

# The Fallacy Of Assuming Equality: Evidence Showing Vastly Different Weighting Of The Global Reporting Initiative's Key Items

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## ABSTRACT

*The press represents the media as a key stakeholder group that is largely ignored by the strategic management branch of stakeholder theory. This study analyses over 2000 articles of the local, regional and national coverage of environmental reporting items to measure press coverage priorities as the weighting mechanism for importance of various environmental issues. The results show a dramatically diverse coverage of the 35 items of the Global Reporting Initiative (GRI). This paper thus provides stakeholder evidence of environmental press coverage demonstrating hugely diverse priorities. The findings sharply question the assumption of equal weightings for communication studies employing the popular Global Reporting Initiative (2002; 2006). This study posits that such a fundamentally different index weighting provides a more relevant and useful guide for developing countries wishing to take up the spirit of the global reporting initiative. The need for country/cultural specific weightings is advocated.*

**Keywords:** Stakeholder Theory, Press Coverage, Global Reporting Initiative, Index Weightings

## INTRODUCTION

This paper is an empirical study of the Indonesian press's 2005 environmental coverage, using the Global Reporting Initiative's (2002) 35 environmental reporting items as the key template. While prior research on companies' coverage of these items has been conducted in an Indonesian context (Cahaya, Porter and Brown, 2006), very little research has been undertaken on the press's role in changing the priorities surrounding environmental issues. This is surprising given the press's ability to shape public opinion (Ader, 1995; Brown and Deegan, 1998), and the very serious environmental problems facing Indonesia (Walhi, 2007; Greenpeace, 2006).

Indonesia is located between two great oceans (Pacific and Indian) and two continents (Asia and Australia) and is the fourth most populous country in the world (World Bank, 2007). It has a population of 222 million people, many of whom are poor (17%)[1] or unemployed (10.45%), with a low level of income (GDP/capita US\$1663 in 2006) and high level of inflation (6.60% in 2006) (World Bank, 2007; Biro Pusat Statistik, 2007). Although Indonesia possesses a rich natural environment blessed with one of the world's largest rain forests and reef systems (EIA, 2007), it faces many contentious environmental problems including air, water and marine pollution; river basin damage; degradation of biodiversity; hazardous waste; over-exploitation of natural resources; and forest damage (WWF, 2007). Industrial pollution combined with pollution from urban sources (vehicle emissions, human waste and solid waste) poses an immediate threat to health and human welfare (World Bank, 2004), which, in turn, is exacerbated by growing congestion, rapid economic development, considerable population expansion, and regulatory and legislative neglect of natural environmental issues (EIA, 2007; Walhi, 2006).

Despite Indonesia's environmental problems, there are no specific mandatory reporting guidelines for Indonesian companies on generating environmental information for their stakeholders. The Indonesian Accountant Association (Ikatan Akuntan Indonesia, 2002), which governs the accounting system in Indonesia, primarily adopted International Financial Reporting Standards (IFRS) as the basis of the present 59 national standards (Pernyataan Standar Akuntansi Keuangan, PSAK) (Saudagaran and Diga, 1997)[2]. However, none of the IFRS or PSAK requires substantial disclosure of environmental data (see Porter, Brown, Purushothaman, and Scharl, 2006 for a critique of the paucity of IFRS environmental accounting)[3]. Therefore, usage of an appropriate designed and weighted environmental index is arguably of prime importance as a method of best generating information to enhance public policy discussions (Gray, Kouhy and Lavers, 1995a; 1995b). The issue is whether the internationally well known GRI (2002; 2006) index provides criteria analysis in a country specific context.

Against this voluntary Indonesian environmental reporting background, resides the press which is described as one of the most prominent and powerful stakeholder groups in Indonesia affairs (Oetama, 2005; Sushartami, 2003). The press has informational (Miller, 2006; Ader, 1995; Donohue, Tichenor, and Olien., 1995; Brown and Deegan, 1998; Baron, 2005), critical (Thogersen, 2006; Hampton, 2005) and evaluative (Thogersen, 2006; Hampton, 2005; Splichal, 2002) roles in society, especially in a developing country context (Bokhorst-Heng, 2002) and, like their Indonesian company counterparts, have no mandatory requirements to inform the public on environmental reporting issues. However, many organs of the press have an ethical duty to serve as watchdog for society (Miller, 2006).

Accordingly, this paper considers the environmental reporting issues, as explicated by the GRI (2002), covered by the Indonesian press. The GRI is widely considered a globally sophisticated environmental reporting guideline for entities and their stakeholders in articulating and understanding the contribution of companies to sustainable development (GRI, 2002). The GRI is a "multi-stakeholder governed institution collaborating to provide the global standards in sustainability reporting (GRI <http://www.globalreporting.org/AboutGRI/WhoWeAre> accessed 13 March 2008). It provides an extensive list of 35 environmental reporting items). This study provides evidence regarding the appropriateness (or not) of using the GRI (2002; 2006) as the context for assessing the key environmental issues raised by the Indonesian press.

This is an important paper because it not only presents the viewpoint of a powerful Indonesian secondary group but develops an Indonesian Environmental Reporting Index to reflect the coverage given by the Indonesian press on the 35 items of the Global Reporting Initiative. The GRI is, thus, given relevancy, not as some distant communication initiative transferred to distant fields, but as something perceived and weighed by an Indonesian group with extensive links with the readership of Indonesia[4]. The paper is also critically important for its comments on the strands of stakeholder theory for it raises an Indonesian context rather than a developed country one where most of the stakeholder theory has evolved.

This paper is structured as follows. The following section examines the role of the press as a key stakeholder in developing countries. It considers their role from both ethical and financial viewpoints and their influence in affairs of human welfare. The 'Research Methodology' section describes the research methods used in the study, particularly providing details of the breakdown of the large sample of Indonesian newspapers, and the steps involved in categorizing the coverage of environmental articles by Indonesian press. This is followed by the descriptive and inferential results of the study. The paper concludes with a discussion on implications.

## **THE PRESS AS A KEY STAKEHOLDER IN DEVELOPING COUNTRIES SUCH AS INDONESIA**

There are two branches of stakeholder classification - strategic management and moral-based branches (Harrison and Freeman, 1999; Frooman, 1999) – which dominates the stakeholder theory literature. The focus of the former branch is on managing the 'financial' stakeholders of the company for the benefit of the company's agenda and, thus, reflects a financially bound perspective, where strategic management of important stakeholders is given primacy. The focus of the latter branch emphasises the interests of all stakeholders in order to fulfill the broader perspective of satisfying as many stakeholders as possible, regardless of the strength of their economic relationship with the company (Frooman, 1999).

**Strategic Management (Financial Focus)**

From the strategic management perspective, there are two very different stakeholder groups that can, in varying degrees, influence or affect the existence of the company (Clarkson, 1995; Mellahi and Wood, 2003). They are primary and secondary stakeholder groups. A primary stakeholder group is “one without whose continuing participation the corporation cannot survive as a going concern” (Clarkson, 1995, p. 106). Shareholders and creditors (debt holders) are examples of primary stakeholder groups. Between the company and its primary stakeholder groups there is a very high level of interdependence. The primary stakeholders tend to be financially powerful stakeholders (Eesley and Lenox, 2006). A company suffers or collapses as a going concern without sufficient and satisfactory relationships with these groups; thus, there is a constant need to monitor and manage this primary stakeholder group to further the interests of the company (Clarkson, 1995; Mellahi and Wood, 2003).

In contrast, secondary stakeholder groups are defined as “those who influence or affect, or are influenced or affected by, the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival” (Clarkson, 1995, p. 107). Unlike the primary stakeholder groups, a company does not directly depend upon secondary stakeholder groups for its ongoing survival. Non-financial groups such as press, academicians and environmentalists are commonly classified as secondary stakeholders[5] (Eesley and Lenox, 2006).

**Moral Based (Broader Focus)**

In contrast to the narrower strategic management (financial focus) branch of stakeholder theory resides the moral-based (broader focus) branch which posits that companies have a moral commitment to advance all stakeholder interests (Harrison and Freeman, 1999), interest that may or may not align with environmental concerns. Werhane and Freeman (1997, p. 53) define moral view as “a mental and emotional standpoint from which all persons are seen as having a special dignity or worth, from the Golden Rule gets its force...”. The model envelops both the mental and emotional perspectives of individuals or institutions. Drawing on Werhane and Freeman (2004), Brown *et al.* (2004) classify stakeholder groups under four categories: core-financial, partial financial, non-financial virtue and non-financial duty.

The core-financial group is concerned with costs and benefits to the company, and the dominant ideological discourse of maximization of profit, self-interest and optimizing satisfaction and typically covers the stakeholder groups of investors, lenders/creditors, management, and directors (see Table 1).

**Table 1: Moral Based Classification of Stakeholders**

<b>Core-Financial</b>	<b>Partial Financial</b>		<b>Non-Financial Virtue</b>	<b>Non-Financial Duty</b>
Investors	Government Administrators	Employee Groups	Environmental Groups	Chieftains
Lenders-financial institutions	International Lending Organizations	Multilateral Donor/Aid Organizations	<b>Press (Media)</b>	Land Boards/Owners
Management			Universities	Royalty
Directors			Local community	Religious Groups
Politicians			Women’s groups	
Regional Organizations			Future generations	
<b>WESTERN-NARROW Viewpoint</b>		<b>WESTERN-BROAD Viewpoint</b>		<b>TRADITIONAL Viewpoint</b>

(Adopted from Brown, Tower and Taplin, 2004)

The core-financial perspective embraces a neo-liberal paradigm that underpins what many in contemporary society call rational economics (Stiglitz, 2002; Monbiot, 2000):

*The fundamental idea behind interest-based analysis is that the moral assessment of actions and policies depends solely on consequences, and that the only consequences that really matter are the interests of the parties affected (Werhane and Freeman, 1997, p. 55).*

Everett (2003) identified a disconnect by this type of group about the environment, reducing the environment as a thing to be exploited rather than a thing of wonder.

Partial-financial groups are less narrowly financially-bound than interest-based stakeholder groups as they are concerned about rights protection including rights to fair distribution of opportunities and wealth and rights to basic freedoms or liberties.

*Its central idea is that moral common sense is to be governed not by interest satisfaction, but by rights protection...rights to fair distribution of opportunities and wealth (contractarianism) and rights to basic freedoms or liberties (libertarianism) (Werhane and Freeman, 1997, p. 55).*

Typically government administrators, international lending organizations (such as the World Bank and International Monetary Fund), multilateral aid organizations and employees groups are considered rights-based stakeholders (Brown *et al.*, 2004). These stakeholder groups are less concerned with self-interest and maximization of profit than in ensuring the rights of a broader stakeholder who may have considerable interest in the preservation of the environment.

A responsibility to community or broader society is the concern of the non-financial duty based viewpoint. It is about playing a role in a large community.

*In the duty-based outlook, critical thinking turns ultimately on individuals conforming to the legitimately norms of a healthy community (Werhane and Freeman, 1997, p. 55).*

Here there is an emphasis on responsibility or duty to be loyal and honest to the public, society and government. Table 1 shows some examples of the duty-based groups, including chieftain, royalty, religious groups and landowners, all of whom are also classified as *Traditional stakeholders*.

The non-financial virtue stakeholder group recognizes actions and policies on the basis of the ethical genesis including prudence, temperance, justice and courage.

*The focus of virtue-based thinking is on developing habits of the heart, character traits, and acting on them. ...The most traditional short list of basic (or "cardinal") virtues includes prudence, temperance, courage, and justice (Werhane and Freeman, 1997, p. 56).*

Without virtuous people, society cannot function well and without a virtuous society individuals cannot realize a common good. Stakeholder groups that typically fall under this classification are environmental groups, press (media), and academicians as virtue based stakeholders. These constitute broader more egalitarian stakeholders, and generally have considerable interest in the environment.

## **THE PRESS**

As a non-financial virtue bound group, the press offers fertile ground for exploration in terms of its views on environmental issues. It has already been noted that the press, as a vital informational source (Miller, 2006), has power to influence public opinion (Ader, 1995; Donohue *et al.*, 1995; Brown and Deegan, 1998; Baron, 2005) and to critique modern society (Thogersen, 2006; Hampton, 2005). Because newspapers have important and powerful social controls (Thogersen, 2006; Hampton, 2005; Splichal, 2002) especially in a developing country context, this paper uses their coverage of important environmental issues as expounded by the Global Reporting Initiative (2002) index to gather an overall press viewpoint of Indonesian environmental issues.

Miller (2006) finds that the press plays an important role as a “watchdog”<sup>[6]</sup> in the early identification of accounting fraud both by original investigative reporting and retransmitting information from other sources. The press has ability to play “the role of guard dog”<sup>[7]</sup> for particular groups (Donohue *et al.*, 1995). The press is also an important source of information in which most people rely, for example, on environmental issues. Environment is an unobtrusive issue<sup>[8]</sup> in which people have little experience, thus, it is more likely that people rely on press publications as the primary source of information (Ader, 1995, Brown and Deegan, 1998).

The influence of the press is critical in a modern society because the press has significant power and societal influence (Thogersen, 2006; Hampton, 2005; Splichal, 2002). For example, the press has a significant impact on the environmental policy of companies (Baron, 2005). Thus, companies will supply greater environmental disclosures when press attention is greater (Brown and Deegan, 1998). Because very few studies have documented the role of press (Miller, 2006), investigating environmental news articles is an important stage in terms of developing an Indonesian Environmental Reporting Index (IER<sub>p</sub>). This paper uses the Indonesian press coverage to develop the IER<sub>p</sub> weightings. Press coverage is an important proxy measure for stakeholders’ demand (Brown and Deegan, 1998).

Newspapers, a key type of the media, are the most useful and most reliable source of information compared with other mass media variants such as television, radio or magazines especially in a developing country context (Bokhorst-Heng, 2002). In Indonesia, newspapers are frequently used to glean widespread responses to public needs and demands (Oetama, 2005; Sushartami, 2003). There are well-known stakeholder groups related to press publications, for example, interest groups in maintaining the rights of public and readers (audiences) (Splichal, 2002). By investigating Indonesian national, provincial and local newspapers during the entire calendar year of 2005 for their coverage of environmental information, as outlined by the GRI template, we are able to assess the relative importance of various environmental issues by this non-financial virtue bound organ.

## **GLOBAL REPORTING INITIATIVE’S (2002)**

The GRI is widely considered a sophisticated environmental reporting guideline for preparers to generate environmental information (Dixon, Mousa and Woodhead, 2005). It helps reporting companies and their stakeholders to articulate and understand the contribution of companies to sustainable development (GRI, 2002). It is also designed to be applicable to all sizes and types of companies in any location (GRI, 2002).

A particular facet of the GRI is that there is an implicit assumption that all 35 environmental items under its umbrella are equally important and, thus, equally weighted [9]. This is particularly problematic given that stakeholder groups, to whom the GRI is addressed, may be categorized as either financially-bound (core- or partial-) or non-financially bound (duty- or virtue- based), and that the GRI itself may have components categorized as financially framed or non-financially framed. This is all the more piquant given that the press positions itself is a non-financially virtue bound organization.

The following section outlines the research methodology adopted in analyzing the overall Indonesian press coverage of these 35 GRI items, the degree that these items are financial or non-financially oriented and the appropriateness of the equal weighting assumption inherent in the GRI list.

## **RESEARCH METHODOLOGY**

This study gathers online evidence from four Indonesian daily newspapers namely *Kompas*, *Suara Merdeka*, *Jawa Pos*, and *Solopos* on their coverage of environmental issues. Their scope covers all the three geographic venues: national, provincial, and local. *Kompas* is a national newspaper while *Suara Merdeka* (SM) and *Jawa Pos* (JP) are provincial and *Solopos* is local. These daily newspapers were selected as the press sample because they were the leading newspapers in their own geographic segment (Cohen, 1999). For example *Kompas*, with a circulation of 550,000 is the most ‘influential and important’ national newspaper (Wikipedia, 2007a); *Jawa Pos*, with a circulation of 300,000 is the leading provincial newspaper in East Java (Wikipedia, 2007b), as well as *Suara Merdeka*, has a 250,000 circulation in Central Java (Kartajaya, 2004). Moreover, *Solopos* is the leading daily paper in Surakarta/Solo (Wikipedia, 2007c). These newspapers are selected because they cover environmental issues in all geographic regions of Indonesia. All newspaper articles were written in Indonesian.

Each environmental newspaper article theme was then categorized by the GRI’s (2002) extensive template of 35 environmental reporting items. It was possible for any article to fall under more than one environmental reporting item, and for most articles this was the case. The GRI (2002) document argues that these 35 environmental indicators reflect the inputs, the outputs and the modes of impact of a company on the environment.

The study used descriptive and inferential statistical techniques t-tests, ANOVA and Tukey HSD tests to generalize[11] the press’s coverage of GRI issues. Textual analysis was also used to add further insights to the findings.

**RESULTS**

**Table 2: Frequency of Reported Items and Ratings**

No	GRI Item	Views	National		Provincial		Local		Ratings*
			Score	%	Score	%	Score	%	
1	Impact of Using Water	B	198	6.20	349	8.13	46	13.53	9.29
2	Incidents and Fines	F	247	7.74	387	9.02	32	9.41	8.72
3	Programs for Protection	B	197	6.17	342	7.97	18	5.29	6.48
4	Waste by Type	F	133	4.17	237	5.52	25	7.35	5.68
5	Impacts of Activities	B	191	5.98	232	5.41	17	5.00	5.46
6	Materials by Type	F	211	6.61	269	6.27	10	2.94	5.27
7	Environmental Expenses	F	181	5.67	229	5.34	10	2.94	4.65
8	Discharges Water	F	86	2.69	127	2.96	27	7.94	4.53
9	Other Air Emissions	B	145	4.54	235	5.48	11	3.24	4.42
10	Withdrawals of Ground Water	F	86	2.69	112	2.61	24	7.06	4.12
11	Land Information	B	159	4.98	163	3.80	12	3.53	4.10
12	Volume of Water Use	F	70	2.19	110	2.56	25	7.35	4.04
13	Energy Consumption	F	140	4.38	211	4.92	6	1.76	3.69
14	Performance of Supplier	B	135	4.23	139	3.24	11	3.24	3.57
15	Impact of Discharges Water	B	58	1.82	93	2.17	17	5.00	2.99
16	Impacts of Transportation	F	118	3.70	189	4.40	3	0.88	2.99
17	Impacts of Products	F	66	2.07	146	3.40	9	2.65	2.71
18	Land for Extraction	F	68	2.13	118	2.75	8	2.35	2.41
19	Spills of Chemicals	F	81	2.54	71	1.65	8	2.35	2.18
20	Indirect Energy	F	77	2.41	94	2.19	4	1.18	1.93
21	Renewable Initiatives	F	111	3.48	54	1.26	1	0.29	1.68
22	Habitat Changes	B	64	2.00	29	0.68	3	0.88	1.19
23	Other Indirect Energy	B	51	1.60	68	1.58	1	0.29	1.16
24	Recycling Water	B	42	1.32	41	0.96	3	0.88	1.05
25	Hazardous Waste	E	66	2.07	31	0.72	1	0.29	1.03
26	Impermeable Surface	B	29	0.91	48	1.12	2	0.59	0.87
27	Affected Red List Species	B	52	1.63	39	0.91	0	0.00	0.85
28	Impact of Activities on Protected Areas	B	39	1.22	26	0.61	2	0.59	0.81
29	Wastes of Material	F	25	0.78	29	0.68	1	0.29	0.58
30	Direct Energy	F	29	0.91	20	0.47	1	0.29	0.56
31	Greenhouse Gas Emissions (GGEs)	B	17	0.53	15	0.35	1	0.29	0.39
32	Recycling Materials	F	3	0.09	31	0.72	0	0.00	0.27
33	Emissions of Ozone Depleting Substances	B	10	0.31	4	0.09	1	0.29	0.23
34	Other Indirect GGEs	B	3	0.09	3	0.07	0	0.00	0.05
35	Operations in Protected Areas	F	5	0.16	0	0.00	0	0.00	0.05
Total			3193	100	4291	100	340	100	100

\* Each of the three types of press is equally weighted.  
 Rating = (Percentage of national press + provincial press + local press) / 3  
 The analysis also differentiates those items of the GRI which are classified as financially bound (F) and those which are broadly (non-financially) bound (B)[10].

Table 2 shows the frequency of reporting items related to the scope of press and their respective ratings. Ratings are calculated by averaging the aggregate of the percentage coverage of environmental items of the national press, provincial press and local press.

As shown in Table 2, analysis of the 35 GRI environmental item ratings shows that all environmental items are covered by the Indonesian press. However, the frequency of reporting (priority) varies enormously. *Impact of Using Water* (9.29%), *Incidents and Fines* (8.72%) and *Program for Protection* (6.48%) gained the highest overall coverage (ratings). The highest covered item *Impact of Using Water* was rated 6% by the national press; 8% by the provincial press and 14% by the local press. Use of water was clearly a critical issue at each of the local, provincial and national levels.

The second highest rated environmental item *Incidents and Fines* (8.72%) had national coverage of 7.74%, provincial coverage of 9.02% and local coverage of 9.41%. The overarching legal aspect of this item highlights that regulatory elements play an important role within the Indonesian environment. It underlines the argument that the press believes that law enforcement is a key aspect to improving environment protection in Indonesia. *Program for Protection* (6.48%) was the third highest rated item. While the theme of environmental programs aroused national press coverage of 6.17%, provincial press was slightly higher at 7.97% and local press slightly lower at 5.29%.

The top three GRI items made up 24.49% of Indonesian environmental press coverage. Put another way, it can be said that a quarter of the press's attention focused on these three environmental items [13]. Other highly covered GRI environmental issues were *Waste by Type* (5.68%), *Impacts of Activities* (5.46%), *Materials by Types* (5.27%), *Environmental Expenses* (4.65%), *Discharges Water* (4.53%), *Other Air Emissions* (4.42%) and *Withdrawals of Ground Water* (4.12%). The top ten rated GRI items by Indonesia's overall press amounted to 58.62%.

Although the press clearly gave much more priority to domestic issues, some issues were given minimal coverage. They were issues such as *Impact of Activities on Protected Areas* (0.81%) and *Operations in Protected Areas* (0.05%).

Noticeably, all environmental global issues have a low priority, highlighting the fallacy of assuming equal importance of environmental items (GRI 2002) especially in a unique country specific context. For instance, the Table 4 data shows the Indonesian press provides far more attention to domestic environmental issues and virtually ignores the wider global issues. Global environmental issues, such as *GGEs*, *Indirect GGEs* and *Emission of Ozone Depleting Substances*, were far less covered by the press and are arguably considered of minimal interest. The local press priorities were especially low with zero or very little attention to such global issues.

National, provincial and local press placed different priorities on environmental aspects. For example, local press focused more to *Water* issues whereas national and provincial press prioritized *Environmental Incidents and Fines*. However, there was an overall a similarity of themes amongst them. Overall, the differences and similarities on environmental focus from these three types of newspapers enriched the weightings of the IER<sub>p</sub> index.

An important finding is that there is no statistical evidence to show that the Indonesian press covered financially bound GRI items more than broadly based GRI items. Independent Samples t-test results (not shown for brevity) show that there is insignificant difference between financial and broader coverage ( $t = 0.401$  and  $p\text{-value} = 0.691$ ). This finding is consistent with the statistical results for local ( $t = 0.315$  and  $p\text{-value} = 0.755$ ), provincial ( $t = 0.422$  and  $p\text{-value} = 0.676$ ) and national press ( $t = 0.347$  and  $p\text{-value} = 0.731$ ). Similar patterns between financial and broader perspectives are found in national, provincial and local press environmental coverage. Thus, the broader Indonesian stakeholders, represented by the press, prioritised broader as well as economic items.

#### **INDONESIAN ENVIRONMENTAL REPORTING INDEX BY PRESS WEIGHTING (IER<sub>p</sub>)**

From the environmental ratings scores, it is possible to develop a more appropriate weighted Indonesian Environmental Reporting Index (IER<sub>p</sub>) derived from environmental coverage weighting by national, provincial and

local press of Indonesia to the GRI (2002) template. This IER<sub>p</sub> is calculated by dividing the press coverage priorities (see Table 3) by the mean average score. The Table 3 weighted index portrays a truer Indonesian rating of the relative importance of environmental items.

Table 3: IER<sub>p</sub> Computation

No	IER Items	Press Coverage Priorities (see Table 4)	IER <sub>p</sub> Index (weighted)
1	Impact of Using Water	9.29	3.25
2	Incidents and Fines	8.72	3.05
3	Programs for Protection	6.48	2.27
4	Waste by Type	5.68	1.99
5	Impacts of Activities	5.46	1.91
6	Materials by Type	5.27	1.84
7	Environmental Expense	4.65	1.63
8	Discharges Water	4.53	1.58
9	Other Air Emissions	4.42	1.54
10	Withdrawals of Ground Water	4.12	1.44
11	Land Information	4.10	1.43
12	Volume of Water Use	4.04	1.41
13	Energy Consumption	3.69	1.29
14	Performance of Supplier	3.57	1.25
15	Impact of Discharges Water	2.99	1.05
16	Impacts of Transportation	2.99	1.05
17	Impacts of Products	2.71	0.95
18	Land for Extraction	2.41	0.84
19	Spills of Chemicals	2.18	0.76
20	Indirect Energy	1.93	0.67
21	Renewable Initiatives	1.68	0.59
22	Habitat Changes	1.19	0.42
23	Other Indirect Energy	1.16	0.41
24	Recycling Water	1.05	0.37
25	Hazardous Waste	1.03	0.36
26	Impermeable Surface	0.87	0.30
27	Affected Red List Species	0.85	0.30
28	Impact of Activities on Protected Areas	0.81	0.28
29	Wastes of Material	0.58	0.20
30	Direct Energy	0.56	0.19
31	Greenhouse Gas Emissions (GGEs)	0.39	0.14
32	Recycling Materials	0.27	0.10
33	Emissions of Ozone Depleting Substances	0.23	0.08
34	Other Indirect GGEs	0.05	0.02
35	Operations in Protected Areas	0.05	0.02
	Mean	2.86	1.00

\* Index is computed from rating of an item divided by overall mean of 2.86. For example *Impact of Using Water* has index of 3.25 (= 9.29/2.86).

IER<sub>p</sub> Index, with weighted ratings based on press publications, demonstrates the vastly divergent priorities with the highest rating 3.25 (*Impact of Using Water*). On the other end of the scale, global environmental issues such as *Hazardous Waste* (0.36), *Ozone Depleting Substances* (0.08) and *Operations in Protected Areas* (0.02) are apparently far lower priority environmental items weighted over 80 times less important. Such items are not considered as critical environmental issues in Indonesia.

The *Impact of Using Water* was ranked as the most important environmental item indicating that environmental use of water is of crucial importance in Indonesia. Although most Indonesian islands have many water sources, they continually face a serious water crisis (Ministry of Environment, 2004). Therefore, sound water management is considered critical in this country. The second highest priority was given to *Environmental Incidents and Fines* which is also a critical domestic environmental issue. Some argue that inadequate legal system is a factor that causes much of the environmental degradation in Indonesia. The third highest rating was *Program for Protection* (2.27). Much effort has been made recently by the Indonesian government to combat environmental degradation and damages (Ministry of Environment, 2004). There are programs involving many stakeholders, such as *PROPER*, *Superkasih*, *Blue Sky*, and *Bangun Praja* (good environmental governance).

In contrast, there were 19 environmental items with lesser levels of priority (less than 1.00). For example, the press published very few articles on *Hazardous Waste*; this is despite huge amounts of *Hazardous Waste* being imported into Pulau Galang Baru because of the weaknesses of regulatory procedures. *Land Extraction* activities were also seldom reported. Overall, global environmental issues had little press coverage. For example, *Emission of Depletion of Ozone Substances* (0.19%) and *Indirect Greenhouse Effects* (0.08%) were ranked very lowly and received very little attention from the Indonesian press. Press publications were far more focused on domestic issues compared to global issues.

## CONCLUSION

The results of the study show that all 35 GRI environmental items were covered, in vastly varying degrees, by Indonesian press articles, showing that some items of the GRI template, had relevance to this *non-financial virtue* Indonesian secondary stakeholder group. The moral-model stakeholder approach proposes that an Indonesian company needs to consider the interests of all stakeholders affected by the company, not least the interests of the press. The press's interest in environmental items by its extensive coverage suggests companies need to consider the interests of secondary stakeholder groups for the press is has produced both financial and non-financial coverage of environmental issues that has the possibility of shaping mindsets of other financial (primary) and broad (secondary) stakeholder groups. The press has the ability to shape public opinion and also has an important role as 'watchdog'. Companies might consider press attention as a 'signal' for companies to supply environmental issues in order to satisfy the tenets of the moral model of stakeholder theory.

The results of the descriptive statistical analysis of GRI environmental items show that there are vast differences in ratings on Indonesian environmental issues. *Impact of Using Water*, *Incidents and Fines* and *Program for Protection* are very important environmental items according to the Indonesian press coverage. The evidence highlights that the Indonesian press provides far more attention to domestic environmental issues.

The key contribution of this study is the generation of a uniquely Indonesian environmental reporting (IER) disclosure index. The original GRI template, a western construct, is reworked and improved to add country-specific primacy. A large scale analysis of Indonesian press coverage is used as a proxy measure for broad stakeholder demand. This Indonesian disclosure index weighs far more heavily the domestic environmental issues most important to Indonesians. Importantly, broad as well as more economic-related data are sought by stakeholders. Future research is now needed to apply such a focused index to examine the communication patterns of Indonesian companies and public sector bodies.

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## NOTES

1. Poverty level is measured by the percentage of number of population below the poverty line divided by the total population. Poverty line per capita monthly is Rp 122,775 (equal to US\$13.20).
2. There are accounting standards for regulating 'high profile' industries, such as PSAK 29 (Accounting for Oil and Gas Industry), PSAK 32 (Accounting for Forestry Industry) and PSAK 33 (Accounting Standard for Mining Industry). However, these focus on measurement issues with little focus on disclosing GRI-style environmental issues. Thus, environmental reporting is effectively voluntary in Indonesia

3. Tangkilisan (2004) argues that the Indonesian environmental regulation (UU No.23 year 1997) is completely voluntary.
4. The difference between primary and secondary stakeholders is that a company has a clear and direct relationship with primary stakeholders whereas secondary stakeholders have a more indirect relationship with the firm (Clarkson, 1995).
5. Whilst, secondary stakeholder groups are not directly involved with company survival however they are able to indirectly affect the firm. For example, environmental groups could lobby governments to punish companies that have a poor environmental record. However, this influence is seen as indirect and far less consequential.
6. “Watchdog” refers to ‘a journalist alerting the public to an issue through press coverage just as a canine watchdog alerts others to a danger by barking’ (Miller, 2006, p. 1006).
7. “Guard dog” refers to the performance of press as ‘a sentry not for the community as a whole, but for those particular groups who have the power and influence to create and control their own security systems’ (Donohue *et al.*, 1995, p. 116).
8. There are two types of issues, obtrusive and unobtrusive issue. The first is an issue in which people had personal experience and otherwise is labeled an unobtrusive issue (Ader, 1995; Brown and Deegan, 1998).
9. The 35 GRI items are also classified by 10 overarching groups. Inputs used by most companies are represented by the items of *Materials* (two indicators), *Water* (four indicators) and *Energy* (five indicators), whilst *Emissions, Effluents and Waste* (nine indicators) represented the output of most companies. Modes of the environmental impact include *Products* (two indicators), *Suppliers* (one indicator), *Transportation* (one indicator) and *Biodiversity* (nine indicators). *Compliance* (one indicator) and *Expense* (one indicator) are specific measurements of managing environmental performance (GRI, 2002). Further categorization of the newspaper articles was made based on whether the newspaper article fell under any of these 10 overarching groups. However statistical analysis reveals no link between the press coverage priorities and these groupings.
10. Werhane and Freeman (1997) argue that the financial view relates to the firm’s profit maximization, the firm’s efficiencies of profit maximization and the firm’s opportunity costs. The most important point is that the firm’s profit maximization and the firm’s efficiencies of profit maximization become the primary standard of judgment to differentiate the narrow view from the broader concepts of stakeholder tenets. Thus, an item is classified as a financial item if the item relates to the firm’s profit maximization, efficiencies of profit maximization, firm’s opportunity costs, direct costs and expense. Otherwise it is classified as a broader item. Two meta categories are thus evolved in this paper. Four senior researchers in accounting and finance are asked to classify items into financial or broader items. This technique is used to avoid subjective classification solely by the authors since there is very little guidance in the past studies. In such method, it is very difficult to avoid subjective opinion from evaluators.
11. For validity and reliability reasons, several steps were taken to ensure that the data categorization process was accurate. An Indonesian accounting academic coded a sample of the newspaper articles to ensure the data collected by two Indonesian accounting academics were categorized as financially based or non-financially (broadly) based. A similar coding process was executed for the categorization by each of the 35 GRI items and by the categorization by each of the 10 GRI overarching groups. The results were then compared to the collected data. There was 98%, 97% and 98% accuracy rates, respectably. Where difficulties arose in classification, the three Indonesian accounting academics conferred and resolved the problem by checking through both the newspaper article for key statements that confirmed this overall categorization.
12. Press publications were collected from internet sources.
13. There were some topical differences across the different press segments. For example *Kompas*, as national press, placed emphasis on *Incidents and Fines* (7.74%), *Materials by Type* (6.61%) and *Impact of Using Water* (6.20%) whereas provincial press placed a greater emphasis on *Incidents and Fines* (9.02%), *Impact of Using Water* (8.13%) and *Programs for Protection* (7.97%).