

Portrayal of the Proposed Pucallpa, Peru - Cruzeiro do Sul, Brazil Transportation Corridor in the Media

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Abstract: The proposed Pucallpa, Peru-Cruzeiro do Sul, Brazil transportation corridor promises economic benefits, but also threatens biodiversity as well as indigenous peoples. As the media plays an influential role in shaping public opinion, this paper examines how the Peruvian media portrays this controversial topic. The study uses a media studies and political ecology perspective to provide an exploratory assessment of the media coverage. I examine various online media sources including newspapers, organization and government websites to determine the underlying economic, environmental, and social points of view. Through analysis of keyword occurrence, results show that while publications on the issue are limited, the Peruvian media stresses the corridor's economic benefits over the environmental impacts.

Keywords: Pucallpa, Cruzeiro do Sul, media studies, political ecology, development, transportation

PORTRAYAL OF THE PROPOSED PUCALLPA-CRUZEIRO DO SOL INTERCONNECTION IN THE MEDIA

INTRODUCTION

Takahashi (2010) argues the evolution of the media environment, the rise of huge media conglomerates and the nature of media outlets to seek profit maximization have come to dominate, limiting the ability of mass media to truly fulfill its role in democratic societies. Whether we recognize it or not, the media plays a crucial role in our knowledge of what is going on in our local and global communities. In the case of environmental issues and concerns such as climate change, the media is crucial in building public perception. Public support is often necessary for the implementation of important policies, thus making media content a critical component for public and political interactions (Takahashi 2010).

This context provides the framework for the present study. This study is an analysis of media coverage of the proposed road connecting Pucallpa, Peru and Cruzeiro do Sul, Brazil . I use online media sources to focus on the framing of new infrastructure in the Peruvian media. From an analytical perspective, Peru provides an ideal scenario to study infrastructure and development. This is because of the paradoxical context in which the country is situated; with poor and limited infrastructure and an economy highly dependent on natural resources and extractive industries. This is important because the public perception of a road cutting through the Amazon is going to have a great effect on whether or not the highway is actually constructed. If constructed, a well-informed media will have presented the public with important information needed to make well-informed decisions about the path the road will take. It will serve to ensure the road is constructed in a way that causes minimal environmental, economic and social implications while maximizing profit for the historically impoverished Peru.

In summary, this study will look at several different online media sources available to Peruvians to understand how the media is framing the highly controversial construction of the highway. By using a media studies perspective as well as a political ecology framework, the paper will be the first to look into the perception of the proposed construction. A count of

environmental, social, and business keywords in the available media sources will help identify the dominant messages the media is delivering to the public.

THEORY

As more studies and information concerning the environment have been conducted over the past couple of years, attention to environmental issues in the mass media has increased (Notsy 2009, Takahasi 2010, Boycoff and Mansfield 2008). A substantial amount of research has focused on the trends within environmental reporting, with a strong focus on the issue of climate change and global warming (Boycoff and Mansfield 2008, Takahashi 2010, Moser and Dilling 2007). Researchers have generally looked at this issue from a media studies perspective focused on framing effects and public opinion. Several studies have used this framework to examine how mass media has covered a range of environmental issues (Carvalho and Bruggess 2005, Takahashi 2010, Antilla 2005); however, no studies were found focusing specifically on the socio-environmental impacts of road construction and development. For the purpose of my paper, I plan to use media studies along with a political ecology framework. In this section I will examine Carvalho and Burgess' (2005) "three phases" of news production, public discourse, and media consumption along with a public ecology framework, and then propose an approach that combines the two to study trends in reporting and opinion of road construction. Through this analysis I hope to further understand the public presentation of the proposed Pucallpa-Cruzeiro do Sul construction project in Peruvian newspapers.

According to Takahashi (2010), the media acts as one of the main sources of information for citizens. In regards to global warming, more than 50% of people rely on the media as their prime source for information (Gordon et al. 2010). The literature on mass media and climate change indicate that due to this public reliance, framing and public opinion are influential in the way certain events are perceived by citizens. Media content is a critical component for public and political interactions. Boycoff and Roberts (2008) suggest that we need to re-evaluate the perceived role of journalists as not only one of information dissemination, but also of education, as their translation of scientific hypotheses is often misinterpreted and understood as fact by their audience. The three phases of the 'circuits of communication' model presented by Carvalho and Burgess (2005) provides a means to consider media and environmental issues.

Production news represents the first 'phase' of communication in which news is produced within a political, economic, institutional, social and cultural landscape by a media professional (Boycoff and Roberts 2008). Framing, or the process by which content is constructed in the form of issues, events and information, is a key factor in this 'phase'. Literature has generally suggested "framing represents an accepted conceptualization for measuring media content," and as a factor that plays an important role in shaping public opinion about climate change (Takahasi 2010). Frames highlight bits of information and can elevate their salience resulting in probability that receivers will perceive, process and store info in their memory; selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, and/or solution (Entman 1993). When using a framing perspective it is important to address issues such as economic and political factors as well as norms and pressures that journalists, editors, and producers face when producing news.

These obstacles are addressed in the second 'phase' which suggests increases and decreases in media attention to environmental issues as they compete with other news worthy events (Boycoff and Mansfield 2008). This rise and fall is demonstrated by the 'Issue-Attention Cycle' theorized by Anthony Downs (1972). The cycle commences with the pre-problem stage in which the ecological problem exists, but has yet to capture public attention (Boycoff and Mansfield 2008). The next step involves alarmed discovery and euphoric enthusiasm as dramatic events make the public aware and alarmed about it. Following is the gradual realization of cost. During this stage there is an acknowledgement of the sacrifices and costs incurred with dealing with the problem.

The final phase is labeled the post-problem stage because a formerly hot issue moves into prolonged limbo (Boycoff and Mansfield 2008). This model helps to analyze the trends of reporting and attention of environmental issues such as climate change in the public sphere. From this point, the third 'phase' Carvalho and Burgess (2005) discuss involves how citizens process and understand communication and how climate skeptics affect their perceptions. According to Notsy (2009), media messages, especially those regarding the environment, are often portrayed in a light that avoids scientific explanations and as a result has a questionable

impact on public opinion. It is known that citizens are greatly influenced by the media, but in what way is it occurring? Are Peruvians interpreting the news in the way the journalists would like them to? This paper uses political ecology to further explore these questions.

According to Peet et al. (2011), political ecology is increasingly concerned with how we come to know about the environment, how it is defined and categorized, and how environmental problems are represented, acknowledged, and defined. Based on this definition, it is easy to see how the portrayal of the proposed Pucallpa-Cruzeiro do Sul project can be discussed under a political ecology framework. Political ecology refers to the social and political conditions surrounding the causes, experiences and management of environmental problems (Forsyth 2003). Political Ecology evolved from a simple linear explanation to a more complex field based on a growing web of theories. More specifically, a “hybrid” research that considers both political economy and cultural ecology as a foundation to demonstrate how political ecologists have come to combine academic, practical, academic and policy in an integrated approach (Rouchealeau 2007). As discussed by Turner and Robbins (2008), political ecology “addresses biophysical processes through their flows into and out of the human production systems, linking them to distal factors in the human subsystem.”

A ‘critical’ political ecology might contribute to new forms of environmental explanation by providing more inclusive means to acknowledge local environmental concerns, and determine how such concerns have been addressed under existing environmental science (Forsyth 2003).

More recent studies suggest that political ecology as a debate focuses on the interactions between the state, non-state actors, and the physical environment and that there is an interactive interdependence among spheres- the individual, the community, the natural world, and the national society (Forsyth 2003). Knowledge is produced and conveyed through “discourse” or frameworks that embrace particular combinations of narratives, concepts, ideologies, and signifying practices (Peet et al. 2011). People use the media as a means to frame these environmental problems.

It is for this reason that I plan to take an approach that encompasses both media studies and political ecology. While there are no studies that have attempted this hybrid framework, I

believe that the two ideologies will work well together. As demonstrated by the Carvalho and Burgess' (2005) framework of "three phases" suggests, communications including environmental issues such as climate change go through phases. Media studies must take into account the external and internal factors that journalists are presented with such as the influence of political, economic, institutional, social and cultural values as well as personal values. Political ecologists must also take several factors into account. Political ecology framings, very much like media studies frames are dependent on a variety of pre-existing ideas, categories, images, and words (Peet et al. 2011). As political ecology is based on the interaction and relationship between different players and conditions, I think that it would be interesting to use both theories in understanding the political and social factors acting in the way the media portrays the construction of roads and development in the Amazon region. The political ecology framework would act as a bridge to connect the social and political pressures to the environment.

The theory background explored in this section is important to the investigation of the way the media in Peru portrays road construction and development in the Amazon. Using the media studies approach along with a political ecology framework will provide an innovative look at an environmental issue deserving of more attention. With increasing information about the effects of roads on surrounding environment and communities as a relatively new concept, it will be interesting to see how the mass media reacts and portrays information to local Peruvians and the public. It is likely that the information being presented is being accepted as fact as indicated by past media studies and it is important to determine the true story using political ecology as a well-established approach.

METHODS

Study Area

The area the proposed construction is planned to effect is in the province, Coronel Portillo, region of Ucayali, Peru and the estado de Acre in Brazil, shown below (Figure 1).

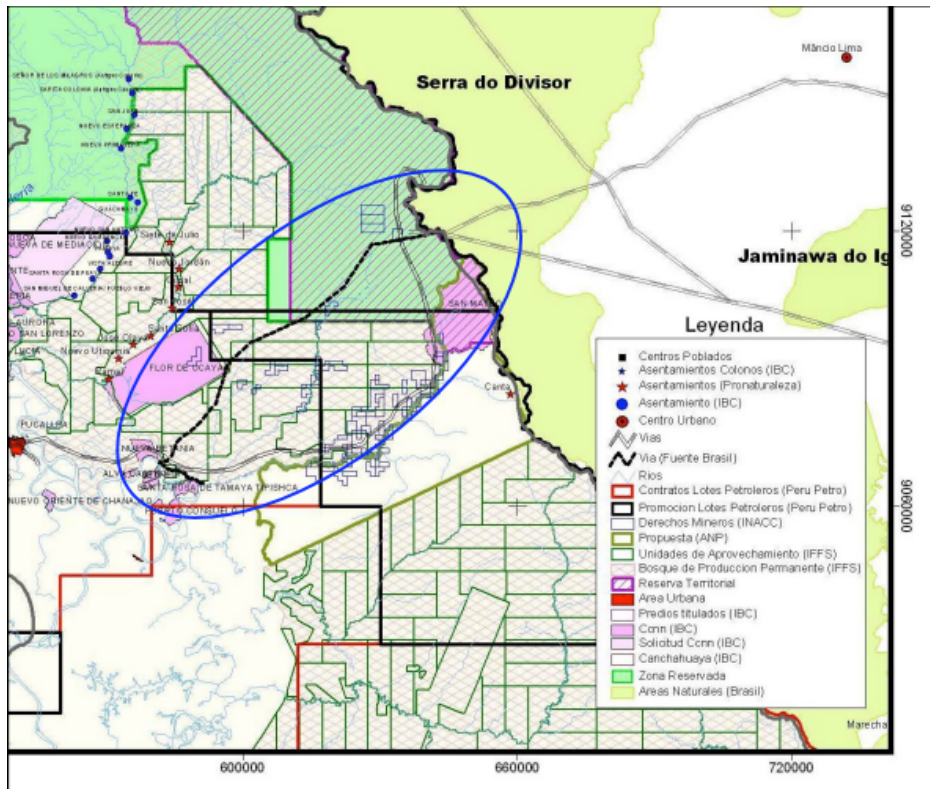


Figure 1 Map indicating location of proposed highway.

The proposed highway cuts through areas of the Zona Reservada Sierra del Divisor, la Reserva Territorial Isconahua, and Parque Nacional Sierra do Divisor in Brazil (Proyectos de Infraestructura). The Pucallpa-Cruzeiro do Sul highway is part of a group of projects proposed by the Initiative for the Integration of Regional Infrastructure in South America (IIRSA), and has been backed by the Ucayali regional government and the forest government of Acre, Brazil in 2006 (Proyectos de Infraestructura). IIRSA is an initiative undertaken by the twelve South American countries aimed at promoting the development of transport, energy and communications infrastructure under a regional perspective (IIRSA).

Sample

As discussed above, there are no studies concerning the mass media coverage of the proposed Inter-oceanic transportation connection between Pucallpa and Cruzeiro do Sul. Takahashi (2010) suggests the lack of complete newspaper content from developing countries available in academic libraries make media coverage studies challenging to pursue. With this in mind this study will draw on a number of media sources available on the internet to explore and understand the portrayal of the proposed construction. While a study conducted over the

period of January-March 2008 suggests only 26.9 percent of the Peruvian population older than 6 years of age have used the Internet (Zeta de Pozo 2009), an analysis of the media in Peru states the average internet user uses the internet for the following purposes: to contact other people, chatting, sending and receiving emails (78.5%), obtaining information (74.7%), entertainment (42%), banking (4.1%), and transactions with state organizations and public authorities (3.0%) (Zeta de Pozo 2009). With 74.7 percent of internet users searching for information, the aforementioned web sources will serve to study what information Peruvian's would likely gather online about the Pucallpa-Cruzeiro do Sul proposal.

Specifically, focus will be placed on 22 publications gathered from 11 different web sources including online newspapers, organization websites, and government publications (Table 1 & Figure 2). Online newspapers dominate, making up 73 percent of the media sources analyzed, with organization publications making up the second most analyzed sources at 18 percent.

Table 1 Sources categorized by media type.

Online Newspapers	Non-profit Organizations	Government Organization	Other
El Comercio	Bank Information Center	Gobierno Regional de Ucayali	Agencia de Prensa Ambiental
La Republica		Iniciativa para la conservacion en la Amazonia Andina	
Expreso			
Hoy			
Diario Ahora			
Diario Impetu			
La Primera Diario			

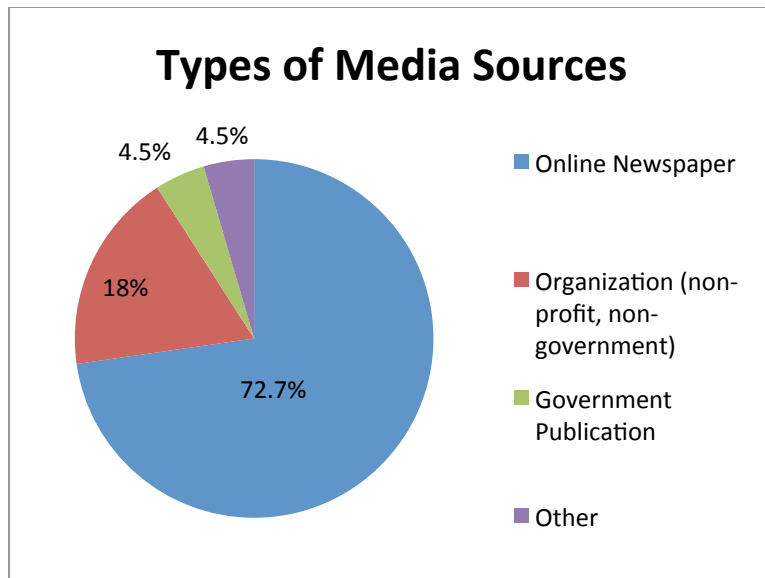


Figure 2 Percentages of media sources, categorized by type.

There are general laws to which the press must abide, as in any other enterprise operating in free competitiveness, but Peru has no specific laws for the press (Zeta de Pozo, 2009). Thus the large variety of media sources explored allows for a comprehensive analysis of the information presented by the respective publications.

El Comercio is conservative in its editorial outlook and oriented toward business and landowners, but has nonetheless won a reputation as an informed and balanced general newspaper. La Republica is a left-leaning top daily paper, while Expreso generally maintains a center-right but respectful tone. Hoy supports the American Popular Revolutionary Alliance (APRA), the center-left Peruvian political party. Diario Ahora and Diario Impetu are regional newspapers in Ucayali. BIC is a non-profit, non-government organization with the mission to “partner with civil society in developing and transition countries to influence the World Bank and other International Financial Institutions (IFI) to promote social, economic justice and ecological sustainability.” ICAA is sponsored by the United States Agency for International Development (USAID), an agency that extends assistance to countries recovering from disaster, trying to escape poverty, and engaging in democratic reforms. ICAA is made up of 20 public and private organizations working in Amazon regions with the goal of building constituencies and agreements which promote sustainable use and conservation of biodiversity and environmental

services of the region. Agencia de Prensa Ambiental is an environmental news website.

Sampling Procedure

Articles and publications were collected by selecting those discussing the potential social, economic and environmental effects of the proposed construction of the Interoceanic way, or those including integration between Peru and Brazil as one of the main topics. More specifically publications were located using the following search terms: “Pucallpa-Cruzeiro do Sul,” “carretera Pucallpa,” “carretera peru-brasil,” “infraestructura peru,” “Interoceanica Central,” “via Pucallpa-Cruzeiro do Sul.” Tags provided by the sources were also used to further explore the topic and to see related sources. Initial searches were done primarily on Peruvian newspaper websites (i.e, El Comercio, La Republica, Expreso, Hoy, Diario Impetu, and Diario Ahora); however, there were limited articles that fell under the search criteria. To broaden the scope, search results from Peruvian Google (<http://www.google.com.pe>) were included. Using the search phrase “Pucallpa Cruzeiro do Sul” I found a range of different website sources including: organization websites, government publications, and content platforms.

This approach is easily accessible and replicable; however the lack of newspaper articles available on the internet as well as the inclusion of organization and government publications in this study provide for a superficial overview of the way Peruvian media treats the proposed connection between Peru and Brazil. This study should be taken as an exploratory stepping stone towards more comprehensive studies in the future.

Keywords

A list of keywords relative to the proposed project was created. The keywords can be divided into two separate categories: (1) environmental/social keywords and (2) business keywords. The environmental/social keywords include: *recursos naturales*, *sostenible*, *medio ambiente*, *indigenas/comunidades nativas*, *ecologia*, *reserva/reservada*, and *biodiversidad*, while *desarrollo*, *economia*, *intercambio comercial/comercio*, and *mercado* are categorized as business keywords, shown in Table 2.

Table 2 List of keywords with english translations

Environmental/Social Keywords	Business Keywords
<i>Recursos naturales</i> : Natural Resources	<i>Desarrollo</i> : Development

<i>Sostenible</i> : Sustainable	<i>Economía</i> : Economy
<i>Medio Ambiente</i> : Environment	<i>Intercambio comercial/comercio</i> : trade/ commerce
<i>Indigenas/Comunidades nativas</i> : Indigenous/Native Communities	<i>Mercado</i> : Market
<i>Ecología</i> : Ecology	
<i>Reserva/Reservada</i> : Reserve	
<i>Biodiversidad</i> : Biodiversity	

Using this delineation, the “Find tool” was used to determine how many times each term was mentioned in each individual publication. The total occurrence of each keyword was calculated by adding together the word count from each source. The average frequency for the environmental/social keywords and the business keywords was then calculated. Although this was a convenient methodology, it is recognized that the context of the keyword is not taken into consideration, which limits the ability to make generalizations about the publications’ portrayal of the proposed project.

Given that the project to connect Pucallpa, Peru and Cruzeiro do Sol, Brazil is still in the proposal stage, there are many uncertainties and different points of view circulating on the issue. I anticipate environmental/social keywords and business keywords will be more prevalent in different media sources depending on their general political outlook; however, when looking at the media sources as a whole I believe environmental/social keywords and business keywords will be equally present.

RESULTS

This section presents the analysis of keywords and sources. The data collected suggests that the online media sources available to Peruvians, present the proposed construction project connecting Pucallpa and Cruzeiro do Sul primarily from an economic standpoint. My analysis of the frequency of keywords in each individual media source as well as the frequency of keywords in the media sources as a whole, suggests business keywords occur more repeatedly than environmental and social keywords. The average occurrence of business keywords was 7.45 while the average occurrence of environmental/social keywords was 7.05, shown in Figure 3.

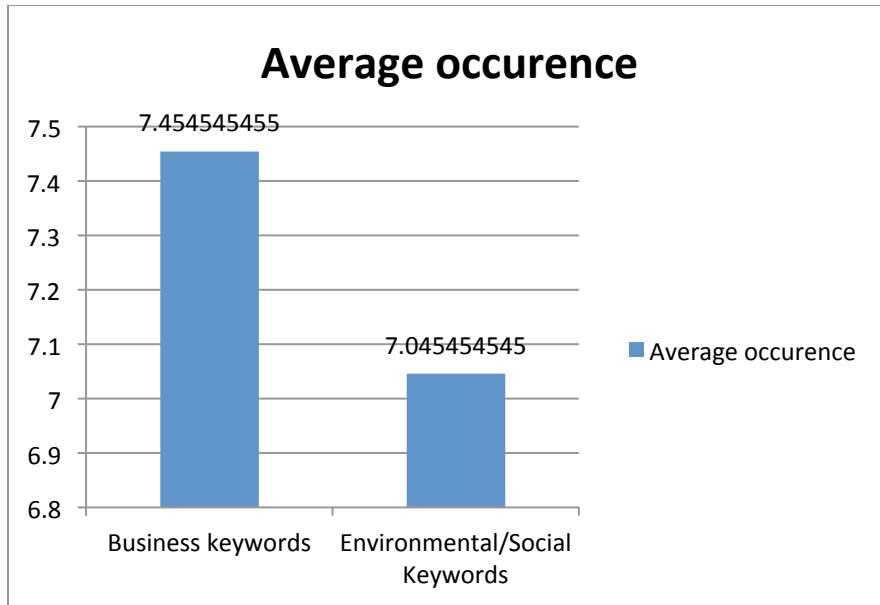


Figure 3 Bar graph depicting the average frequency of environmental/social keywords and business keywords.

Data also suggests that more than half of the publications analyzed were dominated by business keywords. An analysis of individual keywords provides additional evidence suggesting the economic standpoint is more prevalent. *Economia* is the keyword that occurred most frequently among all the sources analyzed with a total count of 61 while *reservada* follows with a total count of 57, *intercambio comercial/comercio* with 45 and *desarrollo* with 29, see Table 3.

Table 3 Total frequency of keywords in all media sources.

Keyword	Total Frequency
Desarrollo	43
Economia	61
Intercambio comercial	45
Mercado	15
Recursos naturales	22
Sostenible	5
Medio ambiente	29
Indigenas/comunidades nativas	24
Ecologia	4
Zona fronteriza	0
Reservada	57

Economia with a total count of 61 suggests that the economy is considered by a large audience. Investment costs for the project are estimated at 1,800 million US dollars indicating a large sum of money would need to be invested for the project to be implemented (Amancia 2010). In addition to the projected costs of the project, Peruvians are also interested in the effects the new road will have on their economy. Economists foresee the direct and indirect costs to be about 1,857 million US dollars (Amancia 2010). With Brazil being the 6th largest economy in the world and Peru having 65 potential trade products to exchange, it is suggested that the construction of the road will greatly benefit the Peruvian economy (Soria 2012; Amancia 2010). A new road could potentially stimulate trade, but also create the opportunity for increased tourism and development. Thus, *desarrollo* and *intercambio comercial/comercio* are also largely represented in the sources. This trend indicating a focus on the economic effects can likely be attributed to the political position of the sources.

According to Peet et al. (2011), arguments over the apparently “given” facts and categories of ecology, are always also arguments over social and political control of nature. Four online newspaper articles came from El Comercio. As mentioned earlier, El Comercio was founded in 1839, and is the oldest and most respected newspaper in Peru, often referred to as the dean of Peruvian journalism (Ferreira and Dargent-Chamot 2003). As a quality national newspaper with years of circulation, it is not surprising that there is an average circulation of about 109,982, and a monthly average score of 374,480 online readers as of February 2008 (Zeta de Pozo 2009). Although known for bringing light to well-grounded claims on many domestic issues (Eduardo and Dargent-Chamot 2003), the general editorial outlook is oriented toward business and landowners (Britannica 2012) and it is said that the topics address high and medium level readers (Zeta de Pozo 2009).

Political identification of Peruvian newspapers with a particular party or government is said to have diminished, reflecting the general lack of interest in politics pervasive in the country (Ferreira and Dargent-Chamot 2003), but it is likely that business keywords were more present throughout the publications because of El Comercio’s political affiliation. The average occurrence of business keywords in El Comercio is 11 times, shown in Table 4.

Table 4 Total and average keyword counts per each Media source.

Media Source	Total # of Publications	Total # E/S Keywords	Total # B. Keywords	Avg. # E/S Keyword	Avg. # B Keyword
El Comercio	4	12	44	3	11
La Republica	2	8	12	4	6
Expreso	1	0	0	0	0
Hoy	1	1	3	1	3
Diario Impetu	2	0	12	0	6
Diario Ahora	4	11	29	2.75	7.25
Diario Primera	1	2	38	2	
BIC	3	77	26	25.67	8.67
ICAA	1	34	2	34	2
Gobierno Regional de Ucayali	1	0	10	0	10
Agencia de Prensa Ambiental	1	3	8	3	8

This is the highest average occurrence in comparison to the other publications and is probably directed at a target audience interested in the potential economic benefits and incentives of the proposed Pucallpa-Cruzeiro do Sul road rather than the environmental and social risks that could result. El Comercio refers to the project as a ‘dream’ and ‘the great opportunity’ gives estimates of the economic benefits calculated by economists. For example one article states the following: “The big opportunity of integration...that will allow the exchange of commercial goods and tourism between both countries.”¹ Another references economist Roberto Urrunaga, who estimates the direct and indirect benefits of the road for the southern region are about 1.857 million dollars. It is clear that articles with many business keywords present discuss the project in economic terms.

Another surprising finding is the lack of scientific focus presented across the media sources. This may also be attributed to the limited environmental impact statements (EIS) conducted and scientific data presented at this early planning stage. Most scientific issues and environmental problems that get reported by the media are subject to constraints, and also suffer from the codification of the information based on news values and cultural norms

(Boycoff and Boycoff 2004 and Carvalho 2007). According to Takahashi (2010), specialized environmental reporters in Peru are few and their number and level of organization are not comparable to those found in developed countries. This is not to say environmental and social implications of the proposed project are not represented in the news.

At least one environmental/social keyword occurs in more than 70 percent of the publications analyzed. Table 3 indicates that 'reservada' is the second most frequently occurring keyword. This is likely due to the recognized national importance of natural resources as well as the newly created *Zona Reservada Sierra del Divisor*. The proposed road would essentially cut through this reserve, and this number suggests that it is not a factor that is being overlooked. While the majority of the publications tend to harp on the economic benefits of the project, they are not ignorant to the large role the Amazon plays in their economy. While Peru is one of the most vulnerable countries to environmental effects, it is also a country with an economy highly dependent on its natural resources and extractive industries (Takahasi 2010). The road has the potential to provide economic incentives to Peruvians; however, deforestation caused by construction would likely limit the supply of goods many people rely on to make a living (i.e. timber). According to Peet et al. (2011), it is frequently the case that people living in and around the wildlife of concern are not only not the central existential threat to wildlife, but that their landscape management practices are precisely ones that have created habitat or protected such species in the past. It is probable that this along with social implications is the reason ICAA and BIC, two non-profit organizations, are also represented in a more environmental/social light.

Table 4 indicates the average occurrence of environmental/social keywords throughout all the publications. The average in ICAA publications was 34 and 25.67 for BIC. The high occurrence in the ICAA publication can be closely linked to their mission statement to promote sustainable use and conservation of biodiversity and environmental services of the Amazon. ICAA uses terms such as 'threat' and 'damage' throughout the publication to describe the impacts they foresee as a result of the Interconnection-Pucallpa road Cruzeiro do Sol. The publication discusses the *Zona Reservada Sierra del Divisor's* 'biological richness' and the many plants and animal species that risk the chance of being 'threatened by commercial exploitation.'

While the ICAA publication focuses primarily on the environmental issues surrounding the proposal, BIC takes a more holistic perspective.

The occurrence of environmental/social keywords in BIC publications is likely lower due to their slightly different mission to promote social, economic justice and ecological sustainability. Sustainability focuses on three fundamental issues, society, economy, and ecology, and thus provides a more well-rounded approach to discussing the project. In one proposal, BIC states their purpose “to gather arguments to prove its [the projects] infeasibility to relevant authorities” (Nunez, 2007). BIC makes reference to Flor de Ucayali, a rural community located in the Utiquinia river basin and the 12 indigenous communities that will be directly affected by the project (Flor 2009). Although the BIC article focuses on environmental and social implications of the proposed project, the economy does not remain unmentioned, as indicated by the average 8.67 business keywords throughout their three publications. The similar mission statements of ICAA and BIC along with the great average occurrence of environmental/social keywords in publications from both organizations, suggests that ICAA and BIC are not presenting the proposed project to the media from a business and economics perspective. This is likely due to an understanding of the previously mentioned economic dependence of Peru on the Amazon as well as an understanding of the area the proposed construction is likely to take place.

In addition to the framing of the publications, date of publication may also provide another analytical perspective. Figure 4, as shown below, represents the percentages of publication dates. More than half of the information I analyzed was published in 2011 (31.80%) and 2010 (22.75%). This data can be linked to Down’s Issue-Attention Cycle. Downs (1972) cycle can be classified by the following five stages: the pre-problem stage, the alarmed discovery and euphoric enthusiasm stage, realizing the costs and significant progress stage, gradual decline of public interest stage, and the post-problem stage. The pre-problem stage, likely represented by 2007-2008 (9%), prevails when a highly undesirable social condition exists, yet has received little or no public attention (Downs 1972). 2009-2011 (72.5%) most likely represent the alarmed discovery and euphoric enthusiasm stage, in which the public suddenly became “both aware of and alarmed about the evils” of the proposed construction (Downs 1972). While this

paper was written in April of 2012, it is likely that the problem is entering the next stage as only 4.5 percent of the publications were from this year. *Cumbre en Canete concita atención de autoridades*, the one article published in 2012, discusses the costs and economic benefits associated with the integration road; “Building a new port in Pucallpa would require an investment of approximately \$30 million and would have great economic and social impact because it is the most profitable city in the Amazon” (*Cumbre*, 2012). Once people recognize the full costs of the project, indirect and direct, the issue may lose public interest as suggested by Down’s (1972) fourth stage.

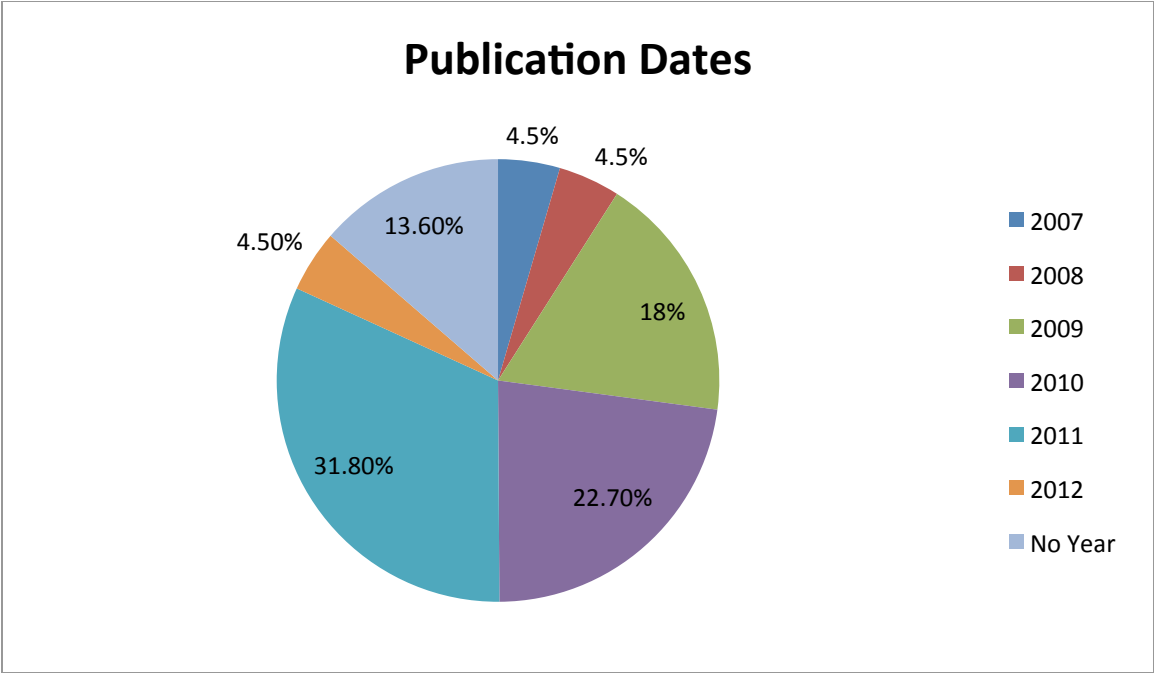


Figure 4. Pie chart depicting publication dates of media sources in percentages.

The data analysis indicates that there are a number of factors that need to be taken into consideration when making a generalization about the way Peru covers the topic of the proposed construction in the media.

DISCUSSION AND CONCLUSION

As anticipated, the findings suggest the media is focusing on the economic aspects of the proposed Pucallpa-Cruzeiro do Sul highway while paying less attention to the environmental and social consequences. While this suggests economic benefits and risks are

being discussed and portrayed more than environmental and social risks and benefits, there are several other factors that may have influenced the results: the political outlook of individual sources, the pre-project phase, and others. Through a media studies and political ecology perspective, it became evident that there are many important factors to take into consideration when analyzing the effect of mass media. Knowing the media is influential in affecting public opinion, it would be interesting to see if Peruvians also take an economic perspective when it comes to the project proposal. It is likely that they are being exposed to newsprint as well as the television and it would be interesting to see if these forms of media relay the same message the publications on the internet provide. It would also be beneficial to see if more articles on the issue exist in print form. In conducting this research there was not a large bank of sources to analyze. Perhaps the articles one encounters on the internet are different than those actually published in the newspapers. As many of the newspapers websites are not archival they are not a full representation of the print newspapers. Despite these limitations, this research allowed us to see how the project is portrayed. I hope future studies can build off of this framework and continue to study the way the media adapts to new information we have about the proposed project.

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Appendix

Title	Source	Type of Media
Via Pucallpa-Cruzeiro do Sul afectaria zonas reservadas**	El Comercio http://elcomercio.pe/peru/467379/noticia-via-pucallpa-cruzeiro-do-sul-afectaria-zonas-reservadas_1	Online Newspaper April 2010
La selva espera inversiones, pero falta decisión política y mayor visión empresarial	El Comercio http://elcomercio.pe/economia/1376876/noticia-selva-espera-inversiones-falta-decision-politica-mayor-vision-empresarial	Online Newspaper Feb 2010
Concesion de carretera IIRSA centro se adjudicaria antes de diciembre	El Comercio http://elcomercio.pe/economia/311289/noticia-concesion-carretera-iirsa-centro-se-adjudicaria-antes-diciembre	Online Newspaper Juk 2009
Oportunidades y debilidades de la conexion vial	El Comercio http://elcomercio.pe/impresanotas/oportunidades-debilidades-conexion-vial_1/20100425/467346	Online Newspaper Apr. 2010
Degradación de la Amazonía llegaría a 90% el año 2041	La Republica http://www.larepublica.pe/07-03-2010/degradacion-de-la-amazonia-llegaria-90-el-ano-2041	Online Newspaper March 2010
Brasil quiere hidroenergía del Perú	La Republica http://www.larepublica.pe/13-12-2009/brasil-quiere-hidroenergia-del-peru	Online Newspaper Dec. 2009
Infraestructura vial y ferroviaria	Expreso http://www.expreso.com.pe/blog/sentido-comun-6	Online Newspaper Dec 2011
Lima: Poder ejecutivo publica relacion de 30 proyectos prioritarios a promoverse este ano	Hoy http://hoy.pe/?s=Lima%3A+Poder+ejecutivo+publica+relacion+de+30+proyectos+prioritarios+a+promoverse+este+ano&x=0&y=0	Online Newspaper Jan 2011
Flor de Ucayali, afectada por IIRRSA	Bank Information Center	Non-profit, Non-

Tramo Pucallpa – Cruzeiro de Sul	http://www.bicusa.org/es/Articloe.11600.aspx	government association Nov 2009
Declaran desierto perfil para carretera Pucallpa Cruzeiro	Diario Ahora http://diarioahora.pe/noticia/nota.php?vidNoticia=9727	Online Newspaper Jan 2011
Respaldan proyecto de tren Pucallpa-Cruzeiro do Sul	Diario Ahora http://diarioahora.pe/noticia/nota.php?vidNoticia=13425	Online Newspaper May 2011
MTC licito elaboracion de perfil de carretera	Diario Ahora http://diarioahora.pe/noticia/nota.php?vidNoticia=20223	Online Newspaper Sept 2011
Tren unira Pucallpa-Cruzeiro	Diario Ahora http://diarioahora.pe/noticia/nota.php?vidNoticia=13437	Online Newspaper April 2011
No se justifica carretera a Brasil para secar recursos	http://diarioahora.pe/noticia/nota.php?vidNoticia=1939	Online Newspaper Aug 2010
Cumbre en Canete concita atencion de autoridades	La Primera Diario http://www.diariolaprimeraperu.com/online/limaprovincias/noticia.php?IDnoticia=2208	Online Newspaper Feb 2012
Bandes financiara estudios ferrocarril Cruzeiro do Sul- Pucallpa	Diario Impetu http://www.impetu.pe/?p=4607	Online Newspaper No date
ICAA: Carretera Pucallpa Cruzeiro do Sul Proyectos de Infraestructura en la Amazonía Andina Plataforma informativa**	Iniciativa para la conservacion en la Amazonia Andina	Organization No date
Eje Multimodal Amazonas Centro / Interconexión vial Pucallpa – Cruzeiro do Sul**	Bank Information Center http://www.bicusa.org/es/Proyecto.10297.aspx	Non-profit, non-government organization Nov. 2008
Vía ferroviaria Pucallpa-Cruzeiro do Sul será una realidad**	Agencia de Prensa Ambiental http://www.inforegion.pe/portada/98135/via-ferroviaria-pucallpa-cruzeiro-do-sul-sera-una-realidad/	Environmental News Apr. 2011

<p>Interconexión vial Pucallpa-Cruzeiro do Sol: Polémico proyecto que amenaza la Zona Reservada Sierra del Divisor**</p>	<p>Bank Information Center http://www.bicusa.org/es/Proyecto.10320.aspx</p>	<p>Non-profit, non-government organization' Nov. 2007</p>
<p>Pucallpa – Cruzeiro Do Sul: una hermandad inevitable**</p>	<p>Diario Impetu http://www.impetu.pe/?p=8294</p>	<p>Online Newspaper No date</p>
<p>Cruzeiro do Sul y pucallpa se uniran por Puente aereo y purus se unira a santa rosa con libre navega**</p>	<p>Gobierno Regional de Ucayali http://www.regionucayali.gob.pe/prensa/index.php?option=com_content&task=view&id=1120&Itemid=3</p>	<p>Government Publication May 2009</p>