and enforce the attendance of any person during the conduct of an enquiry (section 7(f)) and require them to supply information but an enforcement procedure is not provided. Similarly, EPA officials may enter and inspect premises after obtaining a warrant (section 7(g)) but the procedure for obtaining a warrant and the grounds on which it can be sought are not specified. The EPA does not have emergency powers to search without a warrant. While this is a delicate matter, given the

potential for abuse, there is nevertheless a need to develop a procedure for emergency inspections.

Section 7(j) creates another procedural hurdle, allowing the EPA to exercise powers according to either the Code of Criminal Procedure 1898 (Act V of 1898) or rules made under PEPA 1997. Which procedure is to be followed in which cases is not specified.

Any person or organisation may submit a complaint to the EPA (section 6(2)(a)) but no procedure for doing so has been provided. Nor is there any mention of how the EPA is to act on such complaints. Without these procedures, the provisions related to public complaints cannot operate.

3.4 Clean-up

There are no clean-up procedures specified in the law. Section 11 on the prohibition of discharges and emissions provides for the imposition of a pollution charge but there is no requirement to pay for cleaning up the damage caused and rehabilitating the environment to its previous state.

3.5 Follow-up, consultation

The law is weak with respect to follow-up mechanisms for most of the matters for which it provides. Section 6 awards EPAs wide powers and requires them to carry out a number of diverse functions. The law allows EPAs to make recommendations to other agencies and government entities, including the government itself,³⁶ but there are no mechanisms in place for how these recommendations are to be handled, and no requirement for the government or agency concerned to explore such

recommendations or take them into account while making decisions.

Besides the issue that decision making may thus proceed without formal feedback from or consultation with the EPAs, it also raises the matter of incentives. If EPAs have no guarantee that their point of view will be taken into consideration in matters of policy and in practical decisions, what incentive do they have to prepare comments and feedback in such matters? And given the constraints in terms of time and resources that all EPAs must face, it seems to place an added burden on them for recommendations to be required in the absence of a genuine say in matters.

Under section 7, EPAs have various powers to enter and inspect premises, and remove samples, but here too these responsibilities need to be rationalised. Follow-up is required and a provision should be added for periodic inspections to be made, requiring those being inspected to cooperate with inspectors and providing that failure to cooperate with inspectors is an offence.

4. Environmental tribunals³⁷

According to PEPA 1997, environmental tribunals exercise both civil and criminal jurisdiction. This is in addition to their appellate jurisdiction with respect to decisions of the EPA. In these areas, the work of tribunals is governed by the the Code of Civil Procedure 1908 and the Code of Criminal Procedure 1898.

Some clauses related to their functioning remain unclear. For example, section 21(2) gives tribunals exclusive jurisdiction to hear all cases under section 17(1).³⁸ But tribunals may only hear cases

³⁶ See section 6(2)(d). It should be kept in mind that this role is likely to change, now that the Pak EPA is responsible only for matters related to the Islamabad Capital Territory and areas not included in any province. Provincial EPAs should in any case not need to present their recommendations to the federal government, since decision making on environmental matters will be carried out at the provincial level. This section should therefore be read as allowing EPAs to make recommendations to provincial governments.

³⁷ IUCN has carried out a separate study on the functioning of environmental tribunals. The findings of that report are not repeated here. See IUCN Pakistan 2011.

³⁸ These are offences related to discharges and emissions (section 11), IEE and EIA (section 12), the import of hazardous waste (section 13), and environmental protection orders (section 16). Note also that the import of hazardous waste (section 13) may no longer be a provincial subject, meaning that environmental tribunals in the provinces may not be able to hear such cases.

related to section 17(2) offences upon a complaint, in writing, from the EPA, a government agency or a local council (see section 21(3)(a)).³⁹ It is not clear if separate procedures apply to cases heard under section 17(1) and under section 17(2). Nor is it clear whether tribunals have *suo moto* powers, particularly in the case of section 17(1) offences.

This is not the only point about which section 21 is unclear. This section appears to permit the tribunal to hear a complaint from “any aggrieved person” (section 21(3)(b)) but leaves open the specific conditions under which this clause operates.

Section 21(9), meanwhile, gives environmental tribunals exclusive jurisdiction with respect to “any matter to which the jurisdiction of an Environmental Tribunal extends under this Act, the rules and regulations made thereunder”. This suggests that if a tribunal has not been set up or is non-functional for some reason, the entire enforcement mechanism of the law grinds to a halt. Considering the track record of environmental tribunals in some provinces, this clause undermines the effectiveness of the law as a whole. It should be removed and a clause should instead be added to specify the procedure for the prosecution of environmental offences in the absence of a functioning tribunal.⁴⁰

Under section 23, decisions of the tribunal can be appealed in the High Court. It has been pointed out that in practically all serious cases such an appeal is almost inevitable. This means that the High Court will be drawn into virtually all major environmental litigation. The point that is worth considering is that bypassing the main judicial system only to return to it in important matters is counter-productive. This key issue must be addressed separately.

5. Environmental magistrates⁴¹

PEPA 1997 creates the post of environmental magistrate (section 24) but leaves many aspects of its functions ambiguous. It is not clear where the environmental magistrate sits and whether they are part of the mainstream judicial system or part of the tribunal mechanism.

Moreover, their jurisdiction is also unclear and may overlap with that of the tribunals. The language of section 24(1) seems to suggest that all section 17(2) cases are heard exclusively by the magistrate, whereas section 21(3) related to the jurisdiction of environmental tribunals allows the tribunal to hear these cases upon receiving a complaint in writing.

Section 24(2) allows environmental magistrates only to impose punishments specified in sections 17(2) and 17(4). From this it would appear that magistrates may not send anyone to prison, order closure or confiscation, order clean-up (restoration of the environment to its prior condition), or order the payment of compensation. These matters, in turn, are discussed in section 17(5), and that section itself allows magistrates to impose these punishments and order these measures. This is a serious inconsistency and must be addressed.

Magistrates are also permitted to ‘compound’ offences⁴² (see section 17(6)) but these powers are not mentioned in section 24 on the powers of environmental magistrates.

Some provisions related to the jurisdiction of environmental magistrates are highly problematic. Section 24(3), for example, states that environmental magistrates may not take cognisance of an offence under section 17(2)

³⁹ Section 17(2) offences are those related to the handling of hazardous substances (section 14) and motor vehicles (section 15).

⁴⁰ It is worth noting that there has been some discussion about eliminating the environmental tribunal altogether, and of bringing environmental offences under the purview of the mainstream judicial system.

⁴¹ Also see IUCN's study on environmental tribunals (IUCN Pakistan 2011).

⁴² See *Black's Law Dictionary*: ‘compound’ means “to settle a matter by a money payment, in lieu of other liability. In fine, compounding of an offence is a settlement mechanism, by which, one is given an option to pay money in lieu of his prosecution, thereby avoiding a prolonged litigation” (Garner 2004). In some jurisdictions, only victims are permitted to give the go-ahead.

“except on a complaint in writing” from an EPA or an aggrieved person. But we have already seen that although section 24 gives environmental magistrates exclusive jurisdiction to hear such cases, section 17 itself allows these matters to be heard by the environmental tribunal as well. Assuming for the moment that both the tribunal and magistrates have this power, it is unlikely that an EPA, a government agency or an aggrieved person would take their case to a magistrate rather than directly to a tribunal. If there is a procedure here, or if the distinction is perhaps based on the type of offence, this needs to be specified.

6. Appeals

Decisions of the environmental tribunal can be appealed in the High Court. The decisions of environmental magistrates may be appealed in the sessions court. Through these provisions, the ‘mainstream’ judiciary is involved in the disposal of environmental cases, yet the specific procedures and conditions under which this is to take place are nowhere dealt with. While it could be argued that the involvement of the ‘mainstream’ judiciary introduces openness and transparency into the process of environmental litigation, in some respects it also defeats the purpose of setting up a separate environment-related judicial process.

It is also curious that the forum for appealing a magistrate’s decision is a sessions court rather than the environmental tribunal. In effect this puts the environmental magistrate under a separate hierarchy, creating parallel lines of accountability.

It has already been noted that in practically all serious cases the involvement of the higher judiciary seems almost inevitable. As such, the provisions concerning appeals should be reviewed more closely and revised, to clarify appeals procedures and appellate jurisdiction.

7. Suo moto powers

Neither the environmental tribunal nor environmental magistrates appear to have the power to act on their own in the matter of violations of environmental law. But High Courts have taken suo moto notice of environmental matters in the past.⁴³ The Supreme Court of Pakistan as well as High Courts have also taken up environmental matters in petitions.⁴⁴ The role of the Supreme Court and High Courts has not been addressed in PEPA 1997.

8. Role of the police

The police are mentioned only once in PEPA 1997, in section 21(7) related to environmental tribunals, in connection with the arrest of persons against whom the tribunal has issued a warrant. Even here, the specific reference is to a “police station”. Nowhere else in the law has the role of the police been mentioned, although it is conceivable that EPA officers would require police assistance in some instances.

It is not clear whether this omission is the result merely of an oversight or whether the law envisions enforcement duties to be carried out by EPA officers on their own. If, on the other hand, police assistance in such cases is assumed, then the law must be revised to state this clearly. Considering the importance—not to mention the potential dangers—of searches and inspections, this is a matter that should not be left ambiguous.

9. Penalties

The subject of penalties under PEPA 1997 is a complicated one, and for reasons that are perhaps counter-intuitive. The law sets fairly stringent penalties for a range of offences, which is not in and of itself a problem. The issue arises when offences are seen as a whole. Some of these are grievous indeed, with the potential to cause permanent, irreparable harm to the

⁴³ See IUCN Pakistan 2007, 2008.

⁴⁴ See IUCN Pakistan 2007, 2008.

environment. Others, though not ‘minor’, are the types of violations that are unlikely to cause permanent harm unless repeated over a long period of time. Similarly, some infractions are relatively simple to remedy whereas others may involve long-term measures such as clean-up and rehabilitation. Finally, some offences under the law are in fact minor enough that they can be addressed by means of a spot fine or a ticket, similar to tickets issued for traffic offences. The problem, then, is that the provisions on penalties in PEPA 1997 do not take these types of distinctions into account.

A detailed analysis of the penalties set under section 17 appears in Annex 3, and so does not need to be repeated here. The main points to consider are as follows.

The maximum penalty under section 17(1) is one million rupees, with an additional penalty of 100,000 rupees for each day that the offence continues. The offences to which this penalty applies are related to discharges and emissions (section 11), IEE and EIA (section 12), the import of hazardous waste (section 13), and violation of environmental protection orders (section 16). The section does not specify a minimum penalty, so it is understood that environmental tribunals and environmental magistrates enjoy discretion in sentencing (see section 17(3)). It is nevertheless problematic that such a diverse range of offences, some potentially devastating to the environment and others perhaps simply the result of a clerical error, should be dealt with under the same legislative provisions.

The maximum penalty under section 17(2) is 100,000 rupees, with an additional penalty of 1,000 rupees for each day that the violation continues. This applies to offences related to the handling of hazardous substances (section 14) and to motor vehicles (section 15). Here, again, no minimum penalty is specified, allowing for discretion in the matter. But as with section 19(1), here too the law does not provide a distinction between types of offences based on their effect

and the measures that would be required to remedy any adverse affects caused.

Under both section 17(1) and section 17(2), a maximum term of two years’ imprisonment may also be imposed in the case of repeat offenders (see section 17(5)). Here too the law would benefit from clarity concerning the specific types of offences for which a person may be incarcerated.

Administrative penalties are provided for in section 17(7) but their purpose is not stated clearly. It appears that they provide an alternative to lodging a case with the environmental tribunal. It is also unclear whether administrative penalties may be imposed in the case of all offences in the section or only certain types of infractions. The final clause of this section, which provides that a person who pays an administrative penalty will not be charged with an offence, should only apply to a first offence, and not be allowed in the case of repeat offences. This needs to be stated clearly.

Administrative penalties and fines are usually the first step in enforcement. In many jurisdictions, it is necessary to prove that all administrative remedies have been exhausted before the courts are approached. PEPA 1997 does not provide this type of procedure and does not specify the conditions under which administrative penalties may be deployed. The law should make it clear that administrative penalties are a first step, unless a violation is at the level of a criminal offence from the outset.

Clauses related to clean-up (section 17(5)(e)), compensation (section 17(5)(f)) and compounding offences (sections 17(6) and 17(8)) must also be reviewed and their provisions clarified.

Both environmental tribunals and environmental magistrates are involved in the process, and their areas of jurisdiction need to be rationalised. Rather than filling the magistrates’ and tribunals’ rosters with minor cases, a system of spot fines should be considered.

In reviewing these provision for possible amendment, it should be kept in mind that a more efficient system of penalties is perhaps one that is based not on types of activities but rather on their environmental impact. Offences that constitute an infraction of the law but which do not pose a significant or long-term risk must be treated differently from violations that cause grievous harm.

10. Funding and finances

No amount of legislative provisions will make a difference if financial mechanisms are not provided to bring them into effect. PEPA 1997 creates a number of financial mechanisms and systems, not all of which are optimally designed.

To begin with, the sustainable development fund that each province may establish allows for a formal mechanism for funding environmental work. But its source of financing is not guaranteed. Grants may be made to the fund from a variety of sources but the law does not create a specific, regular source of income for the fund's operations. This renders the existence of the fund insecure and entirely dependent on ad hoc financing. (Specific questions related to provisions concerning the sustainable development fund are discussed in detail in Annex 3.)

At the same time, PEPA 1997 creates mechanisms by which funds can be generated. The most obvious of these are the fines and penalties imposed by the law but various fees and charges may also be levied under other provisions. There is no central fund into which the monies so collected may be deposited. These revenues are paid either to the federal government (under the pre-Eighteenth Amendment law) or, presumably, will now be channelled into the provincial government account. In and of itself this is not an issue, but what makes it problematic is the fact that no provision exists for even a portion of the funds so

collected to be used specifically for activities envisioned by PEPA 1997.

There is also a problematic matter in section 29, which states that all dues recoverable under the Act are "recoverable as arrears of land revenue".⁴⁵ Leaving aside the ambiguity of this provision, it has been noted that in practise this is difficult. This clause also implies that such funds are paid directly to the government.

Ideally, all funds generated under PEPA 1997 mechanisms, whether through penalties or fees, should finance the operations of entities created under the same law. Given that this is unlikely, it is vitally important that, at the very least, a portion of the funds generated are channelled back into environmental work.

10.1 Environmental taxes

The law fails to explore new avenues of funding, such as environmental taxes. The EPA is permitted to make recommendation to the government with respect to "taxes, duties, cesses and other levies" (section 6(2)(d)(ii)) but these recommendations are not binding on the government. The EPA should have greater power to shape policy decisions in all environmental matters, including financial matters.

The EPA would also be ideally placed to explore new sources of raising revenues, such as by introducing environmental fiscal reform measures, including the introduction of environmental taxes. Although it does not have the power to levy taxes, there is a role for EPAs to lobby provincial governments for the introduction of environmental taxes, a portion of which could then be used to fund the operations of EPAs and be paid into the Sustainable Development Fund.

11. Environmental quality and emissions standards

Under section 6, the Pak EPA is to establish NEQS and enforce them. The issue of how this

⁴⁵ The phrase appears again in section 16(3), related to environmental protections orders.

provision will operate in the wake of the Eighteenth Amendment has already been discussed. Here, other powers with respect to NEQS, which are not affected by the Eighteenth Amendment, need to be addressed.

The first among these is the fact that under section 6 the Pak EPA has the power not only to issue and enforce NEQS but also to alter them for different sources of pollution and, importantly, for different areas (section 6(1)(g)).⁴⁶ Varying emissions standards according to source is not problematic. But allowing variations by geographical area is certainly so.⁴⁷

If this provision is to be retained at all, which is itself arguable, it must be handled with the utmost care. Otherwise the law will allow a hierarchy of environmental protection to be created with some areas receiving better protection and others receiving less protection. This is not equitable.

The purpose of establishing such a regime, with varied protection, is also not clear. If the idea is that certain ecologically fragile areas should be provided with stricter protection, through measures such as a complete ban on all protects, then this should be stated. But if the purpose is in fact to weaken the application of the law in some areas, which seems to be the case especially considering the other sub-sections in this proviso to section 6(1)(g), then it is not in the least advisable. Baseline quality standards and emissions standards should be established, applicable throughout the country, with the option of strengthening these where necessary but never weakening them.

12. New considerations

The foregoing discussion has already touched upon many of the subjects that need to be

included in the text of PEPA 1997. In most cases, these concern areas where the law is weak or ambiguous. But there are a number of subjects that have not been covered by the law at all. These matters are discussed in this section.

12.1 Public participation

The principle of public participation needs to be introduced properly into the law and made an integral part of all procedures. Currently, PEPA 1997 allows for public participation in EIA hearings (section 12(3)). The Pak EPA is also required to publish proposed NEQS for public comments before these standards are finalised (section 6(1)(e)).⁴⁸

Currently, public participation is not required during the IEE process, and this lapse should be remedied. In fact, public comments should be invited for all proposed projects, regardless of whether the projects are subject to IEE or EIA. There should also be public participation at the screening stage, pre-IEE, a step that in turn needs to be introduced into the law. The EPAs should be involved in all stages.

12.2 Access to information

Among its other tasks, the Environmental Protection Council formulates policies and plans, develops guidelines, and approves the environment report prepared by the EPA (section 4). There is no requirement that these documents are made available to the public. The EPA, for its part, is required to provide “information and guidance” to the public in environmental matters (section 6(1)(o)). This does not amount to a clause ensuring access to information. The operations of the sustainable development fund board, meanwhile, are not open to public scrutiny. The board is required to monitor projects supported by the fund and to prepare reports at regular intervals (section 10(3)).

⁴⁶ Presumably this power of the Pak EPA will now lie with provincial EPAs.

⁴⁷ Note that these provisions also apply to emissions from motor vehicles, dealt separately (section 15), as well as to discharges and emissions dealt with under section 11. In both cases, a similar relaxation of standards is permitted.

⁴⁸ Presumably, if this clause is retained in provincial environmental legislation, this condition will apply to new environmental quality standards that may be issued.

In all these cases, provisions should be made for members of the public to access policy documents, plans and reports that concern matters of public interest. Clauses may be added to each of the relevant sections but perhaps a better way to address the matter is to introduce a section to the law specifically concerning the subject of access to information.

Various means of access can be provided, if clerical or administrative costs are an issue. Documentation could be made available in electronic form on the website of the entity concerned, with the possibility of hard copies being made available upon payment of a fee. Making information publicly available should be a function of the provincial environmental protection council.

The matter of withholding information, meanwhile, is introduced into the law in an interesting manner.⁴⁹ Provided in the section concerning EIA (section 12), it is then cross-referenced in a number of other sections (see Box 6). This is at best disingenuous, since the provisions of section 12(3) allow information to be withheld without providing sufficiently strong reasons apart from commercial or proprietary interests. National security is mentioned as well, which only serves to create an umbrella under which a broad range of matters can be covered.

What is equally troubling is that the law is not clear on who makes the decision to withhold information. The text of section 12(3)(i) appears to suggest that this decision lies with the director-general of the EPA. Decisions of this nature should be taken by the highest-level authority, not necessarily the highest post created in PEPA 1997. In some jurisdictions, for example, such matters are put before a minister or the prime minister. In fact, a similar high-level authorising process should be introduced also for any relaxation in the standards and procedures prescribed by this law. In some jurisdictions,

these issues are presented before parliament and voted upon. Once again, this will ensure transparency.

Following the Eighteenth Amendment, there is bound to be some overlap, if not conflict, in the exercise of powers to withhold or release information. For the purposes of environmental law, jurisdiction needs to be clarified, particularly the jurisdiction of provincial governments. Where provincial governments have authority, a procedure may be needed for the federal government to intervene, if necessary.

Box 6: Withholding information - PEPA 1997, section 12(3)

12. Initial environmental examination and environmental impact assessment. [...]
- (3) Every review of an environmental impact assessment shall be carried out with public participation and no information will be disclosed during the course of such public participation which relates to—
 - (i) trade, manufacturing or business activities, processes or techniques of a proprietary nature, or financial, commercial, scientific or technical matters which the proponent has requested should remain confidential, unless for reasons to be recorded in writing, the Director General of the Federal Agency is of the opinion that the request for confidentiality is not well- founded or the public interest in the disclosure outweighs the possible prejudice to the competitive position of the project or its proponent; or
 - (ii) international relations, national security or maintenance of law and order, except with the consent of the federal Government; or
 - (iii) matters covered by legal professional privilege.

12.3 Strategic environmental assessment

Strategic environmental assessment (SEA) is becoming standard best practice in many countries, including in Asia. It is time for this tool to be included in our environmental laws. One

⁴⁹ A detailed analysis of this section appears in Annex 3. Here it is worth pointing out some of the broader concerns related to withholding information.

concern is that SEA should be required for federal policies and programmes as well as those at the provincial level. This in turn means federal legislation will be required.

12.4 Environmental audits

PEPA 1997 does not mention environmental audits. This tool should also be added, to cover all types of industrial and commercial operations with a potential impact on the environment. All such units, regardless of scale or of when they began operations, should be required to undergo inspections and to comply with instructions issued by the inspecting authority (for example, older industrial units to be retrofitted).

12.5 Polluter pays

The ‘polluter pays’ principle has indirectly been incorporated into PEPA 1997 but not consistently and not in full. While the law requires penalties to be paid for environmental offences, it does not follow through with subsequent inspections and there is no requirement or systematic procedure to ensure that clean-up is carried out at the polluter’s expense as well. The relevant clauses should be reviewed and amended to strengthen safeguards and ensure that clean-up is an integrated part of the environmental management regime.

12.6 Cross-border or transboundary issues

A matter that was perhaps of less concern when PEPA 1997 operated as a federal law is related to

cross-border or transboundary issues. The question arises on two levels. The first is the international level and has to do with the country’s commitments to regional environmental programmes. With environmental matters being handled by the provinces, it is not clear how international environmental cooperation will be coordinated.

The second level is domestic and is related to provincial boundaries. Here, the most important question is one that has been mentioned earlier, concerning uniformity. Environmental pollution is not restricted by administrative boundaries nor can harmful emissions always be contained within the borders of a province. To deal with such matters, a separate mechanism will need to be developed.

12.7 Other matters

There are other subjects that are not mentioned in PEPA 1997, which should be taken into consideration. The question of marine jurisdiction and marine pollution has been discussed above and so does not need to be repeated here. Other matters that should be brought under the ambit of the law include landfill sites, municipal garbage dumps and waste processing plants, and sewage treatment plants.

PART III: EPA EXPERIENCE IN ENFORCEMENT

Prior to the preparation of this study, EPAs in all four provinces, along with Gilgit-Baltistan (GB), were asked to provide their assessment of issues that arise in the implementation of PEPA 1997 in its current form.⁵⁰ The purpose of this exercise was to collect information that could be used to amend the law in order to improve its operation. This section highlights the points that were raised, along with some of the solutions that were recommended by EPA members themselves. (For details of the comments received, see Annex 5.)

1. Scope of the law

Coastal provinces are concerned that the scope of PEPA 1997 does not extend to marine waters. The specific jurisdiction of the provinces over maritime zones has also not been fully defined in PEPA 1997 or in any other law.

The Sindh EPA suggests that the scope of environmental legislation should be broadened to include coastal waters in general, as well as the exclusive economic zone (EEZ) and ‘historic waters’.⁵¹ This is thought to be the best way to address coastal pollution. The Sindh EPA also recommends that the provinces are given jurisdiction over ports, harbours and the surrounding coastal areas, possibly up to 10 km from the shoreline, with the remaining coastal waters under the authority of the Pakistan Navy and the Maritime Security Agency.

2. Definitions

The Sindh EPA notes that a number of key definitions are missing from PEPA 1997 and recommends that the following terms should be defined in the law:

- marine pollution
- commercial activity
- contamination
- ambient air
- coastal waters
- coastal pollution

⁵⁰ The Punjab EPA did not provide its comments.

⁵¹ For definitions, see federal Territorial Waters and Maritime Zones Act 1976.

- marine pollution
- polluter
- littering.

The GB EPA has pointed out that the terminology used in PEPA 1997 for the head of the EPA does not allow for regional variations. There is no director-general in GB, where the EPA is headed by a director.

3. Assessment and evaluation

Mechanisms are required to assess and evaluate the functioning of entities established under PEPA 1997. The Sindh EPA has noted that the Environmental Council operates without systematic oversight and suggests that mechanisms for performance evaluation, such as quarterly reports and progress reports, should be an added requirement.

There is a similar issue with the sustainable development fund. The Sindh EPA recommends that evaluation mechanisms are needed to monitor the performance and progress of the fund.

4. Functions, procedures, mechanisms

Both the Balochistan and Sindh EPAs note that the roles of various entities established under PEPA 1997 need to be rationalised, simplified or clarified. The Sindh EPA has pointed out that the functions of the EPA as stated in PEPA 1997 include an exhaustive list, and that many of these functions are beyond the capacity and the capability of the EPA and so have never been carried out. It recommends that the list of functions is rationalised, focusing on “specific and targeted” areas of operation.

The Sindh EPA also points out that working procedures for the sustainable development fund need to be simplified. Although rules and procedures for the operation of the fund have

been notified, it has nevertheless remained dormant.

The Balochistan EPA has expressed concerns about the mechanisms provided for issuing environmental protection orders and recommends that the roles and responsibilities of various agencies should be clearly stated in the law.

The Khyber Pakhtunkhwa (KP) EPA has noted that proper procedures are also required for levying the pollution charge.

5. Funding, finances, management

The GB EPA notes that financing for the sustainable development fund is not guaranteed or fixed, and recommends that a portion of the annual development programme (ADP) budget be allocated for this purpose. To augment the resources of the fund, the Balochistan EPA suggests that a separate account should be established into which monies collected from fees and charges are paid. The KP EPA takes this one step further, recommending that all fines and fees relating to IEE, EIA, environmental reports and laboratory analysis are deposited in the fund, for use in environmental rehabilitation pilot projects by the province concerned.

The Balochistan EPA points out that the board established to manage the fund has been constituted but “is not viable”, and recommends that its composition be revised to include EPA officials as well as representatives from non-governmental organisations and academia.

6. Discharges and emissions, environmental quality standards

The Sindh EPA notes that PEPA 1997’s provisions on discharges and emissions are limited to the implementation of the NEQS. It points out that certain types of discharges, such as those from processes, have not been included in the law. It also raises the concern that the recipient

(receiving source) of discharges is not taken into account, recommending that the relevant sections of the law be revised to do so.

Another point raised by the Sindh EPA is that while NEQS for ambient air and for noise have been notified, these requirements do not appear to be linked to any substantive provisions in the text of PEPA 1997, whether in terms of enforcement or monitoring obligations.

The GB EPA notes that EPAs do not have the power to add sources of pollution to the list of emissions regulated by PEPA 1997. It suggests that EPAs should be allowed this power, so that the law can apply to pollution that is relevant to the local context.

The KP EPA recommends that specific rules are framed to regulate vehicle emissions, which are currently being handled under traffic rules. It also raises the issue that “the present form of NEQS is either stringent or relaxed”, and suggests that “standardised form of ‘Environment Quality Standards’ on the basis of research shall be formulated to ensure its effective and uniform enforcement”. Finally, the GB EPA points out that rates for pollution charges have not been specified and that such rates should be determined annually.

7. Environmental impact assessment

The Sindh EPA suggests that the IEE/EIA Regulations 2000 need to be revised, with greater clarity introduced in the categorisation of projects and activities. It recommends that an additional schedule, listing projects that are not required to undergo IEE/EIA, should be added. A mechanism is also needed for the initial screening of all projects, as the Sindh EPA has noted.

Similar concerns have been raised in other provinces. The KP EPA recommends that small-scale development projects which do not need to undertake an IEE or EIA are required instead to

submit an environmental report, as should all other projects and operations that are not specifically covered in PEPA 1997 and its rules and regulations. Approval of the environmental report will also be the responsibility of the EPA, which will maintain separate registers of all such cases.

With regard to the issuing of no-objection certificates for IEE and EIA, the KP EPA suggests that the director-general of the EPA should have the power to issue a stay order, to halt all project activity (temporarily or permanently) and to impose spot fines.

8. Hazardous substances and waste

PEPA 1997 requires licences to be issued for the handling of hazardous substances. The Sindh EPA describes this provision as “controversial”, and suggests that only the transportation and disposal of hazardous substances should be licensed because “almost all industrial operations appear to be operating in violation” of the law. Rather than eliminating licensing altogether, however, it is advisable to develop simplified licensing procedures to enable compliance. The Sindh EPA notes that even if such procedures were to be developed, EPAs lack the capacity to handle this additional work.

The Sindh EPA also recommends that a list should be developed of specific hazardous substances that are to be regulated under the law. It notes that a procedure for treatment and disposal needs to be identified as well.

The import of hazardous waste is prohibited under PEPA 1997. The Sindh EPA recommends that this provision is amended so that certain types of hazardous waste materials can be imported for recycling and recovery purposes. Imports and exports is, however, a federal subject. So it is not entirely clear how a provincial law can be used to regulate the import of hazardous substances.

9. Environmental tribunals, environmental magistrates

The Balochistan EPA notes that provisions on the selection of environmental tribunal members need to be amended, now that powers over environmental matters have been devolved to the provincial level. It proposes that the chairman should be appointed by the provincial government, based upon the recommendations of the chief justice of the provincial high court. The remaining members should be selected by the EPA, in consultation with the provincial government.

Importantly, the Balochistan EPA points out that no separate account has been set up into which fines imposed by the tribunal can be paid, and that such charges are paid directly to the federal government. It recommends that a separate account is created, that all monies recovered by the environmental tribunal are paid into it, and that the account is managed by the province.

The role of environmental magistrates needs to be clarified, as the Balochistan EPA notes. Their functions are not viable and the powers of the director-general under section 17(2) overlap with those of judicial magistrates. The Balochistan EPA suggests that the section on judicial magistrates is deleted from the law. Perhaps a more useful step is to clarify roles and responsibilities so that overlaps and duplication are eliminated.

10. Environmental protection orders

The Balochistan EPA notes that procedures and mechanisms for the issuing of environmental protection orders are not clearly defined in the law. Nor is it clear how penalties imposed for violation of an EPO are to be collected. It recommends that the roles of various agencies with respect to EPOs is specified. Meanwhile, the KP EPA recommends that the director-general of the EPA should have the power to levy spot fines on those violating EPO.

11. Offences and penalties

Penalties established under the law need to be rationalised. The GB EPA points out that current penalties do not keep up with inflation and suggests that powers should be provided for penalties to be revised on a regular basis. It notes a similar problem with the pollution charges, which too should be revised annually by the provincial EPA. Procedures for the determination of pollution charges are also unclear, according to the KP EPA.

12. Gaps

Many EPAs have expressed concerns that PEPA 1997 in its current form fails to address certain issues. The Sindh EPA's point about the need for the law to cover maritime zones, as well as marine and coastal pollution, has been discussed above. In addition, the Sindh EPA notes that PEPA 1997 does not address the following subjects:

- solid waste disposal
- radiation and radioactive waste
- vibrations
- pollution or environmental damage from commercial activities
- littering and damage to the physical environment.

Similar issues have been raised by the KP EPA. It notes that municipal services, such as sanitation, solid waste management and the provision of safe drinking water, are not covered under PEPA 1997.

To be fair, many of these matters were covered in detail under the provincial LGOs of 2001. Those Ordinances are no longer in force but it is only a matter of time before all provinces enact new or amended local government legislation. Rather than duplicating provisions on municipal services, it is advisable that broad powers are provided under provincial environment law for the management of such services at the local level, and that specific provisions in this regard are dealt with in local government laws.

13. Miscellaneous issues

Some EPAs have expressed concerns about other laws referenced in the text of PEPA 1997, either directly or by implication, and their effect. The Balochistan EPA notes that the Officer's Services Rules have not been notified in that province, and suggests that a solution is for Balochistan to adopt the Pakistan Civil Service Act 1973.

14. Next steps

The findings of this study will be used to prepare a draft Provincial Environmental Act. Given the complexity of many of the issues raised here, the opinion of legal experts will be sought.

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ANNEX 1: CONSTITUTION OF PAKISTAN 1973, FOURTH SCHEDULE⁵² — IMPACT ON ENVIRONMENT AND INTERACTION WITH PEPA 1997 PROVISIONS

	Fourth Schedule [read with Article 70(4)] Legislative Lists	Impact and interaction
Federal Legislative List		
	PART I	
1.	The defence of the Federation or any part thereof in peace or war; the military, naval and air forces of the Federation and any other armed forces raised or maintained by the Federation; any armed forces which are not forces of the Federation but are attached to or operating with any of the Armed Forces of the Federation including civil armed forces; Federal Intelligence Bureau; preventive detention for reasons of State connected with defence, external affairs, or the security of Pakistan or any part thereof; person subjected to such detention; industries declared by Federal law to be necessary for the purpose of defence or for the prosecution of war.	
2.	Military, naval and air force works; local self-government in cantonment areas, the constitution and powers within such areas of cantonment authorities, the regulation of house accommodation in such areas, and the delimitation of such areas.	EIA, pollution impact
3.	External affairs; the implementing of treaties and agreements, including educational and cultural pacts and agreements, with other countries; extradition, including the surrender of criminals and accused persons to Governments outside Pakistan.	MEAs
4.	Nationality, citizenship and naturalization	
5.	Migration from or into, or settlement in, a Province or the Federal Capital.	
6.	Admission into, and emigration and expulsion from, Pakistan including in relation thereto the regulation of the movements in Pakistan of persons not domiciled in Pakistan; pilgrimages to places beyond Pakistan.	
7.	Posts and telegraphs, including telephones, wireless, broadcasting and other like forms of communications; Post Office Saving Bank.	EIA
8.	Currency, coinage and legal tender.	
9.	Foreign exchange; cheques, bills of exchange, promissory notes and other like instruments.	
10.	Public debt of the Federation, including the borrowing of money on the security of the Federal Consolidated Fund; foreign loans and foreign aid.	International / donor funding for environmental projects SDFs, EPA funding
11.	Federal Public Services and Federal Public Service Commission	
12.	Federal pensions, that is to say, pensions payable by the Federation or out of the Federal Consolidated Fund.	
13.	Federal Ombudsmen.	
14.	Administrative Courts and Tribunals for Federal subjects.	

⁵² As amended by the Constitution (Eighteenth Amendment) Act 2010.

15.	Libraries, museums, and similar institutions controlled or financed by the Federation.	
16.	Federal agencies and institutes for the following purposes, that is to say, for research, for professional or technical training, or for the promotion of special studies.	
17.	Education as respects Pakistani students in foreign countries and foreign students in Pakistan.	
18.	Nuclear energy, including:-	
	(a) mineral resources necessary for the generation of nuclear energy;	
	(b) the production of nuclear fuels and the generation and use of nuclear energy, and	
	(c) ionizing radiations [; and]	
	[(d) boilers.]	
19.	Port quarantine, seamen's and marine hospitals and hospitals connected with port quarantine.	
20.	Maritime shipping and navigation, including shipping and navigation on tidal waters; Admiralty jurisdiction.	Marine and coastal pollution from ships
21.	[*]	
22.	Aircraft and air navigation; the provision of aerodromes; regulation and organization of air traffic and of aerodromes.	Air and noise pollution from aircraft, pollution from airport facilities, EIA for facilities
23.	Lighthouses, including lightships, beacons and other provisions for the safety of shipping and aircraft.	Spills and other accidents with environmental impact
24.	Carriage of passengers and goods by sea or by air.	Pollution impact, accidents with environmental impact, EIA for facilities
25.	Copyright, inventions, designs, trademarks and merchandise marks.	ABS
26.	Opium so far as regards sale for export.	
27.	Import and export across customs frontiers as deemed by the Federal Government, inter-provincial trade and commerce, trade and commerce with foreign countries; standard of quality of goods to be exported out of Pakistan.	Hazardous waste, regulation of hazardous materials and chemicals with environmental impact
28.	State Bank of Pakistan; banking, that is to say, the conduct of banking business by corporations other than corporations owned or controlled by a Province and carrying on business only within that Province.	
29.	The law of insurance, except as respects insurance undertaken by a Province, and the regulation of the conduct of insurance business, except as respects business undertaken by a Province ; , Government insurance, except so far as undertaken by a Province by virtue of any matter within the legislative competence of the Provincial Assembly.	
30.	Stock exchanges and future markets with objects and business not confined to one Province.	
31.	Corporations, that is to say, the incorporation, regulation and winding- up of trading corporations, including banking, insurance and financial corporations, but not including corporations owned or controlled by a Province and carrying on business only within that Province, or cooperative societies, and of corporations, whether trading or not, with objects not confined to a Province, but not including universities.	

[32.	International treaties, conventions and agreements and International arbitration.]	MEAs
33.	[* *]	
34.	National highways and strategic roads.	EIA, pollution impacts
35.	Federal surveys including geological surveys and Federal meteorological organizations.	Environmental management studies, climate change studies (mitigation)
36.	Fishing and fisheries beyond territorial waters	
37.	Works, lands and buildings vested in, or in the possession of Government for the purposes of the Federation (not being military, naval or air force works), but, as regards property situate in a Province, subject always to Provincial legislation, save in so far as Federal law otherwise provides.	
38.	[* *]	
39.	Establishment of standards of weights and measures.	
40.	[* *]	
41.	Elections to the office of President, to the National Assembly, the Senate and the Provincial Assemblies; Chief Election Commissioner and Election Commissions.	
42.	The salaries, allowances and privileges of the President, Speaker and Deputy Speaker of the National Assembly, Chairman and Deputy Chairman of the Senate, Prime Minister, Federal Minister, Ministers of State, the salaries, allowances and privileges of the members of the Senate and the National Assembly, and the punishment of persons who refuse to give evidence or produce documents before committees thereof.	
43.	Duties of customs, including export duties.	Environmental taxes (e.g., higher tax for import of hazardous materials)
44.	Duties of excise, including duties on salt, but not including duties on alcoholic liquors, opium and other narcotics.	
45.	[* *]	
46.	[* *]	
47.	Taxes on income other than agricultural income;	
48.	Taxes on corporations.	
49.	Taxes on the sales and purchases of goods imported, exported, produced, manufactured or consumed [, except sales tax on services].	
50.	Taxes on the capital value of the assets, not including taxes [* *] on immovable property.	
51.	Taxes on mineral oil, natural gas and minerals for use in generation of nuclear energy	
52.	Taxes and duties on the production capacity of any plant, machinery, undertaking, establishment or installation in lieu of any one or more of them.	
53.	Terminal taxes on goods or passengers carried by railway, sea or air; taxes on their fares and freights.	
54.	Fees in respect of any of the matters in this Part, but not including fees taken in any court.	
55.	Jurisdiction and powers of all courts, except the Supreme Court, with respect to any of the matters in this list and, to such extent as is expressly authorized by or under the Constitution, the	

	enlargement of the jurisdiction of the Supreme Court, and the conferring thereon of supplemental powers.	
56.	Offences against laws with respect to any of the matters in this Part.	
57.	Inquiries and statistics for the purposes of any of the matters in this Part.	
58.	Matters which under the Constitution are within the legislative competence of Majlis- e-Shoora (Parliament) or relate to the Federation.	
59.	Matters incidental or ancillary to any matter enumerated in this Part.	
	PART II	
1.	Railways.	EIA, emissions, pollution impact
2.	Mineral oil and natural gas; liquids and substances declared by Federal law to be dangerously inflammable.	EIA, accidents with environmental impact
3.	Development of industries, where development under Federal control is declared by Federal law to be expedient in the public interest; institutions, establishments, bodies and corporations administered or managed by the Federal Government immediately before the commencing day, including the Pakistan Water and Power Development Authority and the Pakistan Industrial Development Corporation; all undertakings, projects and schemes of such institutions, establishments, bodies and corporations, industries, projects and undertakings owned wholly or partially by the Federation or by a corporation set up by the Federation.	EIA
[4.	Electricity.	EIA
5.	Major ports, that is to say, the declaration and delimitation of such ports, and the constitution and powers of port authorities therein.	EIA, pollution from facilities, pollution from ships
6.	All regulatory authorities established under a Federal law.	Impact to be assessed
7.	National planning and national economic coordination including planning and coordination of scientific and technological research.	Environmental planning, planning for sustainable development
8.	Supervision and management of public debt.	
9.	Census.	
10.	Extension of the powers and jurisdiction of members of a police force belonging to any Province to any area in another Province, but not so as to enable the police of one Province to exercise powers and jurisdiction in another Province without the consent of the Government of that Province; extension of the powers and jurisdiction of a police force belonging to any Province to railway areas outside that Province.	
11.	Legal, medical and other professions.	
12.	Standards in institutions for higher education and research, scientific and technical institutions.	Institutes for environmental studies and research and training, EPAs
13.	Inter-provincial matters and co-ordination.]	Movement of hazardous goods and substances between provinces, transboundary pollution and emissions, coordination for environmental protection
[13.	Council of Common Interests.	
14.	Fees in respect of any of the matters in this Part but not including fees taken in any court.	

15.	Offences against laws with respect to any of the matters in this Part.	
16.	Inquiries and statistics for the purposes of any of the matters in this Part.	
17.	Matters incidental or ancillary to any matter enumerated in this Part.]	

ANNEX 2: MULTILATERAL ENVIRONMENTAL AGREEMENTS⁵³

Agreement	Pakistan Status	Date	In force Date
Regional Integration Agreement	SAARC SACEP		
ASEAN Agreement on the Conservation of Nature and Natural Resources	n/a		
ASEAN Agreement on Haze	n/a		
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel)	a	26.07.94	*
Convention on Biological Diversity (CBD)	rtf	26.07.94	*
Cartagena Protocol on Biosafety	rtf	02.03.09	31.05.09
Nagoya ABS Protocol	n/a		
Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES)	a	20.04.76	19.07.76
United Nations Convention to Combat Desertification (UNCCD)	rtf	24.02.97	25.05.97
Convention on Migratory Species of Wild Animals (CMS)	a	*	01.12.87
International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)	a	02.09.03	90 days after
United Nations Framework Convention on Climate Change (UNFCCC)	rtf	01.06.94	30.08.94
Kyoto Protocol to the UNFCCC	a	11.01.05	11.04.05
Vienna Convention for the Protection of the Ozone Layer (Vienna Convention)	a	18.12.92	90 days after
Montreal Protocol on Substances that deplete the Ozone Layer (Montreal Protocol)	a	18.12.92	90 days after
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides International Trade (PIC)	rtf	14.07.05	90 days after
Stockholm Convention on Persistent Organic Pollutants (POPs)	rtf	17.04.08	90 days after
Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar)	√	*	23.11.76
World Heritage Convention (WHC)	rtf	23.07.76	3 months after
World Trade Organization (WTO)	m	01.01.95	
The United Nations Convention on the Law of the Sea (Law of the Sea)	rtf	26.02.97	*
International Maritime Organization Convention (IMO Convention 48)	a	*	*
International Convention for the Prevention of Pollution from Ships (Annex I & II) (MARPOL)	a	*	*
1996 London Protocol ---Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention 72) (LDC)	a	09.03.95	08.04.95
Convention on Civil Liability for Oil Pollution Damage (CLC Convention 69)			

⁵³ Source: IUCN Regional Environmental Law Programme, "MEAs in Asia" (updated 4 October 2010), available at http://cmsdata.iucn.org/downloads/101004_asia_meas.pdf.

<p>KEY</p> <p>rtf = Ratification a = Accession at = Acceptance ap = Approval d = Denunciation s = Signature m = Membership o = Observer * = Date unavailable √ = The State is a Party to the Agreement, but information on whether by ratification or accession is unavailable</p> <p>Date format: dd.mm.yy</p>	<p>Acronyms</p> <p>SAARC -- The South Asian Association for Regional Cooperation SACEP -- South Asia Co-operative Environment Programme</p>
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ANNEX 3: PAKISTAN ENVIRONMENTAL PROTECTION ACT 1997 — ANALYSIS OF ISSUES

ACT XXXIV OF 1997	Analysis and comments
PAKISTAN ENVIRONMENTAL PROTECTION ACT, 1997	
<i>An Act to provide for the protection, conservation, rehabilitation and improvement of the environment, for the prevention and control of pollution, and promotion of sustainable development</i>	
[Gazette of Pakistan, Extraordinary, Part I, 6 th December, 1997]	
<p>F. 9(46)/97-Legis., dated 6-12-1997. The following Act of Majlis-e-Shoora (Parliament) received the assent of the Acting President on the 3rd December, 1997, is hereby published for general information:-</p> <p>WHEREAS it is expedient to provide for the protection, conservation, rehabilitation and improvement of the environment, prevention and control of pollution, promotion of sustainable development, and for matters connected therewith and incidental thereto;</p> <p>It is hereby enacted as follows :</p>	
<p>1. Short title, extent and commencement.</p> <p>(1) This Act may be called the [Pakistan] Environmental Protection Act, 1997</p> <p>(2) It extends to the whole of [Pakistan].</p> <p>(3) It shall come into force at once.</p>	
<p>2. Definitions.</p> <p>In this Act, unless there is anything repugnant in the subject or context,—</p>	
(i) “adverse environmental effect” means impairment of, or damage to, the environment and includes—	
(a) impairment of, or damage to, human health and safety or to biodiversity or property;	
(b) pollution; and	
(c) any adverse environmental effect as may be specified in the regulations;	In the IEE/EIA Regulations 2000, “adverse environmental effect is mentioned in section 5(1)(a) and in Schedule II, item J(2). In both places, it says “and any other adverse environmental effect...” Nothing is being “specified” in the Regulations. This sub-section doesn’t have any substantive meaning.

(ii)	"agricultural waste" means waste from farm and agricultural activities including poultry, cattle farming, animal husbandry residues from the use of fertilizers, pesticides and other farm chemicals;	See the definition of "hazardous substance" (section 2(xviii), below), where pesticides are excluded. That section should be amended.
(iii)	"air pollutant" means any substance that causes pollution of air and includes soot, smoke, dust particles, odour, light, electro-magnetic radiation, heat, fumes, combustion exhaust, exhaust gases, noxious gases, hazardous substances and radioactive substances;	"pollution of air" -- Since "aircraft and navigation" is on the federal list (Part I, item 22), it is not clear how emissions from aircraft are to be regulated. "radioactive substances" -- Nuclear energy, including the minerals used in its generation, and "ionising radiation" are federal subjects (see Constitution, Fourth Schedule, Part I, item 18). Unless "radioactive substances" here refers to other types of substances (specifically, those not related to nuclear energy), this phrase cannot be included.
(iv)	"biodiversity" or "biological diversity" means the variability among living organisms from all sources, including inter alia terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems;	The federal Territorial Waters and Maritime Zones Act 1976, besides delimitation, appears to give the federal government powers to control activities within territorial waters. From the language of the 1976 Act it is not clear to what extent provincial governments have jurisdiction over marine ecosystems within territorial waters. This apparent conflict will need to be addressed. The continental shelf and the Exclusive Economic Zone are specifically matters for the federal government.
(v)	"Council" means the [Pakistan] Environmental Protection Council established under section 3;	
(vi)	"discharge" means spilling, leaking, pumping, depositing, seeping, releasing, flowing out, pouring, emitting, emptying or dumping;	Better for this to be "includes" (rather than "means") so that other types of discharges are not excluded.
(vii)	"ecosystem" means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit;	
(viii)	"effluent" means any material in solid, liquid or gaseous form or combination thereof being discharged from industrial activity or any other source and includes a slurry, suspension or vapour;	Better for this to say "includes".
(ix)	"emission standards" means the permissible standards established by the [Federal] Agency [or a Provincial Agency] for emission of air pollutants and noise and for discharge of effluents and waste;	
(x)	"environment" means—	Under PEPA 1997 the term 'environment' is defined in the broadest sense to include management of biological and other natural resources as well as the control of pollution and hazardous materials. PEPA 1997 is not concerned exclusively with pollution. That point should be made again.

(a)	air, water and land;	In certain instances, "subsoil" should be added. The Constitution, as well as other federal laws and especially laws governing mining and other extractive industries, should be checked to see if "subsoil" is defined as including resources that are under state ownership.
(b)	all layers of the atmosphere;	
(c)	all organic and inorganic matter and living organisms;	
(d)	the ecosystem and ecological relationships;	
(e)	buildings, structures, roads, facilities and works;	
(f)	all social and economic conditions affecting community life; and	
(g)	the inter-relationships between any of the factors in sub-clauses (a) to (f);	
(xi)	"environmental impact assessment" means an environmental study comprising collection of data, prediction of qualitative and quantitative impacts, comparison of alternatives, evaluation of preventive, mitigatory and compensatory measures, formulation of environmental management and training plans and monitoring arrangements, and framing of recommendations and such other components as may be prescribed;	Should say "as may be prescribed in rules, regulations and guidelines". Please note that various provincial EPAs have produced a number of guidelines, but their status is not clear. Have notifications been issued to give these guidelines legal effect?
(xii)	"Environmental Magistrate" means the Magistrate of the First Class appointed under section 24 ;	
		Add definition for: environmental protection order .
(xiii)	"Environmental Tribunal" means the Environmental Tribunal constituted under section 20;	
(xiv)	"Exclusive Economic Zone" shall have the same meaning as defined in the Territorial Waters and Maritime Zones Act, 1976 (LXXXII of 1976);	"Fishing and fisheries beyond territorial waters" is on the federal legislative list, which implies that provincial governments have legislative jurisdiction within territorial waters. But the federal Territorial Waters and Maritime Zones Act 1976 gives the federal government powers to control activities within territorial waters.
(xv)	"Factory" means any premises in which industrial activity is being undertaken;	The federal Factories Act 1934 also contains some provisions related to waste generated within the premises of a factory, for the purpose of worker health and safety. There are no provisions for any other type of control of industrial emissions, but since there is a federal law on factories, the relationship between the two laws has to be explained.

	<p>In general, it needs to be clarified how jurisdiction will work for matters governed by a federal law, even where that law does not cover environmental matters specifically or in any detail.</p> <p>Note also that besides the Factories Act, there are the following provincial laws:</p> <ul style="list-style-type: none"> • Balochistan Industries (Control on Establishment and Enlargement) Ordinance 1963 (WP No. IV) • Sugar Factories Control Act 1950 (WP No. XXII) — although they do not deal with pollution. <p>Under the provincial LGOs of 2001, district-level offices are responsible for various aspects related to the implementation of PEPA 1997 at the local level. See the provincial District Government Rules of Business.</p>
(xvi)	<p>“[Federal] Agency” means the [Pakistan] Environmental Protection Agency established under section 5, or any Government Agency, local council or local authority exercising the powers and functions of the [Federal] Agency;</p>
(xvii)	<p>“Government Agency” includes—</p> <ol style="list-style-type: none"> a division, department, attached department, bureau, section, commission, board, office or unit of the Federal Government or a Provincial Government; a developmental or a local authority, company or corporation established or controlled by the Federal Government or Provincial Government; and a Provincial Environmental Protection Agency; and any other body defined and listed in the Rules of Business of the Federal Government or a Provincial Government.
(xviii)	<p>“hazardous substance” means—</p> <ol style="list-style-type: none"> a substance or mixture of substances, other than a pesticide as defined in the Agricultural Pesticides Ordinance, 1971 (II of 1971), which, by reason of its chemical activity or toxic, explosive, flammable, corrosive, radioactive or other characteristics, causes, or is likely to cause, directly or in combination with other matters an adverse environmental effect; and any substance which may be prescribed as a hazardous substance;
	<p>See section 2(ii), above, where “agricultural waste” is defined to include residues from pesticides and fertiliser. Why are pesticides excluded here? This exception should be removed.</p> <p>Also note that the Agricultural Pesticides Ordinance 1971 is a federal law. In it, a pesticide may not cause damage to any vegetation other than weeds (section 5) and presumably no such harmful chemical would be registered to begin with, and so could not be used legally. But there is no mention of the environmental impact of pesticide use and no penalties related to environmental impacts. Still, as noted above, what happens when there is a federal law that covers the same subject, even if pollution is not mentioned in the federal law?</p>

	<p>“explosive”, “radioactive” — Same issue here. Pls see the federal Explosives Act 1908, and note that radioactive materials are in the Federal Legislative List.</p> <p>Nuclear energy is a federal subject so it is not clear how nuclear waste can be included in a provincial law.</p> <p>If federal law on nuclear energy includes provisions on handling nuclear waste, then it can be removed from this definition. If there is no federal law dealing with nuclear waste then one should be adopted immediately or the handling of nuclear waste should be specifically transferred to the provinces, which would likely require a Constitutional amendment, which would require time, possibly years. Pakistan cannot afford to leave nuclear waste unregulated. This is an issue that requires a decision and legislative action at the appropriate level.</p>
(xix)	<p>“hazardous waste” means waste which is or which contains a hazardous substance or which may be prescribed as hazardous waste and includes hospital waste and nuclear waste;</p>
(xx)	<p>“historic waters” means such limits of the waters adjacent to the land territory of Pakistan as may be specified by notification under section 7 of the Territorial Waters and Maritime Zones Act, 1976 (LXXXII of 1976);</p> <p>Section 7(1) of the federal Territorial Waters and Maritime Zones Act 1976 allows the federal government to notify “historic waters”. Section 7(2) says: “The sovereignty of Pakistan extends, and has always extended, to the historic waters of Pakistan and to the seabed and subsoil underlying, and the air space over, such waters.”</p> <p>Sovereignty is the power of a state to independently regulate its own internal and external affairs. Sovereignty is not ownership; it is the power to regulate ownership. So sovereignty does not necessarily have to be federal jurisdiction, if powers to regulate internal affairs have been appropriately given to subnational authorities.</p> <p>But this will need to be clarified.</p>
(xxi)	<p>“hospital waste” includes waste medical supplies and materials of all kinds, and waste blood, tissue, organs and other parts of the human and animal bodies, from hospitals, clinics and laboratories;</p> <p>And this is a subject that also has rules under PEPA: the Hospital Waste Management Rules 2005.</p> <p>All rules under PEPA should be converted into provincial rules at the same time that the provincial Environment Protection Acts are adopted. If not, it may be years before the provincial Acts are regulated, which will mean that they are unimplementable in practice.</p>
(xxii)	<p>“industrial activity” means any operation or process for manufacturing, making, formulating, synthesising, altering, repairing, ornamenting, finishing, packing or otherwise treating any article or substance with a view to its use, sale, transport, delivery or disposal, or for mining, for oil and gas exploration</p> <p>“Mineral oil and natural gas” is on the Federal Legislative List; presumably, this means extraction of these substances is a federal subject. Similarly, “electricity” is on the federal list so power generation is federal subject.</p>

and development, or for pumping water or sewage, or for generating, transforming or transmitting power or for any other industrial or commercial purposes;	Among other issues, what happens to EIA for power generation projects, and oil and gas exploration projects, which are covered by PEPA's EIA regime?
(xxiii) "industrial waste" means waste resulting from an industrial activity;	It's good that mining is included in the general definition of industrial activities, so the law can apply to mining waste and the environmental impact. But oil and gas exploration (presumably) are federal subjects and so this law won't apply. Importantly, what does that do to EIA requirements?
(xxiv) "initial environmental examination" means a preliminary environmental review of the reasonably foreseeable qualitative and quantitative impacts on the environment of a proposed project to determine whether it is likely to cause an adverse environmental effect for requiring preparation of an environmental impact assessment;	IEE is one step in international standard practice in impact assessment. The new law should make clear the steps in the entire environmental impact assessment process – screening, IEE, EIA – and the relationship between them. Screening and IEE must always be done. EIA is done on the basis of the results of the IEE. Guidelines have been prepared by provincial EPAs for EIAs in some sectors. These guidelines need to be adopted by all provinces, and a requirement should be added to the law that EIA must be carried out according to these guidelines. Similar guidelines need to be developed immediately for screening and IEE as well, and adopted for all provinces. Add definition for: laboratory (licensed laboratory) for the purposes of this Act).
(xxv) "local authority" means any agency set up or designated by the Federal Government or a Provincial Government, by notification in the official Gazette, to be a local authority for the purposes of this Act;	Same as local government? Wording of the definition here seems to suggest that the term applies only to entities set up "for the purposes of this Act".
(xxvi) "local council" means a local council constituted or established under a law relating to local Government;	This one sounds more like a local government entity but "local government" itself not included in the definitions. Should be done, especially now that this law will be provincial.
(xxvii) "motor vehicle" means any mechanically propelled vehicle adapted for use upon land whether its power of propulsion is transmitted thereto from an external or internal source, and includes a chassis to which a body has not been attached, and a trailer, but does not include a vehicle running upon fixed rails;	"upon land" — add aircraft, boats, railways? (Aircraft probably not possible since aviation is a federal subject. Railways also.) "does not include ..." — why are trams excluded? Because they are not in use, I suppose...
(xxviii) "municipal waste" includes sewage, refuse, garbage, waste from abattoirs, sludge and human excreta and the like;	This is a subject covered in some detail under the provincial LGOs. Abattoirs, meanwhile, are also covered by the WP Animals Slaughter Control Act 1963.

	The 1963 Act contains no provisions related to waste from abattoirs, but LGOs will need to be assessed in detail to see where the overlaps are, and each of these (including penalties for offences) will need to be addressed.
(xxix) "[National] Environmental Quality Standards" means standards established by the [Federal] Agency under clause (e) of sub-section (1) of section 6 and approved by the Council under clause (c) of sub-section (1) of section 4;	
(xxx) "noise" means the intensity, duration and character of sounds from all sources, and includes vibration;	But since airports and railways are federal subjects, noise from those sources won't be governed by this law...
(xxxi) "nuclear waste" means waste from any nuclear reactor or nuclear plant or other nuclear energy system, whether or not such waste is radioactive;	Nuclear energy is a federal subject. It is not clear whether nuclear waste is also a federal subject, but it seems likely. This needs to be clarified. If it is a federal subject, it cannot be included in provincial law.
(xxxii) "person" means any natural person or legal entity and includes an individual, firm, association, partnership, society, group, company, corporation, co-operative society, Government Agency, non-governmental organization, community-based organization, village organization, local council or local authority and, in the case of a vessel, the master or other person having for the time being the charge or control of the vessel;	
(xxxiii) "pollution" means the contamination of air, land or water by the discharge or emission of effluent or wastes or air pollutants or noise or other matter which either directly or indirectly or in combination with other discharges or substances alters unfavourably the chemical, physical, biological, radiational, thermal or radiological or aesthetic properties of the air, land or water or which may, or is likely to make the air, land or water unclean, noxious or impure or injurious, disagreeable or detrimental to the health, safety, welfare or property of persons or harmful to biodiversity;	
(xxxiv) "prescribed" means prescribed by rules made under this Act;	Should mention regulations and guidelines as well.
(xxv) "project" means any activity, plan, scheme, proposal or undertaking involving any change in the environment and includes—	
(a) construction or use of buildings or other works;	
(b) construction or use of roads or other transport systems;	"National highways" are a federal subject. What is EIA procedure for highway construction?
(c) construction or operation of factories or other installations;	

(d)	mineral prospecting, mining, quarrying, stone-crushing, drilling and the like;	What about mining of radioactive materials? Not all radioactive materials are used for nuclear energy. If nuclear energy alone is a federal subject, as opposed to all radioactive materials, then the provinces may have jurisdiction over non-nuclear-related radioactive materials. This will need to be clarified.
(e)	any change of land use or water use; and	
(f)	alteration, expansion, repair, decommissioning or abandonment of existing buildings or other works, roads or other transport systems, factories or other installations;	
(xxxvi)	"proponent" means the person who proposes or intends to undertake a project;	
(xxxvii)	"[Provincial] Agency" means a [Provincial] Environmental Protection Agency established under section 8;	
(xxxviii)	"regulations" means regulations made under this Act;	Since rules and regulations are defined (sections 2(xxxviii) and 2(xxix)), should add a definition for "guidelines" as well, especially since guidance for all of PEPA's EIA work comes in the form of various guidelines.
(xxxix)	"rules" means rules made under this Act;	
(xl)	"sewage" means liquid or semi-solid wastes and sludge from sanitary conveniences, kitchens, laundries, washing and similar activities and from any sewerage system or sewage disposal works;	This, again, is covered by provincial LGOs, so a clause-by-clause assessment will be needed.
(xli)	"standards" means qualitative and quantitative standards for discharge of effluent and wastes and for emission of air pollutants and noise either for general applicability or for a particular area, or from a particular production process, or for a particular product, and includes the [National] Environmental Quality Standards, emission standards and other standards established under this Act and the rules and regulations made thereunder;	
(xlii)	"sustainable development" means development that meets the needs of the present generation without compromising the ability of future generations to meet their needs;	
(xliii)	"territorial waters" shall have the same meaning as defined in the Territorial Waters and Maritime Zones Act, 1976 (LXXXII of 1976);	Same comment as above, with respect to "historic waters" and "marine ecosystems" (definition of "biodiversity"). Presumably territorial waters are a provincial subject but the language of the federal 1976 Act is not clear.
(xliv)	"vessel" includes anything made for the conveyance by water of human beings or of goods; and	Add <u>animals</u> .

<p>(xiv) "waste" means any substance or object which has been, is being or is intended to be, discarded or disposed of, and includes liquid waste, solid waste, waste gases, suspended waste, industrial waste, agricultural waste, nuclear waste, municipal waste, hospital waste, used polyethylene bags and residues from the incineration of all types of waste.</p>	<p>Here, again, the issue of nuclear waste needs to be clarified. Nuclear medicine, for example, also creates nuclear hospital waste and may or may not be a matter for provincial governments. This will need to be clarified.</p> <p>Other types of waste mentioned here — there is an overlap with provincial LGOs.</p> <p>Add a definition for "biological waste" that includes medical waste as well as waste from sources such as slaughterhouses.</p> <p>Not mentioned:</p> <ul style="list-style-type: none"> • landfill sites • municipal garbage dumps/processing plants • sewage treatment plants.
<p>3. Establishment of the [Pakistan] Environmental Protection Council. The [Federal] Government shall, by Notification in the Official Gazette, establish a council to be known as the [Pakistan] Environmental Protection Council consisting of—</p>	<p>Does the Pakistan Environmental Protection Council continue to function? Are individual provincial councils to be set up?</p>
<p>(i) [Prime Minister] or such other person as the [Prime Minister] may nominate in this behalf.</p> <p>(ii) [Minister incharge of the Ministry or Division] dealing with the subject of environment.</p> <p>(iii) [Chief Ministers of the Provinces].</p> <p>(iii) [Ministers Incharge of the subject of environment in the Provinces].</p> <p>(iv) Such other persons not exceeding thirty-five as the [Federal] Government may appoint, of which at least twenty shall be non-officials including five representatives of the Chambers of Commerce and Industry and industrial associations and one or more representatives of the Chambers of Agriculture, the medical and legal professions, trade unions, and non-governmental organizations concerned with the environment and development, and</p>	<p>Chairperson</p> <p>Vice Chairperson</p> <p>Members</p> <p>Members</p> <p>Members</p>

	scientists, technical experts and educationists	
(v)	Secretary to the [Government of Pakistan, incharge of the Ministry or Division dealing with the subject of environment]	Member/Secretary
(2)	The Members of the Council, other than ex-officio members, shall be appointed in accordance with the prescribed procedure and shall hold office for a term of three years.	
(3)	The Council shall frame its own rules of procedure.	
(4)	The Council shall hold meetings, as and when necessary, but not less than two meetings, shall be held in a year.	
(5)	The Council may constitute committees of its members and entrust them with such functions as it may deem fit, and the recommendations of the committees shall be submitted to the Council for approval.	
(6)	The Council, or any of its committees, may invite any technical expert or representative of any Government Agency or non-governmental organization or other person possessing specialized knowledge of any subject for assistance in performance of its functions.	
4.	Functions and powers of the Council.	
(1)	The Council shall—	
(a)	co-ordinate and supervise enforcement of the provisions of this Act; and	
(b)	approve comprehensive [national] environmental policies and ensure their implementation within the framework of a [national] conservation strategy as may be approved by the [Federal] Government from time to time;	
(c)	approve the [National] Environmental Quality Standards;	
(d)	provide guidelines for the protection and conservation of species, habitats, and biodiversity in general, and for the conservation of renewable and non-renewable resources.	
(e)	co-ordinate integration of the principles and concerns of sustainable development into [national] development plans and policies; and	

(f) consider the [National] Environmental Report and give appropriate directions thereon.	<p>Will provinces be required to produce an annual Environmental Report?</p> <p>Will a national report still be prepared? If so, who produces it?</p> <p>What authority is responsible for reporting to the secretariats of MEAs?</p>
	<p>Should include clause about access to information / publication of guidelines, reports, etc. Could include the creation of a website, where all such documents and guidelines will be made available. (Hard copies may be provided to members of the public upon payment of a small fee.)</p> <p>Alternatively, a separate section on access to information should be included in the law. Making information publicly available should be a function of the provincial council, if there is going to be one.</p>
(2) The Council may, either itself or on the request of any person or organization, direct the [Federal] Agency or any Government Agency to prepare, submit, promote or implement projects for the protection, conservation, rehabilitation and improvement of the environment, the prevention and control of pollution, and the sustainable development of resources or to undertake research in any specified aspect of environment.	
	Who oversees functioning of the EPAs? Who oversees the Sustainable Development Fund?
5. Establishment of the [Pakistan] Environmental Protection Agency. (1) The [Federal] Government shall, by notification in the Official Gazette, establish the [Pakistan] Environmental Protection Agency, to exercise the powers and perform the functions assigned to it under the provisions of this Act and the rules and regulations made thereunder.	
(2) The [Federal] Agency shall be headed by a Director-General who shall be appointed by the [Federal] Government on such terms and conditions as it may determine.	To whom does the Director-General report? Provincial government? Environmental Protection Council?
(3) The [Federal] Agency shall have such administrative, technical and legal staff, as the [Federal] Government may specify, to be appointed in accordance with such procedure as may be prescribed.	
(4) The powers and functions of the [Federal] Agency shall be exercised and performed by the Director-General.	

(5)	The Director-General may, by general or special order, delegate any of these powers and functions to staff appointed under sub-section (3).	
(6)	For assisting the [Federal] Agency in the discharge of its functions the [Federal] Government shall establish Advisory Committees for various sectors and appoint as members thereof eminent representatives of the relevant sector, educational institutions, research institutes and non-governmental organizations.	
6.	Functions of the [Federal] Agency.	
(1)	The [Federal] Agency shall—	
(a)	administer and implement the provisions of this Act and the Rules and regulations made thereunder;	Should add "guidelines".
(b)	prepare, in co-ordination with the appropriate Government Agency and in consultation with the concerned sectoral Advisory Committees, [national] environmental policies for approval by the Council;	
(c)	take all necessary measures for the implementation of the [national] environmental policies approved by the Council;	
(d)	prepare and publish an Annual [National] Environment Report on the state of the environment;	Question asked above: Will provinces be required to produce an annual Environmental Report? NOTE: Inconsistent usage: environment / environmental report.
(e)	prepare or revise and establish the [National] Environmental Quality Standards with approval of the Council: Provided that before seeking approval of the Council, the [Federal] Agency shall publish the proposed [National] Environmental Quality Standards for public opinion in accordance with the prescribed procedure; and	
(f)	ensure enforcement of the [National] Environmental Quality Standards;	
(g)	establish standards for the quality of the ambient air, water and land, by Notification in the Official Gazette [in consultation with the Provincial Agency concerned];	

<p>Provided that—</p> <p>(i) different standards for discharge or emission from different sources and for different areas and conditions may be specified;</p>	<p>Different sources is fine, but the idea of introducing different standards for different areas and conditions should be handled with the utmost care. Otherwise the law is setting up a hierarchy of environmental protection, with some areas receiving better protection and others receiving less protection. This is not equitable.</p> <p>The purpose of establishing such a regime, with varied protection, is also not clear. For example, is the intention here that certain ecologically fragile areas should be provided with stricter protection through measures such as a complete ban on all protects?</p> <p>Or is the purpose to weaken application of the law in some areas? This seems to be the case, especially considering the other sub-sections in this proviso.</p> <p>There should be baseline quality standards and emissions standards, applicable throughout the country, with the option of strengthening these where necessary, but not weakening them.</p>
<p>(ii) where standards are less stringent than the [National] Environmental Quality Standards prior approval of the Council shall be obtained;</p>	<p>This clause weakens the protections of the law. It also allows the Council to override the EPA. It should be deleted.</p> <p>Under what conditions should less stringent standards be applied? And what is to stop every project or industry from applying for the less stringent standards?</p>
<p>(iii) certain areas, with the approval of the Council, may exclude from carrying out specific activities, projects from the application of such standards;</p>	<p>This clause, once again, weakens the protections of the law and gives the Council power to override the EPA. Ideally, there should be no exceptions to the application of the law. If exceptions must be granted, then conditions should be specified clearly.</p> <p>Also, it should not be solely up to the Council to decide. The EPA should have a role and if there is a conflict between the Council's recommendations and the EPA's recommendations, then the matter should be taken before an authority such as the Environmental Tribunal.</p> <p>In other words, a specific and transparent mechanism must be put in place for the granting of exceptions. Otherwise, the law loses its efficacy.</p> <p>NOTE: Something should be added to the effect that exceptions may only be granted after following a specified procedure, if it is proven that such an exception is in the national or public interest (although it seems unlikely than</p>

		any such exceptions could be in the public interest). A procedure for public hearings should also be included in the process so that the decision-making process is open and transparent.
(h)	co-ordinate environmental policies and programmes nationally and internationally;	Provinces do not have the power to act "nationally and internationally". This needs to be deleted. Could add a provision that provinces must coordinate with each other.
(i)	establish systems and procedures for surveys, surveillance, monitoring, measurement, examination, investigation, research, inspection and audit to prevent and control pollution, and to estimate the costs of cleaning up pollution and rehabilitating the environment in various sectors;	
(j)	take measures to promote research and the development of science and technology which may contribute to the prevention of pollution, protection of the environment, and sustainable development;	
(k)	certify one or more laboratories as approved laboratories for conducting tests and analysis and one or more research institutes as environmental research institutes for conducting research and investigation for the purposes of this Act.	The issue of laboratories is unclear. Here, it is simple enough that the EPA can authorise/approve laboratories for environmental testing. But in section 6(2)(e), below, the EPA is also supposed to "establish and maintain" laboratories. (See comments below.)
(l)	identify the needs for and initiate legislation in various sectors of the environment;	
(m)	render advice and assistance in environmental matters including such information and data available with it as may be required for carrying out the purposes of this Act: Provided that the disclosure of such information shall be subject to the restrictions contained in the proviso to sub-section (3) of section 12;	
(n)	assist the local councils, local authorities, Government Agencies and other persons to implement schemes for the proper disposal of wastes so as to ensure compliance with the standards established by it;	
(o)	provide information and guidance to the public on environmental matters;	As with the functioning of the Environmental Protection Council, above, here too a clause about access to information should be included. There should be a requirement that all guidelines, reports, research, studies, etc. must be

		published (online, at the very least; possibly with hard copies available upon request and on payment of a small fee).
(p)	recommend environmental courses, topics, literature and books for incorporation in the curricula and syllabi of educational institutions;	
(q)	promote public education and awareness of environmental issues through mass media and other means including seminars and workshops;	
(r)	specify safeguards for the prevention of accidents and disasters which may cause pollution, collaborate with the concerned person in the preparation of contingency plans for control of such accidents and disasters, and co-ordinate implementation of such plans;	<p>What about clean-up? It should establish rules for clean-up.</p> <p>Also note that under the WP National Calamities (Prevention and Relief) Act 1958 (WP No. XXXIII), which has been adapted for the provinces, the provincial government is the one who takes measures to prevent “natural calamities”. The provisions of the WP law will need to be assessed and conflicts, if any, addressed.</p> <p>But please also note that under the provincial LGOs of 2001, district offices have responsibility for taking measures to prevent “natural calamities”. So there are three different entities, all mandated with similar responsibilities. This needs to be rationalised in the new laws.</p> <p>NOTE: Sub-section (i), above, mentions “systems and procedures for surveys, surveillance, monitoring, measurement, examination, investigation, research, inspection and audit to prevent and control pollution, and to estimate the costs of cleaning up pollution and rehabilitating the environment in various sectors” — this sub-section (r) should be moved up, to follow that sub-section.</p>
(s)	encourage the formation and working of non-governmental organizations, community organizations and village organizations to prevent and control pollution and promote sustainable development;	
(t)	take or cause to be taken all necessary measures for the protection, conservation, rehabilitation and improvement of the environment, prevention and control of pollution and promotion of sustainable development; and	
(u)	perform any function which the Council may assign to it.	Sounds like the EPA is answerable to the Council, or at least takes orders from it.

<p>(2) The [Federal] Agency may—</p> <p>(a) undertake inquiries or investigation into environmental issues, either of its own accord or upon complaint from any person or organization;</p>	<p>What is the procedure for registering a public complaint and for investigation of public complaints? Have these procedures been prescribed in regulations? If not, this clause cannot operate.</p>
<p>(b) request any person to furnish any information or data relevant to its functions;</p>	
<p>(c) initiate with the approval of the [Federal] Government, requests for foreign assistance in support of the purposes of this Act and enter into arrangements with foreign agencies or organizations for the exchange of material or information and participate in international seminars or meetings;</p>	<p>Can provincial entities request “foreign assistance”? Do sub-national authorities have the power to negotiate directly with other states? This is a Constitutional issue and will need to be checked. The same point applies to entering “arrangements” (should it be “agreements”?) with foreign agencies or organisations.</p>
<p>(d) recommend to the [Federal] Government the adoption of financial and fiscal programmes, schemes or measures for achieving environmental objectives and goals and the purposes of this Act, including—</p>	<p>The problem with all these clauses that allow the EPA to recommend things is that there is no follow-up mechanism, no requirement for the government to explore these recommendations or consider them seriously. So what incentive does the EPA have to actually do the work? And what is the point if political exigencies (or other reasons) prevent the government from considering, for example, fiscal reform in aid of environmental protection?</p>
<p>(i) incentives, prizes awards, subsidies, tax exemptions, rebates and depreciation allowances; and</p>	<p>Add “rewards”? (The Punjab proposed amendments suggest that rewards should also be offered for reporting offences or assisting in prosecution.)</p>
<p>(ii) taxes, duties, cesses and other levies;</p>	<p>The EPA is toothless here. Ideally, it should have more power to shape such policy decisions. Although it does not have the power to levy taxes, there is a role for EPAs to lobby provincial governments for the introduction of environmental taxes, a portion of which could then be used to fund the operations of EPAs and/or be paid into the Sustainable Development Fund.</p>
<p>(e) establish and maintain laboratories to help in the performance of its functions under this Act and to conduct research in various aspects of the environment and provide or arrange necessary assistance for establishment of similar laboratories in the private sector; and</p>	<p>Laboratory confusion. Is the EPA supposed to have its own laboratory for the purposes of environmental testing? Or does it nominate private/government laboratories to act as “licensed laboratories” for the purposes of this Act?</p> <p>The role of laboratories is not clear. In section 6(1)(k), above, the EPA “certifies” laboratories. Here, it is establishing and maintaining them. Presumably these laboratories are performing different tasks? The two sub-sections related to laboratories should be placed together and the specific roles of each type should be specified.</p>
<p>(f) provide or arrange, in accordance with such procedure as may be prescribed, financial assistance for projects designed to facilitate the discharge of its functions.</p>	<p>Where is this money to come from? And how is this type of assistance different from the assistance that the Sustainable Development Fund provides? (See section 9(3), below.)</p>

	<p>Note also that the EPA has this added burden of financing projects.</p> <p>This also creates an overlap (since the Sustainable Development Fund also provides financial assistance) as well as procedural difficulties for those seeking assistance (where to apply?). Ideally, all financing/assistance should come from a single source. Or it should be stated clearly what types of activities the EPA can provide assistance for and what (different) areas the Sustainable Development Fund can help with.</p>
7. Powers of the [Federal] Agency. Subject to the provisions of this Act, the [Federal] Agency may—	
(a) lease, purchase, acquire, own, hold, improve, use or otherwise deal in and with any property both moveable and immovable;	
(b) sell, convey, mortgage, pledge, exchange or otherwise dispose of its property and assets;	
(c) fix and realize fees, rates and charges for rendering any service or providing any facility, information or data under this Act or the rules and regulations made thereunder;	
(d) enter into contracts, execute instruments, incur liabilities and do all acts or things necessary for proper management and conduct of its business;	
(e) appoint with the approval of the [Federal] Government and in accordance with such procedures as may be prescribed, such advisers, experts and consultants as it considers necessary for the efficient performance of its functions on such terms and conditions as it may deem fit;	
(f) summon and enforce the attendance of any person and require him to supply any information or document needed for the conduct of any enquiry or investigation into any environmental issue;	What is procedure for enforcement?
(g) enter and inspect and under the authority of a search warrant issued by the Environmental Tribunal or Environmental Magistrate, search at any reasonable time, any land, building, premises, vehicle or vessel or other place where or in which there are reasonable grounds to believe that an offence under this Act has been, or is being, committed;	<p>What is the procedure for obtaining a search warrant from the environmental tribunal or environmental magistrate? On what grounds can such a warrant be issued?</p> <p>If the procedures prescribed in the codes of civil procedure and/or criminal procedure are to apply, then the relevant sections of those codes should be mentioned here, for clarity.</p>

	<p>Should the EPA also have emergency powers to search without a warrant?</p> <p>Have to be careful allowing searches without a warrant, given the potential for abuse. Another national law that creates an inspection regime should be found and assessed, to see how emergencies are handled, and see how that could be adapted for EPAs.</p>
(h) take samples of any materials, products, articles or substances or of the effluent, wastes or air pollutants being discharged or emitted or of air, water or land in the vicinity of the discharge or emission;	<p>Is a warrant needed to take samples if the samples can only be taken by entering the premises of a factory/project?</p> <p>The law needs to be specific about searches and samples, providing in both cases for emergency action as well as action to be taken only with a warrant.</p> <p>Approval of an IEE or EIA must be a pre-condition for obtaining a permit to carry out an activity. Section 12(1) says that no proponent can commence an activity without an approved EIA, which is not exactly the same thing as saying that a permit to carry out an activity cannot be issued without an approved EIA. EPA members will need to be consulted, to tell us what actually happens in practice and what works and what does not.</p> <p>Also, a provision should be added to the effect that periodic inspections are to be conducted, that those being inspected must cooperate with inspectors, and that failure to cooperate with inspectors is an offence.</p>
(i) arrange for test and analysis of the samples at a certified laboratory;	<p>If testing is done by "certified" laboratories, what are the EPA's own laboratories doing?</p> <p>Ideally, both types of laboratories should have a role to play, so that EPA could out-source routine analyses, or those that require particularly sensitive/expensive tests that EPA does not have the equipment for. But if this is the case, it has not been clarified. Two types of laboratories are mentioned in the law without specifying the functions of each.</p> <p>Especially given that funding is limited, it might be too great an expense for the EPA to maintain its own laboratory. Have any provincial EPAs actually set up their own laboratories? If so, what has their experience been?</p>
(j) confiscate any article used in the commission of the offence where the offender is not known or cannot be found within a reasonable time: Provided that the power under clauses (f), (h), (i) and (j) shall be exercised in accordance with the provisions of the Code of Criminal Procedure, 1898 (Act	<p>If either the Code of Criminal Procedure or Rules made under PEPA are to be followed, then both instruments have to be analysed to see if there are any conflicts or overlaps.</p>

	V of 1998) or the rules made under this Act and under the direction of the Environmental Tribunal or Environmental Magistrate; and	Also, how is it decided which procedure is to be followed? This has to be clarified.
(k)	establish a [National] Environmental Co-ordination Committee comprising the Director-General as its Chairman [and the Director-General of the Provincial Environmental Protection Agencies] and such other persons as the [Federal] Government may appoint as its members to exercise such powers and perform such functions as may be delegated or assigned to it by the [Federal] Government for carrying out the purposes of this Act and for ensuring inter provincial co-ordination in environmental policies.	Ironically, "inter-provincial coordination in environmental policies" is now far more important than it was when PEPA was a federal law. This Coordination Committee, consisting of provincial DGs, should continue to function, or some other type of coordination mechanism should be established. Besides DGs, provincial EPAs should also be represented. Since the federal government is no longer involved, perhaps such a coordination committee could be chaired by each of the provincial DGs in rotation.
8.	Establishment, powers and functions of the Provincial Environmental Protection Agencies.	Since the main EPA sections above are the ones that will apply to provincial EPAs, section 8 on provincial EPAs should be deleted in its entirety.
(1)	[Every] Provincial Government shall, by Notification in the Official Gazette, establish an Environmental Protection Agency, to exercise such powers and perform such functions as may be delegated to it by the Provincial Government under sub-section (2) of section 26.	
(2)	The Provincial Agency shall be headed by a Director-General who shall be appointed by the Provincial Government on such terms and conditions as it may determine.	
(3)	The Provincial Agency shall have such administrative, technical and legal staff as the Provincial Government may specify, to be appointed in accordance with such procedure as may be prescribed.	
(4)	The powers and functions of the Provincial Agency shall be exercised and performed by the Director-General.	
(5)	The Director General may, by general or special order, delegate any of the powers and functions to staff appointed under sub-section (3).	
(6)	For assistance of the Provincial Agency in the discharge of its functions, the Provincial Government shall establish sectoral Advisory Committees for various sectors and appoint members from amongst eminent representatives of the relevant sector, educational institutions, research institutes and non-governmental organizations.	
9.	Establishment of the [Provincial] Sustainable Development Funds.	
(1)	There shall be established [in each Province] a Sustainable Development Fund.	

(2)	The [Provincial] Sustainable Development Fund shall be derived from the following sources, namely:—				
(a)	grants made or loans advanced by the Federal Government or the Provincial Governments;			Are these to be one-off grants or will there be a budgeted amount that is paid into the fund at regular intervals?	Will the federal government provide any financial support for or contribution to the Sustainable Development Fund?
(b)	aid and assistance, grants, advances, donations and other non-obligatory funds received from foreign governments, national or international agencies, and non-governmental organizations; and			Does the Fund have to apply for these types of grants?	Here, again, it needs to be checked whether provincial governments and agencies have the authority to deal directly with foreign governments and international agencies.
(c)	contributions from private organizations and other persons.				
				What about money received through fines, pollution charges, penalties under PEPA, and so on? Does that go to the provincial government? The EPA?	Without a steady source of income, the Fund will not be able to assist in a consistent or sustainable manner.
					Ideally, income from fines and pollution charges should go directly into the Fund. In reality, this income usually goes to the central treasury and never gets used for conservation/pollution control/mitigation. This is an issue to be dealt with in the new law.
(3)	The [Provincial] Sustainable Development Fund shall be utilized in accordance with such procedure as may be prescribed for— (a) providing financial assistance to the projects designed for the protection, conservation, rehabilitation and improvement of the environment, the prevention and control of pollution, the sustainable development of resources and for research in any specified aspect of environment; and (b) any other purpose which in the opinion of the Board will help achieve environmental objectives and the purposes of this Act.				
10. (1)	Management of the [Provincial] Sustainable Development Fund. The [Provincial] Sustainable Development Fund shall be managed by a			A clause should be added that accounts of the Fund are audited annually. (Either here or in the next section.)	

<p>Board known as the Provincial Sustainable Development Fund Board consisting of—</p> <p>(i) Chairman, Planning and Development Board/Additional Chief Secretary Planning and Development Department Chairperson</p> <p>(ii) such officers of the Provincial Governments, not exceeding six, as the Provincial Government may appoint including Secretaries incharge of the Finance, Industries and Environment Departments Members</p> <p>(iii) such non-official persons not exceeding ten as the Provincial Government may appoint including representatives of the Provincial Chamber of Commerce and Industry, non governmental organizations, and major donors. Members</p> <p>(iv) Director-General of the Provincial Agency Member/Secretary</p>	
<p>(2) In accordance with such procedure and such criteria as may be prescribed, the Board shall have the power to—</p> <p>(a) sanction financial assistance for eligible projects;</p> <p>(b) invest moneys held in the [Provincial] Sustainable Development Fund in such profit-bearing Government bonds, savings schemes and securities as it may deem suitable; and</p> <p>(c) take such measures and exercise such powers as may be necessary for utilization of the [Provincial] Sustainable Development Fund for the purposes specified in sub-section (3) of section 9.</p>	
<p>(3) The Board shall constitute committees of its members to undertake regular monitoring of projects financed from the Provincial Sustainable Development Fund and to submit progress reports to the Board which shall publish an Annual Report incorporating its annual audited accounts and performance evaluation based on the progress reports.</p>	<p>Fund should be audited. It should be mentioned in a separate sub-section.</p> <p>A clause should also be added about access to information, covering all of the Board's (and the Fund's) activities. (Again, online at the very least.)</p>

<p>11. Prohibition of certain discharges or emissions. Subject to the provisions of this Act and the Rules and Regulations made thereunder, no person shall discharge or emit or allow the discharge or emission of any effluent or waste or air pollutant or noise in an amount, concentration or level which is in excess of the [National] Environmental Quality Standards or, where applicable, the standards established under sub-clause (i) of clause (g) of sub-section (1) of section 6.</p>	<p>Section 6(1)(g) is the one that allows different standards to be prescribed for different areas and/or conditions. See comments attached to section 6(1)(g), above.</p> <p>NOTE: The penalties applicable to offences committed under this section are very high (see comments attached to section 17 on penalties) but not all offences related to discharges and emissions are equally dangerous or damaging to the environment. This section should be expanded and refined, perhaps developing a scale of some sort, and the applicable penalties should be refined accordingly.</p>
<p>(2) The [Federal] Government may levy a pollution charge on any person who contravenes or fails to comply with the provisions of sub-section (1), to be calculated at such rate, and collected in accordance with such procedure as may be prescribed.</p>	<p>Pollution charge is a subject for which Rules have been made: Pollution Charge for Industry (Calculation and Collection) Rules 2001.</p>
<p>(3) Any person who pays the pollution charge levied under sub-section (2) shall not be charged with an offence with respect to that contravention or failure.</p>	<p>Does this mean that the "pollution charge" is like a ticket (challan), similar to tickets issued for traffic offences? In which case, it would only be used in non-serious cases. Otherwise, sounds like an easy way to escape prosecution.</p> <p>Also, in such cases: (1) Who is responsible for clean-up? Who pays for clean-up? (2) What if pollution continues after charge has been levied? (3) What about a repeat offender?</p> <p>Or does it mean that a "pollution charge" is to be levied in such cases where the EQS have been relaxed? (See reference to section 6(1)(g) in previous sub-section.)</p> <p>Or is it a one-time charge on projects/industries that started operations before the 1994 cut-off (see next sub-section)?</p>
<p>(4) The provisions of sub-section (3) shall not apply to projects which commenced industrial activity on or after the thirtieth day of June, 1994.</p>	<p>Why only "industrial activity"? Shouldn't it apply to all activities that fall under the scope of "project"? (Includes commercial, roads, etc.)</p> <p>What is the significance of the June 1994 cut-off date and why are only those projects which commenced activity before this date eligible to benefit from the provisions of section 11(3)?</p>

<p>12. Initial environmental examination and environmental impact assessment.</p> <p>(1) No proponent of a project shall commence construction or operation unless he has filed with the [Federal] Agency an initial environmental examination or, where the project is likely to cause an adverse environmental effect, and environmental impact assessment, and has obtained from the [Federal] Agency approved in respect thereof.</p>	<p>Strategic environmental assessment (SEA) is becoming standard best practice in many other countries, including in Asia. Pakistan should seriously consider including it in the new laws.</p> <p>The problem will be that SEA should be required for federal policies and programmes as well, and for that to happen, a federal law will be required.</p> <p>This clause does not have retroactive effect, so what about projects that have already commenced operations? Their pollution violations, if any, can presumably be handled under the pollution charge clauses above. But what about other, non-pollution impacts? A provision on environmental audits should be added, to cover these types of operations. All factories, projects, industrial units, and so on, regardless of when they began operations, should be required to undergo inspections, and to comply with instructions issued by the inspecting authority (for example, older industrial units to be retrofitted).</p>
<p>(2) The [Federal] Agency shall --</p> <p>(a) review the initial environmental examination and accord its approval, or require submission of an environmental impact assessment by the proponent; or</p>	
<p>(b) review the environmental impact assessment and accord its approval subject to such conditions as it may deem fit to impose, require that the environmental impact assessment be re-submitted after such modifications as may be stipulated or reject the project as being contrary to environmental objectives.</p>	
<p>(3) Every review of an environmental impact assessment shall be carried out with public participation and no information will be disclosed during the course of such public participation which relates to—</p>	<p>What about initial environmental examination? No public participation necessary? Public comments should be invited for all proposed projects, regardless of whether the projects are subject to IEE or EIA.</p> <p>There should also be public participation at the screening stage, pre-IEE. The EPAs should be involved in all stages.</p>
<p>(i) trade, manufacturing or business activities, processes or techniques of a proprietary nature, or financial, commercial, scientific or technical matters which the proponent has requested should remain confidential, unless for reasons to be recorded in writing, the Director General of the [Federal] Agency is of the opinion that the request for confidentiality is not well-founded or the public interest in the disclosure outweighs the possible prejudice to the competitive position of the project or its proponent; or</p>	<p>The matter of withholding information is to be decided by DG alone?</p> <p>Decisions such as these should be taken by the highest-level authority, not necessarily the highest post in the Act. For example, in some countries such matters are put before parliament by the prime minister, so that the highest degree of transparency is assured.</p>

		<p>A similar high-level authorising process should be introduced also for any relaxation in the standards and procedures prescribed by this law. Once again, this will ensure transparency.</p>
(ii)	international relations, national security or maintenance of law and order, except with the consent of the [Federal] Government; or	<p>Maintenance of law and order is presumably a provincial issue (not mentioned in Federal List) but national security and international relations are federal subjects. So while technically both federal and provincial governments can block access to information, jurisdiction needs to be clarified, and particularly the jurisdiction of provincial governments. In cases where provincial governments do not have authority, a procedure needs to be specified for the federal government to intervene, if necessary. This will need to be checked.</p>
(iii)	matters covered by legal professional privilege.	
(4)	<p>The [Federal] Agency shall communicate its approval or otherwise within a period of four months from the date the initial environmental examination or environmental impact assessment is filed complete in all respects in accordance with the prescribed procedure, failing which the initial environmental examination or, as the case may be, the environmental impact assessment shall be deemed to have been approved, to the extent to which it does not contravene the provisions of this Act and the rules and regulations.</p>	<p>How does this work? Once automatic approval occurs after four months, how is the extent of compliance with the law determined? What is the point of having a separate approval process if automatic approval “to the extent of which it does not contravene” the law kicks in after four months?</p> <p>This clause penalises the EPA (and the general public) for acting slowly but does not provide an incentive for the EPA to act quickly.</p> <p>EPAs should be given a deadline for taking action. If the EPA fails to act within the statutory deadline, the proponent can sue. That should provide the necessary incentive to timely action. But there should be no automatic approval, which is a procedure that is open to misuse.</p> <p>To prevent misuse (such as deliberate delays by project proponents), the commencement of the four-month period should be defined more clearly. For example, the deadline should start only once the EPA has received all of the necessary documentation, etc.</p> <p>Similarly, is the public hearing counted in the four-month cut-off, or does that happen before the four-month review period kicks in?</p> <p>Note also that a four-month cut-off for both IEE and EIA is not ideal, since presumably both review processes do not require the same amount of time. But this will need to be checked.</p>

(5)	Subject to sub-section (4) the [Federal] Government may in a particular case extend the aforementioned period of four months if the nature of the project so warrants.	Under what conditions can an extension be sought? What is the procedure? What prevents the government from invoking this sub-section in the case of delays by the EPA, to avoid the automatic approval kicking in? What does the possibility of an extension do to the automatic approval clause? Conditions should be specified, otherwise this becomes arbitrary. These questions should be addressed in the EIA regulations, which will have to be comprehensively reviewed, amended and issued in each province. These categories of projects are covered by the IEE/EIA Regulations. What is the purpose of this sub-section? Should be deleted.
(6)	The provisions of sub-sections (1), (2), (3), (4) and (5) shall apply to such categories of projects and in such manner as may be prescribed.	Noted above but worth stating here with respect to all of section 12: Section 12 does not have retroactive effect. How are older projects violating the provisions of this Act handled? Provisions are needed for environmental audits.
(7)	The [Federal] Agency shall maintain separate registers for initial environmental examination and environmental impact assessment projects, which shall contain brief particulars of each project and a summary of decisions taken thereon, and which shall be open to inspection by the public at all reasonable hours and the disclosure of information in such registers shall be subject to the restrictions specified in sub-section (3).	This may no longer be appropriate to include in a provincial law. Legislative jurisdiction over territorial waters and historic waters is unclear, thanks to the wording of the federal Territorial Waters and Maritime Zones Act 1976 (as noted above). Regardless of the waters issue, "import" is a federal subject. See Federal Legislative List, Part I, item 27: "27. Import and export across customs frontiers as defined by the Federal Government, inter-provincial trade and commerce, trade and commerce with foreign countries; standard of quality of goods to be exported out of Pakistan." — so this matter cannot be handled in a provincial law. Inter-provincial movement is also a federal subject.
13.	Prohibition of import of hazardous waste. No person shall import hazardous waste into Pakistan and its territorial waters, Exclusive Economic Zone and historic waters.	It goes without saying that a way must be found to ensure hazardous waste is not imported. Since there is no longer a federal law to regulate this subject, other federal laws (import, territorial waters, and so on) will have to be amended to include the import and regulation of hazardous waste.
		As noted above, inter-provincial trade and movement of goods is a federal subject. But transport within a province is regulated by the province. A sub-section should be added about transit/transport of hazardous waste through

		the province. NOTE: Item 27 of the Federal List only says “inter-provincial trade and commerce”. “Transport” is not mentioned. A narrow reading could be used to argue that “transport” is therefore excluded. “Import” has to be deleted. “Transport” will need to be qualified (inter- / intra-). NOTE: In the draft Punjab PEPA amendments, a gradation of hazardous substances is proposed. That makes good sense, since not all “hazardous” substances are equally hazardous.
14. Handling of hazardous substances. Subject to the provisions of this Act, no person shall generate, collect, consign, transport, treat, dispose of, store, handle or import any hazardous substance except—	(a) under a licence issued by the [Federal] Agency and in such manner as may be prescribed; or (b) in accordance with the provisions of any other law for the time being in force, or of any international treaty, convention, protocol, code, standard, agreement or other instrument to which Pakistan is a party.	This is federal jurisdiction. The subject of MEA implementation is one that needs to be assessed separately. Pre-18th Amendment, with the subject of “environmental pollution and ecology” on the concurrent list, implementing legislation for MEAs could easily be framed by the federal government. Now provinces will need to individually frame implementing laws for all environment-related treaties and agreements. Note that there are the (draft) Hazardous Substances Rules 2003. According to a Dawn report dated 29 January 2011 (http://www.dawn.com/2011/01/29/hazardous-substance-rules-drafted-in-2003-yet-to-be-notified.html) they have still not been notified.
15. Regulation of motor vehicles. (1) Subject to the provisions of this Act, and the rules and regulations made thereunder, no person shall operate a motor vehicle from which air pollutants or noise are being emitted in an amount, concentration or level which is in excess of the [National] Environmental Quality Standards, or where applicable the standards established under clause (g) of sub-section (i) of section 6.	(2) For ensuring compliance with the standards mentioned in sub-section (1), the [Federal] Agency may direct that any motor vehicle or class of vehicles shall install such pollution control devices or other equipment or use such fuels or undergo such maintenance or testing as may be prescribed.	Does this mean that even in the case of pollution from vehicles, different emissions standards can be established for different areas? Detailed comments on this point have already been added above. If the purpose is to weaken emissions standards in some areas, then this is not a good idea. If, however, the purpose is to impose stricter standards, for example to clean up an urban area that is severely polluted from vehicular emissions, then that must be specified. In such cases, once emissions levels in such an area are back within the acceptable range, standards can revert to the previous levels, but never lower than that level.

<p>(3) Where a direction has been issued by the [Federal] Agency under subsection (2) in respect of any motor vehicles or class of motor vehicles, no person shall operate any such vehicle till such direction has been complied with.</p>	<p>See section 17(2), below, on penalties applicable to sections 14 and 15. Contravention of the clauses of section 15 can result in a maximum penalty of 100,000 rupees, with an additional penalty of up to 1,000 rupees for each day that the violation continues to be committed. This is unrealistically high for a lot of the offences that are likely to be covered by section 15.</p> <p>Now see section 17(3), below, on conviction for these offences. The Environmental Tribunal or Environmental Magistrate is supposed to hear the case. Again, for many of the offences likely to be committed under section 15, a court hearing hardly seems necessary. For example, vehicular emissions in excess of the prescribed standards. A spot fine for the offence is more suitable, with some system to impose a higher penalty on a repeat offender (a notation made on the vehicle's registration papers to indicate that a fine has already been charged, or a notation on the driver's licence).</p>
<p>16. (1) Environmental protection order. Where the [Federal] Agency [or a Provincial Agency] is satisfied that the discharge or emission of any effluent, waste, air pollutant or noise, or the disposal of waste, or the handling of hazardous substances, or any other act or omission is likely to occur, or is occurring, or has occurred, in violation of the provisions of this Act, rules or regulations or of the conditions of a licence, and is likely to cause, or is causing or has caused an adverse environmental effect, the [Federal] Agency [or, as the case may be, the Provincial Agency] may, after giving the person responsible for such discharge, emission, disposal, handling, act or omission an opportunity of being heard, by order direct such person to take such measures that the [Federal] Agency [or Provincial Agency] may consider necessary within such period as may be specified in the order.</p>	<p>In terms of procedural fairness, an opportunity to be heard is fine. But if the EPO is to be used as an emergency measure, then this defeats the purpose. An EPO should function as an injunction.</p> <p>How are matters covered by an EPO brought to the Agency's attention? Could be detected during periodic inspections, or could be an acute situation that emerges suddenly or relatively suddenly. Provisions should be added to cover these contingencies.</p> <p>Can members of the public or concerned parties appeal to the Agency for the imposition of an EPO? Members of the public should be able to inform the EPA of a possible violation that EPA would then investigate.</p> <p>What is the procedure for issuing an EPO? Is it simply a matter of the EPA issuing the order? If there is a violation of the law, the EPA should have the power to issue the EPO. If it requires authorisation from a court, that should be specified.</p>
<p>(2) In particular and without prejudice to the generality of the foregoing power, such measures may include— (a) immediate stoppage, preventing, lessening or controlling the discharge, emission, disposal, handling, act or omission, or to minimize or remedy the adverse environmental effect;</p>	<p>For example, "immediate" here implies an emergency. This is the purpose for which an EPO should be used. If a facility is detected discharging waste in excess of standards, it should be ordered, via an EPO, to stop immediately. This needs to be stated clearly in the law.</p> <p>The phrase "remedy the adverse environmental effect" means clean-up, but this should also be stated more clearly.</p>

	(b) installation, replacement or alteration of any equipment or thing to eliminate, control or abate on a permanent or temporary basis, such discharge, emission, disposal, handling, act or omission;
	(c) action to remove or otherwise dispose of the effluent, waste, air pollutant, noise, or hazardous substances; and
	(d) action to restore the environment to the condition existing prior to such discharge, disposal, handling, act or omission, or as close to such condition as may be reasonable in the circumstances, to the satisfaction of the [Federal] Agency [or, Provincial Agency].
What does this mean in practice? It has been noted by EPA officials that recovery as arrears of land revenue is very difficult, and that this clause should be removed.	(3) Where the person, to whom directions under sub-section (1) are given, does not comply therewith, the [Federal] Agency [or Provincial Agency] may, in addition to the proceedings initiated against him under this Act or the rules and regulations, itself take or cause to be taken such measures specified in the order as it may deem necessary and may recover the reasonable costs of taking such measures from such person as arrears of land revenue.
<p>The offences to which section 17(1) penalties apply are:</p> <p>section 11 — discharges and emissions</p> <p>section 12 — IEE and EIA</p> <p>section 13 — import of hazardous waste</p> <p>section 16 — environmental protection order</p> <p>The maximum fine for these offences is 1 million rupees but there is no minimum fine specified, presumably meaning that the Environmental Tribunal will decide. This does not seem to be an ideal situation. It might be better to rethink penalties, perhaps allowing for more gradations in the fines.</p> <p>Spot fines could be imposed for certain offences (for example, small-scale spills of hazardous substances, illegal dumping of certain types of waste), with heavier penalties for repeat offenders.</p> <p>The offences to which such a system applies could be determined according to environmental impact: offences that constitute an infraction of the law or the EQS but which do not pose a significant or long-term risk, for example.</p> <p>In considering offences, matters under federal jurisdiction also need to be taken into account. For example, oil spills at sea are now likely governed by</p>	<p>17. Penalties.</p> <p>Whoever contravenes or fails to comply with the provisions of sections 11, 12, 13 or section 16 or any order issued thereunder shall be punishable with fine which may extend to one million rupees, and in the case of a continuing contravention or failure, with an additional fine which may extend to one hundred thousand rupees for every day during which such contravention or failure continues:</p>

	the federal Merchant Shipping Ordinance 2001. "Major ports" are also on the Federal Legislative List, so pollution in port waters would not fall under the purview of provincial law.	
	This is saying that if an offence related to emissions (section 11) happens to involve a motor vehicle (section 15), then the offence will be punishable as a motor vehicle emissions (section 15) offence. Instead of this convoluted wording, why not just add a clause to say that section 11 offences do not apply to motor vehicles? Or add a sub-section in section 11 itself, saying that its provisions do not apply to motor vehicles? This section must be amended to promote clarity.	
	The offences to which section 17(1) penalties apply are: section 14 — handling of hazardous substances section 15 — motor vehicles Comments on this have been added above.	
	As noted above, not all cases (especially minor offences under section 17(2)) need to be heard by the tribunal or an environmental magistrate.	
	Good. Should add a clause about clean-up costs, which should be levied along with the fine — the polluter-pays principle.	
	Naming and shaming? Or are the trade associations/chambers of commerce supposed to take further action? Like blacklisting the repeat offender? This is possibly a matter that EPAs could take up with trade associations, to strengthen environmental protection through their own rules.	
Provided that if contravention of the provisions of section 11 also constitutes contravention of the provisions of section 15, such contravention shall be punishable under sub-section (2) only.	Whoever contravenes or fails to comply with the provisions of section 14 or 15 or any rule or regulation or conditions of any licence, any order or direction, issued by the Council or by the [Federal] Agency [or Provincial Agency], shall be punishable with fine which may extend to one hundred thousand rupees, and in case of continuing contravention or failure with an additional fine which extend to one thousand rupees for every day during which such contravention continues.	
(2)	Where an accused has been convicted of an offence under sub-sections (1) and (2), the Environmental Tribunal and Environmental Magistrate shall, in passing sentence, take into account the extent and duration of the contravention or failure constituting the offence and the attendant circumstances.	
(3)	Where an accused has been convicted of an offence under sub-section (1) and the Environmental Tribunal is satisfied that as a result of the commission of the offence monetary benefits have accrued to the offender, the Environmental Tribunal may order the offender to pay, in addition to the fines under sub-section (1), further additional fine commensurate with the amount of the monetary benefits.	
(4)	Where a person convicted under sub-sections (1) or sub-section (2), and had been previously convicted for any contravention under this Act, the Environmental Tribunal or, as the case may be, Environmental Magistrate may, in addition to the punishment awarded thereunder— (a) endorse a copy of the order of conviction to the concerned trade or industrial association, if any, or the concerned Provincial Chamber of Commerce and Industry or the Federation of Pakistan Chambers of Commerce and Industry;	
(5)		

(b)	sentence him to imprisonment for a term which may extend up to two years;	Here again it may need to be specified that imprisonment is an option for repeat offenders only in the case of certain serious offences.
(c)	order the closure of the factory;	Not just factory. The law covers other types of units and operations, and this option to shut down should apply to all of them.
(d)	order confiscation of the factory, machinery, and equipment, vehicle, material or substance, record or document or other object used or involved in contravention of the provisions of the Act:	Does the law mention what is to be done with confiscated equipment, vehicles, and so on? Perhaps they can be sold, and the money paid to the EPA or the Sustainable Development Fund. The law should specify and, ideally, the proceeds should go to the Fund.
	Provided that for a period of three years from the date of commencement of this Act the sentence of imprisonment shall be passed only in respect of persons who have been previously convicted for more than once for any contravention of sections 11, 13, 14 or 16 involving hazardous waste;	The reasoning behind this proviso is not clear. In the case of the federal law, this three-year period expired a long time ago in any case. Does not make sense to include it now in a provincial law. This seems to have been an attempt to allow for proper implementation of the law, and to provide a grace period before the more stringent punishments kicked in. No longer needed, so should be deleted.
(e)	order such person to restore the environment at his own cost, to the conditions existing prior to such contravention or as close to such conditions as may be reasonable in the circumstances to the satisfaction of the [Federal] Agency [or, as the case may be, Provincial Agency]; and	This is the clean-up clause. It should not be an option only for a repeat offence. It should be the case for any offence where environmental harm has occurred.
(f)	order that such sum be paid to any person as compensation for any loss, bodily injury, damage to his health or property suffered by such contravention.	Compensation, too, should be an option for any offence, not just a repeat offence. But note that there are similar provisions in the Penal Code for offences against the person. Those will need to be reviewed and compared to these provisions.
(6)	The Director-General of the [Federal] Agency [or of a Provincial Agency] or an officer generally or specially authorised by him in this behalf may, on the application of the accused, compound an offence under this Act with the permission of the Environmental Tribunal or Environmental Magistrate in accordance with such procedure as may be prescribed.	See this explanation: As per the Black's Law Dictionary, "Compound" means "to settle a matter by a money payment, in lieu of other liability". In fine, compounding of an offence is a settlement mechanism, by which, one is given an option to pay money in lieu of his prosecution, thereby avoiding a prolonged litigation. In some jurisdictions, it appears that only victims are permitted to give the go-ahead. But perhaps not in all jurisdictions? In PK law this clause appears in many legal instruments.

<p>(7) Where the Director-General of the [Federal] Agency [or of a Provincial Agency] is of the opinion that a person had contravened any provision of this Act, he may, subject to the rules, by notice in writing to that person require him to pay to the [Federal] Agency [or, as the case may be, Provincial Agency] an administrative penalty in the amount set out in the notice for each day the contravention continues; and a person who pays an administrative penalty for a contravention shall not be charged under this Act with an offence in respect of such contravention.</p>	<p>The purpose of an administrative penalty is not stated clearly. Sounds like an alternative to going through the Environmental Tribunal. Does it apply to all major and minor environmental offences listed in the schedule? What is the purpose of establishing this parallel procedure?</p> <p>The final clause (person who pays administrative penalty will not be charged with an offence) should only apply to a first offence, and not to repeat offences. This needs to be stated clearly.</p> <p>Usually administrative penalties/fines are the first step in enforcement. In many jurisdictions, it is necessary to prove that all administrative remedies have been exhausted before you approach a court.</p> <p>But PEPA does not specify that the administrative penalty is a first step. The amended law should make it clear that administrative penalties come first, unless a violation is at the level of a criminal offense from the outset.</p>
<p>(8) The provisions of sub-sections (6) and (7) shall not apply to a person who has been previously convicted of offence or who has compounded an offence under this Act or who has paid an administrative penalty for a contravention of any provision of this Act.</p>	<p>Not clear. Does this mean that compounding an offence and the administrative penalty are only available to first-time offenders? Or is it that compounding and administrative penalties can only be used once with respect to an individual? Or both?</p> <p>For example, in theory, the same person could be committing separate offences under the Act. Would such a person benefit from this clause in case of a first offence, based on type of offence, only the first time they committed any offence, or could a polluter benefit from this clause in each instance that a first offence is committed (where the offences are different)? This is a loophole, and needs to be addressed.</p>
<p>18. Offences by bodies corporate. Where any contravention of this Act has been committed by a body corporate, and it is proved that such offence has been committed with the consent or connivance of, or is attributed to any negligence on the part of, any director, partner, manager, secretary or other Officer of the body corporate, such director, partner, manager, secretary or other officer of the body corporate, shall be deemed guilty of such contravention along with the body corporate and shall be punished accordingly:</p>	<p>Consent, connivance, negligence — are these the only conditions under which officials can be held liable?</p>
<p>Provided that in the case of a company as defined under the Companies Ordinance, 1984 (XLVII of 1984), only the Chief Executive as defined in the said Ordinance shall be liable under this section.</p>	<p>NOTE: GB EPA officials note that some of these laws have not been extended to their area, and that this has created implementation difficulties.</p>

Explanation.— For the purposes of this section, “body corporate” includes a firm, association of persons and a society registered under the Societies Registration Act, 1860 (XXI of 1860), or under the Co-operative Societies Act, 1925 (VII of 1925).	
19. Offences by Government Agencies, local authorities or local councils. Where any contravention of this Act has been committed by any Government Agency, local authority or local council, and it is proved that such contravention has been committed with the consent or connivance of, or is attributable to any negligence on the part of, the Head or any other officer of the Government Agency, local authority or local council, such Head or other officer shall also be deemed guilty of such contravention along with the Government Agency, local authority or local council and shall be liable to be proceeded against and punished accordingly.	Consent, connivance, negligence. See comment above.
20. Environmental Tribunals. (1) The [Federal] Government may, by Notification in the Official Gazette, establish as many Environmental Tribunals as it considers necessary and, where it establishes more than one Environmental Tribunal, it shall specify territorial limits within which, or the class of cases in respect of which, each one of them shall exercise jurisdiction under this Act.	The word “may” refers to an option. The establishment of at least one tribunal should be a requirement, with the option of setting up additional tribunals. Otherwise a major enforcement mechanism of this law is undermined. Considering the difficulties encountered in establishing tribunals, is it even necessary to provide the option of setting up additional tribunals? Every provincial government and special area administration should be required to either set up a tribunal or designate a tribunal where its cases can be heard.
(2) An Environmental Tribunal shall consist of a Chairperson who is, or has been, or is qualified for appointment as a Judge of the High Court to be appointed after consultation with the Chief Justice of the High Court and two members to be appointed by the [Federal] Government of which at least one shall be a technical member with suitable professional qualifications and experience in the environmental field as may be prescribed.	NOTE: IUCNP study on Environmental Tribunals should also be reviewed to see if there are any issues related to the composition or functioning of tribunals.
(3) For every sitting of the Environmental Tribunal, the presence of the Chairperson and not less than one Member shall be necessary.	
(4) A decision of an Environmental Tribunal shall be expressed in terms of the opinion of the majority of its members, including the Chairperson, or if the case has been decided by the Chairperson and only one of the members and there is a difference of opinion between them, the decision of the Environmental Tribunal shall be expressed in terms of the opinion of the Chairperson.	
(5) An Environmental Tribunal shall not, merely by reason of a change in its composition, or the absence of any member from any sitting, be bound to	

	recall and rehear any witness who has given evidence, and may act on the evidence already recorded by, or produced, before it.	
(6)	An Environmental Tribunal may hold its sittings at such places within its territorial jurisdiction as the Chairperson may decide.	
(7)	No act or proceeding of an Environmental Tribunal shall be invalid by reason only of the existence of a vacancy in, or defect in the constitution, of, the Environmental Tribunal.	
(8)	The terms and conditions of service of the Chairperson and members of the Environmental Tribunal shall be such as may be prescribed.	
21.	Jurisdiction and powers of Environmental Tribunals.	
(1)	An Environmental Tribunal shall exercise such powers and perform such functions as are, or may be, conferred upon or assigned to it by or under this Act or the rules and regulations made thereunder.	
(2)	All contravention punishable under sub-section (1) of section 17 shall exclusively be triable by an Environmental Tribunal.	Here it seems the tribunal hears all section 17(1) cases... Now see next sub-section.
(3)	An Environmental Tribunal shall not take cognizance of any offence triable under sub-section (2) except on a complaint in writing by— (a) the [Federal] Agency or any Government Agency or local council; and (b) any aggrieved person, who has given notice of not less than thirty days to the [Federal] Agency [, or the Provincial Agency concerned], of the alleged contravention and of his intention to make a complaint to the Environment Tribunal.	Here it seems the tribunal also hears section 17(2) cases if a complaint is sent to it. What is the difference? Is there a separate procedure for hearing section 17(1) cases that is not specified here? Or are all 17(1) cases sent directly to the tribunal and only some 17(2) cases?
(4)	In exercise of its criminal jurisdiction, the Environmental Tribunal shall have the same powers as are vested in Court of Session under the Code of Criminal Procedure, 1898 (Act V of 1898).	
(5)	In exercise of the appellate jurisdiction under section 22 the Environmental Tribunal shall have the same powers and shall follow the same procedure as an appellate court in the Code of Civil Procedure, 1908 (Act V of 1908).	
(6)	In all matters with respect to which no procedure has been provided for in this Act, the Environmental Tribunal shall follow the procedure laid down in the Code of Civil Procedure, 1908 (Act V of 1908).	
(7)	An Environmental Tribunal may, on application filed by any officer duly authorised in this behalf by the Director-General of the [Federal] Agency [or	Apart from this reference to a police station, the Act does not include any role for the police. Is this because the Act envisages all enforcement activity will

<p>Provincial Agency], issue bailable warrant for the arrest of any person against whom reasonable suspicion exist, of his having been involved in contravention punishable under sub-section (1) of Section 17:</p> <p>Provided that such warrant shall be applied for, issued and executed in accordance with the provisions of the Code of Criminal Procedure, 1898 (Act V of 1898):</p> <p>Provided further that if the person arrested executes a bond with sufficient sureties in accordance with the endorsement on the warrant he shall be released from custody, failing which he shall be taken or sent without delay to the officer in-charge of the nearest police station.</p>	<p>be carried out by EPA officers? Or is police involvement/assistance in certain instances assumed, and so it is not necessary to mention specifically?</p>
<p>(8) All proceedings before the Environmental Tribunal shall be deemed to be judicial proceedings within the meaning of section 193 and 228 of the Pakistan Penal Code (Act XLV of 1860), and the Environmental Tribunal shall be deemed to be a court for the purpose of section 480 and 482 of the Code of Criminal Procedure, 1898 (Act V of 1898).</p>	
<p>(9) No court other than an Environmental Tribunal shall have or exercise any jurisdiction with respect to any matter to which the jurisdiction of an Environmental Tribunal extends under this Act, the rules and regulations made thereunder.</p>	<p>This means that if a tribunal has not been set up, or is non-functional for some reason, the entire enforcement mechanism of the law grinds to a halt. Considering the track record of environmental tribunals in some provinces, this clause should be removed, and instead a clause should be added to specify the procedure for the prosecution of environmental offences in the absence of a functioning tribunal.</p> <p>Please also note that there has been some discussion of eliminating the environmental tribunal altogether, and/or bringing environmental offences under the purview of the mainstream judicial system.</p>
<p>(10) Where the Environmental Tribunal is satisfied that a complaint made to it under sub-section (3) is false and vexatious to the knowledge of the complainant, it may, by an order, direct the complainant to pay to the person complained against such compensatory costs which may extend to one hundred thousand rupees.</p>	
<p>22. Appeals to the Environmental Tribunal. (1) Any person aggrieved by any order or direction of the [Federal] Agency [or any Provincial Agency] under any provision of this Act, and rules or regulations made thereunder may refer an appeal with the Environmental</p>	<p>Does the tribunal have suo moto powers?</p>

(2)	<p>Tribunal within thirty days of the date of communication of the impugned order or direction to such person.</p> <p>An appeal to the Environmental Tribunal shall be in such form, contain such particulars and be accompanied by such fees as may be prescribed.</p>	<p>Decisions of the tribunal can be appealed in the High Court. In practically all serious cases, such an appeal is almost inevitable. Which means that the high court will be involved, eventually, in all major environmental litigation. Bypassing the mainstream judicial system only to return to it in the case of an appeal is counter productive. This issue should be addressed separately.</p>
<p>23.</p> <p>(1)</p> <p>(2)</p>	<p>Appeals from orders of the Environmental Tribunal.</p> <p>Any person aggrieved by any final order or by any sentence of the Environmental Tribunal passed under this Act may, within thirty days of communication of such order or sentence, prefer an appeal to the High Court.</p> <p>An appeal under sub-section (1) shall be heard by a Bench of not less than two Judges.</p>	<p>Where does the environmental magistrate sit? Are they part of the mainstream judicial system or part of the tribunal mechanism? Have all First-Class Magistrates been appointed as environmental magistrates in all provinces? (This was done by NWFP/KP.)</p> <p>The wording here suggests that all section 17(2) cases are heard exclusively by the magistrate, whereas in section 21(3) above the tribunal is also allowed to hear these cases upon receiving a complaint.</p>
<p>(2)</p>	<p>Jurisdiction of Environmental Magistrates.</p> <p>Notwithstanding anything contained in the Code of Criminal Procedure, 1898 (Act V of 1898), or any other law for the time being in force, but subject to the provisions of this Act, all contravention punishable under sub-section (2) of section 17 shall exclusively be triable by a Judicial Magistrate of the First Class as Environmental Magistrate especially empowered in this behalf by the High Court.</p> <p>An Environmental Magistrate shall be competent to impose any punishment specified in sub-sections (2) and (4) of section 17.</p>	<p>From this it seems that the magistrate cannot:</p> <ul style="list-style-type: none"> • send anyone to prison • order closure or confiscation • order clean-up (restore environment to prior condition) • order payment of compensation <p>— All of these are matters discussed in section 17(5), which appears to be excluded here. But in section 17(5) itself, the environmental magistrate is also allowed to hand out any of these punishments.</p> <p>These inconsistencies need to be addressed.</p> <p>Compounding an offence (section 17(6)) is also a “punishment” and the magistrate is mentioned in that section, so 17(6) should be added here.</p>
(3)	<p>An Environmental Magistrate shall not take cognizance of an offence triable under sub-section (1) except on a complaint in writing by—</p> <p>(a) the [Federal] Agency [, Provincial Agency,] or Government Agency or a local council; and</p>	<p>This does not make sense. Cases under section 17(1) are supposed to be heard by the tribunal. Why would the EPA, some other government agency or even an aggrieved person want the case to be heard by a magistrate instead, and what does that do to the jurisdictional authority of the tribunal?</p>

(b) any aggrieved person.		The magistrate does not have suo moto powers. The question of suo moto powers is interesting, since some high courts have taken suo moto notice of environmental matters. Also, high courts have taken up environmental matters in petitions. The role of the high court has not been addressed here.
25. Appeals from orders of Environmental Magistrates.	Any person convicted of any contravention of this Act or the rules or regulations by an Environmental Magistrate may, within thirty days from the date of his conviction, appeal to the Court of Sessions whose decision thereon shall be final.	This is also problematic. Tribunal appeals are heard in the high court and magistrate appeals in the sessions court. Here again the "mainstream" judiciary is being involved. It defeats the purpose of having a separate environment-related judicial mechanism if all appeals go to the mainstream courts. Why are magistrate appeals not sent to the tribunal?
26. Power to delegate.	(1) The [Federal] Government may, by notification in the official Gazette, delegate any of its or of the [Federal] Agency's powers and functions under this Act and the rules and regulations made thereunder to [any Provincial Government.] any Government Agency, local council or local authority.	
(2)	The Provincial Government may, by notification in the official Gazette, delegate any of its or of the Provincial Agency's powers or functions under this Act and the rules and regulations made thereunder to any Government Agency of such Provincial Government or any local council or local authority in the Province.	
27. Power to give directions.	In the performance of their functions under this Act	
(a)	the [Federal] Agency [and Provincial Agencies] shall be bound by the directions given to them in writing by the [Federal] Government; and	
(b)	a Provincial Agency shall be bound by the directions given to it in writing by the Provincial Government.	
28. Indemnity.	No suit, prosecution or other legal proceedings shall lie against the [Federal] or Provincial Governments, the Council, the [Federal] Agency [or Provincial Agencies], the Directors-General of the [Federal] Agency [and the Provincial Agency], members, officers, employees, experts, advisors, committees or consultants of the [Federal] [or Provincial] Agencies or the Environmental Tribunal or Environmental Magistrates or any other person for anything which is in good faith done or intended to be done under this Act or the rules or regulations made thereunder.	

29. Dues recoverable as arrears of land revenue. Any dues recoverable by the [Federal] Agency [or Provincial Agency] under this Act, or the rules or regulations made thereunder shall be recoverable as arrears of land revenue.	What does this mean in practice? EPA officials note that recovery as arrears of land revenue is difficult, and that this clause should be removed.
30. Act to override other laws. The provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any other law for the time being in force.	How would this clause operate in relation to provincial laws? And what about the federal laws that override the environmental law, which will be provincial?.
31. Power to make rules. The [Federal] Government may, by Notification in the Official Gazette, make rules for carrying out the purposes of this Act including rules may for implementing the provisions of the international environmental agreements, specified in the Schedule to this Act.	Legislative jurisdiction for international treaties (including MEAs) lies with the federal government.
32. Power to amend the Schedule. The [Federal] Government may, by Notification in the Official Gazette, amend the Schedule so as to add any entry thereto or modify or omit any entry therein.	The schedule is a list of MEAs and should be deleted.
33. Power to make regulations. (1) For carrying out the purposes of this Act, the [Federal] Agency may, by Notification in the Official Gazette and with the approval of the [Federal] Government, make regulations not inconsistent with the provisions of this Act or the rules made thereunder.	
(2) In particular and without prejudice to the generality of the foregoing power, such regulations may provide for— (a) submission of periodical reports, data or information by any Government Agency, local authority or local council in respect of environmental matters;	
(b) preparation of emergency contingency plans for coping with environmental hazards and pollution caused by accidents, natural disasters and calamities;	
(c) appointment of officers, advisors, experts, consultants and employees;	
(d) levy of fees, rates and charges in respect of services rendered, actions taken and schemes implemented;	

(e)	monitoring and measurement of discharges and emissions;	
(f)	categorization of projects to which, and the manner in which, section 12 applies;	
(g)	laying down of guidelines for preparation of initial environmental examination and environmental impact assessment and development of procedures for their filing, review and approval;	
(h)	providing procedures for handling hazardous substances; and	
(i)	installation of devices in, use of fuels by, and maintenance and testing of motor vehicles for control of air and noise pollution.	
34. (1)	Repeal, savings and succession. The Pakistan Environmental Protection Ordinance 1983 (XXXVII of 1983) is hereby repealed.	Is PEPA 1997 going to be repealed or will it be adapted and amended by the provinces? This is an issue that is yet to be decided.
(2)	Notwithstanding the repeal of the Pakistan Environmental Protection Ordinance, 1983 (XXVII of 1983), any rules or regulations or appointments made, orders passed, notifications issued, powers delegated, contracts entered into, proceedings commenced, rights acquired liabilities incurred, penalties, rates, fees or charges levied, things done or action taken under any provisions of that Ordinance shall, so far as they are not inconsistent with the provisions of this Act be deemed to have been made, passed, issued, delegated, entered into, commenced, acquired, incurred, levied, done or taken under this Act.	Are all rules and regulations under PEPA saved? In the case of a federal law and federal rules, doing so is unproblematic. But here we would have federal rules saved by a provincial law. Need to check if this conforms to legal principles. All the federal rules and regulations issued under PEPA need to be amended and adapted, otherwise the law will be impossible to implement. The provincial guidelines issued under PEPA (mainly on EIA) will also need to be assessed, and adopted by all the provinces with appropriate amendments where necessary.
(3)	On the establishment of the [Federal] Agency [and Provincial Agencies] under this Act, all properties, assets and liabilities pertaining to the [Federal] Agency [and Provincial Agencies] established under that Ordinance shall vest in and be the properties, assets and liabilities, as the case may be, of the [Federal] Agency [and Provincial Agency] established under this Act.	
1. 2.	SCHEDULE (See section 31) 1. International Plant Protection Convention, Rome, 1951. 2. Plant Protection Agreement for the South-East Asia and Pacific Region (as amended), Rome, 1956.	Cannot include this list since international agreements are a federal subject. NOTE: The list is incomplete. See IUCN's list, "MEAs in Asia" (updated 4 October 2010), available at http://cmsdata.iucn.org/downloads/101004_asia_meas.pdf .

3. Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Eastern Region of its Distribution Area in South-West Asia (as amended), Rome, 1963.
4. Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar, 1971 and its amending Protocol, Paris, 1982.
5. Convention Concerning the Protection of World Cultural and Natural Heritage (World Heritage Convention), 1972.
6. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Washington, 1973.
7. Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979.
8. Convention on the Law of the Sea, Montego Bay, 1982.
9. Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985.
10. Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987 and amendments thereto.
11. Agreement on the Network of Aquaculture Centres in Asia and the Pacific, Bangkok, 1988.
12. Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal, Basel, 1989.
13. Convention on Biological Diversity, Rio de Janeiro, 1992.
14. United Nations Framework Convention on Climate Change, Rio De Janeiro, 1992.

ANNEX 4: GUIDELINES ISSUED BY ENVIRONMENTAL PROTECTION AGENCIES

Annex 4: Guidelines issued by the EPAs

In addition to the National Biosafety Guidelines 2005, the following guidelines for the preparation of EIA have been issued by the Pakistan Environmental Protection Agency (EPA):

- Guidelines for preparation and review of Environmental Report
- Guidelines for Public Consultation
- Guidelines for sensitive and critical areas
- Policies and procedures for review and approval

The Pakistan EPA has issued sector-specific guidelines for environmental reports related to the following activities:

- housing estates and new town development
- industrial states
- major chemical and manufacturing plants
- major roads guidelines
- major thermal power stations
- oil and gas exploration and production
- sewage schemes

The Khyber Pakhtunkhwa EPA has issued environmental guidelines and checklists for the following operations and activities:

- brick kiln units
- canal cleaning
- carpet manufacturing units
- construction or expansion of bus terminals
- flour mill
- forest harvesting operations
- forest road construction
- housing schemes
- marble units
- petrol and CNG stations
- poultry farms
- rural schools and basic health units
- sanitation schemes
- solid waste management
- sound plantation
- stone crushing units
- tourist facilities in ecologically sensitive areas
- tube well construction for agriculture and irrigation purposes
- urban areas road construction
- water reservoirs in arid zones
- water supply schemes
- watercourses construction and lining
- (draft) solid waste management

The following guidelines have been issued by the Balochistan EPA:

- dairy farms and slaughter houses

Source: Pakistan Environmental Protection Agency website.

ANNEX 5: EPA FEEDBACK ON ENFORCEMENT ISSUES

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
1. Short title, extent			<p>Sindh being a province with coastal waters requires extension of the act to address marine pollution. The jurisdiction of Sindh and Balochistan provinces on coastal waters not defined yet.</p> <p>Recommendation: Application and extension of the Act on coastal waters should include EEZ and Historic Waters to address coastal pollution issues. Provinces may be given jurisdiction over the ports, harbours and immediate coastal areas, say up to 10 km from the coast. Remaining coastal waters may be given under the jurisdiction of MSA and Pak Navy.</p>	
2. Definitions			<p>Need to include definition and meaning of:</p> <ul style="list-style-type: none"> • marine pollution • commercial activity • contamination • ambient air • coastal waters • coastal pollution • marine pollution • polluter • littering <p>Recommendation: Appropriate and authentic definitions may be developed and added</p>	
3. & 4. Environment Council			No check on evaluation of the performance of the council or its members.	

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
			Recommendation: Mechanism (such as quarterly reports, progress reports, decisions, etc.) to oversee and evaluate performance of the Environment Council may be added.	
6. Functions of the Agency			Includes an exhaustive list. Some functions are beyond the capacity and capability of EPAs and have not been executed since the promulgation of the Act. Recommendation: List of functions needs to be based on the policy of 'specific and targeted' instead of 'include whole and cover all'.	
8. Environmental Protection Agency Section 8(2)				There is no provision in the Act if position of DG is not present at the provincial level. In GB the EPA is headed by a Director. Recommendation: Provision for head of the EPA to be someone other than a DG should be part of the section.
Section 8(3)	Officers Services R have not been notified in Balochistan due to section 8(3) of PEPA 1997 whereas other provinces have adopted Pakistan Civil Service Act 1973 Recommendation: Balochistan EPA like other provinces should employ Pakistan Civil Service Act and Rules.			

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
9. Sustainable Development Fund (Establishment)		<p>Recommendation: Section 9 pertaining to SDF shall be amended as 'Environment Development Fund' (EDF). All fines and fees relating to IEE, EIAs, environmental reports and laboratory analysis shall be deposited in each provincial EDF for deployment of environmental amelioration pilots for demonstration purposes by the province concerned.</p>	<p>Though the procedures and rules have been notified, it has not fulfilled the purpose it was designed for. It has remained dormant so far.</p> <p>Recommendation: Procedures for working need to be simplified. Mechanism to evaluate the performance and progress be added. Measures are need to make it work efficiently for the betterment of the environment.</p>	
Section 9(2-A)				<p>It is not binding on provincial governments to allocate funds or grants.</p> <p>Recommendation: Provincial governments should be responsible to fix some proportion of the ADPs for this purpose as deemed appropriate.</p>
10. Sustainable Development Fund (Management)	<p>The Provincial Sustainable Development Fund Board constituted for the management of the SDF under this section is not viable for adequate management of funds because no action has been taken for management of the funds as per section 9(3). Eventually the fund has been transferred to the Balochistan non-food account by the end of each month.</p> <p>Recommendation: The composition of the Board should be revised and may</p>			

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
	include officials from the EPA, academia and NGOs for efficient and adequate management of funds.			
11. Prohibition of discharges or emissions			<p>Though this section is supposed to check and manage discharges/emissions however it is limited to implementation of NEQS which focuses on end-of-the-pipe discharges/emissions. Does not address discharges other than stacks (such as dust/aerosol/smoke) released into air or water directly from some processes.</p> <p>Recommendation: Discharges form process need to be addressed.</p>	
			<p>Does not specify the recipient (receiving source) of discharge.</p> <p>Recommendation: Sensitivities with respect to the discharge receiving source need to be defined.</p>	
11. NEQS enforcement		<p>Recommendation: Standardised form of EQS on the basis of research shall be formulated to ensure effective and uniform enforcement.</p>	<p>NEQS for ambient air, noise, have been notified. However there appears to be no linkage with any of the sections of the Act with respect to enforcement and monitoring obligations.</p>	<p>EPAs do not have the liberty to include other sources of pollution in the provincial context.</p> <p>Recommendation: Privilege should be given to EPAs to make amendments in sources of pollution in local context.</p>
Section-11 (2)				<p>Schedule rates are not defined</p> <p>Recommendation: Schedule rates should be defined on a yearly basis by provincial EPA.</p>

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
Section-11 (3)		<p>Recommendation: Under Section 11(3), proper procedures for determination of pollution charge in the form of tax etc. shall be defined to ensure compliance through environmental levy.</p>		
12. IEE and EIA		<p>Recommendation: With regard to issuance of NOC to IEE and EIAs, the DG concerned shall be delegated adequate powers under CrPC section 188 to accord a stay order, halt/stop the activity (temporarily or on permanent basis) and impose on-the-spot penalty or fine if the activity poses a threats or is contrary to environmental compliance.</p>	<p>The Regulations need improvement and further clarification in categorisation of projects and activities for IEE or EIA.</p> <p>Recommendation: Schedule I and II of the Regulations need to be improved and Schedule III for projects not requiring IEE or EIA need to added. A mechanism for screening of the project as a first and basic step needs to be added.</p>	
12(1)		<p>Recommendation: Under section 12, regarding IEE/EIA categorisation, the following shall be incorporated to encompass all development schemes not covered:</p> <p>12(1): No proponent of a project shall commence construction or operation unless he has filed with the concerned EPA an Initial Environmental Examination (IEE), or where the project is likely to cause an adverse environmental effect, and Environmental Impact Assessment (EIA) and "Other small scale developmental projects shall submit Environmental Reports on a format of Section 'C' to encompass all other sectors</p>		

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
		not been covered in the Act"; and has obtained from the concerned EPA approval in respect thereof		
12(2)		Recommendation: 12(2): In addition to (a) and (b), shall incorporate: (c) Review Environmental Reports of those projects which are not covered under IEE/EIA and accord approval subject to certain conditions as may deem fit to be imposed		
12(7)		Recommendation: 12(7): In addition to maintaining separate register for IEE, EIA and Environmental Reports shall be added.		
13. Prohibition of import of hazardous substance			Waste items that have potential of recycling and recovery or reuse may not be imported causing burden on use of the country's natural resources. It also conflicts with the objective of the Act related to "prevention of pollution, promotion of sustainable development." Recommendation: Some hazardous wastes such as shredded tyres, used oil, metal scrap, spent catalysts, etc. which have potential for recycling and resource recovery may be allowed to be imported. Does not directly address the requirement or obligations of the Basel Convention. Recommendation: Procedure for import of such materials and compliance with the Basel	

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
			<p>Convention need to be added.</p> <p>List of items not permitted to be imported under the Basel Convention need to be included in addition to the items allowed.</p> <p>This is a very controversial section of the Act. Through the implementation of this section almost all industrial operations appear to be operating in violation since it prohibits them to “generate, collect, consign, transport, treat, dispose of, store, handle” hazardous substances except under a Licensed issued by the Agency.</p> <p>Recommendation: Only the transportation and disposal of hazardous substance and hazardous waste should be regulated through a licence. Hazardous waste whose handling, collection, treatment, disposal need to be regulated should be identified and listed.</p> <p>So far no procedure has been developed to provide such licence to industry.</p> <p>Even if a procedure for issuance of licenses is formed, the capacity of EPA to promptly provide services to the existing number of industries in the province would be big question and a bottleneck.</p> <p>Hazardous substances (not wastes) are the desired/targeted products of some industries for use as raw materials or further processing by other industrial units and such processes may not be prohibited</p>	
14. Handling of Hazardous Substance				

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
			under the Act. Moreover, due to the absence of hazardous waste disposal facilities (hazardous waste landfill site) in the country, final disposal remains a barrier. In the absence of final disposal facilities, besides procedures for issuance of licence, the restrictions imposed under this Article have remained meaningless so far. Recommendation: Procedure for disposal and treatment must be identified.	
15. Regulation of motor vehicles		Proper rules shall be framed under section 15 regarding vehicular emissions which are currently being handled under the Traffic Rules 1969		
16. Environmental Protection Order Section 16(3)(1)	The Act does not clarify the mechanism and roles and responsibilities of different channels regarding the recovery of charges against imposed penalties. Recommendation: The overall mechanism must be specific and clear roles and responsibilities of different agencies should be determined under this section.	With regard to issuance of EPOs and NOC to IEE, EIAs, and Environmental Reports, the DG concerned shall be delegated adequate powers under CrPC section 188 to accord a stay order, halt/stop the activity (temporarily or on permanent basis) and impose on-the-spot penalty or fine if the activity poses a threat or is contrary to environmental compliance laws.		
17. Penalties				The amount of additional fine does not match currency devaluation. Recommendation: Options for review of additional fine according

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
18. Offences by bodies corporate				to devaluation of currency should be available in the Act. Current law only reflects the Companies Ordinance 1984. Recommendation: Companies Ordinance, amended in 1994, should be mentioned.
20. Environmental Tribunal	After the 18th Amendment, this section is still not revised. The section does not reflect the appointment authority/process for selecting chairman and other members of environmental tribunal in the devolved scenario. Recommendation: The appointment of chairman of tribunal may be handled at the provincial level particularly by the recommendation of the Chief Justice of the high court. The EPA in collaboration with the provincial government should process the appointment of other members of the tribunal.			
	No account mentioned under this section for the submission of charges recovered from the polluters. The recovered amount is retrieved by the federal government.			

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
	<p>Recommendation: Opening of separate account should be mentioned under this section and recovered amount shall be managed at the provincial level by the EPA.</p>			
24. Environmental Magistrates	<p>Lack of viable role of judicial magistrate, the process under the mentioned channel is slow, and hence control of environmental degradation on initial stage becomes difficult.</p> <p>The DG's power under section 17(2) is the same as that of the Judicial Magistrate and hence there is duplication in roles.</p> <p>Recommendation: This section should be omitted and the Judicial Magistrate's power under this section should be delegated to the EPA.</p>			
Miscellaneous		<p>Uniformity in the act shall be ensured to address all issues common in nature to all provinces with regard to enforcement mechanisms, administrative penalties, and inter-provincial coordination.</p> <p>With regard to municipal services (i.e. solid waste management, sanitation, and provision of safe drinking water), separate provisions shall be framed in the new Act. However, new rules and laws</p>	<p>The Act does not contain clauses to address:</p> <ul style="list-style-type: none"> • solid waste disposal, radiation, radioactive waste, vibrations • marine and coastal pollution • pollution or environmental degradation from commercial activities • littering and damage to physical environment 	

Section	Balochistan	Khyber Pakhtunkhwa	Sindh	Gilgit-Baltistan
		<p>shall not encompass the existing laws, by laws and rules under the LG system. They must be in compliance with the provincial government's environment, sanitation, and drinking water policies.</p> <p>With regard to issuance of EPOs and NOC to IEE, EIAs, and Environmental Reports, the DG concerned shall be delegated adequate powers under CrPC section 188 to accord a stay order, halt/stop the activity (temporarily or on permanent basis) and impose on-the-spot penalty or fine if the activity poses a threat or is contrary to environmental compliance laws.</p>		

ANNEX 6: ANALYSIS OF RULES AND REGULATIONS ISSUED UNDER PEPA 1997

6.1CPAKISTAN ENVIRONMENTAL PROTECTION AGENCY (REVIEW OF IEE AND EIA) REGULATIONS 2000

<p>S.R.O. 339 (1)/2000. - In exercise of the powers referred by section 33 of the <i>Pakistan Environmental Protection Act, 1997</i> (XXXIV of 1997), <i>Pakistan Environmental Protection Agency</i>, with the approval of the <i>Federal Government</i> is pleased to make the following regulations, namely:--</p>	
<p>1. Short title and commencement</p>	
<p>(1) These regulations may be called the <i>Pakistan Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations, 2000</i>.</p>	
<p>(2) They shall come into force at once.</p>	
<p>2. Definitions</p>	
<p>(1) In these regulations, unless there is anything repugnant in the subject or context –</p>	
<p>(a) "Act" means the <i>Pakistan Environmental Protection Act, 1997</i> (XXXIV of 1997);</p>	
<p>(b) "Director-General" means the Director-General of the <i>Federal Agency</i>;</p>	
<p>(c) "EIA" means an environmental impact assessment as defined in section 2(xi);</p>	
<p>(d) "IEE" means an initial environmental examination as defined in section 2(xxiv); and</p>	
<p>(e) "section" means a section of the Act.</p>	
<p>(2) All other words and expressions used in these regulations but not defined shall have the same meanings as are assigned to them in the Act.</p>	
<p>3. Projects requiring an IEE</p>	
<p>A proponent of a project falling in any category listed in Schedule I shall file an IEE with the <i>Federal Agency</i>, and the provisions of section 12 shall apply to such project.</p>	

<p>4. Projects requiring an EIA</p> <p>A proponent of a project falling in any category listed in Schedule II shall file an EIA with the <i>Federal Agency</i>, and the provisions of section 12 shall apply to such project.</p>	
<p>5. Projects not requiring an IEE or EIA</p> <p>(1) A proponent of a project not falling in any category listed in Schedules I and II shall not be required to file an IEE or EIA:</p>	<p>A pre-IEE/EIA screening process is required for all projects and operations that have or are likely to have an impact on the environment or natural resources. No such project or operation should be able to commence without screening, the results of which will determine whether further impact assessment is required.</p> <p>Screening will allow the regulator to determine whether IIE or EIA applies to a particular project. The regulator should not just accept the proponent's judgement. Screening should also be able to determine whether a proposed project will create cumulative effects in conjunction other proposed or ongoing projects—activities that a proponent may not be aware of.</p> <p>There should be some type of notification required—the proponent should notify the regulator of the intent to develop a project, at which point the regulator would do the screening.</p> <p>Following screening, there may be projects or operations that do not require IEE or EIA, but the procedure described in Regulation 5 needs to be revised to include screening.</p>
<p>Provided that the proponent shall file –</p> <p>(a) an EIA, if the project is likely to cause an adverse environmental effect;</p> <p>(b) for projects not listed in Schedules I and II in respect of which the <i>Federal Agency</i> has issued guidelines for construction and operation, an application for approval accompanied by an undertaking and an affidavit that the aforesaid guidelines shall be fully complied with.</p>	<p>The proponent is not supposed to make this assessment. The regulator is supposed to make the assessment. The proponent is responsible for preparing the IIE or EIA as required, and for bearing the costs of IEE/EIA.</p> <p>(1) Pre-IEE/EIA screening is needed, as mentioned above. The procedures mentioned here will need to be revised.</p> <p>(2) In its current form, this clause exempts from any type of compliance requirements all such industries or sectors for which the EPAs have not yet been able to formulate guidelines. This also puts excessive pressure on EPAs to come up with countless sector-specific guidelines, which is unrealistic.</p> <p>(3) The federal EPA and some provincial EPAs have issued guidelines on a number of subjects. Federal guidelines presumably apply to all provinces, but what about the provincial guidelines?</p>

	The same processes and operations across the country must be governed by the same guidelines. This is the problem with not having a national law. If one province has minimal requirements for IIE/EIA, industry and other operations may tend to go to that province to escape regulation.
(2) Notwithstanding anything contained in sub-regulation (1), the <i>Federal</i> Agency may direct the proponent of a project, whether or not listed in Schedule I or II, to file an IEE or EIA, for reasons to be recorded in such direction:	<p>(1) The role of the federal EPA is not clear. Does it have jurisdiction only over the Islamabad Capital Territory? Or will it also have a role in all projects that fall in the Federal Legislative List?</p> <p>(2) What are the criteria or conditions under which this clause comes into effect? It is not enough to state that "reasons" will be recorded in the directive. A set of criteria should be specified.</p> <p>(3) Note also that if the exception for non-Scheduled projects can be overridden by an EPA directive, then it does not make sense to first grant such projects a blanket exemption (Regulation 5(1)), and then provide exemptions to the exemption. The procedure and wording of this Regulation should be reassessed and revised.</p> <p>What is the procedure for the functioning of this Advisory Committee? Does it act on its own or upon an application from third parties?</p>
Provided that no such direction shall be issued without the recommendation in writing of the Environmental Assessment Advisory Committee constituted under Regulation 23 22.	
(3) The provisions of section 12 shall apply to a project in respect of which an IEE or EIA is filed under sub-regulation (1) or (2).	
6. Preparation of IEE and EIA	
(1) The Federal Agency may shall issue guidelines for preparation of an IEE or an EIA, including guidelines of general applicability, and sectoral guidelines indicating specific assessment requirements for planning, construction and operation of projects relating to particular sector.	<p>(1) "shall" — this has to be mandatory. Without IIE/EIA guidelines, PEPA and these rules are pointless.</p> <p>(2) As noted earlier, the federal EPA and some provincial EPAs have already issued guidelines on a number of subjects.</p> <p>Sector-specific guidelines will be necessary, particularly in cases like extractive industry. But guidelines should not be prepared by the EA regulatory authority alone; they should be developed by the EA regulatory authority in cooperation with each sector.</p>
(2) Where guidelines have been issued under sub-regulation (1), an IEE or EIA shall be prepared, to the extent practicable, in accordance therewith and the proponent shall justify in the IEE or EIA any departure therefrom.	<p>(1) The first highlighted phrase creates a loophole that weakens the applicability of the guidelines. Who is to determine the "practicable" extent? Presumably the experts (EPA) will have made sure the guidelines are practicable, so this must be deleted.</p> <p>(2) The second highlighted phrase contradicts the very purpose of the impact</p>

	assessment procedure and the guidelines that guide it. No project should be allowed to deviate from the guidelines, and this possibility should not be provided for in the Regulations.
7. Review Fees	
The proponent shall pay, at the time of submission of an IEE or EIA, a non-refundable Review Fee to the Federal Agency, as per rates shown in Schedule III.	See comments attached to Schedule III.
8. Filing of IEE and EIA	
(1) Ten paper copies and two electronic copies of an IEE or EIA shall be filed with the Federal Agency.	It is for the EPAs to decide whether this procedure has been effective, or whether amendments are required.
(2) Every IEE and EIA shall be accompanied by –	
(a) an application, in the form prescribed in Schedule IV; and	
(b) a copy of receipt showing payment of the Review Fee.	
9. Preliminary scrutiny	
(1) Within 10 working days of filing of the IEE or EIA, the Federal Agency shall –	Ten days is sufficient time for the EPA to complete this type of preliminary review, but EPA members will need to confirm whether in practice this has been enough.
(a) confirm that the IEE or EIA is complete for purposes of initiation of the review process; or	
(b) require the proponent to submit such additional information as may be specified; or	
(c) return the IEE or EIA to the proponent for revision, clearly listing the points requiring further study and discussion.	
(2) Nothing in sub-regulation (1) shall prohibit the Federal Agency from requiring the proponent to submit additional information at any stage during the review process.	
10. Public participation	
(1) In the case of an EIA, the Federal Agency shall, simultaneously with issue of confirmation of completeness under clause (a) of sub-regulation (1) of Regulation 9, cause to be published in any English or Urdu national newspaper and in a local newspaper of general circulation in the area affected by the project, a public notice mentioning the type of project, its exact location, the name and address of the proponent and the places at which the EIA of the project can, subject to the restrictions in sub-section (3) of section 12, be accessed.	Public participation is a key component of transparency and good governance, as well as environmental justice. Public participation must be included for all assessment processes, including IEE.

(2) The notice issued under sub-regulation (1) shall fix a date, time and place for public hearing of any comments on the project or its EIA.	Is it the case that the EPA will only review the EIA packet after the public hearing? From the procedure outlined here, it is not clear. (See next comment.)
(3) The date fixed under sub-regulation (2) shall not be earlier than 30 days from the date of publication of the notice.	
(4) The Federal Agency shall also ensure the circulation of the EIA to the concerned Government Agencies and solicit their comments thereon.	Government agencies should have a deadline for providing their comments. The format in which these comments are to be provided should be specified.
(5) All comments received by the Federal Agency from the public or any Government Agency shall be collated, tabulated and duly considered by it before decision on the EIA.	In the case of comments from the public, is this in addition to the comments received during the hearing? Or can members of the public submit their comments through some other process as well? (For example, a letter to the EPA.) There should be explicit provisions that written comments must be accepted, in addition to comments made during public consultations, and the time period for submitting written comments should be explicit.
(6) The Federal Agency may issue guidelines indicating the basic techniques and measures to be adopted to ensure effective public consultation, involvement and participation in EIA assessment.	The federal EPA has already issued public participation guidelines. So the language here should be revised, and the clause should state that these guidelines must be followed.
11. Review	
(1) The Federal Agency shall make every effort to carry out its review of the IEE within 45 days, and of the EIA within 90 days, of issue of confirmation of completeness under Regulation 9.	(1) The deadline of 45/90 days contradicts PEPA section 12(4), which states that the EPA "shall communicate its approval or otherwise within a period of four months from the date the initial environmental examination or environmental impact assessment is filed complete in all respects in accordance with the prescribed procedure". If the EPA has four months, then there is no point in saying here that it will "make every effort" to get the work done in 45 days or 90 days. Note that in PEPA section 12(4) there is also a provision for automatic approval if the EPA delays (which should be removed), and under section 12(5) there is a provision for extension (which should also be reviewed). (2) "Confirmation of completeness" is not necessarily the best way to describe the preliminary review, since the EPA can call for additional documents and information at any time.
(2) In reviewing the IEE or EIA, the Federal Agency shall consult such Committee of Experts as may be constituted for the purpose by the Director-General, and may also solicit views of the sectoral Advisory Committee, if any, constituted by the Federal Government under subsection (6) of section 5.	This presumably refers to the EA Advisory Committee. The role of this Committee should be formalised and specified. From the language here it seems as if establishment of and consultation with the Committee is optional. If that is the case, then criteria for establishment and consultation are needed.

(3) The Director-General may, where he considers it necessary, constitute a committee to inspect the site of the project and submit its report on such matters as may be specified.	Inspection of the site should be a part of all IEE/EIA reviews, not just something to be done in special cases.
(4) The review of the IEE or EIA by the Federal Agency shall be based on quantitative and qualitative assessment of the documents and data furnished by the proponent, comments from the public and Government Agencies received under Regulation 10, and views of the committees mentioned in sub-regulations (2) and (3) above.	Note that, so far, public comments are invited only for the EIA and not the IEE. This should be remedied.
12. Decision	
On completion of the review, the decision of the Federal Agency shall be communicated to the proponent in the form prescribed in Schedule V in the case of an IEE, and in the form prescribed in Schedule VI in the case of an EIA.	It has been suggested that decision-making powers with respect to impact assessment should lie with political authorities, so that final approval (or rejection) is a political decision.
13. Conditions of approval	
(1) Every approval of an IEE or EIA shall, in addition to such conditions as may be imposed by the Federal Agency, be subject to the condition that the project shall be designed and constructed, and mitigatory and other measures adopted, strictly in accordance with the IEE/EIA, unless any variation thereto have been specified in the approval by the Federal Agency.	Should be in accordance with the environmental management plan. See 14(1) below. This leeway should not be permitted. There is potential for serious abuse. There should be no conditions under which IEE/EIA requirements are relaxed or varied. In general, any deviation from the procedures and rules should be authorised by a higher decision-making level than the EPA, following a hearing. This allows for transparency in decision making.
(2) Where the Federal Agency accords its approval subject to certain conditions, the proponent shall –	
(a) before commencing construction of the project, acknowledge acceptance of the stipulated conditions by executing an undertaking in the form prescribed in Schedule VII;	
(b) before commencing operation of the project, obtain from the Federal Agency written confirmation that the conditions of approval, and the requirements in the IEE/EIA relating to design and construction, adoption of mitigatory and other measures and other relevant matters, have been duly complied with.	
14. Confirmation of compliance	
(1) The request for confirmation of compliance under clause (b) of sub-regulation (2) of Regulation 13 shall be accompanied by an Environmental Management Plan indicating the measures and procedures proposed to be taken to manage or mitigate the environmental impacts for the life of the project, including provisions for monitoring, reporting and auditing.	(1) "request for confirmation of compliance" — it is not clear why this step is necessary. Either the IIE/EIA + environmental management plan are acceptable, or they are not. If they are not, the regulatory authority has two options: (a) deny clearance (the "no-project option"), or (b) require revisions to the environmental management plan to make it acceptable.

	There should not be more steps in any regulatory process than absolutely necessary. The more steps, the more opportunities to weasel around the procedures. This clause should be deleted. (2) The environmental management plan should accompany the EIA or IIE. (3) A procedure is required for environmental audit of projects that commenced before the enactment of PEPA and the issuing of these Regulations.
(2) Where a request for confirmation of compliance is received from a proponent, the Federal Agency may carry out such inspection of the site and plant and machinery and seek such additional information from the proponent as it may deem fit: Provided that every effort shall be made by the Federal Agency to provide the requisite confirmation or otherwise within 15 days of receipt of the request, with complete information, from the proponent.	EPAs to decide whether this time frame is sufficient. This provision does not say what happens if the confirmation is not provided within 15 days. There is no procedure for the proponent to file a complaint. As such, is there any point in retaining this provision?
(3) The Federal Agency may, while issuing the requisite confirmation of compliance, impose such other conditions as the Environmental Management Plan, and the operation, maintenance and monitoring of the project as it may deem fit, and such conditions shall be deemed to be included in the conditions to which approval of the project is subject.	
45. Deemed approval The four-month period for communication of decision stipulated in sub-section (4) of section 12 shall commence from the date of filing of an IEE or EIA in respect of which confirmation of completeness is issued by the Federal Agency under clause (a) of sub-regulation (1) of Regulation 9.	NOTE: This clause was part of the Regulations but the Gazetted version that is included in the federal EPA's compendium carries the next clause and not this one.
15. Extension in review period	
Where the Federal Government in a particular case extends the four-month period for communication of approval prescribed in sub-section (5) of section 12, it shall, in consultation with the Federal Agency, indicate the various steps of the review process to be taken during the extended period, and the estimated time required for each step.	Criteria for seeking an extension have not been specified here, not are they mentioned in PEPA section 12(5). Note also that here and in PEPA section 12(5), it is "the government" providing an exception. Presumably, this is done upon request by the EPA, but the procedure has not been specified, and should be.
16. Validity period of approval	
(1) The approval accorded by a Federal Agency under section 12 read with Regulation 12 shall be valid, for commencement of construction, for a period of three years from the date of issue.	How has this time frame been decided? What is international best practice in such matters? Have EPAs found this to be useful? EPAs will need to assess and advise.

(2) If construction is commenced during the initial three year validity period, the validity of the approval shall stand extended for a further period of three years from the date of issue.	See previous comment. Note also that a procedure should be added for cases where new information is available or certain conditions change, requiring either a cancellation of approval or a revision of the IEE/EIA and environmental management plan.
(3) After issue of confirmation of compliance, the approval shall be valid for a period of three years from the date thereof.	This is not clear. Why are there two separate validity periods, one for approval and one for confirmation of compliance? Construction only begins once. This creates an overlap in validity that does not seem to serve any purpose.
(4) The proponent may apply to the Federal Agency for extension in the validity periods mentioned in sub-regulations (1), (2) and (3), which may be granted by the Federal Agency in its discretion for such period not exceeding three years at a time, if the conditions of the approval do not require significant change:	(1) There should be no discretion. The procedure of approving extensions should be transparent. There should be a public hearing, or at least the application should be vetted and approved by a committee. (2) What constitutes "significant change"? The term is so vague as to have no meaning. Nor is it clear what this means. Under what circumstances would conditions of approval require change?
Provided that the Federal Agency may require the proponent to submit a fresh IEE or EIA, if in its opinion changes in location, design, construction and operation of the project so warrant.	This is an important clause and should not be relegated to a proviso. There are also two separate processes being combined up here. First, the request for an extension. But second—and importantly—changes in the project location, design, etc., that have the potential to change its environmental impact. And third (something that is not mentioned here but must be included), environmental or other changes at the site itself that require a new IEE/EIA (for example, the discovery of an endangered species or of flora or fauna of special value; the changed conservation status of known species in the area; a new threat to the ecosystem).
	Finally, in the interest of fairness, it is advisable in such cases to also hold new public hearings.
17. Entry and inspection	Presumably no warrant is required to do so. (What is "duly authorised"?)
(1) For purposes of verification of any matter relating to the review or to the conditions of approval of an IEE or EIA prior to, during or after commencement of construction or operation of a project, duly authorized staff of the Federal Agency shall be entitled to enter and inspect the project site, factory building and plant and equipment installed therein.	Note: inspection by regulatory authorities does not require a warrant. Usually for inspections there is a requirement that the inspector carry and present whenever requested their ID showing that they are an authorized inspector.
(2) The proponent shall ensure full cooperation of the project staff at site to facilitate the inspection, and shall provide such information as may be required by the Federal Agency for this purpose and pursuant thereto.	

18. Monitoring	
(1) After issue of approval, the proponent shall submit a report to the Federal Agency on completion of construction of the project.	Here and in the next section there are again two benchmarks: approval and confirmation of compliance. It is not clear what the reason is for two separate stages. There should be one step: approval. There should be a requirement that specified changes are made before approval will be granted, or no approval. If there is approval on the condition that changes are made, then the IIE/EIA + environmental management plan should be resubmitted for review and the process for approval repeated.
(2) After issue of confirmation of compliance, the proponent shall submit an annual report summarizing operational performance of the project, with reference to the conditions of approval and maintenance and mitigatory measures adopted by the project.	Is "confirmation of compliance" issued after the project has been constructed (and before it commences operations)? This is not at all clear from the wording of Regulations 13(2) and 14, above.
(3) To enable the Federal Agency to effectively monitor compliance with the conditions of approval, the proponent shall furnish such additional information as the Federal Agency may require.	
19. Cancellation of approval	
(1) Notwithstanding anything contained in these Regulations, if, at any time, on the basis of information or report received or inspection carried out, the Federal Agency is of the opinion that the conditions of an approval have not been complied with, or that the information supplied by a proponent in the approved IEE or EIA is incorrect, it shall issue notice to the proponent to show cause, within two weeks of receipt thereof, why the approval should not be cancelled.	(1) "Information or report received"—from whom? The public as well? Or just EPA staff? What about NGOs, government agencies? (2) There could be other reasons (apart from non-compliance with conditions or approval and the provision of incorrect information) that may require a project to be shut down. Those should be added, or "or any other reason" added to the conditions here. (3) The procedure here may need to be reviewed. In urgent cases the EPA can issue an environmental protection order, after which there can be a hearing where the proponent can show cause, etc. Here too public participation should be provided.
(2) If no reply is received or if the reply is considered unsatisfactory, the Federal Agency may, after giving the proponent an opportunity of being heard:	If the proponent has not replied, then it is unlikely that they will show up to "be heard". And this could be used to delay proceedings, causing serious or even irreparable harm to the environment. There must be a procedure for emergency measures, so that proponents cannot deliberately cause delays and sidestep the requirements of the law.

	(i) require the proponent to take such measures and to comply with such conditions within such period as it may specify, failing which the approval shall stand cancelled; or (ii) cancel the approval.
As noted above, in certain situations there should be an option for ceasing all activity even before an IEE/EIA has been cancelled, possibly using an environmental protection order.	(3) On cancellation of the approval, the proponent shall cease construction or operation of the project forthwith.
What does this mean? That apart from cancelling and IEE/EIA, the EPA can also bring charges against the proponent?	(4) Action taken under this Regulation shall be without prejudice to any other action that may be taken against the proponent under the Act or rules or regulations or any other law for the time being in force.
	20. Registers of IEE and EIA projects
	Separate Registers to be maintained by the Federal Agency for IEE and EIA projects under sub-section (7) of section 12 shall be in the form prescribed in Schedule VIII.
Note that PEPA 1997 does not mention environmentally sensitive areas. It makes no sense for such an important tool to be introduced only in Regulations. 'Environmentally sensitive areas' should be designated under the Act, and the Regulations used to regulate such areas. The relationship between environmentally sensitive areas and protected areas should be explicitly stated. Ideally it should be done by amending all provincial wildlife/protected areas laws. Once that is done, there can be a debate on whether it makes sense to create environmentally sensitive areas that are not protected areas and, if so, how to designate such areas.	21. Environmentally sensitive areas
(1) What are the criteria for designating environmentally sensitive areas? (2) What is the relationship between such areas and protected areas declared under provincial wildlife laws? Should all protected areas under wildlife laws also be automatically designated environmentally sensitive areas? (3) Should certain types of areas/ecosystems automatically be designated environmentally sensitive areas? For example, coastal areas, wetlands, rivers, and so on? (4) Have any EPAs issued a list of environmentally sensitive areas? If so, which EPAs and which areas?	(1) The Federal Agency may, by notification in the official Gazette, designate an area to be an environmentally sensitive area.

(2) Notwithstanding anything contained in Regulations 3, 4 and 5, the proponent of a project situated in an environmentally sensitive area shall be required to file an EIA with the Federal Agency.	Regulations 3 and 4 cover projects requiring IEE and EIA, respectively. But Regulation 5, about projects not requiring an IEE or EIA, does not make sense in the context of this Regulation, 21(2) on environmentally sensitive areas. Regulation 5 simply states that: (1) A proponent of a project not falling in any category listed in Schedules I and II shall not be required to file an IEE or EIA Under the provisions of Regulation 21(2), this exemption does not apply to environmentally sensitive areas. But this does not explain what type of project is required to prepare an EIA in an environmentally sensitive area.
(3) The Federal Agency may from time to time issue guidelines to assist proponents and other persons involved in the environmental assessment process to plan and prepare projects located in environmentally sensitive areas.	It appears that the federal EPA has issued guidelines for "sensitive and critical areas" (see http://www.environment.gov.pk/eia_pdf/f_Crit_%20Areas.pdf). So this clause should be revised to refer to the guidelines.
(4) Where guidelines have been issued under sub-regulation (3), the projects shall be planned and prepared, to the extent practicable, in accordance therewith and any departure therefrom justified in the EIA pertaining to the project.	The phrase, "to the extent practicable", must be deleted. It provides a major loophole that should be removed, especially in the case of environmentally sensitive areas.
22. Environmental Assessment Advisory Committee For purposes of rendering advice on all aspects of environmental assessment, including guidelines, procedures and categorization of projects, the Director-General shall constitute an Environmental Assessment Advisory Committee comprising –	Does this Advisory Committee continue to function? Will separate Committees be formed in each of the provinces and special areas? Note that this Advisory Committee is to be established by the DG. What is its relationship to the other advisory committees that may be established under PEPA (see sections 5(6) and 8(6)), and which are to be established by the federal government?
(a) Director EIA, Federal Agency (b) One representative each of the Provincial Agencies (c) One representative each of the Federal Planning Commission and the Provincial Planning and Development Departments (d) Representatives of industry and non-Governmental organizations, and legal and other experts	(1) Constitution of the Committee will need to be revised. (2) How many members (maximum, minimum) are to sit on this Committee? (3) Are the Committee's recommendations binding on the EPA? (4) In case of a conflict, who decides? (5) What are the powers and functions of this Committee, apart from recommending EIA for non-Scheduled projects, as mentioned in Regulation 5(2)?

23. Other approvals		
Issue of an approval under section 12 read with Regulation 12 shall not absolve the proponent of the duty to obtain any other approval or consent that may be required under any law for the time being in force.		
SCHEDULE I		
(See Regulation 3)		
List of projects requiring an IEE (Initial Environmental Examination)		This list needs to be vetted by EIA experts, to see if any revisions are required or any key project types have been omitted.
		Note: the issue of developing categories based on cost must be reassessed. Project size should not be determined by cost.
		Cost can easily be misreported to avoid either IIE or EIA. Even if that were not the case, given the rate of inflation, any determination based on cost is likely to rapidly become outdated.
		Categories should be based on the scope of the activity—area covered, output, time involved, and other similar factors. What is international best practice in such matters? Are there any other criteria used to develop categories?
A. Agriculture, Livestock and Fisheries		
1.	Poultry, livestock, stud and fish farms with total cost more than Rs. 10 million	What about industrial-scale slaughterhouses ("processing" of poultry, livestock)?
2.	Projects involving repacking, formulation or warehousing of agricultural products	
B. Energy		Electricity is a federal subject. Which EPA is responsible for overseeing the EIA process for power generation projects?
1.	Hydroelectric power generation less than 50 MW	WAPDA is also a federal subject.
2.	Thermal power generation less than 200 MW	Thermal power includes coal but also nuclear power plants and solar power. Since electricity is a federal subject, these distinctions do not necessarily matter.
3.	Transmission lines less than 11 KV, and large distribution projects	Covered under "electricity"?
4.	Oil and gas transmission systems	"Oil and gas" also a federal subject.
5.	Oil and gas extraction projects including exploration, production, gathering systems, separation and storage	

6. Waste-to-energy generation projects	If this is for energy then it is a federal subject. Waste-to-energy is thermal power.
C. Manufacturing and processing	
1. Ceramics and glass units with total cost more than Rs. 50 million	
2. Food processing industries including sugar mills, beverages, milk and dairy products, with total cost less than Rs. 100 million	
3. Man-made fibers and resin projects with total cost less than Rs. 100 million	
4. Manufacturing of apparel, including dyeing and printing, with total cost more than Rs. 25 million	
5. Wood products with total cost more than Rs. 25 million	
D. Mining and mineral processing	
1. Commercial extraction of sand, gravel, limestone, clay, sulphur and other minerals not included in Schedule II with total cost less than Rs. 100 million	For some reason, "mineral resources for the generation of nuclear energy" (on the federal list) are not mentioned here or in the EIA schedule. Are they included in "other minerals" mentioned here? If so, that is a federal subject and so (a) it should be listed separately, and (b) it has to be decided, as with other federal subjects, who oversees the IEE/EIA.
2. Crushing, grinding and separation processes	
3. Smelting plants with total cost less than Rs. 50 million	
E. Transport	
1. Federal or Provincial highways (except maintenance, rebuilding or reconstruction of existing metalled roads) with total cost less than Rs. 50 million	"National highways" is a federal subject.
2. Ports and harbor development for ships less than 500 gross tons	"Major ports" is a federal subject, along with "port authorities".
	NOTE: Should small airports/aerodromes be included in this section? (Airports are mentioned in the next schedule.)
F. Water management, dams, irrigation and flood protection	
1. Dams and reservoirs with storage volume less than 50 million cubic meters of surface area less than 8 square kilometers	Dams and reservoirs are not mentioned in the federal list, but if these installations are used to generate electricity then presumably this becomes a federal subject.
2. Irrigation and drainage projects serving less than 15,000 hectares	
3. Small-scale irrigation systems with total cost less than Rs. 50 million	

G. Water supply and treatment	
Water supply schemes and treatment plants with total cost less than Rs. 25 million	
H. Waste disposal	
Waste disposal facility for domestic or industrial wastes, with annual capacity less than 10,000 cubic meters	Here, "disposal" should include landfill sites.
I. Urban development and tourism	
1. Housing schemes	
2. Public facilities with significant off-site impacts e.g. hospital wastes	
3. Urban development projects	Large commercial developments in urban areas are not likely to fall under the category of "urban development"? They should be included separately.
J. Other projects	
Any other project for which filing of an IEE is required by the Federal Agency under sub-regulation (2) of Regulation 5	See comments attached to that provision, above.
SCHEDULE II	
(See Regulation 4)	
List of projects requiring an EIA (Environmental Impact Assessment)	
A. Energy	All items here are in the federal list. See comments attached to Schedule I, part B.
1. Hydroelectric power generation over 50 MW	
2. Thermal power generation over 200 MW	
3. Transmission lines (11 KV and above) and grid stations	
4. Nuclear power plants	
5. Petroleum refineries	Strangely, "petroleum" is not on the federal list but "oil and gas" is, and presumably "petroleum refineries" comes under "oil"?
B. Manufacturing and processing	
1. Cement plants	
2. Chemicals projects	
3. Fertilizer plants	
4. Food processing industries including sugar mills, beverages, milk and dairy products, with total cost of Rs. 100 million and above	

5. Industrial estates (including export processing zones)	
6. Man-made fibers and resin projects with total cost of Rs. 100 million and above	
7. Pesticides (manufacture or formulation)	
8. Petrochemicals complex	
9. Synthetic resins, plastics and man-made fibers, paper and paperboard, paper pulping, plastic products, textiles (except apparel), printing and publishing, paints and dyes, oils and fats and vegetable ghee projects, with total cost more than Rs. 10 million	
10. Tanning and leather finishing projects	
C. Mining and mineral processing	
1. Mining and processing of coal, gold, copper, sulphur and precious stones	
2. Mining and processing of major non-ferrous metals, iron and steel rolling	
3. Smelting plants with total cost of Rs. 50 million and above	
D. Transport	
1. Airports	Airports, "national highways", "major ports" and railways are all federal subjects.
2. Federal or Provincial highways or major roads (except maintenance, rebuilding or reconstruction of existing roads) with total cost of Rs. 50 million and above	
3. Ports and harbor development for ships of 500 gross tons and above	
4. Railway works	
E. Water management, dams, irrigation and flood protection	
1. Dams and reservoirs with storage volume of 50 million cubic meters and above or surface area of 8 square kilometers and above	See comment in Schedule I, Part F.
2. Irrigation and drainage projects serving 15,000 hectares and above	
F. Water supply and treatment	
Water supply schemes and treatment plants with total cost of Rs. 25 million and above	
G. Waste Disposal	
1. Waste disposal and storage of hazardous or toxic wastes including landfill sites, incineration of hospital toxic waste	

2. Waste disposal facilities for domestic or industrial wastes, with annual capacity more than 10,000 cubic meters	
H. Urban development and tourism	What about other types of entertainment-based projects (theme parks, amusement parks, marine parks, ski slopes, and so on)?
1. Land use studies and urban plans in large cities	
2. Large-scale tourism development projects with total cost more than Rs. 50 million	
I. Environmentally Sensitive Areas	
All projects situated in environmentally sensitive areas	
J. Other projects	
1. Any other project for which filing of an EIA is required by the Federal Agency under sub-regulation (2) of Regulation 5.	
2. Any other project likely to cause an adverse environmental effect	
SCHEDULE III	
(See Regulation 7)	
IEE/EIA Review Fees	
Total Project Cost	IEE
Upto Rs. 5,000,000	NIL
Rs. 5,000,001 to 10,000,000	Rs. 10,000
Greater than Rs. 10,000,000	Rs. 15,000
	Rs. 30,000
	EIA
	NIL
	Rs. 15,000
	Rs. 30,000
	It is for the EPAs to decide if these fees are realistic. It has been suggested that the fees should be pegged to some economic indicator so that they can be revised periodically (and perhaps also automatically).
	Whether the categories of projects here should be divided according to project cost is another matter that should be reviewed, not only because of inflation but also because (a) total cost may not always be the most reliable indicator of environmental impact, and (b) it may be possible to fudge cost figures for the purpose of impact assessment. What other assessment criteria besides cost can be used?
SCHEDULE IV [See Regulation 8(2)(a)] Application Form	
1. Name and address of proponent:	Phone:
2. Description of project:	Fax:
3. Location of project:	Telex:

4. Objection of project:		IEE/EIA	Yes/No
5. IEE/EIA attached?			Yes/No
6. Have alternative sites been considered and reported in the IEE/EIA?			
7. Existing land use:			Land requirement:
8. Is basic site data available, or has it been measured?		(only tick yes if the data is reported in the IEE/EIA)	
		<u>Available</u>	<u>Measured</u>
	Meteorology (including rainfall)	Yes/No	Yes/No
	Ambient air quality	Yes/No	Yes/No
	Ambient water quality	Yes/No	Yes/No
	Ground water quality	Yes/No	Yes/No
9.	Have estimates of the following been reported?	<u>Estimated</u>	<u>Reported</u>
	Water balance	Yes/No	Yes/No
	Solid waste disposal	Yes/No	Yes/No
	Liquid waste treatment	Yes/No	Yes/No
10.	Source of power:		Power requirement
11.	Labour force: (number)	Construction operation	
Verification. — I do solemnly affirm and declare that the information given above and contained in the attached IEE/EIA is true and correct to the best of my knowledge and belief.			
Date: _____		Signature: _____	
		Name and designation of proponent: _____	
		Official stamp/seal: _____	

<p align="center">SCHEDULE V [See Regulation 12]</p> <p align="center">Decision on IEE</p> <p>1. Name and address of proponent: _____</p> <p>2. Description of project: _____</p> <p>3. Location of project: _____</p> <p>4. Date of filing of IEE: _____</p> <p>5. After careful review of the IEE, the Federation Agency has decided — (a) to accord its approval, subject to the following conditions: _____ ; or _____</p> <p>(b) that the proponent should submit an EIA of the project, for the following reasons — _____ _____</p> <p>[Delete (a) or (b), whichever is inapplicable]</p> <p>Date _____ Tracking no. _____</p> <p align="right">Director-General Federation Agency (Official stamp/seal)</p>	<p>See 14(1) and 14(3) of the Rules, which state that all such conditions are expressed in the environmental management plan. So, here, instead of a general entry for “the following conditions”, the schedule should refer to the environmental management plan, which is the only thing that needs to be mentioned.</p>
<p align="center">SCHEDULE VI [See Regulation 12]</p> <p align="center">Decision on EIA</p> <p>1. Name and address of proponent: _____</p> <p>2. Description of project: _____</p> <p>3. Location of project: _____</p> <p>4. Date of filing of EIA: _____</p>	<p>See previous comment, regarding 14(1) and 14(3) of the rules, and the environmental management plan.</p>

<p>5. After careful review of the EIA, and all comments thereon, the Federation Agency has decided —</p> <p>(a) to accord its approval, subject to the following conditions: _____ _____ ; or</p> <p>(b) that the proponent should submit an EIA with the following modification _____</p> <p>(c) to reject the project, being contrary to environmental objectives, for the following reasons: _____</p> <p>[Delete (a)/(b)/(c), whichever is inapplicable]</p> <p>Date _____ Tracking no. _____</p> <p>Director-General Federal Agency (Official stamp/seal)</p>	<p>Here, "the approved environmental management plan" should be added, along with "IEE/EIA".</p>
<p>SCHEDULE VII [See Regulation 13(2)]</p> <p>Undertaking</p> <p>I, _____ (full name and address) as proponent for _____ (name, description and location of project) do hereby solemnly affirm and declare that I fully understand and accept the conditions contained in the approval accorded by the Federal Agency bearing tracking no. _____ dated _____, and undertake to design, construct and operate the project strictly in accordance with the said conditions and the IEE/EIA.</p> <p>Date _____ Signature: _____</p>	

<p>Witnesses (full names and addresses) (1) _____ (2) _____</p>	<p>Name and designation of proponent: (Official stamp/seal)</p>																																																																		
<p align="center">SCHEDULE VIII (See Regulation 21)</p> <p align="center">Form of Registers for IEE and EIA projects</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Description Information</th> <th>Relevant</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Tracking number</td> <td></td> </tr> <tr> <td>2.</td> <td>Category type (as per Schedules I and II)</td> <td></td> </tr> <tr> <td>3.</td> <td>Name of proponent</td> <td></td> </tr> <tr> <td>4.</td> <td>Name and designation of contact person</td> <td></td> </tr> <tr> <td>5.</td> <td>Name of consultant</td> <td></td> </tr> <tr> <td>6.</td> <td>Description of project</td> <td></td> </tr> <tr> <td>7.</td> <td>Location of project</td> <td></td> </tr> <tr> <td>8.</td> <td>Project capital cost</td> <td></td> </tr> <tr> <td>9.</td> <td>Date of receipt of IEE/EIA</td> <td></td> </tr> <tr> <td>10.</td> <td>Date of confirmation of completeness</td> <td></td> </tr> <tr> <td>11.</td> <td>Approval granted (Yes/No)</td> <td></td> </tr> <tr> <td>12.</td> <td>Date of approval granted or refused</td> <td></td> </tr> <tr> <td>13.</td> <td>Conditions of approval/reasons for refusal</td> <td></td> </tr> <tr> <td>14.</td> <td>Date of Undertaking</td> <td></td> </tr> <tr> <td>15.</td> <td>Date of extension of approval validity</td> <td></td> </tr> <tr> <td>16.</td> <td>Period of extension</td> <td></td> </tr> <tr> <td>17.</td> <td>Date of commencement of construction</td> <td></td> </tr> <tr> <td>18.</td> <td>Date of issue of confirmation of compliance</td> <td></td> </tr> <tr> <td>19.</td> <td>Date of commencement of operations</td> <td></td> </tr> <tr> <td>20.</td> <td>Dates of filing of monitoring reports</td> <td></td> </tr> <tr> <td>21.</td> <td>Date of cancellation, if applicable</td> <td></td> </tr> </tbody> </table>		S. No.	Description Information	Relevant	1.	Tracking number		2.	Category type (as per Schedules I and II)		3.	Name of proponent		4.	Name and designation of contact person		5.	Name of consultant		6.	Description of project		7.	Location of project		8.	Project capital cost		9.	Date of receipt of IEE/EIA		10.	Date of confirmation of completeness		11.	Approval granted (Yes/No)		12.	Date of approval granted or refused		13.	Conditions of approval/reasons for refusal		14.	Date of Undertaking		15.	Date of extension of approval validity		16.	Period of extension		17.	Date of commencement of construction		18.	Date of issue of confirmation of compliance		19.	Date of commencement of operations		20.	Dates of filing of monitoring reports		21.	Date of cancellation, if applicable	
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6.2 HOSPITAL WASTE MANAGEMENT RULES 2005

GOVERNMENT OF PAKISTAN MINISTRY OF ENVIRONMENT Islamabad, the 3rd August ,2005. NOTIFICATION	
SRO 1013(1)/2005.- In exercise of the powers conferred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the <u>Federal</u> Government is pleased to make the following rules, namely: -	
1. Short title and commencement.-	
(1) These rules may be called the Hospital Waste Management Rules, 2005.	
(2) They shall come into force at once.	
2. Definitions.-	
(1) In these rules, unless there is anything repugnant in the subject or context,-	
(a) "Act" means the <u>Pakistan Environmental Protection Act, 1997 (XXXIV of 1997)</u> ;	
(b) "chemical waste" includes chemicals from diagnostic and experimental work, cleaning processes, housekeeping and disinfecting procedures, mercury waste such as from broken clinical equipment and spillage, and cadmium waste such as from discarded batteries;	
(c) "genotoxic waste" includes cytotoxic drugs and outdated materials, vomitus, faeces or urine from patients treated with cytotoxic drugs or chemicals, and materials such as syringes and vials vials contaminated from the preparation and administration of such drugs;	Spelling error.
(d) "Government" means the Federal Government or a Provincial Government in which the hospital is located;	Hospital cannot be located "in" a government. Needs to be rephrased.
(e) "Health Officer" means the District Health Officer, Assistant District Health Officer and Medical Officer, by whatever designation called, of the local council in which the hospital is located and includes any person designated as such by the Federal Government or a Provincial Government for the purposes of the Act;	These terms presumably refer to the offices set up at the district level under the LGOs of 2001. These posts will need to be reviewed and revised, depending on what the current administrative setup is in each of the provinces.
(f) "hospital" includes a clinic, laboratory, dispensary, pharmacy, nursing home, health unit, maternity center, blood bank, autopsy centre, mortuary, research institute and veterinary institutions, including any other facility involved in health care and biomedical activities;	Nowhere in these Rules does it state that they apply to government hospitals as well as private hospitals. Should add, at the end of this definition, the following: "whether privately owned and operated, or owned and operated by the government".

(g)	"hospital waste" includes both risk waste and non-risk waste;	
(h)	"infectious waste" means waste contaminated by any type of pathogens such as bacteria, viruses, parasite or fungi and includes cultures from laboratory work, waste from surgeries and autopsies, waste from infected patients, discarded or disposable materials and equipment which have been in contact with such patients and infected animals from laboratories;	
(i)	"local council" means a local council in the geographical limits of which the hospital is located;	
(j)	"Medical Superintendent" means the Head of the hospital by whatever designation called;	
(k)	"non-risk waste" includes paper and cardboard, packaging, food waste and aerosols and the like;	
(l)	"pathological waste" includes tissues, organs, body parts, fetuses, blood and body fluids;	
(m)	"pharmaceutical waste" includes expired or unused pharmaceutical products, spilled contaminated pharmaceutical products, surplus drugs, vaccines or sera, and discarded items used in handling pharmaceuticals such as bottles, boxes, gloves, masks, tubes, or vials vials ;	
(n)	"radioactive waste" includes liquid, solid and gaseous waste contaminated with radionuclides generated from in-vitro analysis of body tissue and fluid, in-vivo body organ imaging and tumour localization, and investigation and therapeutic procedures;	
(o)	"risk waste" means infectious waste, pathological waste, sharps, pharmaceutical waste, genotoxic waste, chemical waste, and radioactive waste;	
(p)	"section" means a section of the Act;	
(q)	"sharp" includes, whether infected or not, needles, syringes, scalpels, infusion sets, saws and knives, blades, broken glass and any other item that could cut or puncture; and	
(r)	"waste management" includes waste segregation, waste collection, waste transportation, waste storage, waste disposal and waste minimization and reuse.	

(2) The words and expressions used but not defined in these rules shall have the same meaning as are assigned to them in the Act.	
3. Responsibility for waste management.- Every hospital shall be responsible for the proper management of the waste generated by it till its final disposal in accordance with the provisions of the Act and the rules 16 to 22.	
4. Waste Management Team.-	
(1) The Medical Superintendent shall constitute a Waste Management Team comprising the following by whatever designation called namely:-	
(a) Medical Superintendent	Chairman
(b) Heads of all hospital departments	Member
(c) Infection Control Officer	Member
(d) Chief Pharmacist	Member
(e) Radiology Officer	Member
(f) Senior Matron	Member
(g) Head of Administration	Member
(h) Hospital Engineer	Member
(i) Head of the sanitation staff	Member
(j) Other hospital staff members as the Medical Superintendent may designate	Member
(k) A public representative of the District Administration nominated by the District Coordination Officer	Member
(l) A representative of a Provincial Agency concerned, or, in the case of a hospital located in the Islamabad capital territory, the Federal Agency	Member
(2) In a hospital where the posts under sub-rule (1) do not exist, the Medical Superintendent shall designate another staff member to perform the duties and responsibilities of the holder of such posts under rules 8 to 14.	
(3) The members of the Waste Management Team shall be informed in writing of their duties and responsibilities as provided under rules 8 to 14.	
(4) One of the members of the Waste Management Team shall be designated by the Medical Superintendent as the Waste Management Officer, who shall act	

as the Secretary of the Waste Management Team.	
5. Duties and responsibilities of Waste Management Team.-	
A Waste Management Team shall be responsible for the preparation, monitoring, periodic review, revision or updating, if necessary, and implementation of the Waste Management Plan, and for supervision of all actions taken in compliance with the provisions of these rules.	
6. Meetings of Waste Management Team.-	
(1) The meetings of a Waste Management Team shall be held at least twice a month.	
(2) One-third of the members of the Waste Management Team shall constitute the quorum for a meeting.	
7. Duties and responsibilities of Medical Superintendent.-	
A Medical Superintendent shall-,	
(a) constitute the Waste Management Team;	
(b) designate the Waste Management Officer;	
(c) facilitate meetings of the Waste Management Team and ensure implementation of its decisions;	
(d) supervise implementation, monitoring and review of the Waste Management Plan and ensure that it is kept updated;	
(e) arrange for a waste audit of the hospital by an external agency as may be designated for the purposes by the Government, involving analysis for the existing waste stream and assessment of existing waste management practices;	Have any such external agencies been designated?
(f) allocate sufficient financial and manpower resources to ensure efficient and effective implementation of the Waste Management Plan; and	
(g) ensure adequate training and refresher courses for the concerned hospital staff.	
8. Duties and responsibilities of the Heads of Departments.-	
The Heads of Departments shall be responsible for the proper management of waste generated in their respective departments, and in particular shall,-	
(a) ensure that all doctors, nurses, clinical and staff in their respective departments, is are aware of, and where required properly trained, in waste management procedures;	

(b) arrange proper supervision of the sanitary staff and sweepers to ensure that they comply with waste management procedures at all times; and	Normally there is just one head of admin or housekeeping. Each department head in a hospital cannot be responsible for supervising the cleaning staff. Also see sections 14(a)(iv) and 14(d)(ii) on the responsibilities of the waste management officer.
(c) liaise with the Waste Management Officer for effective monitoring and reporting of mistakes and errors in implementation of the Waste Management Plan.	
9. Duties and responsibilities of Infection Control Officer.-	
An Infection Control Officer shall be responsible for,-	
(a) giving advice regarding the control of infection and the standards of the waste disposal system;	
(b) identifying training requirements for each category of staff; and	What type of training? Why does it need to be in these rules?
(c) organization of training and refresher courses on safe waste management procedures.	This should be the responsibility of the waste management officer. See section 14(d).
10. Duties and responsibilities of Chief Pharmacist.-	
A Chief Pharmacist shall be responsible for the sound management of pharmaceutical stores and in particular shall,-	
(a) give advice regarding formulation of appropriate procedures for management of pharmaceutical waste, and coordinate implementation of these procedures; and	
(b) ensure that the concerned hospital staff members receive adequate training in pharmaceutical waste management procedures.	
11. Duties and responsibilities of Radiology Officer.-	
A Radiology Officer shall be responsible for the sound management of radioactive waste and in particular shall,-	
(a) give advice regarding formulation of appropriate procedure for management of radioactive waste and coordinate implementation of these procedures; and	
(b) ensure that the concerned hospital staff members receive adequate training in radioactive waste management procedures.	
12. Duties and responsibilities of Senior Matron and Head of Administration.-	
A Senior Matron and Head of Administration shall be responsible for ensuring training of nursing staff, laboratory staff, medical assistants and sanitary staff and sweepers in waste management procedures and basic personal hygiene.	

<p>13. Duties and responsibilities of Hospital Engineer.-</p> <p>A Hospital Engineer shall be responsible for installation, maintenance and safe operation of waste storage facilities and waste handling equipment and where installed the hospital incinerator, and shall ensure that the concerned hospital staff members are properly trained for these purposes.</p>	
<p>14. Duties and responsibilities of Waste Management Officer.-</p> <p>A Waste Management Officer shall, in addition to his duties and responsibilities, be responsible for the day to day implementation and monitoring of the Waste Management Plan and in particular, shall,-</p>	<p>Does this refer to other duties and responsibilities, assuming that the waste management officer has another full-time job? If not, re-phrase.</p>
(a) for waste collection,-	
(i) ensure internal collection of waste bags and waste containers and their transport to central storage facility of the hospital on daily basis;	
(ii) liaise with the Supplies Department to ensure that an adequate supply of waste bags, containers, protective clothing and collection trolleys are available at all times;	
(iii) ensure that sanitary staff and sweepers immediately replace used bags and containers with the new bags and containers of the same type and where a waste bag is removed from containers, the container is properly cleaned before a new bag is fitted therein; and	
(iv) directly supervise the hospital sweepers assigned to collect and transport the waste;	
(b) for waste storage,-	
(i) ensure correct use of the central storage facility and that it is kept secured from unauthorized access; and	
(ii) prevent unsupervised dumping of waste bags and waste containers on the hospital premises, even for a short period of time;	
(c) for waste disposal,-	
(i) co-ordinate and monitor all waste disposal operations, and for this purpose meet regularly with the concerned representative of the local council;	<p>Some of the requirements here are impossible to follow because most local councils have no systems or facilities for the proper disposal of medical or hazardous waste.</p>
(ii) ensure that the correct methods of transportation of waste are used on-site to the central storage facility or incinerator, if installed, and off-site by the local council; and	<p>A hospital employee has no authority to ensure that the local council does its job.</p>

(iii) ensure that the waste is not stored on the hospital premises for longer than twenty-four hours, by coordinating with the incinerator operations and with the local council;	
(d) for staff training and information,-	
(i) liaise with the Heads of Departments, Head of Administration and Senior Matron to ensure that all doctors, clinical, staff, nursing staff, laboratory staff and medical assistants are fully aware of their duties and responsibilities under the Waste Management Plan; and	
(ii) ensure that sanitary staff and sweepers are not involved in waste segregation and that they only handle waste bags and containers in the correct manner; and	Who is responsible for waste segregation?
(e) for incident management and control,-	
(i) ensure that emergency procedures are available at all times and that all staff members are aware of the action to be taken by them;	
(ii) investigate, record and review all incidents reports regarding hospital waste management; and	
(iii) record the quantities of waste generated by each department on a weekly basis.	
15. Waste Management Plan.-	
(1) A Waste Management Plan shall be prepared by a Waste Management Officer for approval by the Waste Management Team, and shall be based on internationally recognized environment management standards such as the International Organization for Standardization 14000 series.	
(2) The Waste Management Plan shall include,-	
(a) a plan of the hospital showing the waste disposal points for every ward and department, indicating whether each point is for risk waste or non-risks waste, and showing the sites of the central storage facility for risk waste and the central storage facility for non-risk waste;	
(b) details of the types, numbers and estimated costs of containers, waste bags and trolleys required annually;	
(c) timetables including frequency of waste collection from each wards and department;	
(d) duties and responsibilities for each of the different categories of hospital staff members who shall generate hospital waste and are be involved in the management of the waste;	

(e) an estimate of the number of staff members required for waste collection;	
(f) procedures for the management of waste requiring special treatment such as autoclaving before final disposal;	
(g) contingency plans for storage or disposal of risk waste in the event of breakdowns of incinerators, or of maintenance or collection arrangements;	
(h) training courses and programmes on waste management; and	
(i) emergency procedures.	
(3) A representative of a local council responsible for the collection and disposal of waste from the hospital shall be consulted in preparing and finalizing a plan of the Waste Management Plan.	
(4) The Waste Management Plan shall be regularly monitored, reviewed, and revised and updated by the Waste Management Team as and when necessary.	
16. Waste segregation.-	
(1) Risk waste shall be separated from non-risk waste at the ward bedside, operation theatre, laboratory, or any other room in the hospital where the waste is generated by a doctor, nurse, or other person generating the waste.	
(2) All disposal [disposable?] medical equipment and supplies [disposed of?] including syringes, needles, plastic bottles, drips and infusion bags shall be cut or broken and rendered non-reusable at the point of use by the person using the same, or in case any such used by such person.	Wording awkward, unclear.
(3) All risk waste other than sharps, large quantities of pharmaceuticals, or chemicals, waste with a high content of mercury or cadmium such as broken thermometers or used batteries, or radioactive waste shall be placed in a suitable container made of metal or tough plastic, with a pedal type or swing lid, lined with a strong yellow waste bag. The bags shall be removed when it is not more than three quarters full and sealed, preferably with self locking plastic sealing tags and not by stapling. Each bag shall be labeled, indicating date, point of production, ward and hospital, quantity and description of waste and prominently displaying the biohazard symbol. The bags removed should be immediately replaced with a new one of the same type.	
(4) Sharps including the cut or broken syringes and needles shall be placed in metal or high density plastic containers resistant to penetration and leakage designed so that items can be dropped in using one hand and no item can be	

removed. The containers shall be coloured yellow and marked "DANGER! CONTAMINATED SHARPS". The sharp container shall be closed when three quarters full. If the sharp container is to be incinerated, it shall be placed in the yellow waste bag with the other risk waste.	
(5) Large quantities of pharmaceutical waste shall be returned to the suppliers. Small quantities shall be placed in yellow waste bag preferably after being crushed, where this can be done safely.	The terms "large" and "small" must be specified.
(6) Large quantities of chemical waste, and waste with a high content of mercury or cadmium shall not be incinerated, but shall be placed in chemical resistant containers and sent to specialized treatment facilities.	
(7) Radioactive waste which has to be stored to allow decay to background level, shall be placed in a waste bag, in a large yellow container or drum. The container or drum shall be labeled, showing the radionuclide's activity on a given date, and the period of storage required, and marked "RADIOACTIVE WASTE", with the radiation symbol. Non-infectious radioactive waste which has decayed to background level, shall be placed in white waste bags. Infectious radioactive waste which has decayed to background level, shall be placed in yellow waste bags. High level and relatively long half-life radionuclides shall be packaged and stored in accordance with instructions of the original supplier under supervision of the Radiology Officer and sent back to the supplier for disposal.	
(8) Non-risk waste shall be placed in a suitable container lined with a white waste bag. Adequate numbers of non-risk waste containers shall be placed in all areas of the hospital and notices affixed to encourage visitors to use them.	
17. Waste collection.-	
(1) Waste shall be collected in accordance with the schedules specified in the Waste Management Plan.	
(2) Sanitary staff and sweepers shall, when handling waste, wear protective clothing at all times including face masks, industrial aprons, leg protectors, industrial boots and disposable or heavy duty gloves, as required.	
(3) Sanitary staff and sweepers shall ensure that,	
(a) waste is collected at least once daily;	
(b) all waste bags are labeled before removal, indicating the point of production, ward, hospital and contents;	

(c) the removed waste bags and containers are immediately replaced with new ones of the same type; and	This sounds as if cleaning staff are responsible for waste segregation. Re-phrase.
(d) where a waste bag is removed from a container, the container is properly cleaned before a new bag is fitted therein.	
18. Waste transportation.-	
(1) For on-site transportation, a waste collection trolley shall be free of sharp edges, easy to load, unload and to clean, and preferably a stable three or four wheeled design with high sides. The trolley shall be cleaned regularly.	
(2) The sealed waste bags shall be carefully loaded by hand onto the trolley to minimize the risks of punctures or tears.	
(3) Yellow-bagged risk waste and white-bagged non-risk waste shall be collected on separate trolleys which shall be painted or marked in the corresponding colours.	
(4) The collection route shall be the most direct one from the final collection point to the central storage facility designated in the Waste Management Plan. The collected waste shall not be left even temporarily anywhere other than at the designated central storage facility.	
(5) Transportation off-site shall, unless otherwise agreed, be the responsibility of the local council which shall ensure that,-	Needs to be seen if local councils possess these facilities, which will not be the case in most areas. Considering that these Rules will now be a provincial instrument, the interaction with LGO provisions will need to be checked, since local councils have various waste management responsibilities under the 2001 Ordinances.
(a) all yellow-bagged waste is collected at least once daily;	
(b) all staff members handling yellow-bagged waste wear protective clothing;	
(c) yellow-bagged waste is transported separately from all other waste;	
(d) vehicles or skips are only used for the carriage of yellow-bagged waste and are free of sharp edges, easy to load and unload by hand, easy to clean and disinfect, and fully enclosed, preferably with hinged and lockable shutters or lids, to prevent any spillage in the hospital premises or on the highway during transportation;	Does this mean that vehicles cannot be used for transport of white-bagged waste? How will white-bagged waste be transported? Or is there an assumption that all white-bagged waste will be incinerated on-site at the hospital? Section 19(2) says "incinerator, if installed". Or does this clause apply to all waste? If so, re-phrase.
(e) all concerned staff members are properly trained in the handling, loading, unloading, transportation and disposal of yellow-bagged waste, and are fully aware of emergency procedures for dealing with accidents and spillages;	

(f) all vehicles carry an adequate supply of empty waste bags, protective clothing, cleaning tools and disinfectants to clean and disinfect any spillage;	
(g) the transportation of waste is properly documented and all vehicles carry a consignment note from the point of collection to the incinerator or land-fill or other final disposal facility; and	
(h) all vehicles are cleaned and disinfected after use.	
19. Waste storage.-	
(1) A separate central storage facility shall be provided for yellow-bagged waste with a sign prominently displaying the biohazard symbol and clearly mentioning the facility stores risk waste.	
(2) The designated central storage facility shall,-	
(i) be located within the hospital premises close to the incinerator, if installed, but away from food storage or food preparation areas;	
(ii) be large enough to contain all the risk waste produced by the hospital with spare capacity to cater for collection or incinerator breakdowns;	
(iii) be easy to clean and disinfect with an impermeable hard standing base, plentiful water supply and good drainage, lighting and ventilation;	
(iv) have adequate cleaning equipment, protective clothing, waste bags and containers located nearby; and	
(v) be easily accessible to collection vehicles and authorized staff, but totally enclosed and secure from unauthorized access including inaccessible to animals, insects and birds.	
(3) No materials other than yellow-bagged waste shall be stored in the central storage facility.	
(4) No waste shall be stored at the central storage facility for more than twenty-four hours: Provided that in case of emergency where infectious waste is required to be stored for more than twenty-four hours, it shall be refrigerated at a temperature of 3° C to 8° C.	What happens to white-bagged waste? (Also see comment attached to rule 18(5)(d), above.)
(5) Containers with radioactive waste shall be stored in a specifically marked area in a lead shielded storage room.	
(6) Containers with chemical waste which are to be [transported to?] specialized treatment facilities shall also be stored in a separate room.	Text unclear; need to re-phrase.
(7) The central storage facility shall be thoroughly cleaned in accordance with procedures stipulated in the Waste Management Plan.	

<p>20. Waste disposal.-</p>	<p>(1) Depending upon the type and nature of the waste material and the organisms in the waste, risk waste shall be inactivated or rendered safe before final disposal by a suitable thermal, chemical, irradiation incineration, filtration or other treatment method, or by a combination of such methods involving proper validation and monitoring procedures. Effluent from the waste treatment methods shall also be periodically tested to verify that it conforms to the National Environmental Quality Standards before it is discharged into the sewerage system.</p>	<p>Have such "approved" methods been specified?</p> <p>Rule 16(4) says that sharps must be put in yellow bags.</p> <p>Mentioned in Schedule II of the IEE/EIA Regulations.</p> <p>These Rules came into force in 2005. Have all hospitals with such facilities submitted and received approval of their EIAs?</p> <p>Note: The Regulations require EIA (not IEE) for hospital waste management operations.</p> <p>Note also the mention of the "federal agency". Jurisdiction issues will need to be clarified.</p>
<p>(2) Yellow-bagged waste shall be disposed off by burning in an incinerator, by burial in a landfill or by any other method of disposal approved by the Federal Agency or a Provincial Agency concerned.</p>		
<p>(3) Sharps containers which have not been placed in yellow waste bags for incinerator, shall be disposed of by encapsulation or other method of disposal approved by the Federal Agency or a Provincial Agency concerned.</p>		
<p>(4) The method of disposal, whether by burning in an incinerator or by burial in a landfill or otherwise, shall be operated by a hospital only after approval of its Environmental Impact Assessment in accordance with the provisions of section 12:</p> <p>Provided that hospitals, local councils or other persons already using an incinerator or landfill on the date of commencement of these rules shall submit an Initial Environmental Examination in respect thereof to the Federal Agency or a Provincial Agency concerned within two months from the said date, and may continue to use the incinerator or landfill pending decision on the EIA.</p>		
<p>(5) All risk waste delivered to an incinerator shall be burned within twenty-four hours.</p>		
<p>(6) Ash and residues from incineration and other methods shall be placed in robust, non-combustible containers and sent to the local council's designated risk waste landfill site.</p>		<p>It is unlikely that local councils have such specially designated sites. This also assumes that the hospital is not relying on the local council to provide the incinerator. Is there an assumption that there will be private operators that offer incineration facilities?</p>
<p>(7) Landfills shall be located at sites with minimal risk of pollution of groundwater and rivers. Access to the site shall be restricted to authorized personnel only. Risk waste shall be buried in a separate area of the landfill under a layer of</p>		<p>Presumably, this applies to hospitals that maintain their own landfill sites?</p>

earth or non-risk waste of at least one meter depth which shall then be compacted. The landfill shall be regularly monitored by the local council to check groundwater contamination and air pollution. The local council shall also ensure that the landfill operators are properly trained, especially in safe disposal procedures, use of protective equipment and hygiene and emergency response procedures.	
(8) Daily collection of risk waste from hospitals shall be taken by the vehicles of the local council immediately to the designated landfill site or incinerator by the most direct route in accordance with prior scheduling of collection times and journey times.	This appears to presume that the local council provides the incinerator.
(9) Radioactive waste which has decayed to background level shall either be buried in the landfill site or incinerated.	
Explanation.- An incineration facility for radioactive waste shall require, in addition to approval of its EIA by the Federal agency or a Provincial agency concerned, registration with and issue of license by PNRA, and reconciled with the requirements of the Pakistan Nuclear Regulatory Authority Ordinance 2001 (III of 2001) and the guidelines made thereunder in connection with management and disposal of radioactive waste.	
(10) All liquid infectious waste shall may be discharged into the sewerage system only after being properly treated and disinfected.	
Explanation 1.- Liquid radioactive waste shall may be discharged into the sewerage system only after it has decayed to background level and after it has been ensured that the radioactive materials are soluble and dispersible in water, failing which it shall be filtered.	
Explanation 11.- Radioactive waste containing Tritium and Carbon-14 isotopes shall be stored separately and shipped to the disposal site of the Pakistan Atomic Energy Commission, Karachi Nuclear Power Plant (KANUPP), Karachi or Pakistan Institute of Science & Technology (PINSTECH), Islamabad.	Inter-provincial movement of waste—is this a federal subject?
(11) In the case of gaseous radioactive waste, portable filter assemblies shall be used to extract iodine and xenon. The used filters shall be treated as solid radioactive waste.	
21. Accidents and spillages.-	
(1) In case of accidents or spillages, the following actions shall be taken, namely:-	

(a) the emergency procedures mentioned in the Waste Management Plan shall be implemented immediately;	
(b) the contaminated area shall be immediately evacuated, if required;	
(c) the contaminated area shall be cleared and, if necessary, disinfected;	
(d) exposure of staff members shall be limited to the extent possible during the clean-up operation, and appropriate immunization may be carried out, as required; and	What about patients?
(e) any emergency equipment used shall be immediately replaced in the same location from which it was taken.	
(2) All hospital staff members shall be properly trained and prepared for emergency response including procedures for treatment of injuries, clean-up of the contaminated area and prompt reporting of all incidents of accidents, spillages and near-misses.	
(3) A Waste Management Officer shall immediately investigate, record and review all such incidents to establish causes and shall submit his report to a Waste Management Team.	
(4) The Waste Management Team shall review the report, and where necessary shall amend the Waste Management Plan to prevent recurrence of such incidents, and take such further action as may be required.	Is it "a" waste management team? Or "the" waste management team?
22. Waste minimization and reuse.-	
(1) To minimize hospital waste, each hospital shall introduce:-	
(a) purchasing and stock control, involving careful management of the ordering process to avoid overstocking, particularly with regard to date-limited pharmaceutical and other products, and to accord preference to products involving low amounts of packaging;	Awkward wording. Say "minimal" instead.
(b) waste recycling programmes, involving return of unused or waste chemicals in quantity to the supplier for reprocessing, return of pressurized gas cylinders to suppliers for refilling and reuse, sale of materials such as mercury, cadmium, nickel and lead-acid to specialized recyclers, and transportation of high level radioactive waste to the original supplier; and	
(c) waste reduction practices in all hospital departments.	
(2) To encourage reuse, each hospital shall separately collect and sterilize, either thermally or chemically in accordance with approved procedures,	

surgical equipment and other items which are designed for reuse and are resistant to the sterilization process.	
23. Inspection.-	
(1) A Health Officer may inspect any hospital, incinerator or landfill located within the area of his jurisdiction to check that the provisions of these rules are being complied with.	
(2) The Government shall constitute a Hospital Complaint Scrutiny Committee for each district and for the Islamabad Capital Territory, comprising two Medical Superintendents of hospitals owned by the Government, one of which shall be the Chairman of the Committee, and one Chief Executive of a private sector hospital:	This implies that both private and government hospitals are covered by these rules. If that is the case, it must be specified at the beginning.
Provided that the Hospital Complaint Scrutiny Committee for a district or for the Islamabad Capital Territory shall comprise of Medical Superintendents of hospitals located outside the said district or the Islamabad Capital Territory, as the case may be.	This helps to ensure that there is no intra-district collusion, but is it necessary to have such a committee for every district in the country? Is that even feasible?
(3) If a Health Officer discovers any contravention of any provision of these rules, he shall report the same to the concerned Hospital Complaint Scrutiny Committee.	
(4) The Hospital Complaint Scrutiny Committee shall review details of the contravention reported by the Health Officer and after giving an opportunity of being heard to the duly authorized representative of the hospital or incinerator or landfill, recommend,-	
(a) that no further action be taken in the circumstances of the case;	
(b) that another inspection be carried out within a specified period not exceeding one month, if the hospital or incinerator or landfill has taken steps to comply with the rules contravened;	
(c) that action be initiated against the person responsible through the District Health Officer or a local council or the Federal agency or the Provincial agency concerned as the case may be.	
24. Hospital Waste Management Advisory Committee.-	
(1) The Federal Government shall by notification in the official Gazette, constitute a Hospital Waste Management Advisory Committee for the Islamabad Capital Territory comprising,-	
(a) Secretary, Ministry of Health	Chairman
(b) Joint Secretary, Ministry of Local Govt. & Rural Dev	Member

(c) Director General, Environment Cell, CDA	Member
	Member
	Member
	Member
	Member
	Members
	Members
	Member
	Member/Secretary
(2) Each Provincial Government shall, by notification in the official Gazette, constitute a Hospital Waste Management Advisory Committee for the Province comprising,-	
(a) Secretary, Provincial Health Department.	Chairman
(b) Representative of Ministry of Health.	Member
(c) Representative, Provincial Environment Department.	Member
(d) Representative, Provincial Local Government Department.	Member
(e) President, Pakistan Medical Association or his representative.	Member
(f) Vice Chancellor of a Medical University in the Province.	Member
(g) Medical Superintendent of hospitals in the public sector and Chief Executives of two hospitals in the private sector.	Member

(h) Representative of two non-governmental organizations.	(i) DG, Provincial Environmental Protection Agency.	Member	
(3) The Hospital Waste Management Advisory Committee shall,-	(a) periodically review the implementation of these rules and recommend amendment thereto; and	(b) recommend adoption of such policy measures, plans and projects as it may consider necessary for the effective management of hospital waste in the Islamabad Capital Territory and Provinces, as the case may be.	
25. Phased implementation.-	The Federal Government may, by notification in the official Gazette, exempt any class of hospitals from all or any of the provisions of these rules.		There should be no blanket exemption. If exemptions must be allowed, then criteria must be specified, and the decision should be taken in a transparent manner.
26. Applicability of section 14.-	Each hospital generating risk waste shall apply to the Federal Agency for issuance of a licence for handling hazardous substances and the provision of section 14 shall apply for the purpose of granting such licence.		The word "section" here may be misconstrued to refer to the Rules (where rule/section 14 is about the duties of the waste management officer). To avoid ambiguity, better to say "section 14 of the Act".

6.3 PAKISTAN BIOSAFETY RULES 2005

(Islamabad, Tuesday, April 26, 2005) NOTIFICATION Islamabad, the 21st April , 2005		
SRO (I) 336(I)/2005- In exercise of the powers conferred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Government is pleased to make the following rules, namely: -		
1. Short title, extent and commencement.		
(1)	These rules may be called the Pakistan Biosafety Rules, 2005.	
(2)	They shall come into force with immediate effect.	
2. Application.		
These rules shall be applicable to:-		
i.	manufacture, import and storage of micro-organism and gene technological products for research whether conducted in laboratories of teaching and research, research and development institutes or private companies involved in the uses and applications of genetically modified organisms and products thereof.	Imports and exports are a federal subject. Jurisdiction issues will need to be addressed.
ii.	all work involved in the field trial of genetically manipulated plants, animals (including poultry and marine life), micro-organisms and cells; and	
iii.	import, export, sale and purchase of living modified organism, substances or cells and products thereof for commercial purposes.	Federal subject.
3. Definitions.		
(1) In these rules, unless there is anything repugnant in the subject or context:-		
(a)	"act" means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);	
(b)	"applicant" means any person including an artificial judicial person, seeking authorization for activities related with application of these rules;	
(c)	"biosafety" means the mechanism developed through policy and procedures to ensure the environmentally safe application of biotechnology;	
(d)	"biosafety guidelines" means the Pakistan Biosafety Guidelines notified by the Ministry of Environment;	
(e)	"commercial release" means any intentional introduction of living modified	

	organisms into the environment through sale or purchase;	
(f)	"contained use" means any operation or activity, undertaken within a facility, installation or other physical structure, which involves living modified organisms, substances or cells and products thereof and controlled in a manner that limit their contact with, and their impact on, the external environment and the general population;	
(g)	"deliberate release" means any intentional transfer of living modified organisms to the environment or nature, irrespective of the way in which it is done;	
(h)	"experimental release" means any intentional introduction into the environment of living modified organisms, with containment measures and which is not used for commercialization;	
(i)	"export" means the intentional transboundary movement from the area of national jurisdiction of Pakistan to the area of national jurisdiction of another country;	
(j)	"import" means the international transboundary movement into the area of national jurisdiction of Pakistan from the area of national jurisdiction of another country;	
(k)	"Institutional Biosafety Committee " means the committee constituted under rule 8;	
(l)	"intentional introduction into the environment" means any deliberate release of living modified organisms subject to these rules that is not "contained use", including release for experimental purposes but does not include living modified organisms imported for direct use for food or feed or for processing;	Does this mean that GM products can be used for food, animal feed and processing without regulation?
(m)	"licence" means the licence granted by the Federal Agency under section 14 of the Act;	
(n)	"living organism" means any biological entity capable of transferring or replicating genetic material, including sterile organisms, viruses and viroids;	
(o)	"modern biotechnology" means the application of:-	
	i. in vitro nucleic acid techniques, including recombinant deoxyribonucleic acid (DNA) and direct injection of nucleic acid into cells or organelles; or	
	ii. fusion of cells beyond the taxonomic family, to overcome natural physiological reproductive or recombination barriers and that are not	

techniques used in traditional breeding and selection;																									
(p) "National Biosafety Committee" means the committee constituted under rule 4; and																									
(r) "Technical Advisory Committee" means the committee under rule 6.																									
	For the sake of clarity and completeness, sub-section (2) should be added, saying that all other terms are to be understood as defined in the PEPA 1997/provincial Act.																								
4. Establishment of National Bio-safety Committee.																									
(1) The Federal Government shall, by notification in the official Gazette, establish a National Biosafety Committee consisting of the following members namely:-	Does the national committee continue to function? Are provincial committees to be established in addition or instead?																								
<table border="1"> <tr> <td>(a) Secretary, Ministry of Environment</td><td>Chairperson</td></tr> <tr> <td>(b) Member (Biosciences), Pakistan Atomic Energy Commission</td><td>Member</td></tr> <tr> <td>(c) Chairpersons of concerned Institutional Biosafety Committees</td><td>Members</td></tr> <tr> <td>(d) Representatives of Provincial Governments</td><td>Members</td></tr> <tr> <td>(e) Representatives of Government of AJK</td><td>Member</td></tr> <tr> <td>(f) Chairman, PARC</td><td>Member</td></tr> <tr> <td>(g) Representative Ministry of Food & Agriculture</td><td>Member</td></tr> <tr> <td>(h) Representative Ministry of Health</td><td>Member</td></tr> <tr> <td>(i) Representative Ministry of Science and Technology</td><td>Member</td></tr> <tr> <td>(j) Representative Ministry of Education</td><td>Member</td></tr> <tr> <td>(k) Director-General, Department of Plant Protection</td><td>Member</td></tr> <tr> <td>(l) Director-General, Pakistan EPA</td><td>Member</td></tr> </table>	(a) Secretary, Ministry of Environment	Chairperson	(b) Member (Biosciences), Pakistan Atomic Energy Commission	Member	(c) Chairpersons of concerned Institutional Biosafety Committees	Members	(d) Representatives of Provincial Governments	Members	(e) Representatives of Government of AJK	Member	(f) Chairman, PARC	Member	(g) Representative Ministry of Food & Agriculture	Member	(h) Representative Ministry of Health	Member	(i) Representative Ministry of Science and Technology	Member	(j) Representative Ministry of Education	Member	(k) Director-General, Department of Plant Protection	Member	(l) Director-General, Pakistan EPA	Member	The Biosafety Committee consists entirely of government officials. The private sector and the non-government sector should also be represented.
(a) Secretary, Ministry of Environment	Chairperson																								
(b) Member (Biosciences), Pakistan Atomic Energy Commission	Member																								
(c) Chairpersons of concerned Institutional Biosafety Committees	Members																								
(d) Representatives of Provincial Governments	Members																								
(e) Representatives of Government of AJK	Member																								
(f) Chairman, PARC	Member																								
(g) Representative Ministry of Food & Agriculture	Member																								
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(j) Representative Ministry of Education	Member																								
(k) Director-General, Department of Plant Protection	Member																								
(l) Director-General, Pakistan EPA	Member																								
(2) The Director-General, Pakistan EPA, shall act as Secretary of the National Bio-safety Committee																									
(3) The Committee may co-opt any other member(s) as deemed necessary for its functioning.																									
(4) The members of the Committee, other than ex-officio members, shall hold office for a term of three years extendable to another term of three years with the approval of the Chairperson.																									
(5) The Committee shall frame its own rules and procedures.																									

(6)	The Committee shall hold meetings as and when deemed necessary, provided that not less than four meetings shall be held in a year.	
5. Functions of National Biosafety Committee.		
(1)	The National Biosafety Committee shall perform the following functions:	
(a)	to establish standards and procedures for risk assessment and labeling of living modified organisms, substances or cells and products thereof.	
(b)	to consider application(s) for import, export or commercial release of living modified organisms, and on the recommendations of Technical Advisory Committee allow release or reject applications after reviewing the risk assessment carried out in accordance with the biosafety guidelines, the procedures established under sub-rule 5(a) and any other reliable information.	Import/export — federal subject. But note that the National Biosafety Committee only considers applications etc. that involve the release of GMOs. It does not seem to have a role in approving projects that use GMOs where “release” is not involved. There is always a risk of accidental release, so all projects involving GMOs should have approval. It is worth considering the introduction of an EIA requirement as well.
(c)	to ban or restrict import, export, sale, purchase or trading of any living modified organism causing or likely to cause risk to public health, safety or environment.	Inter-provincial trade — also federal subject. Here again, “use” is not mentioned.
(d)	to develop linkages with foreign biosafety committees and relevant agencies to ensure that genetic manipulation practices in Pakistan address international biosafety concerns and observe universal codes of conduct.	The term to use here is “international best practice”.
(e)	to cooperate with other relevant national/provincial authorities overseeing the import and release of living organisms and formulate guidelines for the identification, inspection and regulation of transgenic species exotic organisms and others.	
(f)	to restrain on the advice of Technical Advisory Committee any person, authority or institute involved with genetic manipulation experiments of potential hazards.	
(g)	to facilitate exchange of technical expertise to various research institutions and regulatory agencies in setting up appropriate experimental conditions.	
(h)	to Facilitate all levels of supervision of genetic manipulation work by assisting other regulatory bodies including Institutional Biosafety Committees, in establishing pertinent codes disciplines and guidelines for the appraisal of biohazards and the management of bio-safeguards.	What “other regulatory bodies”? The National Biosafety Committee should be the central regulatory body, or should establish one. “Institutional Biosafety Committees” are housed in the institution (some of which will be profit-making companies) and so cannot be expected to perform regulatory functions. (Also conflict of interest.)
(i)	to coordinate efforts of Institutional Biosafety Committees and inform and educate the public on biosafety issues and on proposed national policies.	It makes sense to have a “national” policy on biosafety as opposed to provincial policies. How will this operate post-18th Amendment?

(j) to ensure that laboratory, field work and commercial release of genetically modified organisms and their products conforms to the national biosafety guidelines.	How does it "ensure"? What is the enforcement mechanism?
(k) to prepare and provide to Institutional Biosafety Committees the various notifications and assessment forms, biosafety guidelines, related documents and assorted signs for facilities.	
(l) to inform the various institutions engaged in genetic manipulation work about new developments in biosafety so as to avoid exposure of laboratory personnel, the community or the environment to undue risks.	
(m) to coordinate efforts between pertinent government agencies and private organizations to maintain safety levels in biotechnological work and to prepare them for biological emergencies.	
(n) to certify high-level laboratories, plant glass houses and animal houses intended for use in high-risk work. Upon request by the institution, and at the earliest convenience, the National Biosafety Committee may inspect a facility and either issue certification, or recommend additional precautions, if elements of the facility are determined to be inadequate to support the types of risk/hazard accompanying work requiring such physical containment.	
(o) to inspect high-level laboratories and containment facilities on a regular basis. The National Biosafety Committee may inspect laboratories and facilities of containment level C2, PH2, C2A, as specified in the bio safety guidelines, equivalent or higher at any time subsequent to certification without prior notice.	Pls see the composition of the committee in section 4(1), above. These are not people who will be carrying out inspections. Who does these inspections?
(p) to inspect systems equipment and instruments governing ambient biosafety levels in genetic manipulation laboratories.	See previous comment.
(q) to keep information of commercial significance confidential from public domain if so requested in writing by applicant, person or institution or organization.	Access to information is critical. This clause needs to be looked at carefully. Is it enough for information to be deemed confidential based solely on a letter? What are the criteria?
(r) to monitor the safety related aspects of on going research projects and achievements involving genetically engineered organisms/hazardous substances or cells and products thereof.	"Monitoring safety of" is not enough. There needs to be a provision for approval, for enforcement of rules and guidelines, and for imposing penalties for violations.
	NOTE: There are no requirements for the Biosafety Committee to report on or make public its work and activities.
6. Technical Advisory Committee.	
(1) The Federal Government shall, by notification in the official Gazette, establish	Again, will a technical advisory committee be established in each province?

a Technical Advisory Committee consisting of the following:		Has one been established by the federal government? If so, what is its status?
(i) Director-General, Pakistan EPA	Chairperson	<p>Related to comments above on the role of the National Biosafety Committee, the technical committee should advise the national committee on the approval of projects, and other related matters. Note that EPA heads are to be part of this committee, yet there is no requirement of EIA for GMO-related operations, including research.</p> <p>Note also that the IEE/EIA Regulations do not mention research work or commercial projects involving GMOs. This type of work can be covered under a general provision ("and any other project which..."), or a specific provision may be added.</p>
(ii) Director, National Institute for Bio Technology and Genetic Engineering, Faisalabad.	Vice Chairperson	
(iii) Executive Director, Pakistan Medical Research Council (PMRC)	Member	
(iv) Director, Pakistan Council of Industrial and Research (PCSIR)	Member Scientific	
(v) Director, Health Services Academy (HAS)	Member	
(vi) Executive Director, National Institute of Health	Member	
(vii) Representative, Pakistan Atomic Energy Commission, Islamabad	Member	
(viii) Representative, Centre for Molecular Genetics, University of Karachi	Member	
(ix) Representative, Centre for Applied and Molecular Biology, Lahore	Member	
(x) Representative, National Commission on Biotechnology	Member	
(xi) Relevant technical representative Animal Sciences PARC	Member	
(xii) Relevant technical representative Plant Sciences PARC	Member	
(xiii) Director, Pakistan Environmental Protection Agency, Islamabad	Member/Secretary	
(xiv) Two experts from private sector/civil society	Members	
(2) The Director, Pakistan Environmental Protection Agency shall act as Secretary of the Technical Advisory Committee.		
(3) The Committee may co-opt any technical representative from any province.		
7. Functions of Technical Advisory Committee.		
The following are the functions of the Technical Advisory Committee:-		
(a) to examine applications and recommend to National Biosafety Committee on		

permitting or otherwise laboratory work, field work or release of living modified organism, substances, cells, and products thereof;	
(b) to review and control of safety measures adopted while handling large scale use of genetically engineered organisms/classified organisms in research, developmental and industrial production activities;	
(c) to review research methodologies in genetic engineering and recombinant DNA work at the international level and assess the associated risks to guide relevant institutions;	
(d) to monitoring release of engineered organisms/products into environment; oversee field applications and experimental field trials;	
(e) to provide information/data inputs to National Biosafety Committee upon surveillance of approved projects under industrial production, and in case of environmental releases with respect to safety risks and accidents; and	All such "projects under industrial production" should also be subject to an EIA.
(f) to supervise directly or through any person authorized in this behalf the implementation of the terms and conditions laid down in connection with the approvals accorded by the National Biosafety Committee.	
8. Institutional Biosafety Committees.	
(1) The head of the institution related to biotechnology shall notify Institutional Biosafety Committee with the following minimum composition:	
(a) Head of the institution	Chairperson
(b) Subject expert (s)	Members
(c) Social Scientist/economist (for social impact)	Member
(d) Representative of civil society	Member
9. Functions of Institutional Biosafety Committee.	
(1) The Committee shall perform the following functions:	
(a) to assist in the activities of National Biosafety Committee and Technical Advisory Committee;	
(b) to assist researchers in undertaking risk assessment, organizing training programmes and harmonizing experimental conditions with biosafety guidelines;	
(c) to determine additional safeguards and draft supplementary operating instructions for work at the institution, in line with and addressing the specific risks and concerns uncovered;	
(d) to evaluate the qualifications of researchers involved in biotechnological	

	projects and assess whether each retains a thorough understanding of good microbiological practices necessary for the supervision of students, assistants and junior personnel;	
(e)	to monitor all regulated work under progress within the institution and counsel the proponents on issues of biosafety and on compliance with biosafety guidelines on a regular basis, or as requested;	
(f)	to serve, where appropriate as a gateway for the flow of information, ideas and opinions between the National Biosafety Committee and the research teams;	
(g)	to maintain and update a directory of all personnel engaged in activities at every biosafety level, and instruct new personnel on the correct laboratory and/or field practices, emergency procedures and equipment operation at the relevant level;	
(h)	to ensure health of laboratory and field personnel as may deem necessary from medical records;	
(i)	to liaise with National Biosafety Committee and Technical Advisory Committee on import, export, manufacture, process, use or sale of any genetically modified organisms/substances or cells and products thereof for the purpose of research;	
(j)	to withhold funds and or use administrative authority to immediately refrain programmes if biosafety guidelines are violated;	Withholding funds and "refraining" programmes is not enough. There should be a system for reporting violations, accompanied by a schedule of offences, with provisions for emergency measures (possibly through an environmental protection order).
(k)	to prepare and implement the institutional emergency and response plan according to the details provided in the manuals/guidelines prepared by National Biosafety Committee;	
(l)	to assess all projects referred to it, and on the basis of the information provided and the risks forecast determine under which category of work the proposals fall and whether to endorse the work proposed;	(1) What are these "categories"? Are they "risk categories", as in sub-section (n) below? (2) What does "endorse" mean? Is it approval? If so, why not say "approval"? Or is this less than approval?
(m)	to maintain records of approved project proposals for laboratory genetic manipulation work (including notification for project exemption) and the assessments;	Given the seriousness of the harm that can be caused, the power to approve a project should lie with a higher-level authority outside the institution, especially considering that many biotech institutions are profit-making companies.
(n)	to forward summaries of all project proposals submitted for IBC notification, and the assessments to the Technical Advisory Committee for records and information or for review and recommendation in the case of	(1) IBC is Institutional Biosafety Committee? (2) This clause is not clear. If assessment and approval of GMO-related

proposals for Risk Category 2 and 3 work;	projects is based on the "Risk Category", then how are these categories decided and by whom? There should be a separate Rule mentioning the categories and specifying how they are to be applied.
(o) to undertake risk assessment, in cooperation with the research teams as necessary, to determine the appropriate containment and biosafety conditions, operating procedures and emergency safeguards for Risk Category 2 and 3 genetic manipulation work, and for the housing, storage or movement of regulated material and also the waste;	
(p) to prepare, in conjunction with the research teams, specific contingency plans after undertaking risk assessments and reviewing project proposals;	
(q) to with particular emphasis on Risk Category 3 work, enforce all recommendations, and ensure that the conditions of National Biosafety Committee have been acknowledged and promptly addressed;	Enforce whose recommendations? At what stage are such recommendations provided?
(r) to inspect and certify, before use in genetic manipulation work. C1 level laboratories, conventional animal houses, PH 1 plant glass houses, and quarantine and medical facilities for infected animals; and	(1) Inspection and certification should not be carried out in-house. Or are the terms being used here in some other context? (2) "Port quarantine" is a federal subject, so this is not a jurisdiction issue. But note that hospitals (including animal hospitals) are also subject to the Hospital Waste Management Rules.
(s) to monitor and assay the containment features of and the working conditions within all laboratories, plant glass houses and animal houses supporting the institution's work, to ensure that the various facilities are maintained at the standards and requirements delineated in Appendices 4 through 11 of biosafety guidelines.	
10. The Bio-Safety Officer (BSO).	
(1) Institutions and organizations involved in biotechnology or genetic manipulation work shall appoint or designate a Bio-Safety Officer (s) well conversant with bio-safety issues and emergency counter-measures to perform the following functions; namely	It is good that institutions must designate a biosafety officer but a similar position should also be created by the government to oversee biosafety in general.
(a) to assist and liaison with Institutional Biosafety Committee.	
(b) to review in conjunction with the Institutional Biosafety Committee and on a regular basis operating procedures and biosafety records, and to assay the integrity of containment facilities and safety equipment/ utilities.	
(c) to advise on all matters pertaining to risk and biosafety, health of personnel, contingencies at work and infractions of biosafety guidelines.	
11. Prohibition and Authorization requirements.	

<p>(1) No person shall import, export, sell, purchase or trade living modified organisms, substances or cells and products thereof for any purposes, without the prior of licence from Federal Agency.</p>	<p>Here, again, besides the jurisdiction issues related to import/export, the other issue is that "use" is not subject to a licence. Licensing requirements should include "use", "experimentation on or with", and other similar terms to cover all aspects of GMOs, not just their movement and trade.</p>
<p>(2) Applicants seeking licence for activities shall submit an application prepared in conformity with the requirements of the Biosafety Guidelines to the Federal Agency accompanied with prescribed fee.</p>	<p>"Federal Agency" is not defined in the Rules but presumably this is a reference to the EPA. If so, note that here it seems that all "activities" require a licence. But the language is not clear. Do all projects using GMOs need to be licensed? And is "application" a reference to EIA?</p>
<p>(3) Any person to whom an licence has been granted shall notify the Federal Agency and the National Biosafety Committee of any change in or addition to the information already submitted.</p>	
<p>12. Confidential Information.</p> <p>Information designated as confidential by the applicant shall be protected from disclosure in conformity with Article 21 of the Cartagena Protocol as set forth in the biosafety guidelines.</p>	<p>(1) See comment attached to Rule 5(1)(q), above, regarding confidentiality.</p> <p>(2) Note that implementation of international treaties is a federal subject. There does not seem to be any issue with a provincial government voluntarily complying, but reporting to the secretariat on compliance is the responsibility of the federal government. Note also that Article 21 of the Protocol applies to import only, although, again, employing the same procedures domestically should not be an issue, since it represents best practice. But Pakistan has no law implementing the Convention on Biological Diversity, let alone the Cartagena Protocol. It seems reasonable that federal rules should mention an MEA, but does a lower-level legal instrument (Rules) count for much, and does the absence of enforcing legislation (at the level of an Act) cause any implementation issues?</p> <p>Other related questions also arise. Is it possible to issue only rules to implement an international obligation? And also note that these Rules are dated 2005, whereas PK only ratified the protocol in 2009.</p>
<p>13. Risk Assessments and Risk Management.</p>	
<p>(1) The National Biosafety Committee shall ensure that risk assessment is carried out in accordance with the biosafety guidelines for all activities that require licence.</p>	<p>It is not clear which activities require a licence.</p>
<p>(2) Risk assessment, including the auditing of risk assessments and evaluation of proposed risk management measures, and field trials shall be carried out on a case-by-case basis in a scientifically sound manner, in accordance with Article 15 and Annex III of the Cartagena Protocol as set forth in the biosafety guidelines.</p>	

14. Decision-making and Communication of Decision.	
(1) A final decision shall be made and communicated to the applicant within;	Who makes this decision? Is it the EPA (they are supposed to issue licences)? Or is it the National Biosafety Committee? There is no specific procedure set out in the Rules and it is not clear who approves what.
(a) sixty days for Risk Category 2 and 3 contained use activities (as specified in the biosafety guidelines);	
(b) ninety days for experimental releases; and	
(c) one hundred and twenty days for commercialization.	
(2) Decisions shall be based on information set forth in the application, scientific risk assessment and prior field experience with the living modified organisms in Pakistan.	
(3) Final decisions shall be recorded in a decision document as described in the biosafety guidelines. No person shall vary the purpose of the licence activity as set forth in the decision document unless he obtains a licence.	
(4) The licence granted by the National Biosafety Committee pursuant to rule 12 shall not take effect until the applicant executes an undertaking in which the applicant assumes the legal duty to comply with applicable provisions of the biosafety guidelines in existence as of the date of the licence.	There is a discrepancy here in the two versions of the Rules. This document, based on text downloaded earlier, carries Rule 14(4) as shown here. But in the version now available on the EPA website (the file name is the same), the text of this sub-rule reads: (4) The licence granted by the Federal Agency under Rule 11 shall not take effect until the applicant executes an undertaking in which the applicant assumes the legal duty to comply with applicable provisions of the biosafety guidelines in existence as of the date of the licence. — makes sense that the text mentioning the federal agency is the correct one, but it will need to be checked.
15. Grant of Licence.	
(1) All grants of licence under rules 11 shall be subjected to terms and conditions as to the labeling, control to be exercised by the applicant, supervision, restriction on use, the layout of the enterprise and as to the submission of information or any other condition deemed appropriate by the Federal Agency.	
(2) All approvals of the Federal Agency shall be for a specified period not exceeding four years at the first instance renewable for two years at a time. The Federal Agency shall have powers to revoke such approval in the following situations: -	EPAs will need to assess this and see if it needs to be revised, based on their experience.
(a) if there is any new information as to the harmful effects of the genetically engineered organisms or cells.	
(b) if the genetically engineered organisms or cells cause such damage to the	

environment, nature or health as could not be envisaged when the approval was given, or	
(c) non compliance of any condition stipulated by National Biosafety Committee.	Any other reasons to be added? EPAs should assess.
17. Special Requirements for Import and Export of Living Modified Organisms.	Import and export — federal subject. Jurisdiction issues to be worked out.
(1) Living modified organisms, substances or cells and products thereof imported for contained use, for intentional introduction into the environment, or for direct use as food or feed or for processing shall be identified in accordance with the requirements of Article 18 of the Cartagena Protocol as set forth in the biosafety guidelines and such import, where required, shall be in accordance with sub-rule 1(2) and the National Plant Quarantine Regulations aligned with International Plant Protection Convention. All such imports will also be governed by the provision of Import Trade and Procedures Order (IT&PO) and Export Policy and Procedures Order (EPPO).	<p>NOTE:</p> <p>The federal instruments in force on this subject are:</p> <ul style="list-style-type: none"> • Pakistan Plant Quarantine Act 1976, which repeals the Destructive Insects and Pests Act 1914 (II of 1914) • Pakistan Plant Quarantine Rules 1967, which were "revised and consolidated in 1966 under the provisions of the Destructive Insects and Pests Act and published in Government Gazette of Pakistan Extraordinary vide SRO 129(K)/67, dated 2nd January, 1967". Subsequently amended, the revised Plant Quarantine Rules are "deemed to have been framed in exercise of powers conferred under Section 3, sub-sections (1), (2), (3) and Section 5 and Section 10 of the Pakistan Plant Quarantine Act, 1976, which is currently in force". <p>— but the "National Plant Quarantine Regulations" could not be located.</p> <p>On import and export, the instruments mentioned in Rule 17(1) are:</p> <ul style="list-style-type: none"> • Import Trade and Procedure Order 2000 (SRO 489(I)/2000 dated 17 July 2000) • Export Policy and Procedures Order 2000 (SRO 482(I)/2000 dated 11 July 2000) <p>The provisions of all these legal instruments will need to be checked.</p>
(2) Any person proposing to export living modified organisms, substances or cells and products thereof shall provide all information including risk assessment and field trials to the exporting country. and such export, where required, shall be in accordance with sub-rule 1(2) and the National Plant Quarantine Regulations aligned with International Plant Protection Convention. All such exports will also be governed by the provision of IT&PO and EPPO.	
18. Transition and Reviews.	
Activities that were ongoing pursuant to the pre-existing regulatory system at the date of the entry into force of these rules shall be subject to the review procedure set forth in rule 11 but may continue until such time as a final decision is provided to the applicant. Any application pending at the date of the entry into force of these rules shall be subject to the provision of these rules.	These Rules were issued in 2005. They do not state how long the transition period is to continue. EPAs will need to confirm if all pre-existing operations are now regulated and, if not, what remains to be done. This clause should be deleted from these Rules, or at least amended to reflect the current situation. A deadline should be added.

19. Production.	Production in which living modified engineered organisms substances or cells or products thereof or microorganism are generated or used shall not be commenced except with the consent of National Biosafety Committee. This shall also apply to production taking place in connection with development, testing and experiments.
20. Deliberate or unintentional release.	
(1) Deliberate or unintentional release of living modified organisms/hazardous microorganisms, substances or cells and products thereof, including deliberate release for the purpose of experiment is not allowed.	
(2) National Biosafety Committee on the recommendations of the Technical Advisory Committee may in special cases give approval of deliberate release.	There should be no exemptions allowed for the deliberate release of hazardous microorganisms or GMOs. It is hard to imagine a scenario under which this type of move would be in the public interest. In general, exemptions must be decided by a higher-level authority, and with an in-built procedure for public hearings, in order to ensure fairness and transparency in decision making.
21. Permission and approval for certain substances.	
Substances and products, which contain genetically engineered organisms or cells or microorganisms shall not be produced, sold, imported or used except with the approval of National Biosafety Committee and in accordance with sub-rule (2) of rule 20.	
22. Permission and approval for food stuffs.	
Food stuffs, ingredients in food stuffs and additives including processing aids containing or consisting of living modified organisms, substances or cells and products thereof shall not be produced, sold, imported or used except with the approval of the National Biosafety Committee and in accordance with sub-rule (2) of rule 20.	NOTE: It makes sense that the Biosafety Committee is responsible for making these decisions but if these committees are now to be established in each province, how are approvals to be coordinated to ensure that harmful or dangerous GMOs are not banned in one province and permitted in another? In other words, the regime governing GMOs across the country should be consistent. It is also important, for the sake of clarity, to review the provisions of these Rules as a whole and specify the separate responsibilities of the Biosafety Committees and the EPAs. At the moment, the role of the EPAs appears to be an afterthought and it is not clear where they play a role and where it is the Biosafety Committee that must be involved. Note also that it is possible in some situations that approval from both may be required. In such cases, a coordinating mechanism is needed.

	It also needs to be clarified who/what is the highest decision-making entity.
23. Responsibility to notify interruptions or accidents.	
(1) Any person, institution or organization whether obtained licence under rule 11 or not shall immediately notify the Technical Advisory Committee of any interruption of operations or accidents that may lead to discharges of genetically engineered organisms or cells which may be harmful to the environment, nature or health or involve any danger thereto.	How is this provision to be enforced? What happens if a company does not report? Who is to know?
(2) Any notice given under sub-rule (1) above shall not lessen the duty of the person who is responsible to try effectively to minimize or prevent the effects of interruptions of operations of accidents.	This is weak. The organisation responsible must also be held responsible for proper clean-up, monitored by the EPA or the Biosafety Committee, with penalties if it is not done properly.
24. Preparation of Off-site emergency Plan by the Technical Advisory Committee.	
(1) Technical Advisory Committee may prepare an off-site emergency plan for emergencies relating to a possible major accident and prepare a plan of action in consultation with all concerned.	The EPAs should have a role here.
(2) For the purpose of enabling the Technical Advisory Committee to prepare the emergency plan required under sub-rule(1), the person, institute or organization shall provide the Technical Advisory Committee with such information relating to the handling of hazardous micro-organisms/genetically engineered organisms under his control as the Technical Advisory Committee may require including the nature, extent and likely off-site effects of a possible major accident and the Technical Advisory Committee shall provide the person, institute or organization with any information related to off-side emergency plan.	
25. Information and Inspections.	
(1) Any person seeking licence or who has obtained licence under rules 11 shall at the direction of Technical Advisory Committee submit all such information deemed necessary for its functioning.	
(2) The National Biosafety Committee or its authorized officer may at any reasonable time inspect or verify compliance of any condition (s) laid down in the licence issued under rule 11.	Again, the EPAs should have a role in inspections.
26. Fees.	
(1) The Technical Advisory Committee may fix a fee with the approval of National Biosafety Committee to cover, in whole or in part, the expenses incurred by the authorities in connection with approvals, examinations, supervision and control.	

27. Powers to give directions.	
(1) The Federal Government has the authority to give any written direction, which shall be binding on the National Biosafety Committee or the Technical Advisory Committee or the Institutional Biosafety Committees to comply with.	Will this power now lie with provincial governments?
Sd/- (NOOR ZAMAN) Section Officer (Admn-I) File [2(7)95-Bio.]	

Source: <http://www.environment.gov.pk/info.htm>
file name: <http://www.environment.gov.pk/act-rules/Biosftyrules.pdf>

6.4 ENVIRONMENTAL TRIBUNAL RULES, 1999

<p>PART II Statutory Notification (SRO) GOVERNMENT OF PAKISTAN MINISTRY OF ENVIRONMENT, LOCAL GOVERNMENT AND RURAL DEVELOPMENT NOTIFICATION Islamabad, the 10th March, 2000</p>	
<p>SRO (1)/2001.- In exercise of the powers conferred by section 33 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), read with clause (k) of sub-section (1) of section 6 thereof, the Pakistan Environmental Protection Agency, with the approval of the federal Government, is pleased to make the following regulations namely:</p>	
<p>1. Short title and commencement. -</p>	
<p>(1) These rules may be called the Environmental Tribunal Rules, 1999.</p>	
<p>(2) They shall come into force at once.</p>	
<p>2. Definitions. -</p>	
<p>(1) In these Rules, unless there is anything repugnant in the subject or context.</p>	
<p>(a) "Act" means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);</p>	
<p>(b) "Bench" means a bench of tribunal comprising the Chairperson and at least one other Member;</p>	
<p>(c) "Chairperson" means Chairperson of the Tribunal;</p>	
<p>(d) "Corporation service" means employment in a corporation or other body set up, established, owned, managed or controlled by the Federal or a Provincial Government;</p>	
<p>(e) "Director General" means the Director-General of the Federal Agency;</p>	
<p>(f) "Member" means member of the Tribunal;</p>	
<p>(g) "Registrar" means the Registrar of the Tribunal;</p>	
<p>(h) "Section" means a section of the Act;</p>	
<p>(i) "Service of Pakistan" shall have the same meaning as defined clause (1) of Article 260 of the Constitution of the Islamic Republic of Pakistan, 1973;</p>	
<p>(j) "Tribunal" means Environment Tribunal established under subsection (1)</p>	

	of section 20 of the Act and includes a Bench.	
(2)	All other words and expressions used in these rules but not defined shall have the same meanings as are assigned to them in the Act.	
3. Term of office of Chairperson and Members.		
(1)	The term of office of the Chairperson and Members shall not exceed three years:	
	Provide that the Federal Government may extend the term of office of the Chairperson or any Member for such period, not exceeding three years, as it may deem fit.	
	Provided further that a Member, who immediately before his appointment was holding a post in the service of Pakistan, may be transferred in public interest before the expiry of his term of office.	
(2)	The Chairperson or Member may resign his office by writing under his hand addressed to the Federal Government.	
(3)	The Chairperson or a Member shall only be removed from office except in the manner applicable to like a Judge of the High Court.	
(4)	The Chairperson or a Member shall not hold any other office in the service of Pakistan if his remuneration is thereby increased.	Does this mean that he or she may hold another office as long as it is not a paid position?
4. Qualification of Member.		
(1)	A Technical Member of the Tribunal shall be a person who has at least	
	(a) A second-class B.Sc. Engineering degree in Chemical/ Civil/ Public Health/ Environmental/ Mechanical/ Industrial Engineering; or a second-class M. Sc. Degree in Physics/ Chemistry / Biology / Chemical technology / Environmental Planning and Management/ Bio-Chemistry; and	
	(b) 17 years, experience in BPS-17 and above or equivalent relating to the field of any prescribed academic qualification.	
	Explanation: The experience prescribed in clause (b) shall be calculated after acquisition of the educational qualification prescribed in clause (a).	
(2)	The third Member of the Tribunal, if not also a Technical Member, shall be person who has, for a period of not less than 10 years held an appointment or post in the service of Pakistan, or in Corporation service, or who for the said period, has been an advocate of a High Court.	
5. Salary, allowances and privileges.		

(1) If a retired Judge of the High Court is appointed as Chairperson, he shall be entitled to such salary, allowances and privileges as are admissible to him as such Judge.	See next comment
(2) If a retired Judge of the High Court is appointed as Chairperson, he shall be entitled to such salary, allowances and privileges as would be admissible to him had he been a Judge of the High Court from which he retired and had been transferred to a bench other than at the principal seal of that High Court.	Is there a typo here? Are both these sub-rules about a "retired" judge or should "retired" be deleted from the previous sub-rule (or changed to "serving")? Also, should "seal" be "seat"?
(3) If a person who is in the service of Pakistan or in Corporation service is appointed as Member, he shall be entitled to the same salary, allowances and privileges as are admissible to him in such service. Provided that if such person is promoted to a higher grade after his appointment as Member, he shall be entitled, from the date of such promotion, to the salary, allowances and privileges admissible to him in the higher grade.	
(4) If a person who has retired from the service of Pakistan or from Corporation service is appointed as Member, he shall draw such salary and allowances and be allowed such privileges as are admissible to him under the rules applicable to such retired person on employment.	
(5) If a person who is not a serving or retired Judge of the High Court is appointed as Chairperson, or a person who is not in, or retired from the service of Pakistan or from corporation service is appointed as Member, he shall draw salary and allowances and be allowed privileges in accordance with the contract relating to the terms and conditions of his appointment.	
Provided that in the case of the Chairperson, such salary, allowances and privileges shall not be less than are admissible to a Judge of the High Court:	
Provided further that in case of a Member, such salary, allowances and privileges shall not be less than are admissible to an officer in Basic Scale 21.	
(6) The terms and conditions of service of the Chairperson or a Member shall not be varied to the disadvantage of the Chairperson or Member during his term of office.	Are posts in the tribunal full-time positions? Are members allowed to take up other employment or hold any other positions, paid or voluntary?
6. Oath of office.	
Before entering upon his office, a Chairperson who is not a serving Judge of the High Court, and a Member shall make an oath, in the form prescribed in schedule I, before the Chief Justice of the High Court or a Judge nominated by the Chief Justice for the purpose.	
7. Benches of the Tribunal.	
The powers and functions of the Tribunal may be exercised or performed by Bench.	The tribunal is small enough as it this. This means a case can be heard by just

		two members.
8. Transfer of cases.		
The Chairperson may, at any stage of hearing of a case, withdraw it from the Bench before which it is pending and entrust it to another.		And this makes no sense, since the Tribunal has only three members, and a bench consists of two members.
9. Staff of the Tribunal.		
(1) Staff of the Tribunal shall be as set out in Schedule II.		
(2) The terms and conditions of service of the staff of the Tribunal shall be the same as of civil servants of corresponding grade under Government, and they shall be governed by the Civil Servants Act, 1973 (LXXI of 1973), and the rules make thereunder.		
(3) Notwithstanding the provisions of sub-rules (1) and (2), where a Judge of the High Court or the Presiding Officer of an existing Court or Tribunal is appointed as Chairperson in addition to his own duties, the duties and functions of the staff of the Tribunal may be assigned to existing staff of the High Court or such Court or Tribunal.		This is not clear.
10. Seal of the Tribunal.		
(1) There shall be a seal of the Tribunal which shall indicate the name of the Tribunal and its insignia.		
(2) The seal shall remain in the custody of the Registrar or such other officer as the Chairperson may direct, and shall be affixed on every order passed by the Tribunal.		
(3) Every notice issued on behalf of the tribunal shall be signed by the Registrar or other officer duly authorized in this behalf by the Chairman and shall bear the seal of the Tribunal;		
11. Dress, office hours and holidays.		
(1) The Chairperson and Members shall wear the same dress as prescribed for Judges of the High Court.		
(2) The Tribunal shall, subject to any special order of the Chairperson, observe the same office hours, holidays and periods of recess as the High Court of the Province in which it is situate.		
12. Language.		
The language of the Tribunal shall be English, but Urdu or any of the regional languages may be used, subject to permission of the Tribunal.		
13. Application of Code of Criminal Procedure, 1898.		

The Code of Criminal Procedure, 1898 (Act V of 1898) shall apply to proceedings before the Tribunal relating to trial of offences under section 17.	This seems to confirm that all PEPA offences are criminal offences.
14. Cause List.	
(1) A daily Cause List shall be prepared under the orders of the Registrar which shall be affixed on the notice board of the court room of the Tribunal.	"Registrar"?
(2) Except as otherwise directed by the Tribunal, cases shall be set down in the Cause List in the order of the date of admission.	What about other business of the Tribunal? For example, under the Environmental Samples Rules 2001, authorised officers need "permission" from the tribunal in order to forcibly enter a premises (Samples Rules, r 4(3)). And a warrant from the tribunal is needed to conduct a search (ibid., r 5(1) and 5(2)). From these Rules it sounds like they just hear cases.
15. Copies of orders and record.	
(1) The Tribunal shall, after passing and signing any final order in any case, cause certified copies thereof to be sent under registered post acknowledgement due to the parties concerned and to the Director General of the Federal Agency and of the Provincial Agency concerned.	
(2) Any party appeal may obtain additional copies of the order on payment of such fees as the Tribunal may fix from time to time.	Access to information: decisions of the tribunal should also be made public, possibly online and with a small fee charged for hard copies.
16. Expeditious disposal.	
The Tribunal shall make every effort to dispose of a complaint or an appeal or other proceedings within 60 days of its filing.	Tribunal members to confirm if this time period is sufficient.
Provided that a decision of the Tribunal shall not be rendered invalid by reason of any delay in its delivery.	
17. Appeals.	
(1) An appeal to the Environmental tribunal under section 22, in a form of a memorandum, shall be prepared in triplicate, and sent to the Registrar by registered post acknowledgement due or presented to him during office hours either by the appellant personally or by his counsel.	
(2) The appeal shall be accompanied by –	
(i) a copy of the impugned order;	
(ii) copies of all documents on which the appellant relies; and	
(iii) fees, as prescribed in Schedule III.	
18. Proceedings open to public.	
All proceedings before the Tribunal shall be open to the public:	

Provided that the Tribunal may restrict entry of public during hearing of cases involving information covered by clauses (i), (ii) and (iii) of sub-section (3) of section 12.			
<p align="center">SCHEDULE 1 (See Rule 6) Oath of Chairperson and Members</p>			
<p>I, _____ do solemnly swear that a Chairperson/Member of an Environmental Tribunal established under the Pakistan Environmental Protection Act, 1977, I will discharge my duties and perform my functions honestly to the best of my ability, faithfully in accordance with the Constitution of the Islamic Republic of Pakistan, 1973 and the law, and without fear of favour, affection or ill-will, and that I will not allow my personal interest to influence my official conduct or my official decisions.</p>			
<p align="center">SCHEDULE II [See Rule 9(1)] Staff of the Tribunal</p>			
[no text in the copy downloaded from the EPA website]			
<p align="center">SCHEDULE III [See Rule 16(2)(iii)] Fees for Appeals</p>			
[no text in the copy downloaded from the EPA website]			
<p align="center">GOVERNMENT OF PAKISTAN MINISTRY OF LAW, JUSTICE AND HUMAN RIGHTS Islamabad, the 2nd June, 1999. NOTIFICATION</p>			
<p>SRO (1)/89:-In exercise of the powers conferred by Section 20(1) of the Pakistan Environmental Protection act, 1997, the Provincial Government is pleased to establish Environmental Protection Tribunal in the country, having jurisdiction within the territorial limits as set-out in the table:</p>			
S. No.	Name of Tribunal	Tribunal Limit	Place of Sitting
(1)	(2)	(3)	(4)
1.	Environmental Protection Tribunal, Lahore.	The Provinces of the Punjab and	Lahore
		These were the last-known notifications at the time of writing.	

		N.W.F.P. & Islamabad Capital.	
2.	Environmental Protection Tribunal, Karachi.	The Provinces of Sindh and Balochistan.	Karachi
No.F.22(1)/97-A.III			
OFFICER.			
(ABDUL QADIR) SECTION			
The Manager, Printing Corporation of Pakistan Press, Islamabad. For favour of Publication in the Gazette of Pakistan, Extraordinary, Part-III.			
GOVERNMENT OF PAKISTAN MINISTRY OF LAW, JUSTICE AND HUMAN RIGHTS Islamabad, the 2nd June, 1999. NOTIFICATION			
No.F.22(1)/97-A.III(A) The Federal Government is pleased to appoint the following to be the Chairperson's Environmental Protection Tribunals, with immediate effect and until further orders, in addition to their own duties:			
S.NO.	NAME OF THE CHAIR PERSON	NAME OF TRIBUNAL	
(1)	(2)	(3)	
1.	Justice Sh. Amjad Ali, Judge, Lahore High Court, Lahore.	Environmental Protection Tribunal, Lahore.	
2.	Justice (R) Abdul Rehman, Presiding Officer, Special Court, (Offences in Banks), Karachi	Environmental Protection Tribunal, Karachi.	
(ABDUL QADIR) SECTION OFFICER.			
The Manager, Printing Corporation of Pakistan Press, Islamabad. For favour of Publication in the Gazette of Pakistan, Extraordinary, Part-III.			
No. F.22(1)/97-A.111(A) June, 1999.			
Islamabad, the 2nd			

Copy to:

1. Personal Secretary to the President, Aiwan-e-Sadr, Islamabad.
2. Principal Secretary to the Prime Minister, Prime Minister's Office, Islamabad.
3. Registrar, Supreme Court of Pakistan, Islamabad.
4. Secretary, Ministry of Environment, Local Government and Rural Development, Islamabad.
5. Secretary Finance Division Islamabad.
6. Director General, EPA Punjab, Lahore.
7. Director General, EPA Sindh Karachi.
8. Director General, EPA Peshawar.
9. Director General, EPA Balochistan Quetta.
10. DAC High Court Building, Lahore High Court, Lahore.
11. Director General Pak, EPA Islamabad.
12. Secretary, E.P.D. Punjab and Sindh.
13. Registrar, Lahore High Court, Lahore.
14. Registrar, High Court of Sindh, Karachi.
15. Registrar, Peshawar High Court, Peshawar.
16. Registrar High Court of Balochistan, Quetta.
17. Chairperson concerned.
18. Record.

6.5 ENVIRONMENTAL TRIBUNALS (PROCEDURE AND FUNCTIONS) RULES 2008

<p style="text-align: center;">PART II Statutory Notifications (SRO) GOVERNMENT OF PAKISTAN MINISTRY OF LAW AND JUSTICE NOTIFICATION Islamabad, the 8th October, 2008</p>	<p>NOTE: These Rules do not repeal the Environmental Tribunal Rules 1999, yet many of the Rules here are similar to those in the 1999 Rules.</p>
<p>1. Short title and commencement.</p>	
<p>(1) These rules may be called the Environmental Tribunals (Procedure and Functions) Rules, 2008.</p>	
<p>(2) They shall come into force at once.</p>	
<p>2. Definitions.</p>	
<p>(1) In these Rules, unless there is anything repugnant in the subject or context.</p>	
<p>(a) "Act" means the Pakistan Environmental Protection Act, 1997 (Act No. XXXIV of 1997);</p>	
<p>(b) "Chairperson" means Chairperson of Tribunal appointed under sub-section (2) of section 20 of the Act;</p>	
<p>(c) "Director General" means the Director General of the Federal Agency appointed under sub-section (2) of section 5 of the Act or the Director General of the Provincial Agency appointed under sub-section (2) of the section 8 of the Act as the case may be;</p>	
<p>(d) "Member" means the members appointed under sub-section (2) of section 20 of the Act;</p>	
<p>(e) "Registrar" means Registrar of the Tribunal;</p>	
<p>(f) "Service of Pakistan" shall have the same meaning as are assigned to it in clause (1) of Article 260 of the Constitution of Islamic Republic of Pakistan, 1973; and</p>	
<p>(g) "Tribunal" means the Environmental Tribunal established under subsection (1) of section 20 of the Act.</p>	

(2) All other words and expressions used in these rules but not defined shall bear the same meaning as assigned to them in the Act.	
3. Qualification of Members.	
(1) A Technical Member of the Tribunal shall be a person who has at least	
(a) A second class B. Sc. Engineering degree in Chemical, Civil, Public Health, Environmental or Industrial Engineering; or a second class M. Sc. Degree in Physics, Chemistry, Biology, Chemical Technology or Environmental Science; and	
(b) seventeen years, experience in BPS-17 and above or equivalent relating to the field of any prescribed academic qualification.	
Explanation: The experience prescribed in clause (b) shall be calculated after acquisition of the educational qualification prescribed in clause (a).	
(2) The Legal Member of the Tribunal shall be a person who is or has been as is qualified for appointment as judge of the High Court	
4. Term of office of Chairperson and Members.	
(1) The Chairperson and Members shall hold office for a period of three years, but the Federal Government may extend their term for a further period not exceeding two years only.	
(2) The Chairperson or a Member may resign from his office in writing under his own hand addressed to the Federal Government.	
5. Salary, allowances and privileges.	
(1) If a retired Judge of a High Court is appointed as Chairperson, he shall be entitled to such salary, allowances and privileges as are admissible vide Establishment Division's O.M. No. 10/52/95-R.2 dated the 18th July, 1996, as amended from time to time.	
(2) The salary and allowances of the Members shall be the same, as admissible to a BS-20 or 21 officer, depending upon his qualification and experience with the prior approval of Finance Division.	
6. Staff of the Tribunal.	
(1) The staff of the Tribunal shall be such as set out in the Schedule I to these rules.	
(2) The terms and conditions of service of the staff of the Tribunal shall be the same as of civil servants of corresponding basic pay scales under Federal Government and they shall be governed by the Civil Servants Act, 1973	

(LXXI of 1973), and rules made thereunder.	
7. Appellate powers of the Tribunal.	
(1) Where seized of any matter in appeal the Tribunal shall have powers to uphold, set aside, reverse or modify the judgement or order impugned before it or remand the same to the original forum with any direction deemed proper.	
(2) An appeal filed before it, the Tribunal shall hear the same in motion and may admit for regular hearing and issue notice to the respondents or dismiss it in limine.	
8. Recovery of fine.	
Where an accused is convicted and sentenced to fine payable within a time fixed by the Tribunal and the accused fails to deposit the fine, the Tribunal may cause the arrest of the convict and may commit him to jail for a period not exceeding six months or till the realization of fine whichever is earlier. The fine imposed by the Tribunal is recoverable as arrear of the land revenue.	
9. Withdrawal of cases.	
The offences under this Act shall be non-compoundable, however, the prosecutor may with the consent of the Tribunal before the judgement is announced, withdraw from the prosecution of any person and upon such withdrawal;	
(a) If it is made after the charge has been framed, the accused shall be discharged of the offence.	
(b) If it is made after the charge has been framed or where of charge is not required, he shall be acquitted of the offence.	
(c) If the withdrawal is sought on some account of technical defect the complaint may be dismissed as withdrawn and permission may be granted to file the complaint afresh.	
10. Statement of cases.	
The Director Generals of the Federal Agency and Provincial Agencies shall submit to the Tribunal detailed monthly statement showing total number of cases involving environmental violations found, registered, investigated, controlled, stopped, eliminated, disposal of and challaned with steps taken and measures adopted under section 16 of the Act.	
11. Submission of Challan.	
(1) The Director Generals of the Federal Agency and Provincial agencies shall through prosecutor submit complete challan to the Tribunal as early as	

possible not later than thirty days of the registration of the environmental violation complaint. A delayed submission of challan before the Tribunal shall require the Director General to state reasons thereof. The court may extend the time to complete the challan upto ninety days, in case of complex, complicated nature and where violation is spread to large area, the court may fine Director General or Agency not exceeding one hundred thousand rupees where the challan has been unnecessarily delayed.	
(2) For insufficient reasons for the violation of rule (1) the Tribunal shall recommend the disciplinary action under Act or the rules made thereunder against the responsible officer or official as the case may be.	
12. Disposal of cases by the Tribunal.	
On receipt of the case the Tribunal shall make all efforts to decide the case within ninety days. For the attendance of the witnesses and production of evidence, all coercive measures available to the Tribunal may be exercised including issuance of non bailable warrants of arrest.	
13. Seal of the Tribunal.	
(1) There shall be a seal of the Tribunal which shall indicate the name of the Tribunal.	
(2) The seal shall remain in the custody of the Registrar or such other officer as the Chairperson may direct, and shall be affixed on every order passed by the Tribunal. Recess as is observed by the High Court of the province in which the Tribunal is situated.	
14. Timings and holidays.	
The Tribunal shall observe the same timing including recess and holidays as observed by the High Court of the respective province	
15. Dress.	
The Chairperson and Members of the Tribunal shall wear the same dress during working hours as Federal Government may from time to time, prescribe.	
16. Language.	
The language of the Tribunal shall be English but Urdu or any other regional language may be used subject to permission of the Tribunal.	
17. Cause List.	
A daily cause list shall be prepared under the orders of the Register which shall be affixed on the notice board of the Tribunal a day before the date of hearing.	

18. Appeal.	
(1) An appeal to the Environmental Protection Tribunal under section 22, in a form of a memorandum, shall be prepared in triplicate, and sent to the Registrar by registered post acknowledgment due, or presented to him during office hours either by the appellant personally or by his counsel.	
(2) The appeal shall be accompanied by –	
(i) a copy of the impugned order;	
(ii) copies of all documents on which the appellant relies; and	
(iii) fees, as prescribed in Schedule III.	
19. Proceedings open to public.	
All proceedings before the Tribunal shall be open to the public:	
Provided that the Tribunal may restrict entry of public during hearing of cases involving information covered by clauses (i), (ii) and (iii) of sub-section (3) of section 12 of the Act.	
20. Dismissal of complaint for failure of producing evidence.	
If the complainant or the Agency, as the case may be fails to produce the evidence despite availing reasonable opportunity the Tribunal may dismiss the complaint for want of evidence.	
21. Service of Process.	
(1) Any process issued by the Tribunal against a person residing within its territorial jurisdiction shall be served through bailiff or registered post acknowledgement due or by publication in newspaper or through SHO of Police Station, within who's jurisdiction the person, corporate body persum or any other authority process intended to be served, resides, carry on business or works for gain, shall be bound to effect service on the person in who's name the process is issued by the Tribunal.	
(2) The SHO of police station concerned shall also be responsible for executing any warrant of arrest against any person within his jurisdiction.	
22. Assistance of Police.	
For the purpose of implementation of any order or judgement of the Tribunal by the Federal Agency or Provincial Agency, the police shall render all possible assistance to the functionaries of the Tribunal or Agency as the case may be.	
23. Reconstruction of Record.	

In the event when the judicial record of any case is lost, destroyed or damaged, the Chairperson may order the reconstruction of the file from the record maintained by the Director General Agency or any other source available and helpful in that regard. Such reconstruction of record shall be valid for al purposes.	
24. Benches.	
The powers and formation of the Tribunal shall be exercised or performed by a bench which may consist of the Chairperson and at least one other Member.	
25. Transfer of cases.	
The Chairperson may, at any stage of proceedings of a case and for reasons to be duly recorded withdraw the case from the bench before which it is pending and entrust it to another bench.	

6.6 PROVINCIAL SUSTAINABLE DEVELOPMENT FUND BOARD (PROCEDURE) RULES 2001

<p style="text-align: center;">PART II Statutory Notification (S. R. O.) GOVERNMENT OF PAKISTAN MINISTRY OF ENVIRONMENT, LOCAL GOVERNMENT AND RURAL DEVELOPMENT NOTIFICATION Islamabad, the March, 2001.</p>	<p>NOTE: It is not clear how many SDFs were set up, and whether any of them is still functioning. If so, members should be contacted for feedback concerning these Rules, in case there are clauses that have caused difficulties.</p>
<p>SRO (1)/2001. - In exercise of the powers conferred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), read with sub-section (3) of section 9 thereof, the Federal Government is pleased to make the following rules, namely : -</p>	
<p>1. Short title and commencement .-</p>	
<p>(1) These rules may be called the Provincial Sustainable Development Fund Board (Procedure) Rules, 2001.</p>	
<p>(2) They shall come into force at once.</p>	
<p>2. Definitions .-</p>	
<p>(1) In these Rules, unless there is anything repugnant in the subject or context .-</p>	
<p>(a) "Act" means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);</p>	
<p>(b) "Board" means the Provincial Sustainable Development Fund Board constituted under section 10 of the Act;</p>	
<p>(c) "Chairperson" means the Chairperson of the Board;</p>	
<p>(d) "Committee" means a Committee of the Board constituted under sub-section (3) of section 10 of the Act;</p>	
<p>(e) "member" means a member of the Board; and</p>	
<p>(f) "Secretary" means the Secretary of the Board.</p>	
<p>(2) All other words and expressions used in these rules but not defined shall have the same meaning as are assigned to them in the Act.</p>	
<p>3. Meetings of the Board. -</p>	
<p>(1) The Board shall meet at the provincial capital, or any other place specified by the Chairperson or approved by the Board, at least once in each quarter.</p>	
<p>(2) The date of the meeting of the Board shall be communicated in writing to the</p>	

members by the Secretary at least twenty one days before the date of the meeting.	
(3) An extraordinary meeting of the Board may be called by the Chairperson on the requisition of not less than six members to consider any urgent matter:	
Provided that any such urgent matter shall be clearly specified in the requisition:	
Provided further that where in the opinion of the Chairperson it is not possible to convene a meeting to consider such urgent matter, it may be circulated to the members and a decision thereon taken in accordance with the views of the majority of the total membership.	
(4) To constitute a quorum at a meeting of the Board, the member or members present shall be nine.	
(5) Meetings of the Board shall be presided over by the Chairperson and, in the absence of the Chairperson, by a member elected for the purpose by the members present from amongst themselves.	
(6) Members shall not be paid any remuneration for their services by the Board other than daily allowance and / or travelling allowance for attending meetings of the Board.	
4. Agenda of the meetings .-	
(1) An agenda listing the matters or business to be brought before the meeting, alongwith an explanatory memorandum or working paper for each matter prepared by the proposers, shall be communicated in writing to the members by the Secretary alongwith the notice of the date and place of the meeting (mentioned in sub rule (2) of rule 3).	
(2) Subject to sub-rule (3), any member may propose to the Secretary any matter for inclusion in the agenda of a meeting.	
(3) Any matter referred to in sub-rule (2), shall .-	
(a) fall within the scope of the functions and powers of the Board, as specified in sub-sections (2) and (3) of section 10 of the Act; and	
(b) be supported by an explanatory memorandum or working paper which clearly and precisely presents the relevant facts and the issues, proposals requiring decision and, in the case of a proposal submitted to the Board for sanction of financial assistance, shall contain such information and details in such format and be accompanied by a fee of Rs.5,000.	See Utilization Rules 2003 (Schedule II): <ul style="list-style-type: none"> • Preliminary Examination fees: Rs. 2,000 • Project Examination fee Rs. 10,000 — so what is this 2,000 rupee charge? A separate application fee?

(4)	The Chairperson may disallow inclusion of any matter in the agenda which in his opinion fails to meet the conditions specified in sub-rule (3).	
(5)	The Secretary shall communicate to the proposer the reasons for the decision to disallow inclusion of any matter in the agenda.	
5. Decisions of the Board .-		
(1)	The Board shall make every effort to take decisions by consensus, failing which decisions shall be taken by majority of votes.	
(2)	Each member of the Board shall have one vote, but in case of equality of votes, the Chairperson or the person presiding the meeting, shall have a casting vote.	

(3) All decisions of the Board shall be recorded in a minute book maintained by the Secretary and shall be authenticated by the signature of the Chairperson or of such other member as may have been authorized by the Board by a resolution.	A clause should be added to say that all decisions will be publicly available.
6. Committees of the Board .-	
(1) The Board may for facilitating the performance of its functions and ensuring efficient operation of the Fund, constitute Committees of its members including at least one non-official member, and entrust them with such functions as it may deem fit.	
(2) The Chairperson of a Committee shall be appointed by the Board at the time of constitution of the Committee.	
(3) A Committee shall meet on such date and at such place as may be specified by the Chairperson of the Committee.	
(4) One-half the total number of members of a Committee shall constitute a quorum for its meeting.	
(5) The recommendations of the Committee shall be submitted to the Board for approval.	
7. Invitations to experts etc.	
The Board, or any of its Committees, may co-opt any technical expert or representative of any Government agency or non-governmental organization or other person possessing specialized knowledge of any subject for assistance in performance of its functions and in disposal of its business but such expert or representative or person shall not be entitled to vote.	
8. Travelling and daily allowances .-	
(1) An official member shall draw travelling allowance and daily allowance for attending the meeting of the Board or of a Committee of the Board from the Government agency from which he draws salary and other emoluments.	
(2) A member other than official member shall draw travelling allowance and daily allowance for attending the meeting of the Board or of a Committee of the Board from the Secretary, on such rates and in such manner as are admissible to an employee of the Federal Government in BPS-20.	
File No. 1(2)/2001-L/E	
(QAZI GHULAM MUSTAFA) Deputy Secretary	

6.7 PROVINCIAL SUSTAINABLE DEVELOPMENT FUND (UTILIZATION) RULES 2003

<p>PART II Statutory Notification (S. R. O.) GOVERNMENT OF PAKISTAN MINISTRY OF ENVIRONMENT, LOCAL GOVERNMENT AND RURAL DEVELOPMENT NOTIFICATION Islamabad, the 29th May, 2003</p>	
<p>SRO 460(I)/2003.- In exercise of the powers conferred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Government is pleased to make the following rules, namely: -</p>	<p>Have provincial SDFs been established? Note also that under many district development strategies (or 'visions'), the establishment of a district-level SDF has been proposed.</p>
<p>1. Short title and commencement. -</p>	
<p>(1) These rules may be called the Provincial Sustainable Development Fund (Utilization) Rules, 2003.</p>	
<p>(2) They shall come into force at once.</p>	
<p>2. Definitions. -</p>	
<p>(1) In these rules, unless there is anything repugnant in the subject or context-</p>	
<p>(a) "Act" means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);</p>	
<p>(b) "board" means the Provincial Sustainable Development Fund Board constituted under section 10;</p>	
<p>(c) "fund" means the Provincial Sustainable Development Fund established under section 9;</p>	
<p>(d) "project proposal" means a proposal for initial setting up, or balancing and modernization, or expansion of a project considered by the proponent to be eligible for financing under sub-section (3) of section 9;</p>	<p>What is "balancing"?</p>
<p>(e) "Secretary" means the Secretary of the Board who, under clause (iv) of sub-section (1) (iv) of section 10, is the Director-General of the Provincial Agency; and</p>	<p>The Secretary of the Board is the EPA DG. Does this create a conflict?</p>
<p>(f) "section" means a section of the Act.</p>	
<p>(2) All other words and expressions used in these rules but not defined shall have the same meanings as are assigned to them in the Act.</p>	
<p>3. Filing of project proposals. -</p>	

(1) All project proposals for sanction of financial assistance from the Fund shall –	
(a) clearly state the environmental objectives sought to be achieved which establish its eligibility under sub-section (3) of section 9;	
(b) be accompanied by –	
(i) a Feasibility Report of the project which covers the points contained in the Guidelines mentioned in Schedule I;	
(ii) necessary guarantees, securities or proof of availability of equity funds or of essential inputs required for implementation of the project, and for its subsequent operation and maintenance; and	
(iii) a non-refundable preliminary examination fee, at rates mentioned in Schedule II.	
(1) All project proposals shall be addressed to the Board and shall be filed with the Secretary.	
(2) Each project proposal shall be duly entered in a Register maintained for the purpose by the Secretary.	
(3) The Secretary shall issue a receipt in respect of the project proposal to the person filing it.	
(4) Depending on availability of funds, the Board shall invite project proposals at least twice a year.	It has been noted earlier that a source of regular funding is needed to keep the SDF viable.
4. Appraisal of project proposals. -	
(1) The Secretary will carry out a preliminary examination of the project proposal, and if it is found to be eligible for financial assistance under sub-section (3) of section 9, shall admit the project for detailed appraisal and require the proponent to pay project examination fee at rates mentioned in Schedule II.	The fee of 10,000 rupees is, presumably, non-refundable. For small projects requiring assistance, this may be too much. Should there be a provision to waive the fee in the case of worthy projects that cannot pay?
(2) If the project examination fee is paid, detailed appraisal shall be carried out by an Appraisal Committee constituted by the Board, chaired by the Secretary and including the member representing the Provincial Chamber of Commerce and Industry.	Why a representative from commerce and industry, and not one from an environmental NGO?
(3) Detailed appraisal of the project proposal shall be carried out by the Appraisal Committee within three months after deposition of the project examination fee:	If SDFs have been established anywhere, Board members to assess and confirm whether this time frame (and the extension in the proviso) are sufficient.
Provided that the Chairperson may in a particular case extend the appraisal period of three months if the nature of the proposal so warrants.	

(4) In carrying out the detailed appraisal, the Appraisal Committee shall associate local and/or foreign consultants, banks or other financial institutions, payment of which will be made out of the project examination fee.	The project examination fee is 10,000 rupees. It is unlikely that this amount is sufficient to pay any foreign consultant, bank or financial institution for their involvement. Might be better to have a panel of experts willing to donate their time, and possibly use corporate social responsibility-type programmes to involve banks and other institutions.
(5) The appraisal report prepared by the Appraisal Committee will be submitted to the Board for consideration in its next meeting.	The phrase "in its next meeting" is problematic because the provisions of this Rule do not set out a clear time frame.
5. Criteria for sanction of financial assistance. -	
(1) In sanctioning financial assistance for eligible projects, the Board shall observe the following criteria –	
(a) the project should be designed to make a significant contribution to protection of the environment, or prevention of pollution or promotion of sustainable development;	How is the significance of the contribution assessed? What about a very small experimental venture that has the potential to be very significant, if successful?
(b) at least 60% of the cost of the project should be provided by the proponent;	This rules out any small-scale venture.
(c) financial assistance will normally be confined to procurement of foreign and/or local plant, machinery and equipment only;	
Provided that such assistance will be sanctioned for procurement of local plant, machinery and equipment where this is equally cost effective;	Not clear. Meaning no foreign equipment if local equipment is cheaper? What if foreign equipment is better?
(d) priority shall be given to –	
(i) a project designed to mitigate an adverse environmental effect caused by more than one existing industrial unit jointly sponsored by the concerned units and recommended by the concerned industrial association or Chamber of Commerce and Industry;	Why should industries get assistance to clean up their mess? This is not equitable, since it is their legal obligation to ensure that they are not polluting the environment.
(ii) a project designed to mitigate an adverse environmental effect sponsored by a proponent who is already giving a pollution charge in respect thereof;	Is a pollution charge an ongoing payment? Isn't it supposed to be a one-off penalty? Pls also not that polluters should not be receiving financial assistance. It defeats the purpose of the law.
(iii) projects involving a joint venture or partnership between a Government Agency and the private industrial sector or a Non-Governmental Organization (NGO), Community-Based Organization (CBO) or Village-Based Organization (VBO) in which the private sector or NGO or CBO or VBO has the lead role;	
(iv) a project designed for training staff in environmental matters including monitoring and analysis, for building public awareness of their environmental rights and obligations, and for meeting requirements for certification under international environmental standards such as the ISO 14000 series.	

<p>(2) As far as possible, the Board shall endeavour to ensure that the total financial assistance sanctioned industry-wise in a year, is proportional to the pollution charges paid by each industry:</p>	<p>This is setting up a system whereby polluters pay, and then receive government assistance to clean up pollution. Under a properly designed system, pollution mitigation and clean-up costs should be factored in to projects cost (at the EIA approval stage), and should not be funded separately through the SDF. Among other issues, this would leave no funds to support non-polluting projects</p> <p>It seems that the idea of “sustainable development” is being interpreted here primarily as clean-up, whereas there is scope to include assistance for a wider range of more deserving projects.</p>
<p>Provided that this criterion shall not apply to project-specific assistance channelized through the Fund:</p>	<p>What does this mean?</p>
<p>Provided further that within each industry, priority will be given to a project which is more cost-effective in terms of the mitigation it is designed to achieve as compared to the investment planned.</p>	<p>Note here, again, that the SDF seems to be catering primarily to industry.</p>
<p>6. Sanction of financial assistance. -</p>	
<p>(1) The Board may sanction financial assistance for any project, subject to such terms and conditions as it may deem fit in the circumstances of each case, including conditions relating to mode and period for utilization of the assistance, and security for repayment.</p>	<p>If the Board has the power to decide, then what is the point of establishing criteria?</p> <p>SDF funding is a loan? Nowhere has this been stated clearly. If all SDF contributions are loans, and not grants, this should be specified.</p>
<p>(2) If the Board rejects a proposal for financial assistance, it may, in its discretion, direct that the whole or a portion of the project examination fee be refunded to the proponent.</p>	<p>In the interest of fairness, who gets a refund and who does not should be specified.</p>
<p>7. Post-sanction formalities</p>	
<p>(1) The proponent of the project shall complete all legal formalities including security documentation mentioned in the sanction letter within one month of the receipt thereof:</p>	
<p>Provided that the period for completion of formalities may be extended by the Chairperson in a particular case if the circumstances so warrant.</p>	<p>The pattern is that there is a rule, but the DG or the Chair or some other authority has the right to grant an exemption at their discretion. No transparency.</p>
<p>(2) Procurement of local and/or foreign equipment under the sanctioned financial assistance shall be made through a transparent tendering/bidding process under the supervision of a Procurement Committee constituted by the Board.</p>	<p>This sounds like the SDF takes over the procurement process even though, under the existing rules, the proponent is supposed to put up at least 60% of the money. This is not equitable. Or is procurement handled by the proponent, with SDF overseeing?</p>
<p>(3) The Procurement Committee may engage local and/or foreign consultants, banks or other financial institutions to conduct the procurement process, and all costs pertaining thereto shall be charged to the account of the proponent.</p>	<p>See previous comment.</p>

<p>8. Implementation</p>	<p>(1) All projects financed from the Fund shall be regularly monitored by an Implementation Committee constituted by the Board.</p>	<p>(2) The Implementation Committee shall identify the problems, if any, encountered by a project during implementation and recommend remedial measures for approval of the Board.</p>	<p>(3) The Implementation Committee shall submit quarterly progress reports for information of, and where necessary action by, the Board.</p>	<p>9. Audit and accounts. -</p>	<p>(1) The Board will request the Finance Department to credit to the Fund every year an amount equivalent to the sum total of the pollution charges paid by all industrial units during the previous year, based on receipts submitted to it by the industrial units and the industrial associations and Chambers of Commerce and Industry.</p>	<p>(2) Amounts credited to the Fund shall not lapse at the end of a financial year and shall be available for utilization at any time.</p>	<p>(3) The accounts of the Fund shall be audited annually within six months of the close of the financial year by a Chartered Accountant within the meaning of the Chartered Accountants Ordinance, 1961 (X of 1961).</p>	<p>(4) The annual audit report of the Fund shall be submitted for consideration and review by the Accountant-General and the Board.</p>	<p>10. Annual Report.</p>	<p>The Board shall publish every year an Annual Report comprising, inter-alia, the audited accounts and a performance evaluation based on the progress reports submitted by the Implementation Committee.</p>	<p>SCHEDULE I [See Rule 3(1)(b)(i)] Guidelines for Feasibility Report</p> <ol style="list-style-type: none"> 1. Name by which survey will be identified 2. Administrative authorities responsible for: <ol style="list-style-type: none"> i) Sponsoring ii) Execution 3. Central Ministry concerned with: <ol style="list-style-type: none"> i) Sponsoring
					<p>(1) Are all pollution charges to be paid into the SDF? PEPA does not say that pollution charges will be paid into the SDF. See PEPA 1997, section 9(2), where sources of funding for the SDF are listed. And see comments on that section.</p> <p>(2) Are all payers of the pollution charge to send a receipt to the SDF? Where has this been made a specific requirement?</p>					<p>Between 2003 (when these Rules were issued) and 2011, how many annual reports have been prepared? How many SDFs have been established?</p>	

<p>ii) Execution</p> <p>4. Details of Survey / Feasibility study :</p> <p>(a) General Description</p> <p>(b) Justification</p> <p>(c) Month of commencement and completion (give details of phasing).</p> <p>(d) Estimated Cost Local Foreign Total</p> <p>Year</p> <p>1.</p> <p>2.</p> <p>(e) i) Personnel required:</p> <p>ii) Category No. Pakistan Personnel Foreign Personnel</p> <p>(f) Mode of financing: (Give budget provision).</p> <p>If foreign exchange expenditure is involved indicate Whether a firm commitment is available.</p> <p>5. Details of scheme likely to be submitted after survey: (Give information wherever possible)</p> <p>(a) General description</p> <p>(b) Location</p> <p>(c) Estimated cost Local Foreign Total</p> <p>Year</p> <p>1.</p> <p>2.</p> <p>3.</p> <p>(d) Benefits of Project (Economic financial and non-quantifiable).</p> <p>(e) Probable mode of financing</p> <p>(f) Number of persons likely to be employed during implementation of scheme and after completion.</p> <p>Category Number Local personnel Foreign personnel</p> <p>(g) Materials and parts required yearly after completion of project (Local costs and Foreign costs)</p> <p>Signature and designation of Officer sponsoring the Project</p>	
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INSTRUCTIONS FOR FILLING UP OF SCHEDULE-I

- 1, 2 and 3 No comments necessary.
 4. (a) Provide a general description of the aims, objectives and coverage of the Survey / Feasibility Study. Details of the Terms of Reference of the Surveys / Feasibility Study must also be submitted. Indicate the present position regarding the lining up of finances and manpower for the survey and likely problems in this regard.
 - (b) Provide a detailed justification for undertaking the Survey / Feasibility Study. Indicate whether previous studies in the field have been undertaken. A copy of such a study should be enclosed.
 - (c) Indicate approximate duration of study and proposed months of commencement and completion of the study. The phasing for major items should be given in the form of a table or bar chart.
 - (d) Indicate cost estimates for the study broken down between local and foreign exchange expenditure. Indicate also date on which cost estimates were prepared and the basis of these estimates. Costs should be detailed according to requirements of manpower, both local and foreign, equipment, transport etc. Only the cost of Survey and Feasibility Study should be included and no cost pertaining to the main project which would later be prepared on PC-I from should be included in the item.
 - (e) i) Indicate personnel, requirements separately for local and foreign personnel according to the following categories.
Professional and Technical: administrative, executive and managerial, clerical, sales, service, skilled, unskilled, others.
 - ii) Indicate the period of contract of both the local and foreign consultants and the terms of their appointment.
 - (f) Indicate the budget provision that exists or has been requested for undertaking the proposed Survey / Feasibility Study. If foreign commitment has been made, or probable source of financing alongwith terms of financing.
5. (a) Provide, in as much detail as possible, the technical, economic and financial aspects of alternative project that are proposed to be undertaken after the Survey / Feasibility Study has been completed.
- (b) Indicate the location or choice of locations that are being

<p>considered for the proposed project(s)</p> <p>(c) Indicate approximate cost of the project(s) with a breakdown of costs between local and foreign currency expenditures and the years in which the expenditure will be incurred.</p> <p>(d) Indicate probable benefits of the proposed project(s) including the anticipated rate of return, and social benefits. Item-wise non-quantifiable benefits as well.</p> <p>(e) Indicate probable mode of financing for both the local and foreign currency requirements.</p> <p>(f) Classify personnel needs as in 4(e) above.</p> <p>(g) Indicate annual operating requirements of the project in terms of materials, spare parts etc.</p>	<p>SCHEDULE II</p> <p>[See Rule 3(1)(b)(iii) and Rule 4(1)]</p> <p>Rates for preliminary examination fees and project examination fees</p> <p>Preliminary Examination fees: Rs. 2,000</p> <p>Project Examination fee Rs. 10,000</p> <p>-Sd-</p> <p>Section Officer (Legal)</p>
	<p>There should probably be separate fees for large and small project proposals, and for proposals from NGOs vs those from industry.</p> <p>A clause could be added about waiving the fee in certain cases (with criteria specified).</p> <p>Conditions should also be specified concerning the refund of the fee, if allowed.</p>

6.8 POLLUTION CHARGE FOR INDUSTRY (CALCULATION AND COLLECTION) RULES, 2001

NOTIFICATION	
<p>SRO (1)/2001. - In exercise of the powers referred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Government is pleased to make the following Rules, namely: -</p>	<p>NOTE: The broader issues related to the pollution charge are discussed above, with reference to the provisions of PEPA 1997. The main question there is whether the pollution charge is meant to be a one-off fee (since it prevents the imposition of penalties under the law), or whether this is an ongoing payment, which is what appears to be the case, judging by the schedules in these Calculation and Collection Rules, which mention "Year 1", "Year 2", "Year 3".</p> <p>Note also that under the Provincial Sustainable Development Fund (Utilization) Rules 2003, industries may apply to the SDF for money to assist in clean up, and those funds are supposed to come from the pollution charge (all of the pollution charge, under the Utilization Rules of 2003, is meant to be paid into the SDF). This all seems rather circular and self-sustaining. As a result, the pollution charge does not seem to have any bite as a penalty, while the SDF loses its potential to fund new and innovative projects.</p> <p>It also seems that these Rules take advantage of the vague language in PEPA 1997 to set up a regime that seems to be contrary to the spirit of PEPA.</p>
1. Short title and commencement. -	
(1) These rules may be called the Pollution Charge for Industry (Calculation and Collection) Rules, 2001.	
(2) They shall come into force from the 1st July 2001.	
2. Definitions. -	
(1) In these rules, unless there is anything repugnant in the subject or context, -	
(a) "Act" means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);	
(b) "Board" means the Provincial Sustainable Development Fund Board constituted under section 10 of the Act;	
(c) "Director-General" means the Director-General of the Provincial Agency;	
(d) "Guidelines" means the "Guidelines for determination of a Pollution Charge for Industry" as contained in Schedule I;	
(e) "industrial unit" means any legal entity carrying on industrial activity;	
(f) "Inspection Team" means the Inspection Team constituted under rule;	

(g)	"pollution charge" means the pollution charge payable under subsection (2) of section 11 of the Act;	
(h)	"pollution level" means the number of pollution units per unit of production, calculated in accordance with the procedure contained in Guidelines and Schedule IV;	
(i)	"pollution unit" means the quantity of pollutant which reflects its relative toxicity vis-a-vis other parameters, as specified in the Guidelines and Schedule IV; and	
(j)	"Schedule" means the schedule to these rules;	
(2)	All other words and expressions used but not defined shall have the same meanings as are assigned to them in the Act.	
3.	Determination of pollution charge. -	
	The pollution charge payable by an industrial unit shall be determined in accordance with the Guidelines.	
4.	Responsibility for calculation, reporting and payment. -	
	An industrial unit liable to pay the pollution charge shall itself be responsible for ensuring the correct calculation, reporting and payment of the pollution charge.	
5.	Determination of pollution level .-	
(1)	For the purposes of determining the pollution level of an industrial unit, the Director-General shall constitute an Inspection Team comprising of -	
(a)	a representative of the Provincial Agency;	
(b)	a representative of the industrial unit;	
(c)	not more than two representatives each drawn from the list of any two authorized NGOs specified in Schedule II; and	
(d)	a representative of a certified environmental laboratory or any other agency approved and designated by the Provincial Agency for the purposes of determination of the pollution level.	
(2)	The Inspection Team shall determine the pollution level of an industrial unit at least once a year in respect of discharges of effluents and waste, and emissions of air pollutants.	
(3)	The Inspection Team shall also determine the exemption allowed to an industrial unit as required under Schedule IV.	
(4)	All samples obtained by the Inspection Team shall be tested and analysed by a certified environmental laboratory.	

(5) The pollution units per unit of production determined by the Inspection Team shall form the basis for calculation of the pollution charge of an industrial unit under rule 6.	
6. Calculation and payment :-	
(1) The pollution charge shall be calculated by multiplying the pollution level with the actual production during the period for which the charge is to be paid, and with the applicable rate per pollution unit for the year in accordance with the rates and escalation table shown in Schedule III.	
(2) The pollution charge shall be payable biannually, based on the actual production in the preceding six months.	
(3) The payment of the pollution charge shall be made by deposit, against proper receipt in the Government Treasury or any branch of the National Bank of Pakistan.	
(4) The industrial unit shall submit a copy of the receipt, along with details of calculation of the pollution charge in the form as set out in Schedule IV, to the Provincial Agency.	
7. Re-determination of pollution level :-	
(1) If during the year an industrial unit reduces, for at least three consecutive months, the pollution units discharged by it to eighty per cent or less of the level of at least one parameter, it shall have the right to apply to the Provincial Agency for re-determination of its pollution level.	
(2) The Director-General may at any time, on application from any person or suo motu and after giving an industrial unit an opportunity of being heard, have the pollution level of the industrial unit re-determined by the Inspection Team if he has reason to believe that the actual pollution units being discharged by such industrial unit in respect of any pollution parameter are twenty per cent or more than the level determined by the Inspection Team at the time of last measurement.	"moto". Why do industrial units have leeway (19%) to exceed the assessed pollution levels?
(3) Re-determination of the pollution charge under sub-rules (1) and (2) shall be allowed by the Provincial Agency subject to payment of the prescribed fees by the applicant specified in Schedule V.	
8. Costs of determination of pollution level :-	
The industrial unit shall provide all requisite assistance at the site for the visit of the Inspection Team and shall bear all costs relating to determination of the pollution level, including the prescribed fees specified in Schedule V, and costs of sampling, testing and reporting of results:	

Provided that the costs of re-determination of the pollution level on an application of any person under sub-rule (2) of rule 7 shall be deposited with the Provincial Agency when such re-determination is allowed, and shall be refunded to the applicant and charged from the industrial unit; only if the actual pollution units being discharged by such unit in respect of any parameter are determined by the Inspection Team to be twenty per cent or more than the level determined at the time of last measurement.	
9. Collection through industrial associations and Chambers of Commerce and Industry. -	
(1) Subject to rule 4, where industrial units have formed an association to look after their collective interests, such association may collect the pollution charge from its member industrial units and deposit the same against proper receipt in the Government Treasury or any branch of the National Bank of Pakistan.	
(2) The Chambers of Commerce and Industry at the Federal and Provincial levels shall use their good offices to ensure that all industrial units in their respective jurisdictions pay the pollution charge in accordance with these rules.	
(3) All industrial associations and Chambers of Commerce and Industry shall submit a monthly report to the Board indicating the total amount of pollution charge collected by them during the previous month along with copies of the receipts of payment.	
SCHEDULE I [See rule 2(1)(d)]	
Guidelines for determination of pollution charge for Industry	
Legal Basis Section 11 of the Environmental Protection Act, 1997, contains the following subsections that provide a legal basis for application of pollution charge, namely:-	
(2) The Federal Government shall levy a pollution charge on any person who contravenes or fails to comply with the provisions of subsection (1), to be calculated at such rate, and collected in accordance with such procedures as may be prescribed.	See comments related to PEPA 1997. But also note that there is nothing in PEPA to suggest that this is an ongoing payment. In fact, the opposite seems to be the case. But in these Rules it seems that this procedure applies in perpetuity, for polluting units.
(3) Any person who pays the pollution charge levied under sub-section (2) shall not be charged with an offence with respect to that contravention or failure.	This point is discussed in detail in with reference to PEPA 1997.
(4) The provisions of sub-section (3) shall not apply to projects, which commenced industrial activity on or after the thirtieth day of June 1994.	The purpose of this cut-off date is not clear. Nor is it clear whether the pollution charge as a whole only applies to industries established prior to June 1994, or whether only the immunity from prosecution applies to such units. In either case, the question is: why?

Primary Considerations The proposed system of pollution charge has been developed to achieve a balance among the following, namely: -	
1. The need for an equitable, simple and workable approach towards establishment of pollution charge.	
2. The need for real progress towards making the industry environmentally friendly without jeopardizing the economic growth in the country.	Is this the reason that industries can continue to pollute and simply pay for it? This clause must be reworded to make sure that economic growth does not come at the expense of environmental protection.
3. The need of the industry to be allowed a period in which it can prepare for compliance with the National Environmental Quality Standards (NEQS).	This seems reasonable but the NEQS were issued in 1993, then revised and reissued in 2000. There has been sufficient time for industries to "prepare", so this clause should now be deleted, or revised to refer to strengthening enforcement.
Guideline Basic principles discussed and agreed upon in different meetings of the Environment Standards Committee (ESC) comprising representatives of FPCCI, NGOs and the Government are summarized below:	
1. The level of pollution charge shall be established through a process of negotiations.	
2. The level of pollution charge should initially be such that the industry should feel the impact, but should not be excessive such that the financial health of the concern is jeopardized.	Here again, it is necessary now to strengthen penalties for polluting units.
3. The system should be applied uniformly across all the industrial sectors.	
SCHEDULE II [See rule 5(1)(c)]	
List of authorized NGOs	NOTE: New organisations have come up since 2001, when these rules were issued. This list should be revisited and possibly expanded.
1. Interrelation Union for Conservation of Nature and Natural Resources (IUCN) House No. 26, St. No. 87, G-6/3, Islamabad. Phone No. 051-2270686-87 Fax No. 051-2270683	
2. Sustainable Development Policy Institute (SDPI) H. No. 3, UN Boulevard, Diplomatic Enclave, G/5, Islamabad. Phone No. 051-2278134 Fax No. 051-2278135	

3. World Wide Fund (WWF) PAKISTAN Address: P.O. Box 5180, Ferozepur Road, Lahore. Phone No. 042-5862360 Fax No. 042-5862358													
4. SUNGI Address: H. No. 17, St. 67, G-6/4 Islamabad. Phone No. 2273272 – 2276579-89 Fax No. 2823559													
5 PAIDAR Address: 64-E, Moscco Plaza, Office no 3, 1st Floor, Blue Area, Islamabad. Phone: 2820359, Fax: 2820379													
SCHEDULE III [See rule 6(1)]	NOTE: This Schedule should be reviewed by technical experts to see if amendments are needed.												
Pollution Charge rates and escalation table Schedule for payment of pollution charge: Pollution charge shall be payable on a biannual basis, calculated according to the established discharge rate per unit of production, and the actual production of the unit in the preceding six months.													
Pollution Charge Escalation: The following table gives the Schedule for a period of three years beginning from the July 1st, 2001:													
<table border="1"> <thead> <tr> <th colspan="2">Pollution charge Schedule</th></tr> <tr> <th>Period.</th><th>Annual escalation.</th></tr> </thead> <tbody> <tr> <td>(1)</td><td>(2)</td></tr> <tr> <td>1st July, 2001 to 30th June, 2002.</td><td>20% of base rate.</td></tr> <tr> <td>1st July, 2002 to 30th June, 2003.</td><td>40% of base rate.</td></tr> <tr> <td>1st July, 2003 to 30th June, 2004.</td><td>60% of base rate.</td></tr> </tbody> </table>	Pollution charge Schedule		Period.	Annual escalation.	(1)	(2)	1st July, 2001 to 30th June, 2002.	20% of base rate.	1st July, 2002 to 30th June, 2003.	40% of base rate.	1st July, 2003 to 30th June, 2004.	60% of base rate.	
Pollution charge Schedule													
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1st July, 2003 to 30th June, 2004.	60% of base rate.												
SCHEDULE IV [See rule 6(4)]	NOTE: This Schedule should be reviewed by technical experts to see if amendments are needed.												
Details of calculation of Pollution Charge													
PART 1													

A. Pollution Charge for Liquid Effluents:		
Parameters Applicable for Pollution Charge and Definition of Pollution Unit: Parameters on which pollution charges are to be applied and the definitions of the pollution units for each parameter are shown in the table below.		
TABLE List of selected NEQS parameters for pollution units calculation		
S/No.	Parameters.	1 Pollution Unit.
(1)	(2)	(3)
1	COD.	50 kgs
2.	TSS.	50 kgs
3.	Oil and grease	3 kgs
4.	Mercury.	20 g
5.	Chromium.	500 g
6.	Nickel.	500 g
7.	Lead.	500 g
8.	Copper.	1000 g
9.	Cadmium.	100 g
10.	Pesticides and herbicides.	100 g
The parameters for pollution units given above all arrived at in view of the following considerations, namely: -		
1. To keep the system simple and cost effective, the number of parameters should be kept at a minimum.		
2. The quantity of pollutant defined as one pollution unit reflects the relative toxicity of the pollutant, and consequently the extent of damage to the environment.		
3. The Federal Agency may expand the above list if deemed necessary.		
Exemption in Pollution Units: Each industrial unit shall be allowed an exemption equivalent to NEQS for each parameter on which the pollution charge is applicable. The exemption is proposed in line with the spirit to the National Environmental Quality Standards.		
Method of Determination of Pollution Charge:		
Determination of Pollution Level: The pollution level in a unit or a production unit if so desired, shall be measured		

once a year. The measurement shall be carried out jointly in the presence of at least one representative each from the unit and the concerned EPA or agency approved by EPA. Interested NGOs shall be allowed to accompany EPAs on such visits to ensure transparency and neutrality in the process. The production of the unit during the determination period shall also be recorded to ensure that normal operational conditions of the unit prevail. Alternatively, pollution charge may also be figured out on the basis of self-monitoring reports submitted under NEQS (Self-Monitoring and Reporting by Industry) Rules, 2001, in mutual agreement with the concerned EPA.		
Calculation Procedure:		
1. The effluent flow of a unit shall be measured for a limited period, ranging from a minimum of a day to about a week, under normal operating conditions.		
2. During this period, effluent samples shall be taken at regular intervals, ranging from once an hour to once in eight hours and the concentration of pollutant parameters of concern shall be established through laboratory analysis.		
3. Net quantity of pollutant being discharged (in kg) shall be calculated by dividing the net quantity of pollutant being discharged by the amount defined as one pollution unit for the parameter under consideration.		
4. Number of pollution units for each parameter shall be calculated by dividing the net quantity of pollutant being discharged by the amount defined as one pollution unit for the parameter under consideration.		
5. The number of pollution units per unit of production shall be calculated by dividing the number of pollution units with production in the period during which tests were carried out.		
6. Number of pollution units shall be calculated on the basis of production in the period for which pollution charges are to be paid.		
7. The amount to be paid as pollution charge shall be calculated by multiplying the chargeable pollution units with the applicable rate for a pollution unit for the year.		
Sample calculation of pollution charge are given below:		
NEQS Parameters.	Recorded.	Effluent levels.
(1)	(2)	(3)
COD.	150 mg/l	5200 mg/l
TSS	150 mg/l	500 mg/l
Annual Operating Day.	160 Days.	
Product Rate	6,000 Tons	

Effluent flow rate	5,300 m ³ /day or 848,000 m ³ /year	Chargeable
Calculation of Pollution Charge:		
	Actual Pollution Level.	Annual Pollution Load. * Net Chargeable Units.
	(1)	(2) (3)
COD.	5,200 mg/l	4,282,400 kg 85,648
TSS.	500 mg/l	296,800 kg 5,936
	Total.	91,584
Total Units Chargeable.	91,584 Units	
Base Rate per Unit.	100 Rs./Unit (For example)	
Total Pollution Charge.**	Year 1	Year 2
Rs./Year	1,831,680	3,663,360
Year 3		5,495,040
* Refer to Part I.		
** Refer to Schedule III.		
PART II		
B. Pollution Charge for Gaseous Emissions:		
Parameters to be charged and Definition of Pollution Unit:		
Parameters on which pollution charge are to be applied and the definitions of the pollution units for each parameter are given in the table below:-		
TABLE		
Selected parameters for pollution units calculation		
Parameter.	Quantity of one pollution unit.	
(1)	(2)	
Carbon Monoxide (CO).	400 Kg	
Oxides of Nitrogen (NOx).	200 Kg	
Oxides of Sulfur (SOx).	200 Kg	
Particulate Matter (Coal).	250 Kg	
Particulate Matter (Oil).	150 Kg	
Particulate Matter (Cement).	100 Kg	
Particulate Matter (Other Sources).	250 Kg	

	The definitions of pollution units given above were arrived at in view of the following namely:
	1. The system should be simple and cost effective, and the numbers of parameters on which pollution charges are to be applied should be kept at a minimum.
	2. The quantity defined as one pollution unit reflects the relative environmental impact of a specific parameter on the assimilative capacity of the surrounding air and impact on human health.
	Exemption in Pollution Units : Each industrial unit shall be allowed an exemption corresponding to NEQS for each parameter on which the pollution charge is applicable. The exemption proposed is in line with the exemption proposed for liquid effluents.
	Approach and Method for the Determination of Air Pollution Charge:
	Determination of Pollution level: The pollution level in a unit or a production unit if so desired, shall be measured once a year. The measurement shall be carried out jointly in the presence of at least one representative each from the unit and the EPA, or an agency approved by EPA for this purpose. Interested NGOs shall be allowed to accompany EPAs on such visits to ensure transparency and neutrality in the process. All air emission measurements shall be taken under normal plant operating conditions. The industrial unit shall arrange for air emission measurement and shall bear the cost of air emission measurement. The production of the industrial unit during the determination period shall also be recorded to ensure that normal operating conditions of the unit prevail at the time of testing. The pollution charge could also be figured out on the basis of self-monitoring reports with mutual agreement of EPA.
	Calculation Procedure: The following measurements are needed to calculate the quantity in kg of each pollutant being emitted namely: -
	1. Flow rate of the gas in the stack or chimney in kg/hr or cubic meter/hour
	2. Concentration of pollutant in the gas stream in ppm.
	Calculation of gas flow rates requires extensive instrumentation, is time consuming and expensive. To address this issue, a simplified fuel based approach is proposed for the quantification of pollutant loads in gases discharged from fuel fired equipment such as boilers, kilns, furnaces and dryers. This approach allows direct quantification of gas flow rate using the amount of fuel consumed and excess air used per unit of fuel. Excess air is the amount of air used over and

above the theoretical amount needed for complete burning of the fuel, and can be calculated on the basis of oxygen in the gaseous emissions. In exceptional cases, industrial units that have arrangements for continuous or online flow measurements of gas emitted may use actual flow measurements for the quantification of air emissions.	
A stepwise procedure for the calculation of air pollution units from an industrial unit is given as under: -	
1. The concentration of pollutant parameters of concern and oxygen in the stack gas shall be measured for a limited period, ranging from a minimum of a day to about a week, under normal operating conditions. The temperature of stack gases shall also be measured.	
2. The quantity of fuel consumed and production shall be monitored during the same period.	
3. The flow rate of gases shall be calculated using standard formulas, with quantity of fuel used, concentration of oxygen and temperature as inputs.	
4. Net quantity of air pollutant being discharged (in kg) shall be calculated by subtracting the NEQS concentration from the measured concentration, and multiplying the net concentration in excess of NEQS with the calculated flue gas flow.	
5. Number of pollution units for each parameter shall be calculated by dividing the net quantity of pollutant being discharged by the amount defined as one pollution unit for the parameter under consideration.	
6. Number of pollution units per unit of production shall be calculated by dividing the number of pollution units with production in the period during which the tests were carried out.	
7. Number of pollution units shall be calculated on the basis of production in the period for which pollution charges are to be paid.	
8. The amount to be paid as pollution charge shall be calculated by multiplying the chargeable pollution units with the applicable rate for a pollution unit for the year.	
Pollution Charges for Non-Fuel Cases and Other Exceptions: For processes where fuel is not used or where it is not possible to calculate gas flow rates on the basis of fuels used, direct measurement of gas flow rates shall be required. Standard guidelines and procedures for measurement of gas flow rates shall be prescribed. The remaining calculation procedures for the number of pollution units and amount to be paid shall be the same as those for fuel related emissions.	

Separate calculation procedures shall be developed for the cement industry to account for volume corrections associated with carbon dioxide produced from the calcining process.					
The system of pollution charges proposed in this document shall not apply to the power industry. Standards and procedures for the power industry shall be issued separately.					
Sample Calculation of Pollution For Charge Gaseous Emission:					
NEQS parameters.	Recorded.			Emission level.	
(1)	(2)			(3)	
Carbon Monoxide (CO)	800			mg/nm3	
Oxides of Nitrogen (NOx)	400			mg/nm3	
Oxides of Sulfur (SOx)	400			mg/nm3	
Particulate Matter (Coal)	500			mg/nm3	
Particulate Matter (Oil)	300			mg/nm3	
Particulate Matter (Cement)	200			mg/nm3	
Particulate Matter (other)	500			mg/nm3	
Fuel Consumed.	Excess Air %			Fuel Gas Discharged.	
Kg/Year				M3/Year	
Bagasse	495,000,000	30		1,854,646,438	
Pollutant.	Total Air Emissions (mg/Nm3).	Exemption (mg/Nm3).	Net Chargeable Emission (mg/Nm3).	Annual ** Chargeable Pollution Load (kg).	Chargeable Pollution Units.
CO	1,600	800	800	1,483,717	3,709
NOx	160	400	—	—	—
SOx	—	400	—	—	—
PM	6,744	500	6,244	11,580,412	46,322
Total Chargeable Pollution Units* @ Base Rate / P.U (Rs. 100/P.U)					
Total Pollution Charge.	Year 1	Year 2	Year 3		
Rs./Year	1,000,619	2,001,238	3,001,857		

<p>Re-Determination of Pollution Charges: If, during a running year, the unit attains a status (for a period of at least three consecutive months) which corresponds to eighty per cent or less of the value of at least one parameter, the unit or the production unit is entitled to apply for a fresh assessment of pollution charge. The EPA may impose a fee for such re-assessment.</p>	<p>*Refer to Schedule VI (B) ** Refer to Schedule III</p>	
	<p>SCHEDULE V [See rule 7(3) and rule 8]</p>	<p>NOTE: This Schedule should be reviewed by technical experts.</p>
<p>Fees for determination of pollution level</p>	<p>Processing fees. Rs. 5,000/- Sample analysis fees. Rates of certified labs under Notification No. SRO 258 (1)/2000, dated 10th February, 2000, shall be applicable.</p>	
<p>[File No. 1 (5)/2001-L/E]</p>		
	<p>(QAZI GHULAM MUSTAFA) Deputy Secretary</p>	

6.9 ENVIRONMENTAL SAMPLES RULES, 2001

<p>PART II</p> <p>Statutory Notification (SRO)</p> <p>GOVERNMENT OF PAKISTAN</p> <p>MINISTRY OF ENVIRONMENT, LOCAL GOVERNMENT AND RURAL DEVELOPMENT</p> <p>NOTIFICATION</p> <p>Islamabad, the March 2001.</p>	
<p>SRO 527(1)/2001. - In exercise of the powers conferred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Government is pleased to make the following rules, namely: -</p>	
<p>1. Short title and commencement. –</p>	
<p>(1) These rules may be called the Environmental Samples Rules, 2001.</p>	
<p>(2) They shall come into force at once.</p>	
<p>2. Definitions. –</p>	
<p>(1) In these Rules, unless there is anything repugnant in the subject or context.</p>	
<p>–</p>	
<p>(a) “Act” means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);</p>	
<p>(b) “authorized person” means a person authorized by the Director-General under rule 3;</p>	
<p>(c) “Chief Analyst” means the Chief Analyst of an environmental laboratory, and includes an Analyst who is performing the functions of the Chief Analyst in the environmental laboratory;</p>	
<p>(d) “Director-General” means the Director-General of the Federal Agency or a Provincial Agency;</p>	
<p>(e) “environmental laboratory” means a laboratory to which certification has been granted under the Pakistan Environmental Protection Agency (Certification of Environmental Laboratories) Regulations, 2000; and</p>	
<p>(f) “Law” means the laws annexed to these rules.</p>	<p>There are no laws annexed to these Rules. There are forms annexed to the Rules and those should be mentioned here instead.</p>
<p>(2) All other words and expressions used in these rules but not defined shall have the same meanings as are assigned to them in the Act.</p>	
<p>3. Authorization. –</p>	

(1) Functions and powers specified in these rules including powers under clauses (g), (h), (i) and (j) of section 7 of the Act of the Federal Agency or of a Provincial Agency if delegated to it, may be performed and exercised by any person duly authorized by the Director-General in this behalf, under sub-section (5) of section 5 of the Act.	
(2) In performing such functions and exercising such powers under sub-rule (1), an authorized person may employ such assistance as he may consider necessary: Provided that police assistance, if required, shall be obtained only under orders of the Environmental Tribunal or Environmental Magistrate having jurisdiction.	This procedure for seeking police assistance might be difficult to follow in emergency situations.
4. Entry and inspection. –	
(1) An authorized person shall, before entering any place, record in writing the reasonable grounds leading him to believe that an offence under the Act has been or is being committed therein.	A warrant is not needed.
(2) For the purpose of determining whether, and if so in what manner, an offence under the Act has been, or is being committed, in any place an authorized person may. –	
(a) enter and inspect such place, and examine any machinery or equipment while in operating condition, or any relevant document or other article found therein; and	
(b) take into possession, against a signed receipt, any article which he has reason to believe has been or is involved in, or which may furnish evidence of, the commission of an offence:	
Provided that where it is not practicable to take physical possession of any such article, the authorized person may, by order in writing in the form as set out in Form A, entrust the article to the custody of the owner or the person previously holding the article in his possession or charge, and direct him not to remove or otherwise deal with the article except with the prior written permission of the authorized person:	
Provided further that where the owner or person previously holding the article in his possession or charge is not known or cannot be found within reasonable time, the authorized person after publication a notice in one English and one Urdu daily newspapers calling upon such person to show cause as why the article should not be confiscated.	
(3) Any power under clause (b) of sub-rule (2) shall not be exercised if production or operations in such place will be adversely affected unless prior	A warrant is not needed but “permission” must be taken. Is this procedure feasible in emergency situations?

permission in writing is obtained from the Environmental Tribunal or Environmental Magistrate having jurisdiction.	
(4) The owner or person in charge of the place in which entry is sought by an authorized person shall, on being informed of his purpose and shown his authorization, allow him unimpeded access to such place and provide all reasonable facilities for his inspection:	
Provided that the authorized person shall abide by all safety rules and precautions applicable to such place.	
5. Search. –	
(1) Where an authorized person considers it necessary to search for an article of the nature specified in clause (b) of sub-rule (2) of rule 4, he may apply to the Environmental Tribunal or Environmental Magistrate having jurisdiction for a search-warrant, specifying in his application, to the extent possible, the article for which search is to be made.	What is the difference between “entry and inspection” (Rule 4) and “search” (Rule 5)? Why is a warrant needed for a search, but not for entry and inspection?
(2) The Environmental Tribunal or Environmental Magistrate may, on an application of an authorized person under sub-rule (1), for reasons to be recorded in writing, issue a search-warrant specifying the place to be searched and, to the extent possible, the article for which search is to be made, and may also lay down such other conditions as it may deem fit in the circumstances of the case.	Note again that this procedure does not seem to be particularly useful in emergency situations.
(3) If despite stating his purpose and showing his search-warrant, an authorized person cannot obtain entry into such place, he may break or open any lock, door, gate or window of such place:	
Provided that if the place into which entry is sought is in the actual occupancy of a woman who, according to custom, does not appear in public, the authorized person shall give notice to such woman to withdraw and shall afford her every reasonable opportunity of withdrawing, before breaking or opening and entering such place.	
(4) The provisions of sections 102 and 103 of the Code of Criminal Procedure, 1898 (Act V of 1898), shall <i>mutatis mutandis</i> , apply to searches made under this rule.	
6. Issue of Environmental protection order. –	
Where on entry, inspection or search of any place, an authorized person is satisfied that the circumstances in such place require issue of an Environmental Protection Order in respect thereof, he shall immediately inform the Director-General in writing, for initiation of necessary action in accordance with the provisions of section 16 of the Act.	An EPO is issued by the DG and not the Environmental Tribunal or Environmental Magistrate.

<p>7. Procedure for taking samples. –</p>	
<p>(1) An authorized person taking samples under clause (h) of section 7 of the Act shall forthwith divide the same into three portions, in the presence of the person from whom the sample is taken:</p>	<p>The procedures should be checked by a technical expert to assess whether they need to be changed.</p>
<p>Provided that where the sample is such that it cannot or need not be divided, additional samples should be taken, if possible.</p>	
<p>(2) An authorized person shall take samples in clean, dry bottles or jars or other suitable containers which shall be closed sufficiently tight to prevent leakage or evaporation or entry of moisture:</p>	
<p>Provided that where necessary the authorized person shall add preservative to the sample before sealing the container.</p>	
<p>(3) All such bottles or jars or containers shall be labeled, placed in a cloth or other bag which shall be sewn or glued at the ends and then effectively sealed on the stitches or ends and suitably marked and signed by the authorized person and the person from whom the sample is taken.</p>	
<p>(4) Where the person from whom the sample is taken is not available, or willfully absents himself or is unknown at the relevant time, or declines to add his seal or mark or signatures, the authorized person shall obtain on the sealed parcel the seal or mark and, if possible, signatures of one or more independent witnesses in whose presence the sample has been taken.</p>	
<p>(5) Both the label and the sealed parcel shall contain a distinguishing number, a brief description of the sample and the preservative, if any, and the place, date and time of taking the sample.</p>	
<p>8. Dispatch of samples. –</p>	
<p>(1) One portion of the sample duly packed, sealed and marked as provided in rule 7 shall be handed over to the person from whom the sample is taken, along with a notice in the form as set out in Form B:</p>	
<p>Provided that, in cases covered under sub-rule (4) of rule 7, the first portion and notice in Form B shall be dispatched to the person from whom the sample is taken, if since traced, by registered post.</p>	
<p>(2) The second portion of the sample, or the second sample, or the sample itself where taking of only one sample is possible, shall, after being duly packed, sealed, labeled and marked as provided in rule 7, be delivered within forty-eight hours to an environmental laboratory for test and analysis, along with forwarding letter in the form as set out in Form C.</p>	

(3) The third portion of the sample or the third sample, after being duly packed, sealed, labeled and marked as provided in rule 7, shall be retained by the authorized person for future test and analysis, and comparison, as may be required.	
(4) Specimen impression of the seal affixed on the parcel shall be sent by the authorized person to an environmental laboratory separately by registered post or courier.	
9. Detailed sampling procedures. –	
(1) Subject to the provisions of rules 7 and 8, where the nature of the samples or the tests or analyses proposed to be carried out so require, the Director-General may specify further details as to the procedures for taking, packing, storage and dispatch of samples, and where such details have been specified, the authorized person shall comply therewith.	
10. Test and analysis of samples. –	
(1) On receipt of sealed parcel containing a sample for test and analysis, the Chief Analyst shall compare the seals on the parcel with the specimen impression received, and shall note the condition of the seal thereon.	
(2) Amongst other tests or analyses, the Chief Analyst shall particularly test or analyse the sample to determine whether it conforms to the National Environmental Quality Standards.	
(3) After the test or analysis, the Chief Analyst, on receipt of fees payable in respect thereof, shall forthwith send to the authorized person a certificate in the form as set out in Form D, in triplicate, declaring the results of such test or analysis.	
(4) The Chief Analyst shall, as far as possible, carry out the test or analysis and send the certificate in the form as set out in Form D to the authorized person within thirty days of receipt of the sample:	
Provided that if for any reason the Chief Analyst is unable to carry out the test or analysis within the prescribed period, he shall inform the authorized person accordingly who may collect the sample and send the same to another environmental laboratory for the purpose.	
(5) On receipt of the certificate in the form as set out in Form D, in triplicate, the authorized person shall –	
(a) send one original to the person from whom the sample is taken;	
(b) submit the second original with the complaint, if any, filed with the Environmental Tribunal or Environmental Magistrate; and	

(c) retain the third original in his record or in the record of the Federal Agency or a Provincial Agency for future use.	
11. Admissibility and evidentiary value of certificate of environmental laboratory. –	
(1) Upon production in any inquiry, trial or other proceedings under the Act, of the certificate in Form D issued by the Chief Analyst of an environmental laboratory in respect of a sample, the person from whom the sample is taken may, within fifteen days of receipt of the certificate, give notice to the authorized person in writing of his intention to contest the results contained in the certificate.	
(2) Where on the request of the accused the Environmental Tribunal considers it necessary in the interests of justice, it may summon the Chief Analyst to give evidence in respect of the certificate issued by him:	
Provided that the costs of summoning the Chief Analyst shall be deposited by the accused, and if the accused is subsequently acquitted, the same shall be refunded to him.	
12. Filing of complaint. –	
(1) On receipt of a certificate in Form D, an authorized person may, if the said certificate indicates contravention or failure to comply with the provisions of sub-section (1) of section 11 of the Act, file a complaint against the person or persons responsible for such contravention or failure, with the Environmental Tribunal having jurisdiction.	
(2) A complaint referred to in sub-rule (1) shall be accompanied by an original certificate in Form D, and attested copies of a notice in Form B, forwarding letter of sample in Form C and notice if any, received under sub-rule (1) of rule 11.	
(3) The authorized person may also submit to the Environmental Tribunal any article taken into possession under clause (b) of sub-rule (2) of rule 4, if it is considered necessary and practicable to do so.	
13. Expenses of prosecution. –	
(1) Along with the complaint, the authorized person may also file a statement indicating the expenses incurred in the prosecution, including the costs of samples and of test and analysis thereof, and may request the Environmental Tribunal that in case of conviction the aforesaid expenses may be reimbursed to the complainant, in accordance with the provisions of section 545 of the Code of Criminal Procedure, 1898 (Act V of 1898).	

14. Second test and analysis. –	
(1) Where the Environmental Tribunal is of the opinion, on the basis of evidence produced before it by the accused against whom the complaint has been filed, that further investigation is justified and is possible notwithstanding the time elapsed, it may, after recording the grounds for its opinion, direct that the third portion of the sample in the custody of the authorized person be sent for second test and analysis to another environmental laboratory:	
Provided that the costs of the second test and analysis shall be deposited by the accused, and if the accused is subsequently acquitted, the same shall be refunded to him.	
(2) The provisions of rules 10 and 11 shall apply to the second test and analysis under sub-rule (1), and the certificate in the form as set out in Form D in respect thereof shall be issued.	
15. Procedure for trial. –	
The Environmental Tribunal shall try an offence under sub-section (1) of section 11 of the Act in accordance with the provisions of the Code of Criminal Procedure, 1898 (Act V of 1898).	
16. Right of private persons to have samples analysed. –	
(1) Any person may apply in writing to the Director-General for arranging test and analysis of such sample and from such person as may be specified in the application.	
(2) If the Director-General approves the application, he shall instruct an authorized person to take the sample and arrange for its test and analysis, and the provisions of rules 7 to 11 shall, <i>mutatis mutandis</i> , apply thereto.	
(3) The costs of taking the sample and of the test and analysis shall be paid by the applicant:	
Provided that in case the sample is found by an environmental laboratory not to conform to the National Environmental Quality Standards, the amount paid by the applicant shall be returned to him.	If the sample does not conform, does the applicant still get their money back?
FORM A [See rule 4(2)(b)] CUSTODY ORDER	
To [Name and address of person to whom article is entrusted]	

<p>Dear Sir,</p> <p>WHEREAS I have reason to believe that the following article has been/is involved/may furnish evidence of commission of an offence under the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), namely: - (Description of article)</p> <p>_____</p> <p>_____</p> <p>AND WHEREAS the said article has been taken into possession by me under rule 4(2)(b) of the Environmental Samples Rules, 2001.</p> <p>NOW THEREFORE I hereby direct you, under rule 4(2)(b) of the aforesaid rules, to keep the above specified article in your safe custody and in proper storage and not to remove or otherwise deal with the article except with my prior written permission.</p> <p>Place: _____</p> <p>Date: _____</p> <p>Time: _____</p> <p>Authorized Person</p> <p>Received: _____</p> <p>(Signature of person to whom article is entrusted)</p> <p>WITNESSES:</p> <p>1. _____</p> <p>2. _____</p>	
<p>FORM B [See rule 8(1)] NOTICE</p>	
<p>To [Name and address of person from whom sample is taken]</p> <p>Dear Sir,</p> <p>I have this day taken from the premises of (name) situated at (address) the sample described below, for test and analysis at an environmental laboratory, under the provisions of the Pakistan Environmental Protection Act, 1997, and the Environmental Samples Rules, 2001, namely: - (Description of sample)</p>	

<div><div></div><div></div><div></div></div> <p>One portion of the sample, in sealed parcel bearing number _____, is being handed over/sent to you herewith.</p> <div><div>Place: _____</div><div>Date: _____</div><div>Time: _____</div></div> <div>Authorized Person</div> <div>Received: _____ (Signature of person from whom sample is taken)</div> <div>WITNESSES: (Name and address)</div> <div><div>1. _____</div><div>2. _____</div></div>	
<div><div>FORM C</div><div>[See rule 8(2)]</div><div>TEST AND ANALYSIS OF SAMPLE</div></div>	
<div>To</div> <div>The Chief Analyst</div> <div>[Name and address of environmental laboratory]</div> <div>Dear Sir,</div> <div>I hereby submit sealed parcel bearing no. _____ containing the following sample for test and analysis and report under clause (i) of section 7 of the Pakistan Environmental Protection Act, 1997, read with rules 8(2) and 10(3) of the Environmental Samples Rules, 2001, namely: -</div> <div>(Description of sample)</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>The sample was obtained from the premises of [name] situated at [address] on [date] at [time].</div>	

<p>The parcel containing the sample has been affixed with seals and specimen impression of which is being sent to you separately.</p> <p>Place: _____ Date: _____ Time: _____ Authorized Person</p> <p>cc: [Name and address of person from whom sample is taken].</p>	
<p style="text-align: center;">FORM D [See rule 10 (3)] CERTIFICATE OF TEST OR ANALYSIS [to be signed in triplicate]</p>	
<p>I hereby certify that: -</p> <p>(1) This laboratory has been granted certification as an environmental laboratory under the Pakistan Environmental Protection Agency (Certification of Environmental Laboratories) Regulations, 2000.</p> <p>(2) A parcel bearing no. _____ said to contain a sample of [description] was received in this laboratory on [date] at [time] dispatched by [name, designation and address of person] by post/courier/personal delivery.</p> <p>(3) The seals of the parcel were compared with the seal impression received separately and were found to match/not match.</p> <p>(1) The seals on the parcel were intact/broken.</p> <p>(2) The seals were opened in my presence and the sample was found fit/unfit for test/analysis.</p> <p>(3) I have carried out the following test/analysis: -</p> <p>_____</p> <p>_____</p> <p>(4) I declare the results of the test/analysis as follows:</p> <p>_____</p> <p>_____</p> <p>Pursuant to the above results, I am of the opinion that the sample does/does not conform to the National Environmental Quality Standards; and that –</p> <p>_____</p> <p>_____</p>	

Place: _____ Date: _____ File No. 1(3)/2001-L/E	(Chief Analyst) [Name and address of environmental laboratory]	
(QAZI GHULAM MUSTAFA) Deputy Secretary		

6.10 NATIONAL ENVIRONMENTAL QUALITY STANDARDS (SELF-MONITORING AND REPORTING BY INDUSTRY) RULES 2001 *

* as amended by Statutory Notification SRO 114(I)/2005 dated 2 February 2005

SRO 528 (1)/2001. - In exercise of the powers conferred by section 31 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Government is pleased to make the following rules, namely:-	NOTE: EPAs/technical experts should be consulted to see if any amendments are required.
1. Short title and commencement.—	
(1) These rules may be called the National Environmental Quality Standards (Self-Monitoring and Reporting by Industry) Rule, 2001.	
(2) They shall come into force at once.	
2. Definitions.—	
(1) In these rules, unless there is anything repugnant in the subject or context, -	
(a) Act means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);	
(b) Associated Company and associated undertaking, shall have the same meaning as defined in the Companies Ordinance, 1984 (XLVII of 1984);	
(c) Certified environmental laboratory means an environmental laboratory which has been granted certification under the Pakistan Environmental Protection Agency (Certification of Environmental Laboratories) Regulations, 2000;	
(d) Director-General means the Director-General of the Federal Agency;	
(e) Environmental monitoring report means the report submitted by an industrial unit to the Federal Agency in respect of priority parameters;	
(f) industrial unit means any legal entity carrying on industrial activity;	Not clear.
(g) pollution level means number of units per unit of production determined under the Pollution Charge for Industry (Calculation and Collection) Rules, 2001;	
(h) priority parameters means those parameters of the National Environmental Quality Standards which have been selected for purposes of submission of Environmental Monitoring Reports to the Federal Agency by an industrial unit; and	
(i) Schedule means the Schedule to these rules.	
(2) All other words and expressions used in these rules but not defined herein	

shall have the same meanings as are assigned to them in the Act.	
3. Responsibility for reporting.—	
All industrial units shall be responsible for correct and timely submission of Environmental Monitoring Reports to the Federal Agency.	
4. Classification of industrial units.—	
On the basis of the pollution level of an industrial unit, the Director-General shall classify the unit into category "A", "B" or "C" for liquid effluents, and category "A" or "B" for gaseous emissions:	
Provided that till such time as the pollution level of an industrial unit is determined, it shall be classified according to the type of industry to which it belongs, as shown in Schedule I for liquid effluents and in Schedule II for gaseous emissions.	
5. Category "A" industrial units.—	
(1) An industrial unit in category "A" shall submit Environmental Monitoring Reports on monthly basis	
(a) in respect of liquid effluents, for priority parameters listed in column 3 of Table A of Schedule III:	
Provided that during start-up or upset conditions, priority parameters mentioned in column 4 of Table A of Schedule HI shall be recorded on hourly basis;	
(b) in respect of gaseous emissions, for priority parameters listed in Table B of Schedule III.	
(2) An industrial unit in category "A" shall maintain a record of the times during which start-up and upset conditions occur, and shall mention the total time elapsed in such conditions in its monthly Environmental Monitoring Report.	
6. Category "B" industrial units.—	
An industrial unit in category "B" shall submit Environmental Monitoring Reports on quarterly basis-	
(a) in respect of liquid effluents, for priority parameters listed in Table A of Schedule IV;	
(b) in respect of gaseous emissions, for priority parameters listed in Table B of Schedule IV.	

7. Category “C” industrial units.—	
An industrial unit in category “C” shall submit Environmental Monitoring Reports on biannual basis for priority parameters in respect of liquid effluents listed in Schedule V.	
7A. Monitoring report.—	
(1) Any existing self-Monitoring industry which is submitting monthly reports under category “A” and quarterly report under category “B” having proved compliance of National Environment Quality Standards for two consecutive years may submit quarterly and biannually self-monitoring reports respectively:	
Provide that:	
(a) there is no change in the production process or raw materials or fuel types; and	
(b) the production period is not less than six months, if it is less than six months, self-monitoring report may be submitted in alternate months.	
(2) In case of non-compliance to these provisions, the industry shall revert to the reporting requirement as per initial or original category.	
8. Special Industries. —	
(1) Without prejudice to the provisions of rule 4, the Director-General may classify a large industrial unit with very high pollution levels as “Special Industry”.	Have any such industries been classified to date?
(2) In addition to complying with the requirements of rule 5, a Special Industry shall submit Environmental Monitoring Reports for such parameters and at such frequency as the Director-General may require.	
9. Environmental Monitoring Report.—	
(1) An Environmental Monitoring Report shall comprise a Liquid Effluents Monitoring Report, a Gaseous Emissions Monitoring Report and a Cover Sheet which shall be in the form as set out in Forms A, B and C, respectively, of Schedule VI.	
(2) All measurements of priority parameters contained in the Environmental Monitoring Report submitted by an industrial unit shall be based on test reports of a certified environmental laboratory, and attested copies of such results shall be attached with the Environmental Monitoring Report:	
Provided that such certified environmental laboratories shall not be part of, or an associated company or associated undertaking of, the said industrial unit.	

(3) The Gaseous Emissions Report shall cover the priority parameters listed in Schedule VII, and shall include, every two years, metal analysis of all gaseous emissions from the industrial unit.	
10. Sampling, testing and analysis.—	
Sampling testing and analysis of effluents, gaseous emissions and waste shall be carried out in accordance with the Environmental Samples Rules, 2001.	
11. Monitoring conditions of EIA approval.—	
The provisions of these rules shall be in addition to, and not in derogation of, the monitoring conditions laid down in an EIA approval.	
12. Compilation, analysis and management of data.—	
The Federal Agency shall compile, analyze and manage the data contained in the Environmental Monitoring Reports with the objective, inter alia, of enforcing the National Environmental Quality Standards and developing an environmental database.	
Schedule I (See rule 4) Classification of Industrial Units for Liquid Effluents	NOTE: Schedules should be assessed by EPAs/technical experts.
1. Category “A”	
(1) Chlor-Alkali (Mercury Cell).	
(2) Chlor-Alkali (Diaphragm Cell).	
(3) Metal finishing and electroplating.	
(4) Nitrogenous fertilizer.	
(5) Phosphate fertilizer.	
(6) Pulp and paper.	
(7) Pesticides formulation.	
(8) Petroleum refining.	
(9) Steel industry.	
(10) Synthetic fiber.	
(11) Tanning and leather finishing.	
(12) Textile processing.	
(13) Pigments and dyes.	

(14) Thermal Power Plants (Oil Fired and Coal Fired).	
(15) Rubber products.	
(16) Paints, Varnishes and Lacquers.	
(17) Pesticides.	
(18) Printing.	
(19) Industrial chemicals.	
(20) Oil and Gas production.	
(21) Petrochemicals.	
(22) Combined effluent treatment.	
(23) Any other industry to be specified by Federal or Provincial Agency.	
2. Category "B"	
(1) Dairy industry.	
(2) Fruit and Vegetable processing.	
(3) Glass manufacturing.	
(4) Sugar.	
(5) Detergent.	
(6) Photographic.	
(7) Glue manufacture.	
(8) Oil and Gas exploration.	
(9) Thermal Power Plants (Gas Fired)	
(10) Vegetable oil and ghee mills.	
(11) Woollen mills.	
(12) Plastic materials and products.	
(13) Wood and cork products.	
(14) Any other industry to be specified by federal or Provincial Agency.	
3. Category "C"	
(1) Pharmaceutical (Formulation) Industry.	
(2) Marble Crushing.	

(3) Cement.	
(4) Any other industry to be specified by Federal or Provincial Agency	
Schedule II (See rule 4) Classification of Industrial Units for Gaseous Emissions	
1. Category "A"	
(1) Cement	
(2) Glass Manufacturing	
(3) Iron and steel	
(4) Nitrogenous Fertilizer	
(5) Phosphate fertilizer.	
(6) Oil and Gas production.	
(7) Petroleum refining.	
(8) Pulp and-paper.	
(9) Thermal Power Plants (coal and oil based)	
(10) Boilers, ovens, furnaces and kilns (coal and oil fired)	
(11) Brick-Kilns (firewood and bagasse based)	
(12) Any other industry to be specified by Federal or Provincial Agency.	
2. Category "B"	
(1) Sugar.	
(2) Textile	
(3) Choloralkali plants.	
(4) Dairy industry.	
(5) Fruits and vegetables	
(6) Metal finishing and electroplating	
(7) Boilers, ovens, furnaces and kilns (gas-fired)	
(8) Any other industry to be specified by Federal or Provincial Agency.	

6.11 NATIONAL ENVIRONMENTAL QUALITY STANDARDS (CERTIFICATION OF ENVIRONMENTAL LABORATORIES) REGULATIONS 2000

NOTIFICATION Islamabad, the 10th February, 2000.	
SRO 258-(1)/2000. – In exercise of the powers conferred by section 33 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), read with clause (k) of sub-section (1) of section 6 thereof, the Pakistan Environmental Protection Agency, with the approval of the Federal Government, is pleased to make the following regulations, namely:-	NOTE: EPAs/technical experts should be consulted to see if any amendments are required.
1. Short title and commencement .-	
(1) These regulations may be called the National Environmental Quality Standards (Certification of Environmental Laboratories) Regulations, 2000.	
(2) They shall come into force at once.	
2. Definitions .-	
(1) In these regulations, unless there is anything repugnant in the subject or context,-	
(a) “ Act ” means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);	
(b) “ certification ” means certification of a laboratory as an environmental laboratory under these regulations;	How many “certified” environmental laboratories are there, and where are they located?
(c) “ certificate ” means certificate issued under regulation 8;	
(d) “ Committee ” means the Advisory Committee on Laboratory Certification established by the Federal Government under sub-section (6) of section 5 of the Act;	Has such a committee been established? Will separate committees be set up in the provinces?
(e) “ Director General ” means the Director- General of the Pakistan Environmental Protection Agency;	
(f) “ environmental laboratory ” means a laboratory to whom certification as an environmental laboratory has been granted under these regulations;	
(g) “ laboratory ” means any premises equipped to conduct scientific and technical experiments, tests, analyses, studies and investigations; and	
(h) “ Schedule ” means a Schedule to these regulations.	

(2)	All other words and expressions used in these regulations, but not defined herein, shall have the same meanings as are assigned to them in the Act.	
3. Functions of an environmental laboratory.-		
	The functions of an environmental laboratory shall be	
(a)	to test and analyze samples of air, water, soil, effluents or wastes sent to it by any factory or any person authorized by the Federal Agency or a Provincial Agency to determine whether such samples comply with the National Environmental Quality Standards;	
(b)	to measure noise being emitted at any place by any industrial or other activity or motor vehicle;	
(c)	to issue test reports containing the results of tests and analyses carried out under clauses (a) and (b);	
(d)	to carry out such experiments, studies and investigations as may be required by the Federal Agency to monitor and enforce and where necessary to propose revision of the National Environmental Quality Standards;	
(e)	to send an annual report of its activities to the Federal Agency, including a list of all test reports issued by it; and	
(f)	to carry out such other functions as may be entrusted to it by the Federal Agency from time to time.	
4. Application for certification. -		
(1)	Any laboratory which fulfils the criteria laid down in regulation 5 may make an application in the form set out in Schedule I to the Federal Agency for certification as an environmental laboratory.	
(2)	Every such application for certification shall be accompanied by a non-refundable scrutiny fee at the rate specified in Schedule II.	
5. Criteria for certification.-		
(1)	Subject to clause (2), a laboratory shall not be certified as an environmental laboratory unless it fulfils the following criteria, namely:-	
(a)	the laboratory is located in a clean area and not adjacent to an open sewerage drain or factory from which emissions of air pollutants or discharge of effluents or wastes may interfere with, contaminate or otherwise adversely effect the reliability of its tests and analyses;	
(b)	the building in which the laboratory is housed is suitable in size, design and quality of construction, for use as an environmental laboratory;	

(c) the laboratory has qualified and experienced scientific and technical staff and appropriate analytical equipment and apparatus as specified in Schedules III and IV respectively;	
(d) the laboratory has deposited with the Federal Agency the scrutiny fee and certification fee at the rates specified in Schedule II;	
(e) the laboratory has installed a comprehensive scientific system of reporting test results, supported by data handling facilities; and	
(f) the laboratory has proper waste disposal arrangements.	
(2) A laboratory may be certified as an environmental laboratory for testing of water, liquid effluents, wastes, soil, gaseous emissions or noise or a combination of these for specific National Environmental Quality Standards parameters, in which case the requirements of analytical equipment and apparatus specified in Schedule IV, scientific and technical staff specified in Schedule III will be adjusted accordingly.	
6. Scrutiny of application. -	
(1) Every application for certification shall be scrutinized by the Committee.	
(2) The Committee shall carry out such inquiry as it may deem necessary to verify and evaluate the data mentioned in the application which shall include sending of trial sample; and obtaining sample test reports and a visit to the laboratory by the Committee itself, or its subcommittee, or a panel of experts appointed by the Committee for the purpose, for an on site assessment of its capability and capacity as to whether or not it fulfils the criteria laid down in regulation 5.	
(3) Subject to clause (4), the Committee shall submit its recommendations, in writing, to the Federal Agency, who may, after such further inquiry as it may consider necessary, accept or reject the said recommendations.	Federal EPA makes the decision. Is this power to be transferred to the provinces?
(4) In case the Federal Agency decides to reject the recommendations referred to in clause (3), it shall record reasons for decision.	
7. Decision on application.-	
(1) Subject to clause (2), an application for certification may be rejected, accepted in full, or accepted partially for certain purposes or parameters only.	
(2) Before the Federal Agency decides to reject an application or accept it partially or conditionally, it shall give the applicant an opportunity of being heard.	

(3) Where the Federal Agency rejects an application, the applicant shall be informed of the reasons for such rejection.	
(4) Subject to clause (5), rejection of an application for certification shall not debar a laboratory from submitting a fresh application for certification.	
(5) A fresh application shall not be entertained until the lapse of at least three months from the date of rejection of an application.	
8. Issue of certificate.-	
(1) Where the Federal Agency approves an application for certification in full or partially or conditionally, the applicant shall be informed accordingly with a direction to deposit with the Federal Agency within fifteen days the certification fee at the rate specified in Schedule II.	
(2) On receipt of the certification fee, the Federal Agency shall issue a certificate to the laboratory in the form set out in Schedule V and notify the laboratory to be an environmental laboratory in the official Gazette.	
(3) If a certificate is defaced, damaged or lost, duplicate thereof may be issued on payment of such fee as is specified in Schedule II.	
9. Conditions of certification.-	
(1) An environmental laboratory shall	
(a) carry out all tests and analyses, measurements, experimental studies and investigations with due diligence and in accordance with such guidelines, procedures and methods as may be stipulated by the Federal Agency;	Have any guidelines, procedures or methods been issued yet?
(b) carry out and maintain record of calibration of its equipment and apparatus;	
(c) follow the quality control and quality assurance procedures established by the Federal Agency and participate in performance, system audits, quality control and quality assurance programs organized by the Federal Agency or a Provincial Agency;	Any such procedures developed yet?
(d) keep its premises neat and clean at all times;	
(e) allow any member of the Committee or any officer of the Federal Agency, duly authorized in this behalf, to enter and inspect equipment and apparatus used in conducting tests and analyses and the reports and records in respect thereof;	
(f) retain records of all tests and analyses and measurements conducted by it for a period of three years from the date thereof;	

(g) take adequate safety measures and precautions against fire hazards and accidents including provision of first-aid facilities;	
(h) ensure availability in its store of adequate stocks of chemicals, back-up equipment and apparatus, and spare parts;	
(i) ensure that it fulfils the criteria laid down in regulation 5 at all times, and that if at any stage any equipment, apparatus or staff is required to be replaced, the replacement equipment, apparatus or replacement staff is of equivalent, or better, specifications, or qualifications and experience, respectively;	
(j) display the certificate issued to it under regulation 8 and a list of its fees for various tests and analyses and measurements, at a prominent place in its premises; and	
(k) submit to the Federal Agency an annual report including a list of all tests and analyses conducted by it relating to the environment.	
(2) An environmental laboratory shall not, without the prior permission, in writing, of the Federal Agency-	
(a) shift its location or remove any equipment or apparatus from its premises but the equipment or apparatus requiring repair or maintenance outside the premises may be removed for this purpose for a specific period under intimation to the Federal Agency;	
(b) charge more than the rates as may be fixed from time to time by the Federal Agency for specified tests and analysis; or	Federal EPA decides fees. Is this power to be delegated?
(c) sub-contract any work to any other laboratory.	
(3) Certification of an environmental laboratory shall not be transferable to any other laboratory.	
10. Validity of certification. -	
(1) Subject to clause (2), a certificate issued under regulation 8 shall, unless earlier suspended or revoked, be valid for a period of three years from the date of issue.	
(2) If an application for renewal of certification is made under regulation 13, the certificate shall continue to remain valid till the application for renewal is decided.	
11. Bar to function without certification. -	
No laboratory shall function as an environmental laboratory unless it is granted certification under these regulations.	

12. Test reports.-	
An environmental laboratory shall issue test reports in the form set out in Schedule VI containing the results of tests and analysis carried out in discharge of its functions as provided under clauses (a) and (b) of regulation 3.	
13. Renewal of certification.-	
(1) An application for renewal of certification shall be made in the form set out in Schedule I, to the Federal Agency at least forty- five days prior to the date of expiry of the certificate issued under regulation 8.	
(2) An application for renewal shall be accompanied by a copy of the annual report of the activities of the environmental laboratory.	
(3) An application for renewal shall be dealt with, scrutinized and decided exactly in the same manner as an application for certification and the provisions of these regulations relating to an application for certification shall, mutatis mutandis, apply to an application for renewal of certification.	
(4) The fee for renewal of certification shall be payable at the rate specified in Schedule II, and the certificate shall be issued after receipt of fee in the form set out in Schedule V.	
14. Revocation or suspension of certification.-	
(1) Without prejudice to any other action that may be taken against an environmental laboratory under the Act, rules or regulations the Federal Agency may, by an order in writing stating the reasons therefor, revoke a certification, or suspend it for such period as the Federal Agency deems fit, if the environmental laboratory-	
(a) fails to comply with any of the conditions of certification specified in regulation 9;	
(b) violates any of the provisions of the Act, rules or regulations;	
(c) issues any report which is false, or which is designed to misrepresent or conceal or suppress any material fact;	
(d) has obtained certification through fraud or misrepresentation;	
(e) fails or ceases to perform or is rendered incapable of performing any of the functions of an environmental laboratory specified in regulation 3; or	
(f) no longer fulfils the criteria for certification as an environmental laboratory as laid down in regulation 5.	
(2) The Federal Agency shall, before revoking or suspending a certification, provide the environmental laboratory an opportunity of being heard.	

(3) Where any order of revocation or suspension has been passed, the laboratory shall forthwith surrender its certificate to the Federal Agency who shall make an entry of the revocation or suspension thereon.	
(4) Certificate shall be returned to the laboratory on expiry of the suspension period or on restoration of the certification in appeal, after the Federal Agency has made necessary entry thereon.	
(5) Where certification of an environmental laboratory has been revoked, it shall not be eligible to apply again for certification until lapse of at least one year from the date of such revocation.	
<p align="center">SCHEDULE I (See regulations 4 and 13)</p> <p align="center">APPLICATION FOR GRANT/RENEWAL OF CERTIFICATION AS AN ENVIRONMENTAL LABORATORY</p>	NOTE: EPA and/or other technical experts should review schedules.
Part A. GENERAL INFORMATION:	
<p>1. Name of laboratory. Address. Tel. Fax. Email.</p> <p>2. Type of laboratory (please tick appropriate box): <input type="checkbox"/> Government <input type="checkbox"/> Public sector <input type="checkbox"/> Semi-autonomous body <input type="checkbox"/> Autonomous body <input type="checkbox"/> Private sector <input type="checkbox"/> other (please specify)</p> <p>3. Mandate or purpose of laboratory (please tick appropriate box and specify nature and field of operation): <input type="checkbox"/> Research and development. <input type="checkbox"/> Quality assurance. <input type="checkbox"/> Quality control. <input type="checkbox"/> Other (please specify).</p> <p>4. Year of establishment: _____</p> <p>5. Area of laboratory: _____ (sq.ft) (please attach copy of approved building plan and equipment layout plan).</p> <p>6. Has the laboratory been certified by any other authority? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please specify. _____</p>	

Part B. STAFF:				
7. List of total scientific and technical staff: (please attach list in the following form along with a copy of bio-data of Chief Executive).				
S. No.	Name.	Designation.	Qualifications (with specification).	Experience in analytical laboratory work (No. of years).
(1)	(2)	(3)	(4)	(5)
Part C. EQUIPMENT:				
8. List of significant analytical equipment and apparatus: (Please attach list in the following form of functional equipment only).				
S. No.	Name of equipment/ apparatus (with make).		Year of manufacture.	
(1)	(2)		(3)	
9. Which of the National Environmental Quality Standards parameters can be measured (other than those mentioned at entry No. 8 above) using wet analysis methods?				
10. Back-up equipment and apparatus in the laboratory instrumental and any services agreement for repair and maintenance of workshop for equipment/apparatus. [] Yes [] No. If yes, please specify: _____				
Part D. CHEMICALS:				
11. (a) Whether analytical grade chemicals are available in store for 6 months [] 12 months [] 2 years []. (b) What is source for supply of chemicals. [] Local purchase [] Direct import.				

<p>Part E. REPORTING SYSTEM:</p> <p>12. Does the laboratory has computerized data handling facilities? <input type="checkbox"/> Yes <input type="checkbox"/> No.</p> <p>13. Are there other facilities available in the laboratory? <input type="checkbox"/> Yes <input type="checkbox"/> No. If yes, please specify: _____</p> <p>14. Whether adequate facilities for collection and storage of samples are available: <input type="checkbox"/> Yes <input type="checkbox"/> No.</p> <p>15. Whether waste handling procedures and facilities for waste disposals are available: <input type="checkbox"/> Yes <input type="checkbox"/> No.</p>	
<p>Part F. EXPERIENCE:</p> <p>16. When did the following activities started? (a) analytical work : _____ (b) environment related work : _____</p> <p>17. List some significant environment-related analytical work and research studies carried out, indicating the sponsors and beneficiaries (in case of application for renewal, attach copy of annual report of activities) _____</p> <p>18. Does the laboratory provide training in environment related laboratory techniques? <input type="checkbox"/> Yes <input type="checkbox"/> No. If yes, please specify _____</p> <p>19. Total current annual budget: Rs. _____</p> <p>20. List revenue generated from environment-related analytical work during _____</p>	

the last five years.				
[See regulations 4 (2) , 5 (1)(d), 8(3) and 13(4)]				
RATES OF FEES IN RESPECT OF AN APPLICATION FOR GRANT OR RENEWAL OF CERTIFICATION				
S.No.	Name of fee.	Rate (Rs).		
(1)	(2)	(3)		
1.	Scrutiny fee.	5,000/=		
2.	Certification fee.	3,000/=		
S.No.	Name of fee.	Rate (Rs).		
(1)	(2)	(3)		
3.	Issue of duplicate certificate.	2,000/=		
4.	Renewal of certification	3,000/=		
[See regulations 5(1) (c) and 5(2)]				
SCIENTIFIC AND TECHNICAL STAFF OF AN ENVIRONMENTAL LABORATORY				
S. No	Title or equivalent.	Qualification.	Experience (minimum)	Number required (minimum)
(1)	(2)	(3)	(4)	(5)
1.	Chief Analyst.	Ph. D., M.Phil or M. Sc. (Analytical Chemistry preferably Physical/ Organic/ Inorganic Chemistry).	For Ph.D. 3 years for M.Phil. 5 years and for M.Sc. 7 years in analytical laboratory work testing of air/ water pollutants, noise, effluents or wastes preferably with regard to the National Environmental	One.

			Quality Standards parameters.	
2.	Analyst.	M.Sc. or M.Phil. (Analytical Chemistry preferably Physical/Organic/Inorganic Chemistry).	For M.Phil. 1 year and for M.Sc. 3 years in analytical laboratory work preferably in analysis of effluents or wastes.	Two.
2.	Deputy Analyst and/ or Assistant Analyst.	B.Sc (with chemistry as one of the major subject).	5 years and 3 years for Deputy Analyst and Assistant Analyst, respectively, in analytical laboratory work preferably with regard to the National Environmental Quality Standards parameters testing.	Three.
4.	Laboratory support staff.	F. Sc (with chemistry as one of the major subject).	1 year in analytical laboratory work.	Three.
<p>Note. The number of analysts, Deputy/ Assistant Analysts and laboratory support staff may be reduced if the laboratory is to be certified for testing only some pollutants or National Environmental Quality Standards parameters [see regulation 5(2)].</p>				

SCHEDULE IV [See regulations 5(1) (c) and 5(2)] ANALYTICAL EQUIPMENT AND APPARATUS OF AN ENVIRONMENTAL LABORATORY			
S.No	Description.	Requirements.	
(1)	(2)	(3)	
1.	Analytical Instruments.	<p>A. For Liquid Effluents/Wastes:</p> <p>At least one of –</p> <ul style="list-style-type: none"> • Spectrophotometer; • Atomic Absorption Spectrophotometer; • High Performance Liquid Chromatograph; or • Gas Chromatograph; <p>and the following laboratory apparatus and wet analysis facilities-</p> <ul style="list-style-type: none"> • Conductivity Meter; • pH meter; • Analytical Balances; • Biology Oxygen Demand determination facilities; • Liquid Effluent Samplers; • Thermometer/temperature measuring devices; • Incubator (minimum range 15-400 C); • Furnaces; • Ovens; • Refrigerators; and • A-grade volumetric glass apparatus. <p>B. For Gaseous Emissions:</p> <ul style="list-style-type: none"> • At least one of Air/Dust Sampler; • Analyzer (continuous monitoring and portable) for measuring oxides of sulfur, oxides of nitrogen, monoxide, hydrogen fluoride and hydrogen sulfides; • Smoke Analyzer or Ringlemann Scale; or • Emission Analyzer. <p>C. For Noise:</p> <ul style="list-style-type: none"> • Sound Level Meter with equivalent noise level measuring facilities; and 	

		<ul style="list-style-type: none"> Noise Frequency Analyzer.
2.	Back-up equipment and apparatus.	Adequate stocks in store.
3.	Calibration.	Arrangements for regular calibration and checks for proper maintenance of record pertaining thereto.
4.	Chemicals.	Adequate stocks and store and assured regular source of supply.
5.	Test Reporting System.	Comprehensive and scientific system of reporting test results supported by data handling facilities.

<p align="center">SCHEDULE V [See regulations 8(2) and 13(4)] PAKISTAN ENVIRONMENTAL PROTECTION AGENCY CERTIFICATE REGARDING CERTIFICATION AS AN ENVIRONMENTAL LABORATORY</p> <p>In exercise of power conferred by clause (k) of sub section (1) of section 6 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Agency is pleased to certify the laboratory mentioned below as an Environmental Laboratory.</p> <p>Name. _____</p> <p>Address. _____</p> <p>Certificate No. _____</p> <p>1. This certification is valid for (delete items not applicable): (a) Liquid effluents/wastes. (b) Gaseous emissions. (c) Noise. (d) Only the following National Environmental Quality Standards parameters: _____</p>

<p>2. This certification is subject to the conditions laid down in regulation 9 of the National Environmental Quality Standards (Certification of Environmental Laboratories) Regulations, 1999.</p> <p>3. This certificate is valid until _____ unless earlier suspended or revoked.</p> <p>Dated. _____</p>	<p>Director General Federal Agency, Islamabad.</p>

<div><div>SCHEDULE VI</div><div>(See regulation 12)</div><div>(NAME OF THE ENVIRONMENTAL LABORATORY THAT CARRIED OUT THE ANALYSIS) CHEMICAL ANALYSIS TEST REPORT</div></div>									
Report reference No: _____ Date: _____									
Name of industry: _____									
Address: _____									
_____ Telephone No. _____									
Nature of sample: _____									
Date of sample received: _____ (Grab/Composite).									
Date of sample collection: _____									
Sample collected/sent by: _____									
Date of completion of analysis: _____									
S.No.	Parameters.	NEQS Limits.	Concentration	Method used.	Remarks.				
A. Field Analysis									

B. Lab. Analysis.				
National Environmental Quality Standards.				
1. Sample analyzed by: _____				
Name of Chief Analyst with seal: _____				
2. Signature of incharge of the environmental laboratory: _____				
Name: _____				
Designation: _____				
Date: _____				
RIAZ AHMAD BHATTI Deputy Secretary (Admn)				



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