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'EVERYONE WILL DIE ANYWAY': MANAGING THE CULTURAL BIAS TOWARDS FATALISTIC THINKING ABOUT GLOBAL CLIMATE CHANGE IN THE THAI CONTEXT

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ABSTRACT

Global climate change is one of the clearest manifestations of sustainability challenge in our time. There is certainly a complex relationship between the environmental, socio-cultural and ethical dimensions of this issue. Recently, extreme climate events have taken place in Thailand and the rest of the world. And even though, many dozens of studies have attempted to identify its impact, most people still remain reluctant to change their behaviour to deal with the problem. In Thailand, based on sociological perspectives, there is limited research evidence on the constraints and barriers to effective climate change action. Therefore, this paper aims at understanding cultural biases in the engagement with climate change among Thai local citizens. It drew upon the combination of mixed research methods from both qualitative and quantitative approaches. Questionnaires were distributed to the 253 selected households in Village 4 of the Nongbuasala sub district, Nakorn Ratchasima, Thailand. To this extent, results from the community survey indicate that cognitive dissonance, the feelings of helplessness and a cultural bias towards fatalism were the greatest obstacle to Thai citizens' engaging with climate change as an issue ($p \leq 0.05$). Potential solutions to overcome those perceived barriers were further discussed and recommended in a more sustainable manner.

Keywords: Cognitive dissonance; Climate change engagement; Cultural bias; Thailand

INTRODUCTION

There is overwhelming evidence that climate change is the most fundamental challenge of the 21st century. It has been increasingly recognized that the Earth's climate change is largely attributable to emissions from anthropogenic activities (e.g., burning of fossil fuels and engaging in other forms of unsustainable consumption patterns). Simultaneously, the impacts of climate change also pose complex challenges to strengthening the three pillars of economic growth, environmental protection and social development. As such, (Stern 2007) has argued that climate fluctuations and severe weather events have become more frequent and violent in the past decade, especially those in the Asian region.

Apart from these aspects, even though scientific evidence on climate change has increased dramatically over time, public perception of and engagement with climate change have often lagged far behind (Bostrom *et al.,* 1994; Bord *et al.,* 1998; Norgaard 2009). General speaking, most people remain reluctant to change their behaviour to tackle these difficult issues (Van Der Linden 2012). Obviously, the belief in and formation of environmentally sustainable behaviour is influenced by a multifaceted and dynamic system of mediating factors including individual characteristics, personal values, and social influences such as

culture and moral norms. Nevertheless, the problem is that empirical climate change research in the area of cultural sociology has been relatively minimal (Hiramatsu *et al.,* 2008).

Therefore, a core aim of this study is to identify a range of barriers to engaging with climate change among Thai local citizens and also investigate *how* cultural biases may affect their own beliefs and perceptions of mitigation activities. The possible solutions to deal with those barriers were further explored. Specifically, this aspect is investigated based on an empirical study conducted in Nakorn Ratchasima province, the largest city of Thailand, located on the lower part of the northeastern plateau of the country and thus exposed to the full range of climate change impacts (e.g. extreme cycles of dryness and flooding).

As a background to this discussion, the first section provides a brief overview of climate change related risks in Thailand, common barriers to public engagement, and the existence of cultural bias of voluntary environmental actions, as following:

Climate Related Risk in Thailand

The Kingdom of Thailand is located in Southeast East Asia region, boarded by Burma on the west, by Malaysia on the south, by Cambodia on the southeast, and by Laos on the north and east. According to ADRC (2008), Thailand is prone to extreme weather events because of the vagaries of climate, location and terrain. Particularly, the northeastern area tends to be affected by drought and floods, the central is by floods, tropical cyclones, and the south is by floods and landslides. In 2011, for example, as a result of a rainy monsoon season, Thailand experienced one of its worst floods in half a century (Department of Disaster Prevention and Mitigation 2011). The World Bank (2011) claimed that the devastating flood caused approximately USD 45 billion in damages, ranking this as the world's fourth costliest disaster during the period from 1995 to 2011.

Taking a long view, past and current studies acknowledge that specific knowledge of global climate change (e.g. mechanisms and underlying causes) is still lacking among the general public. For example, most people tend to simply equate climate change with other environmental problems in their community. It seems, then, that several misunderstandings have directly contributed to systematically underestimate the risks and to ignore the need for an immediate action in responding to climate change. Beyond this, unfortunately, there have been limited studies conducted on local perceptions of climate change, and on citizens' intentions to respond to climate change issues in, Thailand, the case study.

Public Engagement in Tacking Climate Change and Related Barriers

Until recently, there is still lack a sense of personal engagement with climate change. For example, even though over 74% of the Thai respondents recognized climate change as a threat to national security, only 11% reported that they intend to use mass public transportation, upgrade to more energy efficient household appliances (14%), reduce their household electricity consumption (23%), plant a tree in their community (26%), and made efforts to reduce plastic consumption (27%) in accordance with mitigation measures (Bangkok 2009).From a more holistic perspective, practical solutions to climate change cannot be easily formulated in uni-dimentional, but need to be pursued in an integrated approach (Filho 2009).

Theoretically, a state of 'engagement' in this study refers to the relationship between beliefs, attitudes and behavioural intentions in response to climate change. One of the popular theories is the theory of planned behaviour (Ajzen 1991) which uses the 'behaviour intention' as the intervening psychological operation between attitude and actual behaviour. Thus, if the individual evaluate the suggested behaviour as positive attitude, and when they believe their

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significant others want them to perform a behaviour (normative belief), this results in the high level of perceived intention to do so. In addition to this, Lorenzoni et al. (2007) defines 'engagement' as an individual's state, comprising the three noteworthy elements, namely cognitive, affective and behavioural. It seems, then, that the interaction between knowledge and motivation can be mobilized to promote behaviour change to a greater extent (see Figure 1). Added to this, Table 1 picks out the most common barriers to engaging the public with climate change.

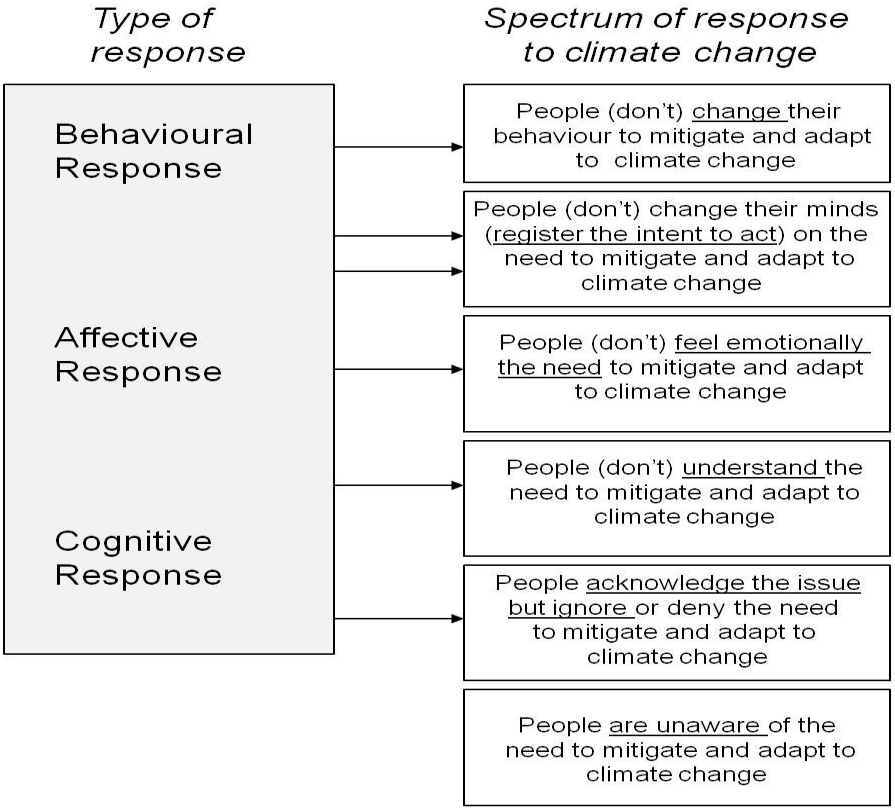

Figure 1. Theoretical spectrum of human responses to climate change (modified from Sheppard, 2005)

Table 1. Common barriers to public engagement with climate change (modified from Leal Filho, 2000; Lorenzoni et al., 2007)

Knowledge/ Perception	• Lack of knowledge about the primary causes, consequences and potential solutions • Inadequate information, situational awareness, and understanding
Values	• Negative feelings and attitudes toward climate change (e.g., fear, worry, belief in fatalism, helplessness, powerless) • Cognitive dissonance • Cultural biases • Attention to more immediate priority • Reluctance to change lifestyles
Context	• Externalising responsibility (e.g., to government, industry, etc.) • Climate change is a distance threat in space and time

To this extent, this has led to the hypothesis that value orientation held by an individual would directly influence climate change beliefs, which in turn guide their behaviour. The section below describes *what* are the specific examples illustrate the existence of cultural bias of voluntary environmental actions.

Cultural Biases and Environmental Concern

The 'Cultural Theory' was first described and applied to environmental risks by Douglas and Wildavsky (1982). The theory focuses on how individuals generally interpret particular environmental threats based on their personal judgments. Such core moral judgments involve a complex set of social and cultural relationships and are therefore frequently subject to significant bias, especially among distinctive groups of people (Tansey & O'Riordan 1999; Buck 1989). Culture can be categorised along the two key dimensions of group (*those whom one interacts with*) and grid (*how one interacts with them*). High group represents a high level of voluntary collective action, while a low group represents a high degree of self-sufficiency. In addition, a high grid is indicated by obvious and lasting forms of stratification in roles and authorities, whereas a low grid is characterised by a more egalitarian ordering (Douglas 1970). This results in four different forms of social solidarities: *individualist*, *egalitarian*, *hierarchical* and *fatalist*. These categories are generally used to understand different perspectives on human's relationship to nature (Thompson 1997).

Figure 2 presents the four cultural biases towards nature, with a focus on the differences in social solidarity (Ostrander 1982). In such situations, *individualists* tend to perceive nature as benign and resilient. To do so, they attempt to seek open competition and avoid hierarchical structures around social class. In contrast, members of the *hierarchy* category believe that nature is stable until pushed beyond discrete limits. Consequently, this category has a strong interest in re-establishing a fair distribution of resources through institutionalised authority and regularised control. For the truly *egalitarian*, the ideal would be to share a life of voluntary consent without inequality (Schwarz & Thompson 1990). *Fatalists*, the fourth category, are not of great interest in policy debates due to their status as non-actors. This category expects neither rhyme nor reason from a capricious natural world and anticipates no possibility to make changes for the better (Thompson 2003). In short, there is no point in using public policy to shape fatalists' needs and preferences because this category perceives itself to be under the control of external forces. This study builds on these categories through providing specific examples that illustrate the existence of cultural bias in perceptions of global climate change.

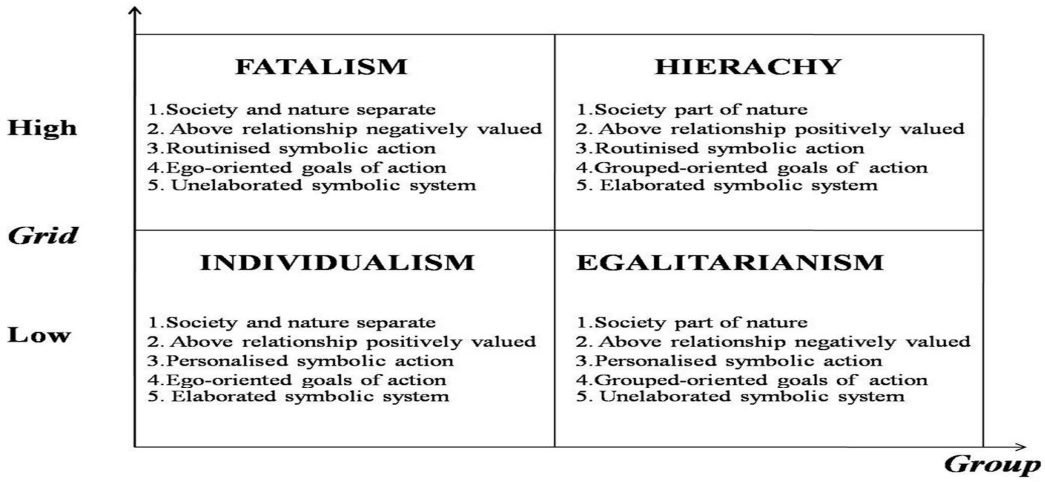

Figure 2. Myth of human nature (modified from Tansey & O'Riordan 1999, Thompson 1997)

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MATERIALS AND METHODS

Study Area and Target Population

The study was conducted in Muang district, Nakhon Ratchasima province in north-eastern Thailand (Figure 3). The target population for this survey was local residents of village 4 of the Nongbuasala sub-district. Beyond this, local people who lived in this particular area have always been affected by climatic change, including extreme events such as floods and droughts. However, according to the survey of citizens' attitudes and opinions toward environmental and climate benefits from waste-to-energy project in their community, Kittipongvises (2008) found that the majority of local respondents did not fully understand the key concepts of global climate change and relation issues. Subsequently, in order to somehow understand the situation, a simple random sample of 253 households was selected from the entire population (n=724) using probability proportional to size sampling with an approximately 95% confidence interval (Yamane 1993).

Regarding the demographic profile, the respondents consisted of sixty per cent female and forty per cent male. Almost three quarters of the sample were 50 years old or older. Half of them had a high school diploma, but over a quarter (30%) had no education, while only a few (3%) had achieved a graduate degree. The main occupations at the time of survey were largely housekeepers and farmers, 35% and 28% respectively.

Figure 3. Study area, Muang Nakhon Ratchasima district, Thailand

Survey

Semi-structured interview was employed in order to better understand how Thai citizens conceptualised global climate change. By doing so, each respondent was first asked open-

ended and non-directive questions (without providing a tutorial). For example, respondents were asked, '*do you know about global climate change*?' If the answer was yes, the respondents were then asked '*how much you know about* [global climate change]?', '*could you please discuss more about this phenomenon?*', '*does global climate change bring anything else to your mind*?' (Bostrom *et al.,* 1994), *do you want to do something to help combat climate change?* Furthermore, questionnaire was developed based on multidisciplinary reviews in the field of social psychology and empirical evidence related to the public engagement with climate change. The validity of the entire questionnaire was estimated through the index of objective congruence (IOC), resulting in a score of 0.84 (higher than the threshold of 0.05). The questionnaire's reliability was assessed through Cronbach's alpha coefficient. The result of this test was 0.71 and therefore higher than the threshold score of 0.7, meaning that the questionnaire had adequate validity and reliability for data collection (Cronbach 1970; Hambleton 1997). In view of this, respondents were asked to add a *likert scale* numerical rating, from 1 (*strongly disagree*) to 5 (*strongly agree*), that best expressed their opinion on each statement. These questions are summarised in the appendix. All statistical analyses were computed using the Statistical Package for Social Science (SPSS version 17.00) at less than or equal to 0.05 significance level.

RESULTS

The survey results indicated that there were widespread misunderstandings about the general definition and primary cause of climate change. The vast majority of respondents tend to associate global climate change with local environmental problems in their community (e.g., extremely high temperature, natural disasters, heavy flooding, and air pollution) than variations in the Earth's climate over time. It is noteworthy to point out that the images of such environmental problems are visually dramatic and easily understood by the general public. This is in contrast to the relatively long-term issue of climate change. In addition to that, even though most the respondents of the survey believe that climate change is real (and observable), almost ninety- percent were reluctant to change their lifestyles and they also had a *fatalistic attitude* towards climate change phenomenon. This was for the following reasons:

"*Climate change is inevitable*; *we could all be dead anyway*"

"*The situation still has not changed even if I had only changed myself*"

"*It's so far away from my life*"

"*I could not do anything about it*"

"*It is extremely inconvenient to change your lifestyle and habits*"

Barriers Perceived to Engaging with Climate Change

According to the results of the statistical analysis, there was a significant positive correlation between the respondents' perception of climate change (both definition and its cause) and their intention to modify their own behaviour (r = .139, p<0.05). General speaking, if respondents correctly perceived the reasons for climate change, they had more willingness to make sacrifices to mitigate future climatic problems. As with regard to the complexity of behavioural domains, some beliefs, cognitive dissonance, fatalism, negative feelings of helplessness, self-efficacy and limitation of lifestyle changes, ought to be negatively related to respondent's intention to mitigate the impacts of climate change. These scores ranged from r= -.272 to r= -.046 ($p \leq 0.05$). A critical finding is that cognitive dissonance, helplessness and belief in fatalism were the most powerful barriers to climate change engagement in general (Table 2).

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Table 2. Correlation analysis between climate change engagement and related socio-psychological barriers (*p<0.05; **p<0.01)

Related barriers	*1*	*2*	*3*	*4*	*5*	*6*
1.Climate change engagement (*behavioural intention*)	1.00	-.125*	-.055	-.153*	-.046	-.272
2.Fatalism	--	1.00	-.003	.291**	-.121	.176**
3.Limitation of lifestyle	--	--	1.00	.205**	.032	.083
4.Helplessness	--	--	--	1.00	.037	.104
5.Self-efficacy	--	--	--	--	1.00	-.163*
6.Cognitive dissonance	--	--	--	--	--	1.00

DISCUSSIONS

Fatalism and cognitive dissonance

First, we observe that in the Thai context, respondents' perceptions of climate change may be expressed explicitly through expression in fatalistic attitude toward the phenomenon. In line with the study done by Lorenzoni (2007), who argues that fatalism can be regarded as a significant barrier for both perceptions and behavioural responses to climate change among UK citizens. In most of the cases, fatalistic respondents tend to perceive that it is inevitable and too late to do anything; thus, it is a waste of time to try to solve the problem. Despite human's attempts to change, climate change is still going to occur. Taken together, the feeling of uncomfortable tension which comes from cognitive dissonance might inhibit perceptions of global climate change and the pro-environmental behaviour of citizens.

Theoretically, as suggested in the myth of human nature, each member of a social group associates an image of the environment and belief in the issue of climate change with specific social and cultural constructions (Hendriks & Zourides 1999). Based on the *clumsy institution* concept (Schapiro 1988), hierarchists (*guardian model*) believe that government have direct authority to regulate and stabilise atmospheric concentration of greenhouse gases. Individualists (*protective model*) prefer to protect their lives and property over other concerns (i.e., climate change). On the contrary, most egalitarians (*participatory model*) tend to accept the evidence that climate change is a real threat. This group promotes an eco-centric viewpoint, while hierarchical-individualists reject this conception. Critically, this research observes that the fatalist solidarity group (*non-model*) has no voice in climate change policy debates because most members of this group hold the belief that the environment and climate variability are uncontrollable. This group therefore holds the opinion that 'if there is no solution, *why are you bothering us*?' (Thompson 2003). In this vein, fatalistic thinking about climate change can lead to a great deal of cognitive dissonance and the subsequent denial of the existence of climate change.

Limits of Lifestyle Change

The final perceived barrier was a belief in the limitation of lifestyle changes to reduce carbon emissions and combat climate change. Such beliefs can arise under any circumstances in which individuals place *selfish interests* above the interests of society. Similar to the concept of denial of responsibility, social dilemmas are commonly used to understand scenarios with

three common characteristics: (i) non-cooperative choice is more profitable to the individual than a cooperative choice, (ii) non-cooperative choice is always harmful to others when compared with a cooperative choice, and (iii) the aggregate amount of harm by a non-cooperative choice is greater than the defined profit to the individual. Specifically, global climate change has the dynamics of a large-scale social dilemma, characterised by conflict between individual and social preferences (Dawes 1980). No one individual has an incentive to reduce his or her own personal emissions. At the same time, these same individuals place pressure on the other side (e.g., government and private industry) to minimise the problem (Irwin 2008). They tend to agree that an individual only contributes a small amount to climate change and therefore can only make small contributions to dealing with the problem (an attitude similar to *fatalism*). These situations may be related to the concepts of environmental uncertainty and risk distance. For example, in this study, some respondents stated that it is not only difficult but also not immediately necessary for them to change their lifestyle (i.e. the feeling of helplessness). This is because global climate change will have significant impacts upon them personally in the future rather than the present. These findings have led scholars to reflect upon the question of whether *people are too selfish to save our planet and combat climate change.* In conclusion, the relationship between the perceived barriers and the engagement of Thai local people on climate change issue has been illustrated in Figure 4.

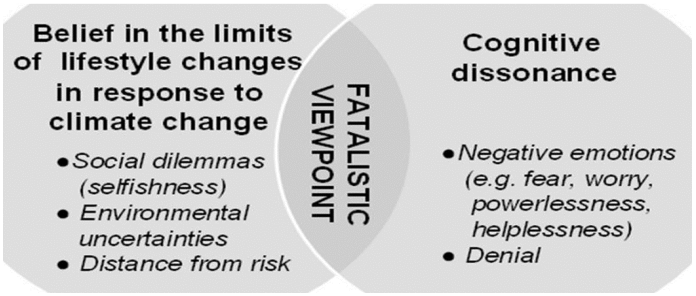

Figure 4. Key barriers to climate change engagement by Thai citizens

Challenges Ahead and Action Needed

In developing sustainable solutions to climate change, we offer some potential solutions in dealing with cognitive dissonance and a cultural bias towards fatalism in climate change issues (Fig.5). These solutions have been raised to provide recommendations for stakeholders and to offer opportunities for further study.

Switching from a Fatalistic to an Egalitarian Viewpoint

Policy makers need to think about practical ways to change fatalistic thinking into an egalitarian point of view. A wide range of policy responses is required in the planning process for climate change, based on the precautionary approach. It is also important to enhance social perceptions of climate risks related to the patterns of unsustainable consumption. Additionally, media practitioners must seek out the most effective ways to communicate with people about the environment and about the ethical issues raised by climate change (primarily from an egalitarian eco-centric point of view). In this fashion, laypeople can be more fully educated in *how* their activities harm our climate and in how they can mitigate such harmful effects.

Minimising Fatalistic Beliefs about Global Climate Change

By drawing on case studies conducted at a more local level, authorities must assist communities to overcome their own cultural bias towards fatalism. This is achieved by first *cultivating and sustaining hope* among citizens. From this point of view, authorities must

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shape the way in which citizens think and convince them to believe that personal actions can make a difference in local communities, the larger society, and in the world. Therefore, when considering policy implications, policymakers and relevant local authorities should always have the following unanswered questions in mind: *what people can hope to do* (willingness to act) and *what they can hope for* (climate change goals). Secondly, local government and media practitioners should *provide a clear understanding of what lay people can do*, especially on how to translate their concerns into action. That is to say, the people who believed in fatalism need to understand more about *their role* and *the dynamics of progressive social change*, rather than focusing only on *how climate change happens*.

Coping with Cognitive Dissonance and Negative Emotions

One of the best strategies in managing unpleasant and unacceptable emotions toward climate change is *selective attention*. This technique is primarily aimed at coping with negative feelings of fear and helplessness. It can be used to shape thought processes through phasing out painful information about problems without a solution. All key stakeholders will need a multi-faceted approach which effectively combines a diversity of communication tactics, including the following: i) controlling exposure to climate change information, ii) convincing citizens to stop thinking too far in the future, and iii) emphasising what could be performed to reduce the impact of climate change (e.g., reducing household energy consumption, recycling of waste materials).

Dealing with Social Dilemmas

Key stakeholders (e.g., researchers, practitioners, policy-makers, educators) must participate in minimising social uncertainty by building a deeper sense of *collective responsibility* to tackle climate change. They must also encourage laypeople to expand their *social networking* to lift themselves out of a potentially insular world. Strengthening and supporting contact between neighbours is also regarded as a good way to improve collaboration within community networks. A pro-social orientation should be emphasised more than a pro-self-orientation, especially as regards climate change mitigation and adaptation. By doing so, one possible solution is to *create safe spaces in communities* where people can share their own voices and feelings, their ideas about the meaning of climate change and their hope for its resolution in a public forum. Through these actions, people will become motivated in a more sustainable fashion than through the use of incentives (i.e., money and other economic measures).

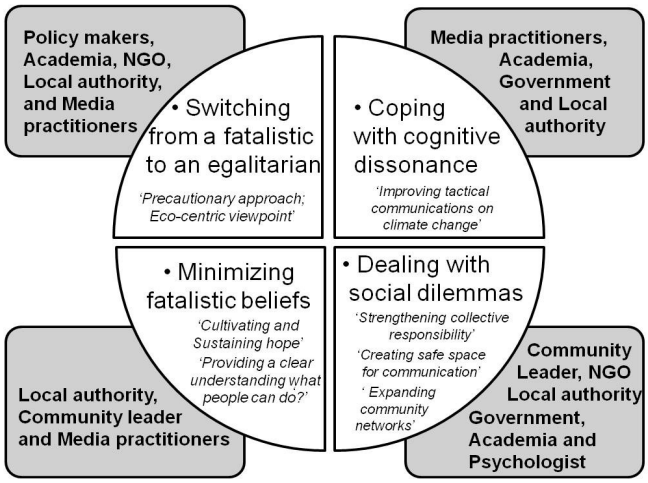

Figure 5. Potential solutions (and key stakeholders) in dealing with the key barriers to engaging with climate change

CONCLUSIONS

In conclusion, we argue that *fatalistic thinking, cognitive dissonance, pro-self-orientations* (i.e., helplessness, selfishness) and *environmental uncertainties* in social dilemmas (e.g., the future impact of climate change) can have a large effect on citizen's perception of climate change and on behaviour intentions to reduce personal contributions to climate change. Subsequently, all societal stakeholders should seek out the best way to perform the following: i) minimise the belief in fatalism about global climate change, ii) change minds from a fatalistic to an egalitarian viewpoint, iii) cope with negative emotions and climate change denial, and iv) address uncertainty and the pattern of non-involvement in social dilemmas. We further suggest that there is a need to investigate possible cultural biases and key barriers associated with promoting a range of specific mitigation actions to respond to the effects of climate change.

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APPENDIX-A

Key Survey Questions (*Translated from Thai*)

Criteria	
Affective domain	*Belief in fatalism* -I think climate change is inevitable -Even if we change, it is still going to happen
	Belief in limitation of lifestyle - It is quite hard for me to change my lifestyle to tackle climate change
	The feeling of helplessness - I feel helpless in the fight against climate change
	Self-efficacy - I have the responsibility to take steps to deal with climate change
	Cognitive dissonance -I always feel uncomfortable when talking or thinking about climate change. (If possible, I want to avoid certain information on climate change in order to maintain my emotional state)
Behavioural intention	*I have an intention to change behaviours to combat climate change*