Social responsibility under the perspective of sustainability

Social Responsibility under the perspective of sustainability: the Medium Valley of Paraíba and the industrial solid waste

Marta Maria Nogueira Assad
EAESP/FGV, Brazil
E-mail: assad@gvmail.br

ABSTRACT

Growing production and consumption led to one of the most serious environmental problems of present time: solid waste. The aggravating problems caused by solid waste have increased the need for solutions. In São Paulo State, Brazil, and particularly in the Medium Valley of Paraíba, characterized by a large amount of industrial plants, one may observe a huge flow of solid waste into the industrial landfills, causing a shortening of the lifetime of such landfills. This article investigates the managerial actions, the ethics position, expressed by the levels of social involvement, and the integration of the industrial landfills, recycling and supervising body companies. It also investigates the levels of integration and social responsibility of these companies, regarding the environmental, economics and social sustainability, and also the correlations with the levels of recycling reached.
Key words: Ethics, Social Responsibility, Sustainability, Industrial Waste.

INTRODUCTION

Ancient civilizations such as Mesopotamia, India and Greece showed concern with the destination of their waste. Many times concern was due to religious reasons or respect for the goodwill of the citizens. A few cities held some kind of management of its rubbish stocking it and carrying it to deposits outside of the cities. Other cities guided their solid and liquid waste to containers, which occasionally were carried and stored in the outskirts. However these management practices were not satisfactory to free man from the inconvenience of its rubbish.

The Industrial Revolution that began in England in the 18th century allowed an increase in the production of goods and started a new dimension in consumption. The growing house development that took place after the Second World War, intensified when the rural population left the countryside toward the cities, led to the need of an increase of the supply of food and goods. This was possible thanks to the technological advances brought by the Industrial Revolution.

The growing production and consumption caused one of today's largest environmental problems: the waste. In São Paulo State, Brazil, and particularly in the Medium Valley of Paraíba, characterized by a large amount of industrial plants, one may observe a huge flow of solid waste into the industrial landfills, causing a shortening of the lifetime of such landfills. It is only observed today the development of techniques trying to clear the "bottleneck" to consumption caused by the solid waste, or at least to promote the reuse of materials that are economically attractive. These practices are well adapted to the current economic model in which the environment is handled as a source of short term profits, and the human life is restricted to the accumulation of wealth and/or power during the life cycle of an individual, with no worry with quality, or even witch the possibility of life to the future generations (FIGUEIREDO, 1995).

Objectives

The purpose of this research was to identify the relationships between the level of Social Responsibility and the level of reach of the principles of sustainability of the industrial landfills, recycling and supervising companies located in the Central Valley of Paraíba river, according to the statement of Agenda 21; investigate the ethical posture, depicted by the degree of social involvement, being this the social obligation, the social responsibility and the social reactivity; to weight up if there are significant amounts of industrial waste that could be recycled but are being rent to the landfills due to the low level of integration among those companies and to the economic infeasibility of recycling these waste.

REVISION OF THE LITERATURE

Agenda 21, in its chapter 4, states: in order to reach the objectives of environmental quality and sustainable development, it will be necessary efficiency in the production processes and changes in the consumption pattern in order to give priority to the optimum use of the resources and to the reduction of the waste to a minimum. Many times it will demand a rearrange of the current production standards and consumption, developed by the industrial societies and mimicked by almost all the world.

The concept of **Sustainable Development**, having in its basis the economical, social and ecological sustainability triad, is defined in the Brundtland Commission as:

> *A transformation process in which the exploitation of resources, the direction of investments, the orientation of the technological development and the institutional changes balance one another and reinforce the present and future potential, in order to meet human needs and aspirations* (BEZERRA and BURSZTYN, 2000).

The theoretical-conceptual landmark of the Agenda 21 is based on a fundamental premise: The Agenda 21 for S & T (Science and Technology) must be linked with ethical modernity, not only with technical modernity. Technical modernity transforms means in ends itself, based on strictly operational criteria of efficient causality and productivity. In opposition, ethical modernity has as primordial reference the explicit recognition of extrinsic values and finalities to the strictly operational criteria. (MINISTRY OF ENVIRONMENT / Project BRA/94/016, 2000).

The **Sustainability** principle does not limit itself to utilitarian calculus of the consequence of alternative courses of action. It imposes to the instrumental rationalities of several human practices (economics, politics, science and technology among others) ends and values, which are intrinsic to it. Even though efficiency may be required by sustainability, efficacy is made necessary. Sustainability fundaments, therefore, an ethical-political meaning for development (MINISTRY OF ENVIRONMENT / Project BRA/94/016, 2000).

According to the recommendations of the Agenda 21, two interdependent principles must be obeyed:

- ✓ Ethics of sustainability, as a universal value;
- ✓ Establishment of national identities, in its historical and regional particularities.

Six dimensions of sustainability are identified: social, ecological, economical, spatial, political-institutional, and cultural sustainability. On the other hand, the ethics of sustainability is broad. For OLIVEIRA (1993) it is necessary to abandon any trace of the particularity of a thought up ethics in order to make living together in small groups possible and situate oneself

clearly and decidedly in the perspective opened by Kant, the universalism, what for Habermas means the expression of rationalization of the experienced world.

In the contemporary society one observes the consciousness of universalization of technical-scientific civilization all over the Earth, of the consequences of human action in the space of common interests of humanity in general, what reveals the expansion of the control over external nature and, which in turn, goes beyond the limits of biological capacity of the environment. The ethical behavior emerges in the interaction of individuals, and points out to the overcoming of any particularity, it concerns a place of possible reciprocal recognition between individuals of equal dignity. (OLIVEIRA, 1993).

Social Responsibility

The reasoning on social responsibility must be clear; in the sense that it is a set of practices which witness the commitment of the company with its inner audience and with society, extending beyond the idea that it can only exist in what concerns its economical character. The evaluation of social responsibility of an organization involves its relationship with the external world; and ethics is a more general term, which involves not only internal but also external relationships (ASHELEY, 2002).

The socio-economical view has been showing that times have changed and the expectations of society for businesses have changed in the same way. Corporations are not independent entities, responsible in the presence of shareholders. They possess responsibilities towards a broader society, which creates and sustains them.

According to ROBBINS (2000), one can observe, within a socio-economical approach, three related concepts, which constitute levels of social involvement:

Social obligation – when an organization assists its economical and legal responsibilities, nothing else. An enterprise only aims at social goals as long as they contribute to its economical goals.

Social responsibility – it is beyond mere fulfillment of basic economical and legal standards. It adds an ethical imperative so that the company acts so as to form a better society, instead of worsening it, pursuing long-term goals, which are good to society.

Social reactivity – the capacity a company has of adapting to changes in varied social conditions. As such, it is orientated by social norms. Reactive organizations examine the environment to identify changes in habits and attitudes. In addition, it modifies its practices in order to follow the current pattern.

It can be observed that levels of social involvement are crucial for the establishment of an ethical behavior, essential to achieve sustainability. It is in this context, that emerges as a challenge for enterprises the conquest of higher and higher levels of competition and productivity, which leads to growing concern with social legitimacy of its performance. From the 1990´s a growing concern with the ethical attitude starts to be noticed. Research shows that:

✓ the person and the organization are more efficient when there is congruence of values and beliefs in what concerns the work to be done and the expectations and demands of the organization towards success;

✓ethics is broadly constituted by survival rules, behavior rules associated with profession, relationship rules which allow for harmony in social interaction;

✓ the enterprise, which aims at being ethical, must diffuse precise declarations, which define rules and must create verifying procedures in order to guarantee that everyone inside the organization is following them;

✓enterprises need a spontaneous behavior, and if they are to achieve their real goals, not only mere fulfillment of rules, they may not disregard it. (ARRUDA & NAVRAN, 2000).

METHODOLOGY

Qualitative methodology has been used. A case study on the social responsibility of solid industrial wastes management in the Medium Valley of Paraíba has been carried out; data has been collected by means of semi-structured interview and systematic observation.

This research uses thematic analysis, in which the notion of theme is linked with the affirmation of a certain issue (BARDIN, 1979). It comprises a group of relations and can be graphically presented by means of word, phrase, summary (MINAYO, 2000). By means of thematic analysis, the elements of the text of interviews are classified into categories (DENKER & VIÁ, 2001). In this procedure, the analysis of symbols or key words is distinguished, thus observing expressions, attitudes or tendencies, to look further for the frequency in which each of these symbols is used in the texts analyzed, dealing with themes of Social Responsibility and Sustainability.

RESULTS

Chart 1 shows the companies representing the total population, subject of this research, in the Medium Valley of Paraíba, identified and coded as follows. Nine companies took part, one of them both is a recycler and also has an industrial landfill, summing up ten interviews. Seven companies did not give interviews.

Chart 1 – Target population

CITIES	ENTERPRISES	CODING
Cruzeiro	**Landfill(1)**	**AT1**
Caçapava	**Landfill (1), Recycling (2)**	**AT2, R1, R2**
Guaratinguetá	**Landfill (1), Recycling (1)**	**AT3, R3**
Pindamonhangaba	**Landfill (1), Recycling (3)**	**AT4, R4, R5, R6**
São José dos Campos	**Landfill (2)**	**AT5, AT6**
Tremembé	**Landfill (1)**	**AT7**
Taubaté	**Recycling (1), Supervising (1)**	**R7, F1**
Aparecida	**Supervising (1)**	**F2**
Jacareí	**Supervising (1)**	**F3**
TOTAL	**17**	

Source: Assad, 2003

The companies that took part of this research are representative as far as the interviewed employees speak by their companies, and because these are the ones that manage the largest amounts of industrial solid waste in the Medium Valley of Paraíba. They are shown bellow in Chart 2.

Chart 2 – Interviewed companies

CITIES	ENTERPRISES
Cruzeiro	**Landfill(1)**
Guaratinguetá	**Landfill(1), Recycling (1)**
São José dos Campos	**Landfill(1)**
Tremembé	**Landfill(1)**
Pindamonhangaba	**Recycling (2)**
Aparecida	**Supervising (1)**
Jacareí	**Supervising (1)**
Taubaté	**Supervising (1)**
TOTAL	**10**

Source: Assad, 2003

Perception and Opinion of the Subjects

The results allowed a qualitative evaluation of the data and it had as objective infers the organization of the centralizing thought of the social actors' of this research, identified from the Analysis of Contents.

The empiric categories emerged of the interviews starting from the flotation reading of the textual material, having been identified three main categories - Waste, Interaction with the Community and Environment - these presenting several subcategories, as depicted in chart 3.

Chart 3 – Categories e Subcategories

CATEGORY	SUBCATEGORY
WASTE	Classification, Norms for Storage, Non Conformity, Registration of Waste
INTERACTION WITH THE COMUNITY	Relationships with the Community, Philanthropy, Social Investments
ENVIRONMENT	Integration, Concern with the Environmental Impact, Education, Concern with the Image, Discussion of the Environmental Problems, Actions of Improvement, Isonomy, Limitation of the Supervising Board, Search of Destination of Waste, Use of Waste, Deficient Supervising/Punishment, Technological Development, Environmental Conscience, Immunity of the Public Organs

Source: Assad, 2003

The evocations were organized in affirmative evocations (+) and negative evocations (-), and distributed according to the originated categories. Chart 4 displays the frequency of occurrence of the evocations, supplying a synthetic vision of the manifestations of the companies regarding the categories.

Chart 4 – Occurrence of categories in the speeches of the interviewed employees

CATEGORY	SUPERVISING	LANDFILLS	RECYCLING	IN THE MEDIUM VALLEY OF PARAIBA
WASTE	13(+) 1(-) 23,2% 1,8%	13(+) 3(-) 16,5% 3,8%	8(+) 4(-) 15,1% 7,6%	34(+) 8(-) 18,1% 4,3%
INTERACTION WITH THE COMUNITY	1(+) 3(-) 1,8% 5,3%	8(+) 3(-) 10,1% 3,8%	5(+) 1(-) 9,4% 1,9%	14(+) 7(-) 7,5% 3,7%
ENVIRONMENT	18(+) 20(-) 32,1% 35,8%	40(+) 12(-) 50,6% 15,2%	27(+) 8(-) 50,9% 15,1%	85(+) 40(-) 45,2% 21,2%
TOTAL	32(+) 24(-) 56 (100%)	61(+) 18(-) 79 (100%)	40(+) 13(-) 53 (100%)	133(+) 55(-) 188 (100%)

Source: Assad, 2003

The **Waste** category has been described, affirmatively, with 23,2% of the total occurrences in Supervising enterprises, 16,5% in Landfill enterprises and 15,1% in Recycling ones. The three groups of enterprises together, have described such category with 18,1% of total occurrences.

The **Interaction with the Community** category has been described, affirmatively, by 1,8% of the total occurrences in the Supervising enterprises, by 10,1% in Landfill enterprises, and by 9,4% in Recycling ones. Together, the three groups of enterprises have described this category with 7,5% of total occurrences.

The **Environment** category has been described, affirmatively, by 32,1% of total occurrences in the group of supervising enterprises, by 50,6% in Landfill enterprises and by 50,9% of the total occurrences in Recycling ones.

It can be seen in Chart 4, Recycling and Landfill enterprises relatively leveled in the percentages of evocation for each category, probably due to the fact that the focus of business of these enterprises presents high communality: wastes.

DISCUSSION

Among the main results of the research, it can be pointed out within the Waste category, that the enterprises interviewed have shown concern in explaining how the waste is classified, disposed, wrapped and made available. It can be seen that there is necessity of an interaction among theses enterprises with regard to information flow, besides the positioning of each of them towards an ethical behavior in face of decisions involving the actions concerning destination and procedures applied to solid industrial wastes. Assistance to legal, normative or communitarian demands, may strongly act in favor of competition of some against impracticability of others. It can be noted that the classification of wastes is done by a third party enterprise, which will decide on the type of treatment to be performed. The Supervising enterprises act only in the checking of the treatment and physical conditions in which wastes are disposed.

Procedures of **Social Responsibility** may be analyzed in light of the Interaction with the Community category. In Supervising enterprises, relationship with the community consists of

some presentations at schools, required by the community. There is no philanthropic activity or social investments. The paradigm of such enterprises is, exclusively, the function of supervising. It has also been observed that Landfill and Recycling enterprises have a better behavior with the local community. A few times managerial procedure has turned to the development of internal audience, being the focus of social responsibility limited to a few attitudes directed to this audience.

In the **Environment** category, **Environmental Impact** sub-category, the supervising enterprises point to a movement on the side of the enterprises, which generate waste, indicating concern in the reduction of wastes in order to minimize costs, and with regard to which wastes can be recovered or recycled, corresponding to a utilitarian ethics, opposed to an ethics of sustainability.

The **Inexistence of Isonomy** sub-category indicates that everyone observes lack of isonomy among the states, thus making coherence between punishment difficult, supervising and even the strengthening of the structures of planning and management of their activities. The **Limitation of Supervising Body** sub-category comes from several questionings made evident by the landfill and recycling enterprises, for which the supervising enterprises work, most times just to impose restrictions, and very few times to instruct, or orientate about the waste that could be sent to a certain place and be treated or recycled.

The **Deficient Supervising and Punishment** sub-category comes from evocations of negative character. Fines are considered meaningless in relation to environmental hazards, but they are dangerous because they may be transformed into generation of income. There is the need to improve the technical level of the supervising enterprises, since the landfill and recycling enterprises are better equipped technologically. It can be observed that the supervising enterprises are slow in order to solve any kind of problem.

The **Immunity of Public Bodies** sub-category has been observed in only one speech of a landfill respondent; however, it has been considered as a meaningful datum due to the weight the declarations contain, being explicitly against the principles of the Agenda 21.

The **Use of Waste** sub-category reflects positive evocations in the recycling enterprises. However, both the landfill and supervising enterprises only presented negative evocations framed in this sub-category, thus revealing that wastes do not go through a process of evaluation, which could determine the sending to the recycling enterprise, supporting a bigger use for the businesses, and in doing so, increasing the useful life of the landfills.

The evocations of the **Technological Development** category reveal that the new technologies are obtained outside Brazil by the multi-national enterprises. There is no participation of Universities or other research institutions. In the evocations from which the **Actions of Improvement** sub-category, the greatest problems pointed out were: lack of inventory of wastes and a large quantity of environmental liability to be solved, need of political power of town halls, necessity of the environmental body to orientate and give support, necessity of an active and permanent waste information center to promote the integration and give support to enterprises involved as a form of destinating in an adequate way wastes which could be recycled and which are being buried.

It can be observed in the speeches, which gave birth to the **Integration** sub-category, that managerial attitude does not contemplate the search for integration of these enterprises. Mechanisms, which facilitate the participation of social actors, the monitoring and the systematic evaluation of industrial wastes, are missing. The development of the activities lack advantages, which come from the collaborative aspect provided by integration, covered by ethical attitude:

transparency, perception and information flow, consolidated information, system of common decision, marketing and economical feasibility.

CONCLUSIONS

This study has verified that the managerial attitudes of the enterprises interviewed in the Medium Valley of Paraíba, promote social responsibility limitedly, fact which has been confirmed by the percentages verified in the Integration with the Community category and its sub-categories. With regard to the achievement of the sustainability principles, in what concerns economical, social and ecological dimensions, even though the landfill and recycling enterprises have demonstrated great concern towards the environment, sustainability has shown itself committed due to low indexes of integration and search for technical development verified. As a result, much of the wastes, which could and should be recycled are being buried, leading to a compromising of the environment and useful life of landfills. For the landfill and recycling enterprises, a more firm and participative behavior on the part of the supervising body reverts as *marketing*, thus allowing for broadening of its market, in both national and international scales.

Research seems to indicate that the managerial procedures do not assist the principles of sustainability. The capacity of reaction to social issues, as well as the capacity of determining to which issues they must reacting is something that is missing. Capacity to promote interaction among enterprises involved is also missing. Therefore, there is no social reactivity, this one together with other levels of social involvement, is crucial to the establishment of an ethical behavior, essential for the achievement of sustainability.

Data and information shown in this work can be used as reference for other researches, which aim at a deeper investigation of the problematic of solid industrial wastes, in light of social responsibility and of sustainability. A possible approach could exploit the high index of enterprises refusing (7 out of 17) in taking part in the interviews, thus allowing for new hypotheses and new research proposals.

BIBLIOGRAPHY

AGENDA 21. Resumo – Conferência das Nações Unidas sobre Meio Ambiente e Desenvolvimento. Rio de Janeiro: Centro de Informações das Nações Unidas no Brasil e Secretaria de Estado do Meio Ambiente, 1992.

ARRUDA, Maria Cecilia Coutinho de, NAVRAN, Frank. Indicadores de clima ético nas empresas. RAE – Revista de Administração de Empresas, Jul/Set 2000. São Paulo, v. 40, n.3, p. 25-35.

ASHLEY, Patrícia Almeida. Ética e responsabilidade social nos negócios. São Paulo: Ed. Saraiva, 2002, p. 63-88.

BARDIN, Laurence. Análise de Conteúdo. Lisboa. Ed. Persona, 1979, p. 15-70.

BEZERRA, Maria do Carmo de Lima, BURSZTYN, Marcel. Ciência & tecnologia para desenvolvimento sustentável. Brasília: Ed. Abipti, 2000, p. 13-17.

BRASÍLIA. MINISTÉRIO DO MEIO AMBIENTE / Projeto 1-BRA/94/016. Ciência e Tecnologia para Desenvolvimento Sustentável. Brasília, CDS/UnB/Abipti, 2000, p. 13-40, p. 177-180.

DENCKER, Ada de Freitas Maneti e VIÁ, Sarah Chucid da. Pesquisa empírica em ciências humanas. São Paulo: Ed. Futura, 2001, p. 115- 187.

FIGUEIREDO, Paulo Jorge Moraes. A Sociedade do lixo: os resíduos, a questão energética e a crise ambiental. Piracicaba, Ed. Unimep, 1995, p. 15-233.

MINAYO, Maria Cecília de Souza. O desafio do conhecimento: pesquisa qualitativa em saúde. São Paulo: Ed. Abrasco, 2000, p. 9-197.

OLIVEIRA, Manfredo Araújo de. Ética e racionalidade moderna. São Paulo, Loyola, 1993, p. 9-189.

ROBBINS, Stephen P. Comportamento Organizacional. Rio de Janeiro: LTC, 1999, p. 107-108.