

THE ROLE OF CHINESE MEDIA IN PROMOTING SUSTAINABILITY

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DOI: 10.24818/IMC/2020/05.06

ABSTRACT

Sustainability and sustainable development are major concerns and ultimate goals all over the world and nowadays it is evident for every single actor or country that achieving such goals requires a common and continued effort. China, as one of the biggest countries in the world in terms of both inhabited area and number of inhabitants is both committed and willing to achieve sustainability and to become one of the good examples worth emulating. In China's efforts of attaining sustainability and achieving the target of a green development, a major role is played by media institutions, which are the suitable means of raising the awareness level and providing a genuine and viable development.

By a thorough literature review, the main objective of the current paper is to emphasize the role of Chinese traditional and digital media in promoting sustainability and to present their potential of changing behavior.

KEYWORDS: *Chinese traditional media, digital media, green development, social media, sustainable development.*

1. INTRODUCTION

China's efforts of achieving sustainable development and becoming a global world leader in promoting sustainability has long been a reality. As it results from the 13th Five-Year Plan for Economic and Social Development of the People's Republic of China for 2016-2020 (NDRC, 2016), China has established resolute goals and is committed to “ecologically restore key regions”, to “promote economical and intensive resource use”, to “set up comprehensive environmental governance”, to “intensify ecological conservation and restoration”, to “improve mechanisms for ensuring ecological security”, to “develop green and environmentally friendly industries”, and more importantly, to “respond to global climate change” in an internationally coordinated approach. According to the Chinese President Xi Jinping “no country alone can address the many challenges facing mankind. No country can afford to retreat into self-isolation. Only by observing the laws of nature can mankind avoid costly blunders in its exploitation. Any harm we inflict on nature will eventually return to haunt us” (Riley, 2017).

The commitment was even further stressed through recently adopted proposal for elaborating the 14th Five-Year Plan for National Economic and Social Development (2021-2025) and the Long-Range Objectives Through the Year 2035, released on October 29th, 2020, at the fifth plenary session of the 19th Central Committee of the Communist Party of China (Xinhua, 2020e). China's pledge to create a “Beautiful China” by promoting eco-friendly work and life styles, by cutting the carbon emission, and by ensuring a healthier environment in general is constant and serious, being especially reflected in the international media coverage of both the event and the content of the 14th Five-Year Plan in 2020.

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Nevertheless, such a complex and enduring enterprise requires the full-fledged involvement and active participation of citizens, which are both the “means” of achieving the sustainability goals, and the “targets” and “beneficiaries” of sustainable development. One of the most effective ways of informing and engaging the citizens in promoting and attaining the goal of sustainability is through mass media, as the crucial role of communication institutions in advocating for sustainability and increasing the awareness level among the citizens, reflected in the “information explosion” about the environment and environmental issues has been proved many times (Allan et al., 2000, p. 4).

Attaining sustainability is a multi-faceted and too complex a problem to be solved individually, by inward-oriented countries or governments, therefore it requires a coordinated effort of governments, state institutions, local and international non-governmental organizations, population, and especially mass-media institutions. While the measures taken by governments and the actions performed by non-governmental organizations in protecting the environment or stimulating a sustainable development all over the world are extensively popularized, the role of mass media is rather neglected in large-scale studies. The paper examines the literature dealing with the importance of mass media in promoting sustainability, bringing additional information about the work of Chinese media. Furthermore, the paper emphasizes the potential of Chinese media in endorsing sustainability goals, which can constitute a possible benchmark in this area.

2. CHINA’S GREEN DEVELOPMENT TARGET

2.1 The green gross domestic product

Admitting that sustainability is an extremely important target and that “undisciplined” economic growth might have a high price in terms of its impact on the health of both people and environment, the Chinese government has developed and launched a green measure of gross domestic product (GDP), suggestively called “green GDP”, which adjusts the conventional GDP after including the environmental costs of economic growth (Wang, 2016). Moreover, even since the release of the 13th Five-Year Plan, local authorities are held responsible for achieving the targets of conserving the environment.

In terms of “green GDP”, China has already registered a considerable progress and continues to work toward the established targets, the most important ones being focused on reducing pollution by decreasing energy consumption, especially coal-based energy. For instance, China has succeeded in accomplishing the target of decreasing coal use, a highly pollutant activity, by constantly reducing the percent of coal energy production, coupled with the steady and significant increase of renewable energy production. Specifically, the coal energy production decreased from 77.8 percent of the total energy production in 2011 to 69.3 percent of the total energy production in 2018 (NBSC, 2019). At the same time, in 2020, both raw coal production and coal import constantly decreased, by 0.9 percent and by 38.3 percent, respectively, on a year-on-year basis, according to data released by the National Bureau of Statistics of China (NBSC, 2020a). Further on, China constantly increased its capacity of renewable energy production, even since 2015 becoming a “world leader” in this field, with 110 billion USD investments (Tollefson, 2016). Similarly, China has the biggest capacity of wind energy production in the world, as well as one-third of the world’s capacity of solar energy production (O’Meara, 2020).

Another highly pollutant sector is the transport industry, and China has already proved its commitment toward reducing the environmentally harmful emissions. At the end of September 2020, China recorded a total of 365 million motor vehicles, with 23.16 million vehicles registered only in the first three quarters of the current year, up by 2.41 percent compared to the same period of the previous year (Xinhua, Oct. 21, 2020). A sizable decline in vehicle emissions, which is one of the major sources of pollution especially in urban areas, requires robust actions, and the Chinese Ministry of Industry and Information Technology issued the New Energy Vehicle (NEV) mandate policy even since September 2017, with the aim of reducing fuel consumption by formally and

actively encouraging the production and acquisition of new energy vehicles (ICCT, 2018). As a result, only in 2019 China sold over 1 million NEVs, representing 4.9 percent of the car market share (IEA, 2020, 44-45). Accounting for 55 percent of the world's NEV market, in the first eight months of 2020 China sold 596,000 NEVs (Xinhua, 2020b), with 138,000 units of new energy passenger vehicles being sold only September 2020, representing an increase by 67,7 percent compared to the same month of 2019 (Xinhua, 2020d). The effort to achieve the green development targets in all the regions of the country is doubled by the determination to increase the number of new energy vehicles in the public sectors, especially public transportation and postal services and logistics, as the public sectors account for a big share in the total transport emissions and fuel consumption (Xinhua, 2020a). Therefore, by September 2020, 60 percent of China's buses were replaced with new energy vehicles, and new measures were taken in order to further sustain and expand the NEV industry (Xinhua, 2020d).

2.2 The actors involved in the green development

The success of any strategy of sustainable development clearly depends on the energetic and collaborative involvement of all responsible actors, among which the government and many other state institutions, business entities, and citizens alike, as no single actor will manage to bring genuine and long-standing sustainability alone.

In a top-down approach, the major role in sustainability is played by the government and state institutions, which are in charge of identifying challenges and threats, of establishing general and specific objectives, of designing policies and action plans, of setting targets and timelines, of selecting best measures needed to be taken, of monitoring achievements and eventually making corrections, of formulating sanctions and enacting them, of overseeing implementation of plans and policies, and so on. Equally important, the government and government-related institutions have the capability and, presumably, the eagerness to explain the necessity and goals of sustainable development, as well as to draw lines of action for both business sectors and population. In this regard, state institutions have done their part in setting bold, yet at the same time attainable goals, through the provisions of the five-year plans for economic and social development and their constant update.

At the same time, business entities activating in all lucrative domains have the leading role in finding and adopting eco-friendly ways of production and in reducing their energy usage and, implicitly, their pollutant emissions, as the four main activity sectors consumed almost 80 percent of the total energy consumption in 2017, with industry having the biggest share of almost 66 percent, followed by transport, storage and post sector with almost 10 percent, and agriculture and construction sectors, each with only approximately 2 percent of the total energy consumption (NBSC, 2019). Although it is the state institutions which set the pace of sustainable development, the actors within the business sectors are ultimately held accountable for complying with the rules and putting sustainable development into practice.

The role of the population is equally, if not more, important than that of the other actors, as citizens are in the center of sustainable development efforts. All the coordinated work required for achieving sustainable development is done for the clear benefit of citizens and, at the same time, citizens have their part in accomplishing sustainability by becoming more aware of their impact on the environment in general and, eventually, by choosing and adopting more sustainable ways of life and work. With the highest population at the global level, which consumes annually almost 13 percent of the total national energy consumption (NBSC, 2019), China needs to engage its citizens in the big plan of becoming a global leader in sustainable development. Moreover, a top-down approach, launched by state institutions, will be more effective if doubled and completed by a bottom-up approach, initiated and endorsed by the citizens, based on their own direct experiences with environmental problems and concerns, as well as based on their well-informed vision about the future.

Although the main actors involved in the green development might easily be identified, the link between them is not as obvious as it should be, given their potentially antagonistic interests. The agents which can mediate and even improve the communication between the actors, which can mobilize both the population and business entities, which can bring an invaluable contribution toward sustainable development are mass media. Mass media institutions can put a pressure on all of the actors to determine them to become more receptive to and active toward environmental problems, and they can bring into attention both the problems of ordinary citizens and the policies and rules adopted by the state.

As in many other parts of the world, in China, through media involvement and coverage by newspaper and television reports, articles, bulletins and documentaries, the community has become aware of specific ecosystem problems and environmental movements have been supported (Chi, 2004). The Chinese media is animated by the generally accepted assumption that one could equate public consideration and awareness about environmental problems with the extent of both traditional and digital media coverage, and that media time and attention investment in an environmental issue legitimizes and rationalizes state and public commitment to sustainability (Allan et al, 2000, 5). It is the mass media institutions which have the role of “sounding the social alarm”, as they have the ability of bringing into attention issues that otherwise might pass unnoticed, of making accessible to the public, through vivid and suggestive images and narrations, problems that might raise awareness and determine actions (Beck, 1995, 100). Problems such as climate change or pollution, which have the potential to affect citizens and environments globally, fall on mass media institutions, which have the obligation to inform all the actors involved in sustainable development (Allan et al., 23-23).

3. CHINA’S GREEN DEVELOPMENT AND MEDIA INVOLVEMENT

3.1 Chinese media involvement in sustainability related issues

The Chinese media involvement in sustainability related issues is not new and there are numerous instances of media successes in bringing their contribution to sustainable development (De Burgh, & Rong, 2012). On the one side, media awareness over sensitive issues led to public resistance or lack of support for the adoption of questionable practices, such as genetically modified organisms, or for the implementation of potentially hazardous construction projects. For instance, the concern of citizens over food safety has been raised by the engagement of media, which question frequently the standards on organic food. In the last decade, both online social media, as well as traditional state media have become an important forum for public debate and an essential mechanism for bringing together citizens, scientists and government institutions (Ely, 2015).

On the other side, the extensive media coverage of the complex and interconnected problems of pollution and climate change led to an active and supportive participation of the citizens in achieving the national goals of reducing environmental pollution and increasing the health of the population, (Ahlers & Hansen, 2017, p. 84). Environmental pollution and its direct impact on the health of population have been big concerns for state institutions, as major health problems might impinge upon two of the most important dimensions of sustainable development, namely economic advancement and social stability. As stated by the World Health Organization (2016), these concerns have led China to “embark on the biggest health system reform the world has seen, aiming to extend health services beyond the country’s prosperous urban centres”, by adopting the *Healthy China 2030 Planning Outline*, which is a strategic plan that connects health to economic and social development, as well as with a clean environment, setting clearly defined targets to be achieved by 2030 (Tan, Wu & Shao, 2018). Although the government is playing the leading role in achieving the goals of “Healthy China”, it is nevertheless a common effort, and the engagement of media institutions is necessary in raising awareness, in promoting a healthy lifestyle, in providing a public debate forum, in popularizing and spreading the measures taken by state institutions.

The media have also proven their efficiency in promoting sustainability by opening “hotlines” for citizens to disclose abuses and by covering various situations in investigative articles and programs (De Burgh, & Rong, 2012, 19), an action encouraged by the state, which has even turned attention on the population to report transgressions of the regulations and environmental incidents, and has launched an “environmental reporting management platform”. In 2017, for instance, the Ministry of Ecology and Environment (MEE) received a total of 618,856 public complaints regarding environmental regulations infringements through the “12369” platform, addressing and solving 618,583 cases, representing 99.9 percent of the total (MEE, 2018, p. 5).

3.2 Digital media versus traditional media in China

The media industry is highly developed in China and will continue to follow the upward evolution trend, with traditional media suffering a slight decline and the new digital media being on the rise. As indicated in the *Table 1*, the movement of media industry in China during 2008-2018 illustrates a modest yet steady decline of the number of newspaper publications, although magazine industry and broadcast media, including both television and radio shows, maintained their ascending direction and even increased their reach (Thomala, 2020b).

Table 1. The traditional media industry in China, 2008-2018

	Year	Number of TV shows	Number of radio shows	Number of newspapers	Number of magazines
1	2008	3,288	2,437	1,943	9,549
2	2009	3,337	2,521	1,937	9,851
3	2010	3,272	2,549	1,939	9,884
4	2011	3,370	2,590	1,928	9,849
5	2012	3,353	2,634	1,918	9,867
6	2013	3,250	2,637	1,915	9,877
7	2014	3,329	2,686	1,912	9,966
8	2015	3,442	2,782	1,906	10,014
9	2016	3,360	2,741	1,894	10,084
10	2017	3,493	2,825	1,884	10,130
11	2018	3,559	2,900	1,871	10,139

Source: adapted from Thomala (2020b) and NBSC (2019)

In terms of penetration rate, the average newspaper publications daily reach decreased to 19 percent in 2018, much lower than the 52 percent reached in 2010, while magazine publications recorded a daily reach of about 29 percent. At the same time, in 2018, only 22 percent of the Chinese inhabitants listened to radio daily, although the coverage rate of the population was of 98.94 percent, including a rate of 98.58 percent in the rural areas. Television broadcasting, with a coverage rate of the population of 99.25 percent in total and 99.01 percent in the rural areas, had a penetration rate of 78 percent in 2018, Chinese residents watching television, on average, for 2.5 hours, on a daily basis (NBSC, 2019; Thomala, 2020b).

The decline of traditional media is mainly due to the global trend of digitalization and the huge expansion of digital media in China in the last years, which led even the traditional print media to adapt and to start publishing content on online Chinese platforms such as WeChat, Weibo, Toutiao, and Douyin. The predictions are that the digital media will gain momentum in the near future, especially in China, seen as a “mobile-centric” country (Thomala, 2020a), with millions of citizens using their mobile phones to get essential information, communicate or be entertained. With an Internet penetration rate of 64.5 percent as of March 2020, China has reached a total number of almost 904 million netizens, accessing the content of digital media through mobile phones (99.3

percent), television sets (32.0 percent), desktop computers (42.7 percent), laptops (35.1 percent) and tablets (29.0 percent) (CNNIC, 2020). Spending on average 30.8 hours online in a week, with 4.8 percent of that time for knowledge and information acquisition, the Chinese netizens, as all other netizens in the world, are very much interested in the availability, accessibility, and affordability of digital media, thus putting a pressure on digital content creators, which need to comply with both the national regulations and with their consumers' preferences.

Data presented in *Table 2* clearly indicated that China has sensed the huge potential of the digitalization process and has made considerable steps in advancing and facilitating the Internet use all over the country, from 617.58 million netizens at the end of December getting to 903.59 million Internet users at the beginning of 2020, an increase of over 45 percent in less than seven years (CNNIC, 2020).

Table 2. The evolution of Internet users and penetration rate in China, 2013-2020

	Year	Number of Internet users (millions)	Internet penetration rate (% of total)
1	Dec. 2013	617.58	45.8
2	Dec. 2014	648.75	47.9
3	Dec. 2015	688.26	50.3
4	Dec. 2016	731.25	53.2
5	Dec. 2017	771.98	55.8
6	Dec. 2018	828.51	59.6
7	Jun. 2019	854.49	61.2
8	Mar. 2020	903.59	64.5

Source: adapted from CNNIC (2020), 14

The importance of Internet penetration for digital media is even more important when considering the size of Internet users in the rural areas. Although traditional broadcasting television remains the most important information channel in rural areas, it is worth mentioning that the size of rural Internet users reached 28.2 percent or 255 millions of China's total netizens, with a penetration rate of 46.2 percent in March 2020 (CNNIC, 2020). As regarding online news applications, in March 2020 the number of Internet users accessing such applications for getting information amounted to 730.72 million users, or 80.9 percent of the total number of netizens, registering a growth rate of 8.3 percent compared to December 2018 (CNNIC, 2020). The evolution of the number of netizens being interested in the online content of digital media is presented in *Table 3*, to clearly stress the vast potential of the online news platforms, newspapers, magazines, as well as the importance of interactive and rich media content.

Table 3. The evolution of online news users and share of total netizens in China, 2013-2020

	Year	Number of online news users (millions)	Share of total netizens (%)
1	Dec. 2015	564.40	82.0
2	Dec. 2016	613.90	84.0
3	Dec. 2017	646.89	83.8
4	Dec. 2018	674.73	81.4
5	Jun. 2019	685.87	80.3
6	Mar. 2020	730.72	80.9

Source: adapted from CNNIC (2020), 33

Given the huge number of news application users in both rural and urban areas, it is more than evident that media can play a crucial role in promoting sustainability bidirectionally. First, digital media can spread data about the governmental policies and programs, making such knowledge easily and attractively available to their users. Second, digital media can gather valuable information from ordinary citizens, including their concerns, problems, expectations, and transfer the information to the responsible state authorities.

Even more important, a big part of the digital world consists of social media, which is regarded as a low-cost, far-reaching and fast medium of disseminating information (Weeks & Holbert, 2013), especially among the young generation, which should constitute a specific target of any environmental campaign. Young people are big consumers and, at the same time, receptive to issues related to their future, and their involvement in environmentally-friendly activities or their commitments toward an eco-friendly consumption model would have a significant contribution to the advancement of sustainability (Song et al, 2019).

Studies conducted in various parts of the world (Harlow & Harp, 2012) indicate that digital media components, especially social media, have become fairly effective in raising awareness, stimulating debates over important problems and their solutions, increasing the level and strength of militancy, and even generating attitude and behavioral changes.

With more than 880 million netizens using various social media in 2019 (Thomala, 2020c), China is the world's biggest social media market, with platforms offering diverse content and services, from news and entertainment, to e-commerce and shopping reviews. As shown in the *Table 4*, the power of social media in China is reflected by the growing number of users, as well as by the utilization rates of WeChat Moments, which is the biggest social media platform, both in terms of users and diversity of content.

Table 4. The evolution social media users and utilization ratio in China, 2018-2020

	Item	December 2018	March 2020
1	Total users (in millions)	827.68	926.84
2	WeChat Moments utilization ratio (%)	85.1	83.4
3	Microblogs utilization ratio (%)	42.5	42.3

Source: adapted from Thomala (2020c) and CNNIC (2020), 35

In China, social media has become a relevant space for citizens from all backgrounds and of any ages to get information, to disseminate knowledge, to express their concerns and share their views, to increase involvement in various domains of life, especially in those related to their health and the health of the environment in which they live. Microblogging, as one of the most important ways of sharing information among individuals, is an essential tool in advocacy activities, especially for people who want their voices to be heard. As indicated in *Figure 1*, the number of microblogs users have increased almost six times during 2010-2018, suggesting that such communication formats are popular and effective.

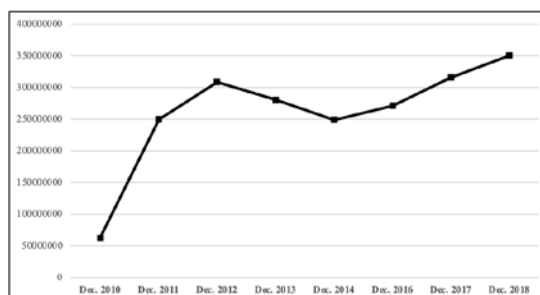


Figure 1. The number of microblogs users in China, 2010-2018

Source: adapted from Thomala (2020c)

The efficiency of microblogs in disseminating information is also suggested by the fact that even the government, both centrally, regionally and locally, is an active user of microblogs as indicated in *Figure 2*, with a number of 139,000 government microblogs launched in December 2019 (CNNIC, 2020).

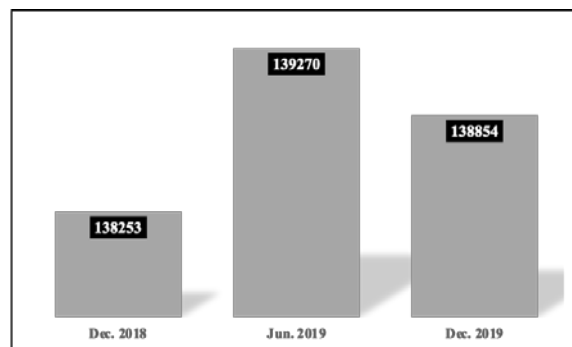


Figure 2. The number of government microblogs in China, 2018-2019

Source: adapted from CNNIC (2020), 70

Moreover, platforms such as WeChat and microblogs such as Weibo, have developed into forums of public debate and have become significant influencers of the public opinion, having also the potential of mobilizing individuals for sustaining general interest causes or for launching environmental movements for the protection of ecosystems and biodiversity in various provinces of China (Lee & Ho, 2014).

Social media platforms are not only influential in launching and supporting green movements in China, but are also an extremely convenient vehicle for disseminating the environmental policies, measures, targets of the government and other actors, such as non-governmental organizations (Ji et al., 2018). Environment-related issues, such as pollution, climate change, resource depletion or bio-degradation are of a too big public interest to be neglected by social media, and the success of various environmental campaigns (De Burgh, & Rong, 2012) indicate that social media have the potential of becoming one of the most important players in the fight against pollution and in the struggle to promote sustainable development globally. Given its influence and penetration rate, it is not unlikely that social media will develop and exert its capability of empowering all the actors involved in sustainability, and even “clearing” the air and reducing pollution (Kay et al., 2015) through pressing these actors to properly play their part in achieving the targets clearly stated in initiatives such as “Healthy China” or “Beautiful China”.

Although social media are rather associated with protests, activism and public mobilization for a defined goal, such as solving an environmental crisis or blocking a highly polluting project, traditional media continue to play “a fundamental role in shaping attitudes and actions” and remain the main means of “legitimizing” public participation, as the way traditional media cover an event influences even “the adoption of digital media for protests” (Liu, 2016). Furthermore, social media can become even more efficient in the environmental field by integrating the relevant content of traditional media, thus facilitating the popularization of principles and actions and the understanding of the importance of sustainability goals.

4. CONCLUSIONS

With its coherent and transparent measures taken in all the domains of sustainability, China is nowadays increasingly seen as a “global environmental leader” and the “planet’s last best hope” (Liu & Pezzullo, 2020, p. xiv), although one should bear in mind that achieving economic development, social welfare and environmental protection should be a common and constant effort.

Sustainable development requires the effective involvement of all the responsible actors, especially the government, yet mass media institutions could make the difference between just having good plans and policies and carrying them out.

Traditional media, with its highest penetration rate, with 31.5 billion copies of newspapers, 2.2 billion copies of magazines and 10.2 billion copies of books printed in 2019 (NBSC, 2020b), has the capability of disseminating significant information to almost 99 percent of the entire population of China, thus raising awareness and even bringing behavioral changes. At the same time, digital media, with 903.59 million netizens and 926.84 million social media users in 2020 (CNNIC, 2020), can bring its valuable contribution to better understanding the content of the traditional media and to mobilizing citizens toward sustainability targets.

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