Environmental Performance Rating and Public Disclosure: Strategic policy to promote corporate environmental management

Main Proposal and Messages

- The environmental performance rating and public disclosure (EPRD) approach involves the disclosure of the rating of polluter’s environmental performance in a manner that is clear and understandable to a large and varied audience.
- EPRD programmes are widely considered successful, cost effective strategies to promote corporate environmental management in many aspects. However, the implementation of these programmes, although increasing worldwide, is still limited.
- This policy brief is mainly addressed to policy-makers in developing countries who are not aware of the existence of EPRD programmes to raise their awareness, so they might consider using them as policy option to promote corporate environmental management in their countries.
- EPRD programmes can raise environmental concerns of various stakeholders and bring them on board, together with environmental agencies, to generate pressures on environmentally bad performing companies to improve their environmental performance. These programmes should not be considered as a stand-alone policy, but rather should be coupled with other measures to promote corporate environmental management on a larger scale.
- It is very important to build a network/platform, where environmental agencies who have implemented EPRD can interact among each other to improve their programmes, as well as to communicate their experiences with policy-makers who are interested in implementing similar programmes in their own countries.
I Introduction

Environmental regulators have for many years been working to promote corporate environmental management (CEM) through traditional policy measures, such as command and control, and market-based instruments. These approaches have been introduced with varying degree of success among countries. Since the late 1990s, corporate environmental information disclosure (CEID) approach has emerged as an alternative or complementary approach to create an incentive for CEM and pollution control. There are various types of CEID depending on the way information is conveyed. The environmental performance rating and public disclosure programme (EPRD) is one of them.

EPRD have been touted as a means of circumventing perhaps the most daunting obstacle to pollution in developing countries: weak environmental regulation institutions and limited inspection and enforcement budget (OECD 2007). The underlying assumption is that EPRD programmes can raise environmental concerns of various stakeholders and bring them on board, together with environmental agencies, to generate pressures on environmentally bad performing companies to improve their environmental performance. Hence, they can enable environmental agencies in developing countries to monitor their limited efforts and resources more effectively.

This policy brief gives an overview about EPRD programmes and enumerates several lessons learnt from programmes which have been implemented in developing countries. It concludes by giving several policy recommendations on how to use EPRD programmes to promote CEM on a larger scale. The focus on EPRD programme does not mean that other types of CEID are not promising strategies to improve CEM, or that EPRD programmes are comparatively effective, but just to introduce EPRD programmes to policymakers in developing countries, who are not aware of the existence of these programmes, so they may consider implementing them in their country as well.

2 Environmental Performance Rating and Public Disclosure Programmes

2.1 Overview

EPRD programmes are simple and based on a coding system, such as colour coding, that is easy for the public to understand. They are not just a wealth of data that stakeholders find difficult to interpret. Furthermore, these programmes are conducted by more reliable agencies and not solely based on self certification, without fixed criteria or independent outside review. Last but not least, these programmes are not based on emission or hazard indicators only, but they also take into account the corporate environmental management issues.

EPRD are government driven or government supported programmes allowing the government to set up an environmental coding system to categorise the environmental performance of companies, which voluntarily choose to participate in the programme. First, participating companies are rated from best to worst using different colours depending on their compliance to regulatory standards (Figure 1), and then this rating is publicly disclosed to a large and varied audience.

<table>
<thead>
<tr>
<th>Gold</th>
<th>Use of best available clean technology; promote zero discharge of pollutants; and conduct environmental impact management efforts with very satisfactory results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Most standards met, good maintenance, housekeeping</td>
</tr>
<tr>
<td>Blue</td>
<td>Efforts meet some minimum standards</td>
</tr>
<tr>
<td>Red</td>
<td>Efforts do not meet minimum standards</td>
</tr>
<tr>
<td>Black</td>
<td>No environmental management effort, serious environmental degradation</td>
</tr>
</tbody>
</table>

Figure 1  Simplified criteria and level of performance in EPRD programme
Table 1  Several EPRPD programmes implemented worldwide

<table>
<thead>
<tr>
<th>Title</th>
<th>Asia</th>
<th>Africa</th>
<th>Europe</th>
</tr>
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<tbody>
<tr>
<td>PROPER</td>
<td>Green Watch</td>
<td>AKOBEN</td>
<td>PRIDE system</td>
</tr>
<tr>
<td>Indonesia</td>
<td>China</td>
<td>Ghana</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Environmental Protection Agency in Indonesia (BAPEDAL)</td>
<td>State Environmental Protection Administration (SEPA)</td>
<td>Environmental Protection Agency, Government of Ghana (EPA)</td>
<td>Regional Administration of Environment and Natural Resources in Lviv Oblast</td>
</tr>
<tr>
<td>Nationwide</td>
<td>Regional (1998 in Zhenjiang and Hohhot in 2000), then nationwide</td>
<td>Nationwide</td>
<td>Regional (Lviv Oblast)</td>
</tr>
<tr>
<td>Industrial sector</td>
<td>Industrial sector</td>
<td>Manufacturing and mining operations</td>
<td>Industrial sector</td>
</tr>
<tr>
<td>Black, Red, Blue, Green, Gold</td>
<td>Black, Red, Yellow, Blue, Green</td>
<td>Red, Orange, Blue, Green, Gold</td>
<td>Black, Red, Yellow, Blue, Green</td>
</tr>
</tbody>
</table>

Source: Produced by Author

EPRD programmes have been implemented in several developing countries (Table 1) and showed promising results in improving environmental performance of companies in these countries.

2.2 Functional Mechanism of EPRD

The functional mechanism of EPRD, is outlined in Figure 2, and is explained as follows: First, the

![Figure 2](image-url)
environmental performance rating of one company participating in the programme, is disclosed through several mean of disclosure. Then, the disclosed rating is received and processed by the company’s stakeholders (government, communities, consumers, investors, etc.) as well as by people within the company (owner, managers, workers, etc.). If the environmental performance of the company is poorly rated, this will trigger external as well as internal pressures on the company to improve it. Finally, if the company is sensitive about its reputation and if it cares about the public image projected by its environmental performances, it will respond to both pressures by improving its corporate environmental management.

2.2.1 External Pressures

The external pressures on the company are grouped here in two categories: regulative pressures and market pressures.

• Regulative Pressures
  - Formal Regulative Pressure
    EPRD programme provides competitive incentives for superior performers to identify themselves; hence it helps the regulators to identify poor performers. In this case, the limited inspection and enforcement budget of environmental agencies can be applied to poor performers, thereby increasing the expected cost of non-compliance through the increased probability of inspection and enforcement.
  - Informal Regulative Pressure
    EPRD programme catalyses the action of communities, NGOs, and respected civil society organisations to call for and execute boycotts or use environmental class action suits as a means of influencing the environmental performance of poor rated companies. With the current limited capacity of the government to inspect enterprises, complaints from local communities will help agencies to prioritise the inspections.

• Market Pressures
  - Consumers Pressure
    Depending on the environmental preference of consumers, market demand can be adversely affected by a low rating of corporate environmental performance. Boycotting environmentally damaging products or products of poor environmentally performing companies represents a pressure on these companies to improve their environmental management, and overall environmental performance.
  - Investors Pressure
    The available rating of environmental performance of a company can attract attention of Socially Responsible Investors (SRI) or cause them to shift away from potential investment. Poor environmentally performing companies will find it difficult to attract these SRIs and/or raise funds unless they improve their environmental performance.

2.2.2 Internal Pressure

Since companies compete with their public image and reputation, the EPRD programme creates dynamic incentives for environmental improvement. It becomes possible for a company to observe the rates of environmental improvement relative to its historical baseline and undertake appropriate measures for continual improvement.

3 Lesson Learned from Implemented EPRD Programmes in Developing Countries

3.1 Positive Impacts of EPRD Programmes

Extensive research on the rational of using EPRD programmes for promoting CEM can be found in the literature. The consensus is that these programmes are successful, cost effective strategies to improve corporate environmental performance and overall corporate environmental management in many aspects.

For example in a study conducted by IGES-KRC, EPRD in China was found to improve the environmental performance of companies. The ratio of companies covered by the study, which improved their ranking in 2006 from 2005, was 46.9%, 28.7% and 2% respectively for previously coloured Red, Yellow and Blue (Liu et al. 2009). In a study conducted by World Bank, EPRD in Indonesia was found to reduce
pollution by over 40% in a trial group of 187 companies between December 1995 and July 1997, and increasing overall performance by around 34%. At the launch of the programme only 35% of the rated plants were in compliance while two years later the number of compliant factories reached 50% (World Bank 2006). Last but not least, Nicholas et al. (2008) found that companies participating in EPRD in India would decrease their annual average discharge of chemical oxygen demand (COD) by 63% between 1996 and 2003 compared to a decrease by 54% in a company not participating in the programme. The effect of the disclosure programme is even stronger regarding total suspended solid (TSS), where the emission would decrease by 65% in a company participating in EPRD compared to a decrease by 46% in a company not participating in the programme.

EPRD helps also to change the attitude and the behaviour of companies. For example, the study conducted by IGES-KRC found that companies located in Changshu city participating in Green Watch (China) confirmed that the programme encouraged them to enhance their daily environmental maintenance, such as maintaining effluent outlets and strengthening institutional arrangement for environmental management (Liu et al. 2009). In addition, firms participating in EPRD programme implemented in Ghana have significantly increased the number of monitoring sample per month to avoid bad rating by the programme. (Box1).

Based on the administration cost approach, EPRD is a more effective programme to be carried out compared to litigation. For example, according to an analysis of OECD, a budget of USD31,400 should be provided to resolve a single environmental case of non-compliance in the traditional prosecution way in Indonesia, not to mention the long period of time needed. However, the cost needed to be provided by the government to improve the performance of environmental management of one industry under PROPER during 2002-2004 was USD2,362 (OECD 2007).

As a response to the success of EPRD in Indonesia, this scheme has been applied over the last decade in many developing countries worldwide, including the Philippines, India, Vietnam and China in Asia, Ghana in Africa, and Ukraine and Poland in Europe. In addition, the number of participating companies within a single programme has been increasing. For example, the number of companies participating in PROPER has increased from 85 in 2002-2003 to 627 in 2008-2009 (PROPER 2009). The number of companies participating in Green Watch in Jiangsu (China) has increased from 1,069 in 2001 to 16,464 in 2008 (JSEPB)1. Furthermore, as result of the success of some programme in a specific region, their implementation has been expanded nationwide. Last but not least, it is worth mentioning that industrialized countries (US, UK, Australia, Japan, etc) have

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**Box 1**

The EPRD programme implemented in Ghana, namely the “AKOBEN” rating system, applies strict criteria for monitoring and reporting behaviour of companies, which are important corporate environmental management practices. Companies participating in the programme can receive “Orange” grade (bad grade) if they fail to report their monthly monitoring data. According to EPA Ghana, the number of monthly samples of participating mining companies has increased significantly since the programme was implemented, which demonstrates that these companies are worry about bad rating and they try to comply with the basic requirement on environmental management.

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1 Jiangsu Province Environmental Protection Bureau (JSEPB) home page: http://jshb.gov.cn (in Chinese)
designed similar system, building energy efficiency rating systems, in order to guide and distinguish high-performance commercial and institutional projects including office buildings, high-rise residential buildings, etc, which mean that rating systems may have a wider range of applicability, although they may not be very useful for pollution control activities of companies in developed countries.

3.2 Functioning of EPRD Programmes

EPRD promote corporate environmental managements through public pressure rather than through formal enforcement actions. They are able to generate additional social and/or market pressures or appraisals for further pollution control (Guzun et al. 2011). The experience from the applied programmes shows that even the low-income communities may be willing and able to put pressure on polluters and influence their environmental behaviour when clear, facility-specific information on corporate environmental behaviour and performance is available. In their turn, enterprises exhibit an increased openness to improve their environmental management practices in response to such pressure (OECD 2007).

A study carried by Blackman et al. (2004) about PROPER functioning between 1995-1998 showed that the most important means by which PROPER encouraged emissions reductions is enhancing company owners’ and managers’ information about their own company’s emissions and abatement opportunities—the environmental audit effect. The majority (60%) of the respondents to the survey indicated that the critical means by which PROPER ratings spur improved performance is providing information to plant managers and owners about their own plant’s emissions and abatement opportunities via the one-page performance reports issued by Indonesia’s environmental agency. This is not to say that the survey respondents did not perceive factors external to the firm to be important. Some 36% of the respondents viewed that bad PROPER ratings increased pressure from communities living around the factories, and around a 25% of the respondents viewed the PROPER rating as resulting in increased pressure from the media. A study carried by IGES-KRC about Green Watch in China found that the programme helps firm to be more reflexive for their environmental problems. Complying with environmental regulations is still a determining factor in influencing a company’s environmental performance. Chinese companies are mainly reactive to the mandatory environmental requirements. The deterrent and enhancement functions of the programme appear to be relatively weak due to the marginal pressure originated from market actors like investor, business partners and consumers, etc. The study also found that the role of the public like neighbouring communities and environmental NGOs are also found to be weak (Liu et al. 2009).

3.3 Shortcoming of EPRD Programmes

There is a wide consensus that EPRD programmes are successful, cost effective strategies to bring companies into compliance with environmental performance standards. However, there are several shortcomings of these programmes such as the following:

• EPRD programmes seem to motivate more significant emissions reductions for companies with poorer performance records, but not among those with better performance. For example, in the PROPER programme implemented in Indonesia, while the number of companies rated “blue” (blue and blue minus) has increased from 51 in 2002-2003 to 399 in 2008-2009, only one company was rated “gold” in 2008 (Figure 3).

The same case was for the Green Watch programme being implemented in Jiangsu province (China). While the ratio of companies with bad performance records (rated “red” or “black”) decreased from 17.18% to 4.33% between 2001 and 2008, the ratio of companies with very good performance records (rated “green”) only showed a slight increase from 7.27% to 9.01% during the same period (Rabhi et al. 2010).

• EPRD programmes were found also to be more effective for large scale industries compared to small scale industries (SCIs). Furthermore, PROPER for example was more effective for multinational companies compared to state-owned and private companies (PROPER 2009).

• EPRD programmes are widely considered successful and their implementation is increasing
worldwide. However, within a single EPRD programme, the number of companies involved is still limited. For example, only 45 enterprises were rated in the EPRD programme implemented in Lviv region (Ukraine) in 2006 and 2007. In AKOBEN programme implemented in Ghana, only 60 companies (49 manufacturing and 11 mining) are currently rated, and around 100 companies are expected to be rated in 2012.

4 Conclusion and Recommendation

The implementation of environmental performance rating and public disclosure programmes is increasing in many developing countries worldwide. In countries where they have been implemented, these programmes showed positive results, as well as some shortcoming. Overall, they are widely considered as promising, cost effective tools to bring companies into compliance and to improve their environmental managements. EPRD programmes can be considered as strategic policy option for policy makers in developing countries, however they should not be considered as a standalone policy. They should be coupled with other measures such as the following to promote CEM on a large scale:

- EPRD is an effective tool to bring companies into compliance with environmental performance standards. In this regard, regulators can upgrade these standards with time to ensure that companies keep improving their performance so that they remain in compliance.

- EPRD helps with identifying the compliance level of various companies, which enable regulators to use more informed choices to strategically select policy tools. Measures such as increasing enforcement and inspection, and increasing non-compliance charges should be addressed to poor performers; however incentive measures such as publicly awarding good performers and giving preference to purchasing their products, through government green procurement programmes, should be addressed to good performers to encourage them to improve their environmental performance even further.

- EPRD may be not strong enough to directly promote the environmental management behaviour of small scale industries (SCIs). However, it may work indirectly through enhancing large companies and/or multinational companies to assist SCIs in this regard. This could be through including in the list of criteria for the rating system a criterion related to the assistance of SCIs in term

![Figure 3 Number and rating change of companies covered by PROPER from 2002-2009](Source: Rabhi et al. (2010))
of environmental management, such as “effort to green supply chain management”. So large companies will receive lower rating if they fail to clear this criterion.

• To promote the voluntary participation of companies in EPRD programmes, policy makers and especially leading agencies of EPRD programmes should consult with, and actively engage, representatives of these companies in each step of the design and implementation of the programmes. Mandating the participation of companies can also be considered as a measure to increase the number of participating firms, but this should be after extensive consultation with, and active engagement of, other interested and potentially impacted parties and stakeholders to ensure the effectiveness of EPRD programmes.

• Design a EPRD programme in such a way that it allows modification, adjustment, and improvement with time.

• At the international level, it is very important to build a network/platform, where environmental agencies who have implemented EPRD programmes can interact among each other to improve their programmes, and to communicate their experiences with policy-makers who are interested in implementing similar programmes in their own countries.

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**Reference**