

Participatory Knowledge Management to Enhance Local Wisdom Based on Cultural Capital and Resources on the Thai-Cambodian Border, Surin

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Abstract

Communities along Surin's Thai-Cambodian border possess extensive local wisdom, particularly in folk medicine. However, its preservation and transmission face challenges due to modernization and a lack of knowledge transmission to younger generations. This study employed qualitative methods, including focus groups, semi-structured in-depth interviews, and Participatory Rural Appraisal (PRA), to investigate knowledge management practices in Khmer, Lao, and Kui communities in the Phanom Dong Rak and Kap Choeng districts, Surin. The research focused on understanding how local medical wisdom, encompassing prevention, treatment, and rehabilitation, is managed and shared within these diverse communities.

The research revealed that while these communities possess extensive local medical knowledge, challenges related to the declining use of folk medicine and a shortage of younger generations to carry on traditional practices persist. This study underscores the urgent need for community-driven knowledge management, cultural sensitivity, and adaptable solutions to empower communities to preserve their valuable heritage. The proposed guidelines, which focus on three key areas: recognizing each community's diverse cultural assets and resources, implementing effective management of local wisdom knowledge, and fostering active community participation in revitalization efforts, are designed to be implemented by the communities themselves. By addressing these key areas, this research will inform strategies to adapt local wisdom to modern needs while preserving it for future generations.

Keywords Local wisdom; Participatory knowledge management; Cultural capital; Cultural diversity

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Introduction

Thailand, rich in natural resources, cultural diversity, and local wisdom, faces increasing global pressures and rapid technological change. In response, the country emphasizes grassroots economic development, utilizing local knowledge and resources to maintain sustainability. This strategy promotes and develops the grassroots economy, strengthening communities and localities. The goal is to enhance the capabilities and resilience of the people to enable greater self-reliance. This strategy aligns with the national vision for the 20-year strategic plan (B.E. 2018-2037), which envisions Thailand as a stable, prosperous, and sustainable nation through development based on the sufficiency economy philosophy. The development objectives for the country include ensuring national security, happiness of the population, continuous economic development, a just society, and the sustainable management of natural resources. This strategy aims to add value to products and services through Thai identity and innovation, fostering self-sufficiency and a knowledge-based society while preserving local culture and resources. The goal is a balanced and sustainable economy, ensuring the well-being of its people even in a fast-changing world.

Cultural capital, a vital component of societal capital, encompasses the values, knowledge, and local wisdom that shape communities. It includes creative expressions born from exploration, the beliefs that unify a society, and the norms and traditions that promote well-being. Passed down across generations, cultural capital is a rich heritage rooted in the community's collective wisdom (Pattamasiriwat, 2004). This valuable heritage takes both tangible and intangible forms. Intangible forms include thoughts, beliefs, deeply held values, and institutions like religion and education. Tangible forms manifest as traditional textiles, artworks, architecture, and other physical creations that reflect human knowledge and creativity (Bourdieu, 1986). Cultural capital can be inherited from previous generations but evolves through new experiences and interactions. Furthermore, cultural capital holds potential for economic development, including through sustainable cultural tourism initiatives. Leepanyaporn (2020) demonstrates this potential within the Thai context, highlighting the importance of community-led approaches in harnessing the power of cultural wisdom and heritage.

Local wisdom, a key element of cultural capital, encompasses the knowledge, skills, beliefs, and behaviors passed down within a community. Knowledge can be understood as information, experience, and understanding in individuals' minds (Xue, 2017). It encompasses both tacit knowledge (skills, expertise, and internalized understanding) and explicit knowledge (information that can be articulated) (Anand & Walsh, 2016). The dynamic interplay between these forms of knowledge shapes the unique solutions and adaptations found within local wisdom. It forms the intellectual foundation and instills a sense of cultural pride. As a crucial aspect of the Creative Economy, local wisdom contributes to problem-solving, management, and adaptation, benefiting individuals, communities, and society. Effective management involves systematically organizing this knowledge, promoting efficient problem-solving, job creation, and income generation within the community. As Chimplee (2012) described, community knowledge management is a repository of wisdom, enabling knowledge transmission within and outside the community. Thailand's rich tapestry of cultures and resources offers diverse local wisdom essential for sustainable development, community empowerment, and economic self-sufficiency. Prioritizing local wisdom aligns with the sufficiency economy, enabling community-driven problem-solving and resilience. The Department of Intellectual Property categorized knowledge into three main groups: 1) Traditional Knowledge of Local Communities: Knowledge, methods, skills, innovations, and practices derived from intellectual activity and passed down through generations (e.g., traditional winemaking, knife crafting, silk weaving). 2) Expressions of Folklore and Indigenous Culture: Manifestations of knowledge and traditions reflecting a community's cultural uniqueness, often expressed through oral traditions, music, physical expression (dance, rituals), and tangible forms (art, murals) and 3) Genetic Resources: Living organisms or their components within an ecosystem, holding inherent value and potential benefits (e.g., local medicinal

plants with therapeutic properties) (Department of Intellectual Property, 2014). This accumulated wisdom, passed down and adapted over time, offers solutions to challenges and supports the development of sustainable livelihoods within each region's specific context. Therefore, managing Indigenous knowledge and elevating local wisdom aligns with a creative economy approach, empowering communities to self-reliance (Choibamroong, 2011). However, challenges exist, as highlighted by the Department of Intellectual Property (2014). These include the unauthorized use of Thai traditional knowledge abroad, the lack of international standards for protection, the fragmented nature of this knowledge across various agencies, and the need for a comprehensive agency responsible for its overall protection. Addressing these challenges requires specialized knowledge and expertise to safeguard Thailand's intellectual property rights.

Harnessing the knowledge and wisdom embedded within a community's cultural heritage is crucial for building social capital. This heritage encompasses tangible and intangible cultural assets, including intellectual property associated with knowledge, local wisdom, and creative works. Cultural capital is a valuable repository of past knowledge, driving a country's development. Effective management practices guided by respect for cultural diversity are essential to benefit fully from Thailand's diverse cultures and resources. This approach prioritizes balance, sustainability, and active stakeholder participation, empowering communities to recognize the value of their cultural and local wisdom capital. Through collaboration, preservation, ongoing innovation, and value creation, communities can continuously contribute to society and the economy.

Knowledge management, as defined by Panich (2008), is the process of maximizing the value of knowledge for organizations, groups, or individuals. It emphasizes efficiently using knowledge resources, fostering diversity, and facilitating creative learning exchanges. Effective knowledge management models include various frameworks with distinct but interconnected steps. The Office of the Civil Service Commission and National Institute of Development Administration (2005) proposed a seven-step knowledge management process that can be particularly useful in local wisdom. This process begins with (1) identifying crucial knowledge within the community. It might involve traditional ecological practices, specialized craft techniques, or unique cultural rituals; (2) knowledge creation and acquisition, including documenting this knowledge through workshops, interviews with elders, or participatory observation. Once knowledge is gathered, (3) knowledge organization ensures its efficient retrieval and use. It could involve creating community-led archives or developing visual classification systems. (4) Knowledge codification and refinement involve transforming knowledge into formats like manuals, guides, or educational materials. (5) Knowledge access emphasizes ensuring everyone in the community can easily find the information regardless of age or literacy level. (6) Knowledge sharing is fostered through intergenerational exchange programs, mentorship initiatives, and community events. Finally, (7) learning is emphasized through continuous knowledge exchange, adaptation, and integration of new experiences and information.

In the Thai context, applying knowledge management to local wisdom necessitates a community-driven approach that respects cultural diversity and incorporates tacit and explicit knowledge. For instance, in a community known for its intricate weaving techniques, the knowledge identification step might focus on specific patterns and dying methods. Knowledge creation and acquisition could involve intergenerational workshops with elders leading demonstrations. This knowledge could then be organized using a visual system accessible even to those with limited literacy and codified into step-by-step guides for future generations. Such a localized knowledge management approach enables communities to effectively utilize their unique cultural capital for problem-solving, innovation, and fostering resilience within a dynamic global context.

Participation involves the active engagement of the public or community members in various aspects of a project or initiative, particularly in a way that aligns with Participatory Rural Appraisal (PRA) methodologies (Pretty et al., 1995; Chevalier & Buckles, 2019). It emphasizes community

members as knowledge creators and co-researchers throughout all phases, from problem-solving and decision-making to resource mobilization, technology development, and joint management. Crucially, participation should aim for the higher levels of Arnstein's Ladder (1969), striving not just for involvement but also for community ownership and empowerment. Community participation aligns with the community's culture and way of life, ensuring initiatives generate genuine benefits for the community (Valaisathien, 2006). It is a fundamental guarantee, empowering individuals to sustain their lives within a community effectively and building their capacity for future self-determined initiatives.

Surin province possesses a rich cultural heritage, diverse cultures, and abundant natural resources. It holds a wealth of local knowledge and experiences, including traditional agricultural practices, healing methods, and craft techniques. Particularly in its border region with Cambodia, home to Khmer, Kuay, and Lao ethnic groups, this knowledge has been vital for problem-solving and adapting to environmental challenges. However, there is a growing concern that this valuable local wisdom is at risk due to a lack of systematic documentation, diminished transmission between generations, and the influx of external cultural influences without appropriate contextualization. Studies explicitly examining participatory knowledge management approaches for preserving local wisdom within Thai-Cambodian border communities are limited. This presents an urgent need to research how traditional knowledge can be enhanced and sustained using methods tailored to this unique context. Due to time constraints, this research primarily focuses on local medical wisdom, a vital component of the Thai-Cambodian border region's cultural capital. However, this study acknowledges the diverse range of local knowledge within these communities and aims to build a foundation for future studies exploring those areas. This study investigates explicitly how local medical knowledge is currently managed within these communities, identifying challenges and opportunities for its preservation and revitalization. This research will contribute to the state-of-the-art by developing practical guidelines for revitalizing local wisdom in culturally diverse border communities. This study addresses the urgent need to document and safeguard traditional knowledge, particularly medical practices, before it is lost, ensuring its benefits and wisdom are available to future generations.

The researchers are excited about this study's potential to systematically and ethically enhance local wisdom based on culture and resources along the border of Surin Province, Thailand, focusing on knowledge management participation to enhance local wisdom systematically and ethically. This study will build upon existing participatory knowledge management approaches while emphasizing the Thai-Cambodian border region's unique cultural dynamics and resource considerations. While local wisdom plays a vital role in shaping community identity and environmental stewardship across Thailand, studies explicitly examining the dynamics of traditional knowledge transmission and preservation within the Thai-Cambodian border region of Surin Province remain limited. This gap is particularly concerning given the potential erosion of local practices due to modernization and cross-border influences. This research addresses this gap by offering practical guidelines for its revival and sustainable integration into community life. These efforts will benefit the community's well-being and contribute to a broader understanding of how cultural heritage can be leveraged for grassroots economic development and self-reliance. This research is urgent as the preservation and innovative utilization of local wisdom are crucial for ensuring the sustainable future of the Surin Province communities and Thailand.

Methodology

Research design

This study employs a qualitative, participatory approach, utilizing multiple data collection methods to achieve its objectives. The Participatory Rural Appraisal (PRA) method was adopted as

the primary approach to investigate and analyze community participation. The PRA method emphasizes community empowerment and collaborative knowledge generation, aligning with the emphasis on participatory knowledge management (Chambers, 1994; Cornwall & Jewkes, 1995). PRA has been successfully employed in similar research contexts to investigate local knowledge systems and cultural assets. It has also been used effectively in studying community-driven development initiatives (Pretty et al., 1995). Additionally, PRA's emphasis on visual and participatory tools aligns with the need to capture the complexity and nuances of local wisdom, as emphasized by Chevalier and Buckles (2019). This study aims to foster an environment of mutual learning and exchange, focusing on acquiring insights related to the community's context, local wisdom, cultural assets, knowledge management, and innovative strategies for enhancing local wisdom through cultural and resource-based innovations. PRA is particularly well-suited for this study because it focuses on empowering communities and collaboratively generating knowledge, aligning with the emphasis on participatory knowledge management.

Data collection

Data collection employed a comprehensive and multi-faceted approach to gain a holistic understanding of community participation, local wisdom, and related aspects. This approach encompassed three main methods: (1) Document Analysis, involving the thorough review of existing documents, records, and pertinent materials to provide historical context, identify existing local wisdom practices, and offer baseline data against which to evaluate the impact of the developed guidelines; (2) In-depth Interviews, consisting of individual interviews with key informants such as community leaders, social leaders, local experts, villagers, academics, community representatives, government officials, and relevant private organization representatives, which yielded rich qualitative data, allowing for deep exploration of individual experiences with local wisdom and current knowledge management practices. This directly aligns with objectives 1 and 2, which center on understanding the nature of local wisdom and how it is currently being managed; and (3) Group discussions will reveal diverse perspectives, collective knowledge, and community-level attitudes surrounding local wisdom which aid in understanding current knowledge management practices and contribute to developing culturally sensitive guidelines.

Data analysis

This research employs a multi-phase approach designed for the systematic examination of objectives. The approach aligns with the complex and qualitative nature of collected data. Triangulation techniques are used initially to ensure data accuracy and credibility through cross-referencing information from various sources. The content analysis serves as the primary data analysis method throughout the study. The process begins with open coding to identify key concepts and patterns. These are subsequently grouped into categories based on their relationship to research objectives. Examining themes, including the generational divide in knowledge transmission, the lack of systematic documentation practices, and the adaptation of knowledge to contemporary needs, is facilitated. Data is subjected to content analysis in the second phase, presenting findings descriptively. The third phase incorporates content analysis and thematic summarization to synthesize data. This proposes practical strategies for advancing local wisdom in the Surin Province border region to be detailed in future research endeavors.

Research setting

The study site selection was purposeful, focusing on four sub-districts within Surin province recognized for their distinctive features, cultural diversity, rich local wisdom, and accessible resources. These chosen sub-districts include Kok Takhian Sub-district and Naeng Mut Sub-district in Kap Choeng District, as well as Ta Mueang Sub-district and Bak Dai Sub-district in Phanom Dong Rak District, all located within Surin Province. The decision to include these areas was driven by their

proximity to the Thailand-Cambodia border and their potential to provide multi-faceted insights into community participation and local wisdom.

Participant selection

Participant selection followed a purposive sampling approach to ensure the inclusion of individuals with expertise and experience in local wisdom and knowledge transmission. A total of 100 participants (25 from each sub-district) were selected. Participants included local sages, traditional healers, community leaders, and community representatives representing various ages, genders, ethnicities (Khmer, Lao, Kui), and roles within their communities. This diverse sample ensured various perspectives on local wisdom and knowledge management practices. Key selection criteria included long-term residency within the research area (minimum of 10 years) and familiarity with the local context, cultural assets, and local wisdom practices. Participants also demonstrated a willingness to participate actively in the research process. To ensure a well-rounded understanding of local wisdom, the selection process prioritized a diversity of perspectives, targeting individuals with experience in sectors where local wisdom is particularly relevant. This approach aligns with the principles of qualitative research and the recommendations of Miles and Huberman (1994), ensuring the selection of participants capable of providing in-depth insights, articulating knowledge clearly, and adhering to ethical research standards.

Ethical considerations

The researchers prioritized the ethical treatment of key informants, obtaining approval from the Research Ethics Committee of Surin Rajabhat University (protocol HE652005). In this qualitative study, data from primary informants were anonymized using code numbers for confidentiality. Personal information was securely maintained, and research findings were presented in an aggregated format to minimize adverse effects on organizations and informants, aligning with ethical research principles.

Findings

The researchers have summarized the research findings according to the research objectives as follows:

Results on local wisdom context of cultural and resource-based along the Thai-Cambodian Border area, Surin

In the areas of Phanom Dong Rak and Kap Choeng Districts, Surin Province, it was found that the population is notably diverse in terms of ethnic backgrounds. Various ethnic groups such as Khmer, Lao, and Kuoy have established local communities, each contributing to the region's rich cultural and resource-based diversity. The area also has a unique cultural heritage and abundant natural resources, especially in the border areas adjacent to Cambodia. These findings highlight the wealth of local wisdom based on cultural and resource foundations in the Thai-Cambodian border region of Surin Province: *Agricultural Wisdom*: The community harnesses local wisdom to foster sustainable agriculture in this domain. They employ local herbs to combat pests, reducing reliance on harmful chemicals. This focus on local knowledge and environmentally conscious practices aligns with findings from studies on sustainable agriculture in other regions of Thailand (Interatep et al., 2017). Additionally, there is a strong focus on organic farming methods, which contribute to environmental conservation and utilize community resources. Mixed vegetable cultivation, an innovative approach, helps manage diseases and pests while boosting the community's income. *Woven Wisdom*: The community taps into its weaving expertise using readily available resources like banana fiber artistry and flax weaving traditions. This practice preserves a valuable cultural tradition and is an income source for many households, as these skills are passed down through generations (Chimplee, 2012; Keyraphan, 2018). *Folk Medicine Wisdom*: Local herbal knowledge is used in self-care, healing, and home remedies. Furthermore, traditional massage and healing practices are crucial in pain relief and

overall well-being. Studies on traditional medicine within the Thai-Cambodian border region underscore the continued importance of these practices (Hongsiri et al., 2020; Jaisue et al., 2021). Interestingly, these categories of local knowledge are not isolated. For instance, herbs in agriculture and healing demonstrate how traditional practices often bridge community life's economic, environmental, and health-related dimensions. *Philosophical, Religious, Belief, and Ritual Wisdom*: This facet encompasses rituals to attract good fortune, ensure protection, and achieve success. Divination is also prevalent for assessing risks and predicting future outcomes. Studies have highlighted the role of rituals and divination in guiding decision-making and fostering a sense of community within the region (Bourdieu, 1986; Anand & Walsh, 2016). *Natural Resource and Environmental Management Wisdom*: The community incorporates Buddhist rituals into forest conservation efforts, a practice known as forest ordination. This harmonious blend of culture and conservation helps protect the local environment while honoring their beliefs (Susanto & Samadan, 2021; Pretty et al., 1995).

However, due to time limitations, the researchers selected a specific type of local wisdom from the local wisdom findings along the Thai-Cambodian border in Surin Province. The local medical knowledge was selected, emphasizing prevention, treatment, rehabilitation, and self-care practices rooted in cultural traditions and resources. This decision was based on in-depth interviews and the local relevance of these practices, which are valuable for community development and sustainability amidst changing social contexts.

Results on the participation in knowledge management of cultural and resource-based aspects along the Thai-Cambodian Border area, Surin

Dependence on the Environment and Challenges to Knowledge Management: Local medical knowledge in this Thai-Cambodian border community is deeply rooted in the natural environment, with medicinal herbs playing a central role in healthcare practices. However, the preservation and transmission of this knowledge face significant challenges. Modernization and societal shifts lead to a declining interest in traditional practices among younger generations. Community leaders have voiced concerns about this trend, stating,

“Unfortunately, the new generation...likes to act in new and fashionable ways. I do not know much about local things anymore... We must quickly create awareness. Otherwise, it will disappear” (Community leaders, Group discussion, 2022).

The diminishing importance of traditional medicine, particularly among younger community members, has led to difficulties in identifying and utilizing medicinal plants (Jaisue et al., 2021). The reliance on oral transmission further complicates knowledge preservation, as highlighted by a participant who noted,

“I learned from my grandfather; remember, we did not study with him. If you ask me to write it down, I do not know how to do it...” (Group discussion, 2022).

While some written records exist, they are often incomplete or challenging to interpret, as illustrated by another participant's statement:

“There are ancient texts...But there is still a lot missing...” (Group discussion, 2022).

The absence of formal documentation, and the lack of a structured system for knowledge sharing and collaboration presents a real threat to the preservation of this invaluable knowledge. Research by Jaisue et al. (2021) and Interatep et al. (2017) underscores the resistance of younger generations to traditional practices, the scarcity of skilled practitioners, and the insufficient support for knowledge transmission. These factors, combined with the reliance on oral tradition and experiential learning, could lead to an ecological environment imbalance due to potential over-harvesting or neglect of medicinal plants.

This study examines the participation in knowledge management within folk medicine along the Thai-Cambodian border in Surin using a 7-step knowledge management process:

1. Knowledge identification: This research confirms the community's primary reliance on indigenous herbs and plants for healthcare, encompassing preventive and treatment practices that often incorporate cultural beliefs and rituals. As one traditional herbal healer shared,

"There are always people coming to see me... Or if any children in the house are sick, they come to me to give me medicine and to pray for them" (Traditional herbal healer: Group discussion, 2022).

This highlights the multifaceted role of traditional healers in the community, providing physical remedies and spiritual support.

Specifically, the healing process is divided into two phases. The first phase focuses on early prevention and treatment when symptoms are not severe, utilizing readily available local herbs. The second phase focuses on recovery and mental healing, often involving a combination of herbal remedies and rituals. This aligns with the findings of Hongsiri et al. (2020), who describe how the Guay (Kui) ethnic group employs specific observation, diagnosis, and herbal treatment methods alongside ritualistic practices. Another healer elaborated on the importance of integrating spiritual elements in treatment, stating,

"...Some diseases cannot be cured anywhere, so you must use magic to help... These things cannot be seen. However, we must do it together... This kind of treatment is based on belief. The mind is the master, the body is the slave..." (Traditional herbal healer: Group discussion, 2022).

This demonstrates the holistic approach of local medical wisdom, which addresses physical ailments and the individual's spiritual well-being.

2. Knowledge creation and acquisition: Despite the complexities of deciphering ancient medical scripts, this community's knowledge persists through strong family inheritance traditions and individuals who proactively seek additional training. As one traditional herbal healer explained,

"... It is like fate. We were born to someone who was a medicine doctor. It must be inherited.. like in which house, what subjects do they have? His children and grandchildren must be too" (Traditional herbal healer: Group discussion, 2022).

It highlights the strong firm in lineage-based knowledge transfer within the community. Knowledge transfer about Indigenous healthcare primarily occurs through this family-based system, passed down through generations (Hongsiri et al., 2020). However, some individuals supplement this inherited knowledge by participating in training programs offered by relevant organizations, fostering a valuable integration of traditional and modern medicine.

3. Knowledge organization: Despite limited and often damaged written records, valuable insights into folk medicine exist, highlighting the urgent need for better knowledge organization. The community primarily relies on oral tradition and memory-based knowledge transfer, with elders and healers serving as the primary repositories of this knowledge. As one traditional healer observed,

"There are ancient texts... But there is still a lot missing" (Traditional herbal healer: Group discussion, 2022),

Which emphasizes the fragmented nature of existing documentation. While scattered textbooks and documents contain records of traditional medicine, these often need to be completed and preserved. As Jaiaree (2015) notes, this knowledge has a rich lineage within the community, but the lack of a systematic approach to preservation endangers its transmission to future generations. A community elder echoes this sentiment, lamenting,

"Much knowledge was lost when our ancestors passed away due to illness without passing on their knowledge... it is regrettable" (Community elder: Group discussion, 2022).

4. Knowledge codification and refinement: While vital, traditional medical knowledge faces challenges in codification due to its reliance on oral tradition and limited written documentation. This community possesses diverse knowledge for addressing various health needs, drawing upon natural resources and cultural beliefs passed down through generations. One herbalist shared,

“We use various herbs, but it is not just about the plants. It is about knowing when to pick them, how to prepare them, and what prayers to say” (Traditional herbal healer: Group discussion, 2022).

It highlights the intricate nature of local medical wisdom, which is not solely about ingredients but also about timing, preparation, and spiritual elements.

For a holistic approach, practices like using indigenous herbs (turmeric, lemongrass) are often combined with massage, energy manipulation, and spirit- appeasing rituals. This reliance on interconnected knowledge systems is also observed in other parts of Thailand (Piriyatachagul et al., 2020). Interestingly, while Piriyatachagul et al. (2020) focus on Northern highland communities, this border region similarly relies on rituals and beliefs in their approach to health and well-being. Such interconnectedness adds complexity to codification efforts, as the knowledge cannot easily be separated into isolated facts. Local medical wisdom, deeply intertwined with beliefs and rituals, remains a vital aspect of life in the Thai-Cambodian border region. These practices often work in conjunction with herbal remedies to address mental and emotional health concerns, especially illnesses with unknown origins. Among the Khmer and Kuay ethnic groups, seeking guidance from a ‘Bow,’ a spiritual medium with divination and recommendations for offerings or purification rituals, provides a strong support system during illness. This complex interplay of knowledge, beliefs, and practices presents a challenge for documenting and the preservation of traditional medical wisdom in a structured and easily accessible format.

5. Knowledge access: Accessing local medical knowledge faces challenges due to the limited number of knowledgeable elders and their reserved nature. Some healers express hesitation in openly sharing their expertise due to a fear of misuse or cultural appropriation:

“People do not care about traditional medicine anymore... They prefer to go to the hospital... The young generation does not want to learn this kind of thing...” (Traditional herbal healer: Group discussion, 2022)

This reluctance often stems from a strong emphasis on traditional apprenticeship models, where knowledge is passed down selectively through direct experience and observation. However, efforts are underway to improve access. Organizations such as traditional Thai medicine groups and alternative medicine hospital departments provide connections to this knowledge. Collaborative initiatives with public health volunteers further promote the dissemination of this vital knowledge within the community. Access to this wisdom is essential for maintaining health and well-being, as these practices are deeply ingrained within the community’s culture and values.

6. Knowledge sharing:

Traditional knowledge is shared within families, focusing on herb identification and preparation methods for common ailments. One participant explained,

“We mostly learn from our parents and grandparents... they teach us which herbs to use for fevers, coughs, stomach aches, and other common illnesses” (Community member: Focus Group, 2022).

Knowledge is also shared with patients during recovery, with healers explaining the properties and uses of specific herbs to empower patients in their healing journey. Occasionally, knowledge is shared through community workshops organized by local organizations or healers. However, expanding knowledge sharing faces challenges such as the limited availability of teachers and a need for comprehensive written resources. One participant noted,

“Not everyone has the opportunity to learn from an experienced healer, and it is hard to find books or documents that explain everything in detail” (Community member: Focus Group, 2022).

A study on transmitting traditional knowledge related to herbal medicine (Phon- ngam, 2018) supports these findings, highlighting the challenges in ensuring widespread access to this valuable knowledge.

7. Learning: The COVID-19 pandemic has sparked a renewed interest in traditional medicine, leading to greater knowledge sharing between local physicians, leaders, and community members. As one local sage remarked,

“The pandemic reminded us of the power of our ancestors’ wisdom. We turned to our herbs and remedies when modern medicine seemed out of reach” (Local Sage Group discussion, 2022).

Newly established herbal education centers offer courses on identifying and utilizing medicinal plants, fostering improved self-care and a broader appreciation for traditional practices. These centers also organize community events and demonstrations, further promoting knowledge transmission and strengthening the community’s connection to its heritage. This collaborative effort during challenging times is genuinely inspiring, as a community leader noted:

“We have come together to protect our knowledge, not just for ourselves but for future generations. It is a testament to the resilience of our traditions” (Community leader: Group discussion, 2022).

Results on proposed guidelines for enhancing local wisdom through cultural and resource-based management innovation along the Thai-Cambodian border area, Surin.

The research findings revealed the potential to significantly strengthen local wisdom management in the Thai-Cambodian border area of Surin Province by addressing several key issues. These issues fall into three primary categories: 1) The diversity of cultural assets and resources aspects, 2) Management of local wisdom and knowledge aspects, and 3) Community participation aspects. The researchers have compiled key issues to develop guidelines for enhancing local wisdom through culturally sensitive and resource-based management innovations in the Thai-Cambodian border area of Surin Province.

The diversity of cultural assets and resources aspect:

The Thai-Cambodian border region exhibits a rich diversity of cultural assets and resources, which directly impacts the strength and adaptability of local wisdom practices. This study’s key findings highlight the following ways in which diversity serves as a crucial foundation for knowledge preservation, innovation, and the generation of sustainable development opportunities.

Diversity Fosters Knowledge Exchange and Innovation: Each ethnic group within the study area possesses a unique knowledge base built upon generations of interaction with their specific environment. This diversity of medicinal plant uses (e.g., turmeric for inflammation, lemongrass for digestion), traditional crafts (e.g., basket-weaving), and rituals (e.g., ceremonies using specific plants for blessings) foster knowledge exchange and innovation. As one community leader explained,

“We learn from each other. The Khmer have their ways, the Lao theirs, and the Kui theirs. By sharing, we all become richer in knowledge” (Community Leader, Group discussion, 2022).

Research highlights the importance of traditional wisdom, rooted in deep environmental connections, as a driver of innovation and adaptation (Supyan et al., 2021). For example, a community with expertise in basket weaving might adapt their skills to create containers suitable for storing medicinal herbs harvested by their neighbors, leading to innovative solutions for traditional medicine practices.

Diversity Ensures Resilience: A diverse array of resources and practices provides communities with a safety net in the face of environmental and social challenges. If a specific medicinal plant traditionally used by one community becomes scarce, knowledge about alternative plants from other groups with similar properties ensures continued access to healthcare resources. As Supyan et al. (2021) note, communities drawing upon a diverse range of traditional knowledge systems are often better equipped to adapt to environmental or resource-related challenges. Moreover, a broad range of cultural practices, beyond their economic or health benefits, provides communities with adaptable strategies for well-being. For example, a community facing a decline in a particular food source might draw upon the knowledge of neighboring groups with experience in foraging for edible wild plants.

Diversity Supports Economic Development and Collaboration: Communities can leverage their unique cultural assets through collaborations aimed at sustainable development. Ecotourism initiatives showcasing traditional crafts, rituals, and medicinal practices attract visitors interested in authentic cultural experiences. This directly stimulates local economies while fostering a sense of pride and encouraging cultural preservation efforts within communities. However, it's crucial to note that the benefits of diversity are fully realized when there are respectful relationships and equitable power dynamics between different groups, promoting harmonious community interactions.

The cultural assets and resources across the Thai-Cambodian border region are not merely a source of cultural heritage. However, a dynamic force that strengthens local wisdom fosters innovation and promotes community resilience. Recognizing and nurturing this diversity is crucial to ensure local knowledge systems continue evolving and offer tangible benefits to the communities that hold them for generations. This underscores the need for management strategies sensitive to each group's unique knowledge systems, facilitating collaboration and tailored knowledge preservation initiatives. The proposed guidelines (Figure 1) illustrate how a community- driven, process- oriented approach leverages this diversity to strengthen local wisdom.

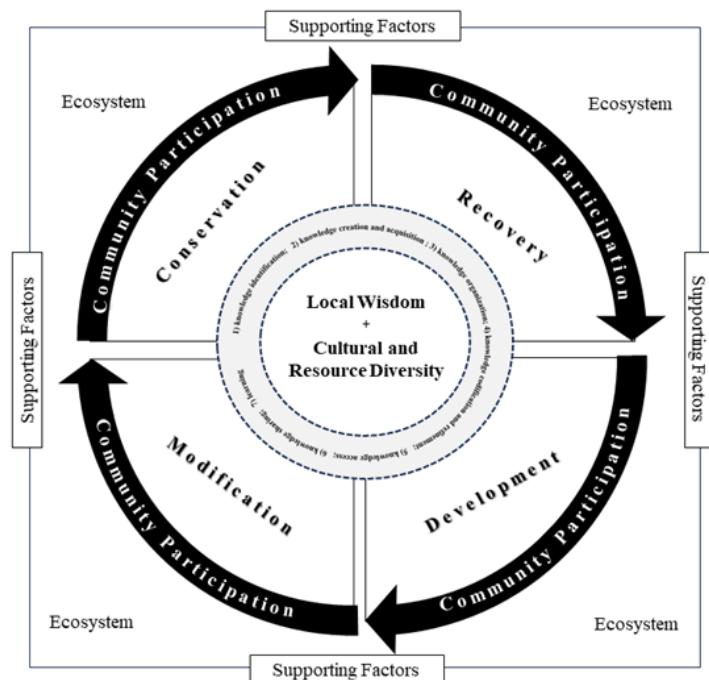


Figure 1 Proposed guidelines model for enhancing local wisdom through cultural capital and resource-based management innovations

Effective knowledge management strategies are essential to harnessing the potential of this rich diversity while ensuring its preservation for future generations. The following section explores the critical processes in managing local wisdom in the Thai-Cambodian border region.

Management of local wisdom and knowledge aspect:

As visualized in Figure 1, managing local wisdom in the Thai-Cambodian border region is a dynamic process that centers around the vital conservation, recovery, modification, and development of knowledge practices. Due to the diversity of knowledge systems within the region, successful management hinges upon the following processes:

Conservation: To address this challenge, management should prioritize community- led initiatives focused on culturally sensitive knowledge documentation. As one community leader expressed,

“Our stories, our practices, our knowledge of the plants... they’re not just words, they’re our life. If we don’t write them down, they will be lost forever” (Community Leader, Group discussion, 2022).

This might involve multimedia methods to capture explicit and tacit knowledge, including rituals, medicinal plant use, and traditional wisdom. The development of physical or digital archives must be community- driven, providing customizable platforms that allow each group to retain ownership and control over preserving their knowledge. Notably, while documentation is vital, it must be balanced with maintaining spaces for traditional knowledge transmission within its cultural context. Furthermore, successful conservation initiatives require government policies that support community ownership and incentivize preserving traditional practices (Jarungkitsuwan et al., 2021). While conservation efforts focus on preserving existing knowledge, the recovery of fading practices is equally crucial for maintaining the richness and vitality of local wisdom.

Recovery: Additionally, specific knowledge practices within the region might be fading due to modernization or changing lifestyles, eroding the overall knowledge pool. As one elder lamented,

“The young ones are not interested in the old ways anymore. They are too busy with their phones and new jobs” (Village Elder, Focus Group, 2023). This highlights the urgency of revitalization efforts.

Management can facilitate revitalization programs emphasizing intergenerational knowledge exchange, including apprenticeships, elder- led workshops, and collaborative learning initiatives. These programs, which should prioritize practices with high cultural value as identified by the communities, offer a way to combat knowledge loss and ensure the continued vibrancy of traditions (Ueangchokchai, 2022).

Modification: Recognizing that while respecting tradition is paramount, adaptability is vital for continued relevance is crucial. As one local sage aptly said,

“Our ancestors’ wisdom is a gift, but it is not set in stone. We must find ways to make it work for us today” (Local Sage, Focus Group, 2022).

The field of knowledge management can support communities in facilitated discussions aimed at modifying traditional practices for contemporary needs, ensuring such changes are organic and aligned with diverse community values. Management can provide resources and expertise for safe and culturally respectful experimentation here. Importantly, these adaptations should honor the core tenets of traditional knowledge, maintaining a link to the past while enriching their value for the present (Ueangchokchai, 2022).

Development: Finally, the region’s diverse cultural assets offer economic potential, but development initiatives must refrain from exploiting communities and their knowledge. One community leader cautioned,

“We welcome visitors to experience our traditions, but not at the cost of our culture. It must benefit us, not just outsiders” (Community Leader, Focus Group, 2022).

Management can guide development projects based on ecotourism or traditional crafts, ensuring models prioritizing community ownership and control – of cultural assets and any tourism infrastructure built around them (Jarungkitsuwan et al., 2021). For example, the Ban Thung Hong community in Phrae, Thailand, successfully manages their traditional “Mohom” dyeing practices for cultural preservation and economic benefit, demonstrating the potential of such models (Intem et al., 2021). The formation of cooperatives can further empower communities by facilitating resource management and profit-sharing, leading to sustainable economic development.

By embracing a comprehensive management approach that prioritizes conservation, recovery, modification, and sustainable development, the Thai-Cambodian border region can safeguard its rich tapestry of local wisdom, including traditional medicinal practices and others. This will ensure that these resources continue to guide, inspire, and generate benefits for communities for generations. While effective management strategies are essential, these efforts’ successful implementation and sustainability hinge on active community participation and intergenerational knowledge exchange.

Community participation aspect

The revitalization of local wisdom in the Thai-Cambodian border region depends on active community participation in knowledge exchange initiatives, particularly those fostering connections between generations. One village elder expressively stated,

“Our children are our future, and our traditions are their inheritance. We must pass on this knowledge, just as it was passed on to us” (Village Elder, Focus Group, 2022).

Community initiatives designed to facilitate knowledge exchange between elders, knowledge holders, and younger generations will play a crucial role in preservation efforts. It can be achieved through a combination of formal and informal approaches.

Skill-sharing mentorships that pair elders with youth for structured apprenticeships focused on traditional skills (e.g., medicinal plant use, crafting techniques, rituals) provide opportunities for direct knowledge transmission and relationship building (Tanomwong et al., 2018). Additionally, establishing community learning hubs, whether physical or virtual, creates space for workshops, intergenerational storytelling events, and collaborative projects. These hubs foster a shared sense of responsibility for knowledge preservation (Keyuraphan, 2018). Finally, engaging youth in knowledge documentation contributes to safeguarding knowledge, instills a sense of ownership, and deepens their understanding of traditional practices.

While initiatives like mentorship programs and community learning hubs offer significant benefits, it is essential to recognize that barriers such as limited time or financial constraints pose challenges. Communities can address these obstacles by exploring flexible scheduling for knowledge exchange activities, seeking micro-grants or local sponsorship for specific projects, and ensuring accessibility for all participants through transportation support or mobile technology solutions. By incorporating these approaches and tailoring them to the specific knowledge and existing customs in each community, the Thai-Cambodian border communities can ensure the continuity and revitalization of these valuable cultural assets.

While the participatory research approach offers valuable insights into local wisdom management, certain limitations should be acknowledged. While effective for accessing key informants, Purposive sampling may only partially represent the diversity of perspectives within the broader community. Additionally, the reliance on self-reported data in focus groups and interviews could introduce potential biases or limitations in understanding the full extent of knowledge transmission challenges. Furthermore, the focus on medical knowledge may have overlooked other aspects of local wisdom that are equally important for cultural preservation.

Although comprehensive, the proposed guidelines face implementation challenges due to limited resources, competing priorities, and potential resistance to change within communities. The

sustainability of community- led initiatives, particularly in the face of external pressures like modernization, remains a concern. Further research is needed to explore these challenges and develop strategies to mitigate them effectively.

Conclusions and recommendations

This study reveals an urgent need to revitalize local wisdom, mainly traditional medicine, in Thai- Cambodian border communities. Key strategies include community- led initiatives, robust knowledge management, and supportive government policies. Specific recommendations include integrating traditional practices into community events, providing training and resources to businesses utilizing local resources, establishing educational programs focused on intergenerational knowledge transfer, and systematically documenting local knowledge. Furthermore, government policies should recognize and support traditional healers and practices, while research should focus on the safe and effective integration of traditional and modern medicine. This collaborative approach can safeguard cultural heritage, empower communities, and foster a resilient, health-focused development model.

Future research should explore other forms of local knowledge and investigate the ethical considerations surrounding integrating and commercializing traditional knowledge systems, such as fair compensation for knowledge holders and protection against cultural exploitation.

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References

Anand, A., & Walsh, I. (2016). Should knowledge be shared generously? Tracing insights from past to present and describing a model. *Journal of Knowledge Management*, 20(4), 713-730.

Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of planners*, 35(4), 216-224.

Bourdieu, P. (1986). *The forms of capital* (pp. 241-258). In Richardson, J. (Ed.). *Handbook of theory and research for the sociology of education*. New York: Greenwood.

Chambers, R. (1994). The origins and practice of participatory rural appraisal. *World Development*, 22(7), 953-969.

Chambers, R. (2008). *Revolutions in development inquiry*. London, United Kingdom: Routledge.

Chevalier, J. M., & Buckles, D. (2019). *Participatory action research: Theory and methods for engaged inquiry*. London, United Kingdom: Routledge.

Chimplee, K. (2012). *Knowledge management models for local wisdom in wickerwork handicrafts: A case study of local community enterprises in Nakhon Ratchasima Province* (Doctoral dissertations). Thailand: National Institute of Development Administration.

Choibamroong, T. (2011). *Wisdom for creative local development*. Bangkok, Thailand: King Prajadhipok's Institute.

Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science & Medicine*, 41(12), 1667-1676.

Department of Intellectual Property. (2014). *Thai local wisdom database*. Retrieved from https://www.ipthaitand.co.th/index.php?option=com_content&view=article&id=5278&Itemid=371

Hongsiri, A., Rodpo, P., Duanyai, S., & Kaewnoi, A. (2020). Indigenous knowledge of Kuy ethnic traditional healers: A case study of seven indigenous healers in Prasat Sub-District, Huai Thap Than District, Surin Province. *Journal of Thai Traditional and Alternative Medicine*, 18(1), 166-179.

Intem, N., Phuwanatwichit, T., Sarabol, A., & Wannapaisan, C. (2021). The Local Wisdom Management "Mohom" for Stable Inherit and Lifelong Learning. *Journal of Education and Learning*, 10(5), 38-50.

Interatep, S., Sripuna, S., & Cherdgotha, P. (2017). State of problems and development of local herbs consumption wisdom transfer for green living in the community, Sra-kaew Province. *Journal of Humanities and Social Sciences Valaya Alongkorn*, 12(2), 275-285.

Jaiaree, A. (2015). *A knowledge management model for local wisdom in bamboo shoot preservation processing in western local community of Thailand*. In Proceedings of the International Conference on Education and Psychology (ICEAP 2015). Nagoya, Japan.

Jaisue, D., Kumsiriruk, N., & Jantakot, A. (2021). Experiences of using local wisdom in self-care for elderly people in the community of Wapi Pathum District, Maha Sarakham Province. *Journal of Medicine, Srisaket Surin Buriram Hospital*, 36(2), 251-264.

Jarungkitsuwan, A., Thipayasothorn, P., & Seviset, S. (2021). Participation attitude planning the community for the development of conservation buildings in Thailand. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(8), 951-962.

Kanyati, K., & Choosuwan, R. (2021). The educational management guidelines by using a community participation process for a child development center in Phadungmart Sub-district, Janae district, Narathiwat Province. *Asia Social Issues*, 14(2), 243752.

Keyuraphan, L. (2018). Knowledge management models for local wisdom and culture: A case study of Pak Phli District, Nakhon Nayok Province. *VRU Research and Development Journal Humanities and Social Science*, 13(2), 75-65.

Leepanyaporn, N. (2020). *The study of Lao Khrang ethnic cultural capital in the dimension of cultural tourism to raise the economy of Ban Thung Si Long Community, Don Tum District, Nakhon Pathom* (Master's thesis). Thailand: Silpakorn University.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.

Nonaka, I., Takeuchi, H. (1995). The Knowledge-creating Company: How the Japanese Companies Create the Dynamics of Innovation. Oxford, United Kingdom: Oxford University Press.

Office of the Civil Service Commission and National Institute of Development Administration. (2005). *Knowledge management: From theory to practice*. Bangkok, Thailand: Office of the Civil Service Commission and National Institute of Development Administration.

Panich, V. (2008). *Knowledge management: A practitioner's guide* (2nd eds.). Bangkok, Thailand: Sukhapap Jai.

Pattamasiriwat, D. (2004). *Social capital and cultural capital in modern economy and management system*. Phitsanulok, Thailand: Naresuan University.

Phon-ngam, P. (2018). Knowledge transfer process of local traditional healers in the use of herbal medicine for healthcare in communities, Loei Province. *Journal of Humanities and Social Sciences*, 26(52), 1-27.

Piriyatachagul, G., Phuwanatwichit, T., Mangkhang, C., & Sarabol, A. (2020). Miang culture: The community resource management for self-reliance of highland communities in Upper Northern Thailand. *Asia Pacific Journal of Education, Arts and Sciences*, 7(2), 97-107.

Pretty, J. N., Guijt, I., Thompson, J., & Scoones, I. (1995). *Participatory learning & action: A trainer's guide* (IIED Participatory Methodology Series). London, UK: International Institute for Environment and Development (IIED).

Susanto, A. N., & Samadan, G. M. (2021). Traditional wisdom as a starting point for conservation: A review. In *IOP Conference Series: Earth and Environmental Science*, 890(1), 012064

Tanomwong, U., Surinya, T., Pornprasit, N., & Prechathamwong, W. (2018). Participation in the management of local wisdom knowledge of youth in Pak Thong Chai District, Nakhon Ratchasima Province. *Journal of the Association of Researchers*, 23(1), 115-126.

Ueangchokchai, C. (2022). Process of local wisdom transfer to promote good relationship between the elderly and new generations. *Higher Education Studies*, 12(3), 86-96.

Valaisathien, P. (2006). *Community learning process and knowledge management. research report*. Bangkok, Thailand: Office of the National Research Council of Thailand (NRCT).

Xue, C. T. S. (2017). A Literature Review on Knowledge Management in Organizations. *Research in Business and Management*, 4(1), 30-41.