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Community Radios in Bangladesh: Change Maker at the Grassroots Society

Mizanur Rahman*

Abstract

Community radios are playing very important role in the firmament of grassroots level change and development in many ways. In the era of globalization, mainstream medias are dominating for providing news, information services and entertainment. Besides, in Bangladesh, community radios (hereafter CRs) are contributing to positive changes in grassroots governance and development. Based on a reality, this paper tries to unravel the following research objectives i.e. i) to get an overview of the profiles of the community radios in Bangladesh; ii) to provide a brief profile of the CRs in Bangladesh; and iii) To assess the role of the CRs in bringing change and development at the grassroots level. In a bid to achieve that case study method was followed where qualitative data were analyzed in line with the objectives. To substantiate qualitative data, few other tools such as focus group discussion(FGD), content analysis and observation methods were employed. The findings of case studies reveal that there are 18 community radios in Bangladesh, mostly situated at the remotest areas-they are providing all sorts of development information at the grassroots. These community radios were able to form listeners' club through which huge numbers of school going children have got a platform to involve themselves in lots of creative endeavors. Some marginal communities such as fishermen, women, village farmers, rural poor communities, indigenous people are getting lots of development services from the community radios. Thus they are able to bring enormous change, development and transformation at the grassroots society.

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ชุมชนวิทยุใบบังกลาเทศ : ผู้เปลี่ยนแปลงสังคม
ชั้นรากหญ้าของสังคม

Mizanur Rahman*

บทคัดย่อ

ชุมชนวิทยุมีบทบาทสำคัญต่อความเปลี่ยนแปลงในสังคมชั้นรากหญ้าและการพัฒนาด้านต่าง ๆ โดยที่ในยุคโลกาภิวัฒน์ สื่อกระแสหลักมีบทบาทสำคัญ ต่อการจัดทำข่าว สารสนเทศและการบันเทิง นอกจากนี้ในประเทศบังกลาเทศ ชุมชนวิทยุ (หรือ ซีอาร์) ส่งเสริมให้มีการเปลี่ยนแปลงเชิงบวกในการปกครองระดับรากหญ้าและการพัฒนาตามรากฐานของความเป็นจริง วิจัยนี้มีวัตถุประสงค์ เพื่อ 1) ศึกษาภาพรวมของโปรไฟล์ชุมชนวิทยุของ ประเทศบังกลาเทศ 2) นำเสนอโปรไฟล์โดยสังเขปของซีอาร์ในประเทศ บังกลาเทศ และ 3) ประเมิน บทบาทของซีอาร์ในการเปลี่ยนแปลงและการพัฒนาในระดับรากหญ้า ทั้งนี้มุ่งหวังให้เกิดเป็นวิธีกรณีตัวอย่าง โดยใช้ข้อมูลเชิงคุณภาพ วิเคราะห์ตามวัตถุประสงค์เพื่อยืนยันข้อมูลเชิงคุณภาพ มีการใช้เครื่องมืออื่น ๆ เช่น การสนทนากลุ่ม (FGD) การวิเคราะห์ เนื้อหาและการสังเกตการณ์ ผลการวิจัยแสดงให้เห็นว่า มี 18 ชุมชนวิทยุในประเทศบังกลาเทศ โดยส่วนใหญ่อยู่ในพื้นที่ห่างไกล และทำหน้าที่ให้ข้อมูลการพัฒนาต่าง ๆ ต่อคนระดับรากหญ้า โดยชุมชนวิทยุดังกล่าวสามารถแจ้งสมาคมผู้ฟังที่ประกอบไปด้วยนักเรียนจำนวนมาก ได้มีช่องทางในการมีส่วนร่วม ในการแสดงความคิดสร้างสรรค์ ทั้งนี้ชุมชนรายย่อยเช่น ชาวประมง สตรี ชาวสวนหมู่บ้าน ชุมชนยากจนห่างไกล ชนพื้นเมือง ยังได้รับบริการ ด้านการพัฒนาจากชุมชนวิทยุด้วย ดังนั้นจึงเป็นปัจจัยหนึ่งที่ก่อให้เกิด ความเปลี่ยนแปลง การพัฒนาและการแปรสภาพ ของสังคมระดับรากหญ้า เป็นอย่างมาก

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1. Introduction

In an overwhelming globalized world, it is deemed that the need for community radio has diminished but in reality the importance of this medium has not diminished rather community radio has been playing an important role to bring socio-economic transformations at the grassroots level. Recently, a number of radio stations was established in Bangladesh under a policy formulated in 2010. All these community radios are being run with the active participation of the marginalized people. Community radio is engaged in the positive development of the local folk culture with the help of modern knowledge and technology. The role of information and communication in development is undeniable. The more developed the country, the better its information and communication system is. Appropriate means are needed to ensure access to information to a large population deprived of information and communication facilities of this rural country. In this case, community radio can play an important role in the development of the rural population. To this end, it is necessary to examine the role of community radio in rural development and how community radio have played its role to promote rural development, provide various services and contribute to changing and development in fulfilling the demand for information, education, and entertainment for the rural population. It is evidently observed that community radios played an important role in overcoming the Covid-19 pandemic. To reduce the incidence of corona, rural people were made aware of the dangers of the epidemic and that in turn helped the government, civil society organizations, health workers and the public to take concerted actions. It is important to conduct this study to keep people's livelihoods normal and to enhance cooperation between local markets, civil society organizations, and the government, and reduce information inequality in cities and villages. Provided that the community radio has been rendering different services to the grassroots level vulnerable population and now it calls for to appraise that how they are serving the community and what is their overall output to the society and how they helped the community in bringing transformation and development at the grassroots. Provided that the community radio in Bangladesh is a recent phenomenon and there might have dearth of academic paper on the community

radios and its developmental role in Bangladesh. Against such a backdrop this research study is aimed at delving into the following objectives.

2. Objectives of the Study

The specific objectives of the paper are the followings:

i) To get an overview of the profiles of the community radios in Bangladesh;

ii) To assess the role of the CRs in bringing change and development at the grassroots level.

3. Literature Review

A community radio station is one that is operated in the community, for the community, about the community and by the community. The community can be territorial or geographical—a township, village, district or island. It can also be a group of people with common interests, who are not necessarily living in one defined territory. Consequently, community radio can be managed or controlled by one group, by combined groups, or of people such as women, children, farmers, fisher folk, ethnic groups, or senior citizens. What distinguishes community radio from other media is the high level of people's participation, both in management and program production aspects. Furthermore, individual community members and local institutions are the principal sources of support for its operation[1] (UNESCO, 2002 & AMARC, 2010[2]).

To be very specific, community radio can be dubbed in diverse ways. As such Community Radio can be called as 'rural radio', 'cooperative radio', 'participatory radio', 'free radio', 'alternative', 'popular radio', 'educational radio'. They are located in isolated rural villages and in the heart of the largest cities in

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[1] This statement was made Mr. L. Tabing during his personal communication on July 20, 2002. The above definition, which is usually endorsed by UNESCO and other organizations that promote community radio such as AMARC.

[2] AMARC is the French acronym for the World Association of Community Radio Broadcasters headquartered in Montreal, Canada.

the world. Their signals may reach only a kilometer, cover a whole country or be carried via shortwave to other parts of the world. Some stations are owned by not-for-profit groups or by cooperatives whose members are the listeners themselves. Others are owned by students, universities, municipalities, churches or trade unions. There are stations financed by donations from listeners, by international development agencies, by advertising and by governments.''[3] These CRs are operated, owned and influenced by the communities they serve by using the participation of men and women from the community and helps in catering their specific needs and necessities and works as an innovative tool in bringing social change. It has the scope to promote health education in their community in their local language with their local people's voice (Record, Sherbrooke, & Nov, 2008). In that context community radio can be an easily accessible mass media which provide significant information through its programs and guarantees nearest to the community folks (Nandakumar, & Sridharraj, 2015).

All over the world community radio is playing a sine qua non role in development in Latin America, Africa, Europe and in many developing countries from time immemorial (Asaduzzaman & Khatun, 2019). Community radio comprises the "community" character which ''operate in the community, for the community, on the community and by the community'' (UNESCO, 2002). Community Radio (CR) is a type of Radio service that caters to the interests of a certain area, broadcasting material that is popular to a local audience but is overlooked by more powerful broadcast groups. The term has somewhat different meanings in the United Kingdom, the United States, Canada, and Australia. In the UK, it originated in the many illegal pirate Radio stations that came about from the influx of Afro-Caribbean migrants in cities such as London, Birmingham, Bristol, and Manchester in the 1970s. Therefore, "Community Radio" remains synonymous with "Pirate Radio" for many people there. In America, it is more commonly a non-profit and non-commercial service, often using licensed class D FM band transmitters, although pirate radio outlets have been operated in many places. Canadian and Australian CR stations operate somewhat similarly to their American counterparts (Bora & Lakhendra, 2012).

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[3] This statement was made in the conference entitled "Waves for Freedom». Report on the Sixth World Conference of Community Radio Broadcasters. Dakar, Senegal, January 23-39, 1995.

Community radio basically originated in Latin America, which started its journey in 1948 to protest against poverty and social injustice. Minor Radio in Bolivia in 1948 and Radio Sutatenza in Colombia were pioneers in the history of community radio. Inspired by that, these radios are still being set up in different parts of the world. Miners Radio acted as a middle ground between the Marxist and capitalist systems. The program was to organize the people for a suitable working environment and employment for the miners. This radio was operated and broadcast by the workers. Radio Sutatenza became so popular with the general public that it received about 50,000 letters a year. Sutatenja became a people's radio in the true sense of the word.

The age of the community radio is about 75 years because the first community radio "Radio Sutatenza" in the developing word was established in 1947 in Columbia (Myers, 2011). Following this model, the labours of the tin mines of Bolivia develops a community radio named as "miners radio". These experiences set a trend, even if today's concept of community radio has evolved considerably. For example, the Minors Radio in Bolivia was working in the decades of inner conflict between Marxism and capitalism. Thus, their main focus was to bring together the community of miners to combat for improved and better working environment (Khan et al., 2017). Systematic efforts by Radio Sutatenza to educate community people by radio created a progress that was later consolidated through LAER, the Latin America Educational Radio Broadcasting Association. Inter – linkage of radio and education was the main thrust to the concept of public service and marked the inception of community broadcasting media in Latin America (Fraser, 2001).

Community radio(CR) connotes the idea that it is radio to "voice of the voiceless" (Sterling, O'Brien, Bennett, 2009). Community radio is a welfare broadcasting medium owned, managed and run on a non-profit basis. Its purpose is to provide services to the community and to create opportunities for the development of local folk, socio-economic and cultural life. Community radio operates through the direct participation of the grassroots people in a particular small geographical

area. It is the community's own resource that accurately reflects a community's own ideas, judgments, and thoughts (Patil, 2015). Being located at the rural population, CRs broadcasts diverse programs namely, CRs airs information in areas of agriculture, social welfare, education, health and environment and help in creating rural networks for the rural cottage and village industry. Access and participation are the foundations of CRs (Bora & Lakhendra, 2012). The pioneer of community radio, South African's Jen Ibrahim Said, 90% of community radio is the community itself and the remaining 10% is radio (Obaid, 2019). The community radio is a media which is run without any commercial motive, it is run for the community people, by the community people and controlled by the community and the main function of such radio is to work for the betterment of the community (Jewel, 2006). It is substantially proved that information and communication helps in gradual socio-economic and cultural progression of a country (Schramm, 1964). Access to information helps to empower people (Harun & Mahamud, 2014). In fact, ensuring freedom, participation of people, and community ownership are the key to the success of the Community Radio (Reza, 2014). It was evident that in the capitalist society, apart from a few public broadcasting centers, most of the public media are corporatized, market and profit oriented (McChesney, 1999). As an effective tool of communication it ensures establishing transparency and accountability of the public administration at all levels and thus it helps to contribute to establish good governance in the society (Ullah & Ferdous, 2007). Nirmala (2015) found that in CRs women have started to reflect on their abilities and aspirations on other women's lives through media and at an interpersonal level. It was found that community radio seeks to advance women in rural regions by providing them with a mechanism to amplify and publicize their distinctive considerations, knowledge, and needs. The approach followed by the CRs could be a useful resource for poor NGOs working in rural parts of developing countries as it allows marginalized communities to express their views often ignored by mainstream media (Waters, James, & Darby, 2011). It was found that health care services during pregnancy, and newborn care was delivered in both morning and evening sessions of community radio. Moreover, information regarding local government services and schemes for better health

of mothers and adolescent girls were communicated to them by the local health workers in their local language (Rajana, Prasad, & Madhavi, 2020).

The Community Radio can help us in addressing social, economic, cultural, educational, health, water and sanitation and disaster related issues more effectively and strategically (Khan et al., 2017). Community radio is that kind of radio which is owned and controlled by a community and always broadcast those programs which are related to that community interest (Khan et al., 2017). These programs focus the views and thoughts, rights and scopes of the disadvantaged community people (BNNRC, 2015). Community radio as the media of citizens of a particular community has become popular and new opportunity for both the media practitioner and grassroots people. Community radio helps to avail utilities and amenities for various development aspects of our society like education, health, water and sanitation, protection from natural disasters, address social issues at the community level and connect rural population with the government. It can be useful for the development of a particular target group like elderly, women and children (Khan et al., 2017). CR aims to enrich the livelihood of the local people, through the content that is created by the people and for the people of the community (Wadia, 2007). Community radio is also defined as non-profit agency which is considered to serve specific local communities; thereby broadcasting programs and contents which are relevant to the community and with organizational structures that represent the community the radio station work for (Fleming, 2002). Usually, these radio stations operate on a low budget with fewer staff for various jobs (Bora & Lakhendra, 2012). CR aims at enhancing participation of the people in the development process and capacity building in rural areas, through education. It provides opportunities to the people to upgrade their skills and enhance their creative talents, besides preserving and promoting the traditional wisdom, knowledge and skills. Thereby they help to promote and project the local language, arts, craft, culture and traditions (Bora & Lakhendra, 2012).

In the countries of South Asia, Community Radios are playing very important role in grassroots governance and development. Nepal was the first country in

South Asia to launch such a radio. India, on the other hand, introduced the first community radio policy in South Asia in 2006. As of 2011, there are about 6,000 community radio stations in India and 3,000 in Thailand (Khan et al., 2017). Community radio has been working successfully since 2001 in collaboration with UNESCO in poverty-stricken Africa, Mali, Mozambique, Senegal, some parts of Asia and the Caribbean (Khan et al., 2017). It highlights that DZJO Radio's on-the-air school activities in the Philippines are playing an important role in rural development as well as spreading the light of education among the extremely poor, school deprived people living in remote areas of the country. In the Philippines, community radios significantly contribute in many areas like education, health and improving law and orders and other social problems (Patil, 2010). Community radios are playing very important role in developing agriculture, removing superstitious believes and reducing the disparity and social inequality in many sectors in Nepal (Patil, 2010).

Community radio was originally introduced to Sri Lanka under an UNESCO-DANIDA funded project called Mahaveli Community Radio (MCR). When MCR was introduced to Sri Lanka in 1981, it was the first of its kind in South Asia and soon became a prototype for the region. But it was largely initiated and implemented through international cooperation and funding, as a development communication tool to assist re-settlement of rural farmers uprooted by a large dam project (Seneviratne, 2011).

In the South Asia, India first prepared policy for community radio in 2006 (Myers, 2011). In India, considering the level of education, community radios broadcast programmes both for the literate and illiterate people (Patil, 2010). After much advocated by the NGOs and civil society organization, in December, 2006, the Ministry of Information & Broadcasting (MIB) of Government of India(GoI) had taken positive decision by announcing that even NGOs and voluntary organizations with a good track record would be allowed to apply for license and set up CRs. Up to 2011 Nepal government approved license of 150 Community radios there, which helped increased coverage of 62% people of Nepal (Dahal & Aram, 2011). Nepal has subsequently witnessed a rapid growth in both private and not-for-profit

radio: as of July 2007, 216 licenses had been issued, of which 93 were for non-profit groups, and 31 of these were operational in May 2007 (Pringle and Subba 2007: 4).

In Bangladesh government has drafted a policy on community radio, which has come into operation in 2012. First, 23- community radios were approved and gradually up to 2022 a total of eighteen (18) community radios came into operation. The communities living in very distant places and untrodden by the main stream media have been receiving lots of community services in Bangladesh from the community radios, which are narrated in this paper.

4. Methodology of the Study

Methodology part comprises of issues like data sources, selection of study areas, and data collection methods, research methods used in this study. The sample selection procedures along with sample size has also been described here.

4.1 Sources of Data

Data were collected from both primary and secondary sources. Primary data were collected from different stakeholders such as listeners' club, officials of the radio stations, community people as well as beneficiaries of the CRs. Primary data were collected using survey, case study, Focus Group Discussion (FGD) and observation methods, whereas secondary data were collected adopting content analysis. Both researcher and experience data collectors collected data from the research area. For qualitative data especially for conducting case studies and FGDs at the filed level, researcher was pro-actively engaged in the naturalistic settings.

4.2 Selection of Study Areas

Data were collected from all the 18 community radio stations, which are situated at remote, inaccessible, coastal belts and plain areas in order the get a clear picture of the CRs and its developmental impacts at the grassroots. These CRs are

operating in 7 divisions[4] 18 districts[5] and 18 Upazilas[6] in Bangladesh. The details of the research areas were given in Table-1.

4.3 Research Methods Employed in this Study

A mixed method approach was employed in this study where quantitative method was the predominant method which was supported by few other tools of qualitative methods.

Quantitative Methods: Here mainly survey method were employed to get information regarding profiles of the CRs, socio-economic characteristics of the listeners and the role of the CRs in Bangladesh and it would be substantiated by few other methods in order to achieve triangulation.

Qualitative Methods: As a tool of qualitative approach, case studies, Focus Group Discussion(FGD), content analysis, interview with community radio officials and beneficiaries were done to analyze the role of the radio stations. For content analysis authentic literatures like books, research reports, journal articles, conference and seminar papers etc. were consulted. To obtain an overview of the profiles of the community radios, expert consultations were made with the managers, assistant mangers, program procedures and other office bearers. The researcher's observations were also recorded. Some statistical tools were used for quantitative data analysis.

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[4] The administrative structure of Bangladesh comprises of Divisions, Districts, Upazilas and Unions. Division is the highest level administrative unit in Bangladesh. In the administrative structure of Bangladesh there are eight divisions in Bangladesh. These are: Barishal, Chattogram, Dhaka, Khulna, Rajshahi, Rangpur, Mymensingh and Sylhet.

[5] Below divisional level there are Districts. In Bangladesh there are 64 districts in Bangladesh.

[6] An Upazila, formerly called Thana, is an administrative unit in Bangladesh, functioning as a sub-unit of a district. It can be seen as an analogous to a county or a borough of Western countries. Rural Upazilas are further administratively divided into Union Parishad areas. Bangladesh has 495 Upazilas at this moment.

4.4 Sampling Techniques

For Quantitative Methods: Quantitative data were collected from there types of samples for this study. In category 1, station managers and office bearers were selected and on the other hand, category 2 represented members of the listener's club and category 3 were the general villagers and beneficiaries of the community radios. From the 3 types of samples, the numbers of samples were given in Table-A.

Table-A: Sampling Design of the Study

Sample Category	Types of Respondents	Sample Size
Category 1	Station Managers and Officials	3x18= 54
Category 2	Member of Listeners' Club	70x18=1260
Category 1	Beneficiary	10x18=180
Total Sample		1494

In this study 70 listeners from each community radio were interviewed through a pre-tested structured questionnaire. These respondents were chosen from the listeners' club of each community radio purposively and thus the total sample from 18 community radios were (70x18) = 1260 respondents. In each community radio station, taking 3 officials and managers, the total respondents were (3x18) = 41. Lastly, taking 10 beneficiaries from all community radio station, respondents of this category were (10x18) = 180 respondents. Thus the total respondents were 1494[7].

For Qualitative Methods: In the main research, 7 case studies were conducted on community radios and 7 cases were made on individual listeners and 4 Focus Group Discussions were employed in such a way so that the qualitative samples represent the whole Bangladesh. In Bangladesh there are 18 community

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[7] Calculating the population of 18 radio stations that were totaled 7500000 people having average 4,16000 listeners, at 5% error and 98% confidence level, the total sample would be 543 using sample formula and the same population at 5% error at 95% significance level the sample would be 385. Therefore, in this research the total sample in case of listeners' club members were selected 1260, which was much greater than the scientifically designed sample.

radio stations, which are situated sporadically in different places of the country. This paper is a part of broader research study. In the main research, data were collected using quantitative and qualitative method. But this paper is fully based on case study method. As a tool of qualitative approach, case study and content analysis methods were employed to analyze the development role of the radio stations at the grassroots society. While preparing these cases for this paper, all those cases were to some extent rewritten because in the main study, scopes were huge. Considering the space, word limit and size of the paper, from the overall qualitative data set, 2 types of cases were presented here to assess the role and impacts of the community radios in this paper. Firstly, 4 cases on community radio were selected. Secondly, 4 cases were selected on the listeners.

To prepare this paper for NIDA case research journal, these 2 types of cases were chosen in such a way so that in can cover all different socio-cultural zones and almost all 8 divisions of Bangladesh. In fact, these cases cover all 7 divisions where community radios are located in Bangladesh. Only one division i.e. Mymensing Division remains outside the purview of this paper because there is no community radio in this Division. Therefore, all these cases are in fact representing the whole of Bangladesh. The details of cases studies are presented in Table-B.

Table-B: Selection of Study Areas

Sl. No.	Types of the Cases	Name of the Community Radios	Names of the Districts	Division
1	Radio Station	Naf Community Radio	Cox's Bazar	Chittagong
2	Radio Station	Meghna Radio	Bhola	Barishal
3	Radio Station	Radio Chilmari	Kurigram	Rangpur
4	Radio Station	Radio Borendro	Naogaon	Rajshahi
5	Listener	Radio Pollikantho	Moulavibazar	Sylhet
6	Listener	Radio Bikrampur	Munshigong	Dhaka
7	Listener	Radio Chilmari	Kurigram	Rangpur
8	Listener	Radio Jhenuk	Jhenaidaha	Khulna

Source: Prepared by the author, 2023

4.5. Achieving Triangulation and Credibility in the Research

The term triangulation is used to ensure validity of the research findings in social research and equally applicable for both qualitative and quantitative research. In the social sciences, "it refers to the combination of two or more theories, data sources, methods or investigators in one study of a single phenomenon to converge on a single construct, and can be employed in both quantitative (validation) and qualitative (inquiry) studies." (Yeasmin & Rahman, 2012, p. 156). According to Miles & Huberman (1994) "triangulation in social science research refers to a process by which a researcher wants to verify a finding by showing that independent measures of it agree with or, at least, do not contradict it." In triangulation researchers make use of multiple and different methods, investigators, and theories to provide corroborating evidence (Ely, Anzul, Friedman, Garner, & Steinmetz, 1991; Erlandson, Harris, Skiper, & Allen, 1993; Glesne & Peshkin, 1992; Lincoln and Guba, 1985; Merriam, 1988; Miles, & Huberman, 1994; Patton, 1980, 1990). Miles, & Huberman(1994) distinguished "five kinds of triangulation in qualitative research: 1) triangulation by data source (data collected from different persons, or at different times, or from different places); 2) triangulation by method (observation, interviews, documents, etc.); 3) triangulation by researcher (comparable to inter-rater reliability in quantitative methods); 4) triangulation by theory (using different theories, for example, to explain results); and 5) triangulation by data type (e.g., combining quantitative and qualitative data)." The type of triangulation chosen depends on the purpose of the study. Of course, more than one type of triangulation can be used in the same study. In this study, triangulation was maintained by triangulation of method and triangulation by data sources, as the data were collected using different methods and from different sources. Triangulation by method is more commonly known as methodological or multi-method triangulation, however methodological triangulation is also used to refer to the combination of qualitative and quantitative data (Erzberger, & Prein, 1997).

5. Brief Profile of the Community Radios in Bangladesh

With the active participation of the legal experts on media, university professors, experts on development communications, NGO representatives, foreign donors, development partners and representatives of civil society organizations through a three-days round-table conference "a Dhaka declaration of 2006 concerning to community radio" was made (Haq and Uddin, 2018). In its wake, a government gazette notification was published on the "Policy of Establishment of Community Radio, Broadcasting and its Operation 2018" on 8 February, 2018 (Huq & Uddin, 2018). Ministry of Information and a2i program of Prime Minister's Office signed a MoU among 14 community radios on 27th May, 2014 with objective to support the community radios stations and encourage the vision of Digital Bangladesh at the grassroots level or local level community (Khan et al., 2017). According to the Bangladesh NGO Network for Radio and Communication (BNNRC, 2010), about 61 lakh people in 115 Upazilas (sub-districts) of 16 Districts are enjoying the benefits of community radios. At the community radio station level, 5,000 listeners' clubs have been formed with listeners. At present 18 community radios are broadcasting various programs and serving the diverse communities in Bangladesh. All these community radios mainly focused on the life and livelihood at the grassroots people. The voices, thoughts, rights and opportunities of the deprived, vulnerable and poor peoples are mostly emphasized in the contents of the programs of the community radios in Bangladesh (Khan et al., 2017). So far, about 1000 staffs are working in 18 community radio stations in the country, having received training from various government and private organizations. They broadcast 480 programs for about 160 hours per day and more than 1120 hours a week, of which more than 80 hours is live and it is broadcasting 8 hours' program for the small ethnic groups and Dalits. About 70 lakh people in 125 Upazilas and 25 Districts are accessing community radio (Quoted in Obaid, 2019).

5.1 Division-wise Distribution of Community Radio Stations in Bangladesh

From Table 1 it was observed that among the 8 Divisions of Bangladesh, there is no community radio station in the Mymenshing division. The highest number

of Community Radio (4 for each division) are concentrated in both Barishal and Rashahi Divisions, whereas there are 3 Community Radio stations in both Khulna and Barishal. On the other hand, in Dhaka and Sylhet division there is only one CR in each division.

Table 1: Division-wise Distribution of Community Radio Stations in Bangladesh

Sl. No	Name of Community Radio Stations	Division	District	Upazila	No. of CRs in the Division
1	Radio Bikrampur	Dhaka	Munshigonj	Sadar	1
2	Radio Shagordip	Chittagong	Noakhali	Hatia	3
3	Radio Sagorgiri		Chattagram	Sitakundu	
4	Radio Naf		Coxesbazar	Teknaf	
5	Radio Lukobeter	Barishal	Borguna	Sadar	4
6	Radio Meghna		Bhola	Char Fashion	
7	Radio Krishi		Borguna	Amtoli	
8	Radio Mukti		Bogura	Sadar	
9	Radio Sundorbon	Khulna	Khulna	Koira	3
10	Radio Nalota		Sathkhira	Kaligonj	
11	Radio Jhinuk		Jhinaidaha	Sadar	
12	Radio Chilmari	Rangpur	Kurigram	Chilmari	2
13	Radio Sarabela		Gaibandha	Sadar	
14	Radio Mohananda	Rajshahi	Chapai Nobabgonj	Gomastapur	4
15	Radio Borendra		Naogaon	Bodolgasi	
16	Radio Boral		Rajshahi	Bagha	
17	Radio Padma		Rajshahi	Sadar	
18	Radio Pollikontho	Sylhet	Moulovibazar	Shrimongol	1
	7 Divisions		Total No of Radio Stations		18

Source: Field data 2022

5.2 Community Radios in Bangladesh at a Glance

The short profiles of the community radios comprised some basic information regarding CRs in Bangladesh which included name of the CRs, frequency of program available at FM band; location, opening period, program coverage & listeners of the CRs in Bangladesh, broadcasting hours and awards received for the contributions of the programs of various CRs in Bangladesh offered by the different organizations in home and abroad. A short profiles of the status of Community Radios in Bangladesh is described in Table-2.

Table 2: Short Profiles of the Community Radios on Bangladesh

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
1.	**Lokobetar 99.2 FM** Founder: Mass Line Media Center (MMC) **Opening Date:** 27 May 2011	It covers a 25 km. area and more than 1 million people are connected to the Lokobetar.	Lokobetar Broadcasts Program for 7 Hours, 3 to 10 pm. **Award:** Yet to get any award
2.	**Boral FM 99.0** Founder: Secchashebi Bohumukhi Mohila Shomajkollan Shomiti **Opening Date:** 27 Apr. 2019	It covers 25 km and approximately 10 lacks people hear radio boral.	Boral Radio Broadcasts Program for once a day, 9 Hours, 3 pm -12 am. **Award:** Yet to get any award

Table 2: Short Profiles of the Community Radios on Bangladesh (Cont.)

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
3.	**Padma FM 99.2** Founder: Center for Communication and Development Bangladesh (CCD Bangladesh) **Opening Date:** 7 Oct. 2011	It covers 25 km area. The radio currently has 3 lac listeners who can provide feedback via SMS.	Padma Radio Broadcasts Program once a day for 14 hours, 10am -12.15am. **Award:** Yet to get any award
4.	**Mahananda FM 98.8** Founder: Proyash Humane Development Society **Opening Date:** 15 Nov. 2011	It broadcasts throughout 25 km area. About 2 million people live in this range.	Mahananda Radio Broadcasts Program once a day for 10 hours, 3pm-1am. **Award:** Yet to get any award
5.	**Mukti FM 99.2** Founder: Landless Distressed Rehabilitation Organization (LDRO) **Opening Date:** 31 Dec. 2011	It covers 17 kilometer area of Bogra city.	Broadcasts Program once a day for 14 hours, 12pm-12am. **Award:** Yet to get any award
6.	**Grameen Krishi FM 98.8** Founder: Agriculture Information Service, Ministry of Agriculture **Opening Date:** 1 Jan. 2012	Covers 25 km and radio listeners are around 2 lac 50 thousand.	Broadcasts Program twice a day for 8 hours, 9-11 am, 3-9 pm. **Award:** Yet to get any award

Table 2: Short Profiles of the Community Radios on Bangladesh (Cont.)

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
7.	Sundarban FM 98.8 Founder: Advanced Welfare Foundation (AWF) **Opening Date :** 1 Jul. 2012	The radio covers an area of 17 km.	Broadcasts Program twice a day for 5.5 hours, 911.30-am, 47-pm. **Award:** Yet to get any award
8.	**Sagorgiri FM 99.2** Founder: Young Power in Social Action (YPSA) **Opening Date:** 24 Mar. 2012	About 1.5 lac listeners across 17 km.	Broadcasts Program once a day for 5 hours, 12pm -5pm. **Award:** Yet to get any award
9.	**Meghna FM 98.4** Founder: Coastal Association for Social Transformation Trust (Coast Trust) **Opening Date:** 18 Feb. 2015	Covers 25 km. and it has about 4 lac listeners to the programs of this radio.	Broadcasts Program twice a day for 6 hours, 9am-12pm, 58-pm. **Award:** Yet to get any award
10.	**Naf FM 99.2** Founder: Alliance for Co-operation and Legal Aid Bangladesh (ACLAB) **Opening Date:** 21 Apr. 2012	It covers 25 km. and about 5 lac residents regularly listen to the radio.	Broadcasts Program twice a day for 6 hours, 10am -1pm, 47-pm. **Award:** Yet to get any award

Table 2: Short Profiles of the Community Radios on Bangladesh (Cont.)

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
11.	Sagor Dwip FM 99.2 Founder: Bangladesh Dwip Unnayan Sangstha **Opening Date:** 12 Nov. 2015	Covers 17 km, and about 2.5 lac people are listeners.	Broadcasts Program twice a day for 6 hours altogether Schedule: (9am -12 pm, 24-pm) **Award:** Yet to get any award
12.	Bikrampur FM 99.2 Founder: Environment Council of Bangladesh and Ambala Foundation. **Opening Date:** 1 May 2012	The radio station covers an area of about 17 km. and it has about 8 lac listeners.	Broadcasts Program once a day for 5 hours, 38- pm. **Received Awards** ■ Bangladesh Community Radio Award in 2017
13.	Sarabela FM 98.8 Founder: SKS Foundation **Opening Date:** 14 Apr. 2016	Covers more than 25 km which has more than 10 lacs listeners.	Broadcasts Program once a day for 16 hours, 7am -11 pm. **Received Awards** ■ Asia Pacific Broadcasting (ABU) Awards, Right to Information (RTI) award in 2017; ■ UNICEF Meena Award in 2017

Table 2: Short Profiles of the Community Radios on Bangladesh (Cont.)

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
14.	**Nalta FM 99.2** Founder: Nalta Hospital and Community Health Foundation. **Opening Date:** 3 July 2011	About 7 lac people can listen to this radio program. The broadcast area of this station is 25 km.	Radio Nalta Broadcasts Program 3 times a day for 12 hours, 8 -11 am, 27-pm, 9pm-1am. **Received Awards** ■ BD CR Radio Award in 2017
15.	**Chilmari FM 99.2** Founder: RDRS Bangladesh **Opening Date:** 2 Jun. 2012	The radio covers an area about 25 km. It has about 10 lac listeners.	Broadcasts Program once a day for 4 hours, 38- pm. **Received Awards** ■ Plan Bangladesh Girl Power Award in 2013; Meena Media Award 2015 & 2016; ABU Award (International), Best writer Award, Anti-Tobacco Award, Family Planning Award in 2016; ■ PIB A21 Media Award, RTI Award (CR), CR Award, SEMCA Video Challenge Award, Family Planning Award in 2017;

Table 2: Short Profiles of the Community Radios on Bangladesh (Cont.)

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
16.	Jhenuk FM 99.2 Founder: Srijoni Bangladesh **Opening Date:** 17 Jul. 2012	It covers 25 km area. It has about 5.5 lac listeners.	Broadcasts Program once a day for 10 hours **Received Awards** ■ National Institute of Mass Communication Award in 2022; ■ Family Planning Media Award- 2014, 2016; ■ Meena Media Award 2014-2019(6 times); ■ Girl Power Award by Plan International Bangladesh, 20132014-; ■ Anti-Tobacco Campaign Award 2016;
17.	Pollikontho FM 99.2 Founder: BRAC Bangladesh **Opening Date:** 12 Jan.2012	The station broadcasts programs across a 17 km. area and more than 4 lac listeners regularly listen to Radio Palikantha.	It Broadcasts Program once a day, for 12 hours, 9am - 9pm. **Received Awards** ■ National Institute of Mass Communication Award in 2022; ■ Meena Award in 2013, 2014, 2015, 2016, 2017, 2018 and 2019 from UNICEF; ■ ABU Award in 2015 and 2017; ■ Family Planning Media Award in 2013 by UNFPA;

Table 2: Short Profiles of the Community Radios on Bangladesh (Cont.)

No.	Name of CRs with Founder & Opening Date	Coverage & Listeners	Broadcasting Hours & Achievement
18.	**Borendro FM 99.2** Founder: Human Rights Development Association of Naogaon **Opening Date:** 8 Mar. 2012	The radio station has listener of almost 5 lacs across the 25 km. of Naogaon.	Broadcasts Program once for a day for 9 hours, 3pm -12am. **Received Awards** ■ UNICEF Meena Media Award-2014, 2015, 2016, 2018; ■ Girl Power Award-2014; ■ (CEMCA) Community Radio Video Challenge Award-2015; ■ Anti-Tobacco Award-2016; ■ RTI Award-2017;

Source: Prepared by the author using both primary and secondary data, 2022.

Summary of the brief profiles of the CRs

There are 18 Community Radios in Bangladesh namely, Lokubetar (Barguna)[8], Radio Padma (Rajshahi), Radio Mahananda (Chapai Nawabganj), Radio Barendra (Naogaon), Radio Chilmari (Kurigram), Radio Sarabela (Gaibandha), Radio Mukti (Bogura), Radio Nalta (Satkhira), Radio Sundarbans (Khulna), Krishi Radio (Patuakhali), Radio Meghna (Bhola), Radio Pallikantha (Moulvibazar), Radio Sagardwip (Noakhali), Radio Sagargiri (Chittagong), Radio Naf (Cox's Bazar), Radio Jhinuk (Jhinaidah), Radio Bikrampur (Munshiganj) and Radio Boral. In Bangladesh, Except Krishi Radio, other 17 community radios are operated by the NGOs. With a short span of time, they have become popular and making some positive contribution and impacts on the rural society of Bangladesh.

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[8] Name of the district is given in the parenthesis.

6. Findings of the Qualitative Data: Few Empirical Cases

In this part 4 case studies on community radios were presented. All the cases described here were provided with a case summary and analysis have been made in line with the 2nd objective of the study. Here out of 18 Community Radios, brief profile along with its coverage, objectives, mission, vision, programs, their achievement, and their development impact on the rural societies and transformation process of the 5 community radios were described in order to draw a token conclusion about the overall of the impacts of all the community radios in Bangladesh. After discussing about each community radio station, their overall impact on the society and livelihood of the grassroots people is presented briefly in the summary parts.

6.1 Community Radio Naf 99.2, Teknaf, Cox's Bazar

The slogan of the Naf Community Radio is: 'Radio Naf Prantiker Kotha Bole' and in English the slogan is: Radio Naf Speaks for Coastal People. It started its first broadcast on 21 April, 2012. The founder of the Naf Radio is Alliance for Co-operation and Legal Aid Bangladesh (ACLAB). At present, the frequency of Community Radio Naf has been raised to 250 watts that coverages 25 kilometers. About 5 lac residents of Teknaf and Ukhiya Upazilas of Cox's Bazar regularly listen to the radio. Naf Radio started operation with the objective of: i) Empowering the marginalized people and ensure their right of access to information and technology; ii) To promote and improve social justice and strengthen democracy to ensure their rights; iii) Furthermore, Naf focuses on gender equality and women's empowerment.

Teknaf coastal Upazila under Cox's Bazaar district of Chittagong division in Bangladesh with an area of 388.68 sq km at the bank of the Bay of Bengal and the Naf River. Radio Naf is working as community spokesperson and advocate for improving the socio-economic, creating peace & harmony, and cultural development of the disadvantaged communities. It covers people around 1 million living within 40 sq km. The Naf Radio started with the basic objectives to provide news and information services to the people of the coastal area. This was advocated by the ACLAB[9].

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[9] ACLAB means Alliance for Cooperation and Legal Aid Bangladesh.

It did not receive any training facilities from the government.

Community Radio Naf 99.2 fm has been operating at Teknaf coastal Upazila in Cox's bazaar district with a permission from Ministry of Information, Government of Bangladesh since 2012. Community Radio Naf mainly exchange the socio-economic and development related information and knowledge with people living in rural area, side by side broadcast the information of govt. and non-govt. services through local language and also ensure the participation of community people in radio programs for enhancing skill, raising voice and empowerment. It plays role as an active mediator and platform for marginalized and disadvantaged people where they can share their needs, interest, problems and find out the solutions.

Key target population for having services from the Radio Naf: i) Marginalized poor people; ii) Women, children, adolescents, youth, aged; iii) Persons with disabilities, Dalit; iv) Farmers; v) fishermen; vi) Ethnic communities; vii) Rohingya. Radio Naf operates a total of 6 hours from 10:00 am to 1:00 pm and 4:00 pm to 7:00 pm. Local administration, cultural workers, small businessmen, fishermen, farmers, indigenous and small ethnic groups and workers have gradually become interested in Radio Naf. The programs that the radio is currently broadcasting are weather and disaster forecasts, news on environment and biodiversity awareness, prevention of child marriage, prevention of trafficking in women and children, health, nutrition, sanitation, women's empowerment, anti-dowry, program for the Rakhine, minor ethnic groups, prevention of violence against women and children, human rights, prevention of terrorism and militancy, disability, dalit, common gender, rumors, awareness and prevention of dengue and malaria, rights to information, fisheries and tourism, songs about life and professionals and important issues like safe drinking water. Besides, it celebrates special days and broadcasts various programs transmitted by Bangladesh *Betar* (Radio). Ten (10) regular staff and 15 volunteers are working on this community radio. Sixty (60) listeners' clubs have been set up in the area including local and *Rohingya* children, fishermen, ethnic groups, teenagers and women.

The people of Teknaf Upazila in the southern district of Cox's Bazar had no opportunity to listen to the radio, and even Bangladesh Betar (Radio) could not be heard from this remote part. Under this circumstance, ACLAB took an initiative to set up community radio in the socio-economically backward and natural disaster prone areas and started a community radio called Naf. Radio Naf has become the best source of information and entertainment for the local people, especially for the fishermen community. Most of the people in Teknaf are fishermen. They depend on deep-sea fishing for their livelihood. Radio Naf is assisting marine fishermen by providing accurate weather forecasts, the possibility of sea storms and tornadoes and important news in due time. Radio Naf is forecasting the weather by collecting data from the Meteorological Department and the Cox's Bazar Meteorological Office. Besides, various social issues have been regularly broadcasted. The goal of Radio Naf is to provide entertainment to all these backward populations, improve quality of life by providing accurate information, and providing services through local market prices and weather forecasts. Radio Naf is working to provide information services to the Rohingya people of Myanmar who have taken refuge in different refugee camps in Teknaf and Ukhia Upazilas of Cox's Bazar district of Bangladesh.

There is an Outreach Awareness Programs in the Rohingya Camp by the Naf Radio**.** ACLAB and Radio Naf 99.2fm implementing outreach activities for the Rohingyas as well as for local communities. Activities include orientation for community people on different issues, distribution of radio sets, setting up information booth/hub inside the camps, communication and meeting with stakeholders, communication with camp management authorities, coordination with local administration and camp management authorities, deployment of volunteers for relief distribution and information dissemination, formation of listener groups etc.

Naf Radio got grants/donation from some international organizations such as ILO, FAO, UNESCO, UNICEF, BBC Media Action, etc. It receives donation about 45- lacs from those agencies. There are 2 salaried staff supported by 18 volunteers among which 13 are male and 5 females. The number of listeners' club is 125 and listens are about 2 lacks. Two staff has got technical training from government.

The program broadcasted by the Naf radio includes new, education, health and COVID, weather, legal matters, natural disaster, education, entertainment, livelihood, agriculture, indigenous people, entrepreneurship development, women empowerment, climate change and physically challenged people, environment and foreign immigrants of Bangladesh. The problems that are hunted by the Naf Radio among others are financial crisis, no building for its own and dearth of volunteers. It was primarily selected for the *meena* award. Due to shortage of volunteers Naf Radio is to face problems to operate its programs sometimes. The future plan of the Naf Radio are: i) Radio Naf will mobilize the local resources for its sustainability; ii) Rado Naf will expand the broadcasting area; iii) Radio Naf will establish strong networking, coordination and cooperation with national and International stakeholders; iv) Radio Naf will conduct research and develop publication; v) Radio Naf will organize capacity building training for youth particularly young women and adolescents.

Summary and Analytical Implications

❖ *Naf Radio on aired its first broadcasting in 2012. It covers people around 1 million living within 40 sq. km.*

❖ *The number of listeners' club is 125 and listens are about 2 lacks. Again, sixty (60) listeners' clubs have been set up special people that included local and Rohingya children, fishermen, ethnic groups, teenagers and women.*

❖ *Along with 10 regular staffs 25 volunteers are working in this community radio.*

❖ *Teknaf is a coastal belt under Cox's Bazaar district of Chittagong division in Bangladesh with an area of 389 sq. km at the bank of the Bay of Bengal and the Naf River. Radio Naf is playing its role as community spokesperson, which is improving the socio-economic contexts of the Teknaf area, creating peace & harmony, and cultural development of the disadvantaged communities.*

❖ *The Naf Radio is providing news and information services to the people of the coastal area.*

❖ *Community Radio Naf provided the socio-economic and development related information and knowledge with people living in rural area, side by side broadcast the information of govt. and non-govt. services through local language and also ensured the participation of community people in radio programs for enhancing skill, raising voice and empowerment. It plays role as an active mediator and platform for marginalized and disadvantaged people where they can share their needs, interest, problems and find out the solutions.*

❖ *Radio Naf is providing services to the marginalized poor people, women, children, adolescents, youth, aged people, persons with disabilities, Dalit; farmers, fishermen, Ethnic communities like Rohingya refugees etc.*

❖ *Naf Radio got grants or donation of about 45- lacs taka from some international organizations such as ILO, FAO, UNESCO, UNICEF, BBC Media Action, etc.*

❖ *Naf radio used to broadcast many programs which include news, educative program, health and COVID, weather, legal matters, natural disaster, entertainment, livelihood, agriculture, indigenous people, entrepreneurship development, women empowerment, climate change and physically challenged people, environment and foreign immigrants of Bangladesh and thus Naf radio is promoting the interest of poor people and updating their knowledge level.*

❖ *Fishermen communities are getting updated weather forecast, disaster preparedness news from this CRs. Most of fishermen depend on deep-sea fishing for their livelihood. Radio Naf is assisting marine fishermen by providing accurate weather forecasts, the possibility of sea storms and tornadoes and important news in due time. Radio Naf is forecasting the weather by collecting data from the Meteorological Department and the Cox's Bazar Meteorological Office.*

❖ *By broadcasting various social issues, the Radio Naf is providing entertainment to the backward populations, improving quality of life by providing accurate information, and providing services through local market prices and weather forecasts. Radio Naf is working to provide information services to the Rohingya people of Myanmar who have taken refuge in different refugee camps in Teknaf and Ukhia Upazilas of Cox's Bazar district of Bangladesh.*

❖ *During the COVID period, Naf radio plays an important role to establish rapport with the people and it provided the most reliable and scientific information to the grassroots people.*

6.2 Community Radio Meghna 98.4, Char Fasson, Bhola

Community Radio Meghna first started its broadcasting on 18th February 2015 with the slogan entitled 'Upokulio Manusher Konthosshor' (Voice of Coastal People) under the auspices of its founder, Coastal Association for Social Transformation Trust (Coast Trust). According to the program manager, the purpose of this community radio is to provide information services and develop consciousness among the marginalized people and uphold the voices of the vulnerable sections of the society. The meghna radio were blessed with some financial assistance in different point of time in course of its operation since its inception. Thus in its wake it received financial support from various organizations namely, UNICEF[10], John Hopkins University, UNDP[11], BRAC[12], PKSF[13]

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[10] UNICEF refers to United Nations International Children's Emergency Fund.

[11] UNDP stands for United Nations Development program.

[12] BRAC means Bangladesh Rural Advancement Commiittee. It is the largest NGO in the world. Apart from Bangladesh, BRAC is helping some developing countries in the world.

[13] Palli Karma Sahayak Foundation or PKSF is a financial institution founded by the Government of Bangladesh to finance rural development and provide training and is located in Dhaka, Bangladesh. It offers financial and non-financial services to the rural people in Bangladesh.

and BNNRC[14].

Vision of the Meghna Radio: We want equality and justice where human rights and democracy is ensured**.**

Mission of the Meghna Radio: We want to develop conscious citizen who can ensure human rights and instill a sense of climate change and resilience of disaster management among the marginal and vulnerable people of the coastal population through participatory and interactive programs by the Cummunity Radio**.**

The objectives of our program are to: i) do consultation with the authority of the law enforcing agencies in order to contribute for the security of the isolated inhabitants of the micro islands and to protect the interest of the small fisheries community who are engaged in deep sea fishing; ii) contribute develop and preserve *hilsha* and other fisheries resources in the Meghna river basin and its management in collaboration with the local fishermen community and stakeholders; iii) help in ensuring food security to enhance the capacity building of the farmers in producing versatile and climate resilient agricultural products in the most disaster prone vulnerable people of the isolated coastal population; iv) help develop equity and equality of women by fostering a sense of violence against women and instilling a sense against child marriage; v) help reduce digital dividend and ensure justice against digital discrimination among the urban and rural area and thus to help increase develop knowledge base using ICTs for the neglected population of the isolated coastal area; vii) develop local people especially youth women and marginalized women

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[14] BNNRC denotes that Bangladesh NGOs Network for Radio and Communication (BNNRC), in special consultative status with the United Nations Economic and Social Council, considers community radio a special area for intervention. BNNRC has been promoting advocacy to the government in relation to community radio with other organizations since its emergence in 2000. As a result, The Ministry of Information of the People's Republic of Bangladesh announced the Community Radio Installation, Broadcast and Operation Policy 2008. Under this policy, The Ministry of Information approved 19 community radio stations for the first time in Bangladeshi history. To ensure the free flow of information to the people, the government enacted the Right to Information Act 2009.

to become program presenter and producer of the community radio so that they can contribute to the development of women flock through ensuring free flow of information and utilizing knowledge of the ITCs; viii) efforts will be taken to motivate the listeners in taking part actively in the various programs broadcasted by the community radio and thus to help develop an effective and sustainable livelihood of the local population where establishing human rights and practicing democracy will be the prime issue.

Radio Meghna has its own broadcasting area and listeners' clubs as well. Radio Meghna covers almost 18 unions including Char Madraz, Dokkhin Aicha, Sumraj, Abdullahpur, Abu Bokkorpur, Aminabaad, Aslampur, Jinnahgor, Char Monica, Rosulpur, Hazariganj, Monpura, Sakuchia, Kolmi and some parts of Lalmohon Upazila about 4 lac listeners can listen to the programs of this radio. Residents within the 25 kilometers areas can hear the radio station.

The Meghna Radio broadcasted programs for six hours every day in two times. The morning session starts at 9 am and lasts upto 12 pm. The afternoon session starting at 5 pm continued up to 8 pm. They broadcast programs on news, education weather, legal matters, disaster management, third gender, heal and corona, indigenous people, entrepreneur development, women's rights, environment concern and climate change issues etc. Radio Meghna promotes social issues and their solutions, various problems of adolescence, health information, mother and child care, programs on success and agriculture. Notable programs are-*Biggan o Projukti*[15] (Science and Technology), *Ain- Kanun* (Law, Rules and Regulations), *Pathsala* (School), *Durjog Prostuti* (Preparation of Disaster), *Chakrir Khobor* (Job News), *Sasthoi Shukh* (Health is Happiness), *Amra Kishor Amra Kishori* (We are Adolescent Boys and Girls), *Baba'r Sopno*(Father's Dream), *Bhumihin Byaktir Kotha* (Saga of Landless People), *Amader Rannaghor* (Our Kichen), *Pranisompod Kormokorta* (Livestock Activities), *Krishi o Krishok* (Agriculture and Farmer), *Maa Amar Maa Sofol Naari* (My Mother is a Successful Woman), *Jele Jibon* (Life of the Fishermen),

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[15] The Words in the Italics are in local language, Bangla.

Saaj Sojja (Decoration), *Dhiman* (Quiz), *Ajker Shishu* (Todays Children) etc. Besides these, Radio Meghna broadcasts music shows and news News. The remarkable broadcasting of this radio included broadcasting programs at a stretch 3 days during disaster time.

Radio Meghna is running on with eight (8) regular staff such as Station Manager, Two Assistant Station Managers, News Producer, Event Producer, Technical Officer and Editor. It also has 8 volunteers all those are females. Radio Meghna is being managed by the local young women (students) who are engaged in broadcasting, providing leadership and managed everything regarding the community radio. The volunteers get 4000 tk as a token honorarium. There are 40 listeners' club attached with this radio. No advertisement is aired from this CRs. The coverage includes Char Fasson, Lalmohan and Monpura Upazilas. The staff did not get any training from the government but these people have got training from NGOs. There are 12 trained manpower who are to prepare reporting, do editing and do presentation of news from this radios. There are no technical experts who get training from the NGO.

The exigencies of the Radio Meghna lies with the fact that it helps to promote and create equality and rights-conscious citizens for the climatically vulnerable and disaster prone coastal population of Bhola through participatory radio programs. Dissemination of development messages in the local language are increasing the knowledge base and skills of the community radio listeners in many areas. Radio Meghna has taken initiatives to make people aware by promoting programs on agriculture education, health, communication, disaster, climate change, environment and development. An important part of the people in the Char Fasson area is engaged with the fishing profession. Radio Meghna helps to get regular weather forecasts and improve their skills by broadcasting rules and regulations of fishing to fishermen. Radio Meghna is trying to create awareness on various issues including farmers' problem solving, education and empowerment of adolescents, reproductive health and hygiene.

In the words of the program manager, the positive aspects of the community radio are: to get information service from the community radio as a disaster prone

area, to raise awareness of the poor people and thus help to remove superstitions from the rural society. The strong point regarding community radio is that here the problems and the experiences of the poor people are shared from their own mouth and these people are upholding the voice of the general people and thus it helps develop a positive attitude among the inhabitants of the rural society. Another strong point is that while there is no electricity, people could listen to the programs of the community radio. Among the potentials of the community radios Ñ there is Facebook and websites and the broadcasting is made through audio-visual aids. In fact, now-a-days people do not listen to established public radio but the young students, old and middle aged people used to listen to CRs by using head phones in their mobiles. Community radio works for those who shared their own saga in their own speech broadcasted in the community radio, so the community people became so happy. Besides, CR arranged lots of programs for their own entertainment. The negative aspects of the of the CRs identified by one of the staff of Meghna Radio are that some of the expert media personalities those who are developed by the CRs quit their jobs permanently; some skilled manpower left community radio for better jobs in urban areas and sometimes some staff faced problems of security in the movements during nights in rural society. The threats of community radio identified by the local staff are that sometimes the battery of the broadcasting machine became useless and went out of order which nobody could mend that. Finally, despite all the negative points, community radios are rendering huge development services by providing required information for the community relating to agriculture, various educational programs, livelihood, climate change, biodiversity, live stocks, women's rights, law and order issues, health problems, music and drama, programs for children and adolescents etc. and thus community radio are translating the realities of the community people into practices and serving the needs and aspiration of the local people.

Summary and Analytical Implications:

❖ *Meghna Radio started operation in 2015. It covers a huge area of 25km and its programs can be heard from 18 Unions of many Upazilas of an isolated island i.e. Bhola districts. The population is serving is about 810- lacks.*

❖ *It provided employment support of about 20 young people and delivered information support to the inhabitants and young students and thus they were getting educated on diverse issues.*

❖ *Fishermen community got direct help from community radio regarding weather forecast, legal support and became aware about many rules and regulation imposed by the government of Bangladesh and these fishermen contributed to preserving nature and biodiversity with knowledge of safe fishing and environmental protection. More specifically the people in the Char Fasson area are engaged with the fishing profession. Radio Meghna helped get regular weather forecasts and improve their skills by broadcasting rules and regulations of fishing to fishermen. Radio Meghna is trying to create awareness on various issues including farmers' problem solving, education and empowerment of adolescents, reproductive health and hygiene.*

❖ *It has formed 40 listeners' club having 2000 students. Meghna radio helped developing creation of media people using the platform of listeners' club. Getting chance to be associated with the community radio, many young students were getting conscious about their future role in the society and getting updated knowledge of many developmental concern and they could build their character keeping aloof themselves from many bad elements of the society.*

❖ *Lots of local artists, media people, singers, actors got a platform to develop their creativity by involving them with the community radio.*

❖ *The exigencies of the Radio Meghna lies with the fact that it helped to promote and create equality and rights-conscious citizens for the climatically vulnerable and disaster prone coastal population of Bhola through participatory radio programs.*

❖ *Through dissemination of myriad development messages in the local language this radio helped increase the knowledge base and skills of*

the community radio listeners in many areas. Radio Meghna took initiatives to make people aware by promoting programs on agriculture education, health, communication, disaster, climate change, environment and development.

❖ *The strong point regarding community radio is that here the problems and the experiences of the poor people are shared from their own mouth and these people are upholding the voice of the general people and thus it helps develop a positive attitude among the inhabitants of the rural society.*

❖ *Another strong point is that while there is no electricity, people could listen to the programs of the community radio. Among the potentials of the community radios Ñ there is Facebook and websites and the broadcasting is made through audio-visual aids. In fact, now-a-days people do not listen to established public radio but the young students, old and middle aged people used to listen to CRs by using head phones in their mobiles. Community radio works for those who shared their own saga in their own speech broadcasted in the community radio, so the community people became so happy. Besides, CR arranged lots of programs for their own entertainment.*

6.3 Community Radio Chilmari 99.2, Chilmari, Kurigram

The first experimental broadcast of the Chilmari Radio began on 3rd November 2011. The official broadcasting of the Chilmari Rdio began on 2nd June 2012, with the very popular slogan, *'Jago Baahe…Shono Baahe'* (Wake Up…Hear Out). The founder sponsor of the Chilmary Radio was an NGO named Rangpur Dinajpur Rural Services (RDRS), Bangladesh. The Chilmari Radio covers an area about 25 kilometers and its listeners regularly listens to the programs of this radio. It covers about 10 lac listeners of Kurigram Sadar, Chilmari, Roumari, Rajivpur, Ulipur, Rajarhat Upazilas of Kurigram District. In addition, it also covers Sundarganj and Sadullapur Upazila of Gaibandha District and some parts of Pirgachha Upazila of Rangpur District.

Two types of manpower are working in the Chilmary Radio- these are regular and irregular staffs associated with this radio. The staff of the radio shared that there are 3 salaried employees and on the other hand, there is 26 volunteers among which 16 are men and 12 are female. The volunteers get a small amount i.e. 200-250 Tk. as their salary to work with this radio. The number of their listeners' club is 151 where a total of 4 lacs 80 thousand listeners are directly engaged with this community radio. They participate directly in various stages of creation of production of many matters for the radio and involved in broadcasting of Radio Chilmari's program. Besides, three (3) children's radio clubs have been created with 10 children in each club, where children are working to develop their talent.

This community radio has been broadcasting programs daily for five (5) hours. Start playing on radio sets or FM band of mobile phones since 3pm it continues playing different programs till 8:00 pm. Radio Chilmari, operated by the direct participation of the common people of rural villages, is changing not only Kurigram but also the lives of the deprived and backwater people of Gaibandha district and so on surrounded with Tista, Bramhaputra and Dhorola rivers. Every day the session contains the program of local and national development news, as well as information relating to natural disasters, various awareness programs, rural folk entertainment, education, agriculture, health, prohibition of early marriage, prevention of violence against women, fire outbreak, safety against accidental deaths, are broadcasted by Radio Chilmari. The whole program includes news, education, health and COVID, weather, legal matters, natural disaster, education, entertainment, livelihood, agriculture, indigenous people, entrepreneurship development, women empowerment, environment & climate change and physically challenged people. It also creates different packages program based on the listener's feedback and participation. This mass media is becoming increasingly popular with the people of the region.

Chilmary radio has bagged some outstanding achievements and received some national and international awards for its excellent contributions to change the livelihood of the common people of Kurigram and its surrounding areas. Community Radio Chilmari 99.2 has been awarded Family Planning Media Award

2016-17 in electronic media Radio Category in a nation-wide competition organized by Directorate of Family Planning of Ministry of Health and Family Welfare under the support of UNFPA. Community Radio Chilmari 99.2 took part in the competition with their program name *jago nari* magazine program in line with women empowerment in line with Good Health and Well–Being of Sustainable Development Goal.

It was awarded for Meena Media Award in the year 2015 and 2016. Chilmari radio obtained an international award such as Asian Broadcasting (ABU) Award 2016. It has got Press Institute of Bangladesh(PIB) A2i (Access to Information) Media Award in 2017. Some other national awards obtained by the Chilmary Radio are: Plan Bangladesh Girl Power Award in 2013, Best Writer Award in 2016, Anti-Tobacco Award of 2016, Right to Information (RTI) Award on Community Radio in 2017, Community Radio Award-2017. Chilmary radio got another international awards such as SEMCA Video Challenge Award in 2017.

Chilmari is basically a backward upazila which is located 30 kilometers away from Kurigram Sadar. In this age of science and information technology, community radio-Radio Chilmari 99.2 is a role model of Kurigram's information service. Radio Chilmari daily broadcasts various programs along with important news from Bangladesh Betar[16]. Radio Chilmari is directly involved in awareness-raising and development activities among the people of the area through direct interviews of many important people, prevention of violence against women, agriculture related information, prevention of child marriages, prevention superstitious practices and events; and prevention of social unrest issues.

Chilmary radio received grants/donation from both Bangladesh government and other international organizations and NGOs. Likewise, it receives grants from the Mass-communication Department of government. It receives donation about 10-12 lacs from JICA, USAID, EU, BBC Media Action, John Hopkins University, Action Aid and NORAID etc.

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[16] Bangladesh Betar is the Name of Government Radio in Bangladesh.

No advertisement is aired from this radio. There are 4 staffs who got technical training from government organization. General people have interest in this radio. The weak side of the community radio is financial instability. Sometimes volunteers to work in the community radio are not available due to shortage of manpower in this sector. The opening and flourishing of new commercial FM radio cause negative effects on role of community radio. The involvement of the general people and their interest in the community radio are the real strength of the community radio.

Summary and Analytical Implications

❖ *Chilmary radio first aired its program in 2011. Chilmari is one of the remotest districts of Bangladesh which is basically cut off from many mainstream facilities. In such an area, this radio covers 25 km area that serves about 10 lacks people of this district.*

❖ *It has 151 listeners' club where a total of about 5 lacks listeners engaged and moreover there are 3 children listeners' club with 30 members.*

❖ *A group of young students managed to get employment in this radio.*

❖ *The whole program includes news, education, health and COVID, weather, legal matters, natural disaster, education, entertainment, livelihood, agriculture, indigenous people, entrepreneurship development, women empowerment, environment & climate change and physically challenged people. It also creates different packages program based on the listener's feedback and participation. Thus this radio as a mass media is becoming increasingly popular with the people of the region and people are getting educated, entertained and conscious about many development concerns.*

❖ *Chilmary radio has bagged some outstanding achievements and received some national and international awards for its excellent contributions to change the livelihood of the common people of Kurigram and its surrounding areas. Radio Chilmari was awarded Family Planning Media*

Award 2016-17 by Directorate of Family Planning of Ministry of Health and Family Welfare under the support of UNFPA. It got Meena Media Award in the year 2015 and 2016. Chilmari radio obtained an international award such as Asian Broadcasting (ABU) Award 2016. It has got Press Institute of Bangladesh(PIB) A2i (Access to Information) Media Award in 2017. Some other national awards obtained by the Chilmary Radio were: Plan Bangladesh Girl Power Award in 2013, Best Writer Award in 2016, Anti-Tobacco Award of 2016, Right to Information (RTI) Award on Community Radio in 2017, Community Radio Award-2017. Chilmary radio got another international awards such as CEMCA Video Challenge Award in 2017.

6.4 Community Radio Borendro 99.2, Ukilpara, Naogaon

On 8th March 2012 Borendro Radio started its journey as a community radio. The founder of this radio is Human Rights Development Association of Naogaon. There are some regular staff and 34 volunteers are currently working at Radio Borendro for managing its regular programs. The 'Borendro Radio Child Club' has been formed by the students of five educational institutions. The Borendro Radio station covers a wide area across 25 km. of Naogaon and the number of its listeners is about 5 lac inhabitants who regularly hear the programs broadcasted by the Borendro Radio.

Borendro Radio is operating its regular programs for 9 hours from 3:00 pm to 12:00 am. Lots of programs are being aired in the Borendro Radio every day. Among its programs the program on *Narir Kotha* (Voices of Women) is a popular program on women empowerment. It helps to raise awareness of women among the people by uncovering different kinds of stories about violence against women, problems of child marriage, women batting/abuse. Apart from this, *Janar Ache Onek Kichu*[17] (Lot more things to know), family planning program *Surokkha* (Limit your children with proper family planning), *Gaaner Bhela* (Music Time), English educational program *Engreji Sikhe Sofol Hobo* (We will become successful by

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[17] The Italic words are in Bangla and the translated version is added within the bracket.

knowing English), *Jonaki* (lightning bugs), *Kingkortobbobimuro* (Do not know what to do), *Shastho Kotha*(Health Talks), *Sufola Naogaon* (Naogaon with Huge Harvesting), *Projukti o Jibon* (Technology and Life), *Bondhu Adda Hashi*(Chatting with Friends and Smiling), *Sonali Adda* (Golden Chatting), *Kotha Shilpir Kotha ebong Sona Monider Ashor* (Tale of Artists with the Children), *Prosongo Naogaon*(About Naogaon), *Ek Cup Cha*(A Cup of Tea), *Rodela Bikel* (Sunny Afternoon), *Tumi Sondhar o Meghmela Gallery* (You are Beautiful with Clouds), *Sonali Swapno*(Golden Dreams) have gained tremendous popularity in its coverage area of the Borendro Radio. Borendro radio has been working on various issues through its myriad programs such as education, information technology, agriculture, health, entertainment, disabled women, anti-drug program, children, budget, religious program, elderly citizen programs, listeners' participation program, a special program about *Dalits and Horizons*[18], ceremonial programs, song-poetry shows participated by local artists, a talk show with prominent figures and local developmental news broadcasted five times a day. Radio Borendro is broadcasting programs on various topics including the national news of Bangladesh Betar (Radio) daily at 8.30 pm.

Since its inception to till date, Borendro radio achieves lots of awards for its contribution to the grassroots people. Thus it has got UNICEF[19] Meena Media Award, Girl Power Award, CEMCA[20] UNESCO[21] Community Radio Video Challenge, RTI[22] Award, Anti-Tobacco Award, Best Station Award, Best Producer Award, National Organization Award in different years of operation.

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[18] The Dalits and Horizons belong to the scheduled caste and they are known as the 'untouchables' in many parts of South Asia. They face discrimination at all levels in the society. Like India, they have been given a low status in the society in Bangladesh. Enjoying a backward position with a poor outlook they are mostly illiterate falling prey many social problems such as child-marriage, dowry and superstitious behaviour in general. Sometimes they face severe forms of human rights violations, torture, destruction of houses, land grabbing, eviction from land, threats and intimidation in Bangladesh.

[19] UNICEF stands for United Nations International Children's Emergency Fund.

[20] CEMCA is an acronym of Commonwealth Educational Media Centre for Asia.

[21] UNESCO- the full form of United Nations Educational, Scientific and Cultural Organization.

[22] RTI = Rights to Information.

Radio Borendro started experimental broadcasting by the initiatives of local non-government developmental organization 'Human rights development association'. In order to understand its role and importance at the local level, an incident aired on this radio can be mentioned. A ten-year-old girl from Nandigram, Naogaon was treated inhumanely while she was working in a house for a year and a half. A descriptive report of this inhumane torture publicized by Radio Borendro stirred up the public. According to this report, law enforcement agency immediately took action against the accused. By creating many such examples, Borendra Radio has left an impression in people's minds within a short period of time. '*Sthaniyo Sorkarer Daiboddhota*' (Accountability of the Local Government) program has made people aware of their rights in remote areas. The use of accountability and transparency has begun through local government and community radio. Various problems, prospects and successes in the Borendro Radio broadcast area- has stirred the listeners. The abused children of the area can express their joy, sorrow and hope on this radio. A report on the possibility of organic farming has attracted widespread interest among local farmers. Many of its programs broadcasted by the Borendra Radio has brought about huge change and transformation in this remotest area of Bangladesh. The drug awareness program called *Ashokti* (Addiction) is very popular among the locals. Law enforcement, Drug Control Department staff and young representatives are participating in the program to raise awareness about the adverse effects of drugs.

Case Summary

- *Radio Borendro covers 25 km and 5 lacks people can hear Radio Borendro.*

- *It Has Child Listeners clubs which has been formed with 5 educational institute.*

- *It broadcasts versatile programs through which people are becoming knowledgeable about lots of important issue. Teaching English to the students is one of the most popular program of the Radio Borendro.*

- *The case of maid servant torture broadcasted in the Radio Borendro helped attracted the attention of the general public and law enforcing agency was forced to arrest the accused quickly that testified the significance of the community radio at the grassroots.*

- *It played an important role to make the local government accountable to the community people for its local governance and thus ensure peoples right at the local level.*

- *The victims can express their grievances and pains through the community radio.*

- *The problems, prospects and success of the general public are broadcasted in the Radio Borendro and thus community radio has become the source of all hopes and aspiration for the marginalized people in Borendro area.*

- *People are able to know about organic farming and success of agriculture through Radio Borendro.*

- *Radio Borendro helped controlling drug abuse in the locality.*

- *Radio Borendro contributed to the better service to the rural society and as a recognition of it, Radio Borendro was able to get lots of awards for its performance.*

- *Thus Radio Borendro helped bring change and transformation at the rural society.*

7. The Listeners Perspectives of the Community Radios in Bangladesh: Empirical Evidence of a Few Individuals

Here in this part a few cases of some beneficiaries' experiences were shared below. From the following cases some of the major features of the different community radios and their ramifications and implications for the society and community were reflected in their life experiences with the community radios in Bangladesh.

7.1 I am a regular listeners of the Radio Pollikantho

Ayesha Akhter Rumana, age 24 year, a female student of 3rd Year Honours, Village- Matar Kapon, Union- 7 No. Chandnighat, Upazila: Moulavi Bazar Sadar of Moulavi Bazar District. She is regular listeners of some of the major programs of the Pollikantho Community Radio. Among the list of some programs she regularly listened to were: *Ogo Bandhu Pashe Theko* (Oh Dear Friend Keep Beside Me); *Shu-Shathao* (Good Health); Arshinagar (Town of Mirrors). Aysha shared that she listened to the community radio because she gets lots of information and she really gets huge entertainment from the community radio. She switched on the radio in the morning and at night during her leisure time. She almost listened 34- hours. Ayesha was immensely benefitted knowing modern agricultural practices from the community radio and she came to know about making a GD (General Dairy in Police) while she was listening to 'Law and Life' in the community radio. From the CR, she could update her knowledge about COVID-19 and she was able to stop spread rumour in her locality. By the community radio lots of mass people of Moulavibazar were able to improve their livelihood pattern having participated in many of the programs broadcasted by the community radio. She attended some remarkable programs on 'what to do during Corona Pandemic' and they broadcasted regular updates of the corona victim and deaths at home and abroad every day. There is a program on 'Nari Kantha' that I listened with raft attention on a regular basis. This radio broadcasted a programs on adolescent youth entitled 'Golden Adolescent Time'. There is a magazine rpogramme relating to violence against women and they organize seminar on damma life and I participated such programs**.** She also listened to *sonafala mati* (Golden Soil for Growing Crops) – a wonderful program on agricultural modernization. She attended talk show concerning environment and the program on environment "We are beside the Human Being" where the whole program put enormous importance relating to disaster management and environmental concern. She usually heard a program on local government issue entitled 'The Saga of the Union and Talk' of the Union where she came to know what services are available at the Upazila and how citizen could get all those services. In most of the various programs such as musical show, dance drama,

drama, and other cultural programs, local artists are performing in the community radio in Bangladesh now-a-days.

Case Summary

❖ *Aysha shared that she listened to the community radio because she gets lots of information and entertainment from the community radio.*

❖ *Every day she listened 34- hours.*

❖ *From community radio Ayesha was able to know many new knowledge on many issues such as modern agricultural practices, what is a GD (General Dairy to Police), local government, voices of women, environment, disaster management in the community radio.*

❖ *From the CR, she could update her knowledge about COVID-19 and she was able to stop spread rumour in her locality.*

❖ *By the community radio lots of mass people of Moulavibazar were able to improve their livelihood pattern having participated in many of the programs broadcasted by the community radio.*

7.2 Apon likes health talk program of Radio Bikrampur

Sazzad Hossen Apon, 18, a student of SSC[23], hails from Betaka, Betaka Hat Union of Tongibari Upazila of Munshigong District. Apon shared that he listened to agriculture, program for the students and recitation of the poem and musical program. He preferred most to listen modern songs in the community radio. He usually listened to the CR in the evening. Apon was motivated to do roof gardening in their building after he had listened a program on roof gardening on the community radio. I was immensely benefitted by listening educative program in the community radio. He informed us that many farmers and citizens got lots of

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[23] In Bangladesh, SSC means School Secondary Certificate examination. After 10 years schooling if any student passes SSC examination arranged by the board, he or she gets SSC certificate. It is equivalent to matriculation.

help from the community radio. He was personally helped by the community radio while he came to know program on the admission to get into the college. He became conscious regarding health matters. Jago Vogini (Sister: please keep alert) is the program on women's right what he heard many times. This is a program that helps us to be cautious about dowry and the importance about violence against women. The program on *Krishaker Hashi* (Smiling of the Farmers) is a good progrmme for the farmers and agriculture. He opined that by listening this programs lots of rural afrmers were able to enhance their agricultural production. The most preferable program of Apon in the community radio is Kobitar Khata (The Note Books on the Poetry).

The environmental program taught us about dropping waste or garbage in the dust pot or a particular place. *Gaan o Adda* (Song and Chatting) is a heart touching program of the radio Bikrampur. He was very much interested to know educative program in the community radio. He was inspired to study more by listening on the community radio. The program on 'Amader Katha' (Our Says) helped the listeners to enhance their livelihood. He loved to join in a mazine program on educational program "Student Life". There are as many as 3 program on health i.e. *shatho katha* (Health talk), *Aponer Shastho* (Your Health); and *Hello Doctor*. By attending such health related programs he got two good habits that to wash hand with soap before taking food and during sneezing he had to use a tissue or handkerchief. Amar Canpus (My Campus) is a very entertaining program broadcasted by the community radio.

Case Summary

❖ *Farmers used to lots of assistance from the community radio.*

❖ *By getting in touch with the CR, Apon was able get admitted into the college.*

❖ *Health programs were very much impressive to Apon. He became conscious regarding health matters.*

❖ *On hearing the program on 'keeping alert the sister' she was cautious about dowry and the importance about violence against women.*

7.3 Tonatunir Golpo is the most favourite program of Mr. Rubel in Chilmary Radio

Mahmudul Hasan Rubel, aged 14 years, lives in Ramna Union of Chilmary Upazila Kurigram District. He is an HSC[24] student. He informed us that he could listen community Radio from his residence. Some of his favourite programs are: *Tonatunir Golpo[255]* (Tale of Tiny Tots); No Problem.com, *Ain Jiggasha* (Question on Legal Matters), Ananda Adda (Joyful Chatting), *Unnayan Sandbad* (Development News). Rubel listens to Community Radio to get various information required for him and to fulfill his entertainment needs. He listens to CR in the afternoon. He usually passed 2- 3 hours on the Community Radio. He was immensely benefitted to know the legal matters from the community radio. He got earlier forecast regarding disaster situation many times. Mahmudul Hasan informed that community radio directly contributed to the livelihood of the people of Chilmary through enhancement of agricultural production. He attended another educative programs on the CR i.e. voice of English. While taking interview with him he shared that he listens to two programmes- one is on *Narir Katha* (Talk on Women Affairs/Issue) and *Shastho Barta* (Health Tips). He prefers regular updates on the COVID-19. Some women related programs were also demanding to him which were: the curse of child marriage, child abuse and dowry. There was a program broadcasted for the adolescent awareness in the community radio. The aftermath of violence against women is a good program he listened to the CR. The programs of 'Krishi Dibanishi' (Agriculture by Day and Nights) and Talk Show on Agriculture were very popular. Chilmari Radio regularly aired a popular program entitled Pachpuran which is directly related to disaster management. The radio also made a program on local government through which he knew the importance of construction of local roads, bridge and culverts. He opined that the artists performed on the CR are all local artists. Community radio always

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[24] Likewise, HSC stands for Higher Secondary Certificate examination. It is equivalent to 12 years' study. After getting passed SSC, students enter into college for 2 years and if they pass it successfully they get HSC degree.

[25] Words in the Italics here are in Bangla. English version is added in the bracket.

broadcasted programs relating to the local culture. He loves much the educative programs on the CR. Moreover, he came to know about facebook and use of technology from the CR. He loved to listen to attend awareness raising program on the mass consciousness and to listen to the musical program. He underscored the need of the CR in developing the interest of the cow fattening and rearing of milking or milching cow. He likes program on drama very much.

Case Summary

❖ *Rubel listens to Community Radio to get various information required for him and to fulfill his entertainment needs.*

❖ *He listens to CR 23- hours in the afternoon.*

❖ *He was immensely benefitted to know the legal matters from the community radio.*

❖ *He got earlier forecast regarding disaster situation many times.*

❖ *Mahmudul Hasan informed that community radio directly contributed to the livelihood of the people of Chilmary through enhancement of agricultural production.*

❖ *The program on learning English (voice of English), agriculture: day & night, COVID-19, local government, cow fattening, local culture and drama were special to Hasan.*

7.4 Parvina likes the program on problems of adolescent children in Radio Jinuk

Parvina Sarker, 30, a housewife, read up to class IX of Arappur, *Jhenaidah* Sadar Upazila, *Jhenaidah District, listened to the Radio Jinuk on a regular basis.* She loved programs on Agriculture, Health and Environment. Her intention to listen to the community radio was to look into the news, information and for entertainment. He listened to CR in the afternoon and evening. She usually listened to CR approximately for 2 hours. Parvina Sarkar thought that she was able to become

conscious about health and encouraged to rear poultry from the community radio. She remarked that listening to the CR they were able to reduce various risks of rural life. She considered that the programs on agriculture in fact changed the livelihood of the villagers of his area. The educative program on women's education and compulsory education, programs on nutrition were very enjoyable to her. The program on COVID was very helpful because she knew the importance on wearing mask during covid time in 20192020-. The program entitled '*Sishu Sram Ke Na Bolun*' (Say No to the Child Labour) and '*Kishor Boyosher Samosha o Samadhan*' (Problems of Adolescent Children and Its Solution), equal rights of women, program on livestock, environmental development, weather forecast are some of the popular program. Among other she loved most the entertainment related program. She listened to the CR for entertainment and education purpose. She became enlightened and got encouragement to achieve the goal of her life. Having listened to the community radio, she thought that people are getting health care knowledge and various information on the agriculture. She shared that by listening to the community radio many students and unemployed youths have chosen to become entrepreneur in the near future. CR helps to teach us about health, women's education and program on teen agers, women's equal rights and empowerment, program on live stocks, conservation of bio-diversity and ecological balance, development planning and among all other programs she liked most the program on heath.

Case Summary

- ❖ *Parvina Sarker, a housewife, listened to the Radio Jinuk on a regular basis. He listened to various programs for 2 hours on an average.*

- ❖ *CR helps to teach the villagers on Agriculture, Health and Environment, COVID, women's education and program on teen agers, women's equal rights and empowerment, program on live stocks, conservation of bio-diversity and ecological balance, development planning and among all other programs she liked most the program on heath.*

- ❖ *She shared that by listening to the community radio many students and unemployed youths have chosen to become entrepreneur in the near future.*

❖ *She remarked that listening to the CR, villagers were able to reduce various risks of rural life. She considered that the programs on agriculture in fact changed the livelihood of the villagers of his area.*

8. Suggested Policy Interventions and Recommendations

Based on the empirical knowledge derived from the survey, case study and researcher's personal observation, the following policy recommendations are suggested to address the limitations and to improve the performance of the community radios in Bangladesh.

❖ *The CRs in Bangladesh are sporadically located in various locations in Bangladesh, which do not follow any particular pattern. It is found from the study, there are 18 CR stations in 17 districts in Bangladesh. It was observed that among the 8 Divisions of Bangladesh, there is no community radio station in the Mymenshing division. So, immediately some CRs should be set up in Mymenshing division because lots of ethnic people live here. For catering their needs and aspirations, some community radios in this district should be installed soon.*

❖ *It was found that respondents were benefitted immensely from obtaining knowledge of various subjects like health issues, agriculture, fishery, cooking, importance of oral saline, child rights, women's rights, discrimination against women, development activities of the area, social development. Listeners were able to receive various information, some were able to raise their awareness level, some were able to stop child marriage in their areas. CRs helped increase agriculture and fish production, employment creation, get knowledge on corona treatment, get weather forecast to take shelter and prepare themselves for necessary measure. Not only that some were able to remove their superstitious believe, learn about different rules and regulations and modern technology, know about bad effects of drug taking and they were inspired on social forestry. Therefore, more CRs can be established in the backward areas of Bangladesh.*

❖ *Most of the young students are involved with the community radios through listeners' clubs and thus these young people are getting right attitudes and proper knowledge to build their characters in the best manners. In this way, community radios are giving best values to the grassroots societies in Bangladesh.*

❖ *Overall findings implied that community radios were playing a formidable role in grass-roots level development and these community radios were serving the rural society in proving entertainments, required information and news, updating the health knowledge, promoting agriculture and raising their knowledge on diverse issues.*

❖ *Each of the community radio has listeners' club on its own and members of those listeners' club should be provided with small portable radios free of cost. Apart from it, keeping radio set in all the fishing boats those who are fishing at the coastal areas should be made compulsory so that they can get message from the community radios and can prepare themselves during disaster period. Besides, radios and accessories of these radio sets should be made available with lower and affordable costs.*

❖ *One of the major duties and responsibilities of the CRs is to educate the local gentry and listeners. Therefore, apart from broadcasting programs on health, agriculture, life styles and livelihood pattern of the grassroots people, all CRs should broadcast special programs on language, more specifically program on learning English language should be emphasized more on CRs, which will help educate local students.*

❖ *CRs are providing services to the marginalized poor people, women, children, adolescents, youth, aged people, persons with disabilities, Dalit; farmers, fishermen, Ethnic communities like Rohingya refugees etc. Some Community Radios are ceaselessly assisting marine fishermen by providing accurate weather forecasts, the possibility of sea storms and tornadoes and important news in due time. The CRs are helping*

fishermen to provide weather forecast by collecting data from the Meteorological Department. Being aware about govt. rules and regulation regarding environment, these fishermen contributed to preserving nature and biodiversity with knowledge of safe fishing and environmental protection. The advantages of community radios are that these are playing an important tool for empowering marginalized sections of society across the world, transforming lives through giving them access to relevant, up-to-date information. All these positive ramifications justify the existence of the community radios in Bangladesh.

9. Conclusion

Through this paper an attempt was taken to have a brief profile of the Community Radios in Bangladesh and a few profiles of listeners of these radios were also recorded. This paper is fully based on qualitative approach. Primary data were collected using case study, focus group discussion and observation. Secondary data were collected adopting content analysis method. The study revealed that there 18 community radios in Bangladesh sporadically located in 18 districts that covered 7 divisions of Bangladesh. Among 18 CRs, only one is running by government and the rest 17 CRs are being operated by the private owners. The case studies revealed that these community radios were able to form listeners' club through which huge numbers of school going children have got a platform to involve themselves in lots of creative endeavors. Some marginal communities such as fishermen, women, village farmers, rural poor communities, indigenous people are getting lots of development services from the community radios. Community Radios in fact are used to providing lots of important development services to the community all over the country. Thus they are able to bring enormous change, development and transformation at the grassroots society.

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I-REC's Roles in Decarbonization in Thailand:
Challenges and Opportunities

Suchada Karestree* and Aweewan Panyagometh**

Abstract

Thailand has electricity from renewable energy resources 13-15% of the total electricity supply, but it comes through the mixed grid with brown energy as The Electricity Generation Authority of Thailand is the single buyer of bulk electricity and distributes it nationwide through one grid. However, those companies can claim the use of renewable energy by purchasing renewable energy certificates. The certificate available in Thailand and acceptable at the international level standards is the Trading of the International Renewable Energy Certificate (I-REC). This research studies I-REC's role in decarbonization in Thailand and its ecosystem by the qualitative method through in-depth interviews. The result shows that I-REC meets the needs of the company that wants to claim its decarbonization at the international level standards and focus on the utilization of renewable energy. However, registration costs and customer acquisition are not easy to make decisions for some small renewable energy power plants. There is a business model that offers support on the registration fee, manages marketing and sale of their I-RECs, and shares profits with the project owners. It will encourage more development of renewable energy and promote more supply of I-REC in the Thai market. Currently, I-REC demand is exceeding the supply. According to the Utility Green Tariff scheme and The Feed-in Tariff (FiT) Scheme for the Period of 2022 to 2030, there can be an impact on the players in the I-REC registry the market, the price, and the demand and supply.

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บทบาทของไออาร์อีซีในการลดการปล่อยคาร์บอน
ในประเทศไทย: ความท้าทายและโอกาส

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บทคัดย่อ

ประเทศไทยมีไฟฟ้าจากแหล่งพลังงานหมุนเวียนร้อยละ 13-15 ของอุปทานไฟฟ้าทั้งหมด แต่ทว่ามาจากระบบกริดผสมของพลังงานสีน้ำตาล โดยมีแค่การไฟฟ้าฝ่ายผลิตแห่งประเทศไทยเป็นผู้จัดซื้อและจำหน่ายไฟให้ทั้งประเทศผ่านหนึ่งกริดแต่ เพียงผู้เดียว อย่างไรก็ตามบริษัทต่าง ๆ สามารถอ้างว่าใช้พลังงานหมุนเวียนด้วยการซื้อใบรับรองการผลิตพลังงานหมุนเวียน ซึ่งใบรับรองดังกล่าวในประเทศไทยนั้นเป็นที่ยอมรับตามมาตรฐานสากล โดยการซื้อใบรับรองการผลิตพลังงานหมุนเวียนสากลหรือ ไออาร์อีซี (I-REC) งานวิจัยนี้ศึกษาบทบาทของไออาร์อีซี ด้านการลด การปล่อยคาร์บอนในประเทศไทยและระบบนิเวศ ทั้งนี้ด้วยวิธีวิจัยเชิงคุณภาพผ่านการสัมภาษณ์เชิงลึก ผลการวิจัยแสดงให้เห็นว่า ไออาร์อีซีตอบสนองต่อความต้องการของบริษัทที่ประสงค์จะอ้างการลดการปล่อยคาร์บอนตามมาตรฐานสากล และมุ่งมั่นต่อการใช้ประโยชนีจากพลังงานหมุนเวียน อย่างไรก็ตามต้นทุนการจดทะเบียนและการได้มาซึ่งลูกค้าใหม่เป็นสิ่งที่ยากต่อการตัดสินใจสำหรับโรงงานผลิตไฟฟ้าหมุนเวียนขนาดเล็ก ทั้งนี้มีโมเดลธุรกิจที่นำเสนอการสนับสนุนค่าจดทะเบียนจัดการการตลาดและการซื้อไออาร์ซี ตลอดจนการแบ่งปันกำไรกับเจ้าของโครงการ ซึ่งเป็นการสนับสนุนให้มีการผลิตพลังงานหมุนเวียนเพิ่มขึ้น ประกอบกับส่งเสริมอุปทานไออาร์ซีในตลาดไทย โดยปัจจัยมีอุปสงค์ไออาร์ซีเกินกว่าอุปทาน ทั้งนี้ข้อมูลจากมาตรการไฟฟ้าสีเขียวและการรับซื้อไฟฟ้าจากพลังงานหมุนเวียน (FiT) ช่วงปี 2022 ถึง 2023 แสดงให้เห็นว่าอาจมีผลกระทบต่อผู้มีส่วนได้ส่วนเสียในตลาดการจดทะเบียนไออาร์ซี ราคาอุปสงค์และอุปทาน

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1. Introduction

1.1 Background

Climate change has become a worldwide issue since the Paris Agreement, a legally binding international treaty on climate change, was adopted by 196 countries including Thailand at the 21st UN Climate Change Conference or COP21 in Paris in December 2015. It focuses on strengthening the response to the threat of climate change by limiting the average global temperature increase in this century to less than 2 degrees Celsius compared to pre-industrial times and trying to maintain the global average temperature increase of no more than 1.5 degrees Celsius. It covers the areas of greenhouse gas reduction (Mitigation), climate change adaptation (Adaptation), financial structure (Climate Finance), building mechanisms transparency (Transparency), and review of global operations (Global Stock). It also supports various fields in both the development and transfer of technology as well as capacity building of developing countries including financial. The participating countries must have a proposal of action called the Nationally Determined Contribution (NDC) every five years.

Thailand is one of the top ten countries in the world most affected by climate change with the proportion of greenhouse gas emissions from the transport and energy sectors accounting for 74.35% and the agricultural sector at 15.98% (Action for Climate Empowerment Thailand, 2021). At the 26th UN Climate Change Conference or COP26 in Glasgow in November 2021, Prayut Chan-ocha – the Prime Minister announced Thailand's aim to reach carbon neutrality by 2050, and net zero greenhouse gas emission by or before 2065.

To align with the country's goal, the Ministry of Energy enacted the National Energy Plan to achieve carbon neutrality in 2065-2070. This roadmap will shape the direction of the country's energy development in 4 aspects 1) Electricity – Increase renewable energy to more than 50% of the total production by promoting electric vehicles, accelerating grid technology to grid modernization and microgrid, and relaxing power purchasing agreement and prosumer 2) Natural Gas – Balance domestic and imported liquid natural gas (LNG), and aim to be a hub of LNG trading 3) Oil – Adjust

energy plan for transportation and balance between biofuel and EV users 4) Renewable Energy and Energy conservation – Promote production and consumption of renewable energy as well as enhance energy efficiency in all sectors.

Despite Thailand's commitment to the decarbonization goal, Thailand does not have any regulation or tax system to regulate greenhouse gas emissions or carbon footprint for manufacturing at this moment. In March 2022, Carbon Border Adjustment Mechanism (CBAM) is approved by the Council of the EU to be an EU legislation for businesses importing products into the EU (Deloitte, 2022).

As a transitional period from January 1, 2023, it requires EU importers to report the embedded emissions of imported products and implement the purchase of a CBAM certificate upon embedded emissions amount starting from January 1, 2026. Accordingly, being aware of the climate change issue and business sustainability in line with the commitments made by governments in various countries under the Paris Agreement, many multinational companies commit to achieving net zero or carbon neutrality. Decarbonization has also become a priority for businesses in Thailand especially those who are doing global business. Riding with the global trend, the country's commitment, and upcoming unavoidable legislation, a number of big companies in Thailand have announced their carbon neutrality and net zero goal as an ambition of voluntary emission reduction (Bangkokbiznews, 2021).

Carbon emissions from purchased electricity or scope 2 (see figure 1) are unavoidable for almost every company in Thailand. According to Energy Policy and Planning Office, Ministry of Energy (2022), the average carbon emission amount from electricity generation from 2017 to 2021 was 92.44 million tons of CO_2. To reduce carbon emissions from purchased electricity, we need to transition to renewable energy like solar, wind, thermal, hydro, and biomass because it generates electricity without producing greenhouse gas. However, at present, according to the Electricity Generation Authority of Thailand (EGAT) (2021), Thailand still mainly uses electricity from fossil power plants which are lignite power plants At Mae Moh mine around 10%, imported coal 10%, natural gas 55-57%, domestic hydropower 3%, imported from Lao PDR around 7%, and the rest is renewable energy which is only 13-15%

(Electricity Generation Authority of Thailand, 2021). Electricity supply in Thailand is based on a state-owned enhanced single-buyer scheme. The EGAT is the single buyer of bulk electricity and distributes it nationwide through one grid. Therefore, electricity from every source is mixed in the grid. The consumer cannot choose the source of energy. However, on November 7, 2022, The National Energy Policy Council approved the Utility Green Tariff scheme to set the electricity tariff from renewable energy resources and deliver electricity produced from renewable resources through separate power transmission lines directly to the businesses or manufacturers who require renewable energy and sell REC in a bundle with the electricity. This scheme is expected to be implemented in 2024 (Royal Thai Government, 2022).

It brings the question of how those companies that commit to net zero or carbon neutrality achieve the target because no matter how they put effort to reduce carbon emissions in the company-owned area and controlled resources or scope one, they would not be able to reduce carbon emission in scope 2 (purchased electricity) due to the condition mentioned above at this moment. Shall they wait until the Utility Green Tariff scheme is implemented or do they have other choices to contribute to their commitment?

Figure 1: Scope of Carbon Emissions Based on GHG Protocol (Bernoville, 2022)

The EGAT suggests guidelines for carbon emission control for businesses as follows; 1) Carbon credit trading 2) Thailand Voluntary Emission Reduction Program (T-VER) which is a mechanism that aims to encourage all sectors to participate in reducing greenhouse gas emissions in the country and can trade carbon credit. 3) Trading of the International Renewable Energy Certificate (I-REC) to promote electricity production from renewable energy to reduce greenhouse gas emissions. 4) Carbon neutrality to encourage using clean energy innovations such as solar cells.

1.2 Research Objectives

As electricity in Thailand is a mixed grid of brown and green energy, the consumer cannot choose to use only renewable energy, purchasing I-REC tends to be the only choice of businesses that have net zero or carbon neutrality goals to reduce carbon emission in scope 2 at this moment. The objectives of this study isto understand I-REC's role in decarbonization in Thailand and its ecosystem on various aspects e.g. 1)Awareness of I-REC in Thailand. 2) How the companies in Thailand that have net zero or carbon neutrality goal position and utilize I-REC to achieve the goal. 3) Comparison of I-REC and T-VER from the user's and seller's perspectives. 4) What encourages renewable energy power plants to be players in the I-REC registry. 5) I-REC market and the demand and supply. 6) I-REC price mechanism. 7) Impact of The Feed-in Tariff (FiT) Scheme for the Period of 2022 to 2030.

Furthermore, according to Halt (2011), REC affects the decision of the project owner to build renewable energy projects in the compliance market in the United States. If the project is very cost-competitive, the importance of REC revenue may be diminished in the build versus no-building decision, but if the project is small, lacks economies of scale, relies on more expensive technologies, or faces other cost challenges, REC will be more important in the project decision. This research would also study the impact of I-REC on the acceleration of renewable energy projects in the voluntary market in Thailand and whether the expected revenue from I-REC affects the decision of the project owner to build renewable energy projects. To answer these objectives, qualitative methods have been applied in this research.

The findings of this research will be a case study for entrepreneurs who are interested in I-REC no matter to utilize them to achieve net zero or carbon neutrality goal, claim in a sustainability report, or apply it to report to CBAM, and will be a guide for entrepreneurs in energy sectors about the I-REC registry, the trend of consumer's demand and business chances on the I-REC. It also provides information for those who look for new business models and opportunities in the I-REC registry e.g. brokers or banks. Besides, it can be a reference for the government sectors related to energy policy to understand the current I-REC market, develop the utility green tariff scheme and the Fit scheme into action without causing damage to businesses, and initiate some incentives that would benefit both businesses and the country.

2. Literature Reviews

2.1 What is a Renewable Energy Certificate (REC)?

A renewable Energy Certificate or REC is a market-based instrument that represents the property rights to the environmental, social, and other non-power attributes of renewable electricity generation. RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource. RECs include data attributes such as certificate date and type, tracking system ID, renewable fuel type, renewable facility location, project name, the capacity of the project, and emission rate of the renewable resource (United States Environmental Protection Agency, 2022).

RECs play an important role in accounting, tracking, and assigning ownership to renewable electricity generation and use because the physical electricity we receive through the electricity power grid comes and mixes from many different resources which are fossil-based power plants, solar farms, etc. Each REC represents a specific amount of electricity produced and delivered to the power grid by a renewable resource such as wind or solar. RECs are the instrument that electricity consumers must use to substantiate renewable electricity use claims. For example, in the case of the wind turbine, for every megawatt hour of electricity it produces, the turbine's owner generates a REC that they can either keep or sell. If a company

buys the REC, the company is now the owner of that green power and is allowed to claim that the electricity the company uses came from a renewable resource with low or zero carbon emission.

RECs allow organizations to choose a cleaner source of energy and reduce their carbon footprint. They give organizations the flexibility to support renewable energy even if they cannot generate it themselves or if the local utility does not provide green power. By purchasing RECs, organizations are providing revenue to support renewable energy projects. When enough people buy RECs, these purchase growth in green power development and help to avoid greenhouse gas emissions across the country.

2.2 The International Renewable Energy Certificate Standard (I-REC)

Developed countries like the United States or European countries have had their own REC schemes which are US RECs and EECS-GO relatively. The International REC Standard Foundation (I-REC Standard) is a non-profit organization headquartered in Netherland that provides a robust standard for developing attribute tracking systems globally, especially in developing countries. The I-REC Standard is accepted by major reporting frameworks such as Greenhouse Gas Protocol (GHGP), Carbon Disclosure Project (CDP), and RE100 as a reliable backbone for credible and auditable tracking instrument (The I-REC Standard, 2022).

Countries participating in The I-REC Standard

1. Argentina	14. Dominican Republic	27. Laos	40. Saudi Arabia
2. Australia	15. Ecuador	28. Lebanon	41. Singapore
3. Bangladesh	16. Egypt	29. Malaysia	42. Somalia
4. Brazil	17. El Salvador	30. Mauritius	43. South Africa
5. Brunei	18. Ghana	31. Mexico	44. South Sudan
6. Burkina Faso	19. Guatemala	32. Morocco	45. Sri Lanka
7. Cambodia	20. Honduras	33. Namibia	46. Taiwan
8. Chad	21. India	34. Nigeria	47. Thailand
9. Chile	22. Indonesia	35. Oman	48. Turkey
10. China	23. Israel	36. Pakistan	49. UAE
11. Colombia	24. Japan	37. Panama	50. Uganda
12. Costa Rica	25. Jordan	38. Peru	51. Vietnam
13. Democratic Republic of the Congo	26. Kazakhstan	39. Philippines	52. Zambia

As of 2021, there are 51 active I-REC participating countries, 19 accredited I-REC issuers and more than 70 terawatt-hours (TWh) I-REC were issued (see Figure 2). Figure 3 is a sample of I-REC certificate. The beneficiary is an end-user to which the I-RECs are redeemed.

Figure 2: Global I-REC Annual Issuance and Redemption (TWh) from 2016-Q1 2022
(The I-REC Standard Foundation, 2022)
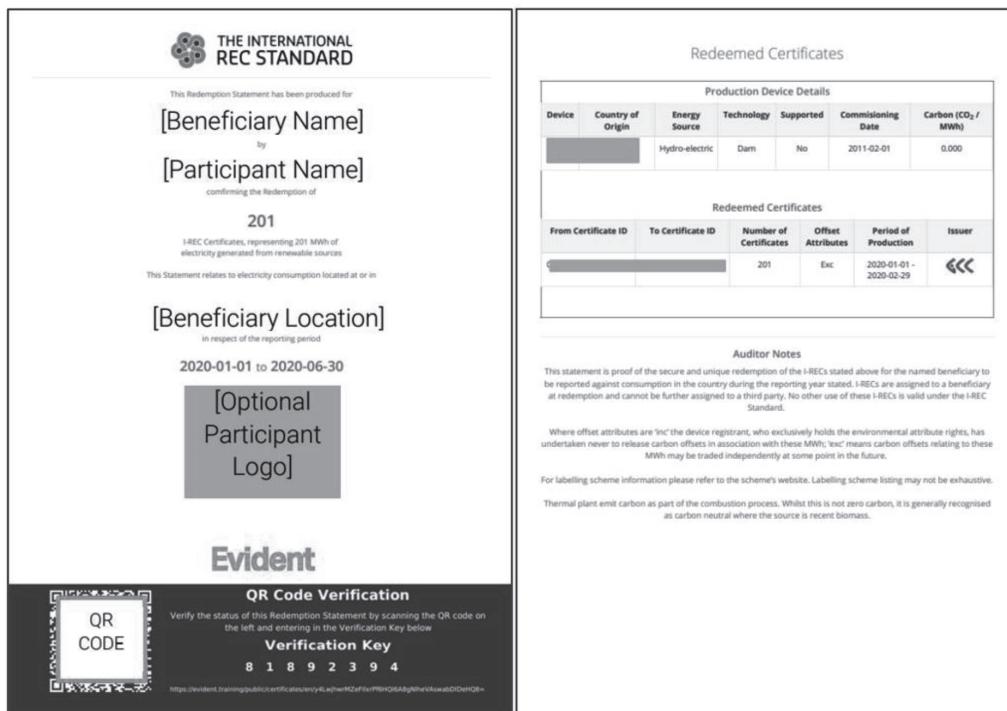
Figure 3: Sample of I-REC Certificate. (Greenyellow, 2022)

2.3 Role in the I-REC Registry

There are main 3 roles in the I-REC Registry

2.3.1 Issuer – The issuer controls the registration of renewable energy generating facilities, oversees and verifies the reporting of generation data, and issues I-RECs based on reported generation. There is usually one issuer for a country which can be a government agency or an independent entity. Thailand's local issuer is the EGAT. However, registration and I-REC issuance can be done through the I-REC central issuer "GCC" which can support worldwide.

2.3.2 Registrant – The registrant is the renewable energy generating facilities that want to have their own devices certified and request I-REC issuance on their behalf to be able to claim for themselves or sell to participants or end users. However, the facility's owner can be both a registrant and a participant.

2.3.3 Participant – The participant can be anyone who wants to trade or hold I-REC to claim their contribution to renewable energy. It can be the renewable energy power plant owners themselves, I-REC brokers, or end-users. However, end-user can buy I-REC from a participant by getting I-REC redemption to their name without registering to be a participant (see Table 1).

Referring to Table 1, the participant will have to bear an account opening fee and the annual fee which is a relatively high cost. Therefore, some renewable energy power plant owners also register as participants to bear that cost and redeem RECs in the name of the buyer. In this case, the buyer does not need to have an account in the I-REC registry, but the price of RECs may be quoted based on the cost of the seller's participant account fee and redemption fee.

Table1: Fee for Registrant and Participant in the I-REC Registry

Registrant (Pay to EGAT)		Participant (Pay to the I-REC Standard)	
1. Registrant application fee	-	1. One-time trade account opening fee	EUR500
2.One-time device registration fee (5-year validity)	THB38,000	2. Annual trade account fee	EUR2,000
3. Device renewal fee after 5-year validity	THB15,200	3. Additional redemption account fee	-
4. Issuance fee (per MWh)	THB0.95	4. Redemption fee (per MWh)	EUR0.06

Source: Electricity Generation Authority of Thailand (2022)

2.4 REC Market in Thailand

The I-REC registry was brought into Thailand in 2017. EGAT registered and had a contract with the I-REC organization as a Thai local issuer in 2020. The First I-RECs were issued 62,747 RECs which is equal to 62,747 MWh in 2017 and it has grown double digits every year to 2,166,164 RECs in 2021 from solar, hydro, wind, and thermal resources (see figure 3). However, these I-RECs were redeemed 334,696 I-RECs in 2020 and 757,001 I-RECs in 2021 to participants or end-consumers in Thailand to claim their renewable energy contribution (see figure 4). The redemption rate grew 126% over a year (The International REC Standard, 2022).

Unit: RECs
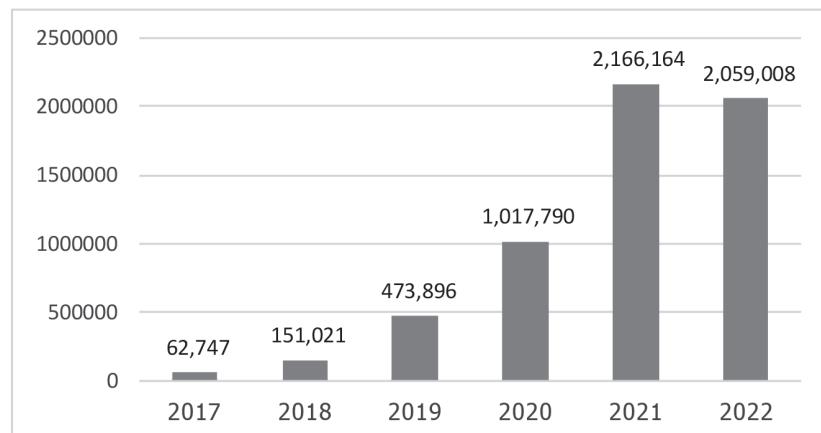
Figure 4: I-RECs Issued in Thailand from 2017 to 2021 by the I-REC
Standard as of September 2022

Unit: RECs
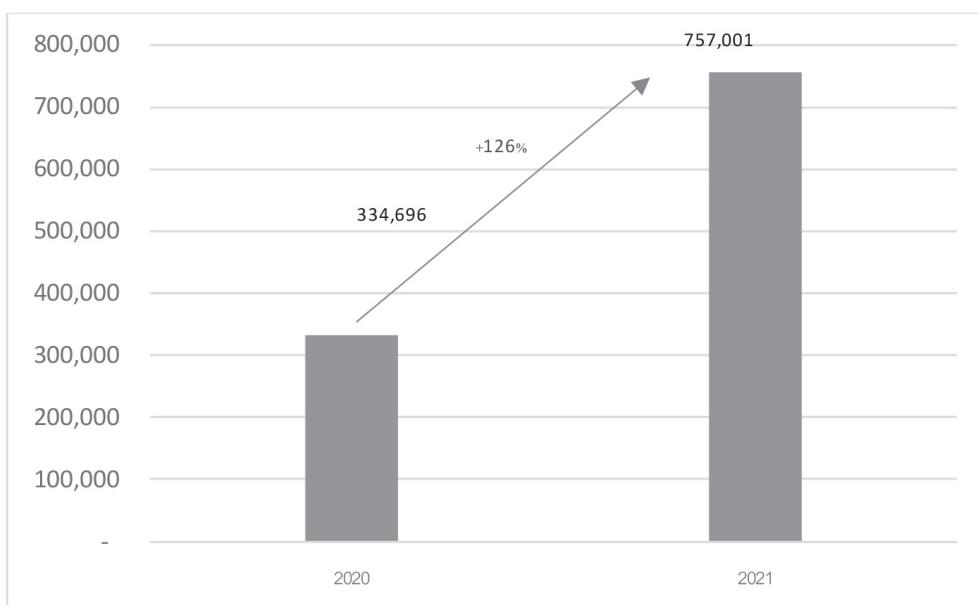
Figure 5: Redemption of I-RECs in Thailand from 2020 to 2021 by the I-REC Standard

REC is an important tool of decarbonization in Thailand. World-leading companies set their net zero emission target as well as a 100% renewable energy utilization commitment (RE100) as evidenced by the increasing number of RE100 companies joining in 2019 with 261 companies to 378 companies at the present. At least 50 of these multinational companies are doing business in Thailand, which means there would be a demand for RECs as it is the only way to contribute and claim the renewable energy attribute in Thailand because they cannot buy renewable electricity directly from the renewable power plants.

3. Research Methodology

3.1 Research Method

As REC is a new thing for businesses in Thailand, it is known only among specific groups of people. In order to satisfy the objective of the research, qualitative research will be held through personal interviews with unstructured questions to gain an in-depth understanding of the underlying reasons and motivations. The unstructured interviews offer flexibility and let the interview flows, leaving room to generate conclusions that were not initially meant to be derived regarding a research subject (Gill & Johnson, 2002).

3.2 Research Approach

This research approach is an inductive approach. The researcher begins with an observation, gathers information from interviews, summarizes, and makes a conclusion. The interviewees are informed prior to the interview. The questions are reviewed by 2 experts to ensure validity of the data. Importantly, the questions should not go against privacy or research ethical issues. The interviewees were asked to consent before voice recording.

3.3 Sample Selection

The sample selection is based on their knowledge, position in organizations, relationships, and expertise regarding the research subject. In this study, the researcher targets senior officers, senior managers, or directors of these 3 groups of these companies which are summarized in Table 2.

Table 2: 3 Samples Group

	Sample Groups	
Issure	EGAT and Innopower Co., Ltd	The Electricity Generation Authority of Thailand and its affiliate; Innopower Co., Ltd. The reason for targeting this group is to gain an overview of current I-REC trends in Thailand as they are the only local issuer.
Registrant	Renewable power producer	Renewable energy power plants who also sell I-REC. The reason for targeting this group is to study the awareness of renewable energy facilities owners on I-REC, how they do marketing on their I-REC, whether they register themselves as a participant to facilitate convenience for the buyer, and how revenue from selling I-REC promote the development of renewable energy projects.
Participant	Customer company as a net carbon neutral company	Companies in Thailand that have net zero or carbon neutrality goal and have purchased I-REC. The reason for targeting this group is to study how they make decisions to purchase I-REC, starting from understanding their decarbonization goal or policy, how they utilize I-REC to achieve net zero or carbon neutrality goal, and why they started to purchase I-REC now despite their goal to achieve net zero or carbon neutrality is many years ahead, how they negotiate the price, whether they make an agreement with the seller in long term, whether they register as a participant in the I-REC registry.

3.4 Research Process

The researcher contacted interviewees through e-mail to explain the scope of the study and asking if they would accept to participate in the research. If they respond, the online meeting would be held during November and December 2022. During the interview, video would be asked to record to help the researcher to analyze the gathered data. The respondents are free to express their views even if it is not directly included in the objective of the research. (pls write in past tense ka)

3.5 Ethical Consideration

All participants reported their written acceptance of their participation in this research and e-sign consent to disclose or not disclose their names or company names.

4. Results and Discussions

The researcher interviewed respondents from 7 companies in which they can be separated into 3 groups. The first group is the companies that have carbon neutrality goal and have already purchased I-REC. Company A is a French company that produces and sells industrial gas. Company B and C are Japanese fast-moving consumer goods companies. The second group is EGAT and its affiliate, Innopower Company Limited. The third group is 2 Thai leading companies (Company RE-A and Company RE-B) that are running renewable energy businesses, have renewable power plants, especially solar energy, in Thailand and overseas, and are registrants and participants in the I-REC registry. From these interviews, we understand I-REC roles and ecosystem from all perspectives which are an issuer, buyers, producers, sellers, and brokers.

4.1 Awareness of I-REC in Thailand

The Business Development team of EGAT had studied REC since 2019 and the I-REC and finally registered as Thailand's local issuer in October 2020. It also registered its power plants as registrants and sold I-RECs that were verified and issued by GCC – The I-REC central issuer. Since then, EGAT announced it through

mass media and had been holding seminars in various events that were hosted but EGAT itself and other organizations such as Thailand Greenhouse Gas Management Organization to disseminate the knowledge about I-REC to entrepreneurs. The audience were both those who can buy I-REC to achieve their decarbonization goals and those who are renewable energy power plants that can be I-REC registrants and sell I-REC. Company RE-B, a Thai large renewable energy corporation, firstly knew about I-REC and saw another opportunity for its business from a seminar that EGAT introduced I-REC in 2020. It triggerred the company to study more about I-REC and started to make business plans for it. Company C, a Japanese fast-moving consumer goods manufacturer, also firstly heard about I-REC from a seminar at one of the Prime Minister's Award events related to energy management in 2020. When its Japan parent company announced the Zero Carbon Emission goal and joined RE100 in the following year, Company C seriously studied I-REC and renewable energy, and finally purchased I-REC to align with the parent company's decarbonization direction.

However, Company RE-A, a Thai leading renewable energy business operator in the Asia-Pacific region, took one step ahead of EGAT's announcement on the I-REC business. It had known about the I-REC standard from peer trading and technology partners overseas and registered the first renewable energy project to the I-REC registry by being verified by GCC in 2020 before EGAT announced its local issuer.

2 companies in target group one knew I-REC from information sharing among their group companies. Company A's sister company in Asia bought I-REC to achieve its parent company's decarbonization goal in 2021. Thereby, Company A started to study more information about I-REC. So as Company B. Its sister company is an electricity supplier including electricity from biomass. This company registered in the I-REC registry, started the I-REC business in 2021, and sold its first issued I-REC to Company B.

4.2 I-REC and Organization's Decarbonization Goal

The companies in the first target group have decarbonization goals as shown in the table 3 which are in accordance with their parent companies' goals.

Table 3: Decarbonization goals and I-REC purchases of companies in the first target group

Company	Decarbonization Goal	I-REC Purchase
A	The ultimate goal: Net Zero Emission by 2050. Short-term goal: 1) Reduce CO_2 absolute emission by 33% in scopes 1 and 2 compared to 2020 by 2035. 2) Reduce carbon intensity 30% compared to 2015 by 2025.	Equivalent to 50% the total electricity consumption in 2022
B	The ultimate goal: Net Zero Emission by 2050 and reduce 50% of CO_2 emissions in the product life-cycle by 2050. Long-term goal: CO_2 emissions reduction targets of 55% compared to 2017 by 2030.	Equivalent to 100% of the total electricity consumption of the 2 factories in 2022. (not cover electricity usage at the office.)
C	The ultimate goal: Net Zero Emission by 2040 and Carbon Negative by 2050. Sub-goal: 1) 100% renewable energy for purchased power. 2) CO_2 emissions reduction targets 55% in scope 1 and 2, and 22% in product life-cycle (scope 1-3) by 2030 compared with 2017. 3) Achieve RE100 of electricity usage.	Equivalent to 50% of the total electricity consumption of the factory in 2022. Plan to cover 100% of the total electricity consumption of the factory and every office from 2023.

Companies A and B have been working on various energy efficiency and machinery improvement projects to reduce carbon emissions but with limitation of infrastructure in Thailand, they face many challenges to achieve the goal with these activities, so they have to use carbon offsetting.

> *"We are doing recycling. We upgraded machinery to modern technology to reduce energy consumption and installed solar roof panels with a capacity of 1,800 kilowatts but cannot extend more*

capacities because it is all of our factories' roof area. We also improved the degraded forest area and registered it as a T-VER project and accredited carbon credit equivalent to 6,000 tons CO_2 per year. No matter how hard we try to improve energy efficiency, we cannot reduce carbon emission to zero, so we had to consider offsetting with I-REC or T-VER." Company B interviewee.

"Our company has been doing reforestation for 8 years and conducting many decarbonization activities in the factory such as installing solar roofs, changing light bulbs to LED, replacing the air-conditioning system to inverter type, improving the waste heat recovery system. For the solar panel, it can generate electricity 782 MWh per year which is only 2% of total demand. We cannot achieve 100% renewable energy goal without considering I-REC due to the regulation that does not allow us to directly purchase electricity from renewable energy power plants." Company C interviewee.

"In our factory, we use 2 main sources of energy which are natural gas for the heating process and electricity. To reduce carbon emissions from the heating process, we need to invest in Carbon capture, utilization, and storage technology (CCUS) which would be a large investment and need to handle the captured carbon from CCUS. There, reaching our decarbonization goal with I-REC first is much easier." Company A interviewee.

Despite their ultimate decarbonization goals are in many years ahead they started carbon offsetting from the end of 2021 - 2022 to approach the goal one step at a time and have lessons learned in each step to see if there are any problems in the operation.

"Purchasing I-RECs brought another company expense. We need to consider how to manage this cost and generate benefits for the company. For example, passing this cost to the customers by offering new products as "low-carbon" products as in the process of these

new products we lower carbon by offsetting CO$_2$ emissions with I-RECs. It will also help the customers who want to reduce CO$_2$ in scope 3." Company A interviewee.

Company B and Company C bought I-RECs this time as a pilot case for their group companies, to be their reference about pricing, sellers, how to purchase, and make agreements. Both companies have a similar opinion that the cost of purchasing I-RECs urges employees to pay more attention to energy saving, encourages us to try to reduce the cost, and initiates new projects for carbon reduction. With these efforts, they consider that I-RECs will reach carbon neutral because finally, it will lead to a decrease in energy costs, so the 2 companies do not consider passing this cost to customers. Purchasing I-RECs also brought them indirect benefits, giving them a good image of corporations that care about the environment and climate change. This might benefit those companies when cooperating with government sectors or international business. I-REC is a tool that they can use to achieve their parent company's goal conveniently and can communicate to the public at the international level.

4.3 I-REC and T-VER

When considering decarbonizing instruments in Thailand, the frequently asked question is it should be T-VER or I-REC. T-VER is the GHG emission reduction program, developed by Thailand Greenhouse Gas Management Organization (TGO) to promote and support all sectors to voluntarily participate in the GHG emission reduction program and can sell the reduction unit or carbon credit, which is called "T-VER" under this T-VER program, under voluntary domestic market (Greenhouse Gas Mitigation Mechanism, 2022). However, T-VER does not meet international carbon accounting goals e.g. CDP, TCR, and GRI. Therefore, those who purchase T-VER carbon credits cannot claim their carbon offsets in international standards, unlike I-REC which is accepted internationally. However, it does not mean this program is better than the other, it actually depends on the purpose and the goal of the organization

Table 4: A comparison between I-REC and T-VER

Issues	T-VER	I-REC
Standard Levels	Domestic Standdard	International Standard
Regulation	Voluntary	International Verification
Stackeholder	Unclear	Major partners: Issuer, Registrant and Participant
Price	None	Depend on Market price
Emission Scope	Scope 1, 2 and 3	Scope 2

I-REC meets the needs of those who focus on renewable energy, and carbon reduction in scope 2, and claim their decarbonization in international standards. T-VERis more suitable for those who focus on the domestic market and want to offset carbon in all scopes. Company B gave us a clear picture of this point.

> *"From 2023 onwards we plan to use T-VER instead of I-REC. We feel that I-RECs has low impact in term of domestic public communication. It is more effective for PR at the international level. Our parent company can mention it globally but for our company itself, our products are sold in Thailand. We think supporting T-VER would deliver a better image and communication to the public and our customers. Besides, we have our T-VER project on reforestation which we can expand and use them to offset our carbon emissions unlike I-REC, we have no way to produce it by ourselves because we cannot build our own renewable energy power plants."* Company B interviewee.

Company A and Company C plan to keep purchasing I-REC in the next years. The parent company of company A allows purchasing I-REC only. Company C has a firm intention to continue buying I-REC because of its 100% renewable energy goal.

4.4 EGAT and I-REC

EGAT is the only Thai local issuer of the I-REC standard. It controls the registration of renewable energy generating facilities, oversees and verifies the reporting of generation data, and issues I-RECs but it also sold I-RECs from its renewable energy power plants which were verified and issued by GCC. However, according to the I-REC standard's regulation, the issuer cannot have a trade account. The customer who wants to buy I-RECs from EGAT must register as an I-REC participant and open a trade account to receive the issued I-REC. It means that the customers must bear the cost of the account opening fee of EUR500 and the annual fee of EUR2,000 (see table 1), even though some large corporates, mostly multinational ones, were willing to purchase EGAT's I-REC because of EGAT's reputation.

However, to separate and make it clear between the issuer's role and the seller's role, EGAT restructured and transferred its functions related to I-REC selling and marketing to its affiliate – Innopower Co., Ltd in June 2022. Innopower's business consists of venture builder for startups in Thailand, venture capital, and joint venture or building quick-win strategic partnerships related to clean energy innovations by jointly investing in businesses that are making profits for sure (Electricity Generation Authority of Thailand, 2022). I-REC business became a part of Innopower's business. EGAT's renewable energy generating facilities are transferred to be registered under Innopower's name as their registrant. Innopower is a registrant and also registered as a participant to hold accounts in the system to hold, transfer, and redeem I-RECs for customers. Customer who wants to buy I-RECs representing electricity generated from EGAT's renewable energy facilities can buy them from Innopower without registering to be a participant in the I-REC registry. In another word, one of Innopower's businesses is an I-REC broker but it does not limit to I-RECs representing electricity generated from EGAT's renewable energy facilities. Innopower is also buying I-REC from other I-REC registrants for trading.

4.5 What Encourages Renewable Energy Corporations to be Players in the I-REC Registry?

Renewable energy power plants can choose to register in either the I-REC registry or T-VER but REC and carbon credit must not be double counted. This research studies how renewable energy corporations decide to be a player in the I-REC registry. The research target second group, Company RE-A, and Company RE-B, both gave the same opinion. they did not even need to do a deep market research before making the decision to register in the I-REC registry because there was a trend of Net Zero from multinational companies before Thailand announce the country's decarbonization goal in COP26. They were quite confident that I-REC would be demanded. Besides, It did not take them long to consider registering in the I-REC registry because the registration process is convenient and user-friendly, does not require too many documents, and device registration fee and renewal fee are not expensive unlike carbon credit project registration e.g. Verra, Gold Standard, and T-VER. The I-REC itself market is wider even though it can use only for scope 2 but it is internationally accepted.

> *"As our company is positive to try new things that tends to be valuable in value chain, we had no hesitation to make a trial in the I-REC registry. The first project we registered was a small project. It was to study the process and expense. We did not expect the market or profits at the moment. After that we could see increasing of demand from multinational companies in Thailand and with the reasonable cost of registration and liquidity in trading as it is acceptable at international level standards, we decided to register all of our project in the I-REC registry. We had registered T-VER projects before. It is not accepted by big global companies. The process is much more complicated and requires a lot of documents. T-VER has a higher cost than I-REC while I-REC has higher demand in the market as Thailand is a voluntary market. Companies are not forced to reduce carbon that they need to buy carbon credit to offset. We had issued*

T-VER 5-6 years ago, but it started to be sold in 2021 according to COP26." Company RE-A Interviewee.

I-REC also triggered Company RE-B to do organizational restructuring to liquidate the business.

"After we studied more about the I-REC standard, we processed to registered big 10 facilities first. Thanks to its user-friendliness, straightforward of verification and usage, and affordable and convenient registration process, it's easy for us to decide to be a play in the I-REC registry. Besides, I-RECs are our by-product. The cost of registration to sell this by-product is not high. Even if it cannot be not sold, this loss is acceptable. On the other hand, if we did nothing with it, it would be like we are throwing it away. After COP21 around the end of 2021, as we could see the trend and demand of volume inquiry from multinational companies, we register the rest of our facilities to the I-REC registry. Furthermore, we reorganized work functions related to I-REC and carbon credit trading to another affiliate company to take this business seriously and meet the trend and demand." Company RE-B Interviewee.

4.6 I-REC Marketing

As renewable energy certificate is still quite a new decarbonization tool in Thailand. It is important to make people understand what it is. Therefore, EGAT started by communicating through mass media, exhibiting academic booths in events, and holding seminars by collaborating with other organizations such as the Thailand Greenhouse Gas Management Organization, the Federation of Thai Industries, and other renewable energy corporations including Company RE-A.

Company RE-A also has a similar strategy to EGAT. It held seminars and also approached potential customers, which are multinational companies in Thailand especially RE100 members, to ask them about their decarbonization policy and introduce I-REC. One thing that Company RE-A did as a pioneer in Thailand is creating

an online marketplace and community platform for T-VER and I-REC call the Carbon Markets Club (www.carbonmarketsclub.com). It was established together with other alliances that care about environments and are interested in decarbonization including EGAT. The Carbon Markets Club offers free membership to corporate and individuals. The member will receive e-newsletters of seminars and can post to sell their T-VER or I-REC on Webboard. It holds seminars and webinars related to decarbonization, environment, and energy which are very educational and informative.

4.7 I-REC Demand and Supply

For the supply side, it grew obviously from 2019-2021 since EGAT became the I-REC local issuer, considering from the number of registrants, device, and I-REC issued. EGAT has a big role to this growth as it has been educating people about I-REC through various events and seminars. Having EGAT as a local I-REC issuer makes it easier for players to access. It also creates more opportunities for the investors who need to invest in green energy.

However, there is high demand of I-REC from domestic and overseas, especially Singapore because it has carbon tax and is carbon trading hub in Asia. I-REC can be claimed internationally in case the country that generates the electricity has grid connection with the buyer's country.

> *"Secondary data that can explain the demand of I-REC is I-REC issuance and redemption report announced on the website of the I-REC standard and the report from RE100 website that shows that movement of renewable energy demand in each country. For primary data, we approach potential corporates to ask about their needs and direction to achieve their clean energy goal. Since our operation in June 2022, we realized that I-REC demand has grown up a lot and caught more attention from businesses. I-REC from some energy resources is starting to short. I-REC from wind energy is very few."* Innopower interviewee.

"We do not really focus on marketing activities. We only join the Federation of Thai Industries' events such as exhibition booths, seminars, and roadshows. Customers knew us from these events and approached us by themselves. We have 2 groups of customers which are corporates that want to buy I-RECs for themselves and brokers that want to buy I-RECs to service their customers or speculation. Now the demand that has come to us is already higher than we can supply."

This research studies further the number of I-REC registrants in Thailand. EGAT disclosed the number of I-REC registrants as of November 2022 is 96 registrants with approximately 200 renewable energy generating facilities while there are 1,048 renewable electricity projects with total capacity 4,025 MW that already has commercial operation date (COD) or started selling electricity to EGAT and already distributed electricity to the grid (Energy Regulatory Commission, 2022). Therefore, there is big room for supply to grow in the future. However, new projects that applied for electricity selling under the Feed-in Tariff (FiT) Scheme for the Period of 2022 to 2030 for power plants with no fuel costs will not be able to sell I-REC or carbon credit because it is regulated that any renewable energy certificates (RECs) or carbon credit derived from the projects operating under the New RE Quota Regulations must belong to state utilities or government agencies (Baker & McKenzie, 2022).

4.8 Innopower's Business Model to Support VSPP and Renewable Energy Promotion in Thailand

Even though the I-REC registration costs and participant's trade account fees are not a big cost for Company RE-A and Company RE-B, they matter for some other smaller energy corporates, especially Very Small Power Producers (VSPP). Some small power plants hesitate to register their projects to the I-REC registry as they are not certain if they can acquire customers and if the device registration fee will be worth it, especially for solar projects that VSPP usually has small capacity projects in more than one location. (In the case of registering solar devices in a group, one group can register solar devices in a bundle of up to 5 MW.) The estimation of I-REC generated from solar project with 1 MW capacity is around 1,400 I-RECs per year.

For example, if a group project has a 2 MW capacity, it will generate around 2,800 I-RECs. In case 1 I-REC is 50 baht, this project will generate an income of 140,000 baht. This project owner will have costs of the device registration fee paid to EGAT 38,000 baht, verification fee for the third party in case it is needed, and participant's trade account opening fee and annual fee of 2,500 euro (2,000 euro annual trade account fee + one-time trade account opening fee) in case it wants to service customers in certificate redemption. It would be a hard decision for this company to be a player of the I-REC registry.

Innopower knows these pain points, so it offers VSPP companies support on facilities registration fee, manage marketing and sale of their I-RECs, and share profits with them. This business model is one of Innopower's quick-win strategic partnership buildings that brings promising profits to its stakeholders. It encourages small power plant operators to develop more renewable energy and encourage more supply of I-REC in the Thai market. It would attract investors that look for clean energy to meet their decarbonization goals and increase the country's potential in promoting business that greener and cleaner in Thailand.

4.9 Price Mechanism

There is no standard price for I-REC. On the Carbon Markets Club website, I-RECs from every sellers are offered at the same price at average 50 baht but the actual price depends on bilateral negotiation between the seller and the buyer e.g. vintage year, type of resource, volume, long-term agreement, etc. However, buying big volume does not promise a discount because the demand is higher than the supply. Usually, the price agreed between the seller and the buyer is confidential.

> *"The price depends on the market mechanism. Since Innopower's one of the shareholders is EGAT which is a state enterprise, we need to make a reasonable price for the benefit of the state as well. We also inquire about pricing from buyers, other sellers, and brokers to set suitable pricing. As of 2022, our I-RECs pricing is approximately 45-70 baht, different for each type of energy, contract period, and purchasing volume. However, it does not follow the economy of scale*

as it is an over-demand market now." Innopower interviewee.

"Our average price is 1.35-1.65 USD but I-REC produced in the vintage year 2023-2024 are expected to be over 1.75 USD. We do not offer discounts for big lot purchases because it's exceeding demand now. We accept longest agreement at 3 years and it would be step up price 10%-25% per year. We keep only 20% of our I-RECs for future contracts because it is difficult to predict the price. We prefer to keep the rest 80% of I-REC for spot trading." Company RE-B interviewee.

"The price shown on the Carbon Markets Club website is an average price. It can be varied by volume and contract period. We make pricing by hearing from brokers that have business with us and also sharing with other sellers. At this moment, it is an excess-demand market. We accept the longest contract period at 5 years." Company RE-A interviewee.

4.10 I-REC and Acceleration of Renewable Energy Projects

Despite in the compliance market in the US, expected revenue from REC affects to the decision of developing a new renewable energy project, it is different in voluntary market in Thailand.

"I-REC price in Thailand is not high enough to generate revenue to consider in feasibility model to make a new project. It is not a factor that can tell if a project is feasible or not. However, it does promote renewable energy projects as the profits from I-RECs were reinvested in various renewable energy projects including digital solutions and energy optimizations" Company RE-A interviewee.

"The profit from I-REC is very small compared to our investment in renewable energy projects, so I-REC does not have a direct effect on the acceleration of renewable energy in my opinion. However, we are doing this business because we would like to promote awareness about renewable energy to the society and be a total solution

provider of renewable energy." Company RE-B Interviewee.

Even I-REC does not have a direct impact on acceleration of renewable energy projects in Thailand, it promotes renewable energy in indirect ways by encouraging renewable energy corporates to develop initiatives related to renewable energy, promote awareness of renewable energy, and attract more global investors to Thailand, leading to Thailand's economy stimulation.

4.11 The Feed-in Tariff (FiT) Scheme for the Period of 2022 to 2030

As the Feed-in Tariff (FiT) Scheme for the Period of 2022 to 2030 for power plants with no fuel costs announced by the Energy Regulatory Commission (ERC) has a condition for the renewable energy producers that applied for electricity selling to the state that any renewable energy certificates (RECs) or carbon credit derived from the projects operating under the New RE Quota Regulations must belong to state utilities or government agencies, this research studied if it impacts or demotivates energy corporate to develop renewable energy projects.

> *"I will have no right to claim REC or carbon credit from new projects applied to the scheme. If the state claims these energy attribute certificates for the country's decarbonization goal, it will not affect I-REC supply in the market while demand would be higher. On the other hand, if the state claims them as I-REC and sells them in a bundle with electricity, it will affect supply in the market. At this moment, I think it would not impact our company much because it still seems to be an excess-demand market, but it is pity that we lost the opportunity to have more I-RECs to sell. Investing in renewable energy projects would be a bit less appealing. However, it would be acceptable for us if we receive the proper compensation for losing I-REC's right from feed-in tariff (FiT)." Company RE-A interviewee.*

5. Conclusion and Future Studies

The objective of this research was to study I-REC's role in decarbonization in Thailand and its ecosystem by researching secondary information and interviewing companies that purchased I-REC, EGAT which is the I-REC issuer in Thailand, and Innopower, its affiliate company, and renewable energy power plants that sell I-REC, to understand about I-REC from all of I-REC stakeholders' perspectives.

I-REC was widely known when EGAT announced it is a local issuer and started the I-REC business in 2020. However, its I-REC business function was transferred to Innopower in June 2022 to separate the issuer role and the commercial role. It makes I-RECs business became more liquidity. Those who want to buy I-RECs generated from EGAT'a facilities no longer need to register as I-REC participant. It saves the cost of registration and account annual fee.

The companies that are interested in I-REC are mostly multinational companies that have net zero carbon emission goals and need to use I-REC to achieve their goals at the international level. On the other hand, companies that focus on the domestic market may prefer T-VER as it is more effective in delivering the company's environment-caring image to their customers. Purchasing I-REC gives the buyers indirect benefits as it urges people in the organization to be more aware of energy saving and stimulates them to initiate energy efficiency or carbon reduction projects.

Renewable energy power plants can choose to register in either the I-REC registry or T-VER but they tend to prefer the I-REC registry because the registration process is easy and convenient, the registration fee is not expensive, and it can be claimed and accepted at the international level standards. Besides, increasing announcements of global companies' net zero goal and Thailand's pledge at COP26 confirmed their confidence that there would be market and demand for I-REC. The market did go as they expected as it is an excess-demand market currently. Marketing for I-REC is in the form of an academic approach. The pioneer players introduce I-REC to the market through mass media, seminars, and an online community for information sharing. There is no standard price for I-REC. To offer or to buy, the seller and the buyer should observe by asking directly to counterparts

and compare the price. Currently, purchasing at a big volume does not give the buyer economy of scale because I-REC demand is exceeding.

However, currently, there are approximately 200 renewable energy generating facilities registered in the I-REC registry while there are 1,048 renewable electricity projects with a total capacity of 4,025 MW in Thailand, meaning that 80% of renewable electricity projects have not joined the I-REC registry yet. What holds them from registering is considered to be a concern on the cost and market acquisition. To solve this concern, encourage more development of renewable energy and promote more supply of I-REC in the Thai market, Innopower offers VSPP companies support on the facilities registration fee, manages marketing and sale of their I-RECs, and shares profits with them.

As Thailand is a voluntary market, the I-REC price in Thailand is relatively cheap compared to the compliance market in the US. Revenue from I-RECs does not accelerate the development of new renewable energy projects but it does promote renewable energy in indirect ways. However, considering revenue from I-REC from the new renewable energy project that applies to sell the electricity to the state after 2022, it may become less appealing to invest because the Energy Regulatory Commission regulated that any RECs or carbon credit derived from the projects operating under the New RE Quota Regulations must belong to state utilities or government agencies.

In sum, I-REC seems a promising mechanism to promote decarbonization on the utilization of renewable energy at the national and international levels. However, registration costs and customer acquisition are not easy to make decisions for small scale renewable energy power plants. For this reason, a business model that offers support on the registration fee, manages marketing and sale of their I-RECs, and shares profits with the project owners should be developed. This will encourage more development of renewable energy and promote more supply of I-REC in the Thai market.

There are limitations on this research. First, a few number of interviewees who might not be representatives of all aspects. The results, however, can provide information for those who are interested to use I-REC as their decarbonization tools, renewable energy companies who are looking for business opportunities in I-REC, and brokers. This research suggests other studies to deepen and broaden these findings to further understand I-REC's role in decarbonization in Thailand by collecting data or interviewing Thai companies that purchased I-RECs, renewable energy power plants who are not in the I-REC registry or chose to do T-VER. Besides, currently, it is a transition period to renewable energy that the government is changing the regulations to make entrepreneurs can access renewable energy resources, not just the certificate, e.g., the Utility Green Tariff scheme and The FiT Scheme for the Period of 2022 to 2030. It can further study how the government takes these schemes into action, and how it will affect current players in the I-REC registry, the market, the price, and the demand and supply.

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Comparative Study of SDG Progress
in Japan and Thailand

Panchart Mitrakul*

Abstract

The Sustainable Development Goals (SDGs) have emerged as a crucial priority for governments, as well as companies across industries and sizes worldwide. The SDGs were recently adopted by the United Nations in 2015 and are intended to be achieved by 2030. Given the newness of this concept in the business world, many companies and countries are still seeking optimal approaches to achieving their SDG targets, resulting in significant disparities in opportunities and challenges. However, conducting a comparative analysis of the progress of SDGs in different countries can help identify key similarities and differences, leading to more effective solutions. This study examines the definition and purpose of the SDG concept and provides an overview of the current landscape in Japan and Thailand, followed by a detailed investigation of each country's progress. The study includes a comparative study that summarizes the factors contributing to the differences in progress and offers suggestions for governments and businesses to achieve their SDG targets.

Keywords: Sustainable Development Goals, Environment, Japan, Thailand

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การศึกษาเชิงเปรียบเทียบความคืบหน้าของเป้าหมาย
การพัฒนาที่ยั่งยืนระหว่างประเทศไทยและประเทศญี่ปุ่น

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บทคัดย่อ

เป้าหมายการพัฒนาที่ยั่งยืนกลายเป็นความสำคัญเร่งด่วนสำหรับรัฐบาลและบริษัทต่าง ๆ ทั่วโลก โดย เป้าหมายการพัฒนาที่ยั่งยืนได้รับการรับรองโดยองค์การสหประชาชาติในปี ค.ศ. 2015 และคาดหวังจะบรรลุ เป้าหมายภายในปี ค.ศ 2023 ทั้งนี้เนื่องจากเป็นแนวคิดใหม่ในโลกธุรกิจ บริษัทและประเทศต่าง ๆ ยังคงหาวิธีการ ที่ดีที่สุดในการบรรลุเป้าหมายการพัฒนาที่ยั่งยืน จึงส่งผล ให้เกิดความแตกต่างอย่างมาก ในด้านโอกาสและ ความท้าทาย อย่างไรก็ตามการศึกษาเชิงเปรียบเทียบ ของความคืบหน้าเป้าหมายการพัฒนาที่ยั่งยืน ในประเทศ ต่าง ๆ สามารถช่วยระบุความเหมือนและ ความแตกต่างที่สำคัญ อันจะนำไปสู่ทางออกที่มีประสิทธิภาพมากยิ่งขึ้น วิจัยนี้ศึกษาคำนิยามและ วัตถุประสงค์ของเป้าหมายการพัฒนาที่ยั่งยืน อีกทั้งนำเสนอภาพรวมของสถานการณ์ ปัจจุบัน ในประเทศญี่ปุ่นและประเทศไทย ประกอบกับการศึกษาเชิงลึกว่าด้วยความคืบหน้าของแต่ละประเทศ วิจัยนี้ประกอบด้วยการศึกษาเชิงเปรียบเทียบที่สรุปตัวแปรอันก่อให้เกิดความแตกต่างของความคืบหน้า และ นำเสนอข้อแนะนำสำหรับรัฐบาลและธุรกิจเพื่อบรรลุเป้าหมายการพัฒนาที่ยั่งยืน

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1. Introduction

The Sustainable Development Goals (SDGs) were first introduced by the United Nations in 2015 as global common goals to enhance the quality of all lives (such as people living in poverty, women and girls, and minorities) on earth while keeping a balance between social, economic, and environmental sustainability. These goals are aimed to be met by 2030 (Agenda 2030). The SDGs consist of 17 aspects as demonstrated in Table 1.

Table 1: 17 Sustainable Development Goals

#	Goal	Short Description
1	No Poverty	End poverty in all its forms everywhere
2	Zero Hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3	Good Health and Well-being	Ensure healthy lives and promote well-being for all at all ages
4	Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	Gender Equality	Achieve gender equality and empower all women and girls
6	Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all
7	Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable and modern energy for all
8	Decent Work and Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9	Industry, Innovation, and Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10	Reduced Inequalities	Reduce inequality within and among countries
11	Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient and sustainable
12	Responsible Consumption and Production	Ensure sustainable consumption and production patterns
13	Climate Action	Take urgent action to combat climate change and its impacts
14	Life below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15	Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16	Peace, Justice and Strong Institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17	Partnerships for the Goal	Strengthen the means of implementation and revitalize the global partnership for sustainable development

Note: Adapted from *Transforming our world: The 2030 agenda for sustainable development* by the United Nations, n.d.

This academic paper provides a broad overview of the SDGs' progress in the selected two countries. Therefore, it covers a few SDGs only, such as SDG 7, SDG 8, SDG 9, SDG 11, SDG 12, SDG 13, and SDG 14.

With the universal call issued by the United Nations, member countries also participate in the shared goals by adopting and implementing initiatives and policies to meet the goals. The approaches are different from country to country. The researcher believes every country will benefit by comparing signs of progress and adopting other countries' proven effective approaches. This will reduce the time of trial and error and will result in the acceleration of the speed toward the goals.

Among many United Nations members, this academic paper compares the situations between Japan and Thailand. The rationale behind selecting these two countries lies in their shared geographical location in Asia and the various similarities in cultures and values. This commonality suggests that adaptability may be relatively easier between them. Furthermore, the enduring history of relationships and cooperation in areas such as economics, politics, education, and cultures strengthens the foundation for this comparative study.

For instance, both countries have collaborated on economic initiatives, political strategies, educational programs, and cultural exchanges over the years. These historical connections underscore the potential for mutual learning and cross-implementation of successful approaches. By delving into the specific examples of collaborative endeavors, this paper aims to illustrate how such shared experiences can offer valuable insights. These insights, in turn, can contribute to identifying potential solutions for addressing the unique challenges each country faces in achieving Sustainable Development Goals (SDGs).

This paper begins by investigating background overviews of the SDGs, and the scope of this paper. The following sections will be devoted to exploring the two countries in focus deeply. Each section starts by providing an overview, where the current situation and progress toward Sustainable Development Goals will be discussed. The subsections will then, investigate various aspects such as government policies, initiatives, participation from private sectors, challenges, and opportunities.

In part 4, the author compares and analyzes the similarities and differences between the two countries, before summarizing and providing suggestions for each country in part 5.

Objectives

1) To better understand the current situation towards Sustainable Development Goals (SDGs) adopted by Japan, and Thailand

2) To assess the possibilities of policy transfer from one country to another, particularly examining the adaptation and implementation of successful Sustainable Development Goals (SDGs) policies and initiatives

2. SDGs in Japan

A. Overview of Japan's progress toward achieving SDGs

Japan was among the founding members of the SDGs formulation in 2015. Masakazu Hamachi, the Parliamentary Vice-Minister for Foreign Affairs of Japan, made a statement to express the country's firm determination to contribute to the success of Agenda 2030. He mentioned that Japan, as a developed country, will join hands with other countries and will commit to supporting developing countries' efforts to implement their action plans toward the SDGs by 2030. This was reaffirmed again in 2019 at the SDG summit (held every four years at the level of heads of state and government) with the purpose of accelerating their efforts to achieve the SDGs by the promised timeframe.

In 2016, the government also established a new cabinet unit body, called "the SDGs Promotion Headquarters" headed by the prime minister of Japan (Shinzo Abe, at the time of the foundation). To accomplish Agenda 2030, the central government decided to cooperate with partners, both governmental agencies and others. Japan sets the Ministry of foreign affairs to act as a main actor. In other words, the Ministry of Foreign Affairs duties include communicating and coordinating with other parties both domestically, and internationally. The examples of partners are as follows.

Government Agencies:

- Financial Services Agency

- Consumer Affairs Agency

- Ministry of Internal Affairs and Communications

- Ministry of Justice

- Ministry of Education, Culture, Sports, Science and Technology

- Ministry of Economy, Trade and Industry

- Ministry of the Environment

- Ministry of Foreign Affairs

Other organizations:

- Japan International Cooperation Agency (JICA)

- United Nations Information Centre

- UNICEF

- UNESCO

- Japan Aerospace Exploration Agency (JAXA)

- Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

- Japan Science and Technology Agency (JST)

- KEIDANREN (Japan Business Federation)

The country is to focus on accomplishing various goals, with eight priority areas, as shown in Table 2.

According to the Sustainable Development Report 2022 (Sachs et al., 2022), Japan is ranked 19 out of 163 UN country members in the SDG Index with an index score of 79.6. Japan is reported to have achieved the goals in areas relating to quality education (SDG 4), industry, innovation, and infrastructure (SDG 9), and peace, justice, and strong institutions (SDG 16). Moreover, the country is making remarkable progress in reducing poverty (SDG 1), improving populations' health and well-being (SDG 3), and enhancing decent work and economic growth (SDG 8). Yet, the country has been facing major challenges in climate-related areas, marine & freshwater and terrestrial biodiversity as seen in the Spillover Score of 67.3 (ranked 134 out of 163),

of which the progress has been reported as "stagnating" even though the country decided to put the three goals (SDG 13: Climate Action, SDG 14: Life below Water and 15: Life on Land) as three of their eight priority areas.

Table 2: Japan's eight priority areas towards SDGs

5P	Priority Areas	Related SDGs																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
People	① Empowerment of All People	✓			✓	✓			✓		✓		✓					
	② Achievement of Good Health and Longevity			✓														
Prosperity	③ Creating Growth Market , Revitalization of RuralAreas and Promoting Technological Innovation		✓						✓	✓		✓						
	④ Sustainable and Resilient Land Use, Promoting Quality Infrastructure		✓				✓			✓		✓						
Planet	⑤ Energy Conservation, Renewable Energy, Climate Change Measures, and Sound Material-Cycle Society							✓					✓	✓				
	⑥ Conservation of Environment, including Biodiversity, Forests and Oceans		✓	✓											✓	✓		
Peace	⑦ Achievement of Peaceful, Safe and Secure Societies																✓	
Partnership	⑧ Strengthening the Means and Frameworks of the Implementation of the SDGs																	✓

Note: Adapted from *Japan's Voluntary National Review Report on the implementation of the Sustainable Development* by Ministry of Foreign Affairs of Japan, 2017

B. Japanese Government policies and initiatives/ private sectors' policies toward achieving SDGs

Collaboration among the central government, local authorities, NGOs, NPOs, and private parties can be seen as Japan's unique SDGs approach. Japanese central government can be seen as having been acting as a main player in leading the country toward its goals, while also acting as a significant supporter for other parties to join hands toward common goals. In other words, instead of focusing its initiatives on a few prime cities, Japan attempt to decentralize its focus to ensure the main purpose of developing the world without leaving anybody behind. For example, Japan is known for having been struggling with a slag birthrate and rapid aging problems. The trends are expected to be worsened by the rapid urbanization. To resolve the difficulties of the population flooding in a few specific cities, Japan has decided to promote two initiatives: FutureCity and Eco-Model City.

According to Office for the Promotion of Regional Revitalization, Cabinet Secretariat (n.d.), the FutureCity (FCI or 「環境未来都市」構想) is an initiative to build sustainable human-centered cities and communities that embrace people-friendly values. The initiative aims to tackle Japan's ongoing difficulties, the environment, and the aging society. The country hopes to create "the cities "where everybody wants to live" and "everyone has vitality", taking into consideration of three values: environmental values, social values, and economic values (see Figure 1). As a foundation, the government also selected cities that have been working on high-but-achievable goals to create a low-carbon society, as a model for the rest of the country, a so-called, Eco-Model City. The two initiatives were planned nationwide and brought out the unique approach from each local city and region. As a result, Japan has obtained lists of proven-effective approaches that can be carried out from a small scale of one little village to a larger, as one province or even larger.
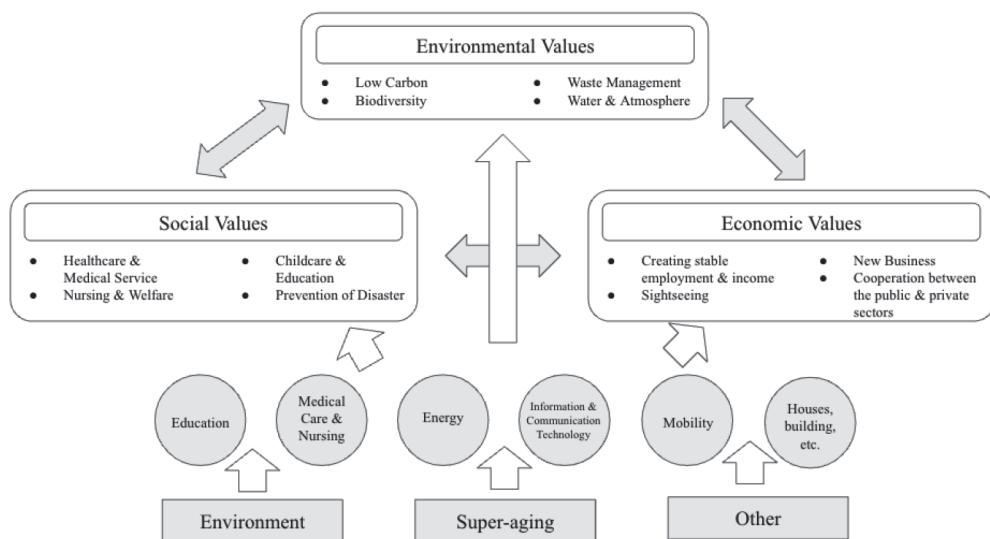
Figure 1: "FutureCity" Initiative

Note: Adapted from *Transforming our world: The 2030 agenda for sustainable development* by Office for the Promotion of Regional Revitalization, Cabinet Secretariat, n.d.

Furthermore, the government also establish an annual reward ceremony, "the Japan SDGs Award". The award, established in 2017 at the third SDGs Promotion Headquarters meeting, is an initiative to call for participation from other sectors apart from the country's central government for their noteworthy efforts to support the domestic and/or international accomplishment, of the Agenda 2030 (Ministry of Foreign Affairs of Japan, 2023). Any organizations are eligible for awards ranging from local governments and companies to NGOs/NPOs. The awards are categorized into four categories; 1. Chief's Award (by Prime Minister), 2. Deputy-chiefs' Award (by Chief Cabinet Secretary), 3. Deputy-chiefs' Award (by Foreign Minister), and 4. Special Award (SDGs Partnership Award). The SDGs Promotion Headquarters will decide the award winners and hold an annual award ceremony. The example of awarding winning organizations and their efforts are provided in Table 3.

Table 3: The Japan SDGs Award Winning Sample Cases

Organization	Award Winning	Noteworthy Efforts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Local Government																			
- TABETEレスキュー一匹売所プロジェクト共同体 (Representative): Higashimatsuyama City, Saitama Prefecture) (Translation: TABETE-Rescue Direct Sale Place Community Project) (Ministry of Foreign Affairs of Japan, 2023; Higashimatsuyama City, 2023; TABETE, 2022)	Deputy-chiefs' Award (by Chief Cabinet Secretary) - 6th Japan SDGs Award	- Reducing food waste by promoting direct sale places for unsold agricultural products, as well as, donating part of the unsold to kids' canteen projects. - Increasing farmers' income, while also reducing CO2 emissions using train transportation - Providing opportunities for students to learn about logistics and social problems.	✔			✔							✔	✔					✔
- Osaki Town, Kagoshima Prefecture (Ministry of Foreign Affairs of Japan, 2023; 大崎町, 2022)	Deputy-chiefs' Award (by Chief Cabinet Secretary) - 2nd Japan SDGs Award	- Building sustainable local community through recycling, and recycling education - Accomplishing the highest recycling rate of Japan (11 consecutive years)	✔	✔	✔	✔	✔			✔				✔					✔
Companies																			
- euglena Co., Ltd. (Ministry of Foreign Affairs of Japan, 2023; Euglena, n.d.)	Deputy-chiefs' Award (by Chief Cabinet Secretary) - 5th Japan SDGs Award	- Promoting Bangladesh's agricultural sector by providing know-how on planting and harvesting green beans - Creating jobs and increasing the income of Bangladesh farmers by purchasing harvested produce at a higher-than-market price - Profits after selling in Japan, and in Bangladesh (at the capital price) are used to invest in other support project	✔	✔						✔		✔							✔
- Ito En, Ltd. (Ministry of Foreign Affairs of Japan, 2023; Ito En, Ltd., n.d.)	Special Award (SDGs Partnership Award) - 1st Japan SDGs Award	- Accomplishing the sustainability in its entire tea-making value chain.	✔	✔		✔			✔	✔	✔			✔					
NGOs/NPOs																			
特定非営利活動法人ACE (Action against Child Exploitation) (Ministry of Foreign Affairs of Japan, 2023; Ace, n.d.)	Chief's Award (by Prime Minister) - 6th Japan SDGs Award	- Reducing and preventing child labour in India, and Ghana. - Providing education and household support for people living in poverty in aforementioned countries.	✔			✔	✔			✔				✔					
- 青森県立名久井農業高等学校環境研究班 (Translation: Aomori Prefectural Nakui Agricultural High School Environmental Research Group) (Ministry of Foreign Affairs of Japan, 2023)	Deputy-chiefs' Award (by Chief Cabinet Secretary) - 4th Japan SDGs Award	- Developing new agricultural techniques with greener and cleaner side-effects: ex. a system that simultaneously purifies lake water and produces food, foam pesticide (able to suppress the scattering of pesticides, and environmental pollution)	✔	✔				✔			✔				✔				
特定非営利活動法人 TABLE FOR TWO International (Ministry of Foreign Affairs of Japan, 2023; TABLE FOR TWO International, n.d.)	Deputy-chiefs' Award (by Foreign Minister) - 3rd Japan SDGs Award	- Promoting campaigns to help improve the quality of families living in poverty in Africa, and Asia - Proving higher education results in the countries where supports in school food are sent.	✔	✔		✔						✔							✔

Note. Data Collected by author in May 2023.

C. Challenges and obstacles in achieving SDGs in Japan

Japan, though ranked comparatively high in the worldwide SDGs ranking, still struggle to keep the environmental goals (SDG 13, SDG 14, and SDG 15) on track as all three remain major challenges.

In October 2021, the Government of Japan announced its long-term strategy to cut down its greenhouse gas (GHG) emission by 80% (or ultimately, Net Zero) by the year 2050 in accordance with Article 4 of the Paris Agreement. This is the strategy that is aimed to accelerate the recovery from the COVID-19 pandemic's impacts. The government of Japan claims that the strategy's focus is to re-design the country's economy from a linear economy based on mass production, consumption, and waste, to a circular economy. This includes an attempt to preserve biodiversity both marine and terrestrial (SDG 14, and SDG 15). Nonetheless, to accomplish net zero, Japan needs to go through a radical, yet structural transition in every aspect.

D. Opportunities for Japan to further advance in SDGs

Since Japan possesses advantages in engineering and technological knowledge, the country has the potential to achieve SDGs at a faster pace than other countries. However, in recent years, the country fails to make notable progress in the field related to the environment and climate change, leaving it with comparatively fewer goals to prioritize.

Japan's climate policy was based mainly on energy efficiency measures at every level from household, local, and corporate, up to the national level (Sugiyama et al., 2021). To completely decarbonize, Japan should diversify its strategies such as alternative sources of renewable energy, or price instruments to accelerate the speed of decarbonization. Among developed countries, Japan is claimed to take a slow start in its transition to renewable energy (Cherp et al., 2016).

3. SDGs in Thailand

A. Overview of Thailand's progress toward achieving SDGs

According to the Sustainable Development Report (2022), Thailand currently ranks 44 out of 163 on the SDG Index, with major and significant challenges still present in meeting environmental goals. Moreover, the country is also suffering from SDG 17: Partnerships for the goals as the progress is reported to decrease from the previous years. Moreover, some of the goals make no progress, i.e. SDG 2: Zero Hunger, SDG 11: Sustainable Cities and Communities, SDG13: Climate Action, SDG 14: Life below Water, SDG 15: Life on Land, and SDG 16: Peace, Justice, and Strong Institutions. Comparatively, Thailand is beating its Japanese counterpart with the Spillover Score of 86.7. Nonetheless, just like other nations, the Coronavirus pandemic has posed challenges to Thailand's economy and society, undermining its ability to achieve the SDGs (United Nations, 2021).

Bunnag (2021) states that Thailand is making notable progress in areas relating to the improvement of quality of life such as the elimination of poverty (SDG 1), enhanced quality and access to education (SDG 4), and increased availability to clean water and sanitation (SDG 6). Furthermore, they are also meeting economic development goals such as decent work and economic growth (SDG 8) and the development of industry, innovation and infrastructure (SDG 9). Conversely, other indicators relating to the environment such as climate change (SDG 13), marine life conservation (SDG 14), and land ecosystem (SDG 15) remain a challenge. The Thai government has taken action to address these challenges, including reducing the impacts of climate change, promoting sustainable consumption and production, protecting the ecosystem below water, and increasing commitment to the management of land and forests (United Nations, 2021).

B. Thai government policies and initiatives/ private sectors' policies toward achieving SDGs

To accomplish the Agenda 2030, Thailand brings together actors from different sectors, such as governmental agencies, private sectors, academia, and

international organizations. Samples of the cooperating governmental agencies are as follows.

-   Ministry of Finance
-   Ministry of Tourism and Sports
-   Ministry of Social Development and Human Security
-   Ministry of Higher Education, Science, Research and Innovation
-   Ministry of Digital Economy and Society
-   Ministry of Natural Resources and Environment
-   Ministry of Energy
-   Ministry of Commerce
-   Ministry of Interior
-   Ministry of Public Health
-   Ministry of Industry
-   Ministry of Agriculture and Cooperatives
-   The Board of Investment of Thailand (BOI)

Thailand aligns its 20-Year National Development Plans with the SDGs and follows the Sufficiency Economy Philosophy (SEP). The National Committee for Sustainable Development (CDS) has been set in place to oversee the implementation of all 17 goals within 2030, guided by the three key principles of moderation, prudence, and reasonableness (Open Development Thailand, 2018). The Alternative Energy Development Plan has also been initiated, aimed at increasing renewable energy usage to achieve a 30 percent reduction in the nation's total energy consumption within 2036. As a result, renewables have become Thailand's most prioritized form of energy (IRENA, 2017). Furthermore, the government has made efforts to mitigate greenhouse gas emissions stemming from transportation by continuously expanding the BTS Skytrain and MRT networks. As an example, in June, the Hua Mak to Samrong yellow line of the BTS was opened for testing, demonstrating the Thai government's commitment to further develop and extend the public transportation routes. This exhibits the Thai's government dedication to addressing environmental issues and promoting sustainable transportation options.

Additionally, many leading businesses in Thailand have embraced corporate social responsibility through sustainable business practices and strategies. Some companies have implemented their own projects in efforts to attain sustainable growth by transforming their manufacturing processes or focusing on the company's core values (Open Development Thailand, 2018). For example, Thai Union, one of Thailand's leading seafood companies proven sustainable business activities throughout their production process and ocean protection. They have also extended this positive influence towards their suppliers and other stakeholders, requiring them to operate in a socially responsible manner (Thai Union, n.d.).

C. Challenges and obstacles in achieving SDGs in Thailand

Thailand faces significant challenges in achieving indicators concerning the environment (SDG 2, 6, 12, 14, and 15). Over time, these challenges are inclined to exacerbate (Bunnag, 2021). Problems such as environmental degradation caused by industries and the public hinder the nation's progress toward achieving environmental sustainability goals. Reduction in single-use plastics has been a focus, but challenges such as convenience, economic factors, and limited awareness and participation hinder progress. Despite the introduction of eco-friendly materials to society, issues related to price, properties, appearance, and supply chain remain (Sedtha et al., 2022). Cultural and traditional factors, such as the Songkran Festival, also contributes to water overuse (Intason et al., 2021).

Over the past two decades, it was estimated that the fish farming industry expanded from 0.6 to 0.9 million tons. Shrimps contributed to 40 percent of the total fish farming production, followed by fish at 38 percent and mollusks at 22 percent. The fish farming industry is crucial for providing food and nutritional diets, but there are issues regarding the environmental sustainability of current practices. This sector has played a role in environmental deterioration in the form of degradation of habitat, water contamination, and adverse ecological impacts (Sampantamit et al., 2020).

D. Opportunities for Thailand to further advance in SDGs

To accelerate the progress toward achieving SDGs, partnerships between the private and public sectors are crucial. Policymakers can collaborate with researchers and NGOs to support environmentally conscious conduct, promote reuse, and condemn the use of single-use plastic (Sedtha et al., 2022). Event managers can also contribute by promoting campaigns on water saving during festivals, and increasing public awareness of water scarcity and drought issues (Intason et al., 2021).

4. Comparative analysis of SDGs in Japan and Thailand

A. Key similarities

The progress in meeting the environmental goals (SDG 13, SDG 14, and SDG 15) remains a huge challenge in both countries. To begin with, the reduction of single-use plastics was interrupted during the COVID-19 pandemic, and its lingering effect still holds. This might continue to exist until the population in both countries get more familiar with the new normal lifestyle after the pandemic. The consumption, and production in both countries are reported to be alerting as well. One of the shared reasons is that both countries need more to feed its population, while also needing to supply the world's demand of nutritional diets. This can be seen to affect SDG 14, and SDG 15.

In addition, both countries tend to regard the participation from the private sector as "voluntary". To accelerate the whole country's speed toward the goals by 2030, participation from other parties apart from the central government is recommended.

B. Key differences

As Japan is a developed country, its infrastructure has been planned and well-established long before Thailand. This might also affect the other SDGs, such as SDG 3, SDG 4, SDG 9, and SDG 11. Thailand, on the other hand, is still developing its infrastructure. This fact can be seen as a factor linking to a slower

speed to achieve each goal. For example, if Japan is to achieve decarbonization in transportation, an alternative public transportation system is already available, while Thailand is still struggling to extend the network of its low-carbon train system.

Moreover, the Japanese government is cooperating with many organizations regardless of size. In other words, local governments, local communities, SMEs, and many other small-medium size organizations, are being recognized for their effort toward the country's goal. Thailand, on the other hand, has no record of this perspective.

5. Conclusion

Lessons learned from each other's efforts toward achieving SDGs and recommendations for future action.

Although the Sustainable Development Goals (SDGs) were agreed upon at the national level, the private sector can also play a significant role in achieving them. This is because they have the resources, expertise, and innovative capacity to address relevant challenges, especially, environmental, and social challenges (Rashed and Shah, 2020; Bengtsson et al., 2018; Hacking, 2018; Frey & Sabbatino, 2017). The private sector also needs to take responsibility for the degradation of the environment and unsustainable consumption.

Corporate Social Responsibility (CSR) has been a common standard in the private sector, and it shares much in common with the SDGs. Companies' CSR reports can be seen as a participation in promoting the SDGs (Kumi et al., 2020; Palmer and Flanagen, 2016). However, as promoting the SDGs directly by the private sector is not legally binding, regulatory frameworks, subsidies, or benefits should be provided to ensure the accountability of businesses.

Apart from business sectors, both countries can call for more participants from other entities as a part of holistic cooperation. This includes local government, local communities, schools, and universities. This could result in achieving the goals in more accelerated timeframe.

Finally, two countries can extend cooperation across borders. As one country might have already proven-effective approaches that can work well with the other's conditions or situations. Achieving SDGs is the world's goal that needs to be accomplished together, therefore, sharing knowledge and expertise is strongly recommended.

The Author

Panchart Mitrakul holds an MSc in Marketing from the University of Edinburgh, UK, and a BEcon (Economics and Business Administration) from Nagoya University, Japan. He works full-time as a strategic marketing & partnership Team Lead at an EdTech startup, Degree Plus Co., Ltd. In addition to his professional career, he is also an independent scholar in the field of business management and Japanese studies. He teaches as a special lecturer at the undergraduate and graduate level in business management (with a focus on marketing, branding, and consumer behaviors), and Japanese economics & Business administration at various educational institutions. He can be reached at m.panchart@gmail.com

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Culture-Bound Elements in Thai Literary Translation:
A Case Study of Marcel Barang's Thai-English Translation Strategies

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Abstract

The purpose of this study was twofold: a) to create and propose a typology of culture-bound elements in two Thai literary texts that were translated into English by the non-Thai literary translator, Marcel Barang; and b) to deeply explore and propose a taxonomy of translation strategies that the translator adopted when dealing with culture-bound elements. The findings revealed eleven types of culture-bound elements, including: 1) Buddhism, comprising nine subcategories; 2) proper names, consisting of eight subcategories; 3) cultural artifacts; 4) figurative language, consisting of four subcategories; 5) onomatopoeic words; 6) sex, containing three subcategories; 7) swearwords; 8) music and arts; 9) greeting expressions; 10) units of measurement; and 11) others. Four types of culture-bound elements emerged from this study: figurative language, onomatopoeic words, sex, and swearwords. Regarding translation strategies, it was found that the translator adopted eleven strategies: 1) description, 2) transposition, 3) combined strategies, 4) superordinate, 5) literal translation, 6) definition, 7) transliteration, 8) reduction, 9) subordinate, 10) omission, and 11) alteration.

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The analysis of translation strategies demonstrated that foreignizing strategies were dominantly adopted in the transference of the culture-bound elements in the selected literary texts while domesticating strategies were used infrequently. It could be summarized that the translator tended to adopt a target-text-oriented style as shown in a series of efforts to facilitate the target audiences by not allowing the foreignness or strangeness of the source culture to affect their enjoyment.

Keywords: Literary Translation, Culture-bound Elements, Translation Strategies

ข้อความที่มีนัยเกี่ยวโยงทางวัฒนธรรมในการแปล งานวรรณกรรมไทย: กรณีศึกษากลวิธีการแปลนวนิยาย จากภาษาไทยเป็นภาษาอังกฤษของมาร์แซล บารังส์

เวทางค์ มาสงค์* และ อรองค์ ชาคร**

บทคัดย่อ

กรณีศึกษานี้มีวัตถุประสงค์เพื่อจำแนกข้อความที่มีนัยเกี่ยวโยงทางวัฒนธรรมที่ปรากฏในงาน วรรณกรรมไทยสองเรื่องที่แปลเป็นภาษาอังกฤษโดยมาร์แซล บารังส์ และเพื่อนำเสนอกลวิธีการแปล ที่นักแปลใช้ในการถ่ายโอนข้อความที่มีนัยเกี่ยวโยงทางวัฒนธรรม ผลการศึกษาพบว่าในงานวรรณกรรม ดังกล่าวปรากฏข้อความที่มีนัยเกี่ยวโยงทางวัฒนธรรมซึ่งสามารถจำแนกออกเป็น 11 ประเภท ได้แก่ 1) ข้อความที่เกี่ยวข้องกับศาสนาพุทธ ซึ่งประกอบด้วย 4 หมวดย่อย 2) นามเฉพาะ ซึ่งสามารถ แบ่งเป็น 8 หมวดย่อย 3) วัตถุทางวัฒนธรรม 4) ภาษาภาพพจน์ 5) คำศัพท์เลียนเสียงธรรมชาติ 6) เพศ ซึ่งประกอบด้วย 3 หมวดย่อย 7) คำสบถ 8) ดนตรีและศิลปะ 9) สำนวนในการทักทาย 10) หน่วยวัด และ 11) ประเภทอื่น ๆ ผู้วิจัยพบว่าข้อความที่มีนัยเกี่ยวโยงทางวัฒนธรรม 4 ประเภท เป็นข้อค้นพบใหม่ ประกอบด้วย ภาษาภาพพจน์ คำศัพท์เลียนเสียงธรรมชาติ เพศ และ คำสบถ เนื่องจากข้อความกลุ่มเหล่านี้ไม่ปรากฏในการจัดหมวดหมู่ของนักวิจัยคนอื่น ๆ ที่ใช้ในกรอบแนวคิด การวิจัย ในส่วนของกลวิธีการแปล ผลการวิจัยพบว่า นักแปลใช้กลวิธีในการแปลข้อความที่มีนัย เกี่ยวโยงทางวัฒนธรรมทั้งหมด 11 กลวิธี ได้แก่ 1) การขยายความ 2) การแทนที่ทางวัฒนธรรม 3) การใช้กลวิธีร่วม 4) การใช้คำที่มีความหมายกว้าง 5) การแปลตรงตัว 6) การบอกความหมาย 7) การเขียนทับศัพท์ 8) การลดข้อความ 9) การใช้คำที่มีความหมายแคบ 10) การละไว้ไม่แปล และ 11) การเปลี่ยนความหมาย ผลการวิจัยยังชี้ให้เห็นว่านักแปลใช้กลวิธีการแปลที่เน้นสร้างความเข้าใจ แก่ผู้อ่านวรรณกรรมแปล และเพื่อไม่ให้ความแปร่งทางภาษาที่เกิดจากวัฒนธรรมต้นทางมีผลกระทบ ต่ออรรถรสในการอ่านของผู้อ่านภาษาปลายทาง

คำสำคัญ: การแปลงานวรรณกรรม ข้อความที่มีนัยเกี่ยวโยงทางวัฒนธรรม กลวิธีการแปล

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1. Introduction

Literary translation is the process of decoding and interpreting the text through interaction with the author and the text. The process, therefore, is unavoidably fraught with a wide array of challenges. To illustrate, it is acknowledged that this type of translation is burdened with countless intricacies, e.g., diverse literary genres, linguistic disparities between the source and target languages, and publishers and their translating policies. As a result, literary translators are required to possess a solid understanding of the source culture in addition to a strong command of both the source and target languages in order to grapple with cultural issues ranging from lexical to discourse levels. This is due to the fact that at the heart of translation lies a thorough understanding of cultural and linguistic differences.

The translation task becomes far more complicated when translators have to deal with unmatched elements of culture, which is frequently regarded as one of the main problems encountered by literary translators. The rendition of culture-bound elements is an issue that has long been at the forefront of the discipline. As mentioned by Baker (1992), the lack of cultural concepts in the target language poses a hardship for translators. She refers to a culture-related word or expression as a culture specific item and defines it as:

The source-culture word may express a concept which is totally unknown in the target culture. The concept in question may be abstract or concrete; it may relate to a religious belief, a social custom, or even a type of food. Such concepts are often referred to as 'culture-specific'. (p. 21)

Given that cultural translation in general is by no means a simple task, the translation of culture-bound elements in literary texts is even more complicated and needs to be operated with great care. This is due to the fact that literary texts possess several linguistic peculiarities, finely blended with both society and culture. In other words, it can be said that literary translation is one of the major channels for communicating across cultures. Guerra (2012) asserts that one of the underlying factors that contribute to the translator's difficulty in transferring cultural concepts lies in the fact that "some words or phrases denoting objects, facts, phenomena,

etc. are so deeply rooted in their source culture and so specific (perhaps exclusive or unique) to the culture that produces them that they have no equivalent in the target culture, be it because they are unknown, or because they are not yet codified in the target language" (p. 1). Within the same line of thought, Nida (1964) highlights some challenges commonly encountered by the translator, concluding that differences between cultures may lead to more severe complications for the translator than differences in language structure do.

Due to the rise of cultural issues in translation studies, translation scholars and researchers have shifted their attention away from the comparative study of words and their larger units of phrases, clauses, and sentences between two languages and started to mark out the extended territory that encompasses other academic disciplines such as culture, sociology, or literary studies. The sheer bulk of research that has been carried out in order to gain a deeper insight into translation strategies used in transferring culture and classifications of culture-bound elements is indicative of increased awareness of culture and the role it plays in translation. Particularly in the translation of literary works, the translator is more likely to come across words that are culturally specific, such as taboo words, proverbs, metaphorical and idiomatic expressions. The translator's task is, then, to transfer the source culture to the readers of the target text, which is considered one of the most challenging aspects of translation (Baker, 1996; Larson, 1984). As contended by Al-Masri (2009), literary translation involves not only the transfer of linguistic structures and the equivalence of meaning; rather, it is a multi-level study of content, context, semantics, and pragmatics. To date, several translation scholars have postulated different strategies to cope with culture-bound elements. Several taxonomies of translation strategies have been developed and proposed. These include Baker's (1992) eight strategies, Newmark's (1988) eighteen strategies, Guerra's (2012) fifteen strategies, Chesterman's (1997) thirty strategies, Díaz-Cintas and Ramel's (2007) nine strategies, and Ranzato's (2013) ten strategies. Each classification of strategies is elaborated in greater detail in the second chapter.

In Thailand, despite a huge number of studies that have been done on translation strategies, there are very few studies examining the translation strategies used, particularly in the field of literary translation (Asawawongkasem, 2015; Kebboonkerd, 2014; Prateepachitti, 2014). Likewise, a dearth of attention has been paid to strategies adopted in rendering culture-bound elements when compared to the analysis of translation strategies in other spheres. Few researchers have conducted research and analysis to better understand how translators deal with culturally rooted words, and the number of those who have examined Thai literary works translated into English is relatively small.

Among those working on Thai-English translation, Manketwit (2010) analyzed culture-bound elements in the novel *Si Phaendin* and its translation, *Four Reigns* (translated into English by Tulachandra). His analysis of translation strategies drew mainly on Nord's Discord Analysis and Venuti's concepts of foreignization and domestication, and his classification of culture-bound elements was based solely on Newmark's (1988) classification. The findings revealed 18 cultural themes and four main translation strategies. The most frequently used strategy was transliteration and the least was cultural substitution. However, restrictions were placed on his excessive reliance on a particular taxonomy or classification, thereby limiting the way he interpreted the data. Moreover, despite several advantages, Newmark's (1988) classification has been castigated for being too rigid and for its lack of contextualization (Kwieciński, 2001; Mailhac, 1996). If the researcher had incorporated other taxonomies and classifications into his research study, he might have gained deeper insights into the topic.

To shed a new light on the typology of culture-bound elements in Thai literary texts and the classification of translation strategies, the researcher conducted this case study with the aim of categorizing culture-bound elements existing in Chart's Korbjitti's literary works, and analyzing how those culture-bound elements were transferred across cultural barriers by the non-Thai translator, Marcel Barang. The first text that was scrutinized along with its translation is *Khamphiphaksa* –first published in Thailand in 1981 and translated into English under the title *The Judgment* (2007).

The novel won the S.E.A. Write Award in 1981. The second text is a short novel called *Ma Nao Loi Nam*, first published in Thailand in 1987 and translated into English under the title *Carrion Floating By* (2010). Specially grounded in Thai culture, the selected literary works in this study are truly like two mirrors that reflect people's lives in urban and rural societies. Regarding the translator, Marcel Barang was a famed literary translator who contributed markedly to the promotion of Thai literary works in the global arena, helping open the door to a wider readership in the English and French languages. In this case study, the researcher also explored Marcel Barang's translation ideology to see whether he, as a non-Thai translator, tended to subscribe to the idea of domestication or foreignization. Through a thorough analysis of the strategies he adopted when dealing with culture-bound elements in the source texts, the researcher could, to some degree, detect the translator's ideologies and preferences.

The findings of this study could broaden perspectives on the complexity of culture-bound elements in Thai literary texts and provide new insights to the act of transferring cultural concepts to the target readership. Up to the present, there have been a dearth of research undertaken to explore translation strategies used in translating Thai fiction into English with a focus on the source and target cultures. However, there have not been any studies done to examine the translation strategies adopted by a foreign translator who rendered Thai literary works into English. Additionally, in the researcher's viewpoint it is intriguing to explore whether there is a tendency for the French born translator to adopt translation strategies that fall under the umbrella of domestication to facilitate the target audience in the West.

2. Research Questions

RQ1. What types of culture-bound elements are used by the author of the selected novels?

RQ2. What strategies are employed in the translation of Thai culture-bound elements in the selected novels into English?

3. Review of Literature

3.1 Culture-bound Element Defined

When it comes to the process of defining the term '*culture-bound element*' to distinguish it from words in general, there is a great variation in the way it is viewed and defined. Several scholars have based their definitions on the lack or non-existence of cultural concepts in the target language and the sense of culture is deeply rooted in a particular cultural system (Aixela, 1996; Baker, 1992). To fully comprehend the meaning of a culture-bound element, we must return to its definition when discussing it. As Aixela (1996) defines:

> a culture-specific reference is defined as a textually actualized item whose function and connotations in a source text involve a translation problem in their transference to a target text, whenever this problem is a product of the non-existence of the referred items or of its different intertextual status in the cultural system of the readers of the target text. (p. 58)

Based on the definition above, challenges in translating cultural concepts are attributed to two factors indicated at the end of his definition: the non-existence of the referred items and its different intertextual status in the cultural system of the target-text reader.

In the same vein, Olk (2013) offers a broad definition with a heavy focus on the non-existence of objects or concepts in the target culture. He adopts the term "cultural reference" and refers to it as

> those lexical items in a source text which, at a given point in time, refer to objects or concepts which do not exist in a specific target culture or which deviate in their textual function significantly in denotation from lexical equivalents available in the target culture. (p. 234)

Another term that is widely used among several scholars (Johnson, 1976; Cuddon & Preston, 1999; Ranzato, 2013) to refer to the cultural concept pertaining

to translation is '*allusion*'. As defined by the Penguin Dictionary of Literary Terms, a broad definition of allusion is as follows:

> An implicit reference, perhaps to another work of literature…it is often a kind of appeal to a reader to share some experience with the writer. An allusion may enrich the work by association (q.v.) and give it depth. When using allusions, a writer tends to assume an established literary tradition, a body of common knowledge with an audience sharing that tradition, and an ability on the part of the audience to pick up the reference. (Cuddon & Preston, 1999)

Furthermore, Johnson (1976) highlights that the importance of allusions in literature lies in the ability to form new literature based on the old one. Ranzato (2013) expands on the concept, stating that allusions engage the reader in a reconstruction by alluding to partially hidden meanings that the reader should be able to get and then use in order to gain a deeper understanding of the work. It is believed that once readers become accustomed to an allusion, they tend to gain deeper insight into a text—meaning that they, in some ways, take part in the process of creating the text. The readers' role, then, is equal to that of the author. In relation to cultural concepts, culture-bound elements or culture-specific items are subsumed under allusions (Kosunen & Väisänen, 2001).

Drawing on the above definitions, the operational definition of a culture-bound element in this study was crafted as follows:

> *Culture-bound elements refer to culturally marked lexicons denoting objects or concepts (e.g., art, social events, values, customs, beliefs, practices, ideas, plants, animals, places, people and institutions) which are peculiar to the source culture or whose meanings deviate, to a certain degree, from their counterparts in the target culture—thus leading to a variety of complications in translating them into the target language. These elements also include such culture-bound linguistic expressions as metaphors, slang, idioms, proverbs, swear words, offensive and taboo words, euphemisms, onomatopoeic*

words, proper names, and wordplay, which cannot be literally translated to the target language.

3.2 Classifications of Culture-bound Elements

In relation with the classification of culture-bound elements, it is worth noting that every proposed classification has its own merits and demerits, and the purpose of this study is not to seek the perfect classification. Rather, it was aimed at developing a comprehensive one that can be applied to the analysis of Thai literary translation. As mentioned by Pedersen (2007), striving to formulate an exhaustive classification of culture-bound elements is nothing but a utopian and futile act. Variations in taxonomies are largely due to theorists' perspectives on cultural elements and their purposes. Below are classifications of culture-bound elements that have been put forward by well-known translation scholars and researchers.

To begin with, Newmark (1988) divides culture-bound elements into five categories: 1) ecology (including flora, fauna, and geography); 2) material culture (including food, clothing, housing, town, and transportation); 3) social culture (i.e. leisure activities, sports, and games); 4) social organization (i.e. historical terms, international terms, religious terms, and artistic terms); and 5) gestures and habits.

The second categorization was put forward by Díaz-Cintas and Remael (2007). It comprises three main categories, including: 1) geographical references (which were further split into physical geography, geographical objects, animal and plant species); 2) ethnographical references (including objects used in daily life, work, art and culture, descent, and measures); and 3) socio-political references (including administrative units, institutions and functions, socio-cultural life, and military institutions and objects).

Third, Pedersen (2007) proposed twelve categories: 1) weights and measures; 2) proper names (i.e. personal names; geographical names; institutional names; and brand names); 3) professional titles; 4) food and beverages; 5) literature; 6) government; 7) entertainment; 8) education; 9) sports; 10) currency; 11) technical materials; and 12) others.

The fourth categorization was postulated by Antonini and Chiaro (2005). It is composed of ten categories: 1) institutions; 2) education (schools, tests, grading systems, sororities, cheerleaders); 3) names of places; 4) measurement; 5) monetary systems; 6) national sports and pastimes; 7) food and drinks; 8) holidays and festivities; 9) books, films, and TV programs; and 10) celebrities and personalities.

The next categorization, by Nedergaard-Larsen (1993), comprises four categories: 1) geography (i.e. geography, meteorology, biology, cultural geography); 2) history (buildings, events, and people); 3) society (i.e. industrial level or economy, social conditions, ways of life or customs); and 4) culture (i.e. religion, education, media, and leisure activities).

The last categorization was presented by Manketwit (2010). It consists of eighteen categories, including: 1) music; 2) objects; 3) arts; 4) colors; 5) food; 6) politics; 7) social conduct; 8) beliefs; 9) people; 10) costumes; 11) rituals and traditions; 12) geography; 13) royal words; 14) religion; 15) currency; 16) exclamation; 17) places or locations; and 18) others.

3.3 Conceptual Framework for the Categorization of Culture-bound Elements

As can be seen above, culture-bound elements encompass a variety of aspects of human life, ranging from tangible to intangible entities. To investigate the translation of culture-bound elements, it is necessary for the researcher to break them into smaller and more manageable units. It is patently clear that there are several overlapping categories in the categorizations proposed by the aforementioned scholars. To cope with these overlaps, the researcher based his classification on Aixela's (1997) broad categorization, which separates culture-bound elements into two major groups, namely proper names and common expressions. The former includes names that do not have meanings as well as names with historical and cultural connotations. The latter category "covers the world of objects, institutions, habits, and opinions restricted to each culture and cannot be included in the field of proper names" (p. 59).

Upon completion of consolidating proper names proposed by the scholars and researchers above, they were divided into eleven categories based primarily on their shared attributes, including: 1) geography; 2) places and location; 3) plants and animals; 4) people; 5) leisure activities; 6) food and drinks; 7) institutions; 8) entertainment; 9) occupation; 10) rituals and ceremonies; and 11) others. Each category was consolidated from existing categories proposed by scholars and researchers in the field, namely Newmark (1988), Díaz-Cintas and Remael (2007), Pedersen (2007), Antonini and Chiaro (2005), Nedergaard-Larsen (1993), and Manketwit (2010).

In relation with common expressions, the classification was based on the preconceived categorizations by taking their similarities and differences into consideration. Newly developed categories of common expression were used as the framework for the categorization of culture-bound elements in this study. Upon completion of the analysis, common expressions were divided into eight categories as follows: 1) society; 2) education; 3) religion; 4) music and art; 5) units of measurement; 6) cultural artifacts; 7) politics; and 8) others. Like the categorization of proper names, each category was developed from existing categories proposed by scholars and researchers in the field, namely Newmark (1988), Díaz-Cintas and Remael (2007), Pedersen (2007), Antonini and Chiaro (2005), Nedergaard-Larsen (1993), and Manketwit (2010).

3.4 Translation Strategy Defined

The concept of translation strategy is still regarded as vague and unsettled. Although extensive research has been carried out on the topic, it seems that theorists and researchers in the field of translation have not yet reached a consensus on its definition and scope (Chesterman, 1997; Hejwowski, 2004; Lörscher, 1991). The complication lies in the fact that the term '*translation strategy*' per se is used to describe different concepts, and in the meantime, there are several terms being used to express the same meaning.

According to Krings (1986), translation strategy is defined as " the translator's potentially conscious plan for solving concrete translation problems in the framework of a concrete translation task" (p. 18). In a similar vein, Lörscher (1991) defines a translation strategy as "a potentially conscious procedure for the solution of a problem which an individual is faced with when translating a text segment from one language to another" (p. 76). By such a definition, the notion of consciousness plays a role in the translator's choice of translation strategies. Later, the definition is expanded by Hejwowski (2004), who construes translation strategy as "a translator's (consciously or unconsciously) preferred procedure within an entire text or its significant passages" (p. 76). What is interesting in the above definitions is the bond between conscious procedures and tasks of problem solving. He further makes a distinction between the terms '*translation strategy*' and '*method*', stating that the latter involves "the choice of a solution to a specific problem encountered during the translation process". The terms method and procedure are employed by the following scholars: Vinay and Darbelnet (2000), and Newmark (1988). Focusing on the former, translation method is subdivided into literal translation and oblique translation. As mentioned in the previous section, the latter enumerates eight translation methods which are subsumed under two opposing poles: semantic translation and communicative translation.

For the purposes of this study, the operational definition of translation strategy is as follows:

> *A translation strategy is defined as a conscious or unconscious procedure whereby the translator analyzes culture-bound elements in the source text and seeks proper solutions to transfer the intended message to the target text readers.*

3.5 Classifications of Translation Strategies

Over the past decades, a substantial effort has been made to develop the most comprehensive taxonomy of translation strategies. There have been a vast number of studies focusing on categorizing translation strategies used for

the transfer of culture-bound elements. A number of translation scholars have proposed their taxonomies of translation strategies that can be applied to overcome cultural challenges in translation.

The first taxonomy was developed by Newmark (1988). Eighteen strategies are included, namely 1) transference; 2) naturalization; 3) cultural equivalent; 4) functional equivalent; 5) descriptive equivalent; 6) synonymy; 7) through-translation or calque; 8) shifts or transpositions; 9) modulation; 10) recognized translation; 11) translation label; 12) compensation; 13) componential analysis; 14) reduction and expansion; 15) paraphrase; 16) couplets; 17) notes, additions, and glosses; and 18) other procedures.

Secondly, Baker's (1992) taxonomy is composed of eight strategies, including: 1) superordinate; 2) neutral or less expressive words; 3) cultural substitution; 4) loan words or loan words plus explanation; 5) paraphrase (related words); 6) paraphrase (unrelated words); 7) omission; and 8) illustration.

The third was proposed by Díaz-Cintas and Remael (2007). It consists of seven strategies: 1) loan words; 2) calque; 3) explicitation; 4) substitution; 5) transposition; 6) lexical recreation; 7) compensation; 8) omission; and 9) addition.

Fourthly, eleven strategies are included in Ranzato's (2013) taxonomy, namely 1) loanwords, 2) official translation, 3) calque, 4) explication, 5) generalization by hypernym, 6) hyponym, 7) substitution, 8) lexical recreation, 9) compensation, 10) elimination, and 11) creative addition.

The last category was developed by Pinmanee (2019). It comprises nine strategies: 1) transliteration (being further divided into three subcategories: transliteration with a definition in the text, and transliteration with a definition in brackets, transliteration with an explanation in the text); 2) calque or literal translation; 3) condensing or omitting; 4) addition; 5) generalization; 6) particularization; 7) equivalence; 8) cultural substitution; and 9) notes or glossaries.

3.6 Conceptual Framework for the Classification of Translation Strategies

As shown in the taxonomies presented above, many translation strategies have been proposed by notable scholars in the field, including Newmark (1988), Baker (1992), Díaz-Cintas and Remael (2007), Ranzato (2013), and Pinmanee (2019). However, there appears to be a substantial overlap between many of these strategies. Several of them bear a high degree of resemblance but are labeled differently. Some are further divided into several subcategories. Taking their similarities into consideration, the researcher formulated a conceptual framework for the classification of translation strategies in this study based on the existing taxonomies. The description of each translation strategy is presented below.

The first strategy was consolidated from Baker's (1992) paraphrase by using unrelated words, Díaz-Cintas and Remael's (2007) compensation and addition, Pinmanee's (2019) addition and notes, Ranzato's (2013) compensation, and Newmark's (1988) functional equivalent, paraphrase, expansion, compensation, and notes and additions. This strategy is used primarily to facilitate target-text readers by providing them with additional information does not appear in the source text. The term **description** is used throughout this study.

In consideration of their shared attributes, Newmark's (1988) transference, Baker's (1992) loan words, Díaz-Cintas and Remael's (2007) loan words, Ranzato's (2013) loan words, and Pinmanee's (2019) transliteration can be clustered into one strategy since all of them are aimed at expressing how words in the source language are pronounced by using the alphabet of the target language. The term **transliteration** is used throughout this study.

Literal translation involves a range of strategies that are used to translate culture-bound elements in a literal or word-for-word way. These strategies include Newmark's (1988) through-translation (calque) and recognized translation, Díaz-Cintas and Remael's (2007) calque, Ranzato's (2013) official translation and calque, and Pinmanee's (2019) calque or literal translation.

Transposition entails the replacement of a culture-bound element (e.g., an idiomatic expression, a proverb, or a metaphor) in the source text with the one that is rooted in the target culture. Taking their function into consideration, Newmark's (1988) cultural equivalent, Baker's (1992) cultural substitution, Díaz-Cintas and Remael's (2007) transposition, Ranzato's (2013) substitution, and Pinmanee's (2019) cultural substitution can be grouped under the same category.

Superordinate is concerned with the translator's use of a term whose meaning is broader than the original. Four strategies proposed fall under this category, including Baker's (1992) superordinate, Ranzato's (2013) generalization by hypernym, Pinmanee's (2019) generalization, and Díaz-Cintas and Remael's (2007) explicitation.

Subordinate involves the use of a word or expression in the target language that has a less expressive or specific meaning. This strategy was developed based on three strategies: Baker's (1992) neutral or less expressive words, Ranzato's (2013) hyponym, and Pinmanee's (2019) particularization.

Omission is included in Baker's (1992) and Díaz-Cintas and Remael's (2007) taxonomies of translation strategies. This strategy functions in the same way as Ranzato's (2013) elimination and Pinmanee's (2019) omitting. Though labeled differently, all of them occur when the source text is not transferred to the target-text reader.

Definition occurs when the translator provides the meaning of a word deemed to be specific to the source culture. It is based on Ranzato's (2013) explication, Pinmanee's (2019) glossaries, and Newmark's (1988) glosses.

Newmark's (1988) reduction and Pinmanee's (2019) condensing can be grouped together since both of them involve the condensation of the source text into a relatively shorter target text. This means that the source text is partially translated. The term **reduction** is used throughout this study.

Lexical recreation involves the coining of a new term or expression. This strategy is used when there is no equivalent term in target language. It was developed from Díaz-Cintas and Remael's (2007) and Ranzato's (2013) lexical recreation.

Others include the translation strategies that cannot be included in the above-mentioned strategies. Each of them is used differently for a specific purpose. Though not classified as the main strategies, they will still be considered and used as guidelines in data classification processes. The strategies that fall under this strategy include: Newmark's (1988) naturalization, synonymy, shifts or transpositions, modulation, translation label, componential analysis, and couplets; Baker's (1992) illustration; Ranzato's (2013) creative addition; and Pinmanee's (2019) equivalence.

All of the translation strategies presented in this section have been developed with the aim of transferring cultural concepts inherent in the source text to the target audience. They range wildly from the strictest strategy, which attempts to adhere to the source language's syntactic structures and lexicons, to the freest translation strategy like description or transposition. All of the strategies presented above were developed based on the preexisting ones and will be used as the framework for the analysis of translation strategies in this study.

3.7 Previous Studies

This section is concerned with previous research studies that have been carried out to explore translation strategies used in tacking problems caused by culture-bound elements. Key findings of studies conducted in Thailand and elsewhere were summarized and presented below.

White (2016) investigated the English translation of culture-bound elements in the subtitles of Francophone films selected from France, Quebec, and Senegal. The study also entails difficulties encountered by the translators when dealing with culture-bound elements that are specific to the French, Quebec, and Senegalese cultures. One of the researcher's purposes is to seek out the appropriate strategies that the translators utilized in order to preserve the original meaning of the source text. A typology of culture-bound elements was developed as part of the theoretical framework, consisting of eight categories as follows: 1) food references; 2) historical references; 3) political references; 4) educational references;

5) pop culture references; 6) vulgar language; 7) sexual references; and 8) linguistic differences. Further, four types of translation strategies or solutions (i.e. literal translation, equivalence, omission, and keeping the original) were presented and used in the coding of the elements.

All of the culture-bound elements were extracted from the subtitles and then coded according to their types and translation strategies. With respect to the rendering of food references, it was found that literal translation is used the most and the least frequently used strategy is omission. Regarding historical references, it was found that the strategy of keeping the original ranks first—followed by equivalence, omission, and literal translation. Interestingly, equivalence is the most frequently used strategy in the translation of vulgar language and references related to politics, education, and sex. Keeping the original is the least used strategy for the translation of vulgar language and references relating to politics and sex. Conversely, it is employed the most in the translation of pop culture references. Despite its high frequency of use in the translation of food references, literal translation is not used at all in rendering pop culture references.

In 2012, Bendus investigated cultural bumps in animated movies dubbed from English to Ukrainian. The dubbing scripts from five American movies were analyzed with a heavy focus on the transfer of extra-linguistic culture-bound elements. It was found that in addition to the common types of references existing in several previous studies, i.e. geographical, historical, or social studies, the researcher uncovered 'intertextual references with other texts from the original context'. These include the commonplace expressions, paralinguistic issues, and non-verbal codes. This finding broadens the concept of extra-linguistic typologies in which greater emphasis has been placed upon the investigation of written texts, not oral texts. Added to this, several functions of extra-linguistic culture-bound elements were found in the films. These functions include geographical, historical, folklore, fable, and fairy-tale anchoring (the basic function of ECRs: they set the story in its geographical and historical contexts); characterization (e.g., idiosyncratic characters) and; humor (created through the use of intertextuality, situational context, etc.).

In relation to translation strategies, the findings revealed five strategies adopted in rendering extra-linguistic references, namely retention, direct or literal translation, generalization, substitution, and omission. Among others, retention is regarded as the most source language-oriented strategy with high fidelity to the source language. However, there might be some adjustments in order to meet the target language's conventions. The findings indicated that a vast majority of proper names in the movies were translated via this strategy. The second strategy, direct or literal translation, is frequently used for transferring the names of organizations, governmental entities, or technical gadgetry. In this study, its frequency of use ranks first in two movies: *Ratatouille* and *How to Train Your Dragon*. Regarding the third strategy, generalization basically refers to the use of words that are more general in the target language. The findings revealed a few instances being translated by this strategy. Next, substitution is the most frequently used strategy in this study. It involves either removing the extra-linguistic culture-bound element in the source language or replacing it with an extra-linguistic culture-bound element existing in the target language. The target language readers are familiar with the elements used in translations and feel the naturalness of the language. Hence, it is directed toward the domestication approach. Lastly, the omission strategy involves the replacement of the source text with nothing. Its frequency of use throughout the whole five films is very low. In general, this strategy is used only when other strategies do not seem to work effectively or in some special cases, e.g., translating taboo or obscene lexical items.

To explore local studies that focused on the analysis of strategies used in translating varying types of culture-bound elements, four studies conducted by Thai researchers were reviewed below. In her dissertation, Kebboonkerd (2014) investigates translation strategies used in transferring the Afghan culture existing in the Thai version of *The Kite Runner*, the novel translated from English into Thai. In addition, the translator's opinions and attitudes towards the issue of culture in literary translation were also scrutinized. The investigation relied primarily on Nord's (1997) functional approach to translation (focusing especially on extratextual and intratextual factors), Larson's (1984) translation approach and Tomlinson and

Lynch-Brown's (as cited in Kebboonkerd, 2014) notions of children's literature. In her study, 142 culture-bound words were systematically analyzed. The researcher classified the culture-bound elements into four themes based on the category of culture created by the Office of the National Culture Commission: humanities, arts, domestic arts, and sports and recreation.

It was found that two major translation strategies were employed: using loan words and cultural substitution. The former (n=68) could be further divided into two sub-strategies, including the use of loan words blended with Thai modifications or the loan-blend strategy (n=17) and the use of loan words without Thai modifications (n=51). Some examples of the loan-blend strategy are as follows. The religious term *Dhul-Hijjah* was translated into Thai as 'เทศกาลดัลฮิยะห์' (back-translated as Dhul-Hijjah Festival). Another example is the translation of the term *Shirini-khori*, which was rendered into Thai as 'พิธีชิรินิ-โฮรี' (back-translated as *Shirini-khori Ceremony*). Clearly, the words 'เทศกาล' (literally, festival) and 'พิธี' (ceremony) were added to the ceremony's name in an attempt to provide the target text readers with a clearer picture of the culture presented. The latter strategy involves cultural substitution (n=16). The researcher found that certain Afghan culture-bound elements could be substituted with Thai words. For instance, the term 'ครับ' (a particle for male speakers that is used to indicate politeness) was used in place of the word '*balay*' in the source text. Furthermore, the term '*namaz*' was translated as 'การละหมาด' (which literally means the Islamic prayer in the Thai Muslim context). Both words refer to the same religious practice that is regarded as a form of worshiping Allah. In fact, the practice is widely seen in Muslim communities in Thailand (mainly in the three southernmost provinces of the country). As clearly illustrated in the frequency of strategies used in translation, the use of loan words, which falls under the foreignization approach, constitutes 35.9% while strategies under domestication (i.e. the loan-blend strategy and cultural substitution) make up 11.9% and 11.2% of the total culture-bound elements being translated. It can be stated that the translator's preference rests on foreignizing and retaining the sense of Afghan culture in his translation.

Another attempt to categorize culture-bound elements and classify translation strategies was made by Sahaphongse (2011). In her study, the analysis was based on strategies used in translating culture-bound elements in the children's literature *Little House Series*. The novel was translated from English into Thai by Sukhontharot. A total of 193 culture-bound elements and their respective translations were detected and analyzed to identify the translator's strategies. The categorization of culture-bound elements was based on Newmark's (1988) taxonomy of translation strategies. In a similar fashion to Kebboonkerd (2014), the researcher adopted Nord's functional approach to translation and Larson's translation approach as the theoretical framework.

The findings revealed four main strategies, including transference or loan words (48%), neutralization (28%), cultural substitution (14%) and literal translation (9%). The use of transference (n=159) is subdivided into two types: transferences used with and without Thai modifications, which constitute 41% and 7% respectively. Literal translation (n=29) is the least used strategy. According to Sahaphongse (2011), the use of transference plus explanation plays a key role in bridging the gap between the two cultures and helps the target text readers absorb the intended message better than the use of transference or loan words alone. However, both strategies serve as tools to preserve the local color of the word in the source language. Further, literal translation is relatively unpopular and tends to pose major challenges to readers, especially when contextual clues are not provided in the text.

Another study that focused on the translation of culture-bound elements in Thai literature was undertaken by Manketwit (2010). In his study, culture-bound elements in the novel *Four Reigns* (*Si Phaendin*) and its respective translations were analyzed to identify the translator's strategies. His analysis was based primarily on Nord's Discourse Analysis and Venuti's translation approach, i.e. foreignization and domestication. In his study, a total of 205 culture-bound elements were analyzed and put into categories. To achieve this, Newmark's (1988) typology of culture-bound elements was adopted; however, several thematic topics were established to make his analysis more comprehensive. As mentioned earlier in the previous section,

this classification includes 18 thematic topics, including music, objects, arts, colors, food, politics, social conduct, beliefs, people, costumes, rituals, and traditions, geography, royal words, religion, currency, exclamation, places or locations, and others.

Regarding translation strategies, it was found that four main strategies were used in rendering culture-bound elements. These strategies include literal translation (8%), transliteration or loan words (74%), cultural substation (7%) and explanation (11%). It appears that the translator's translational ideology is geared towards a foreignization approach. The vast majority (n=152) of culture-bound elements were translated using the transliteration method. Fundamentally, the essence of foreignization rests on resisting the cultural dominance of the target culture and retaining certain values in the source culture. In this case, the translator's underlying reasons might be that he prefers to keep the cultural sense of the source text and convey certain cultural aspects to the target text readers rather than facilitate their flow of reading.

In 2009, Charoennitniyom undertook a study to investigate translation strategies used in conveying Thai cultural words and phrases in Phillip Cornwel-*Smith's Very Thai: Everyday Popular Culture*. In her study, the researcher compiled 341 words and phrases related to Thai culture. The cultural elements investigated in this study involve not only terms related to food or traditions, but also general principles and values in daily life. The findings revealed four main strategies used in conveying Thai culture including description, word-for-word or literal translation, cultural substitution, and transliteration. The most frequently used strategy is description—constituting 36.8% of the total, and the least frequently used is transliteration, which represents 15.29%. The frequency of the other two strategies, i.e. literal translation and cultural substation, is 17.7% and 30.1% respectively. The description technique presented in this study involves the use of generic words to describe the element's characteristics or functions. In some cases, further explanation or contextual clues may be provided to ensure that the intended readers fully understand the element. The example of this strategy is presented as follows: "Kathoey, derived from the Khmer word for 'different', originally embraced all

sexual minorities, including transvestites, hermaphrodites, and lesbians. Since the 1970s, that definition has progressively narrowed to mean extreme effeminacy" (p. 76). The information in quotation marks is presented not only to provide essential clues to the readers to help them grasp the concept, but also trace the origin and development of the term. In relation to literal translation, it was reported that this translation strategy is often used in combination with other strategies since it tends to fail to convey the intended meaning if used alone. For instance, the writer uses the term '*thaokae*' in the text and provides its meaning in brackets as follows: "*My thaokae (a Chinese shop owner) is responsible for all costs.*" Transliteration, as defined in this study, involves the use of Thai words plus adjectives or nouns to modify the element. The use of loan words alone is not subsumed under this strategy. As shown in the following examples: '*nang kwak lady talisman*', '*jongkraben sarong*' and '*krabi-krabong stick-wielding*', Thai terms are presented in italics, and the underlined parts are added to provide definitions or explanations in English.

Obviously, the vast majority of culture-bound elements were foreignized by using transliteration or loan words. This strategy was adopted widely in three studies undertaken by Kebboonkerd (2014), Sahaphongse (2011) and Manketwit (2010). As a foreignizing strategy, transliteration basically aims to express how culture-bound elements in the source language are pronounced by using the alphabet of the target language, not to convey the author's intended message. However, in Kebboonkerd's (2014) study there was an attempt to lessen the degree of foreignization, as shown in the use of loan words blended with Thai modifications. It is interesting that a small portion of domestication (cultural substation, explanation, and description) was adopted by Thai translators. The findings from the above studies shed light on the translators' orientation, which tends to retain the color of the source culture and makes the readers realize that they are reading a text translated from another language, not an original text**.** Therefore, naturalness and fluency might not be their priorities.

Based on the literature review, it appears that more research should be conducted to shed new light on Thai-English literary translations. What stands out

in this case study lies in the translator's identity—born, raised, and educated mainly in the target culture. It is worth exploring whether Marcel Barang tended to adopt domesticating strategies (e.g., replacing unfamiliar elements in the selected novels with domestic variants) to help his readers approach the texts with ease and familiarity or to preserve the color of the original texts and disregard any potential barriers of reception.

4. Methodology

To answer the first and second questions (*RQ1. What types of culture-bound elements are used by the author of the selected novels?* and *RQ2. What strategies are employed in the translation of culture-bound elements in the selected novels from Thai to English?),* two conceptual frameworks were developed from existing categories of culture-bound elements and classifications of translation strategies that were proposed by famed scholars and researchers in the field.

4.1 Qualitative Content Analysis

After completing the development of the two conceptual frameworks, the researcher conducted a content analysis of the source text to identify and categorize Thai culture-bound elements in the two novels. The same analysis method was then applied to analyze the culture-bound elements and their respective translations, with the aim of identifying and classifying the translation strategies that were adopted by the translator.

In general, qualitative content analysis can be divided into three different approaches: conventional, directed, and summative (Hsieh & Shannon, 2005). Having considered the pros and cons of each approach, the researcher decided into adopt the directed approach as the main method for categorizing culture-bound elements in Thai literary texts and for classifying translation strategies adopted by the translator. As a deductive approach, directed content analysis relies largely on an existing theory or framework. Essentially, it utilizes data to support or build upon that theory. Coding was utilized as a primary tool for this qualitative content analysis. In the categorization of culture-bound elements, the predetermined codes

(i.e. categories and subcategories of culture-bound elements listed in the categorization framework) were assigned to culture-bound elements that were extracted from the texts. Those that cannot be coded, because they cannot be put under any category, were identified, analyzed, and developed into a new category or a subcategory of an existing one. In a similar vein, in the classification of translation strategies, the predetermined codes included translation strategies in the classification framework. Preexisting and open codes were utilized during the process of strategy identification. The former included translation strategies listed in the framework while the latter included those that emerged out of the data. Through the discovery of new categories and strategies, the typology of culture-bound elements and the taxonomy of translation strategies proposed in this study would be a true reflection of Thai culture in literary texts and the ways in which the translator handles it.

4.2 Data Collection

In this case study, the qualitative data to be collected were separated into two main parts: 1) data for the categorization of culture-bound elements; and 2) data for the classification of translation strategies. The collection of both types of data involved the examination of texts under investigation. To collect the former type of data, the researcher familiarized himself with the data by reading the original texts thoroughly. A data mining method was employed to extract culture-bound elements from the two novels. While reading, particular attention was paid to any choices of words or expressions that were specific to Thai culture. The words or expressions that were deemed to be in accordance with the operational definition of a culture-bound element were highlighted and extracted. All of the extracted words and expressions were arranged in order of occurrence and used as raw data in the process of measuring intercoder reliability.

Since the identification of culture-bound elements was conceived of as an intuitive and subjective process, the researcher employed inter-coder reliability or inter-coder agreement as a primary tool to distinguish culture-bound elements from general words. The assessment form was developed in order to measure intercoder

reliability. It consisted of a total of 249 words and expressions extracted from the texts being analyzed. Next, the researcher contacted two qualified lecturers working at different universities and asked whether they were interested in joining this research project as examiners. Both of them were willing to be part of this study. They were informed about the background and objectives of this study. Detailed descriptions and procedures pertaining to the identification of culture-bound elements were particularly emphasized. Upon receiving the assessment form, the examiners were then asked to read and analyze each of the words and expressions and decide whether it concorded with the operational definition. During the marking process, the examiners were strongly encouraged to ask the researcher anytime problems arose or when in doubt. The words or expressions that were concurred upon by the two examiners were labeled as culture-bound elements and were later used in the process of classifying translation strategies. Those that were agreed upon by only one examiner were discussed by the researcher and the two examiners to reach a mutual agreement on whether to label them as culture-bound elements or discard them. The words or expressions that were not agreed upon by any examiner were discarded from the list. Inter-coder reliability could be a valid research instrument and yield reliable outcomes in the final stage. Each of the derived culture-bound elements was used as a unit of analysis in the data analysis process.

With respect to the collection of data for the classification of translation strategies, the culture-bound elements and their corresponding translations were under investigation. At the initial stage, the researcher worked through two sets of data (the original novels and their translated versions) line by line to detect parts that were translated from Thai culture-bound elements. The translated texts were coded at word, phrase, and sentence levels, depending largely on the source texts (i.e. culture-bound elements) which ranged from the word to the sentence level. Once all the target texts had been coded and extracted, they were placed side by side with their respective source texts. Each pair of a culture-bound element and its translation was utilized as a unit of analysis in the data analysis process.

4.3 Data Analysis

To recapitulate, the themes assigned to emerging codes were firmly based on the framework. The treatment of open codes was different as they could not be subsumed under any translation strategy in the framework. Open codes were analyzed and combined, if necessary, in order to form overarching themes. Derived themes were defined and reviewed to ascertain that there were clear distinctions between themes.

To ensure the reliability of the strategy identification, when strategies had been assigned to all of the units of analysis, the researcher worked collaboratively with a co-examiner whose qualifications were set as follows: 1) having completed a master's degree in Translation Studies, Linguistics, or a related field; 2) having at least two years of translation experience, either as a freelancer or a professional translator.

From the outset, the assessment form, which contained 225 units of analysis, translation strategies and operational definitions, was given to the co-examiner. Next, the co-examiner was briefed by the researcher about the procedures. Then she was asked to assess if the translation strategy assigned to each translation was appropriate. The assessment was based on the definitions of translation strategies.

Upon completion of the assessment process, the researcher analyzed the results obtained from the co-examiner. In each case, if the strategy was agreed upon by the co-examiner, it was retained. On the other hand, in any controversial case whereby the strategy determined by the researcher was not agreed upon by the co-examiner, there was a pair discussion in which the researcher and the co-examiner talked, expressed their stances and sought ways to reach a mutual agreement. If a joint decision was not reached, the strategy labelled in that case was changed by the researcher. Any change made to the unsettled case was based on the researcher's and the co-examiner's ideas being discussed during the discussion. By using this method, it could be ensured that the derived taxonomy of translation strategies would be of high reliability and represent the actual strategies that the translator adopted.

Lastly, the findings were reported in frequency and percentage formats. In addition, strategies used in translating each type of culture-bound element were presented along with their descriptions and salient examples.

5. Results and Discussion

5.1 The Categorization of Culture-Bound Elements

To answer Research Question 1 (*RQ1. What types of culture-bound elements are used by the author of the selected novels?*), the researcher sorted 225 culture-bound elements (hereinafter referred to as 'CBE') into categories by looking closely at their shared attributes, considering how they were similar and what headings they should fall under. The categorization was based firmly on the conceptual framework which divided CBEs into two main groups: proper names and common expressions. Upon completion of the analysis, the results were shown in the table below.

Table 1 The Categorization of Culture-bound Elements

No.	Categories	Freq.	%
	Terms associated with Buddhism	78	34.6
	Proper names	72	32
	Cultural artifacts	15	6.6
	Figurative language	13	5.7
	Onomatopoeia	12	5.3
	Sex	10	4.4
	Swearwords	7	3.1
	Music and arts	6	2.6
	Greeting expressions	2	0.8
	Units of measurement	2	0.8
	Others	8	3.5
	Total	225	100

The table above presents the breakdown of CBEs in the selected Thai novels. Such CBEs were classified into eleven categories based on their shared attributes. In the analyzed corpus (consisting of a total of 225 CBEs), the vast majority of the CBEs were in connection with Buddhism (34.6%). The number of CBEs labelled as proper names was 72 (32%). The numbers of CBEs that were grouped into 'cultural artifacts', 'figurative language', 'onomatopoeia', 'sex', 'swearwords', and 'music and arts' were 15 (6.6%), 13 (5.7%), 12 (5.3%), 10 (4.4%), 7 (3.1%), and 6 (2.6%) respectively. The other two categories (i.e. greeting expressions and units of measurement) had the smallest number of CBEs (n=2), each of which constituted only 0.8% of the total instances. Greater details of each category were illustrated in the diagrams below.

5.1.1 Culture-bound Elements Related to Buddhism

The first category involves Buddhism-related CBEs. As mentioned earlier, the religion category was developed based on the preexisting categories proposed by Manketwit (2010), Newmark (1988), and Nedergaard-Larsen (1993). It essentially involves CBEs used to refer to religious people, activities, and objects. However, in the finding above the name of this category was adapted since the main and only religion in the two novels was Buddhism. As such, all of the CBEs found in this study were placed under the category of Buddhism.

As can be seen above, the largest portion of the CBEs in this study fell under this category.

The CBEs under this category were split into nine subcategories, including: 1) architecture; 2) people; 3) activities; 4) objects; 5) beliefs; 6) days or periods of time; 7) principles; 8) institutions; and 9) prayers. As shown above, 22 CBEs (28.2%) were in connection with religious activities, which was closely followed by the CLBs used to denote 'religious objects' (23%), 'architecture' (17.9%), 'beliefs' (13%), 'days or periods of time' (7.6%), and 'people' (6.4%). Four remaining CBEs were grouped under the following categories: Buddhist principles (n =2), institutions (n=1), and prayers (n=1).

5.1.2 Culture-bound Elements Related to Proper Names

The second category entails all types of proper names, ranging from names of people, plants, animals, food and beverages, places and roads, performances, games and sports, and brand names. The categorization of proper names in this study was based firmly on the categories presented in the framework for the categorization of proper names. Basically, proper names are used to denote people, places, objects or animals. From the analysis, a total of 72 proper names in the selected Thai novels could be classified into eight categories based on their shared attributes. It was found that slightly more than half of the proper names (55.5%) were names of characters in the selected texts, all of which were preceded by a range of Thai addressing terms. The second largest segment represented proper names associated with food and beverages. There were 14 CBEs under this category, which constituted 19.4% of the total proper names. Some examples included 'ต้มยำ' (*a Thai-style spicy and sour soup*), and 'เหล้าขาว' (*Thai rice whisky*). Other categories included names of plants (6.9%), e.g., 'จาก' (*nipa palm*) and 'พลับพลึง' (*crinum lily*), places and roads (5.5%), e.g., 'กรุงเทพ ฯ' (*Krung Thep or Bangkok*), brand names (5.5%) e.g., 'แม่โขง' (literally, *the Mekong River*, but in *Khampipaksa* it was used as the name of a Thai whisky brand), games and sports (2.7%), animals (2.7%), and local performance (1.3%).

In relation with personal names, they were further divided into seven subcategories based on the prefixes used, which indicated a myriad of relationships or statuses. The vast majority of the prefixes found in this study were used to indicate the character's kinship or seniority. In total, 18 CBEs relevant to kinship or seniority were found. To illustrate the usage of kinship or seniority addressing prefixes in Thai language and culture, this type of prefix is used to indicate the speaker's age in comparison with his or her interlocutor. Generally, it can be employed in two different ways. Firstly, it is used with siblings or relatives to indicate that the speaker is younger or older than the person with whom he or she is speaking. The second usage involves non-relatives. To elaborate, Thais are inclined to use a wide range of addressing terms, e.g., 'พี่' (*elder sister or brother*), 'น้อง' (*younger sister or brother*),

and 'ลุง' (*uncle*) with those who are not their actual relatives. In Thai culture, the ways people use addressing terms vary greatly, depending upon their gender, social status, intimacy, and the relationship between the speaker and his or her interlocutor. As such, addressing someone without an improper addressing term or without consideration of the above-mentioned factors may cause a problem in communication. The second largest segment, totaling 15% of the cases, involved the characters' jobs, for instance, 'กำนัน' (*a sub-district headman*), 'ผู้ใหญ่บ้าน' (*a village headman*), 'ครู' (*a teacher*), and 'สัปเหร่อ' (*an undertaker*). The third-largest segment represented titles denoting Buddhist ordination experience. In Thailand, once a monk, aged 20 and upwards, leaves monkhood, the prefix 'ทิด' is used with his name to indicate that the person has been ordained as a monk. However, this prefix is seldom used in the present-day context. The fourth type of prefix was used to indicate the monk's seniority. The usage of these prefixes varies depending on the monk's age. For those who are senior monks or have been ordained for a long time, their names are usually preceded by one of the following prefixes: 'หลวงตา' (*Reverend Grandfather*), 'หลวงพ่อ' (*Reverend Father*), or 'หลวงพี่' (*Reverend Elder Brother*). From the analysis, four prefixes in this subcategory were found to be used in combination with personal names, including 'หลวงตาผ่อน' (*Reverend Grandfather Phon*), 'หลวงตาหมึก' (*Reverend Grandfather Muek*), 'หลวงตาจั่น' (*Reverend Grandfather Jun*), and 'หลวงพี่แดง' (*Reverend Elder Brother Daeng*). The fifth entailed the prefix 'พระ' (pronounced as '*Phra*' and shortened from '*Phra Song*'). When used with a personal name, this prefix indicates the person's monkhood. There were three instances found in this study, including 'พระโมคคัลลา' (*Mokkalana*, one of the Buddha's major disciples), 'พระสารีบุตร' (*Sareebutr*, one of the Buddha's major disciples), and 'องคุลิมาล' (shortened from 'พระองคุลิมาล', basically referring to *Angulimala*, another major disciple whose garland was made of fingers). The sixth involved derogatory prefixes. Only one prefix was found in this study, namely 'ไอ้' (used with a man), and two instances were found, including 'ไอ้ฟัก' and 'ไอ้เกลียว'. However, this prefix does not indicate derogatoriness when used among close friends. Rather, it indicates a close bond between the speaker and the hearer or the third person. The last included prefixes which indicate the character's marital

status. Two prefixes found in this study included 'ม่าย' (literally *'widow'*) as in 'ม่ายสมทรง' (*Widow Somsong*) and 'สาว' (referring to *'a young or single woman'*) as in 'สาวละมัย' (*Lady Lamai*).

To sum up, personal names in this study were further classified into seven subcategories based on the varying types of prefixes used. The author employed these prefixes to denote: 1) derogatoriness or intimacy; 2) marital status; 3) kinship or seniority; 4) monk's seniority; 5) reverend monks; 6) Buddhist ordination experience; and 7) occupation. The analysis of personal names in combination with their prefixes shines a light on some linguistic features inherent in the source language that have not been investigated by other researchers.

5.1.3 Culture-bound Elements Related to Cultural Artifacts

Cultural artifacts refer to terms denoting geographical objects that are used in daily life. This category was developed based on Díaz-Cintas and Remael's (2007) clothing, Newmark's (1988) clothing and transport, and Manketwit's (2010) costumes. Upon completion of the analysis, it was found that fifteen CBEs were used to denote culturally rooted objects that are specific to Thai culture. The number of CBEs in this category constituted 6.6% of the total instances. Out of 15, four CBEs were related to Thai style clothing, namely 'เสื้อพระราชทาน' (*Raj pattern, a Thai men's traditional shirt*), 'ผ้าถุง' (*a Thai sarong, usually for women*), 'ผ้านุ่ง' (*a Thai costume*), and 'ผ้าขาวม้า' (*a Thai style loincloth, usually for men*). Two CBEs were associated with Thai style vehicles, including 'เรือโยง' (*a tugboat*) and 'รถสองแถว' (literally *a minibus with two seat rows*). Other CBEs which could not be grouped under the above categories included 'ยาใบจาก' (*tobacco wrapped in nipa leaves*), 'เตาอั้งโล่' (*a Thai style stove*), 'ปิ่นโต' (*a food container*), 'แคร่' (*a Thai style wooden litter*), 'ตะไล' (*a circular rocket*), 'ตะเกียงกระป๋อง' (*a gasoline lamp*), 'เก๋งจีน' (*a Chinese-style architecture*), and 'สำรับ' (*a Thai traditional set of meals*).

5.1.4 Culture-bound Elements Related to Figurative Language

Figurative language was not included in the conceptual framework because none of the scholars and researchers incorporated it into their categories. CBEs in

this category were regarded as open codes or new findings that emerged from this study. In essence, figurative language refers to any figure of speech whose meaning is different from its meaning in literal language. As such, it requires the reader to understand its cultural background (e.g., some extra nuances, contexts, and allusions) in order to grasp the second meaning. There are several forms of figurative language, including simile (a comparison between two different things via the use of connecting words, i.e. '*like*' and '*as*'), metaphor (a comparison between two things that are considered to have similar characteristics), paradox (a statement that is considered self-contradictory), hyperbole (the use of obvious and deliberate exaggeration), personification (the act of giving a non-human thing human characteristics), and rhetorical questions (a question asked merely to create a certain effect or to emphasize a point with no answer expected).

Based on the finding, the CBEs deemed figurative language fell into four categories: hyperboles (15.2%); similes (7.6%); idiomatic expressions (69.2%); and proverbs (7.6%). To begin with, two hyperboles found in the analysis included 'คนกินผัว' and 'จ้องจะกินเลือดกินเนื้อ'. The former could be translated literally as '*a woman who eats her husbands*'; however, when used as a figurative language, this CBE is meant to describe a woman whose husband(s) died after getting married to her. The second hyperbole could be rendered literally as '*to stare at someone as if you were going to eat his or her flesh*'. This phrasal verb is equivalent to the verb '*to glower*' in the English language. The only CBE that was categorized as a simile was 'ดียังกะพระ' (literally, *as good as a monk*). The expression is used to describe someone who has a good moral quality. It signifies the positive status of Buddhist monks in Thai culture and society. In general, Thai monks have long been revered by Buddhist laypeople in the country as a symbol of virtue.

Five idiomatic expressions were detected from the two literary texts. Some examples included 'ฟาดเคราะห์' (*to throw off bad luck or to sacrifice or lose something in order to get rid of bad luck*), 'โกรธจนหน้าเขียว' (literally, *to get so angry that your face turns green*; equivalent to the idiom '*to turn blue with rag*'), and 'ฝนจะตก ขี้จะแตก ลูกจะออก พระจะสึก สื่ออย่างนี้ห้ามกันไม่ได้' (literally, '*the rain will pour;*

the shit will out; the baby will be born; and the monk will disrobe. All of these cannot be stopped'; when used idiomatically, the statement refers to something inexorable or impossible to stop from happening).

Lastly, there was only one Thai proverb, that is, 'จงเอาเยี่ยงกา แต่อย่าเอาอย่างกา', literally '*be like a crow, but don't act like it*'. Basically, this Thai proverb is intended to give advice or teach some morals to the reader. In this case, a crow has both good and bad manners. To illustrate, its positive side lies in the fact that it gets up early; however, its negative side is that it is notorious for stealing food. The proverb, therefore, teaches us that an individual is liable to perform both virtuous and evil acts and that we should follow only the positive one.

5.1.5 Culture-bound Elements Related to Onomatopoeia

Like figurative language, onomatopoeia was not included in the conceptual framework. All of the CBEs under this category were regarded as open codes that emerged from this current study. Onomatopoeia basically refers to a word whose sound mimics the sound of the thing it describes. There were 12 CBEs classified under this category (5.3%), the majority of which were used to describe the sounds of people hitting different parts of the protagonist's body. Ten onomatopoeic words were used to describe a series of sounds when the main character's body parts were beaten (e.g., 'ผลัวะ', pronounced '*plua*', possibly the sound of kicking, smacking, or punching). The other two onomatopoeic words are 'ติ๊ก-แต๊ก-ติ๊ก-แต๊ก' ('*tik taek tik taek*', the sound of a car's turn signal) and 'ก้อกแก้ก' ('*kok kaek*', the sound of a metal object dropping on a metal tray).

5.1.6 Culture-bound Elements Related to Sex

In the same vein as figurative language and onomatopoeia, sex was an open code newly found in this study. This category involves sexual euphemisms. In general, sexual euphemisms refer to words or phrases used to describe sexual intercourse, reproductive organs, and other sexual activities in a less offensive way. In Thai culture, mentioning these sexual activities in public is deemed rude and unacceptable. The author, therefore, opted for milder words or expressions to describe these body

parts and activities. There were ten CBEs relevant to sex, including those referring to: 1) sexual intercourse; 2) the male or female sex organ; and 3) the house of prostitution. Some examples of these subcategories included 'ได้เสียกัน' (meaning '*to have sex*'), 'กินน้ำชา' (literally, '*to drink tea*'; however, when used euphemistically, this means '*to have sex*'), and 'ถั่วปากอ้า' (word-for-word translation: '*open-mouthed beans*', basically it means '*fava beans*'; however, in this context, it refers to the female sex organ).

5.1.7 Culture-bound Elements Related to Swearwords

Swearwords were another category that emerged from this study. The finding revealed seven CBEs associated with vulgarity (constituting 3.1%), a majority of which were preceded by the prefix 'ไอ้' (pronounced '*ai*') in order to show derogatoriness, namely 'ไอ้<u>ห่า</u>' (the underlined part literally means '*cholera*'), 'ไอ้<u>ห่า</u>เอ๊ย' (the underlined part literally means '*cholera*'), 'ไอ้<u>เหี้ย</u>' (the underlined part literally means '*a water monitor*'), and 'ไอ้<u>สัตว์</u>' (the underlined part literally means '*an animal*'). Four swearwords in this study contained the word 'ห่า' as in 'ไอ้<u>ห่า</u>', 'ไอ้<u>ห่า</u>เอ๊ย, 'คน<u>ห่า</u> ๆ', and 'ตาย<u>ห่า</u>'. Each conveys a negative sense since it literally means *cholera*, a serious and widespread disease that killed a substantial number of people in the past. As a result, this term has been used as a vulgar or insulting word.

5.1.8 Culture-bound Elements Related to Music and Arts

Based on the findings, this category consisted of six CBEs associated with music and arts. From the analysis, four CBEs were the names of musical instruments, including: 1) 'ปี่พาทย์' (*a Thai style orchestra*, consisting mainly of percussion instruments); 2) 'ปี่พาทย์มอญ' (*a Mon style orchestra*); 3) 'แตรวง' (*a brass band*); and 4) 'กลองยาว' (*a tall, narrow drum*). The other two CBEs were associated with arts, namely 'ลวดลายกระหนก' and 'กระจัง'. Both of them are generally used in traditional Thai art, referring basically to traditional Thai motifs or patterns.

5.1.9 Culture-bound Elements Related to Greeting Expressions

Two greeting expressions were found in the source texts, including 'ไปไหนมา' (literally, '*Where have you been?*') and 'กินข้าวหรือยัง' (meaning '*Have you eaten yet?*'). Generally, these expressions are used after greetings and the speaker does not expect the hearer to tell the actual place where he or she has been or whether he or she has eaten.

5.1.10 CBEs Related to Units of Measurement

There were two CBEs related to local units of measurement, constituting 2% of the total instances. The finding revealed one culture-bound element related to the Thai old currency unit, namely 'เฟื้อง' (pronounced '*fueang*' and equivalent to '*0.125 Baht*'). The second unit of measurement was related to time. The time phrase 'สี่โมง' is translated literally as '*four o'clock*'. In Thai culture, however, this phrase refers to ten o'clock in the morning according to the traditional time measurement.

5.1.11 Others

The last category consisted of eight CBEs that cannot be subsumed under the categories mentioned above. Such CBEs included: 1) 'บุญแซยิด' (the sixtieth anniversary celebration); 2) 'เถ้าแก่' (a business owner, usually referring to a Chinese man); 3) 'ไหว้' (to place the palms together at chest level as a non-verbal greeting); 4) 'รับพระราชทานปริญญาบัตร' (to receive a degree certificate, usually conferred by a member of the royal family); 5) 'เฮีย' (an older brother, commonly used among Chinese people in Thailand); 6) 'เกรงใจ' (to be considerate of others); 7) 'จังหวัด' (a division of a country; equivalent to the term 'province'); and 8) 'วันสงกรานต์' (the traditional Thai New Year).

5.2 The Classification of Translation Strategies

To answer the second research question (*What strategies are employed in the translation of Thai culture-bound elements in the selected novels into English*), the researcher analyzed and identified the strategy that the translator adopted when rendering each CBE. In the identification process, the researcher drew primarily

on the conceptual framework for identifying translation strategies, which was developed from Newmark's (1988) taxonomy of eighteen strategies, Baker's (1992) eight strategies, Díaz-Cintas and Ramel's (2007) nine strategies, Ranzato's (2013) eleven strategies, and Pinmanee's (2019) nine strategies.

Upon completion of the analysis and identification process, ten strategies were found to be adopted by the translator, including: 1) description; 2) transposition; 3) combined strategies; 4) superordinate; 5) literal translation; 6) definition; 7) transliteration; 8) reduction; 9) subordinate; 10) omission; and 11) alteration. When the reliability validation with the co-examiner was completed, all of the CBEs were clustered based on their translation strategies. The findings are illustrated in the table below.

Table 2: The Classification of Translation Strategies

No.	Categories	Freq.	%
1	Description	52	23.1
2	Transposition	48	21.3
3	Combined Strategies	39	17.3
4	Superordinate	32	14.2
5	Literal Translation	23	10.2
6	Definition	10	4.4
7	Transliteration	8	3.5
8	Reduction	5	2.2
9	Subordinate	4	1.7
10	Omission	3	1.3
11	Alteration	1	0.4
Total		225	100

The table above provides a detailed description of the translation strategies employed by the translator. After completion of the data analysis, a total of 11 translation strategies were found to have been adopted by the translator.

The findings revealed that a significant majority of the CBEs (23.1%) were rendered by the description strategy. Less frequent strategies included transposition, combined strategies, superordinate, literal translation, definition, transliteration, reduction, subordinate, and omission respectively. The least adopted strategy was alteration. In regard to the translator's orientations, it was observed that most of the strategies adopted were domesticating strategies (description, transposition, and definition, for instance). This signifies that the translator was inclined to domesticate the texts he translated by using a multitude of domesticating strategies to create texts that were readable for the target-text audience, particularly those who have limited exposure to the source culture. Though small in number, foreignizing strategies (e.g., literal translation and transliteration) were also adopted. In addition, it could be observed that foreignizing strategies were used in combination with other strategies, thereby being labelled as combined strategies.

5.3 CBEs Translated by Each Strategy

Each translation strategy, together with the types of CBEs, is described in detail in the following sections. Some examples are also provided at the end to vividly show how each of the dominant strategies is used to overcome cultural barriers in the source texts.

Table 3: Culture-bound Elements Translated by Using Description

No.	Type of Culture-bound Element	Freq.	%
1	Terms associated with Buddhism	33	63.4
2	Proper names	9	17.3
3	Cultural artifacts	4	7.6
4	Figurative language	2	3.8
5	Sexual euphemism	1	1.9
6	Music/ Art	1	1.9
7	Others	2	3.8
	Total	52	100

Table 3 presents the breakdown of CBEs that were translated using the description strategy. As stated in the previous table, out of 225, the total number of CBEs being translated by the description strategy was 52. The finding showed that most of the CBEs that were domesticated by description were related to Buddhism (63.4%). Other CBEs included nine proper names (17.3%), four CBEs related to cultural artifacts (7.6%), two idiomatic expressions (3.8%), one euphemism for sex (1.9%), one name of an art pattern (1.9%), and two CBEs in the 'others' category (3.8%). By and large, description is regarded as a domesticating strategy since it strives to reduce the foreignness and otherness of the source text and to enable target-text readers to gain full insight into the author's intended meaning by supplementing information that does not exist in the source text. Considering the definition of this strategy, it can be said that the act of making up for an inevitable loss is equated with the concept of compensation, commonly used when the loss of the source-text meaning is compensated by adding extra information to the target text. In some cases, the translator may need to paraphrase or explain the meaning of a culture-bound element in great detail to carry the message across both linguistic and cultural barriers. As such, it is deemed inevitable for translators to provide the target-text readers with additional information that is instrumental in creating the readers' understanding. As a dominant translation strategy, the description in this case study is in the same vein as Baker's (1992) paraphrase by using unrelated words, Díaz-Cintas and Remael's (2007) compensation and addition, Pinmanee's (2019) addition and notes, Ranzato's (2013) compensation, and Newmark's (1988) functional equivalent, paraphrase, expansion, compensation, and notes and additions. However, this strategy is not matched with main strategies for translating culture-bound elements presented in the previous studies.

Example 1:

Source text: จวบจนกระทั่งออกพรรษา<u>ตักบาตรเทโว</u>

Target text: the special alms gathering that marked the end of Lend

Analysis: The phrase 'ตักบาตรเทโว' (pronounced as *Tak Bat Devo*) can be broken into two parts: *Tak Bat* and *Devo*. Literally,

the former refers to the act of offering food to a Buddhist monk while the latter is shortened from Thevorana, which means 'The Buddha descends from heaven to earth'. As can be seen in the table above, the translator opted for the description strategy and delineated the event as 'the special alms gathering that marks the end of Lent'. Obviously, the original message was exaggerated in the translation in order to help the readers get closer to this almsgiving tradition easily.

Table 4: Culture-bound Elements Translated by Using Transposition

No.	Type of Culture-bound Element	Freq.	%
1	Terms associated with Buddhism	14	29.1
2	Onomatopoeia	10	20.8
3	Swear words	6	12.5
4	Sexual euphemism	4	8.3
5	Figurative language	4	8.3
6	Cultural artifacts	2	4.1
7	Music/ Art	2	4.1
8	Proper names	2	4.1
9	Greeting expressions	1	2
10	Units of measurement	1	2
11	Others	2	4.1
Total		48	100

Table 4 presents an overall picture of the CBEs translated by replacing culturally rooted terms in the source language with the ones available in the target language. As shown in the table above, transposition, the second in rank, was employed 48 times, constituting 21.3% of the total cases. To illustrate, most of the CBEs (29.1%) translated by using this strategy were associated with Buddhism.

Like description, transposition is generally regarded as the strategy with a relatively high degree of domestication, thus resulting in a translation that is pragmatically equivalent and making target-text readers feel as if they were reading a text written originally in their own language, not a translation. It plays a crucial role in domesticating texts through the use of CBEs that exist in the target language. The main benefit of this strategy lies in the translated text that reads smoothly and fluently to target-text readers without disturbing their enjoyment. On the other hand, the replacement of culture, which inevitably results in a high level of linguistic naturalness in the translated text, is highly liable to trigger numerous questions and issues about the text's transparency, whether it was written originally by the author or translated by the translator. Revolving around the replacement of a culture-bound in the source text with the one that is rooted in the target culture, transposition in this case study is equated with Newmark's (1988) cultural equivalent, Baker's (1992) cultural substitution, Díaz-Cintas and Remael's (2007) transposition, Ranzato's (2013) substitution, and Pinmanee's (2019) cultural substitution can be grouped under the same category. The finding is also supported by research studies conducted by Bendus (2012), Kebboonkerd (2014), and White (2016).

Example 2:

Source text: อย่างพี่น่ะ <u>ขนหน้าแข้งไม่ร่วง</u>

Target text: ...it's chicken feed

Analysis: The second example contains figurative language that was localized under domestication ideology (transposition). The Thai idiom 'ขนหน้าแข้งไม่ร่วงหรอก' (literally, 'your leg hair won't fall') is metaphorically used to refer to a situation when a person buys or pays for something at a price that he or she can afford. The translator replaced the original sense with 'chicken feed', which means a small and not important amount of money.

Table 5: Culture-bound Elements Translated by Using Combined Strategies

No.	Type of Culture-bound Element	Freq.	%
1	Proper names	37	94.8
2	Figurative language	2	5.1
Total		39	100

The third most used strategy was combined strategies, whereby the translator adopted more than one strategy when translating a single CBE. As shown in the table above, there were a total of 39 CBEs (17.3%) that were translated by using combined strategies. Evidently, the lion's share of the CBEs translated by using more than one strategy were proper names (94.8%). As in most cases of personal names, the translator transcribed the characters' names and translated the prefixes or addressing terms literally. This strategy can be categorized either as a domesticating or a foreignizing strategy, depending greatly on the function of each strategy. To put it differently, provided that both strategies serve to facilitate the readers, creating a natural and fluent text, such combined strategies are labelled as domesticating strategies. In the opposite way, if both strategies are classified as foreignizing strategies (literal translation and transliteration, for instance), such combined strategies are labelled as foreignization. On the whole, the findings reveal that combined strategies were extensively employed by the translator when dealing with proper names, and two strategies that were frequently used together were transliteration and literal translation (when coping with a proper name and its title or addressing term respectively). The translator's adoption of combined strategies is in line with the strategy found by Kebboonkerd (2014), that is, using loan words with modifications.

Example 3:

Source text: ตาเหน่

Target text: Uncle Nei

Analysis: The third example involves the translation of 'ตาเหน่' (pronounced as '*tah Nei*'). This culture-bound element is

composed of two parts: 'ตา' (*tah*) and 'เหน่' (*Neh*). The term '*tah*' in Thai basically refers to the maternal grandfather. However, in some cases, it can also be used to refer to non-relatives who are approximately the same age as the grandfather. It was observed that the translator shifted the meaning of the source text by using the term 'uncle', which basically means the mother's or father's brother. The shift made by the translator had a profound impact on the meaning intended by the author. To some extent, this could prompt readers to picture '*Nei*', a character in The Judgment, as a middle-aged man instead of a senior one. The character's name, that is to say, 'เหน่', was transcribed into English as '*Neh*', thereby leading to the conclusion that the translator used combined strategies (i.e. alteration and transliteration) to cope with a single culture-bound element.

Table 6: Culture-bound Elements Translated by Using Superordinate

No.	Type of Culture-bound Element	Freq.	%
1	Terms associated with Buddhism	16	50
2	Proper names	10	31.2
3	Cultural artifacts	4	12.5
4	Sexual euphemism	1	3.1
5	Onomatopoeia	1	3.1
Total		32	100

The fourth most adopted strategy was superordinate. It was found that the translator replaced 32 CBEs (14.2%) with terms whose meanings are more general or neutral. As illustrated above, half of the CBEs translated by using this strategy were relevant to Buddhism, which were followed by proper names (31.2%) and those used to denote cultural artifacts (12.5%), sexual euphemisms (3.1%),

and onomatopoeic words (3.1%). Superordinate refers to the use of a hypernym or a broader word. Hypernym entails the use of an umbrella or blanket term instead of the less expressive one. This strategy is generally used in situations when the one-to-one equivalent in the target language does not exist and the translator opts for a term whose meaning is more general. Instead of transliterating or leaving the target readers wondering what such CBEs actually refer to, the translator resorted to umbrella terms with the aim of helping his readers understand the culture-bound elements more easily. This strategy is equivalent with Baker's (1992) superordinate, Ranzato's (2013) generalization by hypernym, Pinmanee's (2019) generalization, and Díaz-Cintas and Remael's (2007) explicitation, and, to some degree, in the same vein as Bendus's (2012) generalization.

Example 4:

Source text: เหล้ากั๊ก

Target text: whisky

Analysis: In the fourth example, the translator used the term '*whisky*', which is considered more general than the source text. The term 'เหล้ากั๊ก' is basically composed of two elements: 'เหล้า', functioning as a head noun meaning '*whisky*', and 'กั๊ก', meaning a quarter of something. When combined together, the term refers specifically to a quarter of a dram of whisky. When taking the meanings of the source and the target texts into consideration, it can be concluded that the translated text has a broader meaning than the original term. The lack of an equivalent word which expresses a portion of whisky in the target language might be a factor that caused the translator to adopt the superordinate strategy.

Table 7: Culture-bound Elements Translated by Using Literal Translation

No.	Type of Culture-bound Element	Freq.	%
1	Terms associated with Buddhism	10	43.4
2	Figurative language	5	21.7
3	Sexual euphemism	2	8.6
4	Cultural artifacts	2	8.6
5	Music/ Art	1	4.3
6	Proper names	1	4.3
6	Greeting expressions	1	4.3
7	Others	1	4.3
	Total	23	100

The fifth strategy was literal translation. As shown above, a total of 23 CBEs (10.2%) were translated in a literal fashion. It was found that ten Buddhism-related CBEs (43.4%) were translated literally. Literal translation is labelled as foreignization because it strives to preserve the source language's syntactical and lexical structures. It was also adopted when the translator dealt with personal names. In such cases, it was frequently adopted in combination with transliteration, where the prefixes or addressing terms were translated literally and the characters' names were transcribed in English. It was interesting that some idioms or metaphorical expressions, whose intended meanings are not necessarily based on their forms, were translated verbatim without the translator's clarification or explanation. This strategy is in the same vein as Newmark's (1988) through-translation (calque) and recognized translation, Díaz-Cintas and Remael's (2007) calque, Ranzato's (2013) official translation and calque, and Pinmanee's (2019) calque or literal translation. It is also equivalent to White's (2016) and Bendus's (2012) literal translation.

Example 5:

Source text: แกไม่อยาก<u>กินน้ำชา</u>บ้างหรอ น้ำชาร้อนๆ กินแล้วเหงื่อมันออกดีนะ

Target text: to have some tea

Analysis: The phrase 'กินน้ำชา' (literally, 'to drink tea') was rendered into the target language as '*to have some tea*'. In fact, the original text was considered an idiom related to sexual activity. When used metaphorically, it means 'to have sex'. However, the translator opted for a word-for-word translation as the main strategy to render this CBE into the target language. It is apparent that the cultural codes prevailing in the target language was disrupted, and the connotation of this expression was lost during the translation process. The underlying reason behind the translator's decision might be because of the contextual clues given in the source text. After reading the entire paragraph, the readers are likely to surmise what the term actually refers to.

Table 8: Culture-bound Elements Translated by Using Definition

No.	Type of Culture-bound Element	Freq.	%
1	Terms associated with Buddhism	4	40
2	Proper names	3	30
3	Sexual euphemism	2	20
4	Music/ Art	1	10
Total		10	10

Table 8 presents four types of CBEs (i.e. Buddhist terms, proper names, sexual euphemisms, and music and arts) that were translated and their definitions were provided by the translator. Out of ten CBEs, four Buddhist terms (40%) and three proper names (30%) were domesticated into English by this strategy. Other CBEs that were made accessible to the readership by providing their definitions in footnotes included two sex-related expressions (20%), and one CBE related to music (10%). As a domesticating strategy, definition entails providing the CBE's meaning, either in a footnote, dashes or commas, aiming to assist the readership in understanding the culturally rooted element better. It was found that all of the CBEs translated

by this strategy were asterisked, and their definitions were given in footnotes at the bottom of the pages. This strategy is, to a certain degree, equated with Ranzato's (2013) explication, Pinmanee's (2019) glossaries, and Newmark's (1988) glosses. However, it was not adopted by the translators in the previous studies.

Example 6:

Source text: ลิเก

Target text: the *likei**
(In the footnote: **open-air folk opera*)

Analysis: In this example, the translator transferred the proper name directly, and its definition was supplemented in the footnote. Apparently, he adopted both domesticating (when he gave information to facilitate the readers) and foreignizing (when he transcribed the proper name) strategies. In this case, the term *likei* was retained, possibly because the translator wanted to give his readers a sense of exoticism or to add local color to his translation.

Table 9: Culture-bound Elements Translated by Using Transliteration

No.	Type of Culture-bound Element	Freq.	%
1	Proper names	5	62.5
2	Terms associated with Buddhism	1	12.5
3	Onomatopoeia	1	12.5
4	Cultural artifacts	1	12.5
	Total	8	100

The seventh strategy, transliteration, was used as a single strategy for rendering nine CBEs, most of which (62.5%) were proper names (i.e. three names of principal disciples of Buddha, two names of places, and one name of sport). The other three CBEs were related to Buddhism, onomatopoeia, and cultural artifacts, each constituting 12.5 % of the total. When the researcher took its function into

consideration, transliteration was classified as a foreignizing strategy, particularly when it was not used in combination with another strategy. As a foreignizing strategy, transliteration acts as a conduit for the transmission of the sound of a culture-bound element into the target language. It basically involves the transference of a word from the alphabet of one language to another. Transliteration in this case study shares common characteristics with Newmark's (1988) transference, Baker's (1992) loan words, Díaz-Cintas and Remael's (2007) loan words, Ranzato's (2013) loan words, and Pinmanee's (2019) transliteration. It was found to be widely used to deal with culture-bound elements by the translators in research studies conducted by White (2016), Bendus (2012), and Kebboonkerd (2014).

Table 10: Culture-bound Elements Translated by Using Reduction

No.	Type of Culture-bound Element	Freq.	%
1	Proper names	3	60
2	Cultural artifacts	2	40
Total		5	100

Table 10 displays two types of CBEs that were partially translated by the translator. Basically, reduction occurred when the translator decided not to convey all the meaning inherent in the source text to the readership, possibly because the entire chunk of the CBE was bound to be absent in the target culture or because the deleted part might not be essential for the readers' comprehension. As shown above, five CBEs (two names of food, two names of cultural artifacts, and one name of a plant) were partially conveyed to target-text readers. As shown in the table above, five culture-bound elements were partially translated. The reason that underlines the translator's decision is probably due to the fact that the deleted parts were deemed unnecessary, and such reductions were not likely to affect the core meanings of the source texts. This strategy is equated with Newmark's (1988) reduction and Pinmanee's (2019) condensing; it was not found to be used in the previous studies.

Table 11: Culture-bound Elements Translated by Using Subordinate

No.	Type of Culture-bound Element	Freq.	%
1	Units of measurement	1	25
2	Others	3	75
Total		4	100

The finding revealed that the translator adopted the subordinate strategy four times to render two types of CBEs, including two addressing terms, one CBE referring to a unit of measurement, and one CBE used to describe a manner that is highly specific to Thai culture. All of these were replaced by the target texts, whose meanings are more specific than those of the source texts. Subordinate involves the use of a more specialized and specific word or expression because the equivalent term does not exist in the target language. Subordinate is used in the same way as Baker's (1992) neutral or less expressive words, Ranzato's (2013) hyponym, and Pinmanee's (2019) particularization. Nevertheless, it is not equated with any strategies presented in the previous studies.

Table 12: Culture-bound Elements Translated by Using Omission

No.	Type of Culture-bound Element	Freq.	%
1	Swear words	1	33.3
2	Proper names	2	66.6
Total		3	100

Table 12 presents two types of CBEs that were omitted. As mentioned earlier, omission basically entails leaving out a CBE in the source text. It is generally used when the translator deems the deleted part unimportant or redundant, and if translated, it may cause the readers to be misled.

Based on the analysis of the CBEs that were not delivered to target-text readers, it was found that three CBEs were omitted by the translator. The first two CBEs were names of plants, and the last CBE was an insult. The translator's decision to not transfer the message to the readers may have been based on the fact

that such parts are considered minor details and are not necessary for comprehension; hence, omitting them poses no significant impact on the author's intended message. This strategy functions in the same way as Ranzato's (2013) elimination and Pinmanee's (2019) omitting. Though labeled differently, all of them occur when the source text is not transferred to the target-text reader.

Table 13: Culture-bound Elements Translated by Using Alteration

No.	Type of Culture-bound Element	Freq.	%
1	Music/ Arts	1	100
Total		1	100

The last strategy adopted by the translator is alteration. It was found that there was one translation whose meaning was affected by the translator, as shown in the rendering of the term 'ปี่พาทย์' (pronounced '*peephat*', referring to the Thai classical orchestra), which was translated into 'musicians'. Obviously, the meaning intended by the author was distorted, and the readers were misled by the translated text. To put it differently, what they conceived after reading is different from what the readers of the original text had in their minds. In fact, alteration was also used in translating one of the personal names (i.e. 'ตาเหน่'). However, since the translator used this strategy in combination with another strategy, viz., transliteration, the strategy used to translate this culture-bound element was thus labelled as combined strategies. This strategy is not included in the taxonomies of translation strategies in the literature review. Therefore, it is regarded as a newly emerging strategy found in this study. Also, it was not found to be used by the translators in the previous studies

In conclusion, a total of eleven strategies were used by the translator. Based on frequency of use, the adopted strategies were as follows: description (23.1%), transposition (21.3%), combined strategies (17.3%), superordinate (14.2%), literal translation (10.2%), definition (4.4%), transliteration (3.5%), reduction (2.2%), subordinate (1.7%), omission (1.3%), and alteration (0.4%). Upon taking types of CBEs into consideration, the researcher found that description was adopted most

often in the rendition of Buddhist CBEs, followed by superordinate and transposition respectively. Concerning the transfer of Thai proper names, the translator combined multiple strategies to convey the intended messages. Other significant strategies adopted included superordinate and description. Regarding the translation of cultural artifacts, the three strategies that were used most were description, superordinate, and transposition. A large portion of figurative language was rendered by using literal translation and transposition. The translator rendered most of the CBEs related to sex by using transposition, literal, and definition respectively. Likewise, when dealing with CBEs related to vulgarity, music, and arts, the most commonly adopted strategy was transposition. Two greeting expressions were rendered by transposition and literal translation, and two units of measurement were rendered by transposition and superordinate. In the 'Others' category, superordinate was used most, followed by transposition and description.

In essence, the findings of this case study throw a new light on the literary translator's ideology in transferring Thai cultural texts to non-Thai readership. As shown in the classification of translation strategies (see Table 2), four main strategies adopted by the translator include: 1) description (23.1%); transposition (21.3%); combined strategies (17.3%); and superordinate (14.2%), all of which can be classified as domesticating strategies, aiming to foster communication rather than preserve the identity of the source text. Despite his efforts to stay close to the source text (as manifested in his translations of idioms, sexual euphemisms, and proper names), it appears that Marcel Barang subscribed to domestication, striving to move the text to the readers by bridging the gap between the source and the target cultures.

6. Recommendations

6.1 Recommendations for Instruction

As regards the didactics of translation, major findings of this dissertation (e.g., a typology of CBEs and a classification of translation strategies) yield benefits for teachers of translation in several aspects. For instance, in an English-Thai translation classroom, students' awareness of cultural differences between the source and

target cultures should be highlighted. Students should be introduced to translation theories, and thoroughly familiarized with various strategies to overcome the challenges arising from cultural barriers. Moreover, they should also be trained to be sensitive to the source and the target cultures and the impacts that both cultures might pose on the quality of their translation. Cultural awareness, hence, should be instilled in students as part of the theoretical aspects of translation.

6.2 Recommendations for the Publishing Industry

The findings also yield benefits for multiple players in the publishing industry, e.g., translators, editors, publishers, and literary agents. As mentioned by Munday (2001), those who play crucial roles in choosing the texts to be translated and commissioning the translations include publishers and editors. Their power in making decisions or launching policies has a great impact on the way in which the source text is rendered and contributes immensely to the level of readership. It could be said that translation policies prescribed by the publishers and editors are one of the significant factors that dictate the translator's strategies. Apparently, when literary texts are translated from foreign languages into Thai, and when circumstances permit, translators tend to adopt a myriad of strategies to facilitate their readers. The primary goal of translation is to produce translations with easy readability and the same rhetorical effect as the original. The act of translating in a fluent and invisible style, intentionally or unintentionally, results in a much lesser degree of foreignness in the target text. Domestication, however, is not a cure for everything. The concept of translator invisibility should therefore be introduced to all parties concerned to raise their awareness of the cultural impacts on the quality of translation.

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