12. Newspaper coverage of climate change in Fiji

A content analysis

Abstract: Media plays a crucial role in the global fight against climate change, acting as a tool for awareness, advocacy and policy change. For Fiji, this role becomes even more essential with the country's vulnerable island system facing the direct impact of current and future climate change threats. The primary aim of this study was to analyse climate change coverage in the Fiji press. The Fiji Times, Fiji's national newspaper, was examined to identify trends in climate change coverage between January 2004 and December 2010. A quantitative analysis was initially carried out to see the volume of reports, followed by a qualitative look into the context and thematic values of the news reports. Empirical findings showed an increase in coverage over time, although there was a transiency in the high levels of coverage when looked at on a monthly basis. Published reports also showed a trend of event-based reporting with more than 80 percent of articles being generated out of, or following up on, a climate change convention, meeting or report launch. An overall consensus on the scientific realities of climate change in the newspaper coverage, and relatively high coverage of impacts and threats of climate change highlighted the plight of the islands. Reporting of climate change issues needs to be prioritised if the press is to fulfill its role in providing timely information on climate change. Journalists' training and collaboration with national stakeholders would assist in more effective climate change coverage instead of the great reliance on one-off events to spark recognition of the major environmental problem. Developments in the discourse since this research was conducted will be worth noting as climate change has continued to rise as one of the most salient global environmental issues.

Keywords: climate change, content analysis, Fiji, Fiji media, journalism, media, news coverage, newspapers, *The Fiji Times*

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Introduction

LIMATE change is one of the most critical environmental issues facing the world today. Defined as 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of

the global atmosphere and which is in addition to natural climate variability observed over comparable time periods' (UNFCCC, 1992), climate change is fast becoming a stark reality.

As both the developing world and industrialised nations seek to find and utilise all possible avenues available to tackle this global issue, the media's extensive role in the combatting of climate change becomes even more pivotal. The role extends from spreading awareness on the environmental issue, in its basic understanding, to the more complex workings of influencing policy making and shaping the minds of a mass audience (Boykoff, 2009).

Media and climate change

The media plays an important role in this context by relaying information about climate change to people. Environmental organisations, scientists and climate change experts may know more about the different aspects of climate change, but these messages would not be conveyed effectively without the use of the media. 'The majority of citizens will not come into direct contact with scientists through extended conversations and will continue to rely upon messages conveyed to them by various forms of media: television, newspapers, websites, magazines, radio' (Hulme, 2009).

The media influences who has a say in what matters, and how. 'Clearly science and politics have influenced media coverage of the environment over time. But conversely, media representations have also shaped on-going scientific and political considerations, decisions and activities' (Boykoff, 2009). It is also a necessary agent for change, proving to be a great tool for awareness and advocacy. Fulfilling these roles, though, is not an easy task given the multi-faceted nature of climate change and its cross cutting issues which is further complicated by political and ethical elements (Boykoff, 2009).

Research shows coverage gaps in 'making stories more relevant to audiences, raising the profile of adaptation and the perspectives of the poor, and reporting on ways to address climate change that bring additional benefits' (Shanahan, 2007). This poses a challenge for newsrooms, editors and journalists who are dealt the responsibility of reporting on climate change, putting an especially greater strain on media in developing countries that have fewer human resources, time and money (Shanahan, 2009). As explained by Patel (2006), environmental reporting does not have its own beat in the media in countries such as in the Pacific and 'dedicated environment reporters are luxuries that few publications, even in the United States, can afford'.

Previous research: Newspaper coverage of climate change

In the latest update at the time this research was conducted (June 2011) of the World Newspaper Coverage of Climate Change or Global Warming statistics

(see Figure 1), apart from North America, and the Asia/Middle East regions, climate change coverage seems to have slightly picked up again since April in Europe, South America/Africa and the Oceania region (Boykoff & Mansfield, 2011). The figure, which has been following climate coverage across 20 countries, shows trends in coverage picked up in 50 newspapers across the world since 2004.

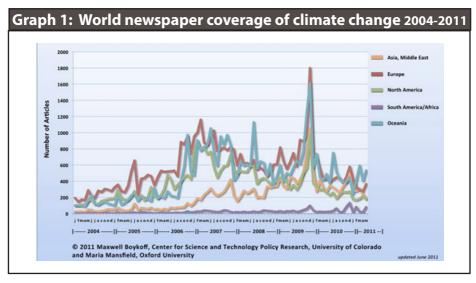
Over the seven plus years, the highest coverage trends in all the regions were concentrated around December 2009. While no analysis is provided, this period also coincides with the global conference COP15 that was held in Copenhagen, Denmark, giving an indication on how the meeting may have influenced media reports on climate change. In general, the trends show how climate change is increasingly becoming an important topic in the news today, at varying consistencies over time.

In terms of more in-depth analysis of climate change coverage in newspapers, the bulk of this research has been concentrated in developed countries such as the US, UK and Japan, although a few studies from the developing world do exist. Research in developing countries is limited in comparison and for the purpose of this article reference will be made to the few known studies, in India (Billett, 2009), a collection of case studies in Honduras, Jamaica, Sri Lanka and Zambia (Harbinson et al., 2006) and another, a summary of climate change research that has been carried out in non-industrialised countries (Shanahan, 2009).

Much of the research on newspaper coverage of climate change in the UK and US is attributed to Maxwell Boykoff (2004, 2007) and for Japan, Sampei and Aoyagi-Usui (2008) take a look at newspaper coverage of climate change from January 1998 to July 2007, and the coverage influenced public opinion during some of that period in their study.

While the role of the media is crucial in non-industrialised, developing nations, research in some of these nations depicts their inability to fulfil this role as they '... have a poor understanding of the climate change debate and express little interest in it' (Harbinson et al, 2006). For this research, Harbinson et al (2006) conducted interviews with journalists and media professionals in Honduras, Jamaica, Sri Lanka and Zambia. In all four countries, interviewees, through their personal observation/media work experience, found the coverage on climate change related issues lacking.

The only research on climate change coverage in the Fiji media exists through Figure 1, which shows a month-by-month tracking of 'World Newspaper Coverage of Climate Change' by Max Boykoff and Maria Mansfield (2011). The research, which began at the University of Oxford, Environmental Change Institute, 'tracks newspaper coverage of climate or global warming in 50 newspapers across 20 countries and 6 continents' (Center for Science & Technology Policy Research, 2011).



Fiji is represented here under the 'Oceania' category, which consists of five Australian newspapers, three newspapers from New Zealand and one newspaper from Fiji, *The Fiji Times*. The overall trend shown in coverage is therefore a misrepresentation and does not solely depict the coverage of climate change in Fiji. 'Due to sampling, the relative trends across regions are more useful than absolute numbers in the figure' (CIRES, 2011). These, therefore, are not a very reliable representation of the newspaper coverage by *The Fiji Times*, and do not provide audiences with proper insight into climate change coverage trends in Fiji over those seven plus years.

For a country that is in the direct line of fire when it comes to the effects of climate change, media coverage of the issue is lacking. This article will therefore provide insight into the efficacy of climate change coverage in Fiji. The primary aim is to analyse newspaper coverage of climate change in Fiji by answering the research question: What kind of climate change coverage is there in The Fiji Times? Through a content analysis of the national newspaper, the research aims to find out the trends in climate change coverage in The Fiji Times; not just how often it is reported on, but also in what context.

Theoretical framework and application to research

What the media leaves out of their reports, or chooses to put more emphasis on, whether intentionally or unknowingly, has implications on how the issue is perceived by the readers. How a newspaper frames a story through what it considers its gate-keeping responsibilities, giving priority to one matter over another eventually ends up in their having set an agenda with regard to that issue.

Studies show the effects of this framing process on individual thinking,

which can vary depending on the way news is framed, as according to Chong and Druckman (2007), depending on 'the strength and repetition of the frame, the competitive environment, and individual motivations'.

Gatekeeping theory

On a similar strand as agenda setting and framing, is the gatekeeping theory in mass communication. This theory is based on the premise of a filter on the information that is relayed to the public by the media. Introduced by Kurt Lewin, a social psychologist in 1947, the gatekeeping theory was based on the flow of goods and ideas through society, with those in power, or with influence in control of the flow as 'gatekeepers'.

The Fiji Times – A brief history

The Fiji Times, which was first published in 1869, is the country's oldest daily English-language newspaper. The newspaper has the highest circulation figures for any Pacific Island state, 21,000 for Mondays—Friday and 40,000 for Saturday (Pacific Area Newspaper Publishers Association, 2011).

A media survey in 2010 by market research consultants, Tebbutt Research, showed an average readership of 114,024 for the newspaper on Saturdays, the highest for any publication in the country (as cited in Burese, 2011). There is also a free online version of the newspaper, increasing the readership even further.

The newspaper changed hands a few more times before it was finally acquired by the Rupert Murdoch franchise, News Corporation Limited in early 1986 (F. Ledua, personal communication, 26 June 2011). The next change in ownership came in September 2010 when it was sold to a Fiji conglomerate, Motibhai & Company Limited.

Case study description

The time period 2004 - 2010 was selected for analysis using two major climate change events, Kyoto Protocol and COP15, as markers for comparison. While Fiji signed and ratified the Kyoto Protocol in 1998, it only came into force in 2005. The analysis is therefore done from the year preceding 2005 to be able to better fathom any changes that may have occurred in climate change reports in *The Fiji Times* from the time the Kyoto Protocol was put into force.

The analysis ends in 2010, a year after COP15 to enable us to gauge any changes in coverage that may have occurred after the Copenhagen meeting. COP15 was monumental in that the meeting was to begin talks on the renewal of the Kyoto Protocol that was to expire in 2012 (UNFCCC, n.d).

Content analysis process

Firstly, The Fiji Times' library was used to access its digital archives that are

only available through their intranet. The librarian did a search of the keywords 'Climate AND Change' and 'Global AND Warming' for the years 2004–2010. The search was done for every six months starting January 2004 to give a more accurate result.

The initial search produced approximately 230 hits, which reduced in number after a read-through as it was discovered that some articles were repeated in the results. Editorials, opinions columns and letters to the Editor were omitted from the analysis so as to only analyse climate change coverage in 'news stories'. (Hedman, 1981) Sports articles and those that only made a single word, casual reference to the issue for example, in the form of a word on a list mentioned in an article, were also omitted as climate change was a "peripheral" (Boykoff & Boykoff, 2004) issue in those articles. The final number of articles returned from the database search was 207.

After the database search and filtering to ensure only relevant articles were used in the analysis, the articles were studied on a thematic basis. According to McQuail (2005), '...news exhibits a rather stable and predictable overall pattern when measured according to conventional categories of subject matter.'

For this purpose, human coding was used for the analysis and a codebook was derived under the four major climate change themes, 'Action', 'Impact & Threats', 'Science' and 'Responsibility' based on the methodology process

Table 1: Codes used on coverage of science and impacts

Code 1 coverage of existence of climate change

- S1 Article argues that climate change does not exist today
- S2 Article argues that climate change may exist today
- S3 Article argues that climate change does exist today
- S4 Article denies impact link to climate change

Of those coded S3: code 2 - coverage of the causes of climate change

- S5 Suggests that present-day climate change is naturally forced
- S6 Suggests that present-day may not be naturally and/or anthropogenically forced
- S7 Suggests that present-day climate change is anthropogenically forced
- R1 Uses environmental change as evidence of climate change
- R2 Uses scientific research as evidence of climate change

Coverage of impacts resulting from identified climate change

- A1 Article refers to the impacts of climate change
- A2 Article refers to the impacts of climate change in Fiji
- A2a Article refers to the impacts of climate change in P. I. Cs
- A3 Article refers to the impacts of climate change globally
- A4 Article refers to the impacts of climate change as a threat in Fiji
- A5 Article refers to the impacts of climate change as a threat in P. I. Cs
- A6 Article refers to the impacts of climate change as a threat globally

carried out by Billett (2009) for his study of the Indian newspaper coverage on climate change.

Billett's (2009) codebook was adjusted accordingly to suit the news presented in *The Fiji Times* articles and each article was coded accordingly (see Table 1). Instead of random sampling, all the 207 articles derived from the database search/filtering process, due to their manageable count, were used in the coding analysis.

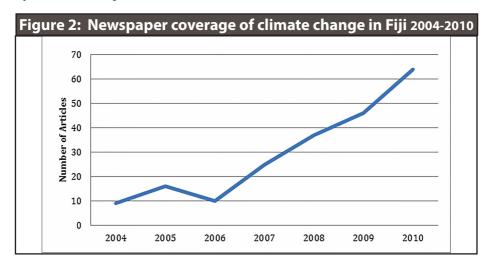
Results and discussion

The articles were first analysed for overall coverage and then by date, then by month (and event coverage) and eventually according to the themes they reported on. The analysis produced three major findings:

- 1. High incidences of coverage did not last long. Constant fluctuations in coverage although the overall general trend showed an increase.
- 2. Majority (88.4 percent) of the articles were reporting on/following up from or generated by an event.
- 3. Thematic analysis showed 'Action' receiving the highest frequency of coverage (75.8 percent).

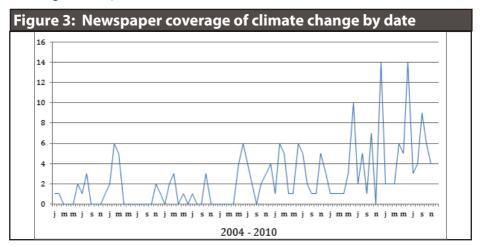
Fluctuations in coverage

The coverage of climate change during the period 2004–2010 shows an increase over time, apart from a slight decline in 2006. While an increase in coverage is indicated after 2006, the rate of increase slows down every year until 2009, rising by more than 50 percent in 2010.



The trend is somewhat similar to that summarised by Boykoff and Smith (2010) when looking at global climate change reporting trends over time. 'The amount of media coverage of climate change or global warming rose through the end of

2006 and into 2007. It then stagnated until mid-2009 when coverage underwent a "hockey-stick"-like sharp increase, due primarily to coverage of the upcoming UN Conference of Parties Meeting in Copenhagen, Denmark' (UN FCCC COP15). This trend ran true for *The Fiji Times* as well with COP15 receiving the great bulk of coverage bringing up overall coverage figures (see Events Based Coverage section).



By-date review of coverage

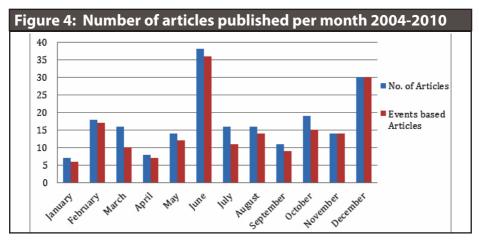
While a yearly view of results shows an increase in coverage over most of the seven years, a closer month-by-month review shows great fluctuations in the coverage of climate change since 2004. The same keyword search but, broken down by month, shows articles were published sporadically with some months showing more coverage and some showing none at all.

The period 2008–2010 showed a more spread out coverage in comparison to the preceding years, although several months had as little as only one article being published. November 2009 also broke this trend in the slightly more continuous coverage as no articles were published on climate change that month. The by-date account of coverage also reveals that high incidences of coverage did not last a long time.

Events-based coverage

The coverage analysis was further broken down into individual months in the seven years to highlight any trends in reporting. A closer look at content showed the majority of the articles published in each month were either reporting on an event, generated by an event or following up on an event. These included both local and international workshops, meetings, conventions on Climate Change and the Environment, as well as launches of books or reports on the issue.

Of the 207 articles, 103 were event-based coverage of climate change (88.4



percent). For the stories that did not fall in this category, three were written by Environmental NGO Communication Officers (WWF, SeaWeb), two were world reports from foreign media, one was on climate change in Tuvalu and at least five were discussing the weather/El Nino effects.

June and December for each year showed the highest coverage of climate change and covered a variety of events, the bulk of the articles reporting on COP15/16, National/World Environment Week and both local and international climate change workshops/conventions. These events also increased the coverage over time with the additional events 'Earth Hour' and 'Kyoto Protocol coming into effect' being added to the list.

In general, though, apart from COP15, which received a high amount of coverage in one month, and Environment Week that helped increase coverage over time, the rest of the events that generated climate change newspaper coverage were an equal and random mix of local and international conventions.

For 88.4 percent of the articles to be event-based reports on climate change is a high incidence. While the articles did dwell on human-interest stories, or impacts of climate change, they still needed to be initiated by a current event to be worth reporting on. For those that were not generated by meetings or conventions, the reports were a result of either natural disasters such as cyclones and weather phenomenon like El Nino, leaving a very low percentage of articles that could be considered to show an entirely stand-alone report on climate change.

Major events: June/December

June

Two-week regional Pacific Island Training Institute on Climate and Extreme Events—Suva

• 'Fijian Studies: A contemporary Fiji' book launch, USP

CLIMATE CHANGE IN ASIA-PACIFIC

- Environment Week x8
- Sea-Grass monitoring/training workshop Fiji
- IPCC AR4
- Climate Change Forum-USP
- Regional workshop on Forest Genetic Resources Conservation and Management in the Pacific, Fiji
- One degree Campaign x2
- UN Conference on Biodiversity in Bonn, Germany
- Nature Journal research published on oceans
- Health Emergency, Disaster and Climate Change Adaptation workshop, Fiji x3
- UNFCCC negotiations-Bonn
- Climate Project Australia Asia Pacific Summit, Melbourne
- AUSaid workshop on Climate Change Adaptation in Rural Communities of Fiji X2
- Pacifika Climate Leadership workshop, Fiji x6
- COP15 x2
- One Million Tree Planting campaign
- University Green Pulse Environmental group formation
- Int'l scientific journal published

December

- 2004: 10th session of the Conference of Parties to the United Nations Framework Convention on Climate Change in Argentina
- 2005: Welcome Ceremony Greenpeace chief executive, Fiji
- 2007: UN climate change negotiations, Bali x3
- Launch of HD Climate change report, Fiji
- 2008 UNFCCC meeting Poland x2
- Earth Hour
- 2009: Pacific Islands Geographical Information System and Remote Sensing Conference, USP x2
- (COP 15) Climate Change meeting Copenhagen x12
- World Human Rights Day
- 2010: Thousand-tree campaign by USP/give back to Fiji concert
- COP 16-Climate change conference Cancun, Mexico x2
- Cities in climate change initiative Program
- International Conference on Renewable Energy and Climate held in Fiji
- OZ/NZ Business Forum

Table 2: Major events over time	
Kyoto Protocol coming into effect (6 articles)	As stated in earlier chapters, the Protocol was signed by Fiji in 1998 but only came into effect in 2005 and got media attention based on its enforcement as well as on the backlash from Fiji and other countries over the withdrawal of US from the Protocol. Although only six articles over the seven years discussed its coming into effect, altogether nine articles focused on it being a good protocol and the need for it to be signed by the unwilling parties (K1).
Earth Hour (5 articles)	The event began in Sydney, Australia in 2007 and now has 135 countries and territories taking part in the action against climate change where citizens and businesses turn their lights off for an hour in March. (EarthHour.org, 2011) Fiji's participation in Earth Hour began in March 2008 which is when it received the most media coverage that included discussion of climate change, and then once in December the same year. The event did not generate continuous articles mentioning Earth Hour and Climate Change since then.
National/World Environment Week (11 articles)	After COP15, Environment Week got the highest volume of coverage in The Fiji Times, with most of the articles published over the May and June from 2007–2009. It is usually celebrated in June and coincides with World Environment Day on June 5 each year
COP 15 (16 articles)	As was the case globally (Boykoff & Smith, 2010), the Copenhagen convention generated a great amount of coverage in Fiji as well. While still a small number in relation to the overall results of 207 articles, in terms of single events that generated coverage, COP15 had the highest results
One Degree Campaign (4 articles)	This event is to show a relatively low volume of coverage derived from a national environmental campaign run by the newspaper. Launched on June 25, 2007, the campaign was started by the newspaper then parent body, News Limited, with the aim to "empower individuals, our staff, families, and communities to take charge of the climate change issue—and by doing so, change our collective future." (1 Degree, n.d) As part of the campaign the company resolved to reduce its carbon emissions and also ran feature articles encouraging the public to do the same through, for example, reduced electricity and fuel use, better use of household appliances. Although the campaign was geared towards combatting climate change, the articles published regarding the campaign did not focus on climate change, hence only four articles showed up in this research as part of the climate change coverage for the 3.5 years that the campaign was running. Articles on reducing carbon footprints, a mainstay of the campaign, were published, only further contributing to the 'small actions' coverage by the newspaper.

Thematic coverage

Action

While overall Action gets the highest coverage in relation to the other themes, a closer look at the elements that make up this theme shows that it consists of a few different aspects of 'Action'. Out of the 157 articles discussing 'Action', only 24 percent identified 'action that has been taken locally to reduce contribution to/impact of CC' (M1) while 21 percent 'suggests mitigation action should be local' (H4) out of which the majority (21 out of 33 articles) suggested that this action should be taken by local people (J3). The remaining few acknowledged the need for the Fiji government and local NGOs to take action.

As such, it can be seen that while 'action' makes up the bulk of the content in *The Fiji Times* articles, a further breakdown of the theme reveals them as 'small actions' being covered by the media and the 'need for action' being advocated. These 'small actions' refer to the articles highlighting small efforts that are taken or should be taken to reduce the impacts of, and contribution towards climate change.

It refers to articles such as those covering 'Plant a tree' campaigns or urging readers to reduce their carbon footprint by reducing energy costs through the use of energy-saving light bulbs. As Ereaut and Segnit (2006) explain, the danger in these reports is that they lapse into 'wallpaper—the domestic, the routine, the boring and the too-easily ignorable. It can lack energy and may not feel compelling.' So while the media feels that it is fulfilling its role in reporting on climate change through such articles on 'Action', their actual impact on readers may not extend so far.

"Small actions" is the pre-eminent "pragmatic" optimistic repertoire, and, along with alarmism, is the most dominant of all the climate repertoires, prevalent in campaign communications and mainstream popular press. It involves asking a large number of people to do small things to counter climate change' (Ereaut & Segnit, 2006)

Science

The science of climate change received only 9 percent coverage overall. Sixteen out of the 19 articles in the science section stated 'climate change did exist' (S3) and either used 'environmental change as evidence for climate change' (R1), suggested that 'present-day climate change is anthropogenically forced' (S7) or used 'scientific research as evidence for climate change' (R2) (or used a combination of the three).

Only one of the articles coded S3 also suggested that 'present-day climate change may be naturally and/or anthropogenically forced' (S3/S6). The only 'denial' was found in the form of two articles from early 2005 denying the link of an impact to being climate change.

These figures indicate how the majority of the articles took the fact that climate change was a scientific reality as a given. There was no debate or scepticism over the existence and reality of climate change; these facts were taken for granted in the articles. The few that did look at the science aspect did so to reinforce the fact that it was a scientific reality.

Responsibility

News reports on who is considered responsible for climate change received the least coverage, with only 15 out of 207 articles focusing on 'responsibility' issues. The articles equally argue that the responsibility for climate change 'rests with developed countries', 'is common but differentiated', and 'highlighted local contribution to climate change' (G3, G4, G5). With the coverage focusing on the impacts of climate change and the need for action, responsibility got very little attention. The newspaper veered away from the blame game and concentrated more on what was actually happening, and what should be done.

Impacts and threats

Out of the 86 articles that discussed 'Impacts and Threats', 41.8 percent specifically covered the 'impact of climate change in Fiji.' (A2) while 'impact of climate change as a threat in PICs' (A5) received the second highest coverage in that section (25.2 percent). The rest of the coverage was spread out over the impacts of climate change in PICs and globally, as well as the impact as a threat in Fiji and globally. Although collectively 'Action' got the highest amount of coverage in *The Fiji Times* over the seven years, on a stand-alone basis, coverage of 'impact of climate change in Fiji' (A2) was only two articles fewer than the coverage received by 'identifies action that has been taken locally to reduce contribution to/impact of CC' (M1).

This highlights the realities of climate change and its impact on Fiji (and other PICs) and reflects well on the newspaper in that although coverage may have been fluctuating or low overall, the articles that *were* written highlighted the local plight.

Other findings

Local vs. foreign reports

Only six out of the 207 articles were directly picked up and used from foreign media agencies. This bodes well for the newspaper and climate change coverage in Fiji, as a major criticism/shortcoming of climate change reporting in developing countries is their dependency on foreign media reports that are used in local news (Shanahan, 2009).

This low figure of foreign reports in Fiji's case is a good indication of the majority of the articles being written locally and not directly copied and pasted from foreign news sources. Even if the article focused on a foreign event, it

was still written locally which increases the possibility of a local angle to the news story.

Conclusion

Based on questions arising from the premise of the media's crucial role in the global campaign against climate change, research was carried out to analyse how the issue is treated in the Fiji media, an island country vulnerable to the threats of this major environmental problem.

The Fiji Times' historical role in lobbying for social change and positive outcomes (Usher, 1962) gives it a position of great power and responsibility when it comes to advocacy and awareness on climate change issues. To investigate its correspondence on climate change with the public, an area of research that has received close to no attention, articles spanning over seven years were analysed according to how they represented climate change.

While coverage of climate change has definitely increased over time, it lacks consistency and questions the newspaper's dedication to environmental reporting. Although relatively high levels of reporting were found over the years, the influxes were sporadic and transient. A closer analysis revealed the large majority of reports on climate change were generated by local and international events, an indication of the low priority given to climate change reporting. The thematic analysis then further revealed what areas the reports focused on, with the lack of arguments over the uncertainty of climate change, and a large volume of mentions towards the impacts and future threat, the reality of climate change in Fiji was evident. While there was also less time spent on the blame game for who is responsible for climate change, coverage of 'Action' against climate change was of concern with a lot of articles focusing on small actions that may divert reader's attention from the gravity of the issue.

The results were in agreement with the hypothesis, coverage is evidently lacking with some months having passed without even a single article being published on climate change. With the numerous studies showing the media's crucial role in climate change advocacy and awareness, countries, newsrooms and organisations in power need to embrace this effectiveness in using the media as a tool and re-look at climate change communication strategies for it to be more efficient.

Recommendations

Although more local reports on climate change have increased in number over time, the print media still needs to fulfil its role better.

 The newspaper and journalists, instead of only turning to the climate change issue when there is a conference or book launch, should initiate more of their own reports. The newspaper was too heavily reliant

- on events for climate change coverage, a dependency that then affects coverage when there is no special motivation from outside in the form of an event. The issue is serious enough on a global scale to require undivided attention on a regular basis, not only during one-off events.
- Linked to the previous recommendation, more focus on climate change stories, and giving the issue greater priority in the newsroom would also assist in increasing the irregular coverage numbers that were seen in this research.
- The irregularities in reporting could perhaps be met through training journalists and editors in environmental journalism and with greater collaboration with organisations involved in the fight against climate change.
- The training is further going to assist in journalists understanding the many complexities of climate change better, and being able to use their reporting skills to bring about change through scrutinising government's role in climate change issues, holding policy-makers accountable as well as providing continuous flow of information on climate change issues given the serious importance of the topic.
- More research in this field of media and climate change in Fiji and the Pacific also needs to be conducted to see the gaps that exist in this realm and to provide organisations and the media with concrete evidence of what needs to be changed and why.

References

- 1Degree (n.d). *1 degree*. A Fiji Times Limited Initiative. Retrieved from: http://ldegree.com.fj/what-is-1-degree/what-is-1-degree.aspx
- Berelson, B. (1952). Content Analysis in communication research. Glencoe, Ill: Free Press.
- Billett, S. (2009). Dividing climate change: Global warming in the Indian mass media. *Climate Change*, 99, (1-2). doi: 10.1007/s10584-009-9605-3
- Burese, I. (2011, March 19). 114,024 reasons to read the Times. *The Fiji Times*. Retrieved from: http://tinyurl.com/3clbaox
- Boykoff, M.T., & Smith, J. (2010). Media presentations of climate change. *Routledge Handbook of Climate Change and Society* (pp. 210–218). Routledge.
- Boykoff, M.T., & Boykoff, M.J. (2004). Balance as bias: Global warming and the US prestige press. *Global Environmental Change*, *14*, 125–136.
- Boykoff, M.T. (2009). We speak for the trees: Media reporting on the environment. *Annual Review of Environment and Resources*. *34*, 431-457. doi: 10.1146/annurev. environ.051308.084254
- Boykoff, M.T. (2007). Flogging a dead norm? Newspaper coverage of anthropogenic climate change in the United States and United Kingdom from 2003 to 2006. *Area* 39 (4) 470–481
- Boykoff, M.T., & Mansfield, M. (2011). Regularly updated graph: 2004-2011 World

- Newspaper Coverage of Climate Change or Global Warming [Online]. Retrieved from: http://sciencepolicy.colorado.edu/media coverage/
- Chessell, J. (2010, September 16). Regime pressure for new owners of Fiji Times. *The Australian*. Retrieved from: http://tinyurl.com/3kc4hqv
- Chong, D. & Druckman, J.N. (2007). A theory of framing and opinion formation in competitive elite environments. *Journal of Communication*, 57, 99 118.
- Cohen, B.C. (1963). The press and foreign policy. NJ: Princeton.
- CIRES. (2011). Cooperative Institute for Research in Environmental Sciences. Retrieved from: http://cires.colorado.edu/
- CSTPR. (2011). Center for Science & Technology Policy Research. Retrieved from: http://sciencepolicy.colorado.edu/media coverage/
- Earth Hour (n.d). *About earth hour*. Retrieved from: http://tinyurl.com/ylnzbox
- Eraut & Segnit missing in refs list please provide Ereaut, G. & Signit, N. (2006). Warm Words: How are we telling the climate story and can we tell it better? London: Institute for Public Policy Research.
- George, A. (2009). Quantitative and qualitative approaches to content analysis. In Pool, I.D.S (Ed). *Trends in Content Analysis*, 1, 7-32. Urbana: University of Illinois Press.
- Harbinson, R., Mugara, R., & Chawla, A. (2006). Whatever the weather: Media attitudes to reporting climate change. London: Panos Institute.
- Hedman, L. (1981). International information in daily newspapers. In Rosengren, K.E. (Ed.), *Advances in content analysis*. London: Sage Publications.
- Hulme, M. (2009). Why we disagree about climate change: Understanding controversy, inaction and opportunity. Cambridge: Cambridge University Press.
- IPCC. (2007). Climate change 2007—Impacts, adaptation and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC. Published for the Intergovernmental Panel on Climate Change. Cambridge University Press. http://tinyurl.com/3ty953v
- IPCC. (n.d). *Intergovernmental Panel on Climate Change*. Retrieved from: http://ipcc. ch/index.htm
- Kolmer, C. (2008). Methods of journalism research: Content analysis. In Loffelholz, M. & Weaver, D. (Eds). Global Journalism Research: Theories, Methods, Findings, Future. 10, 117-130. UK: Blackwell Publishing.
- McCombs, M. (2003). *The agenda-setting role of the mass media in the shaping of public opinion*. Austin: University of Texas.
- McCombs, M. & Shaw, D.L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36, 176–187.
- McQuail, D. (2005). McQuail's mass communication theory. (5th Edition). London: Sage Publications.
- Mimura, N., L. Nurse, R.F. McLean, J. Agard, L. Briguglio, P. Lefale, R. Payet & G. Sem, 2007: Small islands. *Climate change 2007: Impacts, adaptation and vulner-ability*. Contribution of working group II to the Fourth Assessment Report of the intergovernmental panel on climate change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 687-716.
- Neuendorf, K.A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage Publications, Inc.
- Nunn, P.D. (1999). Environmental change in the Pacific basin. London: Wiley.
- Nunn, P.D. (1993). Recent sea-level changes in the Pacific with emphasis on Fiji. In Aalbersberg, W., Nunn, P.D., & Ravuvu, A.D. (Eds.) *Climate and agriculture in the*

- *Pacific islands: Future perspectives.* 53-57. Suva: Institute of Pacific Studies, University of the South Pacific.
- PANPA, (2011). Pacific Area Newspaper Publisher's Association. Retrieved from: http://tinyurl.com/3gsexwa
- Patel, S. (2006). 'Islands of understanding': Environmental journalism in the South Pacific. *Pacific Journalism Review*, 12(2), 148–153.
- PICCAP. (2005). Climate change: The Fiji islands response. *Fiji's first national communication under the framework convention on climate change*. Pacific Islands Climate Change Assistance Programme & Fiji Country Team.
- Sampei, Y., & Aoyagi–Usui, M. (2008). Mass-media coverage, its influence on public awareness of climate-change issues, and implications for Japan's national campaign to reduce greenhouse gas emissions. *Global Environmental Change*, 19, 203–212.
- Shanahan, M. (2009). Time to adapt? Media coverage of climate change in non-industrialised countries, in Boyce, T. & Lewis, J. (eds) *Climate Change and the Media, 5,* 12, 145–252. London: Peter Lang Publishing.
- Shanahan, M. (2007). Talking about a revolution: climate change and the media. *An IIED Briefing*. International Institute for Environment and Development.
- Shoemaker, P.J. (1996). Media gatekeeping. In Salwen, M.B. & Stacks, D.W (Ed.), *An integrated approach to communication theory and research*. NJ: Laurence Erlbaum Associates Inc.
- UNFCCC. (1992). United Nations framework convention on climate change. New York: United Nations.
- UNFCCC. (2011). United Nations framework convention on climate change. Retrieved from: http://unfccc.int/2860.php
- Usher, L.G. (1962). *Brief history of The Fiji Times*. Paper read to the Fiji Society on October 15, 1962.
- Weber, R.P. (1990). Basic content analysis [2nd Edition] Newbury Park, CA: Sage.
- World Bank. (2011). The World Bank: Data. Retrieved from: http://data.worldbank. org/country/fiji

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