ANALYSIS OF THE PRESS COVERAGE ENVIRONMENTAL RISK OF MOZAMBIQUE:

The Mozal Bypass case and newspaper

"Noticias" and "O País"



Luca Bussotti*

Summary

This article aims at verifying the way in which the Mozambican press covered the environmental risk caused by the activity of the multinational Mozal (Mozambique Aluminium). This company worked without filters, for 137 days, between 2010 and 2011, emitting polluting gases directly into the air ("Bypass"). The investigation intends to understand how the two main Mozambican daily newspapers, "Notícias" and "O País", approached this issue. The methodology used has been quantitative (i.e. the number of articles edited and the sources used) as well as qualitative (i.e. content analysis, with the help of conceptual semantic maps) in nature. The theoretical basis of the research was the Social Amplification of Risk Framework (SARF). The investigation showed that the coverage, instead of clarifying the real environmental risks arising from the Bypass, was used for political leverage either in favour of or against the decisions of the Government.

Keywords:

Mozambique, Mozal, Bypass, Environmental Risk, Press.

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* Luca Bussotti is a research assistant at the Center of International Studies, ISCTE Lisbon. He holds a Ph.D. in Development Sociology (University of Pisa, Italy). Professor of Policy Human Resource Management in the Department of Social Sciences at the University of Pisa (2002-2006) and visiting Professor at the School of Communication and Arts at University Eduarde Mondlane of Mozambique (2006-2011). His articles in scientific journals and books in Portuguese about Africa have been published in Italy, France, Brazil, and England. Also, he collaborates with the Portuguese speaking section of CODESRIA (Dakar). Coordinator of a comparative study about press coverage of human rights violations by the State of the PALOPs (Portuguese –speaking African countries) during 2010 and 2011. Email: Luca.Bussotti@iscte.pt

INTRODUCTION

The "risk" is today a central issue in the field of Social Sciences, especially after the formulations of Beck (1986) and Giddens (1990). They present risk as one of the crucial factors of the "second modernity" or "reflexive modernity" (Beck/Giddens/Lash, According to this paradigm, the main risk, in the current society, would be of a technological nature. It is a risk which derives from industrial activity, more and more out of any human control, as demonstrated by the recent experiences in the management of nuclear power plants: so, this risk became dangerous because of its unpredictability. The crisis of the "scientific" paradigm, inaugurated in the modern era by Francis Bacon at the beginning of the XVIIth century (Bacon, 1643), supported first by Galilei and Newton, and later by the Positivists (such as Comte and Spencer) and Neo-positivists (for example Carnap) has crossed different epochs and criticisms. Recently, the idea of a global crisis has been formulated (Lupton, 1999), suggesting that it is necessary to leave this paradigm behind, and look for another radically alternative one (Sousa Santos, 2004).

This is a complete turning-point in relation to two questions: on the one hand, to the predictability of the risk (of the entrepreneurial kind), theorized by Weber as the base for developing any economic activities rationally meaningful (Weber, 2009); on the other, to the Eurocentric scientific "optimism" which, starting from the scientific revolution of the XVIIth century, induced people to have an absolute trust in the ability of science and technology to dominate the forces of nature.

This new scenario, characterized by serious accidents, the last of which occurred at the Fukushima nuclear power plant, aroused an intense public debate in the West. The media have participated actively in this discussion (Wolf, 1999), forcing the principal polluting industries (mainly the petrochemical and nuclear ones) and local and national institutions too, to implement strategies which are more and more transparent at the level of industrial risk communication, prevention and management.

The African reality, which constitutes the subject of this article, cannot be framed in this picture. First, problems related to environmental risk coming from industrial activities are relatively recent. Second, technical knowledge continues to be a monopoly of foreign managers or, in the best hypothesis, of a small elite of local managers, who are forced to maintain a strictly confidential posture, as in the case of Mozal.

Despite repeated requests (by the author) Mozal's management categorically refused to provide any information on the Bypass case.

In the African context, and especially in Mozambique, there are few social actors able to propose a critical perspective in relation to the issue here dealt with. Certainly, the most relevant are the media, whose role has been acquiring more and more significance on a continental scale (Ziegler, Asante, 1992; Bourgault, 1995; Hyden, Leslie, Ogundimu, 2002), with frequent shocks with political power (Faruk Osman, 2012), In Mozambique Too (Fauvet, Mosse, 2003).

The article focuses on the communicational aspects of industrial risk, namely the way in which the Mozambican press covered a new kind of environmental "crisis". The theory here used was the *Social Amplification of Risk Framework* (SARF), formulated for the first time in 1988 (Kasperson et al, 1988), and subsequently enriched through the perspective proposed by Mary Douglas (Douglas, 1992), in accordance with the vision of cultural and compared kind (Murdoch/Petts/Horlick-Jones, 2003).

The presuppositions of this theory reside in the idea – formulated by Luhmann -, according to which the risk is relevant in that it is communicated and the people are informed of it (Luhmann, 1993). The SARF points out that a key component of the communicative process of risk has to do with "various risk signals", which interact with cultural and social elements, attenuating or amplifying the risk perceived (Kasperson, Kasperson, Pidgeon, Slovic, 2003). This communicative approach of the risk culminates, in the optic here used, in a discontinuous and condensed interest during the "crisis", meanwhile it is almost ignored in normal conditions (Sandman, 1986).

media almost completely questions about the environmental and other risks of normal industrial activity so it is no surprise that it struggles to cover the "crisis". The same elites which, in Africa, have the privilege to have access to the newspapers, do not know these issues, being unable to have a well based idea when the crisis explodes. Even today, Sub-Saharan Africa suffers a clear lack of information, as shown by the fact that it has been relegated by global media firms as "too poor to develop" (Herman, Mc Chesney, 1999: 199). In Mozambique, 48% of the people are illiterate: consequently, this reduces the critical impact of the press to a limited urban social middle class, with access to the press. This is more true for the public servants, in whose cabinets the daily newspaper "Notícias" always arrives.

The "global risk" society theorized Beck encounters a double difficulty in the Mozambican context: on the one hand, a public consciousness of these issues is missing, as shown, for example, by the fact that there is not yet a law against environmental crimes; on the other the faith of the ruling classes in the political as in the economic field - in the use of technologies sometimes induces them to favour foreign industrial investments. The discourse of the current President, Guebuza, on "development" and accelerated industrialization confirms this propensity; the way in which multinational enterprises entered the natural resources sectors too (first of all coal) is another confirmation of this trust in industrialization and technology (Castel-Branco, 2010).

The case here analyzed deals with the request, advanced by Mozal, to work for six months (in truth, 137 days) without any filter, emitting polluting gases directly into the air. Mozal is a multinational with Anglo-Australian capital, controlled by BHP Billiton, with a direct ownership by the Mozambican State of 4% of the company shares. It is located in the South of Mozambique, in the town of Matola, having begun its production in 2000.

1. OBJECTIVES AND METHODOLOGY

1.1 The objectives of this article are the following: To verify the way in which the Mozambican press covered the case "Bypass-Mozal"; To verify if the Mozambican press was able to transmit to public opinion a clear and unbiased idea of the risks related to Bypass-operation; To verify how the Mozambican press reported the different positions of the various social actors involved in this question.

1.2 From a methodological point of view, the basis of the research has been the analysis of the two most popular newspapers on the national scale in Mozambique: "Notícias" (controlled by the Mozambican Central Bank, thus pertaining to the government sphere) and "O País" (belonging to the private group "Soico"). The study has been carried out having as its base the theory of risk "attenuation" and "amplification", formulated by the SARF: it aims to look for "signals" (explicit and implicit), through which these newspapers reveal their position and "communicate" the Bypass-risk. Analytically, two techniques have been used: in quantitative terms, a survey of the articles published on the issue has been selected; from a qualitative perspective, the text analysis based on the gnoseological instruments of the "conceptual semantic maps" (Novack, Gowin, 1984) has been useful to read in depth the editorial line promoted by these two papers. In the conceptual semantic maps the "nodes" represent the basic contents, interrelated through networks of meaningful associations. The journalistic language can be studied through these relationships, which are complex but not always explicit. These maps, if well elaborated, give, as their first element, a clear hierarchization of the issues treated and of their contents.

The SARF, which formulates a communication on environmental risk through "signals", represents a viable theoretical basis from which to extrapolate how the conceptual maps work and what are their fundamental indicators.

As it will be necessary to analyze a special type of written language, these maps manifest themselves through words, that is, lemmas, expressions and other semantic indicators which, associating to the concepts, form actual tracks; they trace in quite a clear way the position of the newspapers in relation to the risk.

According to this perspective, the analysis of the sources was of paramount importance, since they express ideas completely different in relation to the case here considered.

In order to corroborate the outcomes of the documental analysis, some key witnesses were interviewed in Maputo; some of them have been explicitly quoted throughout the article, such as Jeremias Langa, Director of "O País", Rogério Sitoe, Director of "Notícias", Salomão Moyana, dean of Mozambican journalists and currently Director of the independent weekly newspaper "Magazine Independente", Tomás Guente, a journalist of the private weekly newspaper "Canal de Moçambique", Vanessa Cabanelas, Director of the NGO "Justiça Ambiental" (JA), the most active against "Bypass". It has not been possible to interview the technicians of the Ministry of Environmental Action who specifically dealt with the Bypass case, nor to speak with officials of the same Ministry, but the little information they did provide has been generic and not very punctual. Mozal refused to provide any information, despite various formal and informal solicitations made by the author.

This study, because of its perspective, did not consider a very important component which could be investigated: the impact of the debate promoted by the media, and the role that the "intermediary" of the communication (such as the communitarian leaders of Matola) supposedly had, with the aim to attenuate or amplify the risks deriving from the Bypass operation. So, it will be necessary to wait for a

new opportunity to complete this research with the other "side of the coin" which is presently absent.

The article is composed of the following parts: Contextualization; Analysis on the coverage (quantitative and qualitative) of the two most popular Mozambican daily newspapers at the national scale, "Notícias" and "O País", on the Bypass case; Final remarks and outcomes.

2. CONTEXTUALIZATION

Mozal is the first foreign multinational which, after the 16 year war between Frelimo and Renamo (ended with the signature of the General Peace Agreement in Rome in 1992), carries out a great investment in the country: the project had been drafted in 1995, but it was only initiated in 1998, with the building of installations. Today, Mozal is the fifth enterprise in the world in the field of aluminium production; it has an incidence of about 100 million dollars in the Mozambican balance of payments (INE, 2005). The initial investment was approximately 1340 million USD, and the productive process consumes four times more energy in comparison with the rest of the country (Granjo, 2003).

In that initial period, in accordance with the IMF and World Bank recommendations, African countries had to concede facilities in order to receive this kind of investment (World Bank, 1981): as a result, in practice, Mozal is exempt from paying taxes. This situation continues until today, causing a lot of political controversy (IESE, 2010).

Mozal has always had a very close approach in relation to the media. It rarely provides the various local actors with timely and exhaustive information about the levels of pollution inherent in its activity. Internally the option was directed to privilege a "worker elite", able to absorb the ideas and the procedures imposed, based on the BOP (Best Operation Proceeding). The basic objective was to disseminate a mentality of prevention, embedded in the conviction that the technology used in this modern enterprise could and had to lead to "zero harm" (Granjo, 2003).

Especially in the public press (namely the newspaper "Notícias"), Mozal appeared, from the beginning of the first productions of ingots of aluminium (in 2000-2001), as an enterprise which was destined to contribute significantly to the development of Mozambique. Five heads of State attended the inauguration ceremony ("NOTÍCIAS", 2001).

However, polemical questions of an ecological nature never failed to appear. In 2001, the then leader of the Green party, Guimarães Lucas Mahota, accused Mozal of perpetuating a real "environmental catastrophe", and the government of lacking ecological ethics due to its silence in regards to the matter (Savana, 11/5/2001).

Then, criticisms were directed to the ecological problem, due to the inability of the Government to control or even supervise the activities of the enterprise. Nevertheless, the high technological quality of the inner procedures was able to annul these criticisms, neglected by institutions and also by the people.

In their interviews given in Maputo, Jeremias Langa and Salomão Moyana pointed out that the approach of Mozal in relation to the local community and the same institutions has always been contrary to the basic principles of a correct environmental communication, in situations of risk or not (Mc Callum, Hammond, Covello, 1991). This approach is especially contradictory in the case of Mozal, since this multinational has got the quality volunteer environmental certification (ISO 14001), which aims at finding out whether or not an enterprise maintains an adequate and coherent inner system in order to manage its procedures, even if without measuring the level of pollution flowing from its activities. Until today, the agreement between the Government and Mozal is still top secret, and has aroused suspicions and criticisms over the years (Castelo-Branco, 2010).

When the Bypass crisis exploded, the *casus belli* was centred on a sort of plebiscite in favour of or against Mozal, and not on the environmental risk caused by its activities. The Mozambican Government too, which supported and gave the legal basis to all of Mozal's decisions, entered the debate, and was accused, by a good part of the independent press, of not being able to deal with this issue, leaving the institutions at the mercy of Mozal.

For instance, Salomão Moyana stresses that "the Government was the megaphone of Mozal", meanwhile Jeremias Langa defends that the basic right to the access of information is systematically denied to citizens, privileging unclear interests. The parliamentary forces too – as the director of "O País" underlines-

"Stayed at the mercy of the enterprise": so, "the Parliament is not supervisory, does not take any initiatives, reacting just when the media raise problems".

These last affirmations show clearly how the local press paid much more attention to the aspects generically definable as "political"

than to the ones relative to the specific elements inherent to the environmental risk, rarely approached, as we will try to show in the following point.

3. THE ANALYSIS OF THE MOZAMBICAN PRESS IN THE COVERAGE OF THE BYPASS CASE

In this section we will analyze the position of the Mozambican press in relation to the case here approached; firstly, we will use quantitative techniques, then we will pass to qualitative ones, which will permit us to perceive what is the position of the two newspapers selected.

1.1 Quantitative analysis of the two daily newspapers "Notícias" and "O País". In order to carry out the quantitative research of the newspapers here considered, the selected articles have been divided on the basis of their content. Then, the evidence in relation to the sources used will be presented. The classification has been based according to the following typologies: a. Chronicle (pure and simple information); b. Politics (articles related to the public debate on the Bypass case); c. Legal issues (articles related to the legal procedures of the case). Table 1 offers an outline of the first classification used:

Table N 1.

Typologies of articles in the coverage of Mozal case in relation to the content. Newspapers "Notícias" e "O País"

Newspaper	Chronicle	Politics	Legal Issues	Total
Notícias	11	18	2	31
O País	13	14	2	29
Total	24	32	4	60

The category of "Politics" prevails to the detriment of that of "Chronicle": this is a relevant fact, since it shows, at the outset, the nature of the coverage made by the two most popular Mozambican daily newspapers on the Bypass case.

The use of the sources permit to deepen further the raw data above mentioned. The criteria used to classify the sources have been the following: differentiation between "institutional" (exclusively coming from Public institutions) and "not institutional" (all the others). However, there is a big difference, among the non institutional sources, between the ones coming from Mozal and all the others.

"Notícias" uses 21 diversified sources to cover the Bypass case. 13 of them are institutional and 8 are not. The first ones are used 25 times, the second ones 22 times.

In the case of "Notícias", among the institutional sources the ones from the Ministry of Environmental Issues prevail (Micoa, for 9 times), followed by others, among which it is possible to distinguish the Administrative Court (3) and the AIM (also 3). The rest of the sources are used just once.

Table 2 shows what are the non-institutional sources most used by "Notícias". Mozal prevails by far (8 times), followed by the NGOs (3), the two major political parties (twice each) and other sources definable as "occasional" (one of them refers to a letter edited by the paper).

Table N 2.

The Use Of Non-Institutional Sources By The Newspaper "Notícias"

Fuente	Times used
Frelimo	2
Renamo	2
MDM	1
Consultant	1
UP Teacher	1
MOZAL	8
NGO	3
Total	18

"Notícias" gives wide space to two subjects: the Ministry of Environmental Issues and Mozal, even if, among the governmental sources, it is necessary to add two occurrences, in which the newspaper uses (one time each) the Prime Minister and the Government as a whole (through its spokesman).

In total, "Notícias" uses governmental sources 25 times, and Mozal sources 8 times, making a total of 33, which represents the front in favour of Bypass. The "contraries" do not have expression (just 7 occurrences). This data confirms that "Notícias" focuses its coverage on the "political" questions of the Bypass case, seeking to attenuate it, giving wide space to the theses favourable to the operation.

The other newspaper, "O País", uses 8 sources 27 times. If compared with "Notícias" it uses a more limited number of sources, with a ratio of 1/3 between institutional and non-institutional ones (respectively 2 versus 6); nevertheless, "O País" uses institutional sources just 3 times,

and non-institutional ones 24 times. Among the institutional sources (table 3) the most used are the Micoa ones (twice), followed by the Administrative Court (once).

Table N 3.

The use of institutional sources. The newspaper

"O País"

Source	Times used
MICOA	2
AC	1
Total	3

Among the not institutional sources (table 4), "O País" makes a balanced use of information coming from the two different fronts, the Mozal one and the one which opposes it, represented mainly by the NGOs: 6 times each.

Table N 4.

The use of not institutional sources. The newspaper "O País"

Source	Times used
MOZAL	6
Renamo	2
NGO	6
Total	14

It is possible to deduce that "O País" privileged not institutional sources, with a certain equilibrium between the two principal protagonists (Mozal and NGOs). It can mean that, from the point of view of this newspaper, institutions didn't play a very important role, letting the actors considered as the most prominent to speak. Or that the newspaper's editorial board does not have any trust in Mozambican institutions.

The first conclusions based on the quantitative analysis indicate the following:

- The case Bypass-Mozal received a very wide and concentrated coverage from the newspapers here analyzed. This coverage occurs in a period of about 4 months, in which the Mozambican press dealt with the issue in question;
- The typology of article most used was of a political kind;
- -"Notícias" privileges the use of institutional sources, with a quite limited diversification of them, meanwhile "O País" adopts an oppositional approach, giving more space to the not institutional sources, especially the ones coming from the NGOs and from the same Mozal.

- It means that, at a glance, this scenario presents a field of play whose main actors are the sources and the editorial lines of the respective newspapers, under the optic of the political debate, much more than under the perspective of a correct information inherent to the possible risk for the local communities.

3.2. The debate of the Bypass case in the Mozambican press: Environmental or Political Risk? A qualitative analysis of the newspapers "Notícias" and "O País"

The qualitative analysis intends to clarify the following question: how was the environmental risk communicated by the Mozambican press, in order to raise awareness of the possible consequences of the direct emissions by Mozal of gases over 137 days?

To answer this question a "mixed" methodology has been adopted: it consists in subdividing the two main typologies of articles (chronicle and politics) in various sub-categories, extracting from them conceptual semantic maps hierarchically defined and, finally, counting them. This technique will be applied to each one of the newspapers analyzed; finally, a global framework will be traced.

• The case of "Noticias"

Starting from the above-mentioned theoretical and methodological bases, an analysis of how "Notícias" dealt with the issue of the Bypass will be carried out, as it is possible to note from table 5:

Table N 5.
Conceptual and semantic maps about Risk. The newspaper "Notícias"

Conceptual semantic maps and number of articles edited				
Ri	isk			
a.Risk evaluation	Positive (No harm): 16			
	Negative (Suspicious of disease/Ignorance of the risk/ We'll die): 6			
b. Risk measurement	Positive (Legally permitted/ Below the limits-previsions): 9			
	Negative: 0			
c. Risk prevention	Positive (Necessary): 4			
	Negative (Alternatives): 1			
Public interes	t/Participation			
Risk	There was: 3			
Communication/Information:	There was not: 2			
Environment	l monitoring			
Positive (Monitoring/Extensive campaign/Environmental Impact Study): 7				
Negative: 1				
Public debate				
Government (Capability of environmental management/NGOs: obscure agenda): many				
Oppositions (Polemic-discordance-skepticism): many				
Other signals				
Position of the newspaper				
It does not exist in an explicit form				

- 1.a. Evaluation of risk: it has to do with the risk strictu sensu, that is, with the general evaluation of risk. "Notícias" reports opinions that intend to tranquilize the reader in relation to the Bypass operation. The approach which tends to attenuate the risk occurs in 16 cases, the opposite one in 6. This coverage puts the institutions in relation to the semantic field of the tranquillity, of the "zero risk" and, finally, of the Bypass process, expressing satisfaction for a conclusion coherent with the expectations. The opposite line, which aims at amplifying the risk, is entirely left to the interventions of the main opposition party, Renamo, and to those of anonymous citizens, whose impressions had been collected by this newspaper in its reports. These last two social actors are represented through a set of stereotypes belonging to the "irrational", especially in the case of the speech of the people. It is in this not yet completely explicit way that "Notícias" takes side in favour of the "rational" and "scientific" argumentation which characterizes the reassuring evaluation, representing the "opponents" as irrational and enemies of science, progress and development.
- 1.b. The measurement of risk probably represents the most meaningful category. In this case, the conceptual and semantic map is not generic, since it is extremely punctual, reporting the biochemical data deriving from the "scientific" survey, carried out by the same Mozal and by the Swiss company contracted for this aim. The results are all (with very few exceptions, which will be dealt with in the following pages) below or, as "Notícias" emphasizes, "far below" the accepted national and international limits (WHO) besides the previsions presented in the study of the University of Eduardo Mondlane (UEM) about this question.

Although the Minister of Environmental Issues, Abreu, "challenged" NGOs to present alternative data to that of Mozal, the non-institutional social actors opposed to Bypass operation can not have a say, as none of them has the economic ability to recruit an independent agency in order to validate the data coming from Mozal, So, there is no occurrence in which these subjects have a positive pronouncement regarding the measurement of the risk.

This strategy, adopted by Mozal and the Mozambican Government, which aims at maintaining the monopoly of technical information, has been transmitted in an uncritical way by the newspaper "Notícias". The debate has been "oriented" in these terms, opposing the scientific certainties of the institutions to the irrational threat of the "opponents". A

partial denial of these data came just from the reports of the two entities towards which the environmental NGOs appealed, that is, CAO and EBI, a long time after the conclusion of Bypass operation (CAO; 2012; EIB, 2012).

- **1.c. Risk prevention**: "Notícias" covers this issue 5 times, emphasizing the fact that Bypass had been "necessary", and that it will bring a general improvement, considering the use of modern and more efficient technologies. Just in one case did "critics" intervene (in this occasion they are citizens), appealing for encountering "alternatives" to Bypass, but always in a generic way.
- 2. Risk communication/Information, that is, in which way the "crisis" has been communicated by the press and the institutions. "Notícias" presented only a few occurrences (just 5, of which 2 were "negative" and 3 "positive"), so concluding that the item did not represent a high-priority subject. This quasi-absence is a paramount indicator in relation to the editorial line of this newspaper.
- 3. The environmental monitory is a very technical issue and, in this case too, the "opponents" do not have any say. The only circumstance in which one of them (namely Renamo) is mentioned, it is made in a "negative" manner, aiming at discrediting it. In all other cases "Notícias" makes the coverage relative to the environmental monitory giving the word to the institutions (much more than to Mozal), trying to tranquilize the population. A great space is dedicated to the Prime Minister intervention at the Assembleia da República (the Mozambican Parliament), stresses that the Government will be more and more "exigent" not only with Mozal, but with all the big companies which are operating in Mozambique. The use of an indefinite future represents a clear "signal" that testifies to how the "hard line" will be delayed sine die.
- **4.** The public debate. In this case it is almost impossible to count the occurrences. So, the approach has been more qualitative, underlying the associations of conceptual and semantic type among the various subjects involved and the issues treated.

"Notícias" has the tendency to emphasize the Government's environmental management capacity and the view that the NGOs which deal with ecological issues act following an "obscure agenda", that supposedly has nothing to do with the question of Bypass. It's the Minister of Environmental Issues, Alcinda Abreu, together with her entourage, who tries to discredit the "opponents". On the contrary, 3 times, this newspaper emphasized that the operation caused controversy and discordances, even if

in general attenuating these expressions with a strong negative denotation using the term "alguma" ("some"), which precedes the two basic nouns ("polemic" and "discordance").

In respect to the debate at the Assembleia da República, the Government is represented firstly through the Prime Minister, Aires Aly and, secondly, the Minister of Environmental Issues, Alcinda Abreu – as the institution which can see beyond the Bypass case of Mozal. This entity projects the future of Mozambique in terms of development, thanks to an attractive discourse: for this reason, the Bypass does not have to arouse controversy, since the Government is the first to be interested in protecting the health of all its citizens. "Notícias" reports and increases the value of Minister Abreu's declarations, according to which there had been rumours of victims before the beginning of the Bypass. In this case, the intention is to fortify the idea that someone, contrary to the Government, had spread false rumours devoid of any scientific basis, with the aim of weakening the position of Mozal in the country. Nevertheless, as the Minister did, "Notícias" has ignored that generally there is always a distance between "objective" and perceived risks, especially from the point of view of the population (SLOVIC, 2000). This distance is relegated to the category of "irracional" ("irrational") and "pre-political".

Among the political parties, the most covered is Renamo, whose parliamentary group is presented as a one which defends repetitive positions, emphasizing two basic concepts: on the one hand, the insistence on withdrawing the special permission for the Bypass, conceded by Micoa; on the other, a quite propagandistic tendency to present the terms "saúde" ("health") and "vida" ("life") as opposed, to the American coin ("dollars") and the Government. The idea is that the Government puts economic interests above the lives and wellbeing of Mozambican citizens. "Notícias" represents Renamo, in the Parliament, giving the idea of a confused party, which is uninterested in respecting the law, and which uses the Bypass case to provoke a crisis of the public institutions.

5. Among the other "signals", the most meaningful are the following:

The titles: generally not very bombastic, they tend to reproduce the discourse proposed by the official sources, from which "Notícias" obtains its information. The perspective, once more, is to "attenuate", to "muffle", then there is not any interest in making bombastic headlines. Here are some examples:

"Emission of gases by Mozal:
Concession of the licence was
a responsible act – minister of
Coordination of Environmental Action,
Alcinda de Abreu"; "'Bypass' of Mozal:
Government will be exigent in the
observance of the rules – says Aires
Ali, speaking to the AR deputies";
"'Bypass' has been a success –
repeats the Government".

What is warring more is not the protection of the public health and of environment, but the respect of the legal rules and of the social order.

A second set of titles aims at representing the different positions of the actors, maintaining a more neutral approach, with the usual tendency directed at avoiding the amplification of the divergences. Here are some examples:

"Emission of fumes by Mozal: Government and civil society with different expectations"; "Direct release of fume: MOZAL and environmentalists continue without agreement"; "Renamo asks for suspension of the activities of Mozal".

Finally, there is a few number of titles (related directly with the political debate) which can be defined as "bombastic", in which the position of this newspaper becomes more clear and explicit, and which mark the end of the important steps of the political and juridical process related with this case. For instance:

"AR plucks resolution on the prohibition of 'bypass'"; "TA gives the green light to Bypass".

The readers' letters. In the Bypass case, in just one case this newspaper edits an external intervention, written by Mateus Licusse. This letter, whose title is: "'Bypass': yes or no? Quis juris?", does not represent the official position of the paper - which, as we have seen, does not exist in an explicit form -, but is well embedded in the general approach adopted on the case studied. The positions presented are diversified and also contradictory, underlying, from one side, the right to the health for the citizens, all having" equal rights", and the possibility to participate "in this great controversy". Since the "yes" as well as the "no" would have supposedly negative implications, the Solomonic solution would be "to look at the law", as the most important "is the respect for the law and the correct application of the scientific knowledge. in order to preserve a healthy society". The letter, inconsistent in its contents, is very near to the "legalist" editorial line of "Notícias", without foreseeing the actual consequences which the Bypass process would be able to provoke.

The photos. In this case too, "Notícias" opts for a low-profile approach, showing photos with very "clear" industrial landscapes, so evoking the fact that Bypass will not cause any negative consequence, as it is easy to see from the selected photos:





What are the conclusions flowing from the analysis of qualitative type, relative to the coverage of the risk by "Notícias"?

The coverage is constantly attenuated. There is an evident polarization between the institutions (and Mozal), able to measure "scientifically" the risk, and the opponents, who can only criticize in a vague, generic and then unreliable manner. This circumstance "enables" to evaluate this same risk under a political perspective, as being inconsistent. Then, the Bypass operation is presented as being a (necessary) measure of prevention of much worse risks. These indications are confirmed by the activity of environmental monitoring which the same institutions (including Mozal) use to carry out "continuously" thereby paying attention to the citizens' health.

Civil society (environmental NGOs, citizens, the same Renamo) can not have a say in the measurement and monitoring of risk, since the technical instruments are monopolized by public institutions and by Mozal, which "Notícias" frequently gives a voice to. In the conceptual and semantic maps, the discourses of the citizens, of environmental NGOs and of Renamo are linked to "anti-scientific" connotations, such as

"we'll die, we and our sons", "it is necessary to withdraw the authorization given by Micoa", or "the NGOs have an obscure agenda".

On the contrary, the prominent figures of the Assembleia da República and Frelimo party are featured as being very "institutional", that is, to respect the rules of the "magna casa", so guaranteeing the correct functioning of the institutions. On the other side, Renamo is seen as a political force which intends "to force" the orderly works of the Parliament, adhering to a tactic of "immediacy", not very politically correct.

The analysis of the titles too reveals an approach which tends to constantly attenuate the risk coming from Bypass and the social conflicts.

Finally, two separate worlds emerge, which "Notícias" well represents, maybe in an overly schematic way: on one hand, the ones who "know" (institutions and Mozal), and who seek to provide correct information, based on the scientific survey selected; on the other, the (few) "agitators", whose concerns seem poorly motivated.

The case of "O País"

It is time, now, to see how this private newspaper covered the Bypass case, starting from the analysis focused on the conceptual and semantic maps.

Table N 6.

Conceptual and semantic associations on the Risk.

The newspaper "O País"

Conceptual semantic ma	ps and number of articles edited	
	Risk	
a.Risk evaluation	Positive (MOZAL/FRELIMO: No harm for the public health): 9	
	Negative (RENAMO/NGOs: Toxic Substances /Proven detrimental substances/Can provoke irritations/ destruction of the Ozone Layer): 9	
b. Risk measurement	Positive (Far below the limits/Mozal emits just 240 milligrams per cubic meter): 4	
	Negative (GroundWork: concentration of dust above the level/Air pollution above the normal): 7	
c. Risk prevention	Positive (Comparative study; there is not any alternative to Bypass; Environmental Management Plan): 4	
	Negative (Environmentalists unconvinced by alleged studies): 1	
Public inte	rest/Participation	
Risk	Present (MOZAL): 7	
Communication/Information:	Absent: 3	
Environm	ental monitoring	
Positive (Monitoring/Exte	ensive campaign/Environmental	
Impact Study): 7		
Negative: 1		
Public debate		
Government (Licence resulted from studies/MOZAL repeats the idea defended by Government): 2		
Opposition (Mozal arguments are insufficient/Lack of respect for Mozambican law): 5		
Other signals		
Position of the newspaper		
Editorials		

"O País" covers the Bypass case with the intention of amplifying the risk.

- 1.a. In the risk evaluation, it is possible to note a great balance (absent in the case of "Notícias") among different positions, with 9 occurrences for each one. The tenor of the contents is extremely "heavy", and words such as "toxic", "against the health", etc., are frequently repeated. Reference is made to Mozal's alleged contribution to the destruction of the ozone layer in addition to its harmful impact at the local level. These signals reveal inequivocally the position of this newspaper.
- **1.b.** The measurement, in this case, is not completely left in the hands of the public institutions and of Mozal. In fact, "O País" seeks to report on the Mozal data, including that provided by the survey carried out by the South-African NGO GroundWork. Thus, "O País" managed to break the monopoly of information and helped raise doubts in the granite certainties that the public press had been spreading about Bypass.
- **1.c.** Finally, for the environmental prevention, the word is given mainly to Mozal, while the "negative" perspective is attributed to the environmentalists, who reject the studies presented by the company and by the Government.
- 2. In terms of the risk communication/ information, "O País" covers exhaustively the meeting and the press releases produced by Mozal, so that they prevail in a quantitative optic. Nevertheless, criticisms are presented too, suggesting an openness on the part of Mozal in terms of providing information.
- **3. "O País's"** coverage of environmental monitoring can be considered inconsistent: just one article covers this issue. This data is not meaningless, as the monitoring activity is typically institutional. "O País" adopts an approach, which shows a certain distrust in relation to the Government and its "promises".
- 4. Finally, in the public debate the coverage privileges the role of the opposition (once again both, the political, as well as the civil society ones). It is meaningful that "O País" (differently from "Notícias") never gives a voice to citizens. This editorial option has a clear meaning: to make sure that these solid arguments (as, supposedly, the ones defended by public institutions) can be set against others of the same tenor, escaping the temptation to represent the Mozambican citizen as the "ignorant-not thinking one", completely obfuscated by the terror of the "genocide" perpetrated by Mozal and its gases.

The coverage relative to the public debate too has little to do with the approach adopted by "Notícias": in the field of risk evaluation, there is a radicalization of the language between the two parliamentary groups. "O País" reports and amplifies the terminology used by Frelimo (with a risk evaluation and its managers extremely positive) and by Renamo (which uses bombastic expressions, up to the excess, and which refers to the idea of a genocide perpetrated by Mozal, Frelimo and "its Government").

The key-word which deals with the parliamentary activity in relation to Bypass is "nothing". In many articles (especially the ones of the 4th, 5th and 6th of November), as in many circumstances the reporters of this newspaper use expressions such as:

"The debate of yesterday did not produce anything"; "'Nothing' is the term to classify the conclusion to which the parliamentary debate arrived"; "vain debate".

This position balances the evaluation related to the effective possibilities to influence, from the side of the parliamentary groups, the paramount questions of Mozal case. In fact, the debate finishes with a simple "change of words", as violent as sterile, between Renamo and Frelimo

- **5. Other signals**: in this case, it is necessary to distinguish between "implicit" and "explicit" amplification.
- "Implicit" amplification": is carried out using adjectives or verbs which reinforce the "negative" meaning of the substantives or of the sentences. For instance (edition of 14/07/2010) to the word "gases" is associated the adjective "all", at the same time pleonastic but bombastic; reporting the public meeting promoted by Mozal, the verb here used (in quotes) is "to convince" ("the public"): in this case, the journalist emphasizes the function of persuasion, much more than the informative-denotative one, used by the Mozal managements with the aim to overcome the popular resistances (edition of 30/7/2010).
- **"Explicit" amplification**: in this case this newspaper uses expressions and sentences which openly intend to draw attention to the potentially negative consequences of the Bypass operation and thus frighten the reader. For instance (edition of 14/7/2010):

"These toxic substances (...) are demonstrably harmful for the public health".

In the edition of 30/07/2010, a journalist claims that, before the declarations of a Mozal representative, "did not reveal anything new", since his presentation had been "very technical" and, therefore, poorly effective. In the same article, the conclusions of the investigation carried out by GroundWork are defined as:

"frightful", with levels of chemical pollutants much higher than national and international standards permit.

Nevertheless, there is an article, in which the newspaper positions itself explicitly in favour of Mozal (edition of 23/07/2010), when this company furnishes the data of its study. "Truth or not, Mozal presented facts": implicitly, this means that the others too should do the same, accepting the "challenge" launched by Mozal.

The titles. Contrarily to the editorial option of "Notícias", in the case of "O País" it is possible to note a clear amplification of risk. In the edition of June, the 14th, 2010, for instance, the following title appeared: "Mozal obtains the green light to emit toxic substances without filter".

The photos. The visual signals too (photographs and photomontages) have a relevant impact on public opinion, at the national as well as the international level. Here are some of the photos of "O País", which, if compared with the others presented by "Notícias", clearly express a totally different position from the side of the two most popular Mozambican daily newspapers in relation to the Bypass case.





The photos presented are photomontages, whose only goal is to bowl over the readers, shaking them through these visual signals.

Explicitly, besides some internal comments throughout the articles, "O País" basically uses editorials. The first, written by the director, Jeremias Langa, on August, the 13th, 2010, has the following title:

"The questions without response in the Mozal 'bypass'"; the second, whose author is Lázaro Mabunda (September, the 24th, 2010), has the following title: "Bypass of Mozal: a 'licence to kill'!". Then a few days later (September, the 30th) in "O País": "Populations belonging to the zone of the Industrial Park of Matola breathe highly polluted air".

The coverage carried out by "O País" in relation to the Bypass case is therefore as satirical (looking at the parties present in the Parliament), as tragic (looking at the facts). This dichotomy raises a question: as the political forces and the same institutions have clearly demonstrated themselves incapable of dealing with the issue of Bypass, the main problem is not the environmental risk, but the political risk.

The two editorials edited in this daily newspaper stress this concept in an evident way: the actual threat has to do with the decisional autonomy of the country. Jeremias Langa, in his editorial, rhetorically asks if the Minister of Environmental Issues who speaks in the Parliament is a Minister of the Mozambican Government, since her technical and political preparedness is judged as being extremely poor. Nevertheless, the "transformation" from environmental to political risk, more than at the national scale, is played at the international level. In this case, the intellectual forces and the institutional propaganda too will seek to stop the idea that the Mozambican State does not retain full possession of its national sovereignty, being governed by a clique of incompetents. This is the fact, which represents the most threatening challenge to Guebuza and the Frelimo Administration.

CONCLUSIONS

The Bypass case has been probably the most covered one – inside the set of issues related with environmental questions – throughout the history of independent Mozambique. The way in which this coverage has been carried out – according to the alternative paradigm here used (the SARF one) - and the nature of communication, makes clear that the local press had not been able to take up this challenge: the environmental crisis provoked by Mozal Bypass has not been covered in a clear, objective and qualified way. More specifically, it is possible to argue that:

The coverage has been intense, profound and concentrated, both in the independent, and the public press;

The coverage adopted criteria basically of a political nature, emphasizing the the Government's inability to deal with very sensitive issues, such as the protection of the public interest (health) and the national sovereignty.

According to these approaches, "Noticias" tried to use official sources, discrediting (although generally in an implicit way) the "opponents", through an editorial line which aims at attenuating the risk and through the attempt of tranquilizing the minds of the people worried for the Bypass. Inside this strategy, the feature of the technology and of the almost completely blind trust in relation to Mozal's equipment represents a central data in the communicative strategy both of Mozal, and of the Government. In this case, the dichotomy which emerges from the reading of "Notícias" is the one between "opponents" (irrationals, subdeveloped) and "supporters" (technological, modern). The use of the conceptual and semantic maps has shown that simple citizens, environmentalist NGOs and, in part, opposition parties form the first group, while the second is composed of Mozal and public institutions;

"O País", on the contrary, makes a bombastic coverage of the facts. Various factors converged for determining a frontal attack against Mozal and the Mozambican Government, this last represented as unable to manage serious situations like this. Even in the case of this daily newspaper, the focal point is not the protection of the health of the citizens, in relation to which the only available data are the ones provided by Mozal, but the weakness of the Government and, again, the lack of transparency and communication.

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