



Framing Climate Change: A Comparative Analysis of Thailand's Press Coverage on COP 21 Paris Agreement

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Abstract

This study used content and textual analysis of four newspapers – the Bangkok Post, the Nation, Matichon and Thai Rath – during November 30, 2015 until February 28, 2017 to examine how they framed the climate change debate during the COP 21 Paris agreement. The content analysis produced five dominant frames, namely, responsibility, morality and ethics, sufficiency economy, ASEAN haze free and public health and public participation. Through these frames, the textual analysis portrayed how a number of internal and external factors influenced the frame-building process of climate change issues at the COP 21 Paris agreement in which all 194 countries agreed to keep the rise in global temperature by the year 2100 well below 2 degrees Celsius (3.6 Fahrenheit).

Keywords

Climate change, Global warming, Responsibility and morality, Sufficiency economy, ASEAN haze free

Introduction

The 21st Session of the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change in Paris from November 30 to December 12, 2015 was a success. All 194 countries agreed on procedures that aimed to keep the rise in global temperatures by the year 2100 compared with pre-industrial times “well below” 2 degrees Celsius (3.6 Fahrenheit) and “endeavor to limit” even more to 1.5 C (2.7 F). The Paris agreement was described as an “ambitious and balanced” accord that would mark a “historic turning point” for the world. Thailand joined the concerted international efforts to reduce greenhouse gas emissions. A leading emitter, Thailand is exceptionally vulnerable to small changes in climate: slightly warmer surface temperatures will destroy the rice crops that feed the population and bolster the economy and a few centimeters of sea level rise will submerge the capital city and devastate coastal tourism. It is also faced with great challenges from flooding, drought and severe storm. As member of the Association of Southeast Asian Nations (ASEAN), Thailand has been implementing the regional Agreement on Transboundary Haze Pollution, which encourage Asean member countries to collaborate on tracking haze pollution in the region. Moreover, group of developing countries as the chain of G77 in 2016, Thailand is determined to serve as a bridge –builder and work with various groups in order to achieve the goals of the United Nations Framework Convention on Climate Change.

In Thailand, the mass media, particularly newspapers, play an important role in the formation of public opinion on international issues in the public arena which has significant implications for policy making at all levels. On controversial issues of global warming and climate change, Thai newspapers were inevitably engaged in a framing process of scientific facts which varied from one social context to another and granted the news media a dynamic role in relation to other actors. In view of the significance of the COP and a leading role of Thailand in the ASEAN region and other developing countries on the global warming issue it is to examine how Thailand's mainstream newspapers, both English and Thai language dailies, have framed or defined the issues in their coverage of the 2015 COP Paris Summit during November 30, 2015 until February 28, 2017 for a period of 1 year 4 months. More specifically, the main objective of this study is two fold:

1. To analyze how the English-language and Thai-language newspapers in Thailand have framed climate change issues in COP Paris Summit, and
2. To examine what factors, both internal and external to journalism, have influenced the frame-building process.

Theoretical Orientation: Framing

Sociologist Erving Goffman (1974) is generally credited for introducing “framing” as an interpersonal theory of how individuals make sense of their everyday lives. In his classical work on framing, Goffman elaborates how new information is being successfully processed by people in applying human interpretive schemata to organize information and interpret it meaningfully. Many media scholars have applied the idea of framing to how journalists make sense of news events, making framing a much employed theoretical perspective in mass communication literature. Researchers from a variety of methodological positions have applied the concept in their work (Reese, 2008). According to McCombs (1997), priming is a consequence of agenda setting and framing is no more than aspect, or second level, agenda setting. Where first-level agenda setting make issues salient, second-level agenda setting makes aspect of the issue salient by the same mechanism. Similarly, Entman (1993, p. 52) said “To frame is to select some aspects of a perceived reality and make them more salient in a communicating text.”

Entman (1993) explains that media framing involves selection and emphasis. Journalists select certain elements of an issue and emphasize them while simultaneously ignoring or omitting other elements of the issue. However, he says frame perform four functions: define problems-determine what a causal agent is doing with what costs and benefits, usually measured in terms of common cultural values; diagnose causes – identify the forces creating the problem; make more judgments – evaluate causal agents and their effects; and suggest remedies – offer and justify treatments for the problems and predict their likely effects.

Along the same lines, Gamson (1989) states that the media frames journalists employ are “central organizing ideas” that guide audience members’ interpretations of news reports (p. 157). Similarly, Reese (2001) says that frames are “organizing principles” that provide “structure” to news stories that help audiences make sense out of complicated issues (p. 6). Frames, be it published on media or submerged in the human mind, are thus the cognitive shortcuts that people employ to understand the complex world. Frames help journalists to describe or explain the happenings of an event and help audience to interpret them. They help people to organize multifaceted occurrences into simple, consistent and understandable categories. In other words, framing involves both constructing the interpretive frames and then representing them to others in mediated communication processes. It is widely accepted that frames help organize human central ideas in debates which incorporate symbolic devices to characterize the nature of a controversial issue. Frames help to simplify complex issues by highlighting certain dimensions of a topic. Frame advocates will always strive for greater visibility of their preferred frames than the alternative frames that promoted by their competitors. Advocates and their competitors who engage in debates are all

“players” or “actors” of a scene. They are also the sources of information in the news reports. They can also be “sponsors of particular frames” (Gamson, 1984). They utilize frames to strategically define issues in favor of their preferred outcome, and also to influence audiences to act according to their expectations. In this respect, players actors or sponsors can be individual, group, organization or country associated with direct or indirect quotes in news reports, the same as news sources.

Gamson (1984) described frame sponsors as media sources that make efforts to frame information in news stories. They will make sure that stories are slanted and framed in ways consistent with their preferred framing (Hallahan, 1999). Vreese (2005) defines framing as a communicative process that involves frame-building (how frames emerge) and frame-setting (the interplay between media frames and audience predisposition). He has outlined an integrated process model of framing that includes production content, and media use perspectives (Figure 1). Frame- building refers to the factors that influence structural qualities of news frames. Factors internal to journalism determine how journalists and news organization frame issues. Factors external to journalism determine how journalists and news organizations frame issues. Factors external to journalism are equally important. Frame-setting refers to the interaction between media frames and individuals’ prior knowledge and predispositions (p.52).

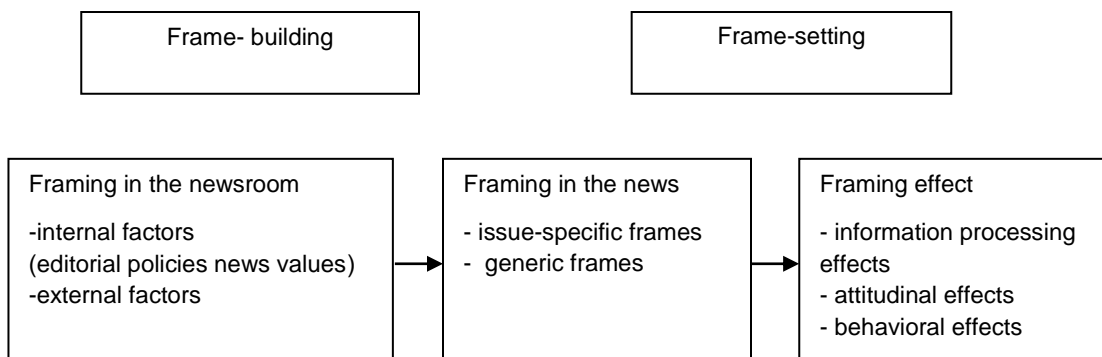


Figure 1 An Integrated Process Model of Framing

Source: Vresse 2005, p. 52

Taking Vreese’s integrated process model of framing as a conceptual framework, this study focuses on the frame-building process by examining the generic frame as work of the four English and Thai language newspapers. Attempts are also made to investigate both internal and external factors that influence the framing process of climate change issues by journalists, media professionals, news sources and other actors.

Previous research

Frames as they appear in media coverage and policy debates can be thought of as interpretative storylines that set a specific train of thought in motion communicating why an issue might be a problem, who or what might be responsible for it and what should be done about it or pose a threat (Nisbet & Scheufele, 2009).

On the climate change issue, Nisbet (2009) has reviewed articles and presented a typology of frames that can be applied to climate change and be used to bring diverse audience together on common ground, shape personal behavior or mobilize collective action. The typology of frames includes: social progress, economic development and competitiveness, morality and ethics, scientific and technical uncertainty, public accountability and governance and middle way and alternative path.

The University of Zurich has funded a multi- annual international research project 'Framing Climate Change' to explore how journalists turn the issue of climate change into news stories (Bruggemann & Engesser, 2014). The study was based on a cross- national survey of journalists who wrote about climate change for leading media organizations. The study combined the interviews with a content analysis covering climate journalism in the US, the UK, Germany, Switzerland and India. The study discovered a number of generic frames including risk/disaster, economic, responsibility, morality, human-interest uncertainty etc. The study was useful to enhance understanding of the dynamics in the debates on climate change access cultures.

Mormont and Dasnoy (1995) made a comparative analysis of the process of framing an environmental problem in three national contexts: Belgium, France and Germany and found that the process of framing facts is an interactive one which in very different configurations and associative to interval. The study illustrates that news constructive or framing is not linear moving from scientific facts to public opinion. Other actors could have been involved and the real process is more complex. Boykoff and Boykoff (2007) explain how journalistic norms have shaped mass media converges of human contributions to climate change. The authors identify the mass media as one of the key public arenas in which social problems are framed and grow. Interrogating the interactive processes of news production, the authors examine how journalistic norms influence news coverage of climate change. Through analysis of US newspapers and television coverage of human contributions to climate change from 1988 through 2004, the study finds that the adherence to first- order journalistic norms- personalization, dramatization and novelty-significantly influence the employment of second order norms authority, order and balance, and that this had led to informational deficient mass media of climate change.

Wilkins (1993) conducted a qualitative study of US print media coverage of the greenhouse effect between 1987 and 2019 and found that there were at least three additional

values that help frame news of the greenhouse effect: progress, the institutionalization of knowledge and innocence, three values replicate the values of the scientific community. In the study "Framing climate change: A comparing analysis of Chinese and American elite newspaper's coverage on climate change during 2009 Copenhagen Summit", Gao, Zixian (2011) found that China's People's Daily and USA's New York Times differed in the framing of climate change stories within a social context, cause, consequence and solution as well as in their perception of each other on climate change. While the China's People's Daily emphasized the social and economic development frame, the New York times highlighted the scientific frame and the responsibility of the developing countries. Both newspapers viewed the significance of international cooperation between the two powers in solving climate change issue and any other global affairs but noted its failure in action. Several media studies demonstrate that media interest tends to wane unless a new thing happens. For that reason, issues such as global warming tend to be cyclical, repeatedly increasing, stagnating and decreasing (Hansen, 1993; McComas & Shanahan, 1999). Wilson (2000) found media are increasingly important sources of scientific information. In a study of reporters understanding and knowledge about climate change, Wilson found that reporters who primarily use scientists as sources and who work the environmental beat full-time have the most accurate climatic change knowledge.

Shanahan and Good (2000) examined relationships between local temperature in two cities (New York and Washington D.C.) and coverage of global climate change in their local newspapers (The Times and The Post). The result shows that there are some relationships between local temperature and frequency of attention to climate issues such that journalists are more likely to discuss climate change during unusually warm period.

There exists number of related studies about global warming and climate change in Thailand. Most studies (Kisner, 2008; Marks, 2010; Marks, 2011) showed that the effects of climate change, including higher surface temperatures, prolonged droughts, violent floods, severe storms, sea level rise and hearth-related issues, are already serious and will likely create or exacerbate a number of additional problems during the next few decades. It was feared that one degree of warming will destroy the rice crops that are central to the economy and a few centimeters of sea level rise will submerge the capital city of Bangkok and devastate coastal tourism. While the government has begun framing policies to both adapt to and mitigate climate change its response so far has been limited because of shortcomings in the planning and implementation processes.

In terms of media coverage of global warming and climate change, little attention was given to the issue. Salathong's (2008) surveyed three mainstream newspapers, namely, the English language Bangkok Post and the Thai language Matichon and Thai Rath from 1997 to 2007, he found that the general coverage of climate change was very low during

from 1997-2006. Only in 2007 was the newspapers coverage of climate change unusually high with a combined number of 654 articles out of which Matichon published the most 305 articles, the Bangkok Post was second with 187 articles followed by Thai Rath with 167 articles. The main reason for the increase was a number of special events taking place in the year 2007 including the Bangkok International Book Fair on the Thai versions of an Inconvenient Truth, Al Gore and IPCC jointly won Nobel Peace prize. This suggested that newspaper coverage of climate change correlates well with a specific event or series of special events consistent with internal findings.

Mittang (2009) had an interview with Tang and Permibul, a number of the Thai working group for Climate Justice to find out that awareness on climate change was quiet low. There were some campaigns to raise awareness, for example, about using cloth bags to replace plastic bags. Little success had been met. In a special report on the Nation, Marks (2010, August 30) recommended several strategic measures to take to improve its adaption and mitigation efforts. The ministry of education could raise public awareness of climate change by introducing environment classes into the curriculums of primary and secondary schools and at the university level allocating grants for research in environmental protection efforts, mass media to be used to educate the public. A few studies have been undertaken for content analysis mass media in Thailand to examine how they have been framed. Of particular interest was a study by Chongkolrattaraporn (2013) to identify different generic frames hold by global warming experts, campaign planners and audiences. The study found that the social frame and financial frame were dominant frames among experts and campaign planners while the scientific frame was the most common among audiences. In view of Thai socio economic environment, the author suggests that a combination of Buddhism and His Majesty the King's philosophy of sufficiency economy frame as well as the scientific frame can create more effective responses on the global warming issue among Bangkok's residents.

Based on the research review, this study proposes the following questions:

RQ1: What was the frequency of each frame in the coverage of climate change during COP 21 in Paris?

RQ2: Was there any difference in the occurrence of frames between English language newspapers and Thai language newspapers?

RQ3: What was the frequency of sources of information cited in the newspaper coverage of the climate change during COP 21 in Paris?

Methodology

This study used content analysis as its research method to analyze the newspapers coverage of the 21st Session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change in Paris, France. Four mainstream newspapers were selected for the study, based on their credibility and wide circulation among readers. Among these four dailies, two were major English language newspapers, namely The Bangkok Post and The Nation: the other two were Thai language newspapers namely Thai Rath and Matichon.

Established in 1946, the Bangkok Post, presently owned by Post Publishing Public Co. Ltd., is Thailand's oldest newspaper in any language. Known as "the world's window on Thailand", the 70 year-old Bangkok Post has a more foreign or internationalist view, which can be attributed to the fact that it employs more foreigners than Thais. Its editorial line is conservative. The Nation was established by journalists in 1971 and was strictly Thai-owned. Presently it is the flagship publication of the Nation Multimedia Group, producer of several newspapers, television channels, books, magazines and websites. The majority of the Nation's staff are Thai, a major factor in its superior coverage of local news and analysis. Editorially, the Nation is usually critical of the government.

The most popular daily Thai-language newspaper, Thai Rath, circulates throughout the nation's urban and rural areas. Thai Rath prominently features sensationalist stories on crime and accidents. Thai Rath was founded in 1958 as a pro-Government newspaper and is considered as conservative within the Thai political context.

Matichon is considered a "quality" Thai-language newspaper and essential reading for Thailand's educated classes. Matichon was founded in 1978 after the military coup in 1976. Its editorial line is moderate to progressive.

Sample

This study analyzed the census sample of news coverage from the four mainstream newspapers about the 21st session of the Conference of the Parties (COP) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) held at Le Bourget in the suburbs of Paris, France during 30 November 2015 – 12 December 2015 until February 28, 2017 for a period of one year 4 months. The census sample was chosen for this study as many scholars (Neuendorf, 2002; Riffe, Lacy & Fico, 2005) found the method suitable for researchers to examine a particular event or series of events. The unit of analysis was the article, which included news, editorials, columns, opinions and letters. The articles were drawn by conducting a search in the IQ New Clip database using "climate change and global warming" as the key words. Data were collected during the period from November 30, 2015 when COP 21 was started until December 12, 2015 when it was closed and continued until February 28, 2017 for a period of one year four months. After double-checking every article

and clearing irrelevant articles, the selection process yielded 172 articles about climate change or global warming related to COP 21.

Coding

This study uses the news article as a coding unit. According to Armstrong and Boyle (2011); Dardis (2006) and Xu (2013), an article was found to be a more efficient coding unit in capturing the content and themes of coverage than a paragraph as a coding unit. Articles were coded for the presence or absence of the frames used in this study. The following are the news frames and their operational definitions.

Previous studies have provided useful guidelines for identifying predominant frames in a newspapers' coverage of COP 21 Paris Climate Summit. Based on the studies by Nisbet (2009), Bruggemann and Eugesser (2014), Boykoff and Boykoff (2007), Wilkins (1993), Mormont and Dasnoy (1995), Gao (2009), Chonkolrattanaporn (2013) and Salyakamthorn (2012), a list of generic frames can be compiled. After reading all 172 news articles in Thailand's four mainstream newspapers, a final of five dominant frames have been concluded inductively. They are: responsibility, morality and ethics, sufficiency economy, ASEAN haze free and public health and public participation.

1. Responsibility – The news stories present a climate change or a global warming issue or problem in such a way as to attribute responsibility for its cause or solution to either the government or to an individual, group, party or institution.

2. Morality and ethics – The news stories make reference to morality, God and other religious tenets. The stories offer specific social prescription about how to behave or emphasize collaboration.

3. Sufficiency economy – The news stories make reference to the royal philosophy's approach to the solution of climate change issue or problem, on the basis of middle path and moderation, reasonableness and self-immunity toward sustainable development goals.

4. ASEAN haze-free and public health – The news stories emphasize the regional problem of smog or haze resulting from land and forest fires and their impacts on public health such as asthma and heart disease.

5. Public participation – The news stories suggest the importance of public participation and local support in the policy making process and reduction of green-house gas emissions, mitigation and adaptation.

When coding these five frames, these frames frequently intersected. Some contents could be coded as more than one frame. For example, the following article titled "China and the US agree on the 'responsibility' to take action", which appeared on the Opinion page of

the Nation on December 1, 2015 was coded as both the Responsibility Frame and the Morality and Ethics Frame.

“As the two largest carbon emitters, we have both determined that it is our responsibility to take action,” Obama said as he sat at a table with China’s President Xi Jinping for talks on the sidelines of the climate conference.

The news article titled “Critics doubt PM’s climate pledge,” which appeared on the front page of the Nation on December 2, 2015 was coded as the Sufficiency Economy Frame and the Responsibility Frame.

“Prime Minister Prayut Chan-o-cha told the two-week-long United Nations Climate-change Summit in Paris that the Thai Government was committed to the target of lowering greenhouse gas emissions by 20—25 percent by 2030 ... The emphasis would be on promoting green industries and adopting the royal sufficiency-economy models as major principles for the country to achieve its sustainable development plan in 2030.”

The article titled “ASEAN nations vow to be haze-free by 2020,” which appeared on the Opinion page of the Bangkok Post on December 4, 2015 was coded as the ASEAN Haze-Free and Public Health Frame and Public Participation Frame:

“The ASEAN region is looking to become haze-free by 2020, but reducing forest fires and fossil-fuel use will take time... ASEAN is implementing the Agreement on Transboundary Haze Pollution, which encourages ASEAN member countries to collaborate on tracking and sharing information.”

The article titled “Thousands join rallies over climate change crisis” which appeared on the Opinion page of the Bangkok Post on November 30, 2015 was coded as the Public Participation Frame and the Morality and Ethics Frame:

“Thousands turned out for climate change marches across the Asia-Pacific region yesterday, part of a weekend of action across the globe to demand results from next week’s historic Paris Summit... “Protect our common home” and “Climate justice” were written on the placards held aloft by the surging crowd.

Intercoder Reliability

The researcher served as the first coder and a graduate student at Bangkok University was chosen as the second coder and given a training session about the coding scheme. Wimmer and Dominick (2006) suggested that between 10-25% of the body of content should be tested. Accordingly, this study randomly selected 10% of the articles for calculating the intercoder reliability. The two coders worked independently. Using Holsti’s

(1969) formula (also cited in Wimmer and Dominick, 2006), it was found that the intercoder reliability for news frames was 0.90 which showed substantial agreement.

Results

The two English-language newspapers, The Bangkok Post and The Nation, extensively covered the 21st Session of the Conference of the Parties (COP 21) in Paris. This is a direct quote? If so, you need quotes.

From November 30 – December 12, 2015 in the form of straight news, articles, editorials, columns, opinions and letters. On the other hand, the two Thai-language newspapers, Matichon and Thai Rath, published only a few news articles about COP 21 during this period. A total of 172 news articles were collected from the four mainstream newspapers out of which 70 were from The Bangkok Post and 52 from The Nation while only 30 and 20 news articles were from Matichon and Thai Rath, respectively.

To answer RQ1, frequency of the occurrence of each new frame was determined. Table 1 contains the results of this analysis. The content analysis of the four mainstream newspapers presents a variety of news frames at all levels – international, regional and national. At the international level, the “responsibility” and the “morality and ethics” frames were clearly displayed by all newspapers and ranked first and second on the list. The Asean regional issue of “transborder haze free and public health” was also played up by the English-language newspapers. At the national level, the royal philosophy of “Sufficiency Economy” was highlighted by all newspapers, particularly the Thai-language newspapers, followed by the “public participation” issue.

Table 1 Frequency of frames by newspapers

	<u>Total</u>		<u>The Bangkok Post</u>		<u>The Nation</u>		<u>Matichon</u>		<u>Thai Rath</u>	
	n = 172	%	n = 70	%	n = 52	%	n = 30	%	n = 20	%
Responsibility	45	26.16	19	27.4	14	26.92	7	23.33	5	25.00
Morality & Ethics	41	23.83	17	24.28	13	24.99	7	23.33	4	20.00
Sufficiency Economy	40	23.25	14	19.99	13	24.99	8	26.66	5	25.00
Haze Free & Public Health	24	13.95	11	15.71	6	11.53	4	13.33	3	15.00
Public Participation	22	12.79	9	12.85	6	11.53	4	13.33	3	15.00

In all, the responsibility frame dominated the coverage of COP 21 in Paris with 26.16% (n=45), followed by the morality and ethics frame with 23.83% (n=41). Thailand's

sufficiency economy frame was ranked third with 23.25% (n=40) while transborder haze free and public health and public participation frames lagged far behind with 13.95% (n=24) and 12.79% (n=22), respectively.

To answer RQ2, frames between the English-language newspapers and the Thai-language newspapers were compared. Table 2 presents the results of this analysis. There appeared some differences in the occurrence of news frames between the two groups of newspapers.

The two English-language newspapers displayed both the responsibility and morality and ethics frames as the predominant frames with 27.05% (n= 33) and 24.59% (n=30) respectively, compared with 24.00% (n=12) and 22.00% (n=11) respectively for the Thai-language newspapers. On the other hand, the Thai-language newspapers tended to highlight the sufficiency economy and public participation frames with 26.00% (n= 13) and 14.00% (n=7) respectively, compared to 22.13% (n=27) and 12.29% (n=15) respectively for the English-language newspapers.

There was no difference in the coverage of the Asean regional issue of transborder haze and public health frames between the two groups of newspapers. The difference in framing devices may be traced to be a reflection of both the cultural values and journalistic norms about news coverage by Thai daily newspapers. In general, both English-language and Thai-language newspapers reflected the cultural value of “collectivism” which was found by the Dutch management researcher Geert Hofstede (2001) to predominate in Thailand and many other Asian countries. However, in terms of journalistic norms, the English-language newspapers tended to be more critical and professional while the Thai-language newspapers were more likely to be sensational, authority-order and balance oriented. Similarly, Boykoff (2007) also found journalistic norms operating in US coverage.

Thus, it can be concluded that both cultural values and journalistic norms played an important role in framing the media coverage of COP 21 in Paris.

Table 2 Comparison of frames between English and Thai-language newspapers

	<u>English-language newspapers</u>		<u>Thai-language newspapers</u>	
	n=122	%	n=50	%
Responsibility	33	27.05	12	24.00
Morality & Ethics	30	24.59	11	22.00
Sufficiency Economy	27	22.13	13	26.00
Haze Free & Public Health	17	13.93	7	14.00
Public Participation	15	12.29	7	14.00

Table 3 Sources of Information of the Newspaper Coverage of Climate Change

	<u>The Bangkok Post</u>		<u>The Nation</u>		<u>Matichon</u>		<u>Thai Rath</u>	
	n=33	%	n=26	%	n=15	%	n=10	%
U.N. Agencies	5	15	3	11.54	2	13	1	10
News Agencies	5	15	4	15	2	13	1	10
Government Officials	3	9	4	15	3	20	2	20
Newspaper's Staff	9	27	6	23	4	26.67	3	30
Freelance Writers	3	9	3	11.54	1	6.67	1	10
Scientists, Academics	5	15	3	11.54	2	13	1	10
Others (Readers, etc.)	3	9	3	11.54	1	6.67	1	10

To answer RQ3, the distribution of various sources of information cited in the coverage of COP 21 was analyzed. As earlier stated, news and information sources, news sponsors or advocates are important external factors affecting the frame-building process. Table 3 reports the results of this analysis. The analysis showed that the English-language mainstream newspapers used a larger number and variety of news and information sources than the Thai-language mainstream newspapers. The English-language newspapers relied more on external sources, particularly United Nations agencies, news agencies, freelance writers, scientists and academics. Their own staff also made an extensive coverage of the conference. Consequently, their reports appeared to be more comprehensive, critical and professional oriented. On the other hand, the Thai-language newspapers relied more on such internal sources as government officials, authorities and their own staff. Accordingly, their reports tended to be authority-order and status-quo oriented as well as conforms to cultural norms.

Thailand's participation in this conference shows its firm responsibility to join the world community in tackling climate change. Prime Minister General Prayuth Chan-o-cha was pictured seemingly statesman like laying flowers in tribute to the victim of terrorist attacks, and avoided making any embarrassing blunders. At the main event the UN's climate change conference, he delivered Thailand's pledge also known as Thailand's Intended Nationally Determined contributions (INDC) to reduce greenhouse gas emissions by between 20 % and 25% by 2030, which received positive coverage at home and was even welcomed in some quarters as ambitious (The Bangkok Post, 2015,p.10).

Srisuwan Janya (2015) President of the Stop Global Warming Association, said the commitment was unrealistic and inconsistent with actual government policies. He said it is very clear that the government still supports some of the coal fired power plant projects and do not pay enough attention to developing renewable and clean energy. The policy of

promoting industrial investment will also contribute to an increase in greenhouse-gas emissions. In short, critics viewed what the Prime minister and his government set was a safe and conservative target. Given Thailand's role as a leading emitter and the fact the country suffers severe consequences from climate change it cannot afford to be more ambitious only responsible. Prime Minister General Prayut called on all countries to join hands in pushing for the new agreement on climate change that is balanced, flexible and practical. The new agreement should take into consideration differences in the economic situation of each country and its ability to handle climate change problems. It should also help promote the progress of all emerging countries. The Prime Minister also urged all countries to cooperate and provide assistance in the form of finance, technology, transfer and capacity building in order to protect global natural resources. Efforts to limit global temperature rise to 1.5 degree Celsius should take into account the differences of each country as well (The Government Public Relations, 2015)

He pointed out that changes in climate have caused impact on all sectors especially in developing countries. The global temperatures and sea-level have increased and droughts have become severe. As a result, many people are not able to have access to clear water while the agricultural sector has insufficient water for cultivation. This will affect food security and already more natural disasters are being seen all over the world. However, critics viewed Prime minister Prayut's pledge as just "window dressing" or a "pipe dream" in front of the world leaders (References should be listed in alphabetical order throughout.). According to critics, the main obstacles that will bar Thailand from reaching its ambitious goals are a plan to build two coal- fired power plants on an 800 megawatt plant in Krabi's NuaKhlung district and a 2,200megawatt plant in Songkla's Thepha district as stipulated in the power development plan for 2015-2036.

Textual Analysis

The following textual analysis of the newspaper coverage helps to understand how mainstream newspapers highlighted some big players who influenced the frame-building process of climate change during the COP 21, Paris, France.

1. Responsibility frame

The responsibility frame has dominated all other news frames with 26.16%. The responsibility frame presents a climate change issue or problem in such a way as to attribute responsibility for causing or solving to either the government or organization or to an individual or group. In the first place a collective responsibility was explicitly expressed by President Barack Obama at the opening of COP 21 in Paris. "As the two largest carbon emitters we have both determined that it is our responsibility to take action," President Barack Obama said at the launch of a global climate summit in Paris on November 30, 2015 as

China's President Xi Jinping was sitting by. The statement helped pave the way for the "historic" agreement reached in Paris to avert calamitous global warming (Agence France Presse, 2015)

In fact, the United States and China had reached the breakthrough agreement ahead of the summit meeting in Paris. In 2014, they announced plans to jointly enact emissions reductions policies. Since then more than 170 countries representing 90% of global carbon emissions, have put forth proposals to reduce emissions. Those plans also known as Intended Nationally Determined Contributions (INDC) represent a major change from the usual brinkmanship of climate negotiations (Davenport, 2015). In line with world leaders, scientists warn that "unless action is taken soon, mankind will endure ever-worsening catastrophic events, such as drought that will lead to conflict and rising sea levels that will wipe out low-lying island nations" (AFP, 2015).

Meanwhile tens of thousands turned out for climate change marches, across Asia-Pacific region to demand responsible results from the historic Paris summit. The groups include religious clergy activists, academics and students. Speaking outside parliament, Anglican Bishop Justin Duckworth said, all citizens had a responsibility to protect the planet. "I don't want my future generation to clean up my mess. It is my responsibility", he said according to AFP (2015). Finally, French Foreign Minister Laurent Fabius who took over the presidency of the 12-day, 195 nation UN climate change conference, told leaders gathered in the French capital that: "our responsibility to history is immense." Describing a proposed 195 nation accord as an "historic accord", Fabius said the agreement would aim to limit warming of the planet since the industrial revolution to "well below" 2 degrees Celsius (3.6 Fahrenheit) and strive for an even more ambitious goal of 1.5 C (2.7 F) according to Agence France Presse, 2015.

2. Morality and ethics frame

The morality and ethics frame ranked second with 23.83%. The morality and ethics frame interprets a global warming and climate change issue or an event in the context of religious tenets or moral and ethical prescriptions. Compared to previous UN conferences on climate change, the understanding of climate change as a pressing moral and ethical issue had widely permeated the dialogues of negotiators and commentators throughout the COP 21 conference. Pope Francis reportedly provided invaluable moral leadership before and during the Paris summit and inspired by him, people of many faiths, as well as those of no particular faith, engaged energetically in moral discourse (Oscar Cantu', 2016). UN Secretary General Ban Ki Moon explicitly cited climate change as a "moral issue" in reference to COP 21. Religious leaders, diplomats, academics, activists and ordinary citizens made more moral appeals in reference to COP 21 than was the case previously.

The United Nations has hosted annual summits to tackle the vexed global warming issue since 1995, but all previous efforts have foundered, primarily due to deep divisions between rich and poor nations. In response to the rich nations' demand that developing countries also be responsible for future warming, the poor countries argued that it was "unfair" for those not responsible for the problem are being asked to share the burden equally. They often said global warming is such a pressing moral issue. Indigenous peoples and the developing world are least responsible for climate change, least able to adapt to it, and most vulnerable to its impacts (AFP, 2015).

Indian Prime Minister Narendra Modi also warned at the summit opening that poor nations had a "right" to burn carbon to grow their economics (The Nation, 2015, p.7.a).

On the eve of the COP 21, tens of thousands of people, including religious clergy, academics, activists and ordinary citizens, marched across the Asia-Pacific region, particularly in the Philippines, Australia, Japan, New Zealand and Bangladesh, to mount pressure on world leaders to strike a pact on current greenhouses gasses in Paris.

Many low-lying pacific nations such as Kiribati, Tuvalu and the Marshall Islands fear they could disappear beneath the waves completely as sea levels rise (AFP, 2015).

The latest draft agreement offers a compromise that states the purpose of the agreement is to hold temperatures below 2C but aim for 1.5C.

"With this, I would be able to go home and tell my people that our chance for survival is not lost", said Tony de Brum, foreign minister of the Marshall Islands (AFP, 2015).

3. Sufficiency economy frame

The sufficiency economy frame ranked third with 23.25%. At the COP 21 conference in Paris, Prime Minister General Prayut Chan-o-cha said that Thailand has adopted the Philosophy of Sufficiency Economy (SE) as an overriding principle for Thai people's conduct and way of life at the individual, family, and community levels. The Prime Minister explained that His Majesty King Bhumibol Adulyadej conceived of SE in 1974, based on Buddhism's middle path and the principles of "moderation, reasonableness and self-immunity." The application of SE is based on two conditions: to have appropriate knowledge and to have morality and integrity (The Government Public Relations Department, 2015). In 1997, the country faced the global financial crisis and sought to strengthen SE in the national planning process. As a result from the eight national Economic and Social Development Plan (1997-2001), the country changed the development paradigm from economic development to people-centered development. Based on the sufficiency economy approach, Thailand has launched several environmental campaigns to solve the human made problems of global warming and climate change, especially the community garbage disposal and reforestation. It also promoted the use of renewable energy from solar, wind, water and bio mass sources.

The country has also implemented the roadmap to reduce trans-border haze pollution in ASEAN region (The Government Public Relation Department, 2015).

The prime minister also delivered Thailand's pledge, known as Thailand's Intended Nationally Determined Contributions (INDC) to reduce greenhouse gas emissions by 20% from its 2005 levels, and up to 25% with international assistance. This would be done by reducing fossil-fuel consumption while promoting greater use of renewable energy and adopting the mitigation and adaption strategy for the country to achieve its sustainable development plan in 2030. The prime minister's speeches received positive coverage at home and were welcomed by some people as ambitious. However, critics were skeptical and regarded the junta's target as a "middle path" between his predecessors. In 2008, the brief government of Samak Sundaravej announced it would draft a framework with the aim of forcing major industrial companies to reduce emissions by between 15-20 %. In 2011, the government under Yingluck Shinawatra of Pheu Thai set higher target. It aimed to reduce greenhouse emissions by 20-25% by 2030, using the higher 2015 levels as a baseline. This makes the Yingluck governments 'policy more ambitious than what the junta announced. The junta's pledge also falls short of comparable ASEAN countries.

4. ASEAN haze-free and public health frame

Southeast Asian countries have been under pressure since the 1990s to solve their trans boundary haze problem which originated from land and forest fires in Indonesia's Sumatra and Borneo Islands and was reportedly one of the worst air pollution disasters experienced by several ASEAN countries particularly Singapore, Malaysia and Thailand. According to an environment expert, without stopping peat land fires and degradation, ASEAN will continue to be a major emitter of greenhouse gases (Wangkiat, 2015, p.3). The heavy haze (or smog) carries risks for everyone, especially people with heart disease or lung conditions such as asthma or emphysema according to the WHO. Children are also at greater risk, because they spend more time playing outside and have smaller lungs. In all about 7 million people worldwide die every year due to air pollution - about 1 in 8 deaths, according to WHO.

Meanwhile, ASEAN has been implementing the Agreement on Transboundary Haze Pollution, ratified by all member states in January 2015, to collaborate on tracking haze and sharing information. The adoption of the "roadmap" was expected in August 2016 to help ASEAN achieve a "haze-free" region by 2020, just four years away. Since Thailand has suffered severely from both the haze and lung disease, it has closely collaborated with other ASEAN countries to implement the transboundary haze free agreement and public health.

5. Public participation frame

Although Prime Minister Prayut Chan-o-cha said at COP 21 he would put Thailand on the path to making massive cuts in greenhouse gas emissions between now and 2030, experts in global warming and alternative energy were reportedly skeptical. Many described the premier's speech as a pipe dream or window dressing (Rujivanarom & Pongrai, 2015; Wangkiat 2015). Part of the problem is that the Thai public has not been informed how the 20-25% target came about (Techawongtham, 2015). In short, the public has had no input at all in the decision-making and the Power Development Plan for 2015-2036 (Wangkiat 2015). That leads to the question: how can the government expect cooperation from the public as public cooperation is a necessity for success?

The issue of public participation is also reflected in a series of rallies held by local communities. For example, in late 2015, hundreds of students from the federation of Patanian student and youth reportedly rallied at Prince of Songkhla University in Pattani Province against the plan to construct a 2,200 megawatt (MW) coal-fired power plant in Thepa district of Songkhla province. Many environmentalist and locals have expressed concerns about the plan, fearing its environmental impacts on cultures and livelihoods could worsen the security situation in the already volatile deep south.

In early 2014, the Electricity Generating Authority of Thailand (EGAT) also proposed a controversial 60 billion baht (about USD 1.8 billion) coal fired power plant with 800 MW capacity and a coal seaport adjacent to it in Nua Khlong District of Krabi Province. As a consequence of local rallies, Prime Minister Gen. Prayut Chan-o-cha issued the order on February 27, 2017 scrapping the environmental health impact assessment (EHIA) and environmental impact assessment (EIA) for the controversial Krabi power plant project from the beginning. The prime minister insisted on having public participation. EGAT was also aware of the prime minister's concerns about the issue regarding local participation in the EIA and the EHIA.

Conclusion and Discussion

This study examined how the four mainstream newspapers in Thailand framed the issue of climate change in the public arena to influence public opinion at the COP 21 Paris summit during November 30, 2015 until February 28, 2017. The newspapers under study consisted of two major English language dailies, the Bangkok Post and the Nation, and two Thai language dailies, Matichon and Thai Rath.

Based on de Vreese's (2005) integrated process model of framing, the study focused on frame-building which refers to the factors that influence the structural qualities of news frames. The study found that both factors, internal and external, determined how journalists framed the global warming and climate change issue. Such internal factors include editorial policies, news values and journalistic norms (Boykoff and Boykoff, 2007; Wilkins,

1993). Important factors external to journalism include cultural values, religious tenets, national policies and ideologies.

The frame-building process took place in a continuous interaction between journalists and other actors or players, particularly scientific experts, national leaders, government and non-government officials and U.N Officers. The outcomes of the frame-building process were five generic news frames, namely, responsibility, morality and ethics, sufficiency economy, transborder haze and public health, and public participation. Among these frames, the attribute of responsibility was the most predominant frame with 26.16% of the total coverage, followed closely by the morality and ethics frame and sufficiency economy frames with 23.83% and 23.25% respectively. The other two frames lagged behind with transboundary haze and public health frame scoring 13.95% and public participation frame 12.79% respectively.

Interaction process of media framing and public opinion

This study has demonstrated that the process of framing global warming and climate change issues is interactive between journalists and other actors or players, particularly scientific experts, government and non-government authorities and United Nations officials, under different contexts (Mormont & Dasnoy, 1995; Vreese, 2005). It is not a linear process moving from scientific facts to public arenas. In the frame building process (Vreese, 2005), the Thai language newspapers, *Matichon* and *Thai Rath* appeared to work under political constraints, subject to such traditional journalistic norms and values as authority-order and balance (Boykoff and Boykoff 2007; Wilkins, 1993) and played a relatively limited role in public opinion formation. On the contrary, the English-language newspapers, the *Bangkok Post* and the *Nation*, appeared to conform to international ethical standard and professional practice, thus actively affect a public opinion on greenhouse gas emissions reduction.

Since the research is limited to frame building only, further research should examine framing effects to determine how far frames impact the individual and society. More robust approaches such as path analysis and panel design may be developed to test the framing model. Also cross-cultural research may be considered.

Practical implications

All generic frames have practical implications for decision making at all levels across nations. The responsibility frame was the most commonly used by national leaders of developed and less developed countries, followed by the morality and ethics frame for justifying their decision-making. The royal sufficiency-economy frame, based on Buddhism's middle path concept, and the core principles of moderation, reasonableness and self-

immunity, has been successfully implemented as a national economic and social development plan and addresses the human-made problem of greenhouse gas emission's effects in Thailand. Lessons can be drawn from G-7 group of nations.

Creating social awareness and public participation

Prime Minister General Prayut Chan-o-cha delivered Thailand's pledge to reduce greenhouse gas emissions by 20-23% from its 2005 levels by 2030. The prime minister also said that Thailand has adopted the Philosophy of Sufficiency of Economy as a way to carry out sustainable development in the country. So far, the country has launched several environmental campaigns, especially those concerning garbage disposal and reforestation in ASEAN. It also promotes the use of eco-cars and electric trains and has a roadmap to reduce haze pollution.

However, many journalists and critics argued that the Thai public has not been informed of how the 20-25% target came about. They said the Thai public had no input at all in the policy making. All scientists and journalists agreed that public participation is a necessity for the success of greenhouse gas reduction campaigns at all levels. Therefore, it is imperative to mount integrated multimedia campaigns to create a social awareness, knowledge and consciousness among the general public and youth on climate change issue. It is in part the government's responsibility to carry out the national public participation campaigns in order to reach the 20-25% greenhouse gas emissions reduction target.

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