

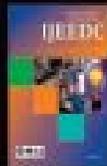
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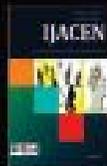
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EDITORIAL

"It is my proud privilege to welcome you all to the GSRD International Conference in Japan. I am happy to see the papers from all part of the world and some of the best research paper published in this proceedings. This proceeding brings out the various Research papers from diverse areas of Science, Engineering, Technology and Management. This platform is intended to provide a platform for researchers, educators and professionals to present their discoveries and innovative practice and to explore future trends and applications in the field Science and Engineering. However, this conference will also provide a forum for dissemination of knowledge on both theoretical and applied research on the above said area with an ultimate aim to bridge the gap between these coherent disciplines of knowledge. Thus the forum accelerates the trend of development of technology for next generation. Our goal is to make the Conference proceedings useful and interesting to audiences involved in research in these areas, as well as to those involved in design, implementation and operation, to achieve the goal.

"I once again give thanks to the Institute of Research and Journals, GSRD & The IIER for organizing this event. I am sure the contributions by the authors shall add value to the research community. I also thank all the International Advisory members and Reviewers for making this event a Successful one.

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M.E, Ph.D. Professor and Controller of Examinations,
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Coimbatore, India.

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COMMUNITY COMMUNICATION IN ECO-TOWN DEVELOPMENT

TAKSINA CHAI-ITTIPORNWONG

Muban Chombueng Rajabhat University, Ratchburi, Thailand
E-mail: natcna@gmail.com

Abstract - Community communication remains a key factor of raising public participation in environment, development and sustainability. An eco-town development deals with the environmentally-friendly actions in respect to resource efficiency and impact reduction was considered potential for Chombueng-Bankha-Suanpueng communities, where become the emerging weekend-tourism destination for Thai people. Questions are as to what benefits of eco-town development, why are necessary, and how the vulnerable communities share their roles and such processes. Besides exploring a linkage between community communication and eco-town development, this area-based study also examines the role of media in addressing this environmental co-existence. An approach of social action research was used to inquire on the environmental management, the eco-town principle and implementation, and the communication practice. The perception and understanding of eco-town concept gathered from community leaders and target informants are measured with the site survey and a set of rating-scale questions. The findings are that the levels of perception and understanding of eco-town value are quite low to lowest, most local people have neither interest in shifting their habitat to eco-town, nor participation in such development, and that the communities are likely to communicate via social media. Rather, the way of community communication is behind their environmental co-existence.

Keywords - Community Communication, Eco-Town Development, Environmental Co-Existence.

I. INTRODUCTION

A significance of eco-town is addressed as the possibility for achieving sustainability in environment and development. As threatened by the extreme destruction of natural environment caused by unsustainable consumption and production behavior along with the achieving in being an emerging tourism destination during weekend among Thais, the communities of Chombueng-Bankha-Suanpueng are in need of sustainable environmental development. Sustainable development and ecological system of natural resources and environment are still important strategies wherever possible. These bring many challenges for individuals and institutions in tackling climate agenda as an environmental-coexistence basis. Eco-town development actually requires the collective actions those internally driven, not externally imposed, from all concerns. Moreover, communication becomes a conditioning factor for making the eco-town development successful. Community participation is possible greater if establishing a two-way communication for all stakeholders, either as a cause or an effect unit of the change [1]. Community communication can help integrating their needs, attitude and traditional knowledge with the awareness, participation and capabilities towards the development [2]. Finally, the study integrates the questions of what and how much of which community communication approach influence the communities' environmental co-existence, and what will be the main challenges along the way and how the communities as well as society benefit from the eco-town mission.

1.1. Community Communication

Communication is a strategic device for local development programs. If community leader

provides a location for the journalist to observe or listen to community issue, this location must be reasonably accessible to members of the community who could be expected to have an interest in attending the forum. Community communication refers to media and techniques used to advise local people about new ideas and methods, to encourage adoption of those ideas and methods, to gain institutional and individual support, and to improve coordination and teamwork to manage the development [3]. The understanding of eco-town value is potentially covered by media and communication technology through the conventional practice in community life. Two-way communication delivers an understanding of the local context, which includes local actors, local capabilities and local ways of doing things, as well as political, economic, social and community dynamics [4]. Included are as to what news and in which information the communities are interested, what media they currently use and trust, how they use them and how information flows. How do they follow the internet news and new media technology? Do the local media take a significant part of communities in the preparedness, relief and recovery of any adverse impact from development?

In the past, many people believe that the public has no control over the media and what it produces. The mainstream media like newspaper, magazine, radio and TV can have an unconscious influence over our lives and how we view the world. However, the Internet and the 4G technology have already made the change. Currently, media consumers have a free will to decide how they use the media and how it affects them. The Internet and social media enable us to have much more freedom and control over what we consume in relation to social movement [5]. Online media is redefining the way the media operates and

breaking down the typical communication practices. Information on the internet is able to influence the agenda of the mass media and takes the lead in the dissemination of information. The Internet makes many voices one world [6] becomes as an entirely new forum of communication between news sources and individuals as people want to have a fast and easier access to information about social movement. It is, however, not for everyone, nor at the same pace. Social media also allows the viewers to share and spread articles. In result, it facilitates the networking and communication among the activists and the mobilization of resources [7]. Communication practice in community can be regarded as a strategic device to get public opinion as well as create a certain public pressure.

1.2. Eco-Town Development

Due to increase of natural crisis globally, a development of mitigation and adaptation actions have been really forced to all nations. Ecological behavior by individuals and communities is a crucial factor for vulnerability reduction and leading to a sustainable community where pursues an eco-town concept.

1.2.1. Eco-Town. Eco-town is designed and established for a community where is potential to strengthen every strategy and tool those effective to a reduction of negative impact from changes together with a sustainability in nature and environment, economy and society [8]. It is the ability of human systems to stop actual or potential damage, cope with the consequences and make a restoration, with an understanding of how individuals, groups and natural systems can prepare for and respond to changes in climate and their environment. Unless the change agent for the eco-town development is set, the members of communities tend to become passive. Community engagement requires technical ability in conducting community-needs assessment, analyzing and avoiding interventions and programming at its heart because it is regarded as a programmatic challenge, central to the way we operate [9].

1.2.2. Chombueng-Bankha-Suanpueng.

1) Fundamental Data. The communities are close to Bangkok and located in Ratchaburi Province of Thailand. They are grouped as the rural areas of 108 villages, approximately 108,000 people with Thai, Chinese and four ethnic groups; Song, Tai Yuan, Lao Wieng and Karen. If classify population to 3 groups; immaturity, working and elderly, the percentage ratios are around 20:60:20. Main job is farmer. The communities are known for weekend and weekday tourism destination as the lands are surrounded with hills, fog, stream, green scenery and many natural attractions together with exotic traditions of tribal groups those are hard to see nowadays. The richness includes flora and fauna resources of wild orchid,

honey bee and pineapple. As being a plateau part of Tanaosri Mountains, the communities' important water resource is the Phachi River originated from such mountain, with a flow of 50 kilometers to ending at Mae Klong River in other districts. The communities also face the problems of population relocation, forest invasion, degradation of nature and environment, waste management and supply of water resources.

2) A Likely Eco-Town. As the communities are less risky to flood hazards and earthquake, these communities are prioritized as an eco-town development. The mission based on the co-operation between Thai and Japanese businesses reaches a memorandum of understanding (MoU) in 2015 [10]. The project refers to the Kitakyushu Eco Town Center where is the first proactive environmentally-friendly city, and where is focused for the environmental study of disposal sites in Japan. Kitakyushu has been designated by the government as an Eco-Future city. The land of 32,000,000 square kilometer in Chombueng community was developed as the biggest industrial park in this region, with a route connected to Dawei in Myanmar. The main industries are green energy, food processing and bio-product. A total of 12,000,000 square kilometer of the whole land was prepared for green zone. After officially announcing an MoU to the public, people from a group namely 'Representatives of the People's Network' in Ratchaburi and from neighboring provinces set a forum for exchanged views on the impact of this establishment. Up to now, the eco-town mission has been on the decline.

1.3. Environmental Co-Existence

A sense of responsibility to care, protect and enhance environmental quality has been already concerted to people in 21st century. Environmental coexistence refers to a sustainable relationship between society and nature for a reduction of vulnerability to environment and nature [11]. It deals with sustainable practices those covering efficiency in resource consumption and impact reduction associated with a corporate social responsibility, eco-design, 3Rs' principle, sustainable consumption and production approach and so on.

Adaptive capacity is actually aligned with mitigation approach which is another fundamental condition of sustainable development. Mitigation is to tackle the causes of climate change whereas adaptation deals with the effects by finding way to live with the consequences of global warming. The greater the degree of adaptive capacity is, the less the degree of climate impacts is deployed to our lives. Taking behavior change to environmentally-friendly performance not only directly affects the progress toward sustainability but also represents as to how people view themselves, and how important changes are in individual behavior. The desirable actions for

environmental prevention and protection depend on environmental awareness [12].

1.3.1. Resource efficiency. Efficiency in resource consumption can be explained with a new production and consumption patterns that are feasible, acceptable and affordable both from an economic and social point of view and consider the natural boundaries of the planet, while at the same time embracing the opportunities that new and emerging technologies offer.

On everyday basis, natural resources are extracted and transformed to provide goods and services for supporting all social and economic activities. Resource consumption is not simply about the act of purchase but reflects a cultural phenomenon that serves to legitimate capitalism on an everyday basis. Resource efficiency deals with a reduction of resource intensity, material and product flexibility, utilization of all resource benefits and applying saving technology. The environmental co-existence from businesses is established when they invest in new technology and continue product research and development to increase resource efficiency. When people use fewer resources and generate fewer emissions, they minimize natural resource consumption as well as maximize its all benefits [13]. The adoption of resource efficiency includes possibilities of reduced risk to resource scarcity, lower environmental cost on less wastes and pollution generation and lower prices for materials and products. It can conclude that an action in resource efficiency delivers the rebound effects in increasing a demand for goods and a growth in resource consumption while contradicting efforts to save resources for greater efficiency.

1.3.2. Impact Reduction. Treatment on impact reduction implies the ways of utilizing resources and processes to eliminate pollutants and wastes generation both at the source and within the use. Environmental impact reduction determines the attempts to conserve finite resources, prevent natural resource depletion, and continue decreasing greenhouse gases emission, pollutants and wastes generation. A reduction of carbon footprint is in line with natural resource usage. Plastics become a major environmental issue on our planet as they are based on fossil resources. Disposable plastics are clogging the drainage and waterways, polluting the rivers and oceans and causing ecological degradation and a damage to biodiversity those related to our lives and flora and fauna resources. Processes of plastic polymerization have greenhouse gases emitted involving global warming potentials, eco-toxicity and risks to human health. Electricity utility mostly derives from non-renewable resources like petroleum and coal. Bio-energy produces electricity and heat derives from a bi-product and residues of the crops like rice, oil palm, and sugar cane. Also, waste-to-

energy is the process of turning incineration waste to bio-energy. When person's actions are expressed with the intention to environmental protection, it shows a linkage of environmental behavior between areas of action and the readiness to act [14]. Environmental awareness is therefore becoming a powerful catalyst to reach a more sustainable future.

II. METHODOLOGY

2.1. Population and Research Method

An approach of social action research was used to inquire on tentative factors to the eco-town development in the scoped area, the environmental co-existence of the communities, the perception and understanding of eco-town development and the community communication practice.

Populations were residents in Chombueng-Bankha-Suanpueng communities, which were written in the abbreviation of CBS in this paper. Samples were treated in different approaches. One was arranged for community leader, scholar and politician together with private and governmental representatives working on local governance, economy, society and culture, environment and natural resource, and those accounting for development administration in the communities. For better reading, a word of FOREFRONT was used to represent the first sample group. The FOREFRONT included 25 samples providing information according to survey transcript used with the in-depth interview. They were focused on the information about strength and weakness of CBS as the eco-town development.

The other sample group was designed for 100 folks simply randomized regardless of sex, education and career. People those were the immaturity age were not the informants. In this study, this group, namely FOLK, was responsible for a set of close-ended questions used to measure perception and understanding of an eco-town development in their communities. Included was a measure of participatory role in environmental co-existence, which was categorized as active, moderate and passive approaches. Scenario of community communication against the eco-town mission was also estimated.

2.2. Materials and Procedures

Documentary study about the possibility to have CBS developed as an eco-town of Ratchaburi Province was first prepared. Then, a survey transcript with a method of interview and discussion, by individual or small group, was arranged to find out thought and opinion of FOREFRONT towards the strength and weakness of CBS if prioritized as the eco-town development.

In identifying the FOLK's perception and understanding of eco-town mission, the results of

FOREFRONT was taken to interpret, conclude and itemized as the index of such aspect. The index was also applied to analyze community engagement both in environmental co-existence and communication practice. A rating scale and the statistics of a number, the mean comparison and the standard deviation were used to analyze and draw the research results.

III. RESULTS AND DISCUSSION

3.1. Strength and Weakness of CBS to Eco-Town Development

The research reveals that there are 37 topics considered either advantage or disadvantage to have CBS developed as the eco-town. Twenty-three in thirty-seven choices are itemized as the strength of CBS, whereas the rest is the weakness. It is obvious that the area of environment is most addressed, equal to 18 topics, followed by culture and society. The least is common to governance area.

As eco-town development helps shape direction of sustainability to community, the conditions of livelihood, community identity, culture and society, education, economy and governmental policy in development administration are raised to argue in setting CBS as an eco-town target, accordingly. Their thoughts and opinions are distinctive quality of community growth as well as potential to raise local resident's awareness and actionable participation in balancing environment, development and sustainability to the communities. People are change agents towards an informed and democratic society where can produce and converge a sense of identity, cultural diversity and social harmony [15]. Lists of strength and weakness are presented as in Table 1.

3.2. Community's Perception and Understanding of Eco-Town Development

It is proved that the levels of perception and understanding of eco-town value are quite low to lowest. As drawn in Table 2, nearly all of them have a low perception (2.86) of eco-town development in CBS community. The table also shows that only one item of potential to business investment in Dawei, Myanmar is distributed to medium level. The minority of lowest level covers two statements; eco-town essential to free from pollutions and toxic waste (1.80) and focus on green energy, food processing and bio-industry (1.78).

When taking the items listed by FOREFRONT for identifying FOLK's understanding of eco-town development, there exists only 6 in 37 items considered highly affecting the communities. The six choices include community economy, infrastructure, job employment, quality and quantity of water resource, standard of living, telecommunication and wireless internet and tourism destination. The others are treated as unrelated and somewhat related. It means most local people have the least understanding

of eco-town development consistent to their perception, which is common to low level.

Table 1. Opinion on Strength and Weakness of CBS in Eco-Town Development.

| Strength | Description | Weakness |
|----------|--|----------|
| 1 | Abundance of nature | |
| 2 | Biodiversity | |
| 3 | Community economy | |
| 4 | Community identity | |
| 5 | Creative economy | |
| | Ecosystem management | 1 |
| 6 | Education quality | |
| | Entertainment complex | 2 |
| 7 | Ethnic diversity | |
| | Greenhouse gases emission reduction | 3 |
| 8 | Governance and politician | |
| 9 | Hospital and health service | |
| 10 | Infrastructure | |
| | Invasion and forest degradation | 4 |
| | Job employment | 5 |
| | Landfill management | 6 |
| 11 | Local wisdom | |
| 12 | Low carbon society | |
| 13 | City plan | |
| 14 | Mixed farming | |
| 15 | Natural disaster; flood, earthquake, landslide, etc. | |
| | Problems of plastic product and waste | 7 |
| | Public participation in community agenda | 8 |
| | Quality and quantity of water resource | 9 |
| 16 | Renewable energy | |
| 17 | Resort and hotel service | |
| | Resource efficiency | 10 |
| 18 | Slow life/Healthy life | |
| 19 | Solar farm/Solar roof | |
| 20 | Standard of living | |
| 21 | Sufficiency Economy | |
| | Sustainable consumption and production practice | 11 |
| | Sustainable waste management | 12 |
| 22 | System of development administration | |
| | Telecommunication and wireless Internet | 13 |
| 23 | Tourism destination | |
| | Zoning system | 14 |
| 23 | 37 topics | 14 |

Economy = 8 items
 Governance = 2 items
 Culture/Society = 11 items
 Environment=16 items

Table 2. Perception to Eco-Town Development.

| Description | Mean | Level |
|---|------|--------|
| 1. Potential to business investment in Dawei, Myanmar | 2.41 | Medium |
| 2. Joint-venture between Thai and Japanese | 2.36 | Low |
| 3. Cover 32,000,000 square kilometers | 2.28 | Low |
| 4. 12,000,0000 square kilometers separated as green zone | 2.24 | Low |
| 5. Tambol Rangua, expected area for eco-town development | 2.14 | Low |
| 6. Share water resource at Phachi River | 2.07 | Low |
| 7. Possibly declined to eco-town target | 1.92 | Low |
| 8. First inform the mission to public in 2015 | 1.86 | Low |
| 9. Eco-town essential to free from pollutions and toxic waste | 1.80 | Lowest |
| 10. Focus on green energy, food processing and bio-industry | 1.78 | Lowest |
| Total | 2.86 | Low |

Eventually, project developer pays attention to keep the communities informed, directly and indirectly, and educated about the mission covering meaning, significance and its consequence. The emphasis should be directed to how the communities as well as society benefit from the eco-town development. This means that they would, for example, focus on reducing irrelevant program to community livelihood, promote community participation corresponding to their values, plan the eco-town to be more inclusive and require space for information sharing and discussion. A shift to more environmental prevention and protection requires bio-geophysics and social action against the consumerism together with humanistic values in a social system those converged on sustainable practice [16]. This challenge absolutely constructs a new kind of local people's relationship with the public realm.

3.3. Community's Environmental Co-existence to Eco-Town Development

In this paragraph, the 37 topics given by the FOREFRONT as aforementioned in 3.1 and its table are used for exploring the FOLK's interest and contribution to environmental co-existence agenda. The finding is the communities moderately perform the environmental co-existence to the mission of eco-town development. The active and passive approaches share nearly the same contribution. It means most of them would like to take action in seven topics. The lists include retaining abundance of nature, promoting community economy, following landfill management, prioritizing quality and quantity of water resource, concerning any change in their standard of living and telecommunication and

wireless internet. Meanwhile, almost folks are passive to act for biodiversity, local wisdom, low carbon society, renewable energy, sustainable consumption and production practice, and system of development administration. The result leads to a conclusion that environmentally-friendly behavior is possibly dependent to their literacy in cause and effect, including adverse impact, of climate issue. Eco-town development enables communities to use sensible approaches to protecting land, soil, freshwater systems, pollution and waste generated and livelihoods. Eventually, the environmental co-existence shall be enhanced and best arranged through community activities.

Table 3. The Likely Communication Approach of the Folks in Eco-Town Development

| Communication Approach | Mean | Degree |
|---|------|---------|
| 1. Prefer social media to other channels | 4.41 | Highest |
| 2. Always get new information | 4.14 | High |
| 3. Maintain member status | 4.01 | High |
| 4. Continue following community movement | 3.86 | High |
| 5. Willing to be a change agent | 3.71 | High |
| 6. Voicing for community development | 3.64 | High |
| 7. Create two-way communication | 3.47 | High |
| 8. Avoid confrontational conflict | 2.81 | Medium |
| 9. Attend community forum | 2.52 | Low |
| 10. Take actionable performance in community activities | 2.36 | Low |
| 11. Find comprehensive information | 2.33 | Low |
| 12. Ready to have inquiry for better understanding | 2.24 | Low |
| 13. Propose idea and comment | 2.07 | Low |
| 14. Exchange idea and ready for discussion | 1.59 | Lowest |
| Total | 3.08 | Medium |

3.4. Community Communication in Eco-Town Development

According to the results shown in Table 3, the communication approach associated with eco-town development among the folks in the CBS community is at moderate level (3.08). The choice of prefer social media to other channels is most highlighted (4.41). The statement of exchange idea and ready for discussion is the contrary (1.59). There exists that an approach of avoid confrontational conflict is quite away from their likely communication pattern. The press conference was arranged with emphasis on attendants from governmental agency and journalists,

rather than people in the communities. A verification of information accuracy with the experts and academia in the field prior issuing is required as it helps the concerns literally and professionally informing interesting and significant facts to the public. The communities are therefore challenging themselves in producing environmental behavior, with a growing concern to scientific knowledge of climate change and sustainable development goals. Not only environmental impacts are delivered to the CBS communities but also all lives in this world. With this regard, a two-way communication in open-and-candid forum is required to sound thought and idea as well as generate public consciousness to protect, preserve and conserve the planet from the climate impacts. They can use the platform to reflect their views on issues that matter to them in their own dialects. Absolutely, community communication can provide key insights for identifying human capacity on mitigation and adaptation actions [17].

CONCLUSIONS

The eco-town development for Chombeung-Bankha-Suanpeung communities, where become the emerging weekend-tourism destination for Thai people is still far from ecological destination. It is neither consistent to the way of community life, nor the practice of community communication. A linkage between eco-town development and community communication is underperformed by the concerns, especially using the role of media in addressing participation in environmental co-existence among the people in communities. Community leader, scholar, head of governmental agency and politician have high concern and comprehensive knowledge about the significance of eco-town development to the community. But local people have less perception and understanding though the mission directly affects their livelihood. There should be more driving force for raising community's environmental co-existence. The communities are likely to communicate via social media. Rather, a potentiality of community communication is behind environmental co-existence to eco-town development.

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