

Strengthen Human Development: A Case Study

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Abstract

This case study investigates and analyses the potential for positive collaboration between the State and the Narathiwat community, Thailand, to strengthen the human sustainable development through natural resources. As part of this investigation and analyses, existing policies and legislation on natural resources management in Narathiwat are also explored. Suggestions are made for broad, orderly, and sustainable ways to use natural resources, the sharing of responsibility by the State and the community for natural resources management, and interactive planning between different departments of State agencies, community members, and industry in general. The research uses the methodology of quantitative analysis of relevant literature and qualitative responses of participants in focus groups. Methods involved extensive literature searches, and interviews with the aid of closed and open-ended interview schedules. Analysis of raw data were translated into frequency distributions for the various variables focused upon. In these processes, the theories of collaboration, human capital, human asset building, and sustainable development as they might apply to natural resources management in Narathiwat were used to explore and highlight the underlying conceptual significance of the research findings. The results of the case study show that community collaboration with the State was regarded as essential for successful Natural Resource Management (NRM) in Narathiwat, and that proper collaboration in NRM would allow for comprehensive development of the community as service users, as users of natural resources in Narathiwat, and of the community's living environment. The study recommends ways whereby all phases of the NRM process in the region might be advanced. Recommendations are made consistent with the propagation for humans to be regarded as capital assets, for the widest acceptance in Narathiwat of the potential of sustained development for all concerned, and for all NRM practices to have State-community collaboration as the bedrock for successful and acceptable NRM.

Keywords: human development, natural resources, natural resources management; collaboration; human capital; human asset building; sustainable development.

INTRODUCTION

Natural Resources

It is axiomatic that natural resources on earth exist without the intervention of humankind.

Given its multifarious characteristics of magnetism, gravity, electrical properties and other, yet undiscovered forces, these resources are to be found in tangible entities like sunlight,

air, atmosphere, water, land (and its many mineral contents), vegetation, and animals (Overland, 2018). A cursory look at the latter would indicate that they are either biotic or abiotic, that is, living or non-living. Further that, depending on their particular properties and characteristics, each of these resources are actual resources ready for use as they are in nature, may be used in future, have resources in reserve for future, profitable use, or are stock

resources that cannot as yet be used, as is, for example, hydrogen (UNO, 2013 and 2019).

Natural resources in Thailand

With a population of 68 million or more and a very diversified physiography, Thailand is naturally well resourced with: coal; natural gas; gold; several minerals like lead, manganese, limestone, basalt, niobium, zinc, tin, tungsten, gypsum, and lignite; rubber; forestation of 28% of its land, which produces hard wood like teak; arable land used mostly for rice production; to a lesser degree for cassava, sugarcane, maize, soybeans, coffee, pineapples, coconuts, palm oil, kenaf; livestock; and fish (Sathirathai, 2011).

The evidence in the latest statistics of success in livestock farming point at the importance that the relevant farming sector attached to livestock and its value to the nation. Dairy enjoys the most recognition in this regard. It is currently reported to be producing 2,800 tonnes of milk daily which equates to annual production of one million tons of milk. Forty percent of the milk goes to the government's school milk program, the rest is used for commercial purposes. Other livestock farming of lesser significance is insect ranching which does not produce enough to meet the demand for edible insects and fortified products derived from insects. These actions are evidence of a focus on sustained development for the nation's social and economic conditions (Sachs, 2015; Bank of Thailand, 2013).

Natural Resource Management (NRM) in Thailand

Evidence in the literature, official documents, observations, and research show that Thailand has for some time made conscious efforts to plan, organize, lead, and control the processes that NRM demand for acceptable outcomes for both the State and its local communities. The evidence, however, that the quality of life of the nation has not significantly improved as the result casts doubt about its NRM [TEI, 2018; MNRE, 2012(i), (ii), and (iii); NESDB, 2010 and 2011].

The ideal of systematic integration of biophysical, socio-political, and economic efforts seem difficult to reach. Despite creative endeavors like the Thai-Danish environmental cooperation on NRM, originally aimed at the protection of natural resources and biodiversity through sustainable use while respecting the needs of local communities, success has been short-lived. In the form of a sub-project, the Joint Management of Protected Areas (JOMPA), the Thai-Denmark coalition ended in 2009 without sustained development as was originally envisaged.

Perhaps more achievable is the continuing Thai inroads into collaborative partnerships among State authorities, local communities, non-governmental organizations and other relevant stakeholders. Its aim to achieve better quality of life through better coexistence between nature and humankind would imply that a balancing of the protection and conservation of Thai natural resources, and local communities' use and need of resources, might be achieved over time. There is, however, little evidence of meaningful collaboration between the State and communities (Office of Natural Resources and Environmental Policy and Planning, 2018; Colbry et al., 2014).

The Thai recognition of the value of its own natural resources as well as its engagement with communities on the ground, as NRM task, is concretely reflected in the Thai ratification of the Convention on Biological Diversity. Further, adhering to the Constitution of the Kingdom of Thailand, B.E.2550 which encourages people to participate in local administration, supporting academic initiatives to educate communities about the nuts and bolts of the latter Constitution, and allowing local people to engage in various ways in local administration mechanisms and processes, would elevate the Thai government's sincerity and determination to manage the country's natural resources in the best way possible (Constitution of the Kingdom of Thailand, B.E. 2550; National Economic and Social Development Board Office, 2017; NESDB, 2011).

With the aid of an analysis of the above account of NRM, the AIM of the present research was to investigate the extent and feasibility of collaborative NRM between the State and local people in Narathiwat (Yin, 2011). In specific terms, the main RESEARCH PROBLEMS were:

- The Narathiwat province has natural resources that demanded preservation and conservation;
- The natural resources of Narathiwat need proper management;
- NRM in Narathiwat would not succeed without adequate State-community collaboration.

In pursuit of the research aim, the research objectives were to:

- Investigate the nature, volume, preservation, and conservation of natural resources in Narathiwat;
- Establish to what degree and effect current NRM was practiced;
- Propose the entrenchment of sustained NRM collaboration between State and communities.

The collaboration theory as recently explored by Colbry, Hurwitz, and Adair, (2014), the latest human capital and asset building concepts of the World Development Report (2019), and the exploration of sustainable development theory of Sachs (2015) are threaded (a) throughout the developing argument presented on the basis of the empirical part of the case study, and (b) the analysis of the findings of the empirical part of the case study.

Case study in Narathiwat

Brief descriptive detail of Narathiwat

The capital of one of 77 provinces in Thailand, Narathiwat is located to the south of the country. It is bordered by the Malaysian states of Kelantan and Pattani to its west and south respectively (NSO Office, 2012).

A notable community self-development initiative for Narathiwat by the government of Thailand was its 1963 Nikhom Sang Ton Eng Pak Tai. The over 5,500 families who had then been moved to better regions as a development strategy benefited through the award of land tenure. There is, however, little evidence that this project had led to sustained development of its recipients, built the latter as human capital, or whether any form or degree of collaboration had taken place between the State and the recipients [World Bank Group, 2019; Sachs, 2015; Colbry et al., 2014; Prince of Songkla University, 2013 (ii)].

Natural resources

Literature and research evidence suggest that Narathiwat has a wide range of predominantly animate resources that makes it relatively self-reliant as far as the utility of those resources are concerned. The uneven spread of its natural resources across the region - with the larger concentration of them located in its Daeng Peat Swamp forested areas of Tak Bai, Su-ngai Kolok and Su-ngai Padi – still allows both Narawitha's inhabitants and other stakeholders access. This is subject to whether resources are being sought for consumption purposes or for commercial ends [MNRE, 2012(iv); Forest Resource Management Office, 2012; Arkome, 2011].

Given the abundant rainfall in all regions of Thailand, it is not unexpected that Narathiwat is verdant, with plenty of vegetation in the form of trees, plants, flora, agricultural crops, and other wild species of land cover. Trees inside forests and randomly found in the capital, are regarded as the primary source of natural produce that has multiple uses and commercial value (Ruttanadukul, 2011). Today, science also confirms the presence of 400 or more species of plants, including strange palms like Lum Phi, red palm, aromatic Goniolthalamus Giganteus flowers, orchids, and other small varieties (Sathrathai, 2011).

The over 200 known animal species found in Narathiwat living in forests and elsewhere either live off the vegetation or have proclivity for the flesh of animal prey.

Langurs, civets, wild cats, Singapore rats, Malayan tree frogs, wild boars, binturongs, and rare animals like rhinoceros, gibbons, tapirs, and Sumatran serows are predominant in this regard. The capital's waterways of Khlong Sungai Padi, Bang Nara River and Khlong To Daeng, are vital sources of fluid sustenance for these animals and its vegetation (Narathiwat Provincial Governor's Office, 2012).

Narathiwat's fish resource, mostly derived from their home inside forests, has become one of Narathiwat's prime assets. A valuable source of food in its adult form, the angler catfish, for example, use the forest as a refuge and spawning berth Narathiwat Provincial Fisheries Office, 2012;).

The capital is home to the now-endangered Malaysian Verditer Flycatcher. Its habitat is found to be uniquely confined to the Sirindhorn Peat Swamp Forest (Prince of Songkla University, 2013).

The current lack of evidence of crude oil, precious metals, and minerals, as well as poor scientifically established prospects of finding them in Narathiwat in the foreseeable future, supports the notion that this limit on Narathiwat's natural resources base would, in the long run, curtail its capacity for commercial, economic, and community development. Still, all the above natural resources demand careful, sustainable, reliable management to ensure their longevity and utility for all concerned (Sachs, 2015; Ruttanadukul, 2011).

NRM

The above stated evidence in the literature and official documents of the Thai government's longstanding yet unproductive endeavors to respond to the demands of NRM to properly plan, organize, lead, and control it in the whole country, applies to Narathiwat to a sizeable degree (Narathiwat Provincial Agricultural Extension Office, 2012; Narathiwat Provincial Fisheries Office, 2012;).

Several Royal projects that remain doubtful about their sustained efficacy include: a soil project that is meant to add manageable acidity

to paddy soil as a counter to excess acidity in all regions; an agricultural, efficient-water-usage system in areas with an abundant supply of water; palm oil plantations in highly organic soil; a joint, small-scale, full-cycle production system by the State and the Prince of Songkla University involving palm oil, soap and butter for merchandising to workers and others; a gas wells venture for animal waste; a rubber substitution project that uses *Zalacca* palm; with the cooperation of the Thai Royal Navy and EGAT, a Royal Thai Marine Corps project locating 200 sets of artificial reefs made from insulators in the area of Toei Ngam Beach in the Sattahip Marine Corps, Chonburi Province, with the aim of rehabilitating the coastal ecosystem and marine resources of Thailand. All these efforts and underlying concepts of fair and equitable service provision have yet to show that the nation would indeed benefit from their positive effects on natural resources preservation, conservation, social development, and collaboration between the Royal provider and communities (Colbry et al., 2014; Narathiwat Provincial Fisheries Office, 2012; NESDB, 2011).

State-community relationship

Whereas Thai legislation has been shown to require that service provision in NRM in all regions of the country must involve communities as individuals or organized groups, other literature and recent field studies point at the perpetuation of difficulties in implementing that legislation in Narathiwat [MNRE, 2012 (i) and (ii)].

Those difficulties are consistent with the postulations of recent literature regarding commonly occurring difficulties (World Bank Group, 2019; ONEP, 2018; TEI, 2018; TICA, 2017; Lee and Bond, 2018; Mascia and Mills, 2018; Overland, 2018) They are that:

- promotion of the participation of Narathiwatans, as a human right, is only sporadically done and without clear direction. The fishing sector of the community are particularly disadvantaged in this regard, an outcome which stifles their commitment to engage with those in authority;

- the decentralization of control over NRM projects is not fully circumscribed and goal-directed;
- the maintenance of good management by the relevant government departments or its agencies continues to be top-down, with inadequate participatory arrangements in working processes;
- local administration organizations, which are very close to the community, show little understanding of their roles resulting in poor support of communities, community organizations, and their leaders;
- management practices by state agencies is often fueled by negative attitudes towards low income communities many of whom have had little or no formal education. These cause continuing obstruction to the liaison between the two parties;
- on the one hand, communities are inclined to shift the responsibility of goal setting and achievement onto their leaders. On the other, the leaders on whom their followers rely, are ill-equipped as leaders: they lack vision, have little sense of responsibility, and are weak on a will to succeed, especially in the difficult task of working with the State on NRM;
- the prominent Community Forest Network of Bacho District only partially use the power granted to communities by Section 46 of the Thai Constitution in NRM of their constituents. The envisaged collaboration with the State was not taking place;
- communities are found to show little enthusiasm in recruiting new volunteers for NRM projects in which communities may engage. The fishing sectors in Muang and Tak Bai are mostly associated with this inadequate enthusiasm;
- insufficient effort goes into the planning of collaborative arrangements between the State and community persons or groups. The consequence is that most observers regard this as disinterest, apathy, and indicative of a lack of vision by both the State and communities;

- training of recruits, and in-service refresher input to those already involved, are not formally managed or promoted. In cases where recruits or existing participants have insufficient knowledge of forestation, fishing activity, or any of the other NRM activities, the level of their service cause more harm than good;

- Current interrelationships among the State, its agencies, community individuals, leaders, organized groups, and other interested parties in Narathiwat are not adequately collaborative. They are slight on planning, organizing, controlling and leading of NRM (and hence not focused on sustained development of communities), low on the use of the human capital in people who are not regarded as valuable assets to build through social development.

Method of study

The above analysis of a very broad range of relevant literature and documentary material portray NRM practices in Narathiwat as having more negative than positives features. The follow-up, empirical part of the case study, however, set out to establish whether indeed the views and experiences of those directly and indirectly involved in NRM in Narathiwat were similar or in any way different to those quantitative findings (Creswell, 2014; Baxter and Jack, 2003; Denzin, 2012; Terrell, 2012; Yin, 2011; Creswell, 2010).

Process

The qualitative research methodology was therefore launched over a period of 10 months, between March 2018 and December 2018 (Agerfalk, 2013). The process of the research included planned steps which were considered integral to it (Shields and Rangarjan, 2013). These were:

- Distribution of random notices of the research to the wider Narathiwat community, via outlets like private homes, shops, commercial centers, mosques, and schools. This meant that a large percentage of the

population were given the opportunity of inclusion;

- As an appendix to the above step, issue of invitations to the potential participants to take part;
- Arrangement of focus group sessions vis-à-vis individual interviews as this would fast track the process without the loss of quality findings;
- Conduct of focus group sessions of a maximum of 30 minutes each and at selected centers and at the convenience of participants. Thirty sessions of 402 participants in groups of 12 or 13 were eventually held; the researcher was assisted by university students, who were well briefed about procedures and already familiar with research processes.

Participants

By way of simple enumeration and frequency distribution, Table 1.0 below illustrates the full range of participants who attended focus group sessions (Baxter and Jack, 2010). It is significant that housewives achieved the highest percentage of attendance (9.45%) and hence the biggest chance to express their views on NRM in Narathiwat (World Bank Group, 2019). Professionals like miners, nurses, religious leaders, community workers, and steel workers attended insignificantly in terms of numbers (Hall and Patrinos, 2012); Kiumar, 2011).

Instruments

It was considered appropriate to use interview schedules with open-ended and close-ended questions (Creswell, 2014). Responses by attendees were entered on attached response sheets by those conducting the sessions. A conscious effort was made by researchers to record responses either verbatim or as close as possible to the original words and expressions used by participants. All response data were manually marshalled, sifted for accuracy and relevance, analyzed, and finally interpreted.

Ethical considerations

All participants were approached and later treated with appropriate sensitivity in recognition of their close connection with the aim and objectives of the research. During the initial approaches to garner the support and participation of the community, as well as during the group sessions, additional ethical considerations were applied (Iphofen, 2016; Creswell, 2010).

Researchers (a) avoided physical and psychological harm to participants (b) guaranteed anonymity and confidentiality (c) handled collected data safely and securely, while informing those involved of all processes and findings (d) showed respect for the human rights of all involved (e) were anti-oppressive, non-discriminatory, non-sexist, and non-sectarian at all times (f) at no point forced participants to participate, (g) allowed participants to withdraw whenever they wished to (h) were prepared to report findings even if they were unfavorable to prevailing wisdom and orthodox opinion (i) handled all data safely and securely, (j) acknowledged the role played by participants in data collection (j) promoted human rights and social justice in Narathiwat, as well as (j) engaged in the research to serve the greater good (World Bank Group, 2019; Iphofen, 2016; Creswell, 2014).

Results and analysis

The simple enumeration of data tallies in the form of frequency distributions and percentages presented in Tables 1.0 to 3.0 were considered adequate and data well suited for analysis and highlighting of the nuances of NRM in Narathiwat. They have also been open for interpretation, drawing of conclusions, and for recommendations for future NRM and research efforts (Denzin, 2012; Creswell, 2010).

Table 1.0 *Composition of Responder group*
(N=402)

Category	Scores	Percentage of population (N=402)
Fisher person	25	6.22%
Woodworker	16	3.98%
Housewife	38	9.45%
Builder	13	3.23%
Business owner	18	4.48%
Steelworker	2	0.50%
Public servant	25	6.22%
Administrative worker	26	6.47%
Nurse	5	1.24%
Forest worker	27	6.72%
Miner	3	0.75%
Street vender	25	6.22%
Shop owner	19	4.73%
Taxi driver	21	5.22%
Unemployed male		
(20-30 years old)	16	3.98%
(31-60 years old)	19	4.73%
Unemployed female		
(20-30 years old)	16	3.98%
(31-60 years old)	17	4.23%
Pensioner (male)	19	4.73%
Pensioner (female)	17	4.23%
Religious leader	4	0.96%
Community worker	2	0.50%
Livestock farmer	12	2.96%
Greens farmer	17	4.23%

Main findings

The completed focus group sessions produced a range of responses to both the interview schedule questions and statements, and of

participants' spontaneous, voluntary offerings of ideas, suggestions, and remarks World Bank Group, 2019). Sifting of those responses produced significant issues that were considered primary for achieving the objectives of the research. Firstly, Table 2.0 below therefore summarizes the frequency distribution of the main responses of participants regarding the current practice of basic NRM in Narathiwat.

The wide scope and distribution of responses to the 20 items put to participants offered an opportunity for wide-range analysis of what those items meant to participants in the broadest sense (Shields and Ranjarjan, 2013; Kumar, 2011). For example, it is significant that: scores were almost identical for 'awareness and application of land use regulation' and 'collaboration between State and community' as being 'hardly evident'; scores were high for the absence of 'intra-State coordination and cooperation'; half of the participant group proposed that 'reduction of soil erosion conditions' was 'hardly evident'; more than half labelled 'forest preservation and controlled deforestation' as 'hardly evident'. Overall, Table 2.0 depicts a leaning towards the lack of evidence or absence of basic NRM practice in Narathiwat. Close analysis of this depiction offers meaningful insights of the NRM in that region. It was noted that some of the 402 participants avoided responding to all items (Iphofen, 2016).

Table 2.0 *Community perspectives of the application of basic NRM by all stakeholders in Narathiwat (N=402)*

Item	Highly evident	Very evident	evident	Hardly evident	absent
Use of legislation and policies governing NRM practices		2	111	3	
Planned approach				123	9
Knowledge of NMR		2	81		2
Awareness and application of land use regulations	1		25	290	
Awareness of land use conflicts		104	6		5

Meaningful response to flooding	4		8	145	3
Control of water usage, waste, and conservation				178	
Reduction of soil erosion conditions				201	
Forest preservation and controlled deforestation				256	
Preservation of ecology of vegetation	1	2	3	1	51
Adequate habitat and other animal needs				177	
Control of mining works		4	65		2
Provision for livestock farming needs				125	
Support for fishing people and marine preservation			6	101	9
Intra-State coordination and cooperation			5	12	98
Collaboration between State and community		4	2	298	16
State aid for community efforts				167	4
Devolution of NRM power to communities			63	22	35
Academic, technical support to community				34	25
Commercial investment in NRM initiatives	3	2	1	13	15

Table 3.0 *Community suggestions for acceptable NRM in Narathiwat (N=402)*

Proposed action	Most essential	Essential	Highly recommended	Recommended
Precise and unequivocal human rights policies	91	42	12	23
Stringent enforcement of environmental conservation legislation and policies	41	14	8	33
Sustained preventative measures for environmental deterioration	3	31	9	1
Sustained implementation of ecological preservation	7	11	23	6
Recognition of, and provision of all forms of aid for, community efforts at self-reliant initiatives	152	100	53	19
Community inclusion in State-run, sustainable development programs	92	36	37	15

Collaboration between State, and communities	199	106	9	13
Regular review, evaluation, and adaptation of NRM in its broadest sense	16	12	4	17
Ranking of the management needs of the different types of natural resources	10	19	5	3

Responses in Table 3.0 above - to the first eight proposed actions put to participants - are indicative of a general leaning towards those actions that fell within the 'essential' rather than the 'recommended' range. The ninth action in Table 3.0 was voluntarily proposed by 37 participants who independently scored it according to the different degrees of 'essential' and 'recommended'. As found in the case of the findings presented in Table 2.0, some participants chose to not respond to all proposed actions (Iphofen, 2016; Shields and Rangarjan, 2013).

Analysis

The responses of the total of 402 participants are not considered as representative of the population of Narathiwat. Rather, the sum of those responses is taken as a combined barometer of how the focus groups perceived NRM in Narathiwat (Agerfalk, 2013; Denzin, 2012; Baxter and Jack, 2010).

In Table 1.0, the 22 categories of employment or vocation of those of the population of 402 who responded to the invitation to attend, allowed for a wide, fair, cross-sectional picture of the community's connection to NRM and hence the achievement of different perspectives which might have had their origin in the different nature of those categories (Denzin, 2012). The highest score of 9.45% by housewives is interpreted as indicative of the NRM concerns of those community persons who are mostly confined to their homes and having more opportunity to mull over social problems and service difficulties (World Bank Group, 2019; Sachs, 2015). Equally significant are the similar frequency of an average 6.0 % participation fisher persons, public workers,

administration workers, forest workers, street vendors. Though minimal, this frequency may be indicative of the most common activity preferred by Narathiwatans. On the contrary, and understandably due to the lack of underground, natural resources, miners scored lowly. The reasons, however, for the low scores for nurses, community workers, and religious leaders are not self-evident.

The starkly negative views of the majority of participants in their responses to virtually all of the 20 items on basic NRM practice in Table 2.0 is evidence of a general lack of support for the NRM activities at the time. Apart from 27.61 % suggesting that the use of legislation and policies governing NRM practices was 'evident', 25.87% agreeing that awareness of land conflicts was 'very evident', the high scores for 'hardly evident', of 72,14% for awareness and application of land use regulations, 50% for reduction of soil erosion conditions, 63,68% for forest preservation and controlled deforestation, and 74.13% for collaboration between State and communities show that the latter was a major concern of the participants (Gandiwa, 2012; Hall and Patrinos, 2010). If taken as a possible indicator of the impressions of those excluded from the research, then it would indeed pose as an issue requiring the urgent attention of the State and policy makers (Riisgaard and Ponte, 2011). This does not mean, however, that other high scoring negative responses to NRM items do not demand attention.

While they are firstly a demonstration of their commitment to the removal or reduction of managerial shortcomings, poor State engagement with communities, as well as community apathy and ignorance, the participants' suggestions for ways to address

those negatives reflect their willingness to participate in NRM on all levels, including problem solving (see Table 3.0). In this regard, the 61% of those who offered responses and who suggested that collaboration between State and communities alongside community inclusion in State-run, sustainable development programs was ‘most essential’, are inviting those in authority to enlist the help of communities as co-workers in concrete, organized programs through which they would develop in sustained ways. This outcome confirms the literature findings of the present research (World Bank Group, 2019; Sachs, 2015; Colbry et al., 2014; TAI, 2014; Bacho District Office, 2012; BTAO, 2012).

Conclusion

The present research has demonstrated the lack of doubt about the high importance attached to proper management of natural resources as a prerequisite for their correct use, conservation, and protection; that quality management would allow humankind, and all other life forms, to continue their existence without difficulty (Doyle et al., 2015; Perez-Carmona, 2013; Singh and Singh, 2012; Poku and Whitman, 2011). Narathiwat has the proven capacity to do so, given its varied human capacity, legislative frameworks, expertise, grassroot commitment, and national will to succeed at it.

Literature, recent research efforts, and the findings of the present research affirm the above as well as problems encountered in standard NRM in Narathiwat (TEI, 2018). The potential, however, for resolution of those problems are available, especially through closer collaboration between all concerned. The finding that community members are keen on closer collaborative ties with the State of Thai and themselves bodes well for the attainment of better, more efficient, and sustained effectiveness in its NRM practices (Sachs, 2015; Enders and Reming, 2014; Hall and Patrinos, 2012; White, 2012).

That collaboration in Narathiwat would be consistent with the general view that it is a technique or tactic capable of generating

sustained development of people and their environments, suggests that it could well reduce the region’s difficulties in proper working relationships with its State Departments (Colbry et al., 2014; Magee et al., 2013). It would, however, be essential that the ethos of collaboration be spread in the first place. Follow up efforts could include, in a sustained way, drawing on the region’s asset of grassroots human capital and investing in the upgrading of their capacity to collaborate with those State Departments. In this way, the chances of ultimate success in NRM can be advanced (Jenkins, 2010).

Communities in Narathiwat have the human right for development, equity, fairness, non-discrimination, non-sectarianism, and justice in the use of, or access to, natural resources (Sachs, 2015). This right is entrenched in the value systems of all major Faiths in the region who are known to have the will to work together. Those members of the community, whether as individuals or formal organizations, who lack the knowledge, knowhow, or insight into relevant laws, policies or community lore that govern NRM, could qualify for State-funded education or sourced from other community vehicles (UNESCO, 2018).

The several suggestions made by the research focus groups contain useful ways whereby difficulties or shortfalls in Narathiwat NRM could be circumvented. This is evidence that communities are capable and willing to match formal, governmental structures and processes as change agents (World Bank Group, 2019; UNRISD, 2011). The clamor for collaborative NRM relationships between the State and communities is a determined one. If enacted, they promise to achieve better, sustained, equitably proportional distribution of benefits for both (UNO, 2011; Schilling and Chiang, 2011). This can only be realized if communities are engaged with in the first place.

Recommendations

It is recommended that:

1. as a first step, concrete moves be made by both State agents and community representatives for roundtable communication with the aim to jointly plan and structure collaborative programs geared towards acceptable NRM in Narathiwat (Colbry et al., 2014);
2. both parties agree on, and man, run, review, and evaluate such collaborative working arrangements;
3. difficulties in the implementation of NRM programs be handled in the same collaborative ways, and that suggestions such as those offered by the participants of the present research be considered as possible solutions;
4. the natural phenomenon of social movements be continually monitored, measured, and evaluated so that NRM activities might be adapted as necessary;
5. as permitted by the Enhancement and Conservation of National Environmental Quality Act, B.E. 2535 (1992) (MacIntosh, 2013), community members be allowed to take part in environmental impact assessment procedures prior to the establishment of development projects;
6. existing legislation, ordinances, and relevant policies for NRM be strictly enforced to ensure proper, official aegis and control over NRM activities, as well as acceptable adherence of them by communities (MacIntosh, 2013);
7. the strong attachment of the predominant agricultural people of NRM should be supported in the form of outside capital investment and other forms of help;
8. zoning plans, limits on usage, and general NRM practices should be done according usage trends of the natural resources present in Narathiwat areas affected by the zoning;
9. the proposal of the Twelfth National Economic and Social Development Plan (2017-2021) for the strengthening of the ability of stakeholders to make effective contributions to NRM progress, be implemented;
10. all stakeholders be enabled with appropriate knowledge and skills in order to contribute to collaboration in the development process while exercising their citizenship effectively (Blewitt, 2015);
11. Narathiwatans be made aware of their responsibilities and roles in accordance with their social status and culture.;
12. Narathiwatans should respect the laws, rights and freedom of all groups in the regions as well as those in neighborhoods;
13. formal and informal education sectors should be encouraged to assist in the equipping the community with the ability to propel the region's normative standards of NRM, make informed decisions about its many aspects;
14. Narathiwatans be empowered towards self-reliant NRM practices in order to reduce their dependence on others in this respect;
15. all concerned be educated and trained in the finer skills and all principles, ethics, values, and processes of NRM in the context of Narathiwat, especially in how the practice could be collaborative between the State and communities;
16. 'technical solutions' (Zelenika and Pearce, 2014, p 1299) be explored as feasible means to deliver better sustained development of communities and NRM work (Sachs, 2015);
17. the Narathiwat community be strengthened through better management of information relevant to NRM;
18. local culture and lore be respected and retained in all NRM plans and their implementation.

Significance and limitations of the research

The researcher considers it worthwhile and useful for the relevant professions, State agencies, professionals, and the community in the Narathiwat region to be made aware of the

various theoretical nuances and indeed the importance of their NRM work or potential for such work in the region (Bhattacharya, 2011). It is, however, about the challenging role of collaborative liaison between the Thai State machinery and communities of Narathiwat that the study wishes to provide fresh insights, new knowledge, and suggestions for removal of obstacles.

On the practical level, the study is regarded as a valuable effort to elucidate to partner professionals how their allies in sustained social development, and the use of human capital, could be practically melded together into one, focused, collaborative unit comprising the State and communities of Narathiwat (Akenji and Magnus, 2014; Heidl, 2010). The study also addressed the filling of gaps in working relationships that could derail collaborative endeavors, especially as they might affect professionals and communities.

Others who could benefit are the State development departments responsible for NRM in Narathiwat. The findings of the study would potentially (a) encourage their renewed perception of NRM and recognition of themselves as co-workers with communities, (b) help them recognize the value of inter-professional and professional-nonprofessional approaches in both the practice of NRM and reduction of associated difficulties, and (c) spur the State on to sustain delivery of better statutory services according to the needs and capabilities of communities (World Bank Group, 2019; Overland, 2018; Sachs, 2015; Colbry et al, 2014; Overland, 2018).

The study has been small-scale. and its findings are therefore not to be regarded as representative of the thinking and experiences of the whole Narathiwat community. It can, however, serve as a forerunner for other, more broad-based investigations of the topic of the present research (Creswell, 2014).

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